UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

MARCH 1993

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER[1]

Open-File Report 93-603

1993

[1]USGS, Denver, Colorado

EDR No. 3-93
Part 1 of 2
P. 1-244

U. S. DEPARTMENT OF THE INTERIOR

Geological Survey

EARTHQUAKE DATA REPORT

The Earthquake Data Report (EDR) is a bulletin of all seismic phase and amplitude data which were associated with events published in the Preliminary Determination of Epicenters (PDE) Monthly Listing. It also contains information about the hypocentral computations (such as standard errors) that are not included in the PDE Monthly Listing. A machine-readable version of this EDR is available from the Books and Open-File Reports Section of the U.S. Geological Survey.

All data in the EDR are grouped by event, with events listed by origin time in date/time order through the month. All times are in Coordinated Universal Time (UTC). Locations are in decimal degrees of geographic latitude and longitude. Depths are in kilometers below the free surface. Hypocentral coordinates are determined by a modified Geiger's method and may be constrained by reported first arriving P-waves, Pdiff, and the DF branch of PKP. Data are corrected for station elevation and for the ellipticity of the Earth. Outliers may be truncated (ie., removed from the calculation) either automatically or manually. The solution is allowed to converge between rounds of automatic truncation to insure a unique result. Convergence is aided by step length damping.

The error bars of the computed hypocentral coordinates are 90% marginal confidence intervals incorporating Baysian information to stabilize estimates derived from small samples (Jordan and Sverdrup, 1981). It is assumed that the travel-time errors *of the data used* are independent, unbiased, and have an expected standard deviation of 1 s. Monte Carlo experiments suggest that the error bars are accurate for events constrained by more than about 30 data. However, care should be exercised in interpreting these numbers in terms of absolute location accuracy because of unmodeled biases. Analysis of events with independently known coordinates indicates that most PDE determinations are accurate to a few tenths of a degree in epicentral position and 25 km in depth. For special studies, we urge that inquiry be made to this office for possible recomputation of hypocenters of interest, using more complete instrumental data.

Restricted focal depths occur in four instances. If at any point in the computation the depth becomes negative, the solution is automatically restricted at 33 km and indicated by "NORMAL DEPTH." If the unrestricted depth computation is unsatisfactory, and in the judgment of the reviewing geophysicist the earthquake probably has a shallow focus, a solution may be held at 33 km. These are also indicated by "NORMAL DEPTH." The geophysicist may restrain the depth at any value indicated by evidence from available seismograms. These are indicated by, for example, "DEPTH = 100 KM (GEOPHYSICIST)." If two or more pP phases are identified, and in general, yield depths within 10 km of the mean, then the depth is automatically restricted to this value and denoted by, for example, "DEPTH = 51 KM (5 DEPTH PHASES)." pP phases may also appear as unidentified second arrivals with associated travel-time residuals. Hypocentral coordinates derived from other sources, such as the California Institute of Technology, the University of California at Berkeley, and the U. S. Department of Energy are noted on the EDR.

Two types of magnitude are computed: body-wave magnitude (m_b) and surface-wave magnitude (M_{SZ}). Each is a 25% trimmed mean of individual station values. Station magnitudes not used in the trimmed mean are marked with an X. This includes station magnitudes of either type which deviate significantly from the mean and surface-wave magnitudes determined from horizontal amplitudes. Body-wave magnitudes are computed according to the formula $\log(A/T)+Q$, derived by Gutenberg and Richter (1956), where A is the P-wave amplitude in micrometers, T is the period in seconds, and Q is the depth-distance factor. Surface-wave magnitudes are computed from the formula $\log(A/T) + 1.66\log(\Delta) + 3.3$, where A is the maximum vertical surface-wave amplitude in micrometers, T is the period in seconds, and Δ is the epicentral distance in degrees. Surface-wave magnitudes are determined only for earthquakes whose focal depths (taking into account the computed standard deviations) are potentially less than 50 km, for stations having $20° \leq \Delta \leq 160°$, and for reported periods of $18 \leq T \leq 22$ s. No correction for focal depth is used in the M_S calculation. Body-wave magnitudes are not determined from PKP arrivals or for stations having $\Delta \leq 5°$. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (μm) for surface-waves.

The travel-time residual (observed – computed) is based on the 1940 Jeffreys-Bullen P and 1968 Bolt PKP travel-time tables. Phases not used in the computation are marked by an X. The azimuth from the epicenter to the station is measured clockwise from north. The epicentral distance is the central angle in degrees.

The pulse distortion of seismic phases that have ray paths that touch a single internal caustic (*e.g.*, PP, pPP, SS and PKPab) can be corrected using the method of Hilbert transformation described by Choy and Richards (1975). Arrival times that are read from the phases that are corrected for pulse distortion are identified by the symbol H preceding the phase identifier (*e.g.*, HPP, HpPP, HSS and HP′ab).

Hypocenter Symbols

& Indicates that parameters of the hypocenter were supplied or determined by a computational procedure not normally used by the National Earthquake Information Service (NEIS). The source or nature of the determination is indicated by a 2 to 5 letter code enclosed by angle brackets and appearing in the first line of comments. A "-P" appended to the code indicates that the computation is preliminary. These codes are included with the list of abbreviations in the PDE Monthly Listing.

% Indicates a single network solution. A non-furnished hypocenter has been computed using data reported by a single network of stations for which the date and/or origin time cannot be confirmed from seismograms available to a NEIS analyst. Also, if we define η to be the geometric mean of the semi-major and semi-minor axes of the horizontal 90% confidence ellipse, then $\eta \leq 16.0$ km.

* Indicates a less reliable solution. In general, $8.5 < \eta \leq 16.0$ km.

? Indicates a poor solution, published for completeness of the catalog. In general, $\eta > 16.0$ km. This includes poor solutions computed using data reported by a single network.

The lack of any symbol indicates that $\eta \leq 8.5$ km.

Note: On printers available to the NEIS for this publication, the symbol for degrees (°) appears as "`". Also note that certain phase codes are abbreviated because the data base and file format limit the length of the codes to five characters. Thus, PKP is occasionally abbreviated to P′ and the numbers 2 and 3 are sometimes used to represent the AB (AC for SKKS) and BC branches of core phases, respectively. In some codes, R is used to represent repetition; for example, pRPKP represents the phase pPKPPKP and RRPG represents PgPgPg.

References

Bolt, Bruce A. (1968), Estimation of PKP Travel Times, *Bull. Seis. Soc. Am.*, **58**, pp. 1305–1324.

Choy, George L. and P. G. Richards (1975), Pulse Distortion and Hilbert Transformation in Multiply Reflected and Refracted Body Waves, *Bull. Seis. Soc. Am.*, **65**, pp. 55–70.

Gutenberg, B. and C. F. Richter (1956), Magnitude and Energy of Earthquakes, *Ann. di Geofisica*, **9**, no. 1, pp. 1–15.

Jeffreys, Harold and K. E. Bullen (1940), *Seismological Tables*, British Assoc. for the Advancement of Science, Gray Milne Trust.

Jordan. Thomas H. and Keith A. Sverdrup (1981), Teleseismic Location Techniques and their Application to Earthquake Clusters in the South-Central Pacific, *Bull. Seis. Soc. Am.*, **71**, pp. 1105–1130.

% MAR 01, 1993 00h 12m 33.15± 1.25s
26.213 S ± 7.2km 28.214 E ±11.2km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

BPI 0.17 283 iPd 12 37.00 0.3
S 12 38.60
SLR 0.48 7 eP 12 43.00 0.2
S 12 48.00
PRY 0.97 223 eP 12 53.00 0.8
S 13 06.00
KSR 1.23 286 eP 12 56.00 -0.7
S 13 13.50
SEK 2.17 194 eP 13 10.00 -0.5
S 13 37.00
S.D. = 0.9 on 5 of 5 obs.

MAR 01, 1993 01h 39m 27.88± 0.09s
3.744 S ± 2.2km 138.536 E ± 2.6km
DEPTH = 88.8km (geophysicist)
6.1mb (101 obs.)
IRIAN JAYA, INDONESIA (201)
Mw 6.2 (GS), 6.1 (HRV). Felt in central Irian Jaya. Two events about 1.5 seconds apart. Depth from broadband displacement seismograms, based on first event.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 65 Dip=82 Slip= -70
NP2: 176 21 -158
Principal Axes:
T Plg=34 Azm=138
P 49 357
Comment: The focal mechanism is moderately well controlled and corresponds to normal faulting with a moderate strike-slip component. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sta: 15 Focal mech. F
Energy 5.2±0.9*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 87 No. of sta: 19
Moment Tensor; Scale 10**18 Nm
Mrr=-0.28 Mtt=-0.40
Mff= 0.68 Mrt=-1.62
Mrf=-0.65 Mtf= 0.69
Principal axes:
T Val= 1.97 Plg=35 Azm=134
N -0.01 26 244
P -1.96 44 2
Best Double Couple:Mo=2.0*10**18
NP1:Strike=165 Dip=27 Slip=-170
NP2: 66 85 -64
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 44S, **C M.W.: 29S, 42C
Centroid Location:
Origin Time 01:39:35.0 0.1
Lat 3.68S 0.01 Lon 138.65E 0.01
Dep 97.5 0.7 Half-duration 2.7
Moment Tensor; Scale 10**18 Nm
Mrr=-1.12 0.02 Mtt= 0.00 0.02
Mff= 1.13 0.02 Mrt=-1.26 0.01
Mrf= 0.10 0.01 Mtf= 0.59 0.02
Principal Axes:
T Val= 1.47 Plg=13 Azm=122
N 0.52 32 220
P -1.99 55 13
Best Double Couple:Mo=1.7*10**18
NP1:Strike=178 Dip=43 Slip=-141
NP2: 57 65 -54

MNDI 5.64 115 eP 40 51.00 -0.1
MDG 7.38 102 eP 41 13.90 -0.9
YYYY 7.81 109 eP 41 22.00 1.1
SWI 7.81 291 ePd 41 21.50 0.7
iS 42 32.00
SLKI 8.34 239 iPc 41 29.50 1.5
iS 42 58.00
FINC 9.71 107 eP 41 48.00 1.3
PMG 10.25 124 eP 41 52.00 -1.9
eS 43 45.00
MTN 11.64 219 iPc 42 11.20 -1.3
TNE 12.07 292 iPc 42 19.70 1.4
RAB 13.60 92 iP+ 42 38.00 -0.4
iS 45 12.00
MNI 14.63 290 P 42 53.00 1.3
WB2 16.61 194 iPc 43 14.10 -2.6
i 43 20.60
i 43 37.10
iS 46 06.10
WRA 16.61 194 P 43 15.60 -1.2
DAV 16.83 310 eP 43 18.00 -1.4
CTA 17.90 156 iPc+ 43 32.00 -0.7
iS 46 36.00
CTAO 17.90 156 ePc 43 32.43 -0.2
ic 43 33.59
ec 43 35.57
iS 46 50.94
CTB 17.97 307 ePd 43 37.00 3.5X
GUA 18.30 20 eP 43 37.00 -0.6
0.7s 520.55nm 5.9mb
pP 43 44.30
eS 47 02.50
GUMO 18.33 20 iPd 43 37.02 -0.9
1.1s 1003.90nm 6.0mb
Z 28s 16.20um
eS 47 02.79
CGP 18.37 311 iPc 43 39.00 0.6
MKS 19.06 265 iPd 43 49.00 2.9X
PLP 20.03 318 ePd 43 56.70 0.4
ASPA 20.31 192 iPc 43 59.20 0.1
1.1s 1454.40nm 6.2mb
Z 21s 12.50um 5.2Msz
eS 47 39.70
SVO 21.81 105 eP 44 16.00 1.8
HNR 22.00 106 eP 44 14.00 -2.1
eS 48 14.00
TSM 22.14 291 ePc 44 18.90 1.5
0.8s 861.20nm 6.2mb
KHKI 23.25 258 ePd 44 27.20 -1.1
e 56 28.00
PPR 23.87 304 ePd 44 35.00 0.7
KKM 24.32 293 ePd 44 40.00 1.2
0.6s 319.80nm 5.9mb
e 45 22.50 222kmX
PGP 24.46 315 ePc 44 41.00 1.0
RMQ 24.64 158 iPc 44 43.00 1.3
1.0s 580.00nm 6.0mb
eS 50 02.50
TGY 24.88 316 ePc 44 44.00 -0.1
WARB 25.06 206 iPc 44 36.00 -9.6X
QVP 25.20 317 eP 44 48.00 1.1
BCP 26.75 319 eP 45 04.00 2.6
BAG 26.76 319 iP- 45 00.00 -1.5
eS 49 14.00
CVP 26.95 323 ePd 45 02.00 -1.0
BRS 27.17 151 iPc 45 03.50 -1.4
0.5s 29.00nm 5.1mb
i 45 06.00 9kmX
i 45 25.00
eS 49 30.00
i 57 00.00
STK 28.14 174 eP 45 13.30 -0.3
0.7s 33.40nm 5.1mb
eS 50 41.30
PIP 28.16 322 ePd 45 12.50 -1.4
CMS 28.44 167 eP 45 17.50 1.2
1.0s 219.00nm 5.7mb
e 45 43.80 122kmX
e 45 57.50
FORT 28.65 199 eP 45 17.00 -1.3
e 45 41.00 109kmX
ARMA 29.28 156 iPc 45 23.80 -0.2
0.6s 116.00nm 5.7mb
MEEK 29.70 218 eP 45 27.00 -0.7
i 45 53.10 120kmX
eS 51 18.50
COOL 31.59 209 eP 45 43.00 -1.3
0.6s 231.00nm 6.1mb
e 46 05.00 97kmX
BWA 31.88 164 eP 45 48.00 1.2
i 45 51.40 12kmX
RIV 32.16 160 iPc 45 51.10 1.9
0.8s 6238.81nm 7.4mb X
Z 18s 0.21um 3.9MszX
iS 50 56.00
BKM 32.23 118 iPc 45 50.60 0.6
PVC 32.32 118 iPd 45 53.90 3.2X
DZM 32.62 126 iPd 45 52.90 -0.6
CAN 32.88 164 eP 45 55.80 0.3
i 45 58.30 9kmX
CNB 32.98 164 iPc 45 56.80 0.4
0.7s 195.00nm 6.0mb
e 47 17.00 437kmX
eS 51 10.20
TATO 33.00 331 (P) 45 53.25 -3.3X
isPc 46 23.88 151kmX
ec 46 25.70
eS 51 06.23
esS 51 56.17
eSS 53 15.63
eScS 56 15.17
MRWA 33.16 218 eP 45 57.20 -0.7
0.5s 140.00nm 6.1mb
e 46 20.00 100kmX
BFD 33.47 174 iPc 46 00.50 -0.1
0.6s 98.00nm 5.8mb
e 47 04.30 328kmX
i 47 41.00
BAL 33.74 215 eP 46 02.30 -0.7
eS 46 37.00
KLB 33.90 213 eP 46 03.00 -1.4
0.6s 146.00nm 6.0mb
e 46 29.00 116kmX
TOO 34.26 170 iPd 46 08.90 1.5
0.7s 154.00nm 6.0mb
e 47 25.20 406kmX
QZH 34.48 327 Pd 46 09.00 -0.3
0.8s 310.00nm 6.3mb
pP 46 36.00 121kmX
PP 47 32.00
S 51 30.00
ScP 52 14.00
SS 53 48.00
ScS 56 16.00
MUN 35.05 214 eP 46 12.50 -1.7
0.9s 65.00nm 5.6mb
e 46 39.00 116kmX
HKC 35.18 318 eP 46 15.50 0.2
eS 51 25.00
NWAO 35.21 212 ePc 46 15.92 0.4
ec 46 17.74
ipPc 46 38.26 95kmX
e 46 55.48
KAGJ 35.49 349 P 46 18.30 0.4
KGM 35.66 279 eP 46 18.50 -1.1
e 47 17.50 289kmX
QIZ 36.19 310 ePd 46 23.47 -0.4
ed 46 24.96
(pP) 46 45.16 91kmX
isPc 46 53.93
ec 46 55.92
e 47 38.01
i 48 16.91
e 49 09.06
iS 51 54.75
esS 52 45.08
iSS 54 38.30
GZH 36.27 319 Pc 46 24.20 -0.3
1.0s 160.00nm 5.9mb
N 10s 0.86um
E 13s 3.40um
S 51 50.00
KUMJ 36.81 349 P 46 28.80 -0.2
TKSJ 37.76 354 eP 46 36.50 -0.4
WKYJ 37.86 356 eP 46 38.50 0.7
SHNJ 38.31 350 eP 46 41.00 -0.5
IPM 38.38 282 ePd 46 43.00 0.6
1.0s 121.20nm 5.8mb
e 48 16.50 520kmX
SSE 38.39 336 iPd 46 41.72 -0.5
1.0s 296.00nm 6.1mb
ed 46 43.21 5kmX
esPc 47 11.51
ec 47 12.84
PP 48 12.00
PPP 48 35.00
iS 52 29.73
esS 53 20.05
iSS 55 11.96
SHK 38.47 352 eP 46 42.60 -0.3
YONJ 39.02 353 eP 46 47.70 0.3
TSRJ 39.15 357 P 46 48.30 -0.2
SNG 39.37 286 iPd 46 51.10 0.5
1.0s 496.00nm 6.3mb

01d 01h

```
                 eS     52 46.00
CHJJ   39.59   1 P      46 51.50  -0.6
KAKJ   39.77   2 P      46 51.70  -1.9
TAU    39.78 170 ePc    46 55.73   2.1
                 ePP    48 32.64
                 ePcP   49 01.61
                 eS     52 46.00
MAT    40.08 360 eP     46 55.00  -1.2
       1.0s   93.00nm            5.6mb
     Z  21s    4.30um            5.3Msz
                 eS     52 49.00
MTMJ   40.12 359 P      46 54.80  -1.8
NJ2    40.21 334 Pc     46 58.00   0.7
       1.0s   86.00nm            5.6mb
     Z  20s    2.96um            5.1Msz
     N  16s    6.56um
     E  15s    5.74um
                 pP     47 26.00 123kmX
                 S      52 58.00
NIIJ   40.77   1 P      47 00.50  -1.3
WHN    41.19 328 Pd     47 06.00   0.7
       1.0s  140.00nm            5.7mb
     Z  22s    7.09um            5.5Msz
                 pP     47 32.00 113kmX
                 sP     47 40.00
                 iS     53 14.00
                 SS     56 14.00
SVA    41.59 113 eP     47 11.00   2.2
YAMJ   41.73   2 P      47 10.40   0.8
NNT    41.83 293 iPc    47 09.80  -1.0
LOE    41.96 301 iPd    47 12.00   0.1
NST    42.62 298 iPd    47 21.60   4.4X
OFUJ   42.71   4 P      47 17.40  -0.2
GYA    43.03 316 iPd    47 21.00   0.3
       1.2s  160.00nm            5.7mb
     Z  34s   10.80um            5.5MszX
     N  18s    4.43um
     E  18s    5.52um
                 pP     47 49.00 123kmX
                 S      53 41.00
                 SS     56 50.00
                 ScS    57 00.00
KHT    43.65 296 iPd    47 25.80   0.2
AOMJ   44.12   2 P      47 31.50   2.5
BDT    44.25 299 iPc    47 30.50   0.1
       1.0s  434.70nm            6.2mb
TIA    44.51 335 Pc     47 31.80  -0.5
       1.1s  480.00nm            6.2mb
     Z  38s   17.50um            5.7MszX
     N  14s    1.47um
                 pP     48 01.00 128kmX
                 S      53 56.50
CHTO   44.96 301 iPd    47 35.93  -0.2
       0.9s  127.88nm            5.8mb
                 epPd   47 57.11  88kmX
                 esP    48 08.87
                 e      49 17.61
                 iS     54 08.40
                 (sS)   54 57.07
KMI    45.06 311 iPd    47 37.26   0.1
       2.0s  650.00nm            6.1mb
     N  12s    1.70um
     E  12s    2.00um
                 ed     47 38.92
                 epPd   47 58.95  91kmX
                 isPc   48 07.72
                 ec     48 10.37
                 ePcP   49 13.06
                 e      49 56.52
                 eScP   52 57.09
                 iS     54 09.76
                 esS    55 03.89
                 eScS   57 22.42
                 eSS    57 38.28
DL2    45.22 341 iPd    47 38.00   0.1
       1.0s  270.00nm            6.0mb
     Z  42s    8.07um            5.3MszX
     E  14s    4.04um
                 S      54 10.00
                 SS     57 28.00
ERM    45.74   5 iPd    47 42.72   0.9
MRRJ   46.01   3 eP     47 44.10   0.1
HOOJ   46.11   5 eP     47 45.10   0.3
SAP    46.65   3 eP     47 48.00  -1.1
XAN    46.82 326 Pd     47 49.80  -0.9
       0.9s  190.00nm            6.0mb
     Z  24s    6.83um            5.5MszX
     N  16s    2.52um
     E  16s    2.23um
                 pP     48 20.00 132kmX
                 sP     48 32.00
                 PcP    49 20.00
                 PP     49 41.00
                 PcS    53 14.00
                 S      54 31.00
                 sS     55 22.00
                 ScS    57 29.00
                 SS     57 56.00
KUSJ   46.96   6 eP     47 50.20  -1.3
VLA    47.03 353 iPc    47 53.00   0.9
       2.4s 2421.00nm            6.6mb
                 ipP    48 18.00 106kmX
                 i      49 38.00
                 eS     54 40.00
SNY    47.36 345 iPd    47 54.00  -0.7
       1.2s  290.00nm            6.0mb
     Z  20s    5.21um            5.5Msz
     N  14s    1.59um
     E  14s    2.18um
                 PP     49 45.00
                 iS     54 40.00
                 sS     55 20.00
                 SS     57 57.00
ASAJ   47.79   4 eP     47 57.10  -0.9
CD2    47.83 319 Pd     47 58.40  -0.3
       1.4s  360.00nm            6.1mb
     Z  20s    5.25um            5.5Msz
     N  12s    3.32um
                 pP     48 20.00  89kmX
                 PP     49 54.00
                 S      54 46.00
TIY    47.84 332 iPd    47 58.00  -0.7
       1.0s  160.00nm            5.8mb
     Z  41s   16.70um            5.7MszX
     E  14s    2.45um
                 S      54 46.00
QRZ    47.93 145 eP     47 59.60   0.4
WLZ    47.94 140 eP     47 59.60   0.2
                 e      48 25.20 109kmX
DSZ    48.13 147 eP     48 01.00   0.2
BJI    48.17 337 eP     48 00.00  -1.0
       1.1s  440.00nm            6.3mb
     Z  26s    8.26um            5.6MszX
     E  17s    6.42um
                 eS     54 52.00
                 eSS    58 18.00
MSZ    48.25 152 eP     48 02.60   1.0
       0.7s  226.00nm            6.2mb
                 e      48 06.10  12kmX
DIW    48.71 144 eP     48 05.00  -0.3
CN2    48.77 347 Pd     48 04.40  -1.2
       1.0s  180.00nm            6.0mb
     Z  36s    9.97um            5.5MszX
                 ePcP   49 28.00
                 eS     55 00.00
                 eScS   57 43.00
                 eSS    58 28.00
MDJ    48.80 352 iPd    48 05.31  -0.6
                 ed     48 06.80   5kmX
                 esPc   48 35.44
                 ePcP   49 30.32
                 ePP    49 58.81
                 eScP   53 19.18
                 iS     55 03.41
                 (sS)   55 48.76
                 iScS   57 51.59
MMCZ   49.07 151 eP     48 07.30  -0.8
LTZ    49.09 147 eP     48 07.60  -0.6
URZ    49.14 140 eP     48 07.90  -0.7
TCW    49.18 144 eP     48 07.80  -1.1
MHZ    49.19 151 eP     48 08.00  -1.0
LRCZ   49.22 151 eP     48 08.40  -0.9
                 e      48 32.40 100kmX
SBCZ   49.22 151 eP     48 09.10  -0.1
CMCZ   49.25 151 eP     48 09.10  -0.3
LSCZ   49.27 151 eP     48 08.60  -1.0
MRW    49.44 144 eP     48 09.50  -1.4
KUR    49.47   9 iPd-   48 11.00   0.1
       1.0s  380.00nm            6.4mb
                 i      48 34.00  95kmX
                 e      50 00.50
                 eS     55 10.00
                 eSSS   00 00.50
MNG    49.52 143 eP     48 10.10  -1.4
                 e      48 35.80 108kmX
KHZ    49.54 146 eP     48 09.60  -2.0
MTW    49.87 144 eP     48 12.20  -1.9
                 e      48 39.60 116kmX
MQZ    49.93 148 eP     48 12.80  -1.7
BLW    49.98 144 eP     48 13.10  -1.9
PGZ    50.00 143 eP     48 13.40  -1.7
       0.6s  119.00nm            6.1mb
TUZ    50.01 152 eP     48 14.70  -0.4
YSS    50.68   4 iPd    48 18.41  -1.7
       1.0s  750.00nm            6.7mb
                 ed     48 19.73   4kmX
                 esPc   48 48.04
                 ec     48 50.69
                 ePcP   49 31.51
                 ePP    50 12.55
                 eScP   53 26.64
                 iS     55 26.56
HHC    50.77 334 Pd     48 20.80  -0.3
       1.0s  300.00nm            6.3mb
     Z  22s    7.36um            5.7Msz
     N  22s    6.63um
     E  12s    0.97um
                 pP     48 44.00  96kmX
                 PcP    49 36.00
                 S      55 28.00
                 S      55 30.00
                 sS     56 08.00
                 SS     59 00.00
LZH    51.20 324 iPd    48 24.78   0.2
       1.5s  862.00nm            6.6mb
     Z  40s   12.20um            5.6MszX
     N  11s    1.74um
                 ed     48 26.27   5kmX
                 esPc   48 57.06
                 ePcP   49 35.04
                 e      50 45.89
                 iS     55 37.08
                 e      56 19.46
                 eScS   58 02.42
                 SS     59 10.00
BTO    51.27 332 iPc    48 24.00  -0.9
       1.0s  200.00nm            6.1mb
     N  16s    1.83um
     E  18s    4.42um
                 pP     48 56.50 141kmX
                 PP     50 25.00
                 S      55 34.00
                 ScS    57 56.00
MCQ    53.26 165 eP     48 42.80   3.5X
                 e      49 05.30  91kmX
HIA    55.26 345 iPd    48 52.71  -1.4
                 ed     48 54.70   7kmX
                 esPc   49 23.83
                 ePcP   49 51.03
                 e      51 14.07
GTA    55.80 324 P      48 57.50  -0.8
       1.2s  190.00nm            6.0mb
     Z  32s    7.44um            5.6MszX
     E  20s    2.78um
                 pP     49 26.00 119kmX
                 sP     49 40.00
                 S      56 34.00
                 sS     57 20.00
                 SS     00 20.00
LSA    56.23 310 iPd    49 01.84  -0.1
                 ed     49 03.17
                 epPd   49 24.19  90kmX
                 isPc   49 35.45
                 ePP    51 05.48
                 e      51 32.30
                 iS     56 45.13
                 esS    57 35.35
PET    59.04  14 iPc    49 20.00  -0.6
       1.0s  200.00nm            6.2mb
     Z  20s    0.90um            4.9Msz
                 e      50 08.00 210kmX
                 sS     57 44.00
                 e      03 44.00
CIT    59.44 342 eP     49 23.00  -0.5
     Z  20s    2.70um            5.4Msz
                 e      51 43.00 791kmX
                 eS     57 26.00
                 eSS    03 42.00
GUN    59.64 305 P      49 24.80  -0.9
PKI    59.89 305 P      49 26.40  -1.0
KKN    60.08 305 P      49 27.60  -0.9
```

DMN 60.15 305 P 49 28.40 -0.7
ZAK 61.84 335 iPd- 49 39.40 -0.4
1.4s 621.00nm 6.5mb
Z 20s 3.55um 5.5Msz
N 20s 1.62um
E 19s 3.12um
e 50 07.00 112kmX
e 52 00.00
eS 58 00.00
TLY 62.69 336 iPd 49 45.09 -0.3
ed 49 46.58 5kmX
esPc 50 15.38
ic 50 17.86
iS 58 10.22
e 58 47.30
HYB 62.79 292 ePd 49 45.50 -1.1
0.9s 275.00nm 6.3mb
e 50 04.50 73kmX
eS 58 08.00
eP'P' 18 57.00
DRV 62.81 179 eP 49 48.00 2.1
PP 52 21.00
S 58 12.00
SS 02 06.00
IRK 62.88 337 iP- 49 44.00 -2.7
Z 20s 4.04um 5.6Msz
N 18s 2.00um
E 18s 1.32um
epP 50 22.00 160kmX
e 52 00.00
iS 58 12.00
e 58 34.00
e 58 50.00
GBA 63.02 287 P 49 48.00 -0.1
SMY 63.76 23 eP 49 53.06 0.7
0.8s 368.99nm 6.4mb
Z 19s 3.65um 5.6Msz
ePcP 50 26.71
MGD 64.38 7 ePd- 49 55.00 -1.3
1.1s 390.00nm 6.2mb
Z 16s 1.10um 5.1MszX
N 16s 1.00um
i 50 09.00 50kmX
esP 50 30.00
e 52 16.00
eS 58 28.00
ePS 58 56.00
esS 59 10.00
e 59 38.00
eSS 02 32.00
BOD 64.45 346 iP 49 55.40 -1.4
0.9s 220.00nm 6.1mb
CSY 65.44 192 eP 50 06.40 3.4X
0.4s 74.60nm 6.0mb
WMQ 65.71 322 iPd 50 05.31 0.0
ed 50 06.64
epP 50 27.99 88kmX
esPc 50 36.10
ec 50 38.25
ePP 52 23.69
iS 58 46.40
(sS) 59 26.13
ePS 59 35.37
eScS 59 48.31
eSKS 59 56.00
YAK 65.92 355 iPd 50 04.60 -1.5
0.9s 590.00nm 6.5mb
i 50 36.00 128kmX
i 52 26.00
ePPP 54 04.00
iS 58 46.00
iPS 59 05.00
iSSS 06 03.00
UER 66.80 332 iPc 50 11.80 -0.1
2.2s 1068.00nm 6.4mb
e 50 40.00 113kmX
e 54 16.00
iS 59 00.00
e 59 34.00
e 00 00.00
HON 66.91 65 P 50 20.00 6.8X
Z 19s 1.66um 5.3Msz
NDI 67.06 303 iPc 50 12.00 -2.0
0.8s 138.06nm 5.9mb
eS 59 37.50
DHH 67.07 65 eP 50 15.08 0.9
ADK 67.16 28 eP 50 13.79 -0.4
0.8s 127.59nm 5.9mb
MHA 68.56 67 eP 50 23.97 0.5
PRZ 71.10 317 iPc 50 39.50 0.6
1.6s 950.00nm 6.4mb
iS 59 51.00
PAE 71.61 107 eP 50 42.00 -0.1
PPT 71.62 107 iPc 50 42.10 -0.1
2.0s 723.00nm 6.2mb
ELT 71.63 330 iPd 50 40.30 -1.2
1.8s 919.00nm 6.4mb
Z 14s 1.20um 5.3MszX
N 19s 1.20um
E 15s 1.00um
eS 59 52.00
e 00 39.00
KSH 71.64 314 Pc 50 43.00 0.9
0.7s 150.00nm 6.0mb
Z 15s 1.18um 5.3MszX
N 14s 1.83um
E 14s 1.53um
pP 51 16.00 133kmX
PP 53 28.00
iS 59 58.00
PPN 71.75 107 iPc 50 43.00 0.1
1.8s 450.60nm 6.0mb
TLG 72.10 318 iPd 50 45.60 0.9
1.0s 430.00nm 6.3mb
iS 00 00.00
e 00 33.00
eSS 04 35.00
eSSS 07 51.00
PAF 73.14 219 eP 50 54.00 3.5X
PP 53 54.00
iS 00 24.00
SS 04 52.00
PMO 73.17 104 iPc 50 51.50 0.2
1.7s 520.50nm 6.1mb
VAH 73.43 105 iPc 50 52.70 -0.1
2.1s 617.80nm 6.1mb
TPT 73.44 104 iPc 50 53.10 0.2
1.9s 535.50nm 6.1mb
RUV 73.67 105 iPc 50 54.30 0.1
2.1s 427.10nm 6.0mb
FRU 73.81 317 iPd- 50 55.00 0.3
i 51 11.40 59kmX
i 51 19.60
eS 00 21.00
e 00 50.00
AAK 73.83 316 iPd 50 55.10 0.2
ed 50 56.59 5kmX
esPc 51 25.73
iS 00 20.08
eScS 00 52.36
TIK 75.50 357 iPd- 51 01.50 -2.2
3.0s 1260.00nm 6.3mb
Z 18s 2.00um 5.5Msz
i 53 56.00
eS 00 37.00
eSP 01 04.00
ePS 01 40.00
SBA 75.54 174 iPd 51 07.00 3.1X
SDN 77.09 31 eP 51 12.26 -0.6
0.8s 795.36nm 6.6mb
ILT 77.46 15 iPd- 51 14.50 -0.2
1.5s 313.00nm 6.0mb
Z 14s 0.50um 5.0MszX
E 14s 0.40um
e 54 14.00
eS 01 00.00
iPS 01 48.00
NRI 80.54 344 iPd- 51 30.00 -1.4
1.4s 258.00nm 5.9mb
e 51 44.00 48kmX
e 51 53.00
e 54 32.00
(PPP) 56 23.00
iS 01 28.00
eSS 06 46.00
MAW 81.11 202 eP 51 38.00 3.6X
0.9s 53.33nm 5.4mb
SVW 81.86 27 ePd 51 39.11 0.6
0.8s 275.66nm 6.2mb
epP 51 56.45 62kmX
KDC 82.11 30 eP 51 39.91 0.2
0.8s 87.35nm 5.7mb
TTA 82.41 25 iPd 51 41.64 0.3
0.9s 156.12nm 5.9mb
epP 52 00.79 70kmX
RSO 82.92 28 eP 51 43.07 -1.1
MAIO 83.40 307 iPd- 51 47.00 0.0
0.7s 65.12nm 5.7mb
eS 02 04.00
CP2 83.44 27 eP 51 45.20 -1.6
CRP 83.48 27 eP 51 45.77 -1.2
SLKM 84.12 28 eP 51 48.09 -2.0
ASH 84.56 309 eP 51 54.00 1.3
1.5s 430.00nm 6.2mb
e 55 07.00
ePPP 57 04.00
S 02 11.00
ePS 03 03.00
e 03 35.00
eSS 07 38.00
IMA 84.57 22 iPd 51 52.60 0.3
1.0s 111.85nm 5.8mb
PWA 84.64 27 eP 51 52.70 0.2
PMR 84.96 27 eP 51 53.43 -0.7
0.8s 298.70nm 6.3mb
Z 21s 2.01um 5.5Msz
CRZF 85.02 224 eP 52 15.00 20.2X
eS 02 30.00
eSS 07 51.00
BRW 85.64 17 eP 51 58.90 1.5
SPA 86.28 180 iPd 52 00.60 -0.3
1.2s 225.35nm 6.1mb
i 52 26.80 99kmX
KAT 86.36 310 iP- 52 02.50 0.9
i 52 28.00 96kmX
i 55 29.00
ePPP 57 17.00
eS 02 23.00
KLU 86.41 28 eP 52 01.50 0.0
FBA 86.50 24 eP 52 00.95 -0.8
0.8s 90.29nm 5.9mb
epP 52 18.45 62kmX
SVE 86.51 327 iPd 52 01.00 -0.9
2.7s 880.00nm 6.3mb
Z 20s 1.50um 5.4Msz
N 20s 0.50um
E 20s 1.00um
e 55 25.00
eS 02 20.00
e 03 28.00
eSS 08 20.00
ARU 87.53 327 ePd 52 06.12 -0.7
1.0s 750.00nm 6.7mb
Z 16s 1.50um 5.5MszX
E 18s 1.00um
ed 52 07.44 4kmX
esPc 52 40.71
ePP 55 32.93
eHPP 55 33.60
eSKS 02 24.20
iS 02 38.77
e 03 11.38
esS 03 21.31
ePS 03 35.66
BALM 87.99 29 iPc 52 09.32 0.2
AVY 89.56 251 eP 52 18.40 0.9
TAN 89.73 251 eP 52 19.80 1.5
VTY 89.73 251 eP 52 18.70 0.4
DHR 90.20 296 ePc 52 20.00 -0.1
SIT 91.01 33 P 52 30.00 6.9X
Z 20s 1.84um 5.5Msz
BAK 91.36 310 iPc 52 31.00 5.9X
iS 03 25.00
SHE 92.34 310 eP 52 30.50 0.9
1.0s 60.00nm 5.9mb
Z 18s 0.90um 5.3Msz
N 18s 1.00um
E 18s 2.20um
i 56 12.00
i 02 57.00
iS 03 24.00
RYD 93.29 294 eP 52 26.00 -8.4X
GRS 94.06 309 iPd 52 37.00 -0.8
1.2s 140.00nm 6.3mb
e 56 21.00
ePPP 58 24.00
e 03 06.00
eS 03 48.00
ePS 04 54.00
MJMA 94.53 296 eP 52 40.60 0.5
GRO 94.62 313 eP 52 39.00 -1.1

01d 01h

```
        2.0s   240.00nm            6.3mb
                     e       56 33.00
                     ePPP    58 31.00
                     eS      03 09.00
MTA      95.26 311 eP        52 39.00  -4.1X
                     e       56 38.00
                     e       03 13.00
PYA      96.52 314 iPc       52 47.50  -1.3
        1.5s   130.00nm            6.2mb
     Z  18s      1.00um            5.3Msz
                     e       56 46.00
                     iS      03 20.00
                     i       04 00.00
                     i       05 30.00
                     i       10 40.00
KMTA     96.54 288 eP        52 51.00   1.4
KIV      96.79 314 ePd       52 48.58  -1 6
        1.7s    61.00nm            5.9mb
                     ed      52 49.91   4kmX
                     esPc    53 23.35
                     ePP     56 45.60
                     eHPP    56 47.76
                     esPP    57 16.06
KMPM     98.01  50 ePDIF     52 56.59   0.9
MCW      98.50  41 ePDIF     53 00.32   2.7
GMW      98.61  43 ePDIF     52 58.53   0.4
LGPM     98.97  49 ePDIF     53 01.18   1.1
SHW      99.08  44 ePDIF     53 02.73   2.3
WDC      99.20  50 ePDIF     53 00.61  -0.3
        1.6s    58.62nm            5.9mb
     Z  20s      2.41um            5.7Msz
                     ed      53 02.93   7kmX
MOS      99.23 326 eP        53 01.00   0.3
        2.0s   430.00nm            6.7mb
     Z  24s      3.40um            5.8MszX
                     epP     53 29.00 105kmX
                     e       03 31.00
                     eS      04 21.00
APA      99.23 338 eP        53 00.00  -0.5
LON      99.33  43 PDIF      53 16.72  15.2X
                     PP      57 13.30
OBN      99.89 325 eP        53 02.00  -1.7
        1.6s   260.00nm            6.6mb
     N  20s      1.10um
     E  22s      1.60um
                     i       57 05.00
                     e       03 36.00
                     eS      04 24.00
                     eSS     11 26.00
LMEM     99.94  50 ePDIF     53 07.59   3.0X
ORV     100.06  51 ePdiff53 04.48  -0.5
VGB     100.15  45 ePdiff53 06.58   1.3
ARN     100.16  53 ePdiff53 05.83   0.3
ANN     100.59 315 Pdiff 53 04.50  -2.6X
        0.8s    30.00nm            6.0mb
     Z  22s      1.00um            5.3Msz
                     e       03 39.00
KEV     100.85 341 iPdiff53 06.20  -1.5
        0.9s    65.90nm            6.3mb
YKA     101.06  27 ePdiff53 08.20  -0.6
        0.8s     8.50nm            5.4mb
DPW     101.66  42 ePdiff53 12.04   0.1
SBC     101.80  56 Pdiffd53 18.77   6.0X
                     eSDIF 04 51.13
SDF     101.83 339 iPdiff53 12.30   0.1
MEMM    102.19  52 Pdiff 53 17.00   2.6X
NEW     102.32  42 ePdiff53 15.20   0.3
        2.0s    99.97nm            6.2mb
KVN     102.73  51 (Pdiff53 18.61   1.5
RES     102.74  13 ePdiff53 17.00   1.0
        0.9s    10.00nm            5.6mb
KAF     103.58 333 iPdiff53 19.70  -0.3
        0.8s    25.20nm            6.1mb
PEC     103.95  56 (Pdiff53 22.93   0.5
        0.9s     9.86nm            5.7mb
GSC     104.12  55 Pdiff 53 17.60  -5.6X
PLM     104.24  57 (Pdiff53 26.78   2.8X
TPNV    104.40  53 (Pdiff53 26.65   2.1X
ANTO    104.46 310 (Pdiff53 28.72   4.1X
                     ePP     57 36.00
                     eSKS    04 08.81
                     ePS     07 02.62
                     e       07 32.83
CSS     104.59 305 ePdiff53 26.00   0.7
NUR     104.85 332 iPdiff53 24.60  -1.1
        0.7s    11.40nm            6.0mb
MNK     105.28 325 ePdiff53 25.00  -2.8X
```

```
     Z  20s      3.30um            5.9Msz
     E  20s      2.20um
                     e       04 01.00
                     e       04 40.00
                     eS      05 09.00
SES     105.82  39 ePdiff53 32.00   1.6
DAG     105.97 355 iPdiff53 29.00  -1.4
        0.8s    12.69nm            6.0mb
GLA     105.97  57 Pdiff 53 31.30  -0.2
LCCM    106.27  43 ePdiff53 35.30   2.6X
PTI     106.50  46 PKP       57 40.30  -4.2X
ARUT    106.51  52 ePdiff53 36.23   2.3X
DUG     106.63  49 ePKP      57 46.83   2.0
ITU     107.13 312 ePKP      57 40.00  -5.4X
DAU     107.76  49 (PKP)     57 46.78  -0.4
UPP     108.34 333 iPdiff53 41.60   0.4
LVV     108.51 322 ePdiff53 40.00  -2.3X
     Z  24s      3.20um            5.8MszX
     N  22s      2.00um
     E  22s      1.80um
                     i       58 17.00
                     e       04 18.00
                     e       04 56.00
BW06    108.54  46 (Pdiff53 44.73   1.8
        2.5s    13.19nm            5.7mb
CMP     109.08 317 ePKPd 57 55.00   5.9X
TUC     109.45  57 PKP       57 55.70   5.4X
     Z  20s      0.93um            5.4Msz
                     SKS     08 14.09
PV09    109.74  50 ePKP      57 52.64   1.7
                     e       58 18.34
PV10    109.83  51 ePdiff53 51.97   3.1X
UZH     109.95 321 ePdiff53 47.80  -0.9
        2.4s   310.00nm
                     e       58 25.50
                     ePS     07 53.00
                     eSS     13 40.00
HFS     109.97 334 ePKP      57 49.80  -0.4
        0.7s     5.60nm
HFS     109.97 334 ePdiff53 48.10  -0.4
        0.5s     1.30nm
     Z  20s      1.21um            5.5Msz
                     LR      35 02.00
NB2     110.56 336 Pdiff 53 49.80  -1.4
        0.9s     8.90nm
FCC     111.78  26 ePKP      57 58.50   4.9X
RSSD    112.09  44 (Pdiff54 01.95   3.3X
     Z  21s      0.93um            5.3Msz
GLD     112.43  48 PKP       58 10.00  14.2X
     Z  19s      3.25um            5.9Msz
ALQ     112.55  54 ePKP      57 56.55   0.3
     Z  19s      0.11um            4.5MszX
SRO     112.74 321 e(PKP)57 55.90   0.1
ZST     113.35 322 ePKP      57 57.40   0.3
VKA     113.81 322 ePKP      57 58.00   0.0
GDH     114.10   5 ePKPd 57 59.00   1.1
                     e       58 47.00
                     e       07 30.00
BRG     114.15 325 e(PKP)58 01.00   2.4X
                     e       58 48.00
PRU     114.18 324 ePdiff54 08.50   1.0
PRU     114.18 324 PKP       57 59.00   0.3
     Z  19s      1.60um            5.6Msz
                     PP      58 59.00
                     PS      08 33.00
                     ePKKP   08 49.00
                     eSS     14 44.00
CLL     114.49 326 iPdiff54 10.70   1.9
        1.9s    57.00nm
CLL     114.49 326 iPKP      57 59.60   0.4
        1.0s    28.00nm
     Z  19s      1.00um            5.4Msz
                     e       58 50.00
PTJ     114.94 320 e(PKP)58 01.20   0.9
ULM     115.00  35 ePKP      58 02.00   1.8
KHC     115.12 324 ePdiff54 13.00   1.2
KHC     115.12 324 PKP       58 00.90   0.4
        0.9s    11.10nm
     Z  20s      1.70um            5.7Msz
     N  20s      1.10um
     E  20s      1.80um
                     e       59 06.80
                     e       06 44.00
                     e       09 04.40
                     e       09 44.00
GEC2    115.17 323 Pdiff 54 12.70   0.6
        0.8s     2.54nm
```

```
                     e       54 16.20
GEC2    115.17 323 PKP       58 00.90   0.2
        0.8s     9.20nm
VBY     115.54 319 ePKP      58 01.50   0.1
                     i       58 30.50
MOX     115.57 326 ePdiff54 14.50   0.8
        1.6s    26.00nm
                     e       55 16.90
MOX     115.57 326 ePKP      58 01.40   0.1
        2.1s    80.00nm
     Z  20s      1.40um            5.6Msz
KBA     116.13 322 iPKPc 58 01.80  -0.9
        0.7s    12.60nm
                     i       58 11.60
                     i       58 42.00
                     i       59 17.00
GRF     116.24 325 ePdiff54 17.90   1.2
                     e       54 20.00
GRF     116.24 325 ePKP      58 03.00   0.4
     Z  21s      1.50um            5.6Msz
                     e       58 05.00
FUR     116.91 323 iPKPd 58 05.60   1.7
WTTA    117.10 322 iPKPc 58 04.30  -0.2
        0.7s    36.10nm
WATA    117.11 322 iPKPc 58 04.10  -0.4
WIT     117.12 329 e(PKP)58 07.00   2.9X
WIN     117.15 242 ePKP      58 05.00  -0.4
        0.5s    23.00nm
SGO     117.30 314 PKP       58 04.60  -0.2
SQTA    117.38 322 iPKPd 58 04.40  -0.6
        0.9s    28.30nm
                     i       58 06.10
MOTA    117.39 323 iPKPc 58 04.70  -0.4
        0.9s    39.40nm
WTS     117.49 329 ePKP      58 06.00   1.2
        1.0s    16.70nm
                     e       58 40.00
                     e       59 22.00
CTI     117.63 321 PKP       58 06.80   1.3
ARV     117.85 318 PKP       58 04.50  -1.4
                     e       58 30.80
ACO     117.86  50 iPKPc 58 06.80  -0.1
SFI     118.40 319 PKP       58 07.70   0.9
                     e       58 45.00
PGD     118.50 319 PKP       58 08.80   1.5
ENN     118.63 328 ePKP      58 08.50   1.5
        0.9s    25.40nm
                     e       58 45.00
                     e       59 30.00
WMOK    118.72  52 PKP       58 20.00  12.2X
     Z  20s      2.36um            5.8Msz
FIR     118.85 319 ePKP      58 04.00  -3.7X
MEO     118.86  52 iPKPd 58 07.40  -0.7
WLF     119.10 327 PKP       58 11.00   3.0X
                     e       59 34.00
CDF     119.13 325 ePKP      58 07.90  -0.3
        0.9s    13.25nm
BDI     119.16 319 PKP       58 07.60  -0.8
                     e       58 30.50
PII     119.36 319 PKP       58 07.30  -1.3
                     e       58 31.50
VAI     119.50 322 PKP       58 08.40  -0.4
                     e       58 34.90
BOB     119.59 321 PKP       58 10.30   1.1
SNF     119.64 328 iPKPc 58 09.52   0.6
BSF     119.71 325 ePKP      58 09.30  -0.1
        0.9s    65.50nm
HAU     119.87 325 ePKP      58 11.80   2.2X
        1.0s   104.40nm
     Z  23s      1.48um            5.6MszX
ORX     120.10 322 PKP       58 10.08  -0.1
ORO     120.10 322 PKP       58 10.10  -0.1
BCAO    120.16 273 iPKPc 58 10.50  -0.6
        1.0s    60.00nm
                     i       58 12.50
                     i       58 38.50
                     i       00 03.00
PCP     120.26 321 PKP       58 11.41   0.9
FIN     120.63 320 PKP       58 10.36  -0.8
LSD     120.69 322 PKP       58 11.96   0.4
RSP     120.78 322 PKP       58 11.18  -0.3
ROB     120.80 321 PKP       58 11.64   0.1
PGF     120.87 318 ePKP      58 11.80   0.0
        1.0s   104.40nm
LPG     120.92 322 ePKP      58 12.30   0.3
        0.8s    36.95nm
LPL     120.92 322 ePKP      58 12.20   0.3
```

```
        0.9s     37.65nm
BHB     120.92 321 PKP     58 11.69    0.0
IMI     120.97 320 PKP     58 11.69   -0.2
ENR     121.12 321 PKP     58 12.23    0.1
STV     121.17 321 PKP     58 12.69    0.4
RRL     121.18 322 PKP     58 12.97    0.5
BNI     121.18 322 PKP     58 12.90    0.6
PZZ     121.19 321 PKP     58 12.46    0.1
SBF     121.28 320 ePKP    58 12.40    0.0
        1.0s    112.00nm
LOR     121.69 325 ePKP    58 13.20    0.2
        1.3s     49.10nm
    Z  23s      1.70um              5.6MszX
LBF     121.78 325 ePKP    58 13.50    0.3
        0.9s     41.75nm
FRF     121.93 320 ePKP    58 13.80    0.2
        1.0s     72.80nm
SSF     122.01 325 ePKP    58 14.00    0.4
        0.9s     59.60nm
SMF     122.04 325 ePKP    58 14.10    0.4
        1.0s     48.40nm
LMR     122.13 320 ePKP    58 14.20    0.3
        1.0s     49.40nm
LRG     122.16 320 ePKP    58 14.50    0.5
        1.0s    104.80nm
AVF     122.24 325 ePKP    58 14.20    0.1
        0.9s     24.55nm
HYF     122.38 326 ePKP    58 15.20    0.9
DMU     122.59 337 ePKP    58 16.00    1.5
        0.8s     66.00nm
BGF     122.66 325 ePKP    58 15.40    0.5
        0.9s     65.05nm
JAO     122.78  23 ePKP    58 14.00   -0.9
MAF     123.01 325 ePKP    58 16.10    0.5
        1.0s     29.00nm
LDF     123.09 328 ePKP    58 16.10    0.5
        1.1s     62.50nm
DCN     123.15 336 ePKP    58 17.70    2.1X
        1.0s    104.00nm
FLN     123.17 329 ePKP    58 16.10    0.3
        1.0s     56.60nm
    Z  23s      2.50um              5.8MszX
TCF     123.18 325 ePKP    58 16.40    0.5
        0.9s     98.60nm
LSF     123.59 325 ePKP    58 17.00    0.3
        0.9s     44.20nm
GRR     123.60 329 ePKP    58 17.20    0.6
        1.0s     48.40nm
FVM     123.88  46 ePKP    58 16.26   -1.3
                   e       58 40.59
LPF     123.92 328 ePKP    58 17.80    0.5
        1.0s    108.00nm
CAF     124.03 324 ePKP    58 18.50    0.8
        1.1s     58.10nm
OLY     124.11  49 ePKP    58 16.80   -1.3
                   e       58 43.44
RJF     124.14 324 ePKP    58 18.40    0.6
        0.9s     36.35nm
    Z  22s      1.30um              5.5Msz
MFF     124.31 327 ePKP    58 18.40    0.3
        1.0s     67.20nm
LPO     124.68 324 ePKP    58 19.80    0.9
        0.9s     80.90nm
LFF     124.80 324 ePKP    58 19.90    0.8
        0.9s     42.75nm
ELC     125.04  46 ePKP    58 19.64   -0.1
                   e       58 46.57
GRT     125.33  47 ePKP    58 20.50    0.1
EPF     126.13 323 ePKP    58 22.20    0.3
        0.9s     32.45nm
EEO     126.28  31 ePKP    58 25.50    3.5X
                   pP      58 57.50
GBTN    129.37  46 ePKP    58 28.25    0.1
                   e       58 56.82
TKL     129.69  45 ePKP    58 21.59   -7.2X
TKL     129.69  45 ePKP    58 30.41    1.6
RSNY    130.04  31 (PKP)   58 27.35   -1.8
    Z  21s      1.41um              5.6Msz
                   PP      00 33.86
                   PKKS    11 38.67
MCWV    130.17  39 PKP     58 40.00   10.4X
    Z  20s      2.64um              5.9Msz
NAV     130.89  42 ePKP    58 31.24    0.2
                   e       58 58.91
                   eSKP    01 48.40
PAB     131.03 322 ePKP    58 34.00    2.7X
                   ePP     00 50.00

CBM     131.18  24 Pdiff  55 22.00   -1.3
CBM     131.18  24 (Pdiff55 25.54    2.3X
        Z  19s      2.44um          5.9Msz
BLA     131.19  42 ePKP   58 32.41    0.8
                   e      58 58.09
BLA     131.19  42 ePKP   58 30.62   -1.0
CVL     132.03  40 ePKP   58 33.01   -0.1
JSC     132.16  46 (PKP)  58 34.45    0.9
LHS     132.38  45 ePKP   58 34.71    0.8
                   e      58 53.68
CBN     132.59  39 ePKP   58 35.00    0.8
MAL     132.72 319 iPKPc  58 36.20    1.7
CEH     132.81  43 PKP    58 35.77    1.1
SGS     133.25  46 ePKP   58 37.29    1.7
                   e      59 01.19
LMN     133.37  22 ePKP   58 33.00   -2.5X
HBF     133.48  47 PKP    58 33.00   -3.0X
ALJ     133.53 319 ePKP   58 27.00   -9.2X
PLAT    133.96 319 ePKP   58 29.00   -7.9X
CNIL    134.00 319 ePKP   58 28.00   -8.9X
MDZ     135.28 147 i(PKP)58 42.20     2.6X
AVE     136.71 317 ePKP   58 45.50    3.3X
LPA     138.55 159 ePKP+  58 49.00    3.5X
TCA     138.74 149 e(PKP)58 39.50    -6.6X
NNA     141.51 114 ePKP   58 49.00   -2.5X
          1.0s     20.00nm
FSA     141.99 143 e(PKP)58 51.00    -1.0
SLA     143.30 142 ePKPc  58 51.90   -2.6X
PSO     144.09  93 ePKP   58 56.50    0.1
ARE     144.17 125 iPKPc  58 56.00   -0.3
YJA     145.13 139 iPKPc  58 59.10    1.1
CNCB    146.78 129 PKP    59 02.40    1.4
                   i      59 34.50
LPB     146.85 128 PKP    58 59.70   -1.2
                   i      59 30.00
                   SS     21 28.00
                   eLR    50 30.00
ZOBO    146.96 128 ePKPd  59 02.85    1.5
          1.2s     16.89nm
                   ic     59 29.50
BOG     147.48  87 ePKP   59 06.00    4.0X
CCH     147.85 131 ePKP   59 08.00    5.6X
                   i      59 36.50
SDV     150.57  79 iPKPc  59 06.60    0.1
IDE     150.68  58 i(PKP)59 07.50     1.2
TOV     151.25  77 ePKPd  59 08.10    0.7
APR     151.28  57 iPKP   59 07.00   -0.2
PORP    151.54  58 iPKP   59 07.00   -0.6
LPR     152.07  57 iPKP   59 15.00    6.6X
CPD     152.16  57 iPKP   59 08.50    0.0
SIV     152.42 136 ePKP   59 14.00    5.0X
PPD     152.63 160 ePKP   59 10.70    1.6
                   e      59 19.00
                   e      59 38.30
                   e      59 57.00
MBO     153.62 295 iPKP   59 14.20    3.6X
CAR     153.87  74 iPKPc  59 12.00    0.8
RIFB    155.60 166 ePKP   59 15.90    2.6X
                   e      59 26.10
                   e      59 42.10
                   e      59 54.10
                   e      00 07.80
CDCB    155.96 172 ePKP   59 13.80    0.0
                   e      59 43.40
                   e      00 07.20
                   e      03 44.70
TRN     159.07  70 ePKP   59 19.00    1.5
BAO     159.69 162 iPKPd  59 20.00    1.6
                   e      59 22.00
                   i      59 48.90
                   e      00 23.50
                   e      03 21.80
SOB1    167.12 183 ePKP   59 25.60    0.4
                   e      59 55.00
        S.D. = 1.0  on 365 of 432 obs.
---------------------------------------------
& MAR 01, 1993  02h 19m 19.72s
  34.949 N              116.935 W
  DEPTH =   0.1km
 SOUTHERN CALIFORNIA                    ( 43)
       <PAS-P>. ML 3.0 (PAS). Felt.

GSC       0.37  17 iPd    19 27.06    0.0
SSK       0.97 221 ePc    19 37.91   -1.2
                   S      19 49.20
PEC       1.07 190 eP     19 39.58   -1.2
                   S      19 52.16

PLM       1.59 178 ePn    19 47.93   -1.5
                   S      20 09.77
TPNV      2.07  15 ePn    19 54.04   -2.3
                   ePg    19 58.19
GLA       2.58 137 ePn    20 02.87   -0.6
                   ePg    20 07.66
                   eLg    20 43.43
BCH       2.59 276 eP     20 01.69   -2.1
TNP       3.14 356 (Pn)   20 09.82   -1.7
BONR      3.20 340 (Pn)   20 11.27   -1.2
                   ePg    20 19.77
ARUT      4.00  44 eP     20 21.96   -1.8
MSU       5.22  46 (Pn)   20 45.32    4.1
         11 obs. associated
---------------------------------------------
% MAR 01, 1993 03h 42m 50.53± 0.62s
  37.747 S ± 5.4km  176.780 E ± 4.2km
   DEPTH =  10.1 ±  4.6 km
 NORTH ISLAND, NEW ZEALAND          (159)
        ML 3.8 (WEL).

TAZ       0.53 204 P       43 01.90   0.6
URZ       0.58 153 Pc      43 01.50  -0.7
                   S       43 08.90
UTU       0.63 227 eP      43 03.60   0.4
PATZ      0.76 213 P       43 06.10   0.7
WLZ       0.95 262 P       43 08.90   0.4
                   S       43 22.40
PAHZ      1.13 169 P       43 11.50  -0.2
WHH       1.16 191 eP      43 11.70  -0.5
PUZ       1.21 106 P       43 13.40   0.3
HBZ       1.22  84 P       43 13.20   0.1
KUZ       1.31 319 P       43 14.40  -0.3
NOZ       1.32 132 eP      43 15.40   0.6
NGZ       1.70 213 eP      43 19.10  -1.4
WAHZ      1.98 190 eP      43 24.50   0.1
        S.D. = 0.7  on  13 of  13 obs.
---------------------------------------------
& MAR 01, 1993  04h 32m 49.10s
   62.203 N             151.041 W
   DEPTH =  87.2km
   2.7mb (  1 obs.)
 CENTRAL ALASKA                        (  1)
        <AEIC>.

SKT       0.32 226 iPc     33 01.85  -0.7
                   iS      33 11.91
                   iS      33 12.13
SUA       0.76 169 iPc     33 05.91  -0.4
                   eS      33 19.31
PWA       0.78 135 P       33 06.00  -0.4
HUR       1.01  39 iPd     33 08.15  -0.9
                   eS      33 23.04
CRP       1.08 210 ePd     33 08.75  -1.2
CPAM      1.09 209 ePd     33 09.24  -0.8
GHO       1.09 112 iPc     33 09.43  -0.6
                   S       33 25.70
PLRM      1.09 123 ePc     33 08.70  -1.2
                   eS      33 26.03
PMR       1.09 123 eP      33 08.50  -1.4
                   eS      33 26.10
CP2       1.10 212 eP      33 09.39  -0.9
CKN       1.12 209 eP      33 09.61  -0.8
SPU       1.13 206 iPd     33 09.49  -1.0
                   eS      33 26.06
BGL       1.14 215 ePd     33 10.03  -0.6
CKT       1.15 209 ePd     33 09.69  -1.1
                   S       33 25.97
CKL       1.18 212 iPd     33 10.24  -1.0
PMS       1.19 143 P       33 10.30  -0.9
TRF       1.30  15 iPd     33 11.58  -1.1
SML       1.34 106 iPc     33 12.17  -0.9
                   eS      33 31.13
NKA       1.47 184 iPc     33 15.85   1.2
RND       1.57  39 ePd     33 14.84  -1.3
PTE       1.65 143 iPc     33 15.66  -1.4
SLKM      1.75 167 iPc     33 17.05  -1.3
SCM       1.79 100 ePd     33 17.52  -1.5
                   eS      33 40.36
DFR       1.80 207 ePd     33 18.13  -1.0
MCK       1.81  31 ePd     33 18.07  -1.2
                   eS      33 41.13
NCT       1.88 210 ePd     33 19.28  -1.0
RDN       1.89 207 eP      33 19.41  -0.9
REF       1.90 206 eP      33 19.65  -0.9
MPA       1.90 154 eP      33 18.87  -1.5
RDW       1.93 207 ePd     33 20.02  -0.9
```

```
01d  04h

RS2      1.93 206 eP     33 20.19  -0.9
RSO      1.93 206 eP     33 20.16  -0.9
RS1      1.94 206 eP     33 20.16  -0.9
SEW      2.24 159 eP     33 23.28  -1.7
TTA      2.41 290 eP     33 25.60  -1.8
SVW      2.45 245 iPd    33 26.16  -1.7
BRLK     2.45 178 eP     33 27.00  -0.9
                  eS     33 55.45
VLZ      2.49 113 ePc    33 26.25  -2.1
                  eS     33 55.87
KLU      2.53 104 ePc    33 26.71  -2.3
NEA      2.54  19 ePd    33 26.89  -2.2
SDG      2.58  80 eP     33 28.29  -1.4
TZL      2.64  91 eP     33 29.27  -1.2
CNPM     2.69 182 eP     33 30.06  -1.1
PAX      2.69  71 ePd    33 29.81  -1.4
                  eS     34 02.62
THY      2.72  61 eP     33 31.61   0.1
HIN      2.84 128 eP     33 30.55  -2.7
CCB      2.85  29 ePd    33 31.02  -2.3
PDB      2.87 214 ePd    33 32.38  -1.2
                  eS     34 04.83
HDA      2.88  38 ePd    33 31.76  -2.0
                  eS     34 04.17
MDM      3.04  23 ePd    33 33.96  -2.0
CVA      3.04 121 eP     33 33.11  -2.8
                  eS     34 09.29
AUL      3.06 204 P      33 38.00   1.7
FBA      3.07  27 eP     33 34.02  -2.4
AUI      3.11 203 eP     33 37.33   0.5
GLM      3.24  29 eP     33 36.61  -2.1
                  eS     34 11.40
MCNL     3.43 210 eP     33 40.31  -1.1
GLB      3.51  99 ePc    33 40.14  -2.4
CDD      3.53 203 P      33 42.50  -0.2
RAGM     3.57 118 eP     33 40.92  -2.4
SYI      3.67 191 eP     33 43.47  -1.1
IMA      4.05 345 iPc    33 47.50  -2.6
CRQM     4.06 107 eP     33 48.16  -2.1
TGL      4.20 107 eP     33 49.55  -2.6
BALM     4.31 102 ePc    33 50.67  -3.1
CTGM     4.80 101 eP     33 57.84  -2.7
YAH      4.85 108 eP     33 58.73  -2.5
YKA     16.78  73 eP     36 35.90  -3.6
        0.8s     0.40nm           2.7mb
        67 obs. associated
---------------------------------------
& MAR 01, 1993 05h 11m 35.67s
   63.278 N           150.952 W
   DEPTH = 14.8km
 CENTRAL ALASKA                     (  1)
      <AEIC>. ML 2.5 (AEIC).

TRF      0.35  60 iP     11 42.75  -0.4
                  eS     11 48.07
HUR      0.67 116 eP     11 48.57   0.0
                  eS     11 58.47
RND      0.96  81 eP     11 53.53   0.1
                  eS     12 07.19
MCK      1.01  62 eP     11 54.65   0.2
                  eS     12 09.00
SKT      1.33 192 eP     11 59.17  -0.5
                  S      12 16.60
                  eS     12 16.76
NEA      1.55  32 eP     12 03.38   0.7
                  eS     12 23.87
PWA      1.71 163 eP     12 05.84   0.8
GHO      1.78 147 eP     12 06.10  -0.1
                  S      12 29.58
SUA      1.82 177 eP     12 07.67   0.8
                  eS     12 31.84
PLRM     1.89 153 eP     12 07.99   0.3
PMR      1.89 153 eP     12 07.57  -0.1
                  S      12 32.03
SML      1.91 139 eP     12 07.85  -0.2
CCB      1.95  44 eP     12 07.10  -1.5
CRP      2.10 196 eP     12 10.49  -0.3
                  S      12 37.90
HDA      2.10  56 eP     12 09.74  -1.0
CPAM     2.11 196 eP     12 10.59  -0.3
CP2      2.11 197 eP     12 10.59  -0.5
                  S      12 39.13
BGL      2.13 199 eP     12 11.30   0.0
FBA      2.14  39 eP     12 12.75   1.5
                  S      12 42.01
CKN      2.14 196 eP     12 11.33   0.0
PMS      2.14 162 eP     12 11.98   0.6
```

```
CKT      2.17 196 eP     12 11.90   0.1
SPU      2.17 194 eP     12 11.45  -0.3
CKL      2.19 198 eP     12 12.27   0.2
SCM      2.22 129 eP     12 12.87   0.4
GLM      2.32  41 eP     12 15.35   1.4
TTA      2.33 264 eP     12 15.48   1.4
PAX      2.51  95 eP     12 18.07   1.4
PTE      2.59 159 eP     12 18.64   1.0
SDG      2.59 105 eP     12 18.60   0.9
SLKM     2.80 173 eP     12 21.72   1.0
DFR      2.82 198 eP     12 21.03   0.0
TZL      2.84 113 eP     12 23.00   1.8
NCT      2.88 200 eP     12 21.95   0.0
MPA      2.90 164 eP     12 23.58   1.5
RDW      2.94 198 eP     12 22.67  -0.2
KLU      2.95 125 eP     12 23.41   0.6
RS2      2.95 198 eP     12 23.03   0.0
RSO      2.95 198 eP     12 23.44   0.4
                  S      13 03.14
RS1      2.95 198 eP     12 23.45   0.4
IMA      3.04 339 eP     12 22.13  -2.0
                  S      13 07.36
VLZ      3.05 133 eP     12 24.54   0.3
SVW      3.09 227 (P)    12 24.73   0.0
                  S      13 08.44
GLB      3.80 116 eP     12 36.08   1.1
        44 obs. associated
---------------------------------------
? MAR 01, 1993 06h 31m 10.93± 1.18s
   47.993 N ±31.0km  155.939 E ±15.2km
   DEPTH = 33.0km (normal)
   4.4mb (  2 obs.)
 EAST OF KURIL ISLANDS              (222)

YKA     48.77  38 eP     39 53.90  -0.1
        0.6s     2.50nm           4.4mb
GUN     56.79 276 P      40 54.00  -0.7
KKN     57.27 276 P      40 58.40   0.5
DMN     57.51 276 P      40 59.20  -0.4
LCCM    59.22  54 eP     41 10.70  -0.5
NUR     64.88 336 eP     41 49.00   0.4
NB2     67.65 342 P      42 06.30   0.0
        0.7s     2.60nm           4.4mb
KBA     79.86 335 i(P)   43 24.90   7.4X
PPD    146.14  50 (PKP)  50 49.00   0.7
        S.D. = 0.6  on   8 of   9 obs.
---------------------------------------
% MAR 01, 1993 07h 19m 46.43± 3.90s
   42.651 N ± 8.4km   20.471 E ±27.4km
   DEPTH = 10.0km (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 2.2 (TTG).

PVY      0.37 261 iPgc   19 54.00  -0.1
                  iSg    20 03.23
IVA      0.48 298 iPgc   19 55.81  -0.3
                  iSg    20 06.54
TTG      0.92 257 iPgc   20 04.04   0.0
                  iSg    20 20.86
PLE      1.04 311 iPgc   20 05.83  -0.3
                  iSg    20 24.25
NKY      1.10 279 iPgc   20 07.29   0.2
                  iSg    20 26.98
ULC      1.14 233 iPgd   20 06.99  -0.7
                  iSg    20 26.53
BDV      1.27 254 iPgc   20 10.28   0.3
                  iSg    20 32.38
BRY      1.44 281 iPnc   20 13.20   0.5
                  iSn    20 37.05
HCY      1.47 263 iPnc   20 13.63   0.6
                  iSn    20 37.54

        S.D. = 0.5  on   9 of   9 obs.
---------------------------------------
& MAR 01, 1993 07h 31m 07.68s
   35.030 N           116.967 W
   DEPTH =  3.7km
 CENTRAL CALIFORNIA                 ( 39)
      <PAS-P>. ML 3.1 (PAS), 2.9 (GS).

GSC      0.30  26 iPd    31 13.65  -0.1
SSK      1.01 216 eP     31 26.27  -1.3
                  eS     31 40.07
PEC      1.15 188 iPd    31 28.70  -1.0
                  eS     31 43.93
PLM      1.67 177 eP     31 36.97  -1.1
                  eS     32 00.55
TPNV     2.00  17 eP     31 42.59  -0.2
```

```
                  eS     32 09.84
BCH      2.56 274 eP     31 48.98  -1.8
GLA      2.66 137 eP     31 54.49   2.4
                  eS     32 32.54
TNP      3.05 356 ePn    31 56.74  -1.1
BONR     3.11 340 ePn    31 58.04  -0.7
ARUT     3.96  45 ePn    32 10.39  -0.3
        10 obs. associated
---------------------------------------
   MAR 01, 1993 07h 42m 37.85± 0.45s
   49.637 N ± 4.6km   21.163 E ± 4.6km
   DEPTH = 10.0km (geophysicist)
   4.0mb (  1 obs.)
 POLAND                             (548)
      ML 3.9 (VIE). Felt in the
      Bardejov-Vysne Raslovice-
      Giraltovce area, Slovakia.

SPC      0.75 234 iPgc   42 51.70  -0.9
LVV      1.87  83 eP     43 14.00   3.8X
                  iS     43 42.00
CEI      2.13 156 eP     43 20.00   6.0X
SRO      2.62 227 ePn    43 23.90   2.9X
                  i(Pb)  43 27.10
                  i(Pg)  43 29.70
                  i(Sn)  43 54.50
                  i      44 01.60
VRAC     3.00 265 iPn    43 27.50   1.3
        0.6s   262.80nm
                  e      43 34.10
                  e      43 36.30
                  Sg     44 09.10
ZST      3.04 243 iPnd   43 26.20  -0.6
                  iPg    43 36.20
                  eSn    44 01.00
                  iSg    44 13.60
VKA      3.48 249 iPnc   43 32.70  -0.3
                  iPg    43 42.40
                  iSn    44 10.30
                  i(Sg)  44 26.20
PRU      4.30 277 Pn     43 45.00   0.2
        1.4s   290.50nm
                  e      43 56.90
                  Sg     44 56.80
TNR      4.51 151 ePc    44 02.00  14.3X
BRG      4.79 288 ePn    43 58.00   6.2X
                  i      44 08.00
                  i      44 33.00
                  i      44 51.00
                  iSg    45 12.00
COZ      4.83 152 ePc    43 52.00  -0.4
GEC2     4.95 264 Pn     43 54.40   0.3
                  Pg     44 07.60
                  Sg     45 20.60
KHC      4.98 267 Pn     43 54.90   0.5
                  ePg    44 16.60
                  eSn    45 19.50
                  e      45 24.00
CVO      5.10 137 iPd    43 58.00   1.9
PTJ      5.13 225 iP     43 55.10  -1.4
MLR      5.26 140 ePd    43 58.50   0.0
WET      5.43 268 ePn    44 01.10   0.3
CLL      5.47 291 ePn    44 06.00   4.6X
                  iPg    44 25.40
                  iSg    45 37.30
KBA      5.81 247 iPnc   44 05.90  -0.3
                  iSn    45 08.60
                  iSg    45 40.70
BHG      5.81 254 iPd    44 22.10  16.0X
MOX      6.22 283 ePn    44 13.20   1.3
                  ePg    44 36.50
                  iSg    45 59.60
GRF      6.46 274 ePn    44 15.70   0.5
                  e(Pg)  44 38.20
                  e(Sn)  45 29.20
                  eSg    45 46.80
FUR      6.68 261 iPd    44 40.70  22.3X
BSD      6.68 327 iP     44 20.00   1.6
                  iS     45 03.50
WTTA     6.77 253 iPnc   44 19.10  -0.7
                  iSn    45 33.90
                  iSgSg  46 22.40
UPP     10.44 350 iPn    45 11.10   0.6
                  iSn    47 03.00
OBN     10.90  54 (P)    45 16.00  -0.8
        1.0s    49.00nm         5.8mb X
     Z  14s     0.30um
```

```
                 iS      47 14.00
NUR     11.08   9 iP     45 19.30   0.1
HFS     11.35 341 eP     45 21.90  -1.1
        0.3s      8.80nm          5.6mb X
    Z  15s      0.10um
                 LR      49 11.00
MOS     11.69  52 eP     45 40.00  12.4X
NB2     12.73 338 P      45 39.20  -2.4
        0.3s      1.70nm          4.7mb X
KAF     12.83  11 iP     45 42.30  -0.5
        0.2s      1.00nm          4.7mb X
SDF     18.03   7 iP     46 57.50   7.8X
                 i       50 04.20
ARU     23.28  59 eP     47 53.00   6.8X
SVE     24.41  58 eP     48 04.10   7.0X
YKA     62.83 339 eP     53 06.30   0.9
        0.5s      0.50nm          4.0mb
     S.D. = 1.0  on  24 of  36 obs.
-----------------------------------------
? MAR 01, 1993 08h 27m 58.80± 2.08s
   8.557 N ±21.5km  123.232 E ±32.5km
   DEPTH = 134.3 ± 32.1 km
   4.7mb (  5 obs.)
 MINDANAO, PHILIPPINE ISLANDS     (259)

CGP      1.45  94 iPc    28 26.70  -0.3
                 eS      28 42.00
PLP      3.11  33 ePc    28 48.00   0.4
        0.8s     36.00nm
WB2     30.36 159 eP     33 59.10  -1.1
        0.7s      2.20nm          4.0mb
ASPA    33.68 162 eP     34 30.20   1.1
        0.6s      4.80nm          4.4mb
GUN     40.13 304 P      35 24.20   0.7
        0.8s     47.00nm          5.3mb
PKI     40.40 303 P      35 25.20  -0.5
        0.6s     11.00nm          4.8mb
KKN     40.58 303 P      35 27.40   0.3
        0.7s     19.00nm          4.9mb
DMN     40.66 303 P      35 26.20  -1.6
GBA     45.17 281 P      36 05.00   0.9
     S.D. = 1.2  on   9 of   9 obs.
-----------------------------------------
   MAR 01, 1993 08h 28m 25.97± 1.54s
   59.085 N ±14.5km  145.382 W ± 4.1km
   DEPTH =  10.0km  (geophysicist)
 GULF OF ALASKA                   ( 15)
      ML 2.5 (AEIC).

MID      0.60 305 P      28 40.70   2.6
KAIM     0.98  30 eP     28 45.13   0.6
RAGM     1.35  15 eP     28 50.49  -0.4
                 eS      29 07.89
HIN      1.43 337 eP     28 51.86  -0.2
                 eS      29 09.45
CVA      1.48 353 iP     28 52.26  -0.3
                 eS      29 10.20
SNH      1.70  49 eP     28 56.18   0.4
                 eS      29 17.00
CROM     2.02  33 eP     29 00.94   0.3
VLZ      2.11 347 eP     29 01.28  -0.4
TGL      2.11  36 eP     29 02.05   0.2
                 S       29 26.28
YAH      2.24  54 eP     29 04.18   0.2
SEW      2.31 298 eP     29 04.22  -0.4
KLU      2.43 354 eP     29 06.00  -0.4
MPA      2.46 307 eP     29 06.09  -0.6
BALM     2.48  37 eP     29 07.04  -0.1
                 eS      29 34.63
GLB      2.49  18 eP     29 06.94  -0.3
                 eS      29 35.84
PTE      2.56 316 eP     29 07.46  -0.6
CTGM     2.77  45 eP     29 11.28  -0.1
SLKM     2.83 302 eP     29 11.59  -0.5
TZL      2.97 360 eP     29 13.53  -0.4
PMS      3.01 318 P      29 16.20   1.6
SML      3.10 333 eP     29 15.64  -0.2
PLRM     3.13 325 eP     29 17.45   1.2
GHO      3.22 328 eP     29 17.07  -0.5
SDG      3.45 359 eP     29 20.92   0.0
SPU      3.94 305 eP     29 26.51  -1.4
CKL      4.07 304 eP     29 28.91  -0.8
SKT      4.20 316 eP     29 31.94   0.4
YKA     15.32  64 eP     32 09.30   5.7X
        0.8s      0.50nm          2.9mb
     S.D. = 0.8  on  27 of  28 obs.
-----------------------------------------
```

```
% MAR 01, 1993 08h 49m 02.29± 0.69s
   26.894 S ± 7.0km   26.756 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 2.8 (PRE).

BFS      0.03  99 iPd    49 03.70  -0.7
                 S       49 04.50
PRY      0.64  93 eP     49 14.00  -1.3
                 S       49 21.50
KSR      1.03   7 eP     49 21.60  -0.3
                 S       49 31.70
SWZ      1.31 257 eP     49 26.30  -0.3
                 S       49 42.00
SEK      1.62 152 eP     49 32.00   0.9
                 S       49 52.50
SLR      1.79  50 eP     49 34.50   0.9
                 S       49 57.50
BLF      2.26 193 eP     49 40.50   0.0
                 S       50 09.00
BFT      3.19  69 e(P)   49 54.00   0.4
                 (S)     50 31.00
     S.D. = 0.9  on   8 of   8 obs.
-----------------------------------------
? MAR 01, 1993 08h 55m 50.28± 8.67s
   40.103 N ±29.4km   24.087 E ±70.8km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)
      ML 2.4 (THE).

OUR      0.25 341 ePg    55 55.32  -0.2
                 eSg     55 58.40
PAIG     0.36 241 ePg    55 57.46  -0.2
                 eSg     56 02.16
SOH      0.91 322 ePg    56 07.52  -0.2
                 eSg     56 18.16
SRS      1.08 340 ePg    56 10.20  -0.4
                 eSg     56 24.30
KNT      1.39 320 ePb    56 16.64   0.9
                 eSb     56 34.24
     S.D. = 0.7  on   5 of   5 obs.
-----------------------------------------
% MAR 01, 1993 09h 07m 39.25± 1.01s
   39.019 N ±10.4km   27.584 E ±12.8km
   DEPTH =  33.0km  (normal)
 TURKEY                           (366)
      MD 2.7 (ISK).

IZM      0.67 202 iPg    07 52.20  -0.1
                 eSg     08 05.22
DST      1.00  54 ePn    07 57.00   0.0
EZN      1.26 310 ePn    08 01.00   0.3
BNT      1.36  11 ePn    08 00.80  -1.3
KCT      1.37  26 iPn    08 03.30   1.1
     S.D. = 1.2  on   5 of   5 obs.
-----------------------------------------
? MAR 01, 1993 09h 18m 35.25± 6.35s
   22.033 S ±41.2km  178.243 W ±40.8km
   DEPTH = 441.7 ± 45.5 km
   4.2mb (  5 obs.)
 SOUTH OF FIJI ISLANDS            (171)

DZM     14.20 267 iPd    21 40.60   0.8
HBZ     15.80 190 eP     21 55.60  -0.4
NOZ     16.84 190 eP     22 06.10  -0.4
MNG     19.28 195 eP     22 29.60  -0.9
ORZ     20.30 201 eP     22 41.00   0.6
DSZ     21.37 201 eP     22 51.10   0.6
KHZ     21.46 197 eP     22 51.40   0.1
LTZ     22.16 199 eP     22 56.80  -1.0
ARMA    28.22 246 eP     23 53.00   0.5
RMQ     30.36 255 eP     24 11.80   0.8
CNB     31.20 238 eP     24 19.20   1.0
CAN     31.49 238 iPc    24 21.20   0.6
BWA     31.72 240 eP     24 20.90  -1.7
CMS     33.31 246 iPd    24 36.40   0.4
        1.1s     13.00nm          4.3mb
TOO     34.83 235 iPd    24 49.40   0.7
        0.5s     18.00nm          4.7mb
STK     36.94 246 eP     25 06.90   0.6
        0.6s      4.60nm          4.1mb
ASPA    43.97 258 eP     26 02.50  -0.7
        0.6s      6.40nm          4.2mb
WB2     44.17 264 iPc    26 03.40  -1.5
        0.7s      7.50nm          4.2mb
WARB    50.17 254 eP     26 49.00  -1.7
SPA     68.10 180 iPc    28 52.60   1.5
```

```
        0.8s    215.00nm          5.8mb X
                 i       29 43.80
     S.D. = 1.0  on  20 of  20 obs.
-----------------------------------------
? MAR 01, 1993 09h 34m 02.61± 3.29s
   34.282 S ±18.2km  178.790 W ±32.7km
   DEPTH = 201.5 ± 19.6 km
   4.8mb ( 14 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

HBZ      4.07 215 eP     35 08.60   2.9
PUZ      4.47 211 eP     35 14.40   3.4X
                 eS      36 07.90
NOZ      5.03 210 eP     35 21.50   3.5X
KUZ      5.11 240 eP     35 19.50   0.5
URZ      5.17 219 eP     35 21.70   1.9
                 eS      36 22.80
WLZ      5.79 230 eP     35 28.30   0.5
WAHZ     6.66 214 eP     35 40.20   1.1
CNZ      6.69 221 eP     35 39.50  -0.1
PGZ      7.44 210 eP     35 50.50   1.1
MNG      7.79 214 eP     35 53.40  -0.8
                 eS      37 21.60
MTW      8.22 212 eP     35 59.10  -0.6
KIW      8.25 215 eP     35 58.60  -1.5
CAW      8.37 214 eP     36 00.60  -1.0
MOW      8.54 212 eP     36 03.40  -0.3
MRW      8.64 215 eP     36 04.50  -0.5
                 eS      37 41.30
DIW      8.71 220 eP     36 04.60  -1.3
TCW      8.83 216 eP     36 05.80  -1.7
KHZ     10.11 214 eP     36 23.20  -0.8
                 eS      38 13.50
DSZ     10.51 222 eP     36 27.10  -2.3
LTZ     11.00 217 eP     36 34.20  -1.4
MQZ     11.52 213 eP     36 41.80  -0.4
ODZ     13.47 214 eP     37 08.20   1.4
DZM     17.79 309 iPc    37 52.10  -6.6X
ARMA    25.24 271 iPc    39 14.40   2.6
        0.7s     23.00nm          4.9mb
BRS     25.31 278 iPd    39 12.50   0.1
        1.0s      5.00nm          4.1mb
                 i       39 15.00
CNB     26.12 259 eP     39 23.00   3.3X
        0.5s     13.00nm          4.9mb
CAN     26.41 259 eP     39 25.60   3.2X
BWA     27.01 260 eP     39 27.60  -0.2
TAU     27.70 242 eP     39 40.00   6.2X
RMQ     28.96 277 iPc    39 45.10  -0.2
        1.0s    128.00nm          5.6mb
TOO     29.00 253 eP     39 51.00   5.4X
CMS     29.75 265 iPc    39 53.00   0.8
        0.6s     15.00nm          4.9mb
BFD     31.38 253 eP     40 11.20   4.9X
        0.4s      6.00nm          4.6mb
HNR     31.50 317 eP     40 02.00  -5.5X
STK     33.14 263 eP     40 22.40   0.7
        0.8s      3.60nm          4.1mb
CTA     33.97 285 iPc    40 28.00  -0.9
        0.7s     13.70nm          4.7mb
                 i       40 32.00
PMG     39.83 300 eP     41 15.00  -2.8
        1.0s     54.00nm          5.0mb
ASPA    42.39 272 iPc    41 38.40  -0.4
        0.8s    109.90nm          5.4mb
                 e       43 31.90
                 eS      47 41.10
WB2     43.71 277 iPd    41 48.50  -1.0
        0.5s     15.30nm          4.8mb
                 iPcP    43 37.40
                 eS      47 59.90
WRA     43.72 277 P      41 49.00  -0.6
        0.8s      9.70nm          4.4mb
WWKK    46.36 303 eP     42 09.50  -1.0
WARB    47.36 264 eP     42 17.50  -0.7
        0.4s      9.00nm          4.5mb
COOL    50.09 256 eP     42 40.00   1.0
MUN     53.64 253 eP     43 07.50   2.1
MEEK    53.76 260 eP     43 06.00  -0.4
MRWA    54.85 256 eP     43 15.00   0.8
MAW     68.45 201 eP     44 56.00  11.8X
        0.9s     60.00nm
LEM     72.63 274 ePc    45 12.80   2.5
NVL     74.97 184 eP     45 39.00  16.4X
MAT     81.06 326 (P)    45 56.00  -0.2
        0.9s     11.76nm          4.6mb
LCCM   100.01  41 ePdiff47 39.00  13.1X
```

01d 09h

YKA 109.22 26 ePdiff48 14.60 8.5X
0.9s 0.40nm
YKA 109.22 26 ePKP 52 15.60 6.5X
0.6s 1.00nm
KKN 109.62 291 PKP 52 00.00 -11.2X
ULM 111.36 43 ePKP 52 25.50 12.0X
FCC 116.02 35 ePKP 52 32.00 9.9X
BUL 119.92 210 iPKPc 52 39.60 8.6X
RES 121.14 18 ePKPd 52 39.40 7.9X
0.9s 6.00nm
MTD 121.57 215 iPKPd 52 23.00 -11.1X
JAO 124.23 44 ePKP 52 45.50 7.4X
LMN 129.51 56 ePKP 53 02.50 14.0X
BCAO 146.22 212 iPKPc 53 29.00 9.2X
0.2s 40.00nm
i 54 19.50
i 56 54.90
AKU 146.50 14 iPKP 53 28.30 9.7X
1.2s 100.00nm
OBN 147.86 321 ePKP 53 28.00 6.8X
1.9s 280.00nm
e 54 18.00
KAF 147.93 338 iPKP 53 28.40 7.3X
0.5s 14.80nm
NUR 149.67 337 iPKP 53 33.50 9.7X
0.5s 19.60nm
MBH 151.18 270 ePKP 53 39.50 12.3X
DSI 151.27 274 ePKP 53 39.30 12.2X
HRI 151.36 278 ePKP 53 39.80 12.4X
ADI 151.74 277 ePKP 53 40.20 12.4X
UPP 152.24 342 iPKP 53 39.40 11.8X
i 53 47.90
NB2 152.46 349 PKP 53 40.40 12.4X
0.9s 27.90nm
HFS 152.88 346 ePKP 53 40.20 11.7X
0.3s 4.40nm
FLN 165.48 4 ePKP 53 52.00 8.9X
0.9s 20.00nm
LDF 165.67 4 ePKP 53 51.10 7.9X
1.0s 17.80nm
GRR 165.82 6 ePKP 53 52.40 9.1X
1.0s 20.80nm
LPF 166.16 6 ePKP 53 51.70 8.1X
1.2s 25.60nm
LOR 166.87 352 ePKP 53 53.20 8.9X
1.1s 13.65nm
SSF 167.12 353 ePKP 53 54.40 10.0X
1.1s 14.90nm
LBF 167.14 351 ePKP 53 54.50 10.0X
1.1s 14.15nm
MFF 167.65 4 ePKP 53 54.30 9.5X
1.1s 23.20nm
EPF 171.24 4 ePKP 53 58.60 11.6X
0.9s 10.80nm
S.D. = 1.4 on 39 of 82 obs.

? MAR 01, 1993 10h 03m 45.44± 4.09s
42.063 N ± 9.8km 126.433 W ±39.7km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)
ML 3.1 (GS).

FHC 2.23 124 eP 04 23.09 0.1
S 04 48.13
KMPM 2.40 133 eP 04 24.92 -0.5
S 04 49.62
LGPM 2.94 112 eP 04 32.88 -0.3
S 05 04.52
LBFM 3.48 100 eP 04 41.75 0.9
LMEM 3.97 111 eP 04 48.47 0.7
ORV 4.50 122 eP 04 55.09 -0.2
SHW 5.11 35 eP 05 04.82 0.8
VGB 5.35 48 eP 05 05.52 -1.8
LON 5.74 34 eP 05 13.36 0.6
ARUT 10.85 109 (P) 06 27.55 3.6X
LCCM 11.15 65 eP 06 27.90 -0.2
S.D. = 0.9 on 10 of 11 obs.

& MAR 01, 1993 10h 42m 08.90s
50.646 N 130.049 W
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
VANCOUVER ISLAND REGION (25)
<PGC-P>. ML 3.6 (PGC).

HOLB 1.22 90 P 42 31.90 0.3
S 42 49.14
PHC 1.67 87 Pc 42 38.29 0.1
S 42 59.72
GDR 2.72 107 P 42 52.02 -1.4
CBB 3.06 100 P 42 58.07 -0.1
BTB 3.15 110 P 42 58.51 -1.1
NAB 4.16 108 P 43 14.29 0.6
MCW 5.08 110 eP 43 27.30 0.4
SHW 6.85 128 (P) 43 50.42 -1.5
BGMT 13.22 107 eP 45 19.00 -0.4
YKA 14.55 29 eP 45 34.20 -2.3
0.8s 1.60nm 3.7mb
BW06 16.07 111 eP 45 58.62 2.0
11 obs. assaciated

? MAR 01, 1993 11h 28m 31.81± 4.78s
40.135 N ±25.6km 20.974 E ±31.9km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
ML 3.2 (TIR).

LSK 0.29 273 iPg 28 37.60 -0.3
iSg 28 48.50
TPE 0.75 283 ePn 28 47.60 1.0
iSn 29 05.70
SRN 0.79 252 iPnc 28 46.90 -0.2
iSg 29 02.60
TIR 1.48 326 ePn 28 57.50 -0.9
iSn 29 26.50
LACI 1.78 328 ePn 29 01.90 -0.9
iSn 29 31.90
SDA 2.22 330 ePn 29 13.80 4.7X
BCI 2.33 343 iPn 29 12.00 1.2
S.D. = 1.2 on 6 of 7 obs.

& MAR 01, 1993 11h 38m 13.50s
60.124 N 152.914 W
DEPTH = 130.3km
2.8mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.10 230 eP 38 30.98 0.9
S 38 44.10
RS1 0.35 13 eP 38 31.23 0.5
RS2 0.35 13 eP 38 31.31 0.5
eS 38 46.40
RSO 0.35 13 eP 38 31.21 0.4
RDW 0.36 8 eP 38 31.19 0.4
eS 38 46.50
RDN 0.40 11 eP 38 31.11 -1.4
NCT 0.44 359 eP 38 31.60 -1.1
eS 38 45.35
DFR 0.48 13 eP 38 31.51 -1.4
RDT 0.52 29 eP 38 31.99 -1.0
PD8 0.73 243 eP 38 33.45 -0.9
eS 38 48.70
AUL 0.79 200 eP 38 34.07 -0.8
AUE 0.80 197 eP 38 33.61 -1.3
eS 38 50.18
AUI 0.83 198 eP 38 34.39 -0.8
NKA 1.04 53 eP 38 37.60 0.6
CNPM 1.04 125 eP 38 36.55 -0.6
BRLK 1.08 109 eP 38 36.83 -0.7
S 38 54.15
CKL 1.11 15 eP 38 36.99 -1.0
CKT 1.14 18 eP 38 36.99 -1.2
SPU 1.14 21 eP 38 36.99 -1.2
eS 38 55.70
CKN 1.16 18 eP 38 37.59 -0.8
BGL 1.17 12 eP 38 37.75 -0.8
MCNL 1.19 218 eP 38 37.60 -1.0
CP2 1.19 16 iPd 38 37.96 -0.9
CPAM 1.20 18 eP 38 37.88 -0.9
CRP 1.21 18 eP 38 37.48 -1.5
SLKM 1.39 73 eP 38 39.54 -1.3
SYI 1.54 170 eP 38 41.42 -1.0
SVW 1.66 308 P 38 41.90 -2.0
SUA 1.71 37 eP 38 43.69 -0.9
eS 39 06.72
SEW 1.74 89 eP 38 43.30 -1.4
MPA 1.81 77 eP 38 44.13 -1.4
SKT 1.98 19 eP 38 46.30 -1.4
S 39 12.20
PMS 2.00 54 P 38 46.50 -1.4
PTE 2.06 67 eP 38 46.74 -1.9
PWA 2.13 43 P 38 49.00 -0.5
GHO 2.55 48 eP 38 52.91 -2.1
SML 2.80 51 eP 38 56.03 -2.1
HIN 3.21 82 eP 39 01.37 -2.1
VLZ 3.40 70 eP 39 03.21 -2.7
TRF 3.56 19 eP 39 06.65 -1.7
CVA 3.59 80 eP 39 06.50 -2.0
KLU 3.69 65 eP 39 07.19 -2.8
RND 3.82 29 eP 39 09.92 -1.8
GLB 4.65 70 eP 39 20.88 -2.0
BALM 5.29 75 eP 39 30.18 -1.4
FBA 5.35 24 eP 39 29.80 -2.4
YKA 18.36 66 eP 42 18.00 -2.3
0.4s 0.20nm 2.8mb
47 obs. assaciated

MAR 01, 1993 11h 59m 35.69± 0.50s
44.231 N ± 5.5km 129.099 W ± 5.1km
DEPTH = 10.0km (geophysicist)
4.3mb (11 obs.)
OFF COAST OF OREGON (30)

BMW 4.71 59 eP 00 48.48 0.0
SHW 5.23 66 eP 00 55.58 -0.4
GMW 5.51 51 eP 00 59.02 -0.8
LGPM 5.69 123 eP 01 03.73 1.2
LON 5.71 61 eP 01 02.09 -0.5
PGC 5.90 39 P 01 05.00 -0.1
0.4s 3.00nm 4.4mb X
RMW 6.03 55 eP 01 07.15 0.0
LBFM 6.04 116 eP 01 09.81 2.5
VGB 6.05 75 eP 01 06.64 -0.8
MCW 6.21 42 eP 01 06.64 -2.9X
ORV 7.34 127 eP 01 23.83 -1.7
DPW 8.41 61 eP 01 39.01 -1.5
ARN 8.95 138 eP 01 44.97 -3.0X
NEW 9.23 60 eP 01 50.31 -1.5
MEMM 10.10 127 eP 02 04.47 0.8
BONR 10.28 124 eP 02 04.97 -1.5
TNP 10.86 120 eP 02 13.46 -0.9
HHAI 12.13 89 eP 02 32.40 0.9
TPNV 12.17 122 eP 02 32.69 0.6
HVU 12.20 96 eP 02 34.31 1.8
PTI 12.22 91 eP 02 34.08 1.3
LCCM 12.29 76 eP 02 34.90 1.1
DUG 12.73 103 eP 02 40.76 1.2
GSC 12.99 129 eP 02 41.17 -1.8
ARUT 13.45 113 eP 02 48.97 -0.3
SES 13.70 57 eP 02 53.00 0.7
pP 03 02.00
DAU 13.74 100 eP 02 53.65 0.5
BW06 14.26 89 eP 02 58.92 -1.0
1.0s 10.82nm 4.5mb
SRU 14.79 104 (P) 03 14.36 7.6X
RSSD 17.96 82 eP 03 47.64 0.4
0.8s 17.84nm 4.2mb
GLD 18.28 96 eP 03 51.52 0.3
1.7s 78.55nm 4.6mb
TUC 18.62 124 eP 03 53.50 -1.7
1.0s 8.49nm 3.9mb
YKA 20.15 20 eP 04 11.60 -0.8
0.9s 5.30nm 3.9mb
SLKM 20.63 330 eP 04 17.18 -0.4
PMS 20.91 332 eP 04 20.50 0.1
PMR 21.02 333 eP 04 21.00 -0.4
0.8s 18.15nm 4.5mb
RSO 21.55 327 eP 04 26.49 -0.7
CRP 21.84 329 eP 04 29.93 -0.1
CP2 21.87 329 eP 04 31.05 0.7
SVW 23.07 326 eP 04 42.10 0.1
FBA 23.19 340 eP 04 43.78 0.7
1.1s 4.31nm 3.9mb
ULM 23.21 63 eP 04 47.00 3.5X
ACO 23.90 98 iPc 04 51.30 1.0
TTA 24.30 330 eP 04 54.85 0.9
1.1s 10.54nm 4.4mb
WMOK 25.13 102 eP 05 01.03 -1.1
0.9s 40.31nm 5.1mb
MEO 25.24 101 iPd 05 02.80 -0.4
OCO 25.65 99 iPc 05 07.50 0.4
IMA 25.66 337 eP 05 06.48 -0.6
0.9s 8.53nm 4.4mb
FCC 25.83 43 eP 05 12.00 3.6X
FNO 25.84 99 iPd 05 19.20 10.4X
RES 34.09 15 eP 06 24.00 2.1
1.0s 3.00nm 4.2mb
JAO 35.51 55 eP 06 34.00 -0.3
OBN 80.30 8 eP 11 56.00 8.2X
S.D. = 1.1 on 46 of 53 obs.

MAR 01, 1993 12h 01m 06.19± 0.53s
44.252 N ± 5.7km 129.012 W ± 5.4km
DEPTH = 10.0km (geophysicist)
4.2mb (10 obs.)
OFF COAST OF OREGON (30)

BMW 4.64 59 eP 02 16.81 -1.3
SHW 5.16 66 eP 02 26.07 0.6
GMW 5.45 51 eP 02 29.25 -0.2
LON 5.64 61 eP 02 31.75 -0.5
LGPM 5.65 124 eP 02 33.54 1.1
RMW 5.97 55 eP 02 36.25 -0.5
VGB 5.99 75 eP 02 36.43 -0.5
LBFM 5.99 117 eP 02 40.50 3.3X
MCW 6.15 42 eP 02 39.91 0.7
ORV 7.31 127 eP 02 53.91 -1.6
DPW 8.34 61 eP 03 09.60 -0.5
ARN 8.92 138 eP 03 16.03 -2.1X
NEW 9.16 60 (P) 03 20.15 -1.2
MEMM 10.06 127 (P) 03 32.47 -1.2
BONR 10.24 124 (P) 03 37.45 1.0
TNP 10.81 121 eP 03 44.79 0.6
HHAI 12.07 89 (P) 04 01.42 0.2
TPNV 12.13 123 eP 04 02.62 0.6
PTI 12.16 91 (P) 04 02.52 0.1
DUG 12.67 103 (P) 04 08.70 -0.6
GSC 12.95 129 eP 04 11.65 -1.3
ARUT 13.40 113 eP 04 19.97 0.9
DAU 13.68 100 eP 04 24.32 1.4
BW06 14.20 89 (P) 04 31.15 1.6
0.8s 3.22nm 4.1mb
SRU 14.73 104 (P) 04 43.65 7.1X
RSSD 17.90 82 (P) 05 17.39 0.5
0.9s 11.15nm 4.0mb
GLD 18.22 96 (P) 05 21.33 0.4
0.9s 13.10nm 4.1mb
TUC 18.58 124 eP 05 23.79 -1.4
1.1s 7.95nm 3.8mb
SLKM 20.64 329 eP 05 46.91 -1.3
PMR 21.03 333 eP 05 51.20 -0.8
1.0s 20.83nm 4.5mb
RSO 21.57 327 eP 05 57.56 -0.3
CRP 21.86 329 eP 06 01.15 0.5
CP2 21.88 329 eP 06 02.27 1.3
ULM 23.15 63 eP 06 18.50 5.2X
FBA 23.20 340 (P) 06 13.69 0.0
0.9s 3.22nm 3.9mb
TTA 24.31 330 eP 06 25.60 1.0
1.1s 8.28nm 4.3mb
WMOK 25.07 102 eP 06 32.40 0.3
0.9s 21.46nm 4.8mb
IMA 25.67 337 eP 06 36.38 -1.2
1.0s 8.44nm 4.4mb
FCC 25.77 43 eP 06 45.00 6.6X
RES 34.05 15 eP 07 54.00 1.9
1.0s 3.00nm 4.2mb
S.D. = 1.0 on 35 of 40 obs.

% MAR 01, 1993 12h 08m 49.93± 0.82s
26.414 S ± 6.4km 27.431 E ± 8.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.0 (PRE).

PRY 0.51 176 eP 08 59.50 -0.7
S 09 05.90
KSR 0.73 319 eP 09 04.00 -0.5
S 09 13.50
SLR 1.02 49 eP 09 10.00 0.2
S 09 27.00
SEK 1.91 175 eP 09 24.00 0.4
S 09 47.00
SWZ 2.03 247 eP 09 26.00 0.7
S 09 49.10
S.D. = 0.8 on 5 of 5 obs.

* MAR 01, 1993 12h 36m 25.85± 2.04s
39.444 N ±20.0km 118.538 W ±12.9km
DEPTH = 5.0km (geophysicist)
NEVADA (37)
ML 2.8 (GS).

KVN 0.52 139 eP 36 36.38 0.1
eS 36 42.57
BONR 1.50 173 eP 36 53.76 0.1
S 37 12.77
TNP 1.71 142 eP 36 56.64 0.0
S 37 19.28
MRCM 1.77 179 (P) 36 56.90 -0.7
MEMM 1.80 190 eP 36 58.29 0.5
ORV 2.29 274 eP 37 04.95 0.0
S 37 40.38
S.D. = 0.5 on 6 of 6 obs.

% MAR 01, 1993 12h 43m 11.98± 0.43s
38.570 N ± 4.0km 14.539 E ± 4.6km
DEPTH = 10.0km (geophysicist)
4.0mb (3 obs.)
SICILY (398)
ML 4.2 (THE).

MNO 0.65 169 P 43 25.80 0.7
GIB 0.71 215 P 43 25.59 -0.4
GMB 1.12 111 P 43 33.00 0.0
SOI 1.29 112 P 43 35.56 -0.3
GRI 1.49 80 P 43 38.91 0.1
MEU 1.50 168 P 43 39.08 0.1
PZI 1.57 169 P 43 39.65 -0.3
IGT 4.61 76 ePn 44 23.90 0.6
eSn 45 16.22
FNA 5.72 65 ePn 44 40.46 1.4
eSn 45 42.70
AGG 6.10 83 ePn 44 44.66 0.2
eSn 45 51.06
LIT 6.35 74 ePn 44 47.74 -0.2
eSn 45 57.50
GRG 6.51 66 ePn 44 50.38 0.2
eSn 46 01.02
THE 6.82 70 ePn 44 54.82 0.3
eSn 46 08.30
KNT 6.93 65 ePn 44 55.42 -0.7
eSn 46 10.70
SOH 7.16 69 ePn 44 59.14 -0.2
eSn 46 17.66
PAIG 7.22 76 ePn 44 58.74 -1.4
eSn 46 17.78
SRS 7.42 67 ePn 45 03.10 0.2
KBA 8.55 354 iPc 45 20.20 1.4
1.0s 15.30nm 5.3mb X
ALN 9.16 72 ePn 45 25.94 -1.2
GEC2 10.29 357 Pn 45 41.50 -1.2
KHC 10.58 357 eP 45 45.50 -1.1
1.0s 3.50nm 4.7mb X
e 45 54.60
e 46 11.00
HFS 21.59 359 eP 48 03.90 0.2
0.6s 3.40nm 4.0mb
Z 17s 0.19um 3.6MszX
LR 56 04.00
OBN 22.23 35 eP 48 12.00 1.9
2.0s 180.00nm 5.2mb X
NB2 22.59 356 P 48 13.50 -0.2
1.0s 4.40nm 3.9mb
YKA 71.33 338 eP 54 32.20 -1.2
1.3s 2.20nm 4.1mb
LCCM 83.19 325 eP 55 40.90 1.2
S.D. = 0.9 on 26 of 26 obs.

& MAR 01, 1993 13h 23m 55.31s
59.743 N 153.490 W
DEPTH = 125.5km
SOUTHERN ALASKA (2)
<AEIC>.

OPT 0.16 124 eP 24 13.11 1.9
eS 24 25.20
PDB 0.36 278 iP 24 12.43 -0.9
AUL 0.36 176 eP 24 12.64 -0.8
INE 0.38 34 eP 24 12.71 -1.0
AUE 0.39 171 eP 24 12.68 -0.8
AUI 0.41 175 eP 24 12.76 -0.9
eS 24 26.04
MCNL 0.71 218 eP 24 14.61 -0.9
RS1 0.81 27 eP 24 15.83 -0.8
eS 24 31.37
RS2 0.81 27 eP 24 15.82 -0.8
eS 24 31.40
RSO 0.81 27 eP 24 15.71 -0.9
eS 24 31.10
RDW 0.82 24 eP 24 15.78 -0.9
eS 24 31.97
REF 0.85 27 eP 24 16.06 -0.9
eS 24 32.09
NCT 0.87 19 eP 24 16.07 -0.9
eS 24 31.96
DFR 0.94 25 eP 24 16.71 -1.0
eS 24 33.22
RDT 0.99 33 eP 24 17.12 -1.0
CNPM 1.17 100 eP 24 18.41 -1.4
SYI 1.27 153 eP 24 19.46 -1.4
BRLK 1.32 88 eP 24 20.83 -0.6
eS 24 38.72
NKA 1.51 47 eP 24 24.82 1.3
CKL 1.57 21 eP 24 23.61 -0.7
eS 24 45.59
CKT 1.60 23 iP 24 23.74 -0.9
eS 24 46.38
SPU 1.61 26 eP 24 23.72 -1.1
S 24 46.47
BGL 1.62 19 eP 24 24.36 -0.6
CKN 1.62 23 eP 24 24.31 -0.6
CP2 1.65 21 iPd 24 24.76 -0.6
CPAM 1.66 23 eP 24 24.64 -0.8
CRP 1.67 23 eP 24 24.40 -1.2
eS 24 47.85
SVW 1.73 323 iPd 24 25.15 -1.1
SLKM 1.81 63 eP 24 25.57 -1.6
SEW 2.07 78 eP 24 28.39 -1.9
KDC 2.07 165 eP 24 27.68 -2.6
SUA 2.19 37 eP 24 31.26 -0.8
MPA 2.20 68 eP 24 30.36 -1.6
SKT 2.44 22 eP 24 33.85 -1.3
PMS 2.46 51 P 24 33.90 -1.5
PTE 2.49 61 eP 24 34.28 -1.4
PWA 2.61 41 P 24 37.00 -0.3
PLRM 2.84 47 eP 24 38.25 -2.0
PMR 2.84 47 eP 24 38.63 -1.6
GHO 3.03 46 eP 24 40.73 -2.1
SML 3.27 48 eP 24 43.54 -2.5
HIN 3.56 76 eP 24 47.38 -2.6
SCM 3.68 53 eP 24 49.20 -2.3
VLZ 3.81 65 eP 24 51.29 -1.9
CVA 3.95 75 eP 24 51.71 -3.4
TRF 4.02 21 eP 24 54.53 -1.7
KLU 4.12 62 eP 24 54.69 -2.8
SGAM 4.21 76 eP 24 56.01 -2.7
BALM 5.68 72 eP 25 16.62 -2.0
FBA 5.81 25 eP 25 16.20 -4.2
50 obs. associated

% MAR 01, 1993 13h 54m 16.02± 0.88s
39.071 N ± 7.3km 27.656 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.74 205 iPg 54 30.40 -0.1
iSg 54 42.40
DST 0.92 54 iPn 54 33.90 0.2
EZN 1.28 307 ePn 54 40.10 0.4
EDC 1.28 7 ePn 54 39.00 -0.8
KCT 1.30 24 iPn 54 40.60 0.6
BNT 1.30 9 ePn 54 39.90 -0.2
S.D. = 0.7 on 6 of 6 obs.

MAR 01, 1993 14h 07m 38.96± 0.37s
42.720 N ±10.5km 131.468 E ± 5.3km
DEPTH = 540.7 ± 8.2 km
4.1mb (6 obs.)
E. RUSSIA-N.E. CHINA BORDER REG.(657)

MDJ 2.33 325 iPc 08 50.50 0.6
CN2 4.53 286 Pc 09 04.60 -0.3
eS 10 12.00
AOMJ 7.01 105 eP 09 28.10 0.7
MRRJ 7.10 89 eP 09 28.30 0.0
MTMJ 7.84 139 P 09 37.10 1.4
MAT 8.07 138 iPc 09 38.30 0.3
0.7s 10.27nm 4.1mb
ASAJ 8.25 76 eP 09 39.70 -0.1
OFUJ 8.54 112 P 09 41.70 -0.9
eS 11 19.70
HOOJ 8.73 88 eP 09 44.50 -0.1
CHJJ 8.85 136 P 09 45.50 -0.3
S 11 27.40
KAKJ 9.36 131 P 09 49.30 -1.7
S 11 33.60
KUSJ 9.73 83 eP 09 54.60 -0.2
BJI 11.80 262 eP 10 15.00 -0.9
0.7s 7.00nm 4.2mb

01d 14h

TIY 15.37 257 eP 10 52.90 1.0
BTO 16.17 270 eP 11 00.30 0.6
GTA 24.02 273 P 12 12.50 -0.5
0.8s 9.00nm 4.4mb
GUN 39.54 263 P 14 25.00 0.1
KKN 40.05 264 P 14 29.00 0.2
0.6s 12.00nm 4.7mb
PKI 40.08 263 P 14 29.00 -0.2
DMN 40.28 263 P 14 31.00 0.3
YKA 62.62 29 eP 17 11.80 0.1
0.6s 1.90nm 3.7mb
HFS 65.59 331 eP 17 28.50 -2.0
0.4s 0.80nm 3.7mb
LCCM 75.39 40 eP 18 30.40 2.0
S.D. = 1.0 on 23 of 23 obs.

---

* MAR 01, 1993 15h 36m 40.17± 1.25s
18.109 N ± 8.3km 100.651 W ±11.9km
DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

III 1.16 77 iP 37 00.00 -0.3
(S) 37 15.00
ACX 1.45 148 iP 37 04.00 -0.3
iS 37 25.00
CRX 1.59 35 iP 37 07.00 0.4
(S) 37 22.00
MRX 1.67 342 iP 37 07.50 0.1
iS 37 33.00
UNM 1.85 49 iP 37 10.00 -0.4
(S) 37 34.00
PPM 2.14 63 iP 37 14.50 -0.3
(S) 37 38.00
IIA 2.15 61 iP 37 09.00 -5.5X
CGX 3.10 301 (P) 37 34.00 5.9X
IISM 3.23 74 iP 37 32.00 2.3X
OXX 3.88 105 (P) 37 40.00 0.8
(S) 38 32.00
AGX 4.06 338 (P) 37 55.00 13.5X
S.D. = 0.5 on 7 of 11 obs.

MAR 01, 1993 16h 52m 18.67± 0.85s
25.978 N ± 6.0km 127.770 E ± 7.8km
DEPTH = 43.4 ± 7.8 km
4.7mb (18 obs.) 3.9Msz (1 obs.)
RYUKYU ISLANDS (238)

NAH 0.25 342 iP 52 27.40 0.7
S 52 32.00
BBP 7.67 225 ePd 54 04.00 -6.7X
SSE 7.71 313 eP 54 10.80 -0.4
sP 54 25.00
NJ2 9.87 310 eP 54 41.20 0.2
MAT 13.79 38 eP 55 32.00 -1.6
1.2s 28.13nm 4.9mb
eS 58 27.00
BJI 17.04 328 eP 56 16.00 0.7
Z 16s 0.29um
TIY 17.48 316 Pc 56 21.50 0.6
Z 22s 0.52um
N 12s 0.22um
CN2 17.88 355 eP 56 27.00 1.3
1.0s 12.00nm 4.0mb
epP 56 37.00
XAN 18.18 301 P 56 28.50 -1.0
0.7s 8.00nm 4.0mb
pP 56 33.00
HHC 20.02 322 eP 56 50.40 -0.3
KMI 22.59 273 eP 57 17.30 0.3
1.0s 30.00nm 4.7mb
LZH 22.79 302 eP 57 18.00 -0.8
1.5s 27.00nm 4.5mb
Z 20s 0.40um 3.9Msz
sP 57 32.00
GTA 26.95 307 P 57 55.00 -3.1X
0.6s 19.00nm 4.9mb
pP 58 11.00 68kmX
sP 58 18.00
CHTO 27.55 261 eP 58 02.30 -1.3
YAK 36.05 2 eP 59 16.60 -1.0
0.9s 26.00nm 5.2mb
WMQ 36.95 309 iPd 59 24.10 -1.4
1.2s 16.00nm 4.8mb
LEM 38.03 214 ePc 59 36.00 1.1
MTN 38.73 175 eP 59 39.00 -1.5
WRA 46.09 171 P 00 40.30 -0.1
0.6s 7.10nm 4.8mb
WB2 46.09 171 iPc 00 39.90 -0.5
0.6s 33.30nm 5.4mb
i 00 52.10
GBA 48.66 265 P 01 02.00 1.3
CTA 49.18 157 iPc 01 04.50 -0.1
1.0s 10.00nm 4.8mb
ASPA 49.71 173 iPd 01 08.50 -0.1
0.5s 16.30nm 5.3mb
e 01 20.10
WARB 51.87 181 eP 01 24.60 -0.3
QUE 53.28 289 eP 01 34.60 -1.1
RMQ 55.95 157 eP 01 54.90 0.0
MAIO 58.27 298 eP 02 12.00 0.6
IMA 61.92 27 (P) 02 39.40 3.3X
1.0s 3.50nm 4.4mb
epP 02 48.20 29kmX
esP 02 52.79
BWA 63.18 161 eP 02 45.80 1.2
CAN 64.19 161 eP 02 51.90 0.7
KAF 72.52 331 eP 03 41.00 -1.6
RES 75.87 11 eP 04 04.00 2.2
0.8s 2.00nm 4.1mb
UPP 77.31 331 iP 04 09.60 -0.4
SLL 78.82 333 eP 04 17.60 -0.7
0.6s 22.10nm 5.3mb
YKA 78.93 25 eP 04 18.30 -0.6
0.6s 0.90nm 3.9mb
NB2 79.36 334 P 04 20.90 -0.4
0.6s 4.00nm 4.6mb
KHC 85.06 323 eP 04 53.00 2.0
GEC2 85.15 323 PKP 04 52.30 0.7
0.7s 1.89nm 4.4mb
GRF 85.99 324 eP 04 57.40 1.8
S.D. = 1.1 on 36 of 39 obs.

---

* MAR 01, 1993 17h 19m 25.66± 0.58s
6.564 N ± 9.5km 72.679 W ±10.7km
DEPTH = 192.6 ± 8.9 km
4.6mb (1 obs.)
NORTHERN COLOMBIA (99)

BOG 2.37 216 iPd 20 08.00 -0.4
iS 20 38.00
SDV 3.07 41 iPnd 20 16.30 -0.1
iSn 20 53.70
TOV 4.29 42 iPnd 20 31.60 0.1
iPP 20 31.80
iSn 21 20.30
CEOS 4.95 60 iPc 20 40.40 0.3
iS 21 25.50
MORO 6.08 45 iP 20 53.90 -0.8
PSO 7.07 221 eP 21 08.50 0.5
GUAN 7.73 64 iP 21 17.20 0.6
ZOBO 23.15 169 ePc 24 21.50 4.7X
CNCB 23.69 169 P 24 26.30 4.4X
SIV 25.18 153 eP 24 35.00 -0.3
i 24 44.00
JAQ 47.16 358 eP 27 40.50 0.2
ULM 47.67 340 eP 27 45.50 1.1
YKA 63.65 340 eP 29 36.80 -1.3
0.6s 5.40nm 4.6mb
ASPA 149.32 234 ePKP 38 55.00 5.8X
0.6s 11.40nm
S.D. = 0.8 on 11 of 14 obs.

? MAR 01, 1993 17h 42m 06.64± 3.77s
31.462 S ±24.8km 68.473 W ±15.9km
DEPTH = 93.3 ± 36.4 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.13 1 iPc 42 20.20 -0.1
S 42 31.50
CFA 0.25 126 ePc 42 20.90 0.2
S 42 31.70
RTCB 0.28 265 eP 42 23.80 3.1X
RTCV 0.40 188 eP 42 21.20 -0.1
S 42 33.00
RTRS 1.54 326 ePc 42 33.50 0.0
RTPR 2.04 56 ePc 42 40.00 0.0
(S) 43 06.60
S.D. = 0.3 on 5 of 6 obs.

? MAR 01, 1993 18h 06m 46.08± 3.43s
36.964 N ±27.8km 6.383 W ±17.5km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.7 (MDD).

EVAL 0.68 335 eP 07 00.50 0.9
eS 07 10.60
EPRU 0.92 90 eP 07 17.00 13.3X
eS 07 31.50
EHOR 1.25 46 eP 07 10.00 0.8
eS 07 28.50
ELUQ 1.79 70 eP 07 16.50 -0.8
eS 07 41.00
ECOG 2.27 81 eP 07 24.50 0.1
eS 07 52.80
EBAN 2.39 59 eP 07 26.30 0.4
eS 07 56.20
EPLA 3.10 4 eP 07 34.50 -1.5
eS 08 13.00
EHUE 3.14 73 eP 07 37.00 0.5
eS 08 15.00
EVIA 3.50 60 eP 07 41.40 -0.3
S.D. = 1.0 on 8 of 9 obs.

MAR 01, 1993 18h 29m 25.65± 0.57s
44.215 N ± 6.0km 129.132 W ± 6.0km
DEPTH = 10.0km (geophysicist)
4.3mb (12 obs.)
OFF COAST OF OREGON (30)

BMW 4.74 59 eP 30 36.33 -2.5X
SHW 5.26 66 eP 30 45.77 -0.5
GMW 5.54 51 eP 30 49.63 -0.6
LGPM 5.71 123 (P) 30 51.15 -1.4
LON 5.74 61 eP 30 52.45 -0.6
LBFM 6.05 116 (P) 30 58.93 1.4
RMW 6.06 55 eP 30 58.00 0.5
VGB 6.08 75 eP 30 57.05 -0.7
MCW 6.24 42 eP 31 00.23 0.3
ORV 7.35 127 eP 31 14.23 -1.4
DPW 8.44 60 eP 31 29.24 -1.6
ARN 8.95 137 eP 31 35.43 -2.5X
NEW 9.26 60 eP 31 41.43 -0.7
TNP 10.87 120 (P) 32 03.44 -1.0
TPNV 12.18 122 eP 32 23.47 1.2
HVU 12.22 96 eP 32 24.32 1.5
PTI 12.24 90 (P) 32 24.18 1.1
LCCM 12.32 76 eP 32 24.10 0.0
GSC 12.99 129 eP 32 32.29 -0.7
ARUT 13.47 113 eP 32 39.83 0.4
SES 13.73 57 eP 32 35.00 -7.6X
MSU 13.94 108 eP 32 46.23 0.5
BW06 14.28 89 eP 32 50.29 0.1
0.9s 6.39nm 4.3mb
EMUT 14.31 102 (P) 32 51.50 1.0
PLM 14.44 135 eP 32 50.49 -1.7
SRU 14.81 104 eP 32 57.80 0.8
e 33 04.48
PV09 16.05 104 eP 33 13.97 0.7
PV10 16.17 104 eP 33 15.14 0.4
PV08 16.36 103 eP 33 17.48 0.3
RSSD 17.99 82 eP 33 37.22 -0.3
1.6s 47.84nm 4.4mb
GOL 18.22 96 eP 33 40.52 0.1
1.3s 33.46nm 4.3mb
GLD 18.31 96 eP 33 42.49 1.1
0.6s 43.59nm 4.8mb
TUC 18.63 123 eP 33 45.00 -0.3
1.2s 10.80nm 3.9mb
ALQ 19.73 110 eP 33 57.35 -1.2
0.8s 6.63nm 4.0mb
YKA 20.17 20 eP 34 00.80 -1.9
1.0s 10.70nm 4.1mb
SLKM 20.63 330 (P) 34 07.21 -0.3
PMS 20.91 332 eP 34 07.80 -2.6
CP2 21.87 329 eP 34 20.39 0.1
SVW 23.07 326 eP 34 33.50 1.5
FBA 23.20 340 (P) 34 32.05 -1.1
0.9s 2.73nm 3.8mb
ULM 23.24 63 eP 34 37.50 3.8X
TTA 24.30 330 eP 34 46.40 2.4
WMOK 25.15 102 ePc 34 52.01 -0.3
0.8s 24.87nm 5.0mb
MEO 25.26 101 iPd 34 53.30 -0.1
IMA 25.67 337 eP 34 57.50 0.4
1.1s 14.00nm 4.6mb
OCO 25.68 99 iPd 34 57.70 0.5
FCC 25.85 43 eP 35 04.00 5.4X
MIAR 28.94 97 eP 35 26.02 -0.9
1.2s 25.65nm 4.9mb
RES 34.11 15 eP 36 13.50 1.5
0.8s 2.00nm 4.1mb

JAQ 35.54 55 eP 36 25.50 1.0
JSC 37.91 88 eP 36 45.63 1.0
S.D. = 1.1 on 46 of 51 obs.

---

* MAR 01, 1993 18h 29m 40.79± 1.69s
36.643 N ±19.6km 70.843 E ±12.1km
DEPTH = 183.5 ± 19.7 km
4.8mb (6 obs.)
HINDU KUSH REGION, AFGHANISTAN (718)

QUE 7.21 208 eP 31 34.50 9.7X
eS 32 43.50
MAIO 9.15 271 ePn 31 50.00 -0.1
eSn 33 23.00
NDI 9.58 144 iPc 31 55.00 -0.7
0.5s 10.56nm 4.5mb
eS 33 34.00
DMN 15.06 123 P 33 05.40 -0.4
0.4s 32.00nm 5.1mb
KKN 15.06 122 P 33 05.30 -0.5
0.6s 28.00nm 4.8mb
PKI 15.29 122 P 33 10.00 1.3
0.6s 32.00nm 4.9mb
GUN 15.40 120 P 33 10.20 0.1
0.4s 14.00nm 4.7mb
HYB 20.33 158 eP 34 06.00 1.7
GBA 23.69 164 P 34 36.60 -0.4
YKA 81.11 3 eP 41 36.90 0.7
0.6s 0.60nm 3.5mb X
WB2 82.18 122 eP 41 40.80 -1.7
0.4s 3.50nm 4.4mb
S.D. = 1.2 on 10 of 11 obs.

? MAR 01, 1993 19h 25m 29.30± 6.43s
40.111 N ±22.8km 24.049 E ±55.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.4 (THE).

OUR 0.23 347 ePg 25 33.74 -0.5
eSg 25 37.06
PAIG 0.34 237 ePg 25 35.93 -0.3
eSg 25 39.78
SOH 0.89 323 ePg 25 45.66 -0.7
eSg 25 56.74
SRS 1.06 341 ePg 25 49.22 -0.1
eSg 26 03.90
KNT 1.37 321 ePb 25 55.30 0.9
eSb 26 11.94
S.D. = 0.9 on 5 of 5 obs.

---

* MAR 01, 1993 20h 03m 39.70± 0.87s
32.143 N ±11.2km 141.399 E ±21.4km
DEPTH = 33.0km (normal)
4.4mb (4 obs.)
SOUTH OF HONSHU, JAPAN (211)

KAKJ 4.18 346 P 04 44.20 1.5
CHJJ 4.38 334 P 04 45.70 0.1
IIDJ 4.42 320 P 04 54.50 8.3X
MAT 5.12 330 (P) 04 57.00 0.9
0.7s 12.33nm 4.5mb
(S) 06 00.00
YAMJ 6.12 350 eP 05 08.70 -1.5
OFUJ 6.93 2 eP 05 15.90 -5.6X
eS 06 33.10
GUN 47.81 280 P 12 16.00 -0.6
KKN 48.35 280 P 12 20.60 0.0
WB2 52.23 188 eP 12 40.50 -9.3X
0.8s 3.60nm 4.4mb
ASPA 55.96 188 eP 13 17.60 0.5
0.6s 4.40nm 4.7mb
NB2 78.69 338 P 15 38.10 -1.8
0.9s 2.00nm 4.1mb
ZOBO 148.92 66 ePKP 23 25.00 2.1
LPB 149.09 67 ePKP 23 22.00 -0.9
CNCB 149.34 67 ePKP 23 23.00 -0.4
SIV 154.02 57 (PKP) 23 48.00 18.4X
S.D. = 1.3 on 11 of 15 obs.

? MAR 01, 1993 20h 29m 12.23± 3.97s
40.670 N ±24.3km 23.400 E ±22.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

SOH 0.16 347 ePg 29 15.60 -0.3
eSg 29 17.80
THE 0.33 264 ePg 29 18.48 -0.6
eSg 29 23.04
SRS 0.47 18 ePg 29 20.96 -0.8
eSg 29 28.04
KNT 0.62 322 ePg 29 23.84 -0.9
eSg 29 32.36
S.D. = 0.5 on 4 of 4 obs.

---

* MAR 01, 1993 20h 47m 42.89± 0.52s
13.072 S ±12.6km 174.784 E ±14.2km
DEPTH = 33.0km (normal)
4.9mb (15 obs.) 4.9Msz (14 obs.)
FIJI ISLANDS REGION (181)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 21S, 28C
Centroid Location:
Origin Time 20:47:43.1 1.0
Lat 12.79S 0.09 Lon 175.16E 0.10
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-5.08 0.43 Mtt= 6.21 0.49
Mff=-1.13 0.66 Mrt=-7.85 1.96
Mrf= 0.82 1.74 Mtf= 0.67 0.42
Principal Axes:
T Val= 10.23 Plg=27 Azm=179
N -1.00 7 272
P -9.23 62 16
Best Double Couple:Mo=9.7*10**16
NP1:Strike=251 Dip=19 Slip=-112
NP2: 95 72 -83

DZM 11.97 220 iPd 50 33.90 -0.4
BRS 25.03 232 iP 53 09.00 3.4X
RMQ 27.82 237 eP 53 32.30 0.9
CN8 31.89 222 eP 54 08.00 0.5
1.0s 30.00nm 5.1mb
CMS 32.31 231 eP 54 11.20 0.1
1.0s 7.00nm 4.5mb
TOO 35.74 222 eP 54 41.50 0.8
1.0s 10.00nm 4.7mb
BFD 37.48 224 eP 54 54.60 -0.7
1.0s 22.00nm 5.0mb
WB2 39.29 254 eP 55 09.40 -1.3
0.7s 4.80nm 4.4mb
i 55 21.00
WRA 39.30 254 P 55 11.10 0.3
ASPA 40.08 249 iPc 55 16.60 -0.6
0.9s 19.80nm 4.9mb
Z 21s 0.90um 4.6Msz
HON 43.39 38 P 55 50.00 5.8X
Z 20s 1.09um 4.7Msz
MAT 60.20 326 eP 57 55.00 4.9X
0.9s 11.76nm 5.0mb
eS 06 11.00
SMY 65.53 360 P 58 30.00 5.0X
Z 19s 1.02um 5.0Msz
BJI 75.78 317 eP 59 27.50 0.2
2.0s 62.00nm 5.3mb
WDC 78.75 44 P 59 50.00 6.1X
Z 19s 0.99um 5.2Msz
CMB 79.08 47 P 00 00.00 14.2X
Z 19s 0.78um 5.1Msz
TTA 79.09 13 (P) 59 45.53 0.2
1.2s 3.19nm 4.2mb
ISA 79.46 50 P 00 00.00 12.1X
Z 19s 0.47um 4.9Msz
PMR 79.67 17 P 00 00.00 11.6X
Z 22s 0.81um 5.0Msz
FBA 82.71 15 eP 00 02.92 -1.4
1.6s 18.46nm 4.9mb
YAK 82.73 340 eP 00 05.10 0.7
1.6s 29.00nm 5.1mb
Z 24s 1.00um 5.1MszX
N 22s 0.50um
E 22s 0.50um
LZH 82.76 309 eP 00 06.00 0.6
2.0s 41.00nm 5.2mb
Z 18s 0.25um 4.6Msz
pP 00 10.50 14kmX
sP 00 13.50
TUC 84.15 55 eP 00 12.13 -0.3
0.9s 3.70nm 4.6mb
ALQ 88.40 54 P 00 40.00 6.6X
Z 21s 0.41um 4.8Msz
BW06 88.53 46 eP 00 33.79 -0.1
1.8s 15.05nm 5.0mb
GOL 90.60 49 P 00 50.00 6.3X
Z 21s 0.63um 5.0Msz
RSSD 92.77 45 eP 00 54.20 0.7
1.3s 4.22nm 4.7mb
Z 19s 0.13um 4.4Msz
MIAR 98.62 57 P 01 30.00 9.9X
Z 18s 0.18um 4.6Msz
RSNY 113.78 47 PKP 06 30.00 9.9X
Z 21s 0.32um 4.9Msz
HRV 116.13 49 PKP 06 30.00 5.4X
Z 19s 0.40um 5.0Msz
S.D. = 0.7 on 17 of 30 obs.

% MAR 01, 1993 20h 52m 44.76± 0.45s
39.381 N ± 3.9km 27.885 E ± 4.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.3 (ISK).

DST 0.62 69 iPg 52 56.50 -0.7
iSg 53 05.50
KCT 0.94 23 iPg 53 02.80 0.1
EDC 0.96 359 iPg 53 03.00 -0.1
iSg 53 16.00
BNT 0.97 2 iPg 53 02.60 -0.7
IZM 1.10 207 iPg 53 05.10 -0.3
iSg 53 20.10
EZN 1.28 291 iPn 53 08.90 0.4
YLV 1.65 44 ePn 53 14.30 0.4
KHL 1.66 129 ePn 53 14.00 -0.1
ALT 1.76 100 ePn 53 16.00 0.4
CTT 1.81 13 ePn 53 16.30 0.1
HRT 1.98 43 ePn 53 19.00 0.2
GPA 2.08 63 ePn 53 20.00 -0.1
EYL 2.11 55 ePn 53 21.00 0.3
DMK 2.44 358 iPn 53 25.20 -0.1
S.D. = 0.4 on 14 of 14 obs.

% MAR 01, 1993 21h 10m 43.52± 0.79s
26.377 S ± 6.3km 27.328 E ± 8.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.1 (PRE).

PRY 0.56 167 eP 10 55.00 0.2
S 11 02.00
KSR 0.64 323 eP 10 56.00 -0.4
S 11 05.50
SLR 1.07 54 eP 11 04.50 0.3
S 11 17.00
SEK 1.96 172 iPd 11 17.20 -0.7
S 11 40.60
SWZ 1.96 245 eP 11 18.50 0.6
S 11 44.40
S.D. = 0.7 on 5 of 5 obs.

MAR 01, 1993 21h 11m 52.83± 0.51s
38.147 N ± 4.6km 23.238 E ± 5.8km
DEPTH = 33.0km (normal)
GREECE (364)
ML 3.3 (ATH), 3.0 (THE).

ATH 0.42 115 ePb 12 02.00 -0.2
AGG 1.13 321 ePg 12 12.26 -0.1
eSg 12 27.54
VLI 1.45 190 ePn 12 17.00 0.1
PAIG 1.81 11 ePb 12 22.30 0.1
eSb 12 44.98
LIT 2.04 344 ePb 12 24.98 -0.5
eSb 12 49.42
VLS 2.09 272 ePn 12 26.00 -0.2
OUR 2.26 15 ePn 12 28.82 0.3
KZN 2.44 333 ePn 12 31.00 -0.3
IGT 2.66 302 ePn 12 35.26 1.0
eSn 13 07.98
SOH 2.67 2 ePn 12 34.90 0.4
eSn 13 06.98
SRS 2.98 5 ePn 12 38.94 0.1
eSn 13 12.66
FNA 3.00 332 ePn 12 38.42 -0.8
eSn 13 14.86
KNT 3.02 355 ePn 12 39.58 0.1
eSn 13 14.98
S.D. = 0.5 on 13 of 13 obs.

01d 22h

```
%  MAR 01, 1993  22h 14m 37.08± 2.00s
   45.091 S ± 9.2km  167.256 E ±15.9km
   DEPTH = 156.3 ± 13.4 km
 SOUTH ISLAND, NEW ZEALAND          (162)

MSZ      0.63  48 P       15 00.10   0.1
                  S       15 13.40
BCZ      1.00 156 P       15 02.60  -0.1
                  eS      15 17.70
TLC      1.29  95 P       15 05.30  -0.2
MMCZ     1.33  87 P       15 06.00   0.1
CMCZ     1.43  93 Pc      15 06.80   0.0
                  S       15 24.20
MHZ      1.43  90 P       15 06.90   0.0
SBCZ     1.46  91 P       15 06.90  -0.2
LRCZ     1.48  90 P       15 07.30  -0.1
LSCZ     1.50  92 P       15 07.30  -0.2
MSCZ     1.53  91 P       15 07.70  -0.1
TUZ      1.88 118 P       15 11.90   0.3
                  S       15 32.20
BWZ      1.95  74 P       15 12.40   0.0
LMZ      1.99  47 P       15 13.30   0.5
EWZ      3.03  60 P       15 25.50   0.0
MOZ      4.11  72 P       15 40.10   0.6
                  S       16 21.30
LTZ      4.29  59 P       15 41.30  -0.7
                  S       16 27.90
DSZ      4.70  46 eP      15 47.40  -0.1
KHZ      5.28  62 eP      15 55.50   0.5
THZ      5.29  53 eP      15 54.40  -0.9
ORZ      5.75  44 eP      16 01.80   0.4
                  S       17 03.50
    S.D. = 0.4  on  20 of  20 obs.
--------------------------------------
•  MAR 01, 1993  22h 18m 15.88± 0.37s
   31.234 S ± 5.9km   67.759 W ± 4.9km
   DEPTH =  10.0km  (geophysicist)
   5.3mb (  2 obs.)
 SAN JUAN PROVINCE, ARGENTINA     (137)
     MD 4.9 (SAN).

CFA      0.55 228 iPc     18 26.80  -0.4
RTLL     0.62 261 iPc     18 26.80  -1.5
ZON      0.85 248 iPd     18 31.50  -0.7
RTCV     0.91 227 ePd     18 32.80  -0.6
RTCB     0.92 254 ePd     18 33.00  -0.6
RTPR     1.42  49 iPd     18 40.20  -1.5
RTBS     1.51 253 iPd     18 43.70   0.8
RTRS     1.81 305 ePc     18 47.90   0.6
MDZ      1.89 209 iP      18 52.70   4.2X
                  i       19 19.70
                  i(S)    19 45.80
MRA      2.10 124 iPc     18 53.80   2.3
TCA      2.71  93 iPc     19 01.50   1.1
JACH     2.81 238 iPd     19 06.08   4.3X
FCH      2.99 225 eP      19 09.00   4.5X
                  iS      19 50.43
PEL      3.13 232 iP+     19 10.04   3.9X
                  iS      19 49.37
ROCH     3.26 237 iPd     19 11.07   2.8X
SAN      3.31 227 eP      19 12.37   3.6X
PCH      3.33 224 eP      19 13.10   4.0X
                  iS      19 57.40
TACH     3.61 227 eP      19 16.12   3.1X
CHCH     3.63 221 iP      19 17.04   3.6X
CACH     3.74 219 eP      19 18.93   3.9X
IHA      3.75 241 eP      19 16.00   1.0
                  i(S)    20 00.70
LCCH     3.92 234 eP      19 18.92   1.5
LNV      4.11 228 iPd     19 21.37   1.4
FSA      5.36  17 iP      19 38.50   0.7
                  (S)     20 41.00
SLA      6.78  18 ePc     19 58.30   0.2
ANT      7.86 342 eP      20 12.00  -1.0
HJA      8.26  15 ePd     20 19.00   0.5
CNCB    14.36 359 eP      20 42.00 -59.8X
                  S       23 30.00
LPB     14.64 359 Pc      20 44.00 -61.3X
      Z  15s      0.67um            4.9Msz
                  LR      27 13.00
ZOBO    14.88 359 ePc     20 37.00 -71.7X
         0.8s     13.17nm
      Z  18s      0.17um            5.0Msz
                  S       21 54.80
                  LR      27 53.00
SIV     16.36  23 P       22 09.70   2.5X
                  i       27 05.70
PPD     17.31  62 eP      22 18.60  -0.6
                  e       22 23.60
RIFB    21.34  63 e(P)    23 01.00  -4.4X
CDCB    23.42  68 eP      23 23.60  -2.5X
                  e       23 26.90
                  e       30 33.00
BAO     23.81  54 iPc     23 27.10  -2.8X
                  e       23 35.80
                  e       23 52.90
                  e       31 05.20
                  e       31 11.60
                  e       31 50.20
                  e       32 09.00
                  e       32 28.90
                  e       32 43.00
SOB1    33.23  54 eP      24 50.80  -4.6X
NVL     57.45 157 eP      28 05.00  -1.8
WIN     74.47 107 eP      30 14.00  17.3X
LMN     76.77   2 eP      30 11.00   2.1
FRS     77.60 117 eP      30 06.50  -7.5X
EEO     78.18 352 eP      30 18.50   1.8
BLF     78.57 117 eP      30 19.00  -0.6
         0.6s     19.00nm           5.3mb
SEK     80.06 117 eP      30 26.00  -1.7
PRY     80.64 116 eP      30 14.00 -16.8X
SLR     81.86 115 iPd     30 36.60  -0.6
         0.8s     26.00nm           5.4mb
ULM     84.87 342 eP      30 53.00   1.3
JAO     84.96 355 eP      30 50.00  -2.0
BUL     84.99 110 iPd     30 52.00  -1.2
WRA    124.87 206 PKP     37 17.80  -0.4
         0.5s      3.10nm
GBA    143.56 111 PKP     37 53.00  -0.1
HYB    146.51 106 iPKPc   37 58.50   0.4
         1.0s     40.00nm
YAK    147.18 345 ePKP    37 57.50  -0.3
         0.9s     36.00nm
    S.D. = 1.2  on  31 of  52 obs.
--------------------------------------
   MAR 01, 1993  22h 31m 03.76± 0.69s
   26.853 S ± 6.1km   26.777 E ± 7.5km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
     ML 3.0 (PRE).

BFS      0.05 171 iPd     31 06.60   1.3
                  S       31 07.70
PRY      0.63  97 iPd     31 15.50  -0.8
                  S       31 23.50
KSR      0.99   6 iPc     31 23.00  -0.1
                  S       31 36.00
BPI      1.31  59 eP      31 29.60   1.0
                  S       31 44.30
SWZ      1.34 255 eP      31 30.00   1.0
                  S       31 46.00
SEK      1.65 153 eP      31 33.50  -0.1
                  S       31 53.70
SLR      1.75  51 iPd     31 36.50   1.4
                  S       31 59.90
BLF      2.31 193 eP      31 41.70  -1.5
                  S       32 09.00
BFT      3.15  69 eP      32 03.50   8.3X
                  S       32 40.00
FRS      3.16 204 iPd     31 54.50  -0.6
                  S       32 29.00
BUL      6.89  15 ePn     32 46.40  -1.6
                  iSg     34 38.00
CIR      7.29  38 iPn     32 47.60  -5.9X
                  iSg     34 44.00
MTD     10.97  25 ePn     33 46.70   2.1X
                  iLg     37 08.00
    S.D. = 1.3  on  10 of  13 obs.
--------------------------------------
   MAR 01, 1993  23h 02m 55.78± 0.81s
   61.353 N ± 7.2km    5.709 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                   (535)
     MD 2.1 (BER).

HYA      0.30 129 iPc     03 03.73   1.8
FOO      0.40 308 eP      03 04.33   0.3
                  eS      03 11.00
SUE      0.55 238 ePc     03 07.76   0.9
                  eSg     03 16.36
ASK      0.91 196 eP      03 12.17  -1.0
                  eS      03 25.94
EGD      1.11 193 eP      03 15.69  -0.9
                  eS      03 31.68
MOL      1.50  35 eP      03 22.24  -0.4
                  eSg     03 41.92
NRA0     2.90 100 ePn     03 42.15  -0.7
                  ePg     03 47.56
                  eLg     04 26.06
    S.D. = 1.3  on   7 of   7 obs.
--------------------------------------
   MAR 02, 1993  00h 23m 59.64± 0.13s
    8.294 S ± 2.8km  122.303 E ± 3.8km
   DEPTH =  14.6km  (geophysicist)
   5.9mb ( 83 obs.)  5.1Msz ( 25 obs.)
 FLORES REGION, INDONESIA          (286)
     Mw 5.9 (GS), 5.7 (HRV). Felt
     strongly on Flores Island. Depth
     from broadband displacement
     seismograms.
     RADIATED ENERGY
      No. of sta:  14  Focal mech.  M
      Energy        1.7±0.4*10**13 Nm
     MOMENT TENSOR SOLUTION
     Dep  16            No. of sta: 16
     Moment Tensor;    Scale 10**17 Nm
       Mrr= 6.36        Mtt=-4.92
       Mff=-1.45        Mrt=-1.95
       Mrf= 1.00        Mtf=-3.34
      Principal axes:
       T  Val=  7.00   Plg=73   Azm=223
       N        0.05       16        61
       P       -7.05        5       330
     Best Double Couple:Mo=7.0*10**17
      NP1:Strike= 43 Dip=42 Slip=  66
      NP2:       254     52       110
     CENTROID, MOMENT TENSOR       (HRV)
     Data Used: GDSN
     L.P.B.: 36S, 66C
     Centroid Location:
     Origin Time           00:24: 8.5 0.2
     Lat  8.32S  FIX;Lon 122.29E  FIX
     Dep  30.6 2.1 Half-duration   1.5
     Moment Tensor;    Scale 10**17 Nm
       Mrr= 3.12 0.14  Mtt=-3.39 0.12
       Mff= 0.27 0.22  Mrt=-1.07 0.28
       Mrf= 0.35 0.25  Mtf=-1.81 0.13
      Principal Axes:
       T  Val=  3.44   Plg=72   Azm=227
       N        0.80       16        71
       P       -4.24        7       339
     Best Double Couple:Mo=3.8*10**17
      NP1:Strike= 51 Dip=41 Slip=  64
      NP2:       263     54       110

KHKI     6.63 269 ePd     25 38.30  -0.6
PCI      7.74 341 ePc     25 58.50   4.0X
MTN      9.78 118 eP      26 21.20  -1.7
                  eS      28 06.00
TNE     10.33  29 eP      26 35.50   5.1X
TSM     13.26 340 ePc     27 13.50   3.5X
LEM     14.63 275 ePd     27 29.20   1.0
         1.5s    111.11nm           5.2mb
      Z  24s      7.75um
                  eS      30 30.00
                  eLR     31 40.00
DAV     15.62  12 eP      27 44.10   3.1X
WRA     16.43 136 P       27 47.20  -4.2X
WB2     16.44 136 iPd     27 46.50  -5.0X
         0.4s     68.80nm           5.1mb
                  i       27 54.40
                  eS      30 34.30
CGP     16.81   8 ePc     28 02.20   6.1X
WARB    18.26 167 iPc     28 13.90  -0.4
         0.5s     86.00nm           5.2mb
PPR     18.30 349 iPc     28 18.00   3.2X
MEEK    18.58 190 iPc     28 18.60   0.4
                  i       28 24.50
ASPA    18.90 145 P       28 20.60  -1.5
PLP     19.51   8 ePc     28 31.00   1.5
KGM     21.52 298 ePd     28 53.70   3.3X
         1.3s    373.90nm           5.6mb
                  e       30 17.90
MRWA    21.64 195 eP      28 51.20  -0.4
         0.5s     51.00nm           5.2mb
PGP     21.70 356 ePd     28 54.50   2.3
TGY     22.29 356 eP      28 57.00  -1.2
OVP     22.80 357 eP      29 07.00   3.9X
BAL     22.81 193 eP      29 02.40  -0.7
                  e       29 10.00
```

```
QCP     22.81 357 eP     29 04.00   0.8
FORT    23.01 167 eP     29 05.40   0.3
KLB     23.56 190 eP     29 10.30  -0.2
        0.4s    36.00nm          5.3mb
MUN     24.24 193 eP     29 17.00   0.0
        0.7s   163.00nm          5.7mb
BAG     24.60 356 ePc+   29 22.00   1.1
                  eS     33 44.00
BCP     24.61 356 eP     29 26.00   5.1X
IPM     24.78 300 ePc    29 23.30   0.9
        1.5s   494.20nm          5.9mb
NWAO    24.96 190 ePc    29 24.97   1.0
                  eS     33 46.09
                  esS    33 53.04
CVP     25.84 359 ePd    29 35.00   2.7
        1.0s   149.00nm          5.6mb
CTA     25.97 119 P      29 35.00   1.4
CTAO    25.97 119 ePc    29 34.09   0.5
                  eS     33 59.12
PIP     26.50 356 eP     29 51.50  13.0X
STK     29.54 145 ePc    30 05.70  -0.2
        1.1s    18.10nm          4.8mb X
QIZ     29.80 336 P      30 10.80   2.4
        1.0s    44.00nm          5.2mb
    N  12s       1.14um
    E  13s       1.63um
                  S      35 05.50
ADE     30.52 153 eP     30 15.20   0.6
RMQ     30.94 129 iPc    30 18.60   0.2
        0.7s    52.00nm          5.5mb
                  e      31 11.30
                  eS     35 56.00
GUA     31.21  46 eP     30 19.20  -1.7
        0.8s   179.10nm          6.0mb
GUMO    31.22  46 ePc    30 19.70  -1.2
        1.2s   401.80nm          6.2mb
    Z  23s       1.18um          4.5MszX
PJG     31.22  46 eP     30 20.30  -0.6
HKC     31.43 345 eP     30 23.00   0.3
CMS     31.82 140 iPc    30 26.20   0.1
        0.9s   125.00nm          5.8mb
NST     32.39 317 eP     30 37.00   5.8X
GZH     32.40 344 Pc     30 30.00  -1.1
    Z  16s       2.61um          5.0MszX
    N  11s       1.89um
    E  13s       1.70um
                  eS     35 50.00
LOE     32.64 322 eP     30 34.00   0.6
KHT     32.84 314 iPc    30 36.60   1.5
BFD     34.12 150 iPc    30 46.00   0.0
        1.2s   155.00nm          5.8mb
                  e      32 10.00
BDT     34.27 318 iPc    30 48.20   0.7
        1.1s    30.00nm          5.1mb
BRS     34.51 127 iPd    30 49.50  -0.1
                  ipP    30 54.00  15kmX
                  iS     36 15.00
                  e(ScS)41 32.00
ARMA    35.16 133 iPd    30 56.80   1.6
        0.8s    54.00nm          5.5mb
BWA     35.39 141 eP     30 59.40   2.4
                  i      31 05.20
CHTO    35.44 320 iPc    30 59.34   1.8
        1.2s    17.36nm          4.8mb X
                  esPd   31 06.13
                  ePP    32 24.92
                  eS     36 32.00
TOO     35.92 148 iPc    31 02.60   1.2
        1.1s   342.00nm          6.2mb
                  e      32 30.40
CAN     36.34 142 eP     31 06.30   1.3
                  i      31 11.40
                  ePP    32 22.80
CNB     36.56 141 iPd    31 08.00   1.1
        1.1s   279.00nm          6.0mb
                  e      32 37.00
RIV     36.78 138 iPc    31 10.00   1.4
    Z  18s       0.48um          4.3Msz
SVO     37.08  94 eP     31 17.00   5.6X
GYA     37.74 337 iPc    31 18.60   1.7
        1.2s    60.00nm          5.3mb
    Z  24s       2.46um          4.9MszX
    N  15s       1.74um
    E  15s       1.55um
                  PP     32 51.00
                  PcP    33 35.00
                  S      37 08.00
```

```
                  sS     37 22.00
KMI     38.29 331 iPc    31 24.39   2.7
        2.0s   650.00nm          6.0mb
    Z  14s       4.30um          5.4MszX
    N  14s       3.00um
    E  14s       2.20um
                  esPd   31 29.94
                  iPP    33 01.31
                  eS     37 19.36
                  eSS    39 39.08
SSE     39.18 358 ePc    31 30.18   1.4
        2.0s   275.00nm          5.6mb
    Z  20s       1.40um          4.8Msz
    N  10s       0.70um
    E  10s       0.50um
                  ed     31 33.57
                  esPd   31 36.80
                  ePP    33 06.43
                  eScP   37 25.09
                  eS     37 32.71
                  eS     40 28.18
                  eSS    41 40.00
WHN     39.36 349 eP     31 32.00   1.7
        1.5s   160.00nm          5.5mb
    Z  18s       2.41um          5.1Msz
    E  14s       1.95um
NJ2     40.25 355 Pc     31 39.00   1.4
        1.2s    74.00nm          5.3mb
    Z  18s       1.06um          4.7Msz
    N  12s       1.18um
    E  11s       1.17um
                  pP     31 49.00  34kmX
                  PP     33 20.00
                  S      37 45.00
TAU     40.88 152 eP     31 45.00   2.3
CD2     42.84 336 iPc    31 59.00   0.0
    Z  17s       3.17um          5.3MszX
    E  14s       1.68um
                  pP     32 07.00  27kmX
                  PP     33 43.00
                  PcP    33 52.00
                  S      38 21.00
                  sS     38 44.00
                  ScS    41 54.00
TKSJ    43.50  14 P      32 10.10   5.9X
XAN     43.97 344 iPc    32 08.50   0.4
        1.0s    57.00nm          5.4mb
    Z  24s       6.83um          5.5MszX
    N  16s       1.75um
    E  14s       1.24um
                  ePcP   33 51.00
                  PP     33 56.00
                  PcS    37 43.00
                  S      38 36.00
                  eSS    41 46.00
                  ScS    41 56.00
WKYJ    44.12  16 P      32 10.70   1.4
YONJ    44.51  13 P      32 12.90   0.5
TIA     44.53 354 eP     32 12.70   0.1
        1.7s    32.00nm          4.9mb
    Z  20s       1.88um          5.0Msz
    N  13s       1.08um
    E  13s       1.15um
                  pP     32 20.50  26kmX
                  PP     33 56.40
                  S      38 50.00
DZM     44.57 113 iPc    32 14.10   0.8
TIY     46.69 349 Pc     32 30.00   0.3
    Z  22s       2.07um          5.0Msz
    N  13s       1.17um
                  pP     32 38.00  27kmX
                  S      39 17.00
                  sS     39 28.00
CHJJ    46.82  19 P      32 30.10  -0.6
MTMJ    46.96  17 P      32 31.80  -0.1
DL2     46.96 359 eP     32 31.50  -0.2
        1.0s    62.00nm          5.6mb
    Z  18s       1.20um          4.9Msz
    N  14s       0.89um
                  PP     34 28.00
MAT     47.03  18 eP     32 32.00  -0.4
        1.9s   436.84nm          6.2mb
                  eS     39 20.00
LZH     47.44 340 iPc    32 37.19   1.3
                  ed     32 40.25
                  epPd   32 41.58  15kmX
                  esPd   32 43.65
```

```
                  eS     39 30.51
                  e      39 47.07
                  eSS    42 59.09
LSA     48.22 323 iPc    32 43.76   1.3
        2.0s   428.00nm          6.2mb
    Z  22s       2.18um          5.1Msz
    N  13s       1.13um
                  ed     32 47.32
                  epPd   32 48.65  16kmX
                  esP    32 50.55
                  ePcP   34 09.01
                  iPP    34 39.47
                  ePS    37 58.00
                  iS     39 41.43
                  e      39 57.98
                  sS     40 10.00
                  SS     43 10.00
BJI     48.42 354 iPc    32 42.94  -0.2
        1.7s    40.80nm          5.2mb
    Z  21s       1.21um          4.9Msz
    N  16s       1.27um
                  ed     32 46.01
                  ed     32 48.08
                  esPd   32 49.57
                  eS     39 32.00
YAMJ    49.10  19 eP     32 50.20   1.7
GBA     49.57 296 P      32 50.40  -2.0
SNY     49.89   1 iPc    32 53.00  -1.4
        2.0s   270.00nm          5.9mb
    Z  46s       3.37um          5.0MszX
    E  12s       0.82um
                  pP     33 01.00  27kmX
                  PP     34 50.00
                  S      39 56.00
                  sS     40 15.00
HHC     49.89 349 Pc     32 55.00   0.3
        1.2s    81.00nm          5.6mb
    Z  24s       1.35um          4.9MszX
    N  14s       0.51um
    E  12s       4.71um
                  PP     34 46.00
                  S      40 05.00
                  S      40 07.00
BTO     49.95 348 iPd    32 54.50  -0.6
        1.8s   150.00nm          5.7mb
    N  13s       0.69um
    E  12s       0.67um
                  pP     33 02.00  25kmX
                  S      40 05.00
HYB     50.22 301 ePc    32 55.00  -2.4
                  eS     40 16.00
GUN     50.36 317 P      32 58.80   0.1
OFUJ    50.45  20 eP     32 59.00   0.2
PKI     50.46 316 P      32 59.00  -0.5
KKN     50.69 316 P      33 01.00  -0.1
DMN     50.69 316 P      33 01.00  -0.2
GTA     51.84 338 iPc    33 10.00   0.4
        1.0s   170.00nm          5.9mb
    Z  30s       3.02um          5.1MszX
    E  12s       0.52um
                  pP     33 20.00  33kmX
                  sP     33 24.00
                  PP     35 10.00
                  S      40 30.00
                  sS     40 48.00
VLA     51.91   9 iPc-   33 10.00   0.2
        1.5s     1.00nm          3.5mb X
                  i      33 30.50
                  e      34 23.50
                  e      35 09.00
CN2     51.93   3 eP     33 08.80  -1.1
        1.0s    16.00nm          4.9mb
    Z  24s       1.64um          5.0MszX
    N  10s       0.40um
    E  10s       0.40um
                  PcP    34 22.50
                  eS     40 28.00
MDJ     53.07   7 ePc    33 18.20  -0.3
                  epPd   33 22.76  15kmX
                  esPd   33 24.66
                  e      36 39.56
                  eS     40 47.26
MRRJ    53.31  17 eP     33 20.20   0.0
ERM     53.58  19 (P)    33 22.34   0.1
HOOJ    53.96  19 eP     33 26.00   1.0
MCQ     54.58 155 eP     33 35.10   5.6X
POO     54.73 300 iPc    33 26.00  -5.2X
```

02d 00h

QRZ 54.98 135 P 33 33.60 0.9
e 33 38.70
KUSJ 55.07 20 P 33 33.40 0.2
ASAJ 55.32 18 P 33 35.20 0.2
THZ 55.59 136 P 33 37.40 0.2
e 33 42.70
BOM 55.77 299 iP 33 37.00 -1.6
KHZ 56.28 136 P 33 41.70 -0.3
1.2s 354.00nm 6.3mb
e 33 47.40
TCW 56.36 134 P 33 41.90 -0.7
e 33 46.20
MRW 56.67 134 eP 33 43.80 -1.0
KIW 56.69 134 eP 33 44.30 -0.7
NDI 56.94 312 iPc 33 44.50 -2.4
0.8s 18.66nm 5.2mb
eS 41 38.00
MNG 57.01 133 P 33 46.50 -0.8
1.1s 226.00nm 6.1mb
e 33 51.80
HIA 57.36 358 iPc 33 49.03 -0.5
ed 33 51.93
epPd 33 53.01 13kmX
esPd 33 55.65
ePcP 34 43.19
ePP 35 56.30
YSS 57.98 16 iPc 33 53.40 -0.5
1.5s 340.00nm 6.2mb
Z 19s 0.50um 4.6Msz
N 19s 0.50um
ed 33 55.97
esP 34 00.27
eS 41 54.06
eS 41 55.21
ePS 42 04.00
eSS 45 44.00
KUR 58.03 21 iP 33 54.50 0.3
1.0s 300.00nm 6.3mb
(S) 41 56.00
(SSS) 48 02.00
HBZ 58.22 129 eP 33 55.00 -0.8
1.1s 404.00nm 6.4mb
e 34 01.40
PAF 59.60 217 eP 34 15.00 9.8X
PP 36 24.00
eS 42 03.00
SS 46 15.00
CIT 60.52 354 eP 34 12.00 0.6
WMO 60.61 332 iPc 34 12.76 0.5
esP 34 19.21
iS 42 28.59
ZAK 60.73 346 iPc+ 34 12.70 -0.1
2.0s 251.00nm 6.0mb
Z 17s 1.01um 5.0MszX
N 17s 0.78um
E 20s 0.86um
ePPP 37 54.00
eS 42 28.00
TLY 61.86 347 iPc 34 20.56 0.0
epPd 34 25.20 15kmX
esPd 34 27.18
eS 42 44.55
e 42 53.49
IRK 62.27 348 eP 34 22.00 -1.2
2.0s 194.00nm 5.9mb
Z 17s 0.77um 4.9MszX
N 20s 0.80um
E 18s 0.88um
e 34 44.00
e 34 57.00
eS 42 47.00
ePS 43 02.00
e 44 11.00
KSH 64.00 321 Pc 34 35.50 0.5
1.3s 170.00nm 6.1mb
Z 18s 2.13um 5.4Msz
N 15s 1.24um
E 14s 1.42um
pP 34 44.00 27kmX
sP 34 47.30
PcP 35 13.00
ePP 36 55.60
PcS 39 12.00
S 43 08.00
sS 43 22.00
ScS 44 23.00
SS 47 17.00

UER 64.38 341 iPc 34 35.50 -1.6
2.0s 300.00nm 6.1mb
e 43 17.00
PRZ 64.47 325 iPd 34 29.00 -9.1X
1.6s 400.00nm 6.3mb
QUE 65.45 308 eP 34 43.80 -0.9
TLG 65.54 325 iPc 34 45.60 0.7
1.5s 220.00nm 6.1mb
e 37 10.00
e 44 09.00
eSS 47 43.00
BOD 66.25 355 iPc 34 48.30 -0.7
AAK 66.81 324 ePc 34 52.86 -0.3
eS 43 41.08
FRU 66.86 324 iPc+ 34 53.00 -0.3
2.0s 260.00nm 6.1mb
eS 43 36.00
PET 68.44 23 iPc+ 35 03.00 0.0
1.5s 290.00nm 6.2mb
Z 20s 0.54um 4.8Msz
ELT 68.51 338 iPc 35 02.00 -1.4
2.0s 500.00nm 6.3mb
eS 44 01.00
YAK 70.33 4 iPc+ 35 13.90 -0.4
1.0s 342.00nm 6.4mb
Z 19s 0.80um 5.0Msz
N 16s 0.80um
eS 44 22.00
ePS 44 41.00
e 45 12.00
CRZF 70.57 224 eP 35 30.00 13.8X
eS 44 36.00
MGD 71.84 15 iPc+ 35 24.00 0.5
0.9s 150.00nm 6.1mb
Z 16s 0.70um 5.0MszX
e 35 50.00
e 38 00.00
eS 44 46.00
ePS 45 08.00
eSS 49 14.00
AVY 72.82 253 eP 35 30.80 0.4
TAN 72.99 253 eP 35 31.50 0.2
VTY 72.99 253 eP 35 31.30 -0.1
MAIO 73.69 312 iPc 35 35.00 0.0
1.5s 47.30nm 5.3mb
eS 45 04.00
SMY 75.02 30 P 35 43.20 1.0
1.0s 251.59nm 6.2mb
ASH 75.18 313 eP 35 42.50 -1.0
KAT 77.17 313 iP+ 35 53.00 -1.6
e 35 57.00
e 38 53.00
eS 45 48.00
TIK 79.88 2 iPc+ 36 08.00 -0.7
2.0s 570.00nm 6.2mb
Z 18s 1.00um 5.2Msz
i 39 09.00
eS 46 18.00
eSP 46 51.00
ePS 47 28.00
NRI 81.04 348 iPc+ 36 14.40 -0.6
1.7s 203.00nm 5.9mb
Z 18s 1.10um 5.3Msz
E 20s 2.20um
ePS 47 10.00
ARO 81.43 283 eP+ 36 19.00 0.8
SPA 81.76 180 iPc 36 19.70 0.6
2.0s 925.00nm 6.5mb
SVE 82.03 331 ePc 36 19.00 -1.4
2.2s 120.00nm 5.6mb
e 36 52.10
e 39 32.00
eS 46 31.00
ePS 47 40.00
eSS 51 55.00
BAK 82.18 313 iPc 36 22.00 0.5
iS 46 23.00
KER 82.61 306 iPc 36 22.60 -1.5
ARU 82.84 330 (P) 36 24.53 -0.1
epPd 36 28.50 13kmX
esP 36 31.48
ePP 39 39.84
ePPP 41 33.00
eS 46 40.00
ePS 47 44.00
HON 83.50 67 P 36 40.00 11.3X
Z 20s 0.61um 5.0Msz

GRS 84.56 311 iPc 36 33.20 -0.7
1.7s 80.00nm 5.7mb
eS 46 54.00
MAK 84.72 315 eP 36 34.00 -0.4
NAI 85.37 269 iPc 36 38.00 -0.6
Z 24s 1.12um 5.2MszX
PAE 85.74 107 iPd 36 46.70 6.7X
1.4s 227.40nm 6.2mb
PPT 85.76 107 iPd 36 46.70 6.6X
1.3s 163.20nm 6.1mb
PPN 85.90 107 iPd 36 47.70 6.9X
1.5s 263.20nm 6.2mb
TVO 86.04 107 iPd 36 49.50 7.9X
1.5s 297.00nm 6.3mb
GRO 86.04 315 eP 36 38.00 -3.0X
2.0s 240.00nm 6.0mb
Z 14s 0.50um 5.1MszX
N 18s 2.00um
E 18s 0.50um
e 40 02.00
ERE 86.10 311 iP+ 36 41.00 -0.5
2.2s 34.00nm 5.2mb
MTA 86.25 313 iPc+ 36 42.40 0.3
1.0s 80.00nm 5.9mb
e 40 00.00
eS 47 04.00
eSS 52 50.00
PMO 87.70 105 iPd 36 56.30 6.7X
1.5s 194.30nm 6.2mb
CIR 87.74 249 iPd 36 50.00 0.2
TPT 87.96 105 iPd 36 57.60 6.7X
1.3s 184.80nm 6.2mb
PYA 88.05 315 iP 36 50.00 -0.8
1.3s 80.00nm 5.9mb
i 37 20.00
i 40 20.00
KIV 88.30 315 ePc 36 51.09 -1.0
2.9s 193.00nm 5.9mb
epPd 36 55.31 13kmX
esPd 36 58.12
ePP 40 22.04
eS 47 21.90
BFT 88.48 244 eP 36 35.50 -18.0X
1.0s 40.00nm
NVL 88.82 198 eP 36 55.00 1.0
1.8s 181.00nm 6.1mb
e 37 05.00
e 37 35.00
SDN 89.56 34 P 36 56.40 -1.2
1.0s 117.56nm 6.1mb
SLR 90.04 244 eP 37 03.50 2.7
1.0s 72.00nm 5.9mb
SEK 90.20 241 iPc 37 01.50 -0.1
1.0s 100.00nm 6.0mb
GRM 90.25 236 eP 36 49.00 -12.6X
1.0s 100.00nm
SOC 90.32 314 eP 36 54.00 -7.5X
PRY 90.56 243 iPc 37 04.00 0.8
1.0s 60.00nm 5.8mb
BUL 90.62 250 iPd 37 03.50 0.0
KSR 91.25 244 iPd 37 05.50 -0.9
1.2s 30.00nm 5.5mb
BLF 91.31 240 iPc 37 06.70 0.0
0.7s 22.00nm 5.6mb
HRI 91.64 303 iPc 37 07.30 -0.6
PRNI 91.82 300 eP 37 08.20 -0.6
FRS 91.94 240 iPc 37 09.70 0.4
0.7s 38.00nm 5.9mb
ZNT 92.07 302 eP 37 09.40 -0.4
SVW 93.38 29 P 37 15.30 0.0
1.1s 23.79nm 5.5mb
TTA 93.55 27 P 37 15.40 -0.7
1.1s 7.91nm 5.0mb
MOS 93.80 326 eP 37 16.00 -1.2
e 41 07.00
ePS 49 45.00
OBN 94.28 325 eP 37 21.00 1.6
1.9s 70.00nm 5.7mb
e 41 04.00
e 49 49.00
BRW 94.90 19 P 37 23.20 1.2
CP2 95.02 29 P 37 25.00 2.0
CRP 95.06 29 P 37 21.20 -2.0
IMA 95.09 24 P 37 22.10 -1.1
1.2s 11.97nm 5.2mb
SLKM 95.91 30 P 37 24.90 -2.0
CER 96.20 235 iPd 37 36.50 7.6X

```
         0.6s     28.00nm             5.9mb
PMR     96.55   29 P     37 40.00   10.3X
     Z  20s      0.67um               5.1Msz
POF     96.59  239 eP    37 32.00    1.4
KLU     98.07   29 P     37 38.00    1.3
WIN    100.67  245 e(Pdif37 34.00  -15.5X
SRO    105.49  317 iPKP  42 39.30   15.5X
ZST    106.27  318 ePKP  42 43.00   17.8X
PRU    107.72  320 ePKP  42 41.50   13.6X
                   e     43 08.00
BRG    107.96  321 ePKP  42 25.00   -3.3X
         1.6s     36.00nm
                   e     42 55.40
GEC2   108.43  319 PKP   42 40.50   11.1X
         1.4s      5.54nm
                   e     42 54.60
                   e     43 01.90
RES    110.34   10 ePKP  42 30.00   -2.2X
YKA    112.20   25 ePdiff38 42.70    3.1X
         1.0s      0.90nm
YKA    112.20   25 ePKP  42 33.50   -2.5X
         0.8s      2.20nm
WDC    114.41   49 PKP   42 50.00    9.0X
     Z  19s      0.73um               5.3Msz
CMB    116.52   52 PKP   42 50.00    4.8X
     Z  20s      0.75um               5.3Msz
ISA    118.47   54 PKP   43 00.00   11.0X
     Z  19s      0.80um               5.4Msz
TNP    118.96   51 PKP   42 49.60   -0.4
SES    119.23   36 ePKPd 42 48.40   -1.5
LCCM   120.49   41 ePKP  42 51.90   -0.7
PTI    121.19   45 PKP   42 53.20   -0.9
HVU    121.26   46 PKP   42 53.30   -0.9
DUG    121.71   48 PKP   42 52.50   -2.6X
FCC    122.51   22 ePKP  42 57.00    1.3
MSU    122.68   49 PKP   42 57.40    0.3
EMUT   123.29   47 PKP   42 57.50   -0.8
SRU    123.73   48 PKP   42 58.30   -0.8
PV09   124.95   48 PKP   43 01.00   -0.6
PV10   125.07   49 PKP   43 01.40   -0.4
PV08   125.29   48 PKP   43 02.20   -0.1
TUC    125.42   56 PKP   43 02.30   -0.1
     Z  19s      0.53um               5.2Msz
RSSD   126.26   40 PKP   43 02.30   -1.6
     Z  20s      0.25um               4.9Msz
GOL    127.25   46 PKP   43 05.40   -0.6
     Z  20s      0.57um               5.2Msz
GLD    127.34   46 PKP   43 05.30   -0.8
ULM    127.54   30 ePKP  43 07.50    1.7
JAQ    132.35   14 ePKP  43 15.00    0.1
WMOK   134.08   49 ePKP  43 18.48   -0.3
     Z  19s      0.86um               5.5Msz
EEO    137.63   22 ePKP  43 25.00   -0.2
MDZ    137.70  166 e(PKP)43 23.50   -2.3X
MIAR   137.97   46 (PKP) 43 24.65   -1.5
     Z  19s      0.52um               5.3Msz
FVM    138.22   40 ePKP  43 26.98    0.5
FVM    138.22   40 PKP   43 20.50   -6.0X
OLY    138.95   44 PKP   43 26.70   -1.2
CBM    140.48   11 PKP   43 31.40    1.1
RSNY   141.03   19 PKP   43 24.80   -6.6X
LMN    142.08    8 ePKP  43 35.00    1.8
GBTN   143.54   38 PKP   43 32.60   -3.4X
TKL    143.81   37 PKP   43 31.30   -5.2X
GPD    144.17   22 PKP   43 34.50   -2.4X
NAV    144.32   32 PKP   43 34.00   -3.3X
PNJ    144.38   22 iPKP  43 35.23   -2.0
PAL    144.38   21 PKP   43 35.00   -2.2X
BLA    144.60   32 PKP   43 35.20   -2.6X
FSA    144.89  167 iPKPc 43 38.50    0.0
CVL    144.99   29 PKP   43 36.60   -1.8
CBN    145.33   28 ePKP  43 38.00   -0.9
         1.0s     70.00nm
PRM    145.73   38 PKP   43 39.50   -0.3
JSC    146.26   37 PKP   43 40.00   -0.6
CEH    146.29   32 ePKPc 43 40.52   -0.1
                   ed    43 45.98
SLA    146.31  167 ePKP  43 41.10   -0.1
LHS    146.38   36 PKP   43 39.30   -1.5
SGS    147.46   37 PKP   43 42.10   -0.4
HBF    147.72   37 PKP   43 42.70   -0.3
HJA    147.79  167 ePKPc 43 45.40    2.1X
CDCB   148.91  204 ePKP  43 36.60   -8.8X
                   e     43 42.70
                   i     43 49.60
                   i     43 55.20
                   e     44 05.40
```

```
PPD    149.22  192 iPKPc 43 50.20    4.5X
                   i     43 55.90
RIFB   150.08  199 ePKP  43 33.00  -14.1X
                   e     43 47.30
                   e     43 53.00
ARE    151.87  151 ePKP  43 58.00    7.8X
NNA    152.28  136 ePKPc 43 46.63   -3.9X
                   ePKPbc43 55.24
CNCB   153.06  158 PKPc  43 53.90    1.7
                   i     44 01.00
CCH    153.16  162 ePKP  44 02.00   10.0X
LPB    153.27  157 PKPc  43 51.30   -1.0
     Z  21s      3.58um               6.2MszX
                   eLR   37 30.00
ZOBO   153.50  157 ePKPc 43 53.11    0.3
         1.5s     69.89nm
                   epP'df43 57.75
                   LR    37 30.00
BAO    154.36  202 ePKP  43 53.50    0.1
                   e     44 06.90
                   e     44 16.80
SIV    155.64  172 PKP   43 59.80    4.8X
                   i     44 28.80
SOB1   155.87  224 ePKP  43 54.80   -0.6
                   e     44 21.90
PSO    159.22  109 ePKP  44 02.50    2.6X
BOG    163.33  102 e(PKP)44 06.00    1.9
SDV    167.19   86 ePKP  44 06.50   -0.7
CAR    170.63   76 iPKP  44 02.00   -7.1X
         S.D. = 1.1  on 201 of 266 obs.
----------------------------------------------
& MAR 02, 1993  00h 29m 11.80s
   36.670 N               89.490 W
   DEPTH =    8.7km
 NEW MADRID, MISSOURI  REGION       (486)
        <SLM-P>. MD 3.0 (SLM). mbLg 3.1
        (GS). Felt (IV) at East Prairie,
        Kewanee and Lilbourn; (III) at
        Matthews and New Madrid; (II) at
        Portageville.

NMMO     0.10  211 iPd   29 14.59    0.3
                   S     29 16.90
DWM      0.13    0 iPc   29 15.04    0.2
                   S     29 17.33
OGTN     0.25  179 iPc   29 17.11    0.1
                   S     29 20.79
LDMO     0.27  193 iPc   29 17.23   -0.1
BBTN     0.28  175 iPc   29 18.71    1.0
                   S     29 23.35
ACTN     0.35  156 iPc   29 19.00    0.0
                   S     29 23.95
GRT      0.41  173 iPd   29 19.85   -0.3
HATI     0.51  197 eP    29 21.12   -1.1
                   S     29 28.28
MFTN     0.51  171 iPc   29 21.86   -0.3
                   S     29 28.88
ELC      0.65   19 iPc   29 23.54   -1.3
                   eS    29 32.24
WGAR     0.99  215 eP    29 30.18   -0.5
                   S     29 43.51
FVM      1.51  331 eP    29 37.90   -1.1
                   eS    29 57.09
NHIL     1.64   40 eP    29 40.81   -0.1
                   S     30 03.73
BPIL     1.69   25 iPc   29 41.89    0.3
                   S     30 04.23
OLY      1.98  235 eP    29 45.33   -0.6
                   eS    30 11.34
WDIN     2.00   44 ePc   29 46.26    0.1
                   S     30 13.07
TYS      2.04  336 ePd   29 46.65   -0.1
SLM      2.05  343 eP    29 46.67   -0.2
                   S     30 13.79
CCMO     2.19  340 eP    29 49.20    0.3
                   S     30 18.29
MIAR     3.95  239 eP    30 12.55   -1.3
                   eSg   31 13.84
GBTN     4.39  102 eP    30 20.69    0.5
TKL      4.73  101 (Pn)  30 27.37    2.3
                   eS    31 36.75
           22 obs. associated
----------------------------------------------
• MAR 02, 1993  00h 40m 13.39± 1.71s
   66.938 N ±16.1km  150.546 W ± 8.4km
   DEPTH =   10.0km  (geophysicist)
 NORTHERN ALASKA                    (676)
```

```
          ML 3.0 (AEIC).

IMA      1.53  237 eP    40 40.88    0.0
                   eS    41 04.56
FYU      2.14   98 eP    40 49.61    0.0
                   S     41 17.78
MDM      2.20  153 eP    40 51.09    0.5
                   S     41 21.30
FBA      2.34  150 ePn   40 52.79    0.3
                   eS    41 25.70
GLM      2.35  145 eP    40 53.00    0.3
                   S     41 26.24
NEA      2.45  165 eP    40 54.01    0.0
                   S     41 28.82
CCB      2.56  153 eP    40 55.17   -0.5
HDA      2.95  148 eP    41 00.29   -0.8
       S.D. = 0.5  on   8 of   8 obs.
----------------------------------------------
% MAR 02, 1993  00h 51m 46.02± 0.78s
   41.007 N ± 7.8km   22.476 E ± 4.9km
   DEPTH =   10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 1.9 (THE).

GRG      0.08  228 ePg   51 48.70    0.2
                   eSg   51 50.50
KNT      0.35   64 ePg   51 53.58    0.3
                   eSg   51 58.82
THE      0.53  135 ePg   51 56.10   -0.6
                   eSg   52 03.86
SOH      0.69  105 ePg   51 59.54   -0.2
                   eSg   52 10.38
SRS      0.85   82 ePg   52 02.46    0.0
                   eSg   52 14.14
FNA      0.86  255 ePg   52 02.26   -0.4
                   eSg   52 13.02
LIT      0.91  179 ePg   52 03.90    0.5
                   eSg   52 16.06
PAIG     1.42  139 ePb   52 11.98    0.2
       S.D. = 0.4  on   8 of   8 obs.
----------------------------------------------
% MAR 02, 1993  00h 55m 06.55± 0.51s
   39.698 N ± 4.4km   27.627 E ± 4.9km
   DEPTH =   10.0km  (geophysicist)
 TURKEY                             (366)
      MD 3.1 (ISK).

EDC      0.67   16 iPg   55 20.00    0.1
                   eSg   55 30.00
BNT      0.70   19 iPg   55 20.30    0.0
                   eSg   55 30.30
DST      0.78   96 iPg   55 22.30    0.5
                   iSg   55 33.30
KCT      0.79   45 iPg   55 22.00    0.1
                   eSg   55 34.00
EZN      1.01  278 iPg   55 26.10    0.4
                   iSg   55 40.10
IZM      1.33  192 iPn   55 30.80   -0.3
CTT      1.57   23 ePn   55 34.10   -0.4
YLV      1.60   56 ePn   55 35.10    0.2
ISK      1.75   38 ePn   55 37.00   -0.1
ALT      2.03  108 ePn   55 41.00   -0.3
DMK      2.12    3 ePn   55 42.30   -0.2
       S.D. = 0.3  on  11 of  11 obs.
----------------------------------------------
% MAR 02, 1993  01h 11m 51.23± 0.89s
   32.916 S ± 8.6km   70.724 W ± 9.9km
   DEPTH =   33.0km  (normal)
 CHILE-ARGENTINA BORDER REGION      (127)
      MD 3.8 (SAN).

PEL      0.23  172 iPd   11 59.93    1.7
                   iS    12 10.79
ROCH     0.25  257 iP+   11 59.84    1.2
                   iS    12 10.31
JACH     0.26   25 iP    11 57.90   -0.7
                   iS    12 07.46
FCH      0.55  139 iPd   12 02.94    0.1
                   iS    12 16.10
PCH      0.72  166 iPd   12 05.08    0.0
                   iS    12 19.94
TACH     0.76  194 iP+   12 05.36   -0.1
                   iS    12 20.07
LCCH     0.90  232 iP+   12 07.15   -0.4
CHCH     1.02  177 iPd   12 08.60   -0.6
                   iS    12 26.35
LNV      1.19  209 iP+   12 10.32   -1.2
```

02d 01h

```
                iS         12 28.91
      S.D. = 1.1  on   9 of   9 obs.
----------------------------------------
%  MAR  02, 1993  01h 47m 56.23± 2.94s
   42.441 N ±11.4km    18.490 E ±20.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.7 (TTG).

HCY      0.01  46 iPgc  47 57.40  -0.7
                  iSg   47 58.29
BDV      0.30 122 iPgd  48 02.12  -0.3
                  iSg   48 06.82
BRY      0.46   5 iPgd  48 05.30  -0.3
                  iSg   48 12.35
NKY      0.53  45 iPgd  48 06.44  -0.5
                  iSg   48 14.57
TTG      0.57  91 iPgd  48 07.25  -0.5
                  iSg   48 15.90
PVY      1.11  82 iPgd  48 16.99  -0.1
                  iSg   48 34.09
      S.D. = 0.3  on   6 of   6 obs.
----------------------------------------
?  MAR  02, 1993  01h 59m 29.90± 8.50s
   43.465 N ±17.6km     5.398 E ±68.6km
    DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE        (379)
      ML 3.1 (STR).

CDR      0.34  52 ePd    59 35.60  -1.4
                  iPgd   59 36.00
CALN     1.12  75 Pg     59 51.93   0.9
TOUF     1.45  67 Pn     59 56.95   0.6
                  Sg     00 17.28
AURF     1.46  73 Pn     59 56.35  -0.1
                  Sg     00 17.52
SBF      1.53  74 Pn     59 57.67   0.3
                  Sg     00 20.20
AUTN     1.56  69 Pn     59 58.69   0.7
                  Sg     00 20.96
SAOF     1.65  71 Pn     59 59.01   0.0
                  Sg     00 23.26
PGF      2.80 108 Pn     00 14.55  -1.1
      S.D. = 1.0  on   8 of   8 obs.
----------------------------------------
•  MAR  02, 1993  02h 45m 45.27± 0.54s
   15.186 N ±17.7km   92.167 W ± 9.6km
    DEPTH =  90.9 ± 10.7 km
   3.9mb (  1 obs.)
 MEXICO-GUATEMALA BORDER REGION  ( 62)

TPX      0.29 198 iP     45 57.50  -1.4
                  iS     46 08.00
BVA      1.57 109 ePd    46 13.07   0.5
SCX      1.61 344 iP     46 18.50   5.7X
                  iS     46 40.00
TER      1.68 121 eP     46 14.04   0.2
                  eS     46 35.94
GCG      1.69 110 eP     46 14.45   0.4
                  eS     46 38.76
IXG      1.94 121 ePc    46 16.96  -0.4
                  eS     46 43.88
MRL      2.39  93 ePc    46 24.47   0.9
YUP      2.49 113 ePc    46 24.49  -0.3
OXX      4.77 294 iP     46 57.00   0.7
IISM     6.25 308 (P)    47 16.50  -0.2
PPM      7.28 303 iP     47 33.00   1.6
III      7.68 295 (P)    47 36.50   0.0
MEO     20.35 345 iPd    50 14.70  -2.0
SIV     43.62 134 P      53 42.70   0.2
YKA     49.84 347 eP     54 26.80  -3.9X
      0.8s      1.00nm           3.9mb
      S.D. = 1.1  on  13 of  15 obs.
----------------------------------------
?  MAR  02, 1993  03h 37m 14.51± 5.78s
   33.510 S ±11.1km   72.666 W ±44.8km
    DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE        (134)
      MD 4.1 (SAN).

LCCH     0.92  88 iPd    37 31.54  -0.5
IHA      0.99  61 eP     37 33.20   0.0
                  iS     37 44.10
LNV      1.14 113 iP+    37 36.44   0.7
                  iS     37 49.86
TACH     1.45  96 iPd    37 40.23  -0.6
                  iS     37 56.57
ROCH     1.49  69 iP+    37 40.98  -0.5
                  iS     37 58.61
SAN      1.68  89 iPd    37 44.25   0.2
                  iS     38 03.12
PEL      1.70  78 iPd    37 44.31  -0.1
                  iS     38 04.89
CHCH     1.73 105 eP     37 44.90   0.0
                  iS     38 05.76
PCH      1.80  94 iP+    37 45.79  -0.1
                  iS     38 07.24
CACH     1.82 110 (P)    37 45.66  -0.6
                  eS     38 09.65
JACH     1.93  65 eP     37 47.21  -0.5
                  iS     38 11.39
FCH      2.00  85 iP     37 49.25   0.3
                  iS     38 12.29
MDZ      3.26  80 e(P)   38 15.00   8.2X
TCA      7.16  75 eP     39 03.70   1.8
      S.D. = 0.7  on  13 of  14 obs.
----------------------------------------
   MAR  02, 1993  04h 34m 07.98± 0.26s
   17.277 N ± 5.5km   46.365 W ± 3.7km
   DEPTH =  10.0km  (geophysicist)
   5.2mb ( 48 obs.)  4.7Msz ( 16 obs.)
 NORTHERN MID-ATLANTIC RIDGE       (403)

FCV     14.93 256 eP     37 39.79  -1.1
TRN     16.01 248 eP     37 56.19   1.3
CAR     21.05 254 iPc    39 01.00   6.2X
TOV     23.94 255 eP     39 25.00   1.6
SDV     25.04 254 eP     39 35.20   1.0
SOB1    26.87 168 eP     39 50.40  -0.5
BAO     32.74 183 eP     40 42.00  -1.4
                  e      40 49.00
HRV     33.07 325 P      41 00.00  14.1X
      Z  19s      1.06um         4.6Msz
KDS     33.30  93 eP     40 50.00   1.8
CEH     34.42 309 eP     40 56.88  -0.8
        0.9s     20.82nm         5.0mb
CBM     34.60 333 P      41 10.00  10.9X
      Z  21s      0.72um         4.4Msz
CVL     34.86 313 eP     41 01.66   0.2
LHS     35.19 306 eP     41 04.64   0.3
RSNY    36.04 325 P      41 20.00   8.6X
      Z  20s      0.62um         4.4Msz
PRM     36.27 304 (P)    41 14.18   0.7
ZOBO    39.66 214 Pd     41 42.50  -0.2
        1.0s     20.00nm         4.7mb
                  LR     53 10.00
LPB     39.84 214 Pd     41 42.50  -1.5
        1.2s     46.88nm         5.0mb
      Z  20s      0.71um         4.5Msz
                  LR     54 00.00
CNCB    40.01 213 eP     41 45.00  -0.6
ARE     41.68 218 eP     41 58.00  -0.9
NNA     41.86 228 iP     42 02.00   1.8
ELC     42.55 307 eP     42 06.59   1.0
JAQ     42.98 335 eP     42 08.50  -0.4
FVM     43.66 307 eP     42 14.75   0.1
        1.1s     45.32nm         5.2mb
      Z  20s      1.23um         4.8Msz
                  e      42 20.71
OLY     43.87 303 eP     42 16.28  -0.1
                  e      42 22.10
MIAR    45.38 302 P      42 40.00  11.5X
      Z  20s      0.78um         4.6Msz
UYO     46.04 301 iPd    42 34.10   0.4
EPF     47.07  47 eP     42 44.40   2.6
        1.6s     88.30nm         5.6mb
LPF     47.96  40 eP     42 48.80   0.2
        1.3s     71.10nm         5.6mb
MFF     47.96  42 eP     42 49.10   0.4
        1.3s     68.95nm         5.6mb
LSF     48.92  43 eP     42 56.40   0.2
        1.6s     70.90nm         5.5mb
TCF     49.38  43 eP     43 00.00   0.3
        1.4s     88.45nm         5.6mb
MEO     49.50 301 iPc    43 01.10   0.3
MAF     49.59  43 eP     43 01.70   0.4
        1.6s     67.15nm         5.4mb
WMOK    49.66 301 eP     43 01.01  -1.0
        1.1s     14.21nm         4.9mb
      Z  21s      1.36um         4.9Msz
BGF     49.88  43 eP     43 03.70   0.1
        1.3s     51.25nm         5.3mb
HYF     49.98  42 eP     43 04.50   0.2
ACO     50.20 304 iPc    43 05.20  -1.0
AVF     50.29  43 eP     43 06.30  -0.3
        1.3s     49.80nm         5.3mb
SSF     50.47  43 eP     43 07.60  -0.4
        1.6s     81.45nm         5.4mb
SMF     50.56  43 eP     43 08.80   0.1
        1.4s     42.25nm         5.2mb
LBF     50.76  43 eP     43 09.80  -0.4
        1.3s     30.35nm         5.1mb
LOR     50.77  43 eP     43 10.00  -0.3
        1.6s     64.05nm         5.3mb
      Z  23s      0.22um         4.1MszX
ULM     51.35 321 eP     43 16.00   1.4
DOU     52.16  39 P      43 27.10   6.3X
BSF     52.83  43 eP     43 25.20  -0.8
        1.4s     39.65nm         5.2mb
WLF     52.98  40 P      43 29.00   2.2
CDF     53.31  42 eP     43 28.80  -0.7
        1.3s     24.90nm         5.0mb
FCC     54.06 332 eP     43 36.50   1.9
RSSD    55.06 312 eP     43 41.90  -0.7
        1.0s      6.32nm         4.6mb
      Z  21s      0.59um         4.6Msz
GLD     55.32 307 eP     43 45.67   1.1
        1.0s     16.92nm         5.0mb
GOL     55.43 307 P      44 00.00  14.6X
      Z  20s      0.87um         4.8Msz
MOTA    55.54  44 iPd    43 45.30  -0.6
        1.1s     34.40nm         5.3mb
                  i      43 51.70
SQTA    55.58  44 iPc    43 46.10  -0.1
        1.3s     66.20nm         5.5mb
                  i      43 52.10
WATA    55.85  44 iPc    43 47.80  -0.4
WTTA    55.88  44 iPd    43 47.60  -0.8
        1.3s     44.60nm         5.3mb
                  i      43 54.30
GRF     56.15  41 eP     43 49.00  -1.1
      Z  18s      0.20um         4.2Msz
                  e      43 56.40
MOX     56.62  40 eP     43 53.40  -0.1
        1.6s     38.00nm         5.2mb
KBA     56.99  45 iPd    43 47.40  -9.0X
        1.2s     31.20nm         5.2mb
                  i      44 02.50
KHC     57.53  42 P      44 00.00   0.0
        1.3s     19.30nm         5.0mb
                  i      44 06.00
                  e      44 11.00
                  e      45 17.50
GEC2    57.55  43 Pc     43 59.40  -0.8
        1.1s      5.90nm         4.5mb
                  e      44 05.90
                  e      44 10.60
CLL     57.63  40 iPc    44 00.40  -0.2
        1.4s     25.00nm         5.1mb
                  i      44 06.60
BRG     58.12  40 eP     44 03.60  -0.4
        1.4s     36.00nm         5.2mb
                  e      44 06.20
PV10    58.18 305 eP     44 04.68  -0.3
PV09    58.26 305 eP     44 06.01   0.4
PRU     58.31  42 eP     44 05.50   0.1
                  e      44 16.50
SRU     59.37 306 eP     44 12.81  -0.4
VRAC    59.51  43 eP     44 13.70   0.1
        1.2s     71.50nm         5.7mb
NB2     59.52  28 P      44 12.80  -0.9
        1.1s     11.00nm         4.9mb
TUC     59.58 298 eP     44 14.26  -0.3
        1.0s      7.55nm         4.8mb
      Z  18s      0.53um         4.7Msz
                  e      44 20.84
EMUT    59.63 306 eP     44 15.10   0.1
                  e      44 21.24
ZST     59.67  44 eP     44 13.90  -1.0
DAU     59.99 307 (P)    44 18.89   1.3
HFS     60.38  30 eP     44 18.20  -1.3
        0.8s     15.90nm         5.2mb
SRO     60.43  44 eP     44 20.20   0.2
MSU     60.65 305 eP     44 21.77  -0.2
SES     60.77 318 ePc    44 21.20  -1.2
LCCM    60.80 313 eP     44 21.20  -1.6
DUG     61.17 307 (P)    44 24.49  -0.9
HVU     61.19 309 (P)    44 26.13   0.6
ARUT    61.64 304 eP     44 28.82   0.1
                  e      44 34.64
SPC     61.86  43 eP     44 36.50   6.5X
```

GLA 62.95 299 (P) 44 38.94 1.6
RES 63.08 347 eP 44 38.00 0.6
UZH 63.16 44 ePc 44 39.80 1.5
GSC 64.44 301 eP 44 47.26 0.1
NEW 64.53 316 eP 44 45.81 -1.6
1.1s 40.45nm 5.5mb
e 44 52.47
PLM 64.63 299 eP 44 48.57 0.0
YKA 64.79 332 eP 44 46.00 -2.8
1.3s 6.70nm 4.7mb
PEC 64.83 300 eP 44 50.05 0.4
1.2s 28.25nm 5.3mb
DPW 65.24 315 eP 44 50.51 -1.6
ISA 65.77 302 eP 44 56.35 0.6
1.0s 13.73nm 5.1mb
Z 21s 0.84um 4.9Msz
e 45 02.66
NUR 65.78 31 eP 44 54.00 -1.1
MNK 66.77 38 eP 45 00.00 -1.6
KAF 66.78 29 eP 45 00.00 -1.5
CMB 67.12 305 P 45 10.00 5.8X
Z 19s 0.50um 4.7Msz
ORV 67.87 306 eP 45 08.86 0.0
WDC 68.58 307 P 45 20.00 6.7X
Z 19s 0.54um 4.8Msz
OBN 72.01 37 eP 45 34.00 0.2
2.3s 130.00nm 5.6mb
i 45 45.00
PRNI 74.19 63 eP 45 54.50 7.4X
MZDA 74.25 62 eP 45 55.20 7.9X
HRI 74.27 60 eP 45 54.10 6.5X
KIV 77.55 48 eP 46 07.50 1.5
1.6s 85.00nm 5.6mb
FBA 79.27 335 eP 46 14.55 -0.3
1.2s 21.52nm 5.0mb
e 46 21.94
KLU 79.46 331 eP 46 16.01 0.0
e 46 23.58
ERE 79.71 51 iP+ 46 20.00 2.2
PMR 80.89 332 eP 46 23.64 0.1
1.6s 43.14nm 5.2mb
Z 19s 0.33um 4.7Msz
IMA 81.17 337 ePd 46 25.41 0.3
1.8s 33.25nm 5.1mb
GRS 81.25 51 eP 46 27.00 0.9
1.3s 40.00nm 5.3mb
SLKM 81.76 331 eP 46 27.91 -0.2
RSO 82.95 331 eP 46 34.43 -0.1
ARU 83.79 33 ePc 46 40.00 1.4
2.5s 160.00nm 5.8mb
SVE 84.67 32 eP 46 35.80 -7.3X
2.2s 60.00nm 5.4mb
ILT 88.30 344 iPd 47 02.00 1.4
1.4s 18.00nm 5.2mb
TIK 91.25 2 eP 47 14.00 -0.4
1.0s 8.00nm 5.0mb
HON 102.81 297 Pdiff 48 20.00 12.2X
Z 20s 0.12um 4.4Msz
S.D. = 1.0 on 99 of 115 obs.

---

* MAR 02, 1993 04h 56m 11.96± 0.54s
53.195 S ±10.2km 72.644 E ±15.5km
DEPTH = 10.0km (geophysicist)
5.0mb (6 obs.)
KERGUELEN ISLANDS REGION (433)

MAW 15.21 194 iP 59 48.20 0.2
0.6s 46.51nm 5.0mb
NVL 31.70 213 eP 02 37.00 -0.3
1.4s 27.00nm 5.0mb
STK 52.87 95 eP 05 31.20 1.3
1.8s 1.30nm 3.6mb X
ASPA 54.26 82 eP 05 39.10 -1.1
1.1s 7.80nm 4.7mb
WB2 57.38 80 eP 06 02.10 -0.6
1.0s 5.70nm 4.6mb
GBA 66.65 5 P 07 05.00 0.3
CHTO 75.23 26 eP 07 57.40 1.0
PKI 81.19 11 P 08 28.40 -0.9
1.0s 38.00nm 5.4mb
DMN 81.19 11 P 08 28.80 -0.4
1.0s 68.00nm 5.6mb
KKN 81.39 11 P 08 30.60 0.4
GUN 81.58 12 P 08 31.40 0.1
S.D. = 0.8 on 11 of 11 obs.

? MAR 02, 1993 04h 58m 42.20± 2.01s
54.464 N ±36.5km 161.303 W ±22.9km
DEPTH = 33.0km (normal)
4.0mb (3 obs.)
ALASKA PENINSULA (12)

SDN 0.99 28 eP 58 59.93 0.1
(S) 59 18.21
ADK 9.59 261 (P) 01 00.99 0.1
KLU 10.76 43 eP 01 13.56 -3.5X
BALM 12.05 49 (P) 01 30.76 -3.7X
YKA 25.18 53 eP 04 05.70 0.1
0.7s 0.50nm 3.2mb
NB2 64.69 4 P 09 23.20 4.6X
0.9s 3.00nm 4.4mb
NUR 65.28 357 eP 09 28.00 5.8X
HFS 65.68 3 eP 09 24.60 -0.3
0.4s 0.80nm 4.1mb
S.D. = 0.3 on 4 of 8 obs.

---

* MAR 02, 1993 05h 00m 26.45± 0.51s
53.205 S ± 9.5km 72.749 E ±14.4km
DEPTH = 10.0km (geophysicist)
5.1mb (8 obs.)
KERGUELEN ISLANDS REGION (433)

MAW 15.21 195 iP 04 02.50 -0.1
0.6s 40.70nm 5.0mb
NVL 31.72 213 eP 06 52.00 0.0
STK 52.80 95 eP 09 44.70 0.8
0.7s 2.00nm 4.2mb
ASPA 54.20 82 iPc 09 54.10 -0.1
1.0s 8.10nm 4.7mb
WB2 57.32 79 eP 10 15.90 -0.9
0.8s 6.40nm 4.7mb
GBA 66.66 5 P 11 18.00 -1.2
BDT 73.73 26 eP 11 46.80 -15.4X
PKI 81.19 11 P 12 44.00 0.2
0.9s 21.00nm 5.2mb
DMN 81.19 11 P 12 44.20 0.5
1.0s 51.00nm 5.5mb
KKN 81.39 11 P 12 45.60 0.9
1.0s 42.00nm 5.4mb
GKN 81.52 11 P 12 45.00 -0.3
GUN 81.58 12 P 12 46.00 0.2
0.8s 46.00nm 5.6mb
S.D. = 0.7 on 11 of 12 obs.

? MAR 02, 1993 05h 19m 34.03± 8.70s
29.433 S ±66.1km 69.509 W ±52.6km
DEPTH = 130.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

RTLL 2.09 155 ePc 20 09.50 -0.2
RTCB 2.14 164 eP 20 10.40 0.2
RTBS 2.22 179 eP 20 11.10 -0.1
CFA 2.43 153 ePd 20 13.80 -0.1
S 20 50.00
RTCV 2.56 161 ePd 20 15.70 0.1
RTPR 2.74 109 ePd 20 17.90 0.0
S.D. = 0.2 on 6 of 6 obs.

MAR 02, 1993 05h 26m 53.53± 0.85s
31.142 S ±12.6km 67.852 W ± 6.6km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.56 250 iPc 27 04.80 -0.2
CFA 0.57 215 ePc 27 04.00 -1.1
S 27 11.90
ZON 0.81 240 iPc 27 10.00 0.7
eS 27 21.00
RTCB 0.88 247 eP 27 11.30 0.8
RTCV 0.93 219 eP 27 10.70 -0.5
S 27 24.00
RTPR 1.43 54 eP 27 18.50 -0.9
S 27 36.10
RTBS 1.46 249 ePc 27 21.50 1.6X
S 27 42.00
MDZ 1.93 206 iP 27 30.40 3.6X
iS 27 54.30
MRA 2.22 125 ePc 27 31.70 0.8
TCA 2.80 95 iP 27 39.60 0.3
PEL 3.12 230 iPd 27 49.00 5.2X
iS 28 28.50
FSA 5.29 18 e(P) 28 18.50 4.0X
S.D. = 0.9 on 8 of 12 obs.

% MAR 02, 1993 06h 06m 58.41± 3.11s
38.799 N ±15.9km 26.411 E ±25.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.1 (ISK).

IZM 0.78 121 iPg 07 13.60 0.0
iSg 07 26.60
EZN 1.03 356 ePn 07 17.90 0.1
DST 1.90 64 ePn 07 31.00 -0.2
EDC 1.91 36 ePn 07 31.00 -0.3
BNT 1.94 36 ePn 07 31.10 -0.7
KCT 2.09 45 ePn 07 35.00 1.1
S.D. = 0.8 on 6 of 6 obs.

MAR 02, 1993 06h 12m 05.62± 0.71s
6.274 S ± 4.0km 147.258 E ± 5.1km
DEPTH = 64.3 ± 6.7 km
5.3mb (40 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 36S, 59C
Centroid Location:
Origin Time 06:12: 9.2 0.3
Lat 6.25S 0.04 Lon 147.16E 0.05
Dep 22.1 4.2 Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr= 0.27 0.07 Mtt=-0.67 0.07
Mff= 0.40 0.10 Mrt=-1.70 0.40
Mrf=-2.52 0.58 Mtf=-0.62 0.08
Principal Axes:
T Val= 3.02 Plg=47 Azm=110
N 0.24 13 214
P -3.26 40 316
Best Double Couple:Mo=3.1*10**17
NP1:Strike=109 Dip=14 Slip= 165
NP2: 213 87 77

FINC 0.69 120 eP 12 17.70 -2.4
YYYY 1.28 271 eP 12 30.20 2.2
MDG 1.79 305 eP 12 35.80 1.0
PMG 3.11 182 iPc 12 54.10 0.7
MNDI 3.58 272 eP 13 04.00 3.8X
WWKK 4.48 306 eP 13 15.00 2.4
RAB 5.30 67 iPd 13 24.00 -0.2
0.5s 845.07nm 6.3mb
iS 14 28.00
HNR 12.95 105 eP 15 06.00 -2.7
CTA 13.77 184 iPc 15 21.00 1.7
0.9s 18.91nm 4.7mb
ipP 15 29.50
i 15 50.00
ePP 16 30.00
eS 18 00.00
e 21 00.00
MTN 17.19 246 eP 16 02.50 -0.5
WB2 18.49 221 iPd 16 17.70 -1.4
0.5s 64.80nm 5.1mb
eS 16 21.20
eS 19 31.70
GUA 19.82 353 e(P) 16 33.20 -0.7
0.7s 263.01nm 5.7mb
GUMO 19.87 353 e(P) 16 27.10 -7.4X
1.3s 363.60nm 5.5mb
Z 28s 4.07um
RMQ 20.15 176 iPd 16 37.10 -0.2
0.6s 76.00nm 5.2mb
TNE 21.09 289 eP 16 52.50 5.5X
ASPA 21.54 215 iPd 16 52.10 0.6
0.5s 84.90nm 5.4mb
Z 23s 3.00um 4.6MszX
eS 20 50.90
eScP 24 29.30
eScS 28 11.30
BRS 21.65 167 iPc 16 41.50 -11.0X
1.0s 21.00nm
Z 18s 30.00um 5.7Msz
ipP 16 58.00 75kmX
iPP 17 15.00
eS 20 42.00
DZM 24.29 132 iPd 17 18.10 -0.4
ARMA 24.37 171 eP 17 19.40 0.3
0.7s 58.00nm 5.2mb
CMS 25.12 183 eP 17 27.00 0.9
0.8s 15.00nm 4.5mb

```
02d  06h

STK      26.02 191 iPd    17 34.50    0.0
         0.6s    12.40nm            4.6mb
                 e        24 41.40
CGP      26.84 303 eP     17 46.00    3.9X
WARB     27.91 223 eP     17 52.70    0.9
         0.4s    25.00nm            5.2mb
BWA      28.03 178 eP     17 52.70   -0.1
                 i        17 56.30
                 i        18 10.00
                 eScP     24 50.30
CAN      28.95 177 eP     18 00.10   -1.0
                 e        18 03.60
                 e        18 14.10
                 eScP     24 53.20
ADE      29.62 194 iPd    18 07.40    0.3
FORT     30.32 214 eP     18 12.00   -1.2
BFD      31.06 187 iPd    18 19.40   -0.3
MEEK     33.97 230 iPc    18 44.70   -0.6
CVP      34.62 314 ePd    18 59.00    8.1X
         1.0s    83.00nm            5.6mb
COOL     34.63 222 eP     18 48.00   -2.8
MRWA     37.29 228 eP     19 13.00   -0.3
         0.4s     9.00nm            5.1mb
KLB      37.35 224 eP     19 13.00   -0.8
         0.4s    23.00nm            5.5mb
                 e        19 18.00
BAL      37.52 226 eP     19 15.00   -0.3
NWAO     38.50 223 eP     19 24.00    0.6
MUN      38.65 225 eP     19 25.00    0.3
                 e        19 30.00
RKG      39.65 221 eP     19 34.70    1.7
THZ      42.06 151 eP     19 52.90    0.2
         0.6s    19.00nm            5.1mb
TCW      42.32 149 P      19 54.80    0.1
IIDJ     42.45 349 eP     20 00.50    4.5X
MNG      42.51 148 eP     19 55.90   -0.5
                 e        20 14.60
LTZ      42.55 153 eP     19 56.70    0.0
MRW      42.55 149 eP     19 56.80    0.1
KAKJ     42.77 352 eP     19 59.00    0.5
CHJJ     42.81 350 eP     19 58.30   -0.5
KHZ      42.86 151 eP     19 57.90   -1.2
MTW      42.91 148 P      19 58.90   -0.7
BWZ      42.93 156 P      20 00.30    0.6
MOW      42.97 149 eP     19 59.20   -0.9
BLW      43.05 149 eP     19 59.90   -0.8
MAT      43.43 349 (P)    20 02.00   -1.8
         1.5s   152.78nm            5.6mb
      Z  19s      1.04um            4.8Msz
                 eS       26 25.00
MTMJ     43.54 349 eP     20 05.40    0.5
NIIJ     43.97 350 eP     20 05.90   -2.3
TUZ      44.02 158 P      20 09.10    0.6
         0.7s    65.00nm            5.5mb
                 e        20 29.80
KGM      44.64 279 eP     20 14.60    0.7
         1.0s   152.00nm            5.8mb
YAMJ     44.73 352 eP     20 16.60    2.3
SSE      44.75 328 Pc     20 14.50    0.0
         1.2s    45.00nm            5.2mb
      Z  20s      0.50um            4.4Msz
      N  10s      0.50um
      E  10s      0.50um
                 eS       26 46.00
                 SS       30 00.00
OFUJ     45.42 354 eP     20 19.30   -0.4
IPM      47.40 282 ePc    20 46.00   10.2X
         1.0s    96.90nm
HOOJ     48.56 356 eP     20 32.40  -11.9X
MRRJ     48.79 354 eP     20 47.50    1.4
KUSJ     49.19 358 eP     20 48.50   -0.6
ASAJ     50.33 356 eP     20 59.50    1.6
KUR      51.28   1 eP     21 04.00   -1.0
         1.2s   300.00nm            6.2mb
                 (S)      28 24.00
NST      51.51 296 eP     21 11.50    4.3X
KHT      52.59 294 eP     21 17.10    1.7
YSS      53.21 356 ePc    21 18.00   -1.4
         1.3s    50.00nm            5.4mb
      Z  20s      0.40um            4.5Msz
      N  20s      0.40um
                 e        21 38.80
                 (S)      28 44.00
CHTO     53.74 299 eP     21 23.40   -0.4
BJI      54.26 331 eP     21 24.00   -3.3X
         1.4s    48.00nm            5.3mb
      Z  24s      1.91um            5.1MszX

      N  16s      0.58um
                 eS       29 00.00
PET      59.85   8 eP     22 08.00    1.4
                 eS       30 22.00
PPN      62.71 106 iPc    22 27.80    1.3
         0.9s    39.00nm            5.5mb
TVO      62.89 107 iPc    22 29.30    1.5
         0.9s    71.10nm            5.7mb
PMO      64.13 104 iPc    22 37.50    1.6
         1.2s   197.60nm            6.0mb
VAH      64.39 104 iPc    22 38.80    1.2
         0.9s    43.60nm            5.4mb
TPT      64.40 104 iPc    22 39.10    1.4
         1.3s   166.10nm            5.8mb
RUV      64.63 104 iPc    22 40.50    1.3
         1.1s   127.50nm            5.8mb
CIT      64.77 338 eP     22 39.30   -0.3
MGD      66.22   2 eP     22 47.00   -1.6
         1.0s    20.00nm            5.0mb
      Z  18s      0.50um            4.8Msz
      N  18s      0.30um
                 e        23 00.00
                 eS       31 31.00
                 eSSS     38 47.00
ZAK      68.00 331 iPd    22 58.50   -1.5
         1.3s    54.00nm            5.4mb
      Z  19s      1.06um            5.1Msz
      N  17s      0.49um
      E  17s      0.99um
                 eS       31 43.00
                 eSS      36 23.00
GUN      68.23 303 P      23 00.60   -1.8
PKI      68.51 303 P      23 02.40   -1.7
KKN      68.69 303 P      23 03.80   -1.3
DMN      68.77 303 P      23 04.00   -1.6
BOD      69.29 342 eP     23 05.60   -2.2
         1.3s    35.00nm            5.1mb
GKN      69.30 303 P      23 07.00   -1.7
YAK      69.43 351 iPc    23 07.20   -1.4
         1.5s    77.00nm            5.4mb
HYB      71.80 291 eP     23 22.50   -1.3
GBA      72.06 286 P      23 27.00    1.7
ILT      77.81  13 iPd    23 56.50   -0.7
                 iS       33 44.00
ELT      78.29 328 iPd    23 58.00   -2.1
         1.5s    19.00nm            4.8mb
                 e        33 46.00
TIK      78.69 354 eP     24 01.00   -1.0
         1.5s    12.00nm            4.6mb
      Z  18s      0.50um            4.9Msz
                 e        24 05.00
                 e        34 08.00
PRZ      78.92 315 eP     24 03.00   -1.1
         1.4s    20.00nm            4.9mb
SVW      80.37  24 eP     24 13.02    1.7
         1.2s    15.53nm            4.8mb
FRU      81.68 315 eP     24 18.00   -0.5
                 e        24 43.00
SLKM     82.38  26 eP     24 20.53   -1.2
PMS      83.00  26 eP     24 27.40    2.4
IMA      83.72  21 eP     24 31.20    2.5
         1.2s    12.50nm            4.8mb
SPA      83.76 180 iPd    24 29.70    0.7
         0.5s    64.81nm            5.9mb
                 i        24 44.60
KLU      84.69  26 eP     24 33.17   -0.4
FBA      85.33  23 eP     24 38.10    1.5
NRI      85.48 342 iPc    24 35.40   -1.8
         1.5s    42.00nm            5.3mb
                 e        24 55.00
                 e        27 55.00
                 eS       34 55.00
                 ePPS     36 09.00
BRW      85.61  16 eP     24 40.60    2.7
YKA      99.29  28 eP     25 43.40    1.9
         0.8s     1.20nm            4.5mb
KHC     122.20 326 ePKP   30 56.50    1.7
                 e        31 26.00
GEC2    122.28 326 PKP    30 56.50    1.5
VBY     123.02 321 ePKP   30 56.00   -0.4
BSF     126.64 328 ePKP   31 05.20    1.6
         0.9s    13.25nm
HAU     126.77 328 ePKP   31 06.90    3.2X
         0.8s     9.00nm
      Z  23s      0.55um            5.2MszX
LBF     128.66 328 ePKP   31 10.90    3.6X
         0.8s     3.75nm

SSF     128.85 329 ePKP   31 10.20    2.6X
         1.0s    12.40nm
BCAO    128.93 271 iPKPd  31 09.00    0.2
         0.9s    14.00nm
                 id       33 13.00
                 id       34 27.00
BGF     129.53 329 ePKP   31 12.50    3.6X
         0.6s     4.25nm
TCF     130.03 329 ePKP   31 13.70    3.7X
         0.6s     4.50nm
ARE     135.51 121 ePKP   31 29.00    7.5X
CNCB    138.28 124 ePKP   31 20.00   -7.1X
LPB     138.33 123 (PKP)  31 21.00   -6.0X
ZOBO    138.42 123 PKP    31 18.20   -9.2X
         1.2s    20.27nm
TOV     143.16  82 ePKP   31 31.90   -3.3X
AVE     144.28 322 ePKP   31 38.00    1.5
MORO    144.55  80 iPKP   31 35.90   -1.7
TIO     145.76 319 iPKP   31 39.50    0.2
                 i        32 17.90
PPD     146.50 148 ePKP   31 41.10    0.5
                 e        31 42.90
                 e        31 55.20
RIFB    150.06 151 ePKP   31 50.30    4.0X
                 e        31 52.60
                 e        31 55.50
TRN     151.33  79 ePKP   31 54.62    6.4X
BAO     153.51 145 ePKP   31 54.90    3.5X
                 e        32 12.00
                 e        32 27.10
     S.D. = 1.3  on 101 of 125 obs.
-----------------------------------------
*  MAR  02, 1993  06h 33m 23.27± 2.05s
   34.412 S ±16.4km    70.766 W ± 8.4km
   DEPTH =    9.9 ±  4.6 km
 CHILE-ARGENTINA BORDER REGION      (127)
     MD 4.4 (SAN). Felt (IV) at San
     Fernando; (III) at Graneros,
     Santiago, Peumo, Rancagua and
     San Vicente de Tagua-Tagua,
     Chile.

CACH      0.32  25 iP     33 29.72   -0.3
CHCH      0.49  11 iP     33 32.94   -0.2
LNV       0.70 310 iP     33 37.61    0.5
TACH      0.77 349 iP     33 38.20   -0.1
PCH       0.82  15 iP     33 38.31   -0.9
SAN       0.96   5 iP     33 40.92   -0.7
                   iS     33 53.88
LCCH      1.15 324 iP     33 44.81    0.1
FCH       1.15  20 iP     33 44.17   -0.9
PEL       1.27   3 iP     33 46.18   -0.7
                   iS     34 03.18
ROCH      1.45 352 iP     33 49.44   -0.3
IHA       1.56 332 ePn    33 51.70    0.6
                   iPg    33 55.60
                   iSn    34 10.20
                   iSg    34 13.10
JACH      1.73   5 iP     33 53.34   -0.4
                   iS     34 15.70
MDZ       2.21  47 iP     34 03.70    3.1X
                   iS     34 33.50
RTBS      2.96  22 ePd    34 14.90    3.8X
RTCV      3.16  37 ePc    34 17.00    3.0X
RTCB      3.35  30 iPc    34 19.70    2.8X
ZON       3.35  32 eP     34 19.50    2.7X
                   eS     35 07.50
CFA       3.51  38 eP     34 21.50    2.5
RTLL      3.63  33 iPd    34 23.00    2.2
                   S      35 09.00
MRA       4.68  66 e(P)   34 34.60   -1.0
RTPR      5.45  42 ePd    34 47.00    0.4
TCA       6.03  61 e(P)   34 37.00  -17.8X
                   i      34 55.20
                   (S)    36 27.00
FSA       9.26  28 e(P)   34 50.00  -49.8X
CNCB     17.70   9 P      37 33.00    0.9
ARE      17.89 358 eP     37 36.00    1.9
LPB      17.97   8 eP     37 33.00   -2.2
ZOBO     18.20   8 P      37 37.30   -1.1
UYO      71.74 339 iPc    44 45.60   -1.9
     S.D. = 1.3  on  21 of  28 obs.
-----------------------------------------
   MAR  02, 1993  07h 12m 52.11± 0.42s
   39.772 N ± 4.7km    25.574 E ± 3.3km
   DEPTH =   10.0km  (geophysicist)
 AEGEAN SEA                         (365)
```

ML 3.6 (THE). MD 3.5 (ISK), 3.3 (ATH).

EZN	0.58	84	iPg	13 02.90	-1.0
			iSg	13 10.90	
PRK	0.75	134	ePb	13 07.00	0.2
			eSb	13 20.00	
ALN	1.18	18	ePg	13 14.30	0.2
			eSg	13 31.42	
OUR	1.34	295	ePb	13 36.50	19.7X
			eSb	14 33.66	
RDO	1.37	359	ePb	13 17.50	0.3
PAIG	1.47	277	ePb	13 17.90	-0.7
			eSb	13 37.06	
EDC	1.85	71	iPn	13 25.00	0.9
KDZ	1.88	356	iP	13 24.00	-0.6
IZM	1.90	136	iPn	13 24.10	-0.8
RZN	2.02	341	iP	13 26.00	-0.8
SRS	2.02	312	ePb	13 26.34	-0.3
KCT	2.19	77	ePn	13 29.80	0.7
DIM	2.28	359	iP	13 30.00	-0.3
MMB	2.29	323	iP	13 30.00	-0.6
DST	2.36	93	iPn	13 31.00	-0.6
KNT	2.47	305	ePn	13 33.90	0.9
			eSn	14 03.06	
CTT	2.58	57	ePn	13 35.80	1.2
AGG	2.62	254	ePn	13 36.02	0.8
DMK	2.63	38	ePn	13 36.40	1.0
GRG	2.70	297	ePn	13 37.54	1.2
			eSn	14 07.98	
PGB	2.97	340	iP	13 40.00	-0.2
YLV	3.02	74	ePn	13 41.00	0.1
HRT	3.30	70	ePn	13 45.00	0.1
VTS	3.33	328	iP	13 46.00	0.5
PVL	3.45	357	iP	13 45.00	-1.9
ALT	3.59	100	ePn	13 48.00	-1.0
EYL	3.60	76	ePn	13 50.00	0.8
MLR	5.72	3	ePd	14 22.50	3.2X

S.D. = 0.8 on 26 of 28 obs.

MAR 02, 1993 07h 14m 12.29± 0.87s
43.410 N ± 5.0km 5.415 E ± 6.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.8 (STR).

GELF	0.03	161	Pg	14 13.69	-0.6
TREF	0.22	354	Pg	14 16.48	-0.5
BERF	0.22	116	Pg	14 16.61	-0.6
PUYF	0.24	59	Pg	14 16.68	-0.8
CDR	0.37	44	ePgd	14 18.80	-1.1
PRAF	0.43	336	Pg	14 21.86	0.7
VILF	0.49	26	Pg	14 21.75	-0.6
TAVF	0.51	66	Pg	14 22.10	-0.6
GANF	0.69	31	Pg	14 25.85	-0.1
CALN	1.12	72	Pg	14 34.46	1.0
TOUF	1.46	65	Pn	14 39.68	0.8
			Sg	14 59.38	
AURF	1.47	70	Pn	14 39.55	0.7
			Sg	15 00.29	
SBF	1.54	72	Pn	14 40.37	0.6
			Sg	15 01.74	
AUTN	1.57	67	Pn	14 41.48	1.0
			Sg	15 03.69	
SAOF	1.66	69	Pn	14 41.65	0.1
			Sg	15 05.31	
PGF	2.77	107	Pn	14 57.10	-0.5

S.D. = 0.8 on 16 of 16 obs.

% MAR 02, 1993 07h 20m 18.24± 0.87s
39.375 N ± 7.6km 27.966 E ± 7.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

DST	0.56	66	iPg	20 29.00	-0.7
			iSg	20 38.00	
KCT	0.92	19	iPg	20 36.80	0.9
			eSg	20 50.30	
EDC	0.97	355	iPg	20 36.00	-0.7
BNT	0.98	358	iPg	20 36.10	-0.8
			eSg	20 49.10	
IZM	1.12	210	iPg	20 39.10	-0.2
			iSg	20 54.10	
EZN	1.35	290	iPn	20 43.40	0.4
YLV	1.61	42	ePn	20 47.80	1.0

S.D. = 0.9 on 7 of 7 obs.

• MAR 02, 1993 07h 38m 21.62± 1.76s
42.064 N ± 6.6km 126.395 W ±18.5km
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
OFF COAST OF OREGON (30)

FHC	2.21	124	eP	38 58.66	-0.2
KMPM	2.38	133	eP	39 01.84	0.5
LGPM	2.92	112	eP	39 08.99	0.0
			S	39 39.30	
ORV	4.48	122	eP	39 30.80	-0.3
			eS	40 21.39	
BMW	4.96	26	eP	39 37.53	-0.4
SHW	5.10	35	eP	39 40.40	0.4
VGB	5.33	48	eP	39 42.93	-0.3
LON	5.72	33	eP	39 49.13	0.4
GMW	6.05	24	eP	39 52.54	-0.8
RMW	6.31	30	(P)	39 57.19	0.2
ARUT	10.82	109	eP	40 59.59	-0.2
LCCM	11.12	65	eP	41 04.30	0.4
YKA	21.63	15	eP	43 13.80	0.2
	0.8s		2.40nm		3.7mb

S.D. = 0.4 on 13 of 13 obs.

? MAR 02, 1993 07h 54m 59.86± 2.00s
26.874 N ±17.7km 53.628 E ±19.8km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)
SOUTHERN IRAN (353)

DHR	3.18	260	ePc	55 52.00	3.4X
			eS	56 48.00	
RYD	6.68	253	ePc	56 39.20	0.9
			eS	57 55.00	
MJMA	7.55	264	ePc	56 49.20	-1.3
QASM	9.08	267	eP	57 10.00	-1.7
KER	9.33	325	eP	57 41.00	25.8X
DHJN	13.11	228	eP	58 07.50	0.8
KMTA	13.18	231	eP	58 07.00	-0.6
WAJH	15.29	271	eP	58 36.00	1.0
AYN	15.72	281	eP	58 26.60	-13.8X
BADA	16.58	280	eP	58 30.00	-21.4X
DSI	16.60	291	eP	58 45.90	-5.8X
PRNI	16.72	286	eP	58 54.40	1.2
RMN	17.06	287	eP	59 01.10	3.6X
KHC	37.99	317	eP	02 10.00	-6.4X
			e	02 34.50	
YKA	90.45	355	eP	07 58.80	-0.3
	0.8s		0.70nm		4.0mb

S.D. = 1.3 on 8 of 15 obs.

% MAR 02, 1993 08h 14m 47.34± 0.55s
42.323 N ± 4.5km 18.857 E ± 4.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (TTG).

BDV	0.04	208	iPgd	14 49.46	0.0
			iSg	14 50.79	
HCY	0.29	295	iPgc	14 53.58	0.1
			iSg	14 58.31	
TTG	0.32	70	iPgd	14 53.58	-0.4
			iSg	14 58.59	
ULC	0.46	141	iPgd	14 56.71	-0.1
			iSg	15 03.17	
NKY	0.50	12	iPgd	14 57.08	-0.4
			iSg	15 04.96	
BRY	0.62	338	iPgc	14 59.76	-0.2
			iSg	15 08.06	
PVY	0.87	71	iPgd	15 04.23	0.1
			iSg	15 16.94	
IVA	0.94	54	iPgd	15 05.77	0.4
			iSg	15 19.26	
PLE	1.08	21	iPgc	15 08.21	0.5
			iSg	15 24.13	

S.D. = 0.3 on 9 of 9 obs.

• MAR 02, 1993 09h 02m 14.72± 2.29s
18.729 N ±23.4km 66.476 W ± 7.1km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

APR	0.37	221	iP	02 23.10	-0.2
SJG	0.69	153	iP	02 28.00	0.0
PORP	0.69	193	iP	02 28.00	0.0
LPR	0.71	126	iP	02 28.00	-0.3
			S	02 38.00	
CPD	0.87	142	iP	02 31.00	0.4
			S	02 43.00	
MGP	0.92	219	iP	02 31.30	0.0
IDE	1.01	250	iP	02 32.80	0.2

S.D. = 0.3 on 7 of 7 obs.

? MAR 02, 1993 10h 09m 43.24±10.91s
41.905 N ±75.8km 27.445 E ±40.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.0 (ISK).

DMK	0.25	110	iPg	09 48.50	0.0
			iSg	09 52.00	
CTT	1.06	135	iPg	10 03.20	0.0
			eSg	10 16.20	
BNT	1.59	167	iPn	10 10.90	-0.6
EDC	1.59	168	ePn	10 12.00	0.5
EZN	2.24	203	ePn	10 53.00	32.0X

S.D. = 0.8 on 4 of 5 obs.

? MAR 02, 1993 10h 17m 45.06± 3.49s
8.935 S ±49.9km 105.660 E ±19.5km
DEPTH = 33.0km (normal)
5.1mb (2 obs.)
SOUTH OF JAWA, INDONESIA (282)

LEM	2.85	43	iPc	18 29.50	0.1
			iS	19 00.00	
GBA	35.87	308	P	24 49.00	4.9X
PKI	41.25	332	P	25 29.80	0.5
GUN	41.33	333	P	25 29.40	-0.5
DMN	41.42	332	P	25 30.20	-0.4
KKN	41.50	332	P	25 31.20	0.1
GKN	41.98	332	P	25 34.20	-0.8
	0.5s		8.00nm		4.7mb
NDI	46.40	325	iPc	26 11.50	1.1
	0.6s		30.00nm		5.4mb
CFR	87.59	316	ePd	30 31.00	-0.2

S.D. = 0.7 on 8 of 9 obs.

? MAR 02, 1993 10h 22m 49.11± 1.91s
6.455 S ±40.7km 106.655 E ±44.9km
DEPTH = 123.6 ± 14.4 km
4.5mb (5 obs.)
JAWA, INDONESIA (277)

LEM	1.02	111	iPc	23 12.30	0.2
			iS	23 39.00	
WB2	30.05	119	eP	28 44.30	-4.5X
	0.5s		1.60nm		4.0mb
			e	28 48.10	
GBA	35.20	305	P	29 31.00	-2.3X
PKI	39.58	330	P	30 10.60	0.3
GUN	39.62	331	P	30 10.20	-0.5
DMN	39.76	329	P	30 12.00	0.3
KKN	39.82	330	P	30 12.40	0.3
GKN	40.32	329	P	30 15.60	-0.6
	0.4s		8.00nm		4.8mb
STK	41.26	132	eP	30 23.10	-0.6
	0.5s		3.10nm		4.3mb
NDI	45.00	322	iPc	30 52.80	-1.2
	0.7s		30.82nm		5.1mb
GEC2	96.76	318	P	36 08.50	1.6
	0.6s		0.86nm		4.4mb
YKA	116.47	20	ePdiff	37 34.50	0.2
	0.8s		0.40nm		

S.D. = 0.9 on 10 of 12 obs.

? MAR 02, 1993 10h 23m 17.19± 7.99s
38.156 N ±69.2km 28.116 E ±29.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM	0.71	290	iPg	23 31.30	0.0
			iSg	23 41.30	
DST	1.50	15	iPn	23 43.90	-0.3
KCT	2.10	5	iPn	23 53.50	0.7
BNT	2.20	356	ePn	23 53.90	-0.4
YLV	2.60	22	ePn	24 00.00	0.0

S.D. = 0.6 on 5 of 5 obs.

% MAR 02, 1993 10h 35m 59.09± 1.18s
40.443 N ± 9.7km 21.838 E ± 8.4km
DEPTH = 10.0km (geophysicist)

02d 10h

```
 GREECE                                   (364)
      ML 2.0 (THE).

FNA       0.49 314 ePg   36 09.17   0.1
                   eSg   36 16.76
LIT       0.60 124 ePg   36 10.72  -0.6
                   eSg   36 19.68
GRG       0.67  40 ePg   36 11.84  -0.6
                   eSg   36 22.04
KNT       1.08  48 ePg   36 19.16  -0.2
SOH       1.21  71 ePb   36 22.56   0.8
PAIG      1.50 109 ePb   36 26.48   0.4
      S.D. = 0.7  on   6 of   6 obs.
-------------------------------------------
&  MAR  02, 1993  10h 40m 08.33s
   33.360 N              116.363 W
     DEPTH =   11.6km
 SOUTHERN CALIFORNIA                      ( 43)
      <PAS-P>. ML 2.7 (PAS).

PLM       0.42 269 iPc   40 16.39  -0.6
PEC       0.85 309 iPc   40 23.68  -0.9
                   iS    40 34.69
GLA       1.32 103 ePd   40 29.92  -2.7
SSK       1.40 308 eP    40 33.00  -0.8
                   S     40 50.96
GSC       1.97 349 eP    40 44.07   2.1
                   S     41 10.88
      5 obs. associated
-------------------------------------------
&  MAR  02, 1993  11h 57m 59.34s
   60.182 N              153.488 W
     DEPTH =    0.0km
 SOUTHERN ALASKA                          (  2)
      <AEIC>. ML 2.5 (AEIC).

INW       0.21 123 eP    58 04.02   0.5
INE       0.25 120 iPc   58 04.57   0.3
RDW       0.45  48 iPc   58 08.88   0.5
RS1       0.46  52 iPc   58 09.07   0.6
RS2       0.46  52 iPc   58 09.07   0.5
                   eS    58 17.43
RSO       0.46  52 iPc   58 09.05   0.5
NCT       0.47  36 iPc   58 09.45   0.7
                   eS    58 16.06
REF       0.50  51 iP    58 09.57   0.3
                   S     58 17.92
PDB       0.53 222 iPc   58 10.45   0.5
                   eS    58 17.57
DFR       0.57  44 iPc   58 10.88   0.1
                   S     58 18.42
AUL       0.80 178 eP    58 15.93   0.6
AUH       0.82 178 eP    58 16.25   0.5
                   eS    58 27.97
AUE       0.83 176 eP    58 16.12   0.3
MCNL      1.09 204 eP    58 19.87  -0.9
CKL       1.16  29 iPc   58 21.61  -0.5
                   iS    58 36.77
CKT       1.20  31 eP    58 22.08  -0.6
                   S     58 37.52
BGL       1.21  26 ePc   58 22.58  -0.3
                   S     58 38.76
SPU       1.23  34 ePc   58 22.15  -1.0
CKN       1.23  31 eP    58 22.50  -0.6
                   S     58 39.96
CP2       1.25  29 ePc   58 23.26  -0.3
CPAM      1.26  31 eP    58 23.43  -0.4
                   S     58 40.89
CRP       1.27  30 eP    58 23.65  -0.3
CNPM      1.31 119 ePc   58 23.33  -1.3
                   eS    58 40.15
BRLK      1.37 107 eP    58 25.02  -0.6
                   S     58 41.88
SVW       1.40 312 P     58 27.60   1.5
                   S     58 46.20
SLKM      1.66  77 ePc   58 28.74  -1.1
                   eS    58 49.73
SYI       1.67 160 eP    58 28.74  -1.3
                   S     58 51.45
SUA       1.86  45 eP    58 32.47  -0.4
SEW       2.02  90 eP    58 34.93  -0.1
SKT       2.04  27 eP    58 36.84   1.5
MPA       2.08  80 eP    58 35.46  -0.4
PMS       2.21  59 P     58 38.00   0.2
     32 obs. associated
-------------------------------------------
   MAR  02, 1993   12h 04m 52.08± 1.16s
     58.371 N ± 9.0km  143.500 W ± 5.6km
     DEPTH =   10.0km  (geophysicist)
     3.1mb (  1 obs.)
  GULF OF ALASKA                          ( 15)
       ML 3.2 (AEIC).

KAIM      1.63 344 eP    05 22.03   1.1
                   eS    05 42.07
CYK       1.80  16 eP    05 23.68   0.4
                   eS    05 45.76
MID       1.82 307 P     05 24.60   1.0
SNH       1.85  10 eP    05 24.45   0.4
                   eS    05 46.68
RAGM      2.11 344 iP    05 28.48   0.6
YAH       2.19  23 eP    05 28.67  -0.6
SGAM      2.31 339 eP    05 31.71   1.0
CRQM      2.40   4 iP    05 32.18   0.0
                   S     06 00.83
TGL       2.42   8 eP    05 32.28  -0.1
                   eS    06 01.61
CVA       2.47 333 eP    05 33.06   0.2
                   eS    06 04.53
HIN       2.55 324 iP    05 34.63   0.5
BALM      2.74  12 eP    05 36.81  -0.2
CTGM      2.83  22 eP    05 37.56  -0.7
GLB       3.09 357 iP    05 41.72   0.0
                   S     06 18.45
                   S     06 18.49
VLZ       3.12 334 iP    05 42.06  -0.1
                   eS    06 19.58
KLU       3.36 340 iP    05 45.82   0.1
SEW       3.52 302 eP    05 47.22  -0.6
MPA       3.67 308 eP    05 49.54  -0.5
PTE       3.76 314 iP    05 50.71  -0.6
TZL       3.81 346 eP    05 52.65   0.6
SCM       3.97 333 eP    05 54.34   0.0
SLKM      4.05 305 eP    05 55.21  -0.2
CNPM      4.17 289 eP    05 57.17   0.0
PMS       4.20 316 P     05 57.50  -0.2
SML       4.21 327 eP    05 57.66  -0.1
SDG       4.29 347 eP    05 59.05   0.1
PLRM      4.29 321 eP    05 58.85   0.0
PMR       4.29 321 eP    05 58.76  -0.1
GHO       4.36 324 eP    06 00.48   0.5
SYI       4.67 277 eP    06 04.42   0.2
PAX       4.72 349 eP    06 04.58  -0.4
SUA       4.79 313 eP    06 05.41  -0.6
SPU       5.16 307 eP    06 10.28  -0.9
RDW       5.20 298 eP    06 12.01   0.1
CPAM      5.23 307 eP    06 12.57   0.3
CKT       5.23 307 eP    06 10.54  -1.7X
AUI       5.24 285 eP    06 13.31   1.0
AUL       5.25 285 eP    06 13.53   1.0
NCT       5.29 299 eP    06 12.74  -0.3
CKL       5.29 306 eP    06 12.10  -1.0
BGL       5.34 307 eP    06 13.37  -0.5
SKT       5.40 315 eP    06 13.70  -0.9
PDB       5.69 289 eP    06 18.85   0.1
MCNL      5.70 283 eP    06 18.75   0.0
TRF       6.07 330 eP    06 24.24   0.0
SVW       6.71 299 P     06 33.00  -0.1
IMA       9.06 333 eP    07 05.32  -0.5
YKA      14.78  62 eP    08 26.30   3.7X
          0.8s      0.50nm             3.1mb
       S.D. = 0.5  on  46 of  48 obs.
-------------------------------------------
    MAR  02, 1993   12h 11m 24.30± 0.47s
    38.293 N ± 4.6km    28.087 E ± 4.1km
    DEPTH =   23.0 ±  4.7 km
    3.6mb (  3 obs.)
  TURKEY                                  (366)
       MD 3.8 (ATH), 3.7 (ISK).

IZM       0.66 279 iPg   11 36.30  -0.8
                   eSg   11 44.30
KHL       1.13  88 iPg   11 45.50   0.7
DST       1.38  18 iPn   11 46.80  -1.4
PRK       1.71 304 ePb   11 54.20   1.2
                   eSb   12 19.00
ALT       1.76  64 iPn   11 55.00   1.2
KCT       1.96   6 iPn   11 56.00  -0.7
EZN       2.06 319 iPn   11 58.10   0.1
EDC       2.06 355 iPn   11 57.00  -1.1
BNT       2.06 356 iPn   11 58.80   0.6
ELL       2.12 136 ePn   12 02.80   3.8X
BCK       2.15 112 iPn   12 01.90   2.5
KSL       2.48 151 ePb   12 09.00   5.0X
YLV       2.48  23 ePn   12 04.60   0.5
GPA       2.64  40 ePn   12 06.00  -0.3
GBZT      2.70  22 ePn   12 13.00   5.8X
                   iSg   12 50.00
EYL       2.78  35 ePn   12 09.00   0.6
HRT       2.81  25 ePn   12 09.00   0.3
CTT       2.86   5 ePn   12 08.50  -1.0
ISK       2.87  15 ePn   12 10.00   0.5
ITU       2.90  14 ePn   12 13.00   3.1X
                   iSg   12 56.00
ALN       3.04 329 eP    12 12.12   0.1
                   eS    12 57.68
RDO       3.46 326 ePn   12 19.20   1.2
DMK       3.53 356 ePn   12 17.50  -1.5
NPS       3.62 214 ePn   12 21.30   1.0
OUR       3.78 304 eP    12 23.28   0.8
KDZ       3.93 329 iP    12 24.00  -0.6
DIM       4.23 333 iP    12 30.00   1.1
RZN       4.27 324 iP    12 30.00   0.4
SOH       4.45 306 eP    12 31.72  -0.3
SRS       4.47 311 eP    12 32.08  -0.3
                   eS    13 34.04
MMB       4.70 316 iP    12 36.00   0.4
KNT       4.92 307 eP    12 39.40   0.7
KKB       5.24 314 iP    12 42.00  -1.2
KAS       5.34  53 eP    13 04.00  19.2X
CSS       5.37 127 eP    12 46.40   1.3
MLR       7.37 348 ePd   13 15.50   2.2
HRI       7.98 127 eP    13 20.60  -1.3
DSI       8.99 136 eP    13 34.50  -1.2
MBH      10.20 144 eP    13 50.80  -1.6
GEC2     14.81 320 Pn    15 02.20   8.2X
          0.8s      1.24nm             3.4mb
BCAO     34.81 197 iPc   18 20.10   4.7X
          0.8s      4.00nm             4.4mb
YKA      75.17 343 eP    23 05.60  -0.5
          0.6s      0.30nm             3.5mb
       S.D. = 1.1  on  35 of  42 obs.
-------------------------------------------
?  MAR  02, 1993   12h 38m 16.39± 1.33s
   26.010 N ±20.5km   128.383 E ±15.3km
   DEPTH =   33.0km  (normal)
   4.6mb (  6 obs.)
 RYUKYU ISLANDS                           (238)

BJI      17.31 327 eP    42 17.50   0.5
LZH      23.24 302 eP    43 21.00  -0.9
          1.4s     26.00nm             4.5mb
GUN      37.80 283 P     45 32.20   0.3
PKI      38.25 282 P     45 35.40  -0.3
          0.6s     23.00nm             5.2mb
KKN      38.34 283 P     45 36.60   0.3
DMN      38.51 282 P     45 38.40   0.5
          0.8s     25.00nm             5.1mb
GKN      38.87 283 P     45 40.80   0.1
YKA      78.67  25 eP    50 16.80   0.4
          0.7s      0.50nm             3.6mb
SLL      79.04 333 eP    50 18.30  -0.2
          0.4s      2.70nm             4.6mb
NB2      79.57 334 P     50 20.70  -0.7
          0.7s      1.20nm             4.0mb
       S.D. = 0.6  on  10 of  10 obs.
-------------------------------------------
    MAR  02, 1993   12h 47m 23.13± 0.81s
    42.621 N ± 7.9km    24.199 E ± 7.2km
    DEPTH =   10.0km  (geophysicist)
  BULGARIA                                (359)
       ML 3.3 (THE).

SRS       1.57 197 ePb   47 51.78   0.7
                   eSb   48 16.14
KNT       1.75 214 ePb   47 53.66  -0.1
                   eSb   48 19.62
SOH       1.91 200 ePn   47 56.33   0.3
GRG       2.14 220 ePn   47 59.82   0.5
                   eSn   48 27.40
THE       2.19 205 ePn   48 00.10   0.0
ALN       2.21 141 ePn   48 00.42   0.1
OUR       2.29 184 ePn   48 01.34  -0.2
PAIG      2.72 188 ePn   48 06.98  -0.7
FNA       2.80 230 ePn   48 08.30  -0.5
MLR       3.13  23 ePd   48 13.50  -0.1
EZN       3.22 149 ePn   48 23.00   8.3X
BNT       3.60 128 ePn   48 25.90   5.8X
KCT       3.92 126 ePn   48 23.00  -1.7
YLV       4.39 116 ePn   48 33.00   1.6
       S.D. = 0.9  on  12 of  14 obs.
```

• MAR 02, 1993 12h 57m 31.25± 1.25s
10.997 N ±13.0km 69.557 W ±11.6km
DEPTH = 33.0km (normal)
3.3mb (1 obs.)
VENEZUELA (101)

TOV 1.22 191 ePn 57 50.60 -1.6
eSn 58 07.60
MORO 1.22 96 iPc 57 51.10 -1.1
iS 58 03.70
CEOS 2.30 148 iP 58 08.30 0.7
iS 58 33.90
SDV 2.35 207 ePn 58 09.50 1.0
LLAV 2.75 101 eP 58 08.00 -6.1X
OLLA 2.88 109 eP 58 16.90 1.0
YKA 60.66 338 eP 07 41.40 0.1
0.8s 0.20nm 3.3mb
S.D. = 1.4 on 6 of 7 obs.

% MAR 02, 1993 13h 14m 10.51± 2.69s
31.949 S ±23.1km 67.297 W ±11.7km
DEPTH = 107.4 ± 47.1 km
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.87 293 ePd 14 30.70 0.2
S 14 46.10
RTCV 1.06 274 ePc 14 32.40 -0.1
S 14 50.00
RTLL 1.18 301 iPd 14 33.50 -0.3
S 14 50.00
RTPR 1.77 23 ePd 14 41.00 0.1
RTBS 1.86 278 e(P)c 14 42.10 0.1
TCA 2.39 76 iP 14 49.00 0.0
e 15 16.00
S.D. = 0.2 on 6 of 6 obs.

% MAR 02, 1993 13h 20m 23.91± 0.82s
39.112 N ± 6.8km 27.631 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.77 202 iPg 20 38.80 -0.2
iSg 20 50.80
DST 0.92 57 iPn 20 41.80 0.3
EZN 1.24 306 iPn 20 47.20 0.3
EDC 1.25 8 ePn 20 47.00 0.0
BNT 1.26 10 ePn 20 46.80 -0.6
KCT 1.27 26 ePn 20 47.50 0.1
S.D. = 0.4 on 6 of 6 obs.

& MAR 02, 1993 13h 32m 39.22s
35.164 N 120.657 W
DEPTH = 6.0km (geophysicist)
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 2.6 (PAS). Felt (IV) at Oceano and (II) at Cayucos. Also felt at Arroyo Grande, Grover City and Pismo Beach.

BCH 0.47 87 eP 32 47.95 -0.7
S 32 55.12
PHAM 0.70 17 ePd 32 52.09 -1.2
S 33 02.58
PKEM 1.00 26 eP 32 58.37 -0.2
ISA 1.85 74 eP 33 09.45 -2.4
eS 33 34.11
COE 2.24 339 (P) 33 15.29 -2.2
SSK 2.62 110 (P) 33 21.34 -1.6
PEC 3.15 113 (P) 33 28.99 -1.4
BONR 3.37 34 (P) 33 32.39 -1.3
8 obs. associated

• MAR 02, 1993 13h 36m 34.41± 1.66s
30.870 N ±10.3km 103.077 E ±18.1km
DEPTH = 10.0km (geophysicist)
3.6mb (1 obs.)
SICHUAN, CHINA (307)

CD2 0.59 86 iPgd 36 47.20 0.9
Sg 36 57.90
LZH 5.24 7 eP 38 25.00 30.1X
1.5s 35.00nm
sP 38 29.00
eS 39 21.00
Lg 39 35.00
Lg 39 50.00
GYA 5.41 143 Pn 37 56.00 -1.2
Z 12s 1.14um
Pg 38 18.40
Sn 39 01.40
Sg 39 24.60
KMI 5.73 183 ePn 38 02.50 0.7
Pg 38 20.00
Sn 39 07.00
Sg 39 37.00
XAN 5.86 56 ePn 38 03.00 -0.5
Z 10s 0.64um
Sg 39 44.00
TIY 10.32 46 eP 39 01.30 -4.2X
Z 12s 0.60um
BTO 11.22 28 eP 39 18.00 0.1
N 10s 0.39um
eS 41 23.00
GUN 15.28 263 P 40 00.00 -12.1X
YKA 82.17 17 eP 49 01.10 4.6X
0.8s 0.40nm 3.6mb
S.D. = 1.2 on 5 of 9 obs.

% MAR 02, 1993 14h 40m 44.41± 0.66s
26.359 S ± 5.8km 27.328 E ± 6.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.9 (PRE).

PRY 0.58 167 eP 40 55.50 -0.6
S 41 02.00
KSR 0.63 322 iPc 40 56.00 -1.0
S 41 14.50
BFS 0.72 222 eP 40 59.50 0.6
S 41 08.90
SLR 1.06 54 eP 41 05.00 0.1
S 41 17.50
SWZ 1.97 245 eP 41 20.00 1.1
S 41 45.50
SEK 1.97 172 iPd 41 18.00 -1.0
S 41 44.00
BFT 2.53 75 eP 41 28.00 0.9
S 41 57.00
BLF 2.92 200 eP 41 37.20 4.7X
S 42 10.00
FRS 3.82 207 eP 41 45.00 -0.1
S 42 22.50
S.D. = 1.0 on 8 of 9 obs.

% MAR 02, 1993 14h 50m 27.42± 1.56s
41.210 N ±13.4km 22.060 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.3 (THE).

GRG 0.36 134 ePg 50 34.68 -0.2
eSg 50 39.76
KNT 0.63 94 ePg 50 39.72 -0.5
eSg 50 47.92
FNA 0.67 231 ePg 50 40.64 -0.1
eSg 50 49.88
THE 0.90 130 ePg 50 43.80 -0.8
eSg 50 57.60
SOH 1.05 111 ePg 50 47.64 0.3
eSg 51 01.12
LIT 1.16 163 ePg 50 48.80 -0.2
eSg 51 06.88
SRS 1.16 94 ePg 50 49.04 -0.1
eSg 51 04.68
OUR 1.70 120 ePb 50 57.52 0.2
eSb 51 21.40
PAIG 1.78 136 ePb 50 59.76 1.4
eSb 51 24.20
S.D. = 0.7 on 9 of 9 obs.

• MAR 02, 1993 14h 50m 36.79± 1.27s
28.442 S ± 8.2km 70.415 W ±21.7km
DEPTH = 10.0km (geophysicist)
CENTRAL CHILE (136)

RTRS 1.91 154 ePc 51 09.30 -0.4
S 51 38.80
RTBS 3.31 166 e(P)c 51 30.00 0.3
RTLL 3.34 150 ePd 51 32.50 2.4
S 52 13.50
ZON 3.44 154 eP 51 38.00 6.4X
CFA 3.67 150 e(P) 51 33.70 -1.2
S 52 28.00
RTCV 3.77 155 e(P) 51 35.70 -0.7
RTPR 3.88 119 e(P)d 51 39.10 1.4
FSA 4.57 60 e(P) 51 54.00 6.5X
MDZ 4.63 163 e(P) 51 48.70 0.3
ANT 4.72 360 eP 51 48.50 -1.2
MRA 5.67 135 e(P) 52 02.30 -0.8
TCA 5.82 121 ePd 52 04.00 -1.3
(S) 53 13.00
ZOBO 12.28 10 iPd 53 36.50 1.3
0.9s 123.27nm 6.2mb X
S.D. = 1.4 on 11 of 13 obs.

MAR 02, 1993 14h 52m 56.65± 0.71s
43.422 N ± 4.7km 5.445 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.5 (STR).

GELF 0.04 198 Pg 52 58.32 -0.5
TREF 0.21 348 Pg 53 00.80 -0.4
BERF 0.21 121 Pg 53 01.78 0.5
PUYF 0.22 59 Pg 53 01.17 -0.2
CDR 0.34 43 ePgd 53 03.20 -0.6
PRAF 0.43 332 Pg 53 06.10 0.6
VILF 0.47 24 Pg 53 06.35 0.1
TAVF 0.49 66 Pg 53 06.73 0.2
GANF 0.67 30 Pg 53 10.10 0.2
S.D. = 0.5 on 9 of 9 obs.

? MAR 02, 1993 15h 25m 36.73± 1.36s
31.050 S ±17.5km 177.997 W ±18.6km
DEPTH = 33.0km (normal)
4.8mb (10 obs.)
KERMADEC ISLANDS REGION (177)

MNG 10.91 207 eP 28 12.30 -1.3
eS 30 19.30
DZM 16.53 299 iPc 29 34.90 7.2X
BRS 25.73 271 iP 31 06.00 0.0
ARMA 26.08 263 eP 31 12.60 3.3X
CAN 27.87 252 eP 31 26.00 0.5
BWA 28.38 254 eP 31 29.00 -1.0
RMQ 29.43 270 iPc 31 40.70 1.1
0.6s 10.00nm 4.7mb
TOO 30.72 248 eP 31 52.50 1.6
0.9s 27.00nm 5.0mb
CMS 30.84 260 eP 31 52.40 0.4
0.5s 2.00nm 4.2mb
CTA 33.91 280 iP 32 16.50 -2.4
1.0s 10.00nm 4.7mb
STK 34.34 258 iPc 32 23.30 0.8
0.5s 5.50nm 4.7mb
ASPA 43.08 268 eP 33 31.10 -4.4X
0.6s 8.80nm 4.7mb
WB2 44.12 273 iPc 33 39.90 -4.0X
0.4s 36.50nm 5.5mb
WRA 44.13 273 P 33 40.50 -3.5X
0.7s 4.90nm 4.4mb
CSY 54.57 208 iPc 35 03.70 0.1
1.1s 35.60nm 5.3mb
SPA 59.12 180 iPc 35 37.00 0.7
1.1s 29.76nm 5.3mb
OBN 145.69 325 iPKPd 45 05.20 -7.6X
1.0s 38.00nm
NUR 146.92 340 iPKP 45 08.30 -6.3X
BCAO 149.29 214 iPKPd 45 20.10 0.2
0.5s 20.00nm
id 45 26.10
ic 45 43.90
UPP 149.34 345 iPKP 45 14.30 -4.2X
i 45 21.40
NB2 149.39 351 PKP 45 14.30 -4.3X
1.0s 11.50nm
HFS 149.88 348 ePKP 45 15.10 -4.2X
0.8s 10.00nm
BHL 151.54 285 PKP 45 22.00 -0.8
CSS 153.50 287 ePKP 45 34.10 8.7X
KSP 157.55 336 ePKPc 45 34.60 4.4X
e 45 54.10
S.D. = 1.2 on 13 of 25 obs.

% MAR 02, 1993 15h 35m 23.87± 1.76s
41.182 N ±19.8km 22.076 E ± 8.2km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.9 (THE).

02d 15h

```
GRG      0.33 132 ePg    35 30.66  -0.1
                  eSg    35 35.66
KNT      0.62  92 ePg    35 35.69  -0.7
                  eSg    35 43.78
FNA      0.66 233 ePg    35 37.10   0.0
                  eSg    35 46.02
SOH      1.03 110 ePg    35 43.62   0.2
                  eSg    35 57.30
SRS      1.15  93 ePg    35 45.90   0.6
                  eSg    36 00.80
     S.D. = 0.7  on   5 of   5 obs.
```

```
% MAR 02, 1993  15h 55m 50.46± 1.17s
   38.407 S ± 7.9km   176.178 E ± 6.4km
   DEPTH = 176.8 ± 11.4 km
 NORTH ISLAND, NEW ZEALAND        (159)

PATZ     0.07  68 P      56 13.00  -1.0
UTU      0.23   3 P      56 13.50  -0.6
WLZ      0.71 319 Pc     56 16.80   0.7
                  S      56 32.40
URZ      0.75  79 P      56 15.00  -1.4
                  S      56 29.40
PAHZ     0.82 124 P      56 16.30  -0.6
NGZ      0.89 210 P      56 17.40  -0.1
CNZ      0.93 212 P      56 17.70  -0.1
MOH      1.05 134 P      56 18.60   0.1
TTH      1.24 156 P      56 20.40   0.4
WAHZ     1.30 174 P      56 20.70   0.1
NOZ      1.47  99 P      56 22.40   0.2
MAHZ     1.54 121 P      56 23.40   0.5
TEHZ     1.66 163 P      56 24.40   0.4
PUZ      1.67  79 P      56 24.30   0.1
                  eS     56 45.00
BSZ      1.69 215 P      56 25.60   1.2
HBZ      1.86  65 eP     56 27.00   0.9
PGZ      2.21 178 P      56 30.30   0.3
MNG      2.27 193 P      56 31.20   0.5
                  S      56 57.20
KIW      2.64 201 eP     56 35.20   0.1
MTW      2.80 191 P      56 36.80  -0.1
CAW      2.83 197 P      56 37.50   0.2
DIW      2.96 215 P      56 39.40   0.5
BLW      3.01 190 P      56 39.30  -0.2
MRW      3.04 201 eP     56 39.50  -0.4
MOW      3.09 193 P      56 40.30  -0.3
QRZ      3.71 228 eP     56 49.50   1.1
KHZ      4.48 206 eP     56 58.30   0.0
LTZ      5.29 213 eP     57 08.10  -0.7
MOZ      5.93 206 eP     57 15.50  -1.7
     S.D. = 0.7  on  29 of  29 obs.
```

```
% MAR 02, 1993  16h 14m 06.48± 1.77s
   41.185 N ±19.9km   22.060 E ± 8.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 2.2 (THE).

GRG      0.34 131 ePg    14 13.50  -0.1
                  eSg    14 18.38
KNT      0.63  92 ePg    14 18.66  -0.5
                  eSg    14 26.86
FNA      0.65 232 ePg    14 19.58   0.0
                  eSg    14 28.74
SOH      1.04 110 ePg    14 26.42   0.2
                  eSg    14 40.30
SRS      1.16  93 ePg    14 28.58   0.4
                  eSg    14 43.54
     S.D. = 0.5  on   5 of   5 obs.
```

```
? MAR 02, 1993  17h 16m 08.22± 3.52s
   4.429 S ±54.6km  104.441 W ±68.8km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  2 obs.)  4.4Msz (  1 obs.)
 CENTRAL EAST PACIFIC RISE        (694)

ZOBO    37.53 111 eP     23 25.20  -0.1
     Z  18s      0.59um          4.4Msz
                  LR     29 42.00
LPB     37.63 111 eP     23 34.00   8.2X
CNCB    37.80 112 P      23 31.00   3.5X
UYO     39.53  13 iPd    23 40.20  -0.8
SIV     44.10 108 P      24 25.00   6.2X
LCCM    50.48 353 eP     25 08.20  -0.3
PPD     54.29 114 (P)    25 40.00   2.8X
SES     54.90 355 eP     25 42.00   0.7
ULM     54.96   7 eP     25 43.00   1.3
EEO     55.59  21 eP     25 48.50   2.2X
FCC     63.53   6 eP     26 43.00   2.2X
YKA     67.19 355 eP     27 02.50  -1.8
         0.9s      3.90nm         4.6mb
RES     79.20   3 eP     28 15.50   1.0
         1.0s      3.00nm         4.3mb
NB2    106.09  27 PKP    34 53.10  19.1X
         0.9s      1.30nm
MAIO   145.01  23 ePKP   35 50.00   2.0X
     S.D. = 1.4  on   7 of  15 obs.
```

```
? MAR 02, 1993  17h 26m 59.06± 1.70s
   53.614 S ±40.1km   72.747 E ±18.9km
   DEPTH =  10.0km  (geophysicist)
   5.3mb (  8 obs.)
 KERGUELEN ISLANDS REGION         (433)

ASPA    54.26  82 eP     36 27.60   0.3
         1.3s      7.20nm         4.5mb
WB2     57.39  79 eP     36 49.50  -0.4
         1.0s      3.50nm         4.3mb
BCAO    73.40 302 iPd    38 33.00  -0.1
         0.8s     14.00nm         5.1mb
                  ic     38 41.50
CHTO    75.58  26 eP     38 44.90  -0.6
PKI     81.59  11 P      39 18.00  -0.5
         1.1s     27.00nm         5.2mb
DMN     81.59  11 P      39 18.40   0.0
         1.3s     61.00nm         5.5mb
KKN     81.79  11 P      39 19.40   0.1
         1.2s     54.00nm         5.5mb
GKN     81.93  11 P      39 14.80  -5.2X
         0.5s     20.00nm         5.5mb
GUN     81.98  12 P      39 20.80   0.3
KMI     82.61  27 eP     39 24.50   0.8
         1.8s     60.00nm         5.4mb
     S.D. = 0.5  on   9 of  10 obs.
```

```
* MAR 02, 1993  17h 27m 26.67± 0.65s
   34.865 N ±12.5km   35.191 W ±11.9km
   DEPTH =  10.0km  (geophysicist)
   4.7mb (  5 obs.)  4.5Msz (  1 obs.)
 NORTHERN MID-ATLANTIC RIDGE      (403)

LMN     24.96 305 eP     32 52.50   1.1
                  pP     33 08.50  69kmX
TCF     30.35  56 eP     33 53.80  13.2X
         1.4s     32.65nm
LBF     31.65  55 eP     33 53.90   1.8
         1.8s     47.45nm         5.1mb
JAQ     34.02 316 eP     34 09.00  -3.6X
EEO     34.84 303 eP     34 19.50  -0.2
GDH     35.92 349 eP     34 22.00  -6.6X
FCC     45.00 321 eP     35 44.00   0.3
ULM     45.99 309 eP     35 51.00  -0.6
UYO     48.20 287 iPc    36 11.90   2.6X
RES     48.79 342 eP     36 11.50  -1.8
         1.0s      3.00nm         4.3mb
OBN     52.17  44 eP     36 39.50   0.2
     Z  12s      0.70um          4.9MszX
     E  14s      0.50um
                  e      37 17.00
                  e      44 20.00
                  LQ     51 16.00
                  LR     55 00.00
YKA     54.96 326 eP     36 55.50  -4.3X
         0.9s      3.40nm         4.4mb
SIV     56.24 210 iP     37 14.50   5.0X
BCAO    58.08 109 ePd    37 21.10  -1.6
         0.9s      9.00nm         4.8mb
                  ic     37 33.10
ZOBO    59.72 217 Pc     37 34.70   0.0
         1.1s     14.50nm         5.0mb
LPB     59.92 217 eP     37 36.00   0.2
     Z  22s      0.37um          4.5Msz
                  eLR    59 40.00
CNCB    60.10 217 P      37 37.80   0.6
     S.D. = 1.2  on  11 of  17 obs.
```

```
? MAR 02, 1993  17h 32m 35.33± 7.34s
   37.484 N ±42.4km   26.457 E ±45.0km
   DEPTH =  10.0km  (geophysicist)
 DODECANESE ISLANDS               (369)
      MD 3.1 (ISK).

IZM      1.11  35 iPg    32 56.50   0.3
                  iSg    33 02.00
KHL      2.57  70 ePn    33 18.00   0.3
DST      2.72  38 iPn    33 18.60  -1.3
EDC      3.06  21 ePn    33 25.00   0.4
BNT      3.09  21 ePn    33 24.60  -0.4
KCT      3.13  28 ePn    33 26.30   0.6
     S.D. = 0.9  on   6 of   6 obs.
```

```
* MAR 02, 1993  17h 48m 19.83± 1.62s
   41.231 N ±13.7km   22.055 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 2.3 (THE).

GRG      0.38 136 ePg    48 27.20  -0.4
                  eSg    48 32.40
KNT      0.64  96 ePg    48 32.20  -0.5
                  eSg    48 40.84
FNA      0.68 229 ePg    48 33.08  -0.3
                  eSg    48 42.48
THE      0.91 131 ePg    48 36.60  -0.7
                  eSg    48 48.56
SOH      1.06 112 ePg    48 39.44  -0.5
SRS      1.17  95 ePg    48 41.84   0.2
                  eSg    48 57.08
LIT      1.18 164 ePg    48 42.00   0.2
                  eSg    48 58.90
OUR      1.72 121 ePb    48 50.92   1.0
                  eSb    49 12.96
PAIG     1.80 136 ePb    48 51.88   0.8
                  eSb    49 14.84
     S.D. = 0.7  on   9 of   9 obs.
```

```
? MAR 02, 1993  19h 17m 22.92± 3.71s
   31.397 S ±23.9km   68.467 W ±15.9km
   DEPTH =  93.3 ± 37.8 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTLL     0.07 358 iPc    17 36.20  -0.3
                  S      17 45.50
CFA      0.29 137 ePc    17 37.40   0.5
                  S      17 49.00
RTCV     0.47 187 iPd    17 37.80  -0.2
                  S      17 49.40
RTRS     1.49 325 ePd    17 49.20   0.1
                  S      18 09.70
RTPR     2.00  58 ePc    17 55.70  -0.1
     S.D. = 0.6  on   5 of   5 obs.
```

```
* MAR 02, 1993  20h 09m 02.73± 1.84s
   33.875 S ±12.7km   70.421 W ±10.9km
   DEPTH = 119.0 ± 17.8 km
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 4.0 (SAN).

CHCH     0.20 253 iPd    09 19.54  -0.1
PCH      0.27 343 iP+    09 19.32  -0.6
                  iS     09 30.27
CACH     0.28 212 (P)    09 20.52   0.5
                  iS     09 32.49
SAN      0.47 334 iP+    09 19.99  -0.7
                  iS     09 31.06
TACH     0.48 297 iP+    09 20.62  -0.1
FCH      0.56  11 iP+    09 20.87  -0.7
                  iS     09 33.17
PEL      0.76 343 iPd    09 22.34  -0.5
                  iS     09 35.43
LNV      0.83 264 iP+    09 23.86   0.6
                  iS     09 37.88
ROCH     1.03 331 iP+    09 24.95  -0.6
                  iS     09 40.03
LCCH     1.04 292 iP+    09 25.70   0.4
                  iS     09 41.21
JACH     1.20 353 iPd    09 26.84  -0.3
                  iS     09 43.41
MDZ      1.65  53 eP     09 34.90   2.6
                  iS     09 54.80
RTBS     2.35  21 ePc    09 42.50   1.4
RTCV     2.56  39 ePd    09 44.00   0.1
CFA      2.91  40 ePc    09 48.60   0.0
                  S      10 21.90
RTLL     3.03  34 ePc    09 50.00  -0.1
                  S      10 23.00
RTRS     3.78  13 ePc    10 01.10   0.9
MRA      4.21  71 e(P)   10 06.00   0.0
RTPR     4.87  44 e(P)c  10 13.00  -1.9
TCA      5.53  64 iP     10 23.00  -1.1
                  (S)    24 22.50
```

S.D. = 1.0 on 20 of 20 obs.

• MAR 02, 1993 20h 20m 19.54± 1.36s
8.774 S ± 9.9km 119.321 E ± 9.7km
DEPTH = 98.9 ± 16.7 km
4.9mb (4 obs.)
FLORES REGION, INDONESIA (286)

KHKI 3.69 276 iPc 21 15.20 -0.4
eS 21 55.20
e 24 51.10
MTN 12.28 110 eP 23 13.00 0.7
0.3s 106.00nm 6.0mb X
eS 25 21.00
MEEK 17.78 182 eP 24 23.00 0.8
eS 27 23.00
WB2 18.29 129 iPc 24 27.50 -1.0
0.4s 36.20nm 5.0mb
eS 27 40.80
WARB 18.66 159 eP 24 32.00 -0.7
eS 27 50.00
ASPA 20.35 138 eP 24 50.40 0.1
0.7s 38.30nm 4.8mb
eS 28 31.70
MRWA 20.58 188 eP 24 53.00 0.4
e 25 04.00
eS 28 27.00
MUN 23.27 187 eP 25 35.50 16.4X
eS 29 26.00
STK 30.93 141 iPd 26 28.90 -0.2
0.4s 8.10nm 4.8mb
CHTO 33.99 324 eP 26 55.60 -0.3
LZH 46.94 343 Pd 28 43.00 0.7
1.5s 32.00nm 4.9mb
S.D. = 0.8 on 10 of 11 obs.

• MAR 02, 1993 21h 38m 07.62± 1.84s
26.899 S ±10.2km 67.182 W ±25.1km
DEPTH = 33.0km (normal)
CATAMARCA PROVINCE, ARGENTINA (130)

FSA 1.33 53 iPd 38 31.40 1.5
SLA 2.64 36 iPc 38 47.10 -1.9
S 39 12.50
HJA 4.01 24 ePd 39 07.80 -0.4
(S) 40 01.70
YJA 4.95 18 iPd 39 22.70 0.7
(S) 40 36.90
TCA 4.97 153 iP 39 21.90 -0.1
(S) 40 15.00
MRA 5.64 167 ePd 39 36.20 4.9X
CNCB 10.06 356 iP 40 48.60 15.1X
eS 42 51.00
LPB 10.35 355 iP 40 44.30 7.0X
0.5s 25.35nm 5.7mb X
(S) 42 47.00
ZOBO 10.60 355 P 40 41.20 0.4
0.5s 3.90nm 4.9mb X
i 42 36.00
SIV 12.25 29 P 41 07.80 5.1X
i 41 52.00
S.D. = 1.5 on 6 of 10 obs.

MAR 02, 1993 21h 43m 15.97± 0.38s
24.295 S ± 3.6km 67.080 W ± 4.8km
DEPTH = 178.2 ± 4.0 km
5.1mb (37 obs.)
CHILE-ARGENTINA BORDER REGION (127)

SLA 1.51 107 iPd 43 50.80 2.4
S 44 15.00
FSA 2.03 152 iPd 43 56.00 2.5
YJA 2.56 35 iPd 44 01.90 1.7
ANT 3.11 280 iP+ 44 04.50 -1.8
iS 44 40.50
RTPR 6.00 175 iPd 44 43.50 -0.2
eS 45 50.30
RTRS 6.22 199 ePd 44 47.00 0.4
CCH 6.93 8 P 44 55.00 -1.4
RTLL 7.11 190 iPc 44 57.50 -1.0
S 46 16.80
TCA 7.35 163 iPd 45 01.10 -0.7
(S) 46 21.20
CFA 7.36 188 e(P) 45 00.60 -1.1
S 46 18.80
CNCB 7.49 353 iPd 45 03.80 -0.3
iS 46 28.00

RTBS 7.63 195 e(P) 45 05.30 0.0
RTCV 7.65 189 e(P) 45 04.40 -1.2
LPB 7.78 353 iPd 45 07.70 -0.1
S 46 34.00
LR 47 55.00
ZOBO 8.03 353 iPd 45 10.10 -1.1
0.8s 109.10nm 5.3mb
i 46 29.50
S 46 36.00
MRA 8.18 172 ePc 45 11.00 -1.5
S 46 37.00
MDZ 8.70 190 i(P) 45 21.20 1.8
ARE 8.82 331 eP 45 18.00 -3.3X
iS 46 51.50
PEL 9.37 199 eP 45 27.00 -1.2
SIV 10.00 35 iP 45 39.00 2.5
PPD 14.68 84 eP 46 35.70 -0.6
e 46 38.70
e 46 45.50
NNA 15.35 321 eP 46 45.00 0.3
1.0s 25.00nm 4.6mb
eS 49 30.00
VAO 18.47 90 iPc 47 19.60 -1.4
e 47 28.20
i 47 41.10
e 47 55.40
e 50 43.30
RIFB 18.61 81 iPc 47 21.30 -1.1
e 47 23.70
e 47 26.60
e 47 39.80
BAO 19.89 68 iPd 47 34.00 -1.6
e 48 00.50
e 48 13.60
e 48 31.20
e 49 08.40
e 54 07.90
e 55 02.10
CDCB 21.08 83 iPc 47 46.70 -0.8
i 47 47.90
i 47 53.30
SOB1 29.14 63 eP 48 58.80 -3.7X
e 49 00.70
HBF 58.30 347 eP 52 53.52 -0.7
SGS 58.58 347 eP 52 54.23 -1.9
PRM 59.85 345 eP 53 03.13 -1.7
e 53 20.67
NAV 62.63 348 eP 53 18.33 -5.1X
MIAR 63.70 336 iPd 53 28.92 -1.5
0.9s 29.70nm 5.2mb
UYO 63.70 335 iPd 53 29.00 -1.4
OLY 63.80 338 eP 53 27.46 -3.6X
e 53 49.72
iPcP 54 04.30
ELC 64.70 341 eP 53 34.51 -2.3
KDS 64.90 62 iPd 53 38.30 -0.2
FVM 65.72 340 iP 53 41.60 -1.8
0.6s 33.68nm 5.4mb
SPA 65.85 180 iPd 53 44.50 0.3
0.6s 113.82nm 5.9mb
MEO 65.92 332 iPc 53 42.50 -2.2
WMOK 65.97 332 iP 53 43.12 -1.9
0.6s 7.64nm 4.7mb
e 54 12.69
ACO 67.79 333 iPd 53 55.20 -1.3
RSNY 68.84 354 eP 54 02.22 -0.5
ALQ 69.75 326 iPd 54 08.88 0.1
0.7s 25.01nm 5.1mb
LMN 69.84 2 eP 54 11.00 2.2
TUC 70.07 322 ePd 54 10.80 0.2
1.1s 23.25nm 4.9mb
EEO 71.43 351 eP 54 19.00 0.6
GLA 72.95 319 eP 54 27.83 0.2
GLD 72.98 330 eP 54 28.51 0.7
1.4s 41.09nm 5.0mb
GOL 73.01 330 eP 54 28.05 -0.1
1.0s 22.05nm 4.8mb
PV08 73.68 327 iPd 54 32.47 0.3
PV10 73.72 327 iPd 54 31.94 -0.3
PV09 73.86 327 eP 54 33.10 0.0
CER 74.20 120 eP 54 32.50 -2.6
1.0s 60.00nm 5.3mb
PLM 74.38 318 eP 54 36.98 0.9
PEC 74.93 319 ePd 54 39.54 0.5
0.7s 33.90nm 5.2mb
SRU 75.03 326 eP 54 40.05 0.4
MSU 75.43 325 iPd 54 42.69 0.7

SSK 75.47 319 eP 54 43.23 0.9
ARUT 75.57 324 ePd 54 43.95 1.2
EMUT 75.71 327 ePd 54 44.08 0.5
WIN 76.02 109 eP 54 40.00 -5.7X
RSSD 76.04 334 ePc 54 44.73 -0.6
0.9s 19.65nm 4.8mb
TPNV 76.52 321 eP 54 49.00 0.9
0.6s 12.19nm 4.8mb
DUG 77.01 326 iPd 54 51.41 0.8
1.1s 18.58nm 4.7mb
BW06 77.37 329 iPd 54 52.17 -0.5
0.6s 5.40nm 4.5mb
TNP 77.86 322 iPd 54 56.43 0.9
0.9s 17.83nm 4.8mb
JAQ 78.13 355 eP 54 55.00 -1.3
HVU 78.16 327 iPd 54 57.30 0.3
PHAM 78.20 318 eP 54 58.38 1.2
BONR 78.39 321 ePd 54 59.66 1.1
PcP 55 11.92
e 55 31.83
ULM 78.48 342 ePd 55 00.50 2.2
MEMM 78.56 320 eP 55 00.90 1.9
PTI 78.78 328 eP 55 01.16 0.8
KVN 79.03 322 eP 55 02.47 0.6
ARN 79.89 319 ePd 55 07.32 1.1
COE 79.91 319 iPd 55 07.78 1.5
GRM 79.92 122 iPc 54 53.50 -13.2X
0.8s 76.00nm
FRS 80.29 118 iPc 55 09.70 1.2
0.7s 38.00nm 5.2mb
LCCM 80.79 330 eP 55 11.30 0.4
BLF 81.23 118 iPd 55 14.70 1.0
0.5s 50.00nm 5.5mb
NTYM 81.24 319 eP 55 14.00 0.8
ORV 81.32 321 iP 55 14.37 0.8
SEK 82.70 118 iPd 55 21.00 -0.4
0.8s 140.00nm 5.8mb
LBFM 82.72 322 eP 55 21.28 0.1
LGPM 82.97 321 eP 55 21.93 -0.4
KSR 83.08 115 iPd 55 23.00 -0.3
1.0s 50.00nm 5.2mb
PRY 83.13 116 iPc 55 24.00 0.4
1.0s 72.00nm 5.4mb
SES 83.91 333 ePd 55 26.00 -0.7
SLR 84.27 116 iPc 55 29.50 0.2
0.6s 90.00nm 5.7mb
NEW 85.00 329 eP 55 31.62 -0.5
0.8s 17.41nm 4.9mb
DPW 85.23 328 ePd 55 33.89 0.5
FCC 85.73 346 ePd 55 38.60 3.1X
BFT 85.74 116 eP 55 35.00 -1.7
LON 86.26 326 eP 55 38.31 -0.1
PAB 86.34 44 eP 55 40.00 1.0
RMW 86.73 326 eP 55 40.18 -0.6
BMW 86.81 325 eP 55 40.89 -0.2
BCAO 87.81 84 iPc 55 47.00 0.4
0.5s 23.00nm 5.3mb
ic 56 22.20
MCW 88.05 327 eP 55 47.47 0.5
CSY 89.68 179 iPc 55 56.40 1.9
0.7s 50.30nm 5.6mb
LFF 92.49 41 eP 56 07.60 0.0
1.0s 17.80nm 5.1mb
MFF 92.86 39 eP 56 09.10 -0.1
0.8s 9.00nm 5.0mb
LPF 93.13 38 eP 56 10.10 -0.3
0.7s 4.65nm 4.8mb
GRR 93.42 38 eP 56 11.40 -0.4
0.7s 11.35nm 5.2mb
FLN 93.84 37 eP 56 13.40 -0.3
0.6s 2.80nm 4.6mb
LDF 93.95 38 eP 56 13.80 -0.4
0.9s 10.50nm 5.0mb
YKA 94.37 340 eP 56 15.50 -0.4
0.6s 7.00nm 5.0mb
SMF 95.22 41 eP 56 19.30 -0.9
1.0s 11.00nm 5.1mb
SSF 95.23 40 eP 56 19.00 -1.2
1.0s 8.20nm 5.0mb
LPL 96.43 43 eP 56 26.50 0.6
0.7s 2.10nm 4.6mb
LPG 96.44 43 eP 56 26.80 0.8
0.8s 5.90nm 5.0mb
CTA 125.23 219 iPKPd 01 58.00 0.5
GBA 144.89 101 PKP 02 34.00 0.1
e 05 57.00
HYB 147.22 95 ePKP 02 38.50 0.7

02d 22h

0.8s 69.20nm
e 02 44.00
NDI 147.82 74 ePKP 02 39.00 0.6
KUSJ 147.85 314 ePKP 02 40.40 2.4X
ASAJ 148.71 317 ePKP 02 43.40 4.1X
HOOJ 149.10 313 ePKP 02 44.60 4.6X
MRRJ 150.54 315 ePKP 02 47.90 5.8X
DMN 154.79 76 PKP 02 49.80 0.8
KKN 154.94 76 PKP 02 50.00 0.9
PKI 155.06 77 PKP 02 49.40 0.0
MAT 155.09 305 ePKP 02 58.00 9.2X
GUN 155.47 76 PKP 02 51.00 1.0
S.D. = 1.1 on 112 of 124 obs.

? MAR 02, 1993 21h 52m 08.94± 0.98s
6.491 S ±14.4km 146.926 E ±11.2km
DEPTH = 33.0km (normal)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC 0.93 98 eP 52 26.00 0.3
YYYY 0.98 285 eP 52 40.30 13.7X
eS 53 09.00
PMG 2.91 175 iPc 53 00.50 6.6X
eS 53 06.90
WWKK 4.35 311 eP 53 15.30 0.8
MTN 16.80 247 iPc 56 05.70 2.3X
WB2 18.11 221 iPc 56 20.70 1.0
0.2s 61.20nm 5.4mb
eS 59 51.50
ASPA 21.18 215 iPd 56 53.30 -0.6
0.4s 30.40nm 5.1mb
eS 00 48.50
WARB 27.53 222 eP 57 52.00 -2.8X
HYB 71.56 291 eP 03 28.00 -1.4
MAIO 91.73 306 iPd 05 24.00 9.1X
S.D. = 1.4 on 5 of 10 obs.

& MAR 02, 1993 22h 02m 26.37s
61.120 N 150.851 W
DEPTH = 48.5km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

SUA 0.35 9 iPc 02 35.79 -0.3
eS 02 43.91
NKA 0.42 207 iPd 02 38.16 1.5
SPU 0.59 277 iPd 02 38.24 -0.5
eS 02 48.12
CGLM 0.59 289 eP 02 37.78 -1.0
PMS 0.64 78 iPc 02 39.08 -0.3
S 02 49.35
CPAM 0.64 283 iPd 02 39.00 -0.5
S 02 49.08
CRP 0.65 284 eP 02 38.78 -0.9
eS 02 49.72
CKN 0.65 280 iPd 02 39.20 -0.4
eS 02 49.96
CKT 0.66 278 iPd 02 39.06 -0.7
eS 02 49.55
SLKM 0.69 153 iPc 02 39.33 -0.7
eS 02 49.88
CP2 0.69 283 eP 02 39.67 -0.6
eS 02 50.64
PWA 0.71 41 ePd 02 39.98 -0.3
S 02 50.56
CKL 0.73 277 iPd 02 39.88 -0.7
eS 02 50.74
BGL 0.76 282 ePd 02 40.29 -0.8
SKT 0.92 340 iPd 02 42.41 -0.8
eS 02 55.57
PTE 0.93 105 ePc 02 42.59 -0.6
RDT 0.94 235 eP 02 42.53 -0.9
PLRM 0.95 59 eP 02 42.62 -1.0
eS 02 56.22
PMR 0.95 59 eP 02 42.37 -1.2
eS 02 55.76
MPA 0.97 130 eP 02 43.40 -0.4
DFR 1.04 240 iPd 02 43.97 -1.0
eS 02 57.84
GHO 1.13 54 ePd 02 45.17 -1.0
S 03 00.56
RSO 1.14 236 iPd 02 45.53 -0.9
eS 03 01.33
RS2 1.14 236 ePd 02 45.58 -0.9
eS 03 01.67
RS1 1.15 236 iPd 02 45.60 -0.9
RDW 1.15 237 iPd 02 45.60 -1.0
S 03 01.28
NCT 1.16 242 iPd 02 45.72 -0.9
eS 03 01.71
SEW 1.23 145 eP 02 47.29 -0.2
BRLK 1.36 181 eP 02 48.39 -0.9
SML 1.39 59 ePd 02 48.46 -1.3
INE 1.52 227 eP 02 50.95 -0.8
CNPM 1.61 187 eP 02 51.63 -1.2
OPT 1.89 220 eP 02 56.69 -0.1
PDB 2.13 233 eP 02 58.93 -1.2
TRF 2.35 6 eP 03 03.07 -0.4
KLU 2.41 79 eP 03 01.77 -2.4
MCNL 2.61 223 eP 03 06.69 -0.3
SYI 2.64 198 eP 03 06.15 -1.2
FBA 4.04 19 (P) 03 23.90 -3.4
IMA 5.13 347 (P) 03 39.73 -3.0
40 obs. associated

% MAR 02, 1993 23h 43m 30.42± 0.63s
26.375 S ± 5.7km 27.318 E ± 6.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY 0.57 166 eP 43 42.90 1.1
S 43 49.60
KSR 0.63 323 eP 43 43.00 -0.1
S 43 50.50
BPI 0.67 73 eP 43 43.60 -0.2
S 43 49.00
SLR 1.08 54 eP 43 50.90 -0.3
S 44 05.00
SWZ 1.95 245 iPd 44 06.00 1.3
S 44 30.40
SEK 1.96 172 eP 44 04.00 -0.8
S 44 28.00
BFT 2.55 75 eP 44 14.00 0.7
S 44 44.00
BLF 2.90 200 eP 44 18.00 -0.3
FRS 3.80 207 e(P) 44 29.50 -1.3
S.D. = 1.0 on 9 of 9 obs.

MAR 02, 1993 23h 48m 49.21± 0.57s
43.100 N ± 8.2km 0.275 W ± 4.0km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.0 (LDG). mbLg 2.9 (MDD).
Felt (III) at Asson, France.

BTH 0.05 65 iPgc 48 51.50 0.1
JAU 0.09 228 Pg 48 51.41 -0.6
OGE 0.16 295 Pg 48 52.87 -0.1
Sg 48 55.51
ESCF 0.22 265 Pg 48 53.45 -0.6
Sg 48 56.46
ATE 0.31 268 Pg 48 54.97 -0.7
Sg 48 59.48
LHE 0.32 234 Pg 48 55.03 -0.8
Sg 48 59.19
ISSF 0.39 260 Pg 48 56.92 -0.3
Sg 49 01.82
MADF 0.40 277 Pg 48 56.98 -0.5
Sg 49 02.75
EPF 0.46 98 Pg 48 58.50 0.0
Sg 49 04.10
ELYF 0.53 278 Pg 48 59.80 -0.1
Sg 49 07.02
BOH 0.54 271 Pg 48 59.93 -0.2
Sg 49 06.78
EGRA 0.90 182 eP 49 11.70 5.2X
eS 49 27.00
ELIZ 0.92 274 eP 49 08.50 1.7
eS 49 19.50
ECRI 1.72 254 eP 49 21.90 2.6
eS 49 44.00
LPO 1.90 33 Pg 49 25.80 3.8X
Sg 49 51.60
LFF 1.98 21 Pg 49 27.30 4.2X
Sg 49 53.50
CAF 2.49 42 Pn 49 30.50 0.1
Pg 49 36.60
Sg 50 09.00
RJF 2.55 30 Pn 49 30.70 -0.6
Pg 49 37.20
Sg 50 10.30
LSF 3.40 22 Pg 49 52.60 9.2X
Sg 50 37.30
MFF 3.50 1 Pg 49 53.50 8.7X
Sg 50 40.50
TCF 3.65 28 Pg 49 57.40 10.5X
Sn 50 28.90
Sg 50 45.20
MAF 3.72 32 Pg 49 56.50 8.5X
Sg 50 47.40
BGF 4.11 32 Pg 50 06.50 13.1X
Sg 50 59.20
S.D. = 1.0 on 15 of 23 obs.

% MAR 02, 1993 23h 52m 16.45± 0.84s
26.408 S ± 6.6km 27.385 E ± 9.1km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY 0.52 171 eP 52 26.00 -1.0
S 52 34.00
KSR 0.70 321 eP 52 29.90 -0.5
S 52 30.00
SLR 1.05 50 eP 52 37.00 0.2
S 52 51.50
SEK 1.92 174 eP 52 51.00 0.7
S 53 17.00
SWZ 2.00 247 eP 52 51.90 0.5
S 53 17.60
FRS 3.80 208 eP 53 20.00 3.1X
S.D. = 1.0 on 5 of 6 obs.

? MAR 03, 1993 01h 13m 52.18± 2.04s
32.555 S ±12.8km 176.815 W ±27.7km
DEPTH = 33.0km (normal)
4.8mb (4 obs.)
SOUTH OF KERMADEC ISLANDS (179)

URZ 7.55 219 P 15 42.90 0.3
S 17 07.90
MNG 10.15 215 P 16 17.60 -1.1
DZM 18.15 301 iPc 18 02.20 -1.2
RMQ 30.48 272 eP 20 06.00 1.7
STK 35.04 260 eP 20 45.20 1.3
0.5s 2.50nm 4.4mb
CTA 35.18 281 iPc 20 45.50 0.3
1.0s 10.00nm 4.7mb
ASPA 44.04 269 iPc 21 58.40 -0.3
0.6s 15.90nm 5.0mb
WB2 45.21 274 iPd 22 07.30 -0.8
0.4s 36.00nm 5.6mb
i 22 21.40
i 24 14.80
KAF 146.91 340 iPKP 33 34.60 4.6X
0.6s 8.80nm
OBN 147.50 324 ePKP 33 31.00 -0.1
e 33 37.00
e 33 52.00
e 34 33.00
BCAO 148.55 210 iPKPc 33 39.00 4.9X
1.6s 52.00nm
NUR 148.68 340 iPKP 33 40.40 7.6X
0.5s 12.80nm
NB2 151.02 352 PKP 33 45.90 9.4X
0.7s 4.50nm
HFS 151.55 349 ePKP 33 46.80 9.6X
0.6s 9.00nm
LIC 152.71 162 PKP 33 54.60 14.3X
KIC 152.91 162 PKP 33 55.00 14.4X
TIC 153.11 162 PKP 33 55.60 14.8X
S.D. = 1.2 on 9 of 17 obs.

& MAR 03, 1993 01h 14m 07.72s
62.711 N 150.636 W
DEPTH = 80.4km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.53 59 iPd 14 21.88 -0.1
eS 14 32.54
TRF 0.76 12 eP 14 24.31 -0.2
eS 14 37.58
SKT 0.84 210 iPc 14 25.08 -0.2
eS 14 38.40
RND 1.07 49 iPd 14 27.46 -0.5
eS 14 42.63
PWA 1.12 161 P 14 29.00 0.5
GHO 1.24 139 ePc 14 30.30 0.2
eS 14 48.87

SUA 1.25 182 ePc 14 30.38 0.0
eS 14 49.44
MCK 1.28 36 eP 14 30.53 -0.1
PLRM 1.33 147 eP 14 31.14 0.0
eS 14 50.65
PMR 1.33 147 eP 14 30.52 -0.6
SML 1.41 129 ePc 14 32.06 -0.2
eS 14 51.74
CGLM 1.55 205 eP 14 34.65 0.4
PMS 1.56 160 eP 14 35.90 1.7
eS 14 58.10
CRP 1.62 207 eP 14 34.25 -0.9
eS 14 55.13
CPAM 1.63 207 eP 14 34.89 -0.3
eS 14 57.07
CP2 1.64 208 (P) 14 34.26 -1.2
CKN 1.66 207 eP 14 35.77 0.1
BGL 1.67 210 eP 14 36.25 0.4
SPU 1.68 204 ePc 14 35.51 -0.3
eS 14 57.64
CKT 1.69 207 eP 14 35.61 -0.4
CKL 1.72 209 eP 14 36.33 -0.2
SCM 1.78 118 iPc 14 36.72 -0.6
NKA 2.00 189 eP 14 42.62 2.5
NEA 2.00 20 eP 14 38.59 -1.6
eS 15 01.47
PTE 2.01 157 ePc 14 39.37 -0.8
SLKM 2.22 175 eP 14 42.80 -0.4
MPA 2.31 164 ePc 14 43.73 -0.7
CCB 2.32 32 eP 14 43.24 -1.2
eS 15 10.20
THY 2.33 70 eP 14 45.65 0.9
DFR 2.34 206 eP 14 44.79 -0.1
SDG 2.36 92 eP 14 44.84 -0.3
eS 15 17.35
HDA 2.37 42 iPd 14 43.84 -1.4
eS 15 11.16
PAX 2.38 81 iPc 14 45.22 -0.3
eS 15 15.72
NCT 2.42 208 eP 14 46.04 0.0
RDW 2.47 206 eP 14 46.94 0.2
RS2 2.47 205 eP 14 46.92 0.0
RSO 2.47 205 eP 14 47.33 0.5
RS1 2.48 205 eP 14 47.42 0.5
MDM 2.50 24 eP 14 45.64 -1.4
TZL 2.52 103 eP 14 48.97 1.7
KLU 2.53 117 iPc 14 45.81 -1.7
FBA 2.53 29 eP 14 45.16 -2.3
VLZ 2.58 126 eP 14 49.51 1.4
SEW 2.68 167 eP 14 48.64 -0.8
GLM 2.70 31 eP 14 48.45 -1.4
SVW 2.85 238 P 14 51.50 -0.5
INE 2.90 205 P 14 48.20 -4.6
HIN 3.05 138 eP 14 52.99 -1.7
CNPM 3.21 185 eP 14 56.28 -0.6
PDB 3.40 212 eP 14 59.18 -0.3
GLB 3.45 109 iPc 14 58.21 -2.1
IMA 3.62 340 eP 15 00.85 -1.8
BALM 4.27 109 eP 15 09.35 -2.4
53 obs. associated

MAR 03, 1993 01h 17m 03.16± 0.50s
39.763 N ± 7.1km 25.574 E ± 4.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (THE). MD 3.3 (ISK), 3.1 (ATH).

EZN 0.58 84 iPg 17 13.70 -1.2
eSg 17 20.20
PRK 0.75 134 ePb 17 17.50 -0.3
eSg 17 28.00
ALN 1.19 17 ePg 17 24.90 -0.4
eSg 17 41.34
OUR 1.35 296 ePb 17 26.58 -1.4
eSb 17 42.58
RDO 1.38 359 ePb 17 28.00 -0.4
PAIG 1.47 277 ePb 17 28.62 -1.0
eSb 17 48.98
EDC 1.85 71 ePn 17 36.00 0.8
IZM 1.89 136 iPn 17 35.20 -0.7
BNT 1.90 71 ePn 17 36.20 0.3
SOH 2.00 303 ePb 17 37.40 0.0
eSb 18 02.30
SRS 2.03 312 ePb 17 37.74 -0.1
KCT 2.19 76 ePn 17 41.00 0.8
DST 2.36 93 ePn 17 41.20 -1.4
LIT 2.40 279 ePn 17 43.40 0.3
CTT 2.58 57 ePn 17 49.90 4.2X
AGG 2.62 255 ePn 17 47.98 1.7
GRG 2.70 297 ePn 17 48.30 0.8
YLV 3.02 73 ePn 17 54.00 2.0
S.D. = 1.1 on 17 of 18 obs.

& MAR 03, 1993 02h 01m 48.48s
33.668 N 116.772 W
DEPTH = 13.3km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS).

PLM 0.32 193 iPd 01 54.94 -0.5
PEC 0.39 305 ePd 01 55.76 -0.9
SSK 0.94 306 eP 02 05.25 -0.9
S 02 17.51
GSC 1.63 359 eP 02 16.01 -1.0
GLA 1.74 110 ePn 02 16.53 -2.0
TNP 4.42 355 (P) 03 02.74 5.9
BONR 4.45 344 (Pn) 02 56.86 -0.6
ePg 03 11.54
7 obs. associated

MAR 03, 1993 02h 22m 48.62± 0.60s
39.742 N ± 7.4km 25.544 E ± 4.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (THE). MD 3.2 (ISK), 3.0 (ATH).

EZN 0.61 82 iPg 22 59.30 -1.6
iSg 23 08.80
PRK 0.75 131 ePb 23 03.20 -0.1
eSb 23 14.00
ALN 1.22 18 ePb 23 10.82 -0.4
eSb 23 27.46
OUR 1.34 297 ePb 23 12.98 -0.3
eSb 23 32.70
RDO 1.40 360 ePb 23 14.00 -0.2
PAIG 1.45 278 ePb 23 15.46 0.6
eSb 23 35.98
IZM 1.89 135 ePn 23 22.00 0.7
SDH 1.99 303 ePn 23 22.30 -0.5
SRS 2.03 313 ePn 23 22.62 -0.6
KCT 2.22 76 ePn 23 27.00 1.0
DST 2.38 92 ePn 23 26.20 -2.2
CTT 2.61 57 ePn 23 33.00 1.4
DMK 2.67 38 ePn 23 33.00 0.5
GRG 2.69 298 ePn 23 33.10 0.3
YLV 3.05 73 ePn 23 39.00 1.2
S.D. = 1.1 on 15 of 15 obs.

? MAR 03, 1993 02h 24m 32.89± 2.14s
31.258 S ±15.2km 68.854 W ±14.6km
DEPTH = 112.5 ± 23.0 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.34 102 iPc 24 49.00 -0.4
CFA 0.63 124 ePc 24 51.50 0.3
S 25 04.40
RTBS 0.65 232 ePd 24 50.90 -0.4
S 25 04.30
RTCV 0.66 156 iPd 24 51.80 0.3
RTRS 1.20 334 ePd 24 57.00 0.3
S 25 13.70
MRA 2.91 114 ePc 25 18.80 0.3
TCA 3.65 92 iPc 25 28.10 -0.5
(S) 26 09.50
S.D. = 0.5 on 7 of 7 obs.

---

* MAR 03, 1993 03h 12m 52.39± 1.69s
71.369 N ±17.0km 10.305 W ±21.2km
DEPTH = 10.0km (geophysicist)
4.0mb (1 obs.)
JAN MAYEN ISLAND REGION (639)
MD 3.6 (BER).

JMI 0.68 130 iPc 13 06.53 0.7
JNW 0.70 118 iPc 13 06.52 0.4
JNE 0.75 119 iPc 13 07.13 0.0
eS 13 15.72
DAG 5.90 341 iPd 14 22.00 0.2
0.6s 34.67nm 5.2mb X
ARA0 12.01 81 Pn 15 46.06 -0.3
NRA0 13.75 130 Pn 16 08.41 -1.1
KSP 23.86 135 ePc 18 10.40 4.2X
GEC2 25.20 141 P 18 22.90 3.7X
1.0s 3.16nm 4.0mb
e 18 27.00
S.D. = 0.8 on 6 of 8 obs.

MAR 03, 1993 03h 24m 26.46± 0.84s
40.495 N ± 5.2km 78.979 E ± 4.1km
DEPTH = 28.9 ± 6.6 km
4.5mb (21 obs.)
SOUTHERN XINJIANG, CHINA (321)

KSH 2.53 247 Pn 25 06.60 0.0
TLG 3.02 337 iPnc 25 18.90 5.5X
i 25 24.00
e 25 29.00
i 26 03.00
FRU 4.02 307 ePnc 25 32.00 4.4X
i 25 41.00
i 25 47.50
eS 26 26.00
i 26 34.00
WMQ 7.28 60 Pn 26 13.00 -0.6
Sn 27 35.50
Sg 28 16.60
NDI 11.87 188 iPc 27 11.50 -5.3X
0.6s 42.00nm 5.8mb X
eS 29 16.00
GKN 13.30 158 P 27 30.20 -5.9X
ELT 13.69 19 eP 27 39.70 -1.0
1.2s 37.00nm 5.1mb
KKN 13.70 156 P 27 35.60 -5.7X
GUN 13.78 153 P 27 38.30 -4.2X
DMN 13.81 157 P 27 37.00 -5.9X
PKI 13.94 156 P 27 35.80 -8.8X
0.6s 22.00nm 5.1mb
LSA 14.65 134 P 27 55.00 1.0
MAIO 15.84 261 eP 28 14.00 5.0X
GTA 16.02 87 eP 28 10.00 -1.4
Z 12s 0.30um
E 12s 0.26um
pP 28 15.50
ASH 16.19 268 eP 28 18.20 4.8X
ZAK 19.63 52 eP 28 56.00 0.5
0.8s 8.00nm 4.1mb
LZH 19.98 95 eP 29 03.00 3.4X
1.2s 18.00nm 4.3mb
SVE 20.22 330 ePd 29 02.00 0.3
2.0s 40.00nm 4.4mb
Z 11s 0.10um 3.4MszX
N 11s 0.50um
E 11s 0.30um
ARU 20.75 327 ePd 29 08.00 0.9
1.0s 50.00nm 4.9mb
e 29 32.00
CD2 22.22 108 eP 29 23.60 1.4
HYB 23.00 181 eP 29 30.00 0.1
BTO 23.53 80 eP 29 36.20 1.2
XAN 24.61 96 eP 29 46.50 1.0
pP 29 54.50 28kmX
HHC 24.64 78 P 29 50.20 4.4X
1.4s 9.30nm 4.2mb
TIY 26.02 85 Pd 30 02.00 3.2X
GBA 26.82 183 P 30 04.70 -1.4
GYA 26.87 113 P 30 10.80 4.1X
1.0s 12.00nm 4.5mb
CHTO 27.59 136 eP 30 12.90 -0.2
BOD 28.38 40 eP 30 18.80 -1.2
KAF 37.97 323 eP 31 44.10 1.1
NUR 38.54 320 eP 31 48.00 0.2
TIK 39.71 22 iPc 31 52.00 -5.4X
1.0s 10.00nm 4.5mb
e 32 04.00
UPP 42.02 319 iP 32 16.80 0.4
HFS 43.98 319 eP 32 32.70 0.3
0.6s 10.40nm 4.9mb
Z 17s 115.00um 6.9MszX
LR 48 48.00
NB2 45.13 321 P 32 41.70 -0.1
0.7s 6.50nm 4.7mb
GEC2 45.87 303 P 32 49.00 1.2
0.8s 1.26nm 3.9mb
BSF 50.57 304 eP 33 24.30 -0.1
LPG 51.43 301 eP 33 31.40 0.3
LPL 51.43 301 eP 33 31.30 0.2
0.8s 3.75nm 4.4mb
SMF 52.87 303 eP 33 41.10 -0.6
AVF 53.13 304 eP 33 43.00 -0.5

0.9s 5.10nm 4.5mb
ILT 57.51 26 iPc 34 14.60 -0.3
BCAO 64.87 253 ePd 35 04.00 -1.3
0.5s 3.00nm 4.7mb
IMA 66.31 21 eP 35 13.50 -0.6
0.7s 3.76nm 4.6mb
FBA 68.76 19 eP 35 28.68 -0.6
0.8s 4.75nm 4.6mb
PMR 71.06 22 eP 35 43.59 0.3
0.9s 12.50nm 5.0mb
PMS 71.22 23 e(P) 35 44.60 0.2
BALM 73.37 20 eP 35 58.09 0.9
YKA 76.78 6 eP 36 15.50 -0.9
0.8s 3.00nm 4.4mb
WRA 79.14 128 P 36 32.30 2.3X
0.4s 0.40nm 3.8mb
WB2 79.14 128 eP 36 32.20 2.1X
0.7s 2.20nm 4.3mb
KIC 81.14 271 P 36 40.60 -0.3
LIC 81.44 271 P 36 42.20 -0.3
ARE 144.97 305 ePKP 44 04.00 0.8X
S.D. = 0.8 on 36 of 54 obs.

MAR 03, 1993 03h 29m 28.16± 0.39s
45.396 N ± 2.8km 7.618 E ± 3.9km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.7 (LDG), 2.6 (GEN).

LSD 0.33 281 P 29 35.16 0.3
S 29 39.60
ORX 0.35 47 P 29 35.25 0.1
S 29 39.60
RSP 0.35 226 P 29 35.43 0.1
S 29 40.01
BHB 0.61 204 P 29 39.78 -0.6
S 29 50.08
LPG 0.62 280 Pg 29 40.10 -0.5
Sg 29 47.90
LPL 0.63 281 Pg 29 40.40 -0.5
Sg 29 48.80
RRL 0.76 231 P 29 43.07 -0.5
PZZ 0.96 203 P 29 45.77 -1.3
PCP 1.08 142 P 29 49.30 0.3
ROB 1.12 171 P 29 49.94 0.3
STV 1.17 190 P 29 49.02 -1.5
ENR 1.18 187 P 29 48.84 -1.8
FIN 1.26 160 P 29 51.95 -0.1
IMI 1.50 172 P 29 55.07 -0.7
SBF 1.54 185 Pn 29 56.30 -0.1
FRF 1.96 201 Pn 30 04.80 2.4
Sn 30 29.90
LRG 2.14 205 Pn 30 07.20 2.2
Sn 30 35.00
CDR 2.17 218 eP 30 10.00 4.5X
e 30 36.00
LMR 2.21 201 Pn 30 08.10 2.1
Sn 30 35.90
FEL 2.50 6 ePn 30 09.83 -0.4
BSF 2.50 347 Pn 30 10.30 0.0
Pg 30 15.80
Sn 30 39.40
Sg 30 46.40
HAU 2.75 342 Pn 30 13.80 0.0
Pg 30 21.20
Sg 30 55.70
SMF 2.91 297 Pn 30 16.60 0.6
Pg 30 25.60
Sg 30 59.50
LBF 2.99 303 Pn 30 17.40 0.3
Pg 30 26.40
Sg 31 01.40
CDF 3.03 356 Pn 30 17.20 -0.5
LOR 3.21 307 Pn 30 20.30 0.1
Pg 30 30.60
Sg 31 07.50
AVF 3.28 297 Pn 30 21.20 0.0
Sg 31 10.00
SSF 3.30 302 Pn 30 21.70 0.1
Sg 31 11.30
BGF 3.52 291 Pn 30 24.80 0.1
Sg 31 19.30
MAF 3.63 285 Pn 30 25.90 -0.3
Pg 30 36.40
Sg 31 20.60
TCF 3.88 285 Pn 30 29.80 0.0
CAF 3.96 265 Pn 30 30.70 -0.2

S.D. = 0.9 on 31 of 32 obs.

& MAR 03, 1993 04h 14m 27.51s
35.630 N 117.447 W
DEPTH = 3.3km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 3.0 (PAS), 2.7 (GS).

GSC 0.62 122 iPc 14 39.10 -0.8
ISA 0.84 273 ePn 14 42.81 -1.4
eS 14 54.04
SSK 1.43 188 ePn 14 53.23 -1.3
TPNV 1.63 36 ePn 14 56.00 -1.4
ePg 14 58.19
PEC 1.75 172 eP 14 57.61 -1.3
MTUM 1.94 333 ePn 15 03.20 1.3
eS 15 29.04
BCH 2.20 259 ePn 15 03.98 -1.6
PLM 2.32 168 ePn 15 05.96 -1.4
ePg 15 10.35
eS 15 39.90
MEMM 2.36 330 ePn 15 07.62 -0.1
ePg 15 11.24
eS 15 42.02
PHAM 2.41 276 (P) 15 07.95 -0.5
BONR 2.42 344 ePn 15 08.60 -0.3
TNP 2.45 4 ePn 15 09.30 0.0
ePg 15 12.75
eS 15 45.87
GLA 3.36 139 ePn 15 20.38 -1.7
ARUT 3.87 55 ePg 15 39.87 10.4
eS 16 29.56
14 obs. associated

? MAR 03, 1993 04h 15m 21.64± 1.75s
5.442 S ±31.4km 68.706 E ±21.2km
DEPTH = 10.0km (geophysicist)
CHAGOS ARCHIPELAGO REGION (426)

GBA 20.81 25 P 20 05.00 -0.9
DMN 36.48 25 P 22 29.40 0.2
PKI 36.57 25 P 22 29.60 -0.5
GKN 36.63 24 P 22 30.60 0.2
KKN 36.71 25 P 22 31.20 0.1
GUN 37.07 26 P 22 34.40 0.1
CHTO 38.32 50 eP 22 45.10 0.5
MAIO 42.41 349 iPc 23 19.00 0.8
KIC 74.24 278 P 27 01.00 -0.3
S.D. = 0.6 on 9 of 9 obs.

---

* MAR 03, 1993 04h 28m 04.63± 1.46s
45.183 N ±11.8km 150.211 E ±11.5km
DEPTH = 52.4 ± 12.0 km
4.1mb (6 obs.)
KURIL ISLANDS (221)

KUR 1.66 273 iPnc 28 32.00 0.3
KUSJ 4.47 244 eP 29 10.20 -1.3
eS 29 58.90
ASAJ 5.50 262 eP 29 28.90 2.8X
YSS 5.53 292 (Pn) 29 26.40 0.1
HOOJ 5.74 243 eP 29 30.10 0.8
eS 30 33.90
SKR 6.76 34 ePn 29 43.30 -0.3
MRRJ 7.16 251 eP 29 49.80 0.6
eS 31 07.20
OFUJ 8.80 229 eP 30 05.40 -6.4X
eS 31 39.90
MGD 14.95 1 eP 31 32.00 -1.9
SEY 17.80 3 eP 32 11.70 1.9
YAK 20.63 332 eP 32 44.40 2.7
0.9s 138.00nm 5.3mb X
i 36 30.00
ILT 27.92 25 iPc 33 50.00 -1.3
1.2s 12.00nm 4.4mb
FBA 38.64 37 eP 35 24.90 0.8
1.0s 0.90nm 3.6mb
epP 35 37.50 47kmX
GUN 53.11 274 P 37 19.20 -0.3
YKA 53.38 35 eP 37 20.20 -0.3
0.6s 1.20nm 4.1mb
KKN 53.60 274 P 37 23.10 0.2
PKI 53.65 274 P 37 21.60 -1.8
DMN 53.84 274 P 37 24.60 -0.1
GKN 53.93 275 P 37 25.40 0.2
BGMT 64.35 51 eP 38 37.80 0.6
WB2 66.40 196 eP 38 50.40 0.2

0.6s 2.30nm 4.4mb
NB2 69.03 340 P 39 05.40 -0.9
0.6s 1.10nm 4.0mb
HFS 69.19 338 eP 39 05.70 -1.5
0.5s 1.10nm 4.1mb
BAO 146.79 33 ePKP 47 42.60 1.7
e 47 57.00
S.D. = 1.3 on 22 of 24 obs.

---

* MAR 03, 1993 04h 32m 40.73± 0.84s
14.319 N ± 5.2km 61.163 W ±16.9km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
ML 2.4 (FDF). MD 2.5 (TRN).

BIM 0.22 24 iPd 32 47.35 -0.2
S 32 52.10
MVM 0.35 48 eP 32 49.36 0.2
SLW 0.37 144 iP 32 49.34 -0.1
iS 32 55.65
FDF 0.41 2 iPd 32 49.69 -0.4
S 32 56.00
CRM 0.49 29 eP 32 51.62 0.4
SLB 0.50 166 iP 32 50.97 -0.5
eS 32 58.27
SVV 1.00 183 eP 32 57.76 -0.7
eS 33 10.32
SVB 1.04 185 eP 33 00.36 1.3
eS 33 11.47
S.D. = 0.7 on 8 of 8 obs.

---

* MAR 03, 1993 04h 50m 39.81± 0.74s
24.311 S ± 8.6km 67.159 W ±10.1km
DEPTH = 195.6 ± 9.3 km
4.1mb (2 obs.)
CHILE-ARGENTINA BORDER REGION (127)

SLA 1.57 106 iPd 51 15.00 0.7
S 51 40.60
HJA 1.94 56 iPd 51 18.40 0.7
FSA 2.05 150 iP 51 20.00 1.2
YJA 2.62 36 iPd 51 25.50 -0.2
(S) 51 59.00
ANT 3.04 281 iP+ 51 28.50 -1.6
iS 52 04.50
TCA 7.36 163 iP 52 25.30 -0.4
CNCB 7.50 354 P 52 28.30 0.2
S 53 52.00
LPB 7.79 353 P 52 32.50 0.7
eS 53 56.00
ZOBO 8.03 353 Pc 52 34.50 -0.7
0.6s 10.16nm 4.3mb
PPD 14.75 84 eP 53 58.20 -2.2
e 54 03.60
VAO 18.54 90 eP 54 43.80 -0.5
e 54 45.40
e 54 48.40
BAO 19.96 68 eP 54 58.90 0.1
e 55 09.90
YKA 94.36 340 eP 03 39.70 2.0
0.5s 0.40nm 3.8mb
S.D. = 1.3 on 13 of 13 obs.

---

* MAR 03, 1993 05h 05m 07.88± 1.04s
49.829 N ±19.5km 28.703 W ±10.5km
DEPTH = 10.0km (geophysicist)
4.4mb (22 obs.) 3.9Msz (2 obs.)
NORTHERN MID-ATLANTIC RIDGE (403)

EKA 16.42 61 P 09 00.00 0.3
2.2s 88.70nm 4.5mb
LPF 18.23 85 eP 09 27.20 4.9X
1.2s 30.65nm 4.3mb
FLN 18.40 82 eP 09 29.30 4.9X
0.9s 9.50nm 4.0mb
Z 21s 0.52um
MFF 19.25 89 eP 09 35.80 0.9
0.8s 8.85nm 4.1mb
PAB 20.05 112 eP 09 42.00 -1.9
LFF 20.45 93 eP 09 47.50 -0.5
0.8s 12.20nm 4.3mb
LSF 20.46 88 eP 09 47.90 -0.1
1.0s 18.40nm 4.4mb
LPO 20.85 93 eP 09 51.20 -0.9
TCF 20.89 88 eP 09 52.60 0.1
1.0s 16.00nm 4.3mb
SNF 21.05 75 P 09 54.80 0.8

MAF 21.14 88 eP 09 55.20 0.2
1.0s 11.60nm 4.2mb
BGF 21.20 87 eP 09 55.80 0.2
0.8s 18.55nm 4.5mb
CAF 21.32 91 eP 09 56.10 -0.8
DOU 21.33 76 Pc 09 56.30 -0.6
0.8s 20.00nm 4.6mb
i 10 00.50
AVF 21.45 86 eP 09 58.10 0.0
0.9s 13.10nm 4.3mb
SSF 21.46 85 eP 09 58.20 0.0
0.8s 13.05nm 4.4mb
LOR 21.62 84 eP 10 00.70 0.9
1.4s 30.50nm 4.5mb
Z 20s 0.60um 4.0Msz
LBF 21.79 85 eP 10 01.70 0.1
SMF 21.81 86 eP 10 02.20 0.4
1.3s 29.95nm 4.6mb
WLF 22.41 77 P 10 11.00 3.4X
GDH 22.87 337 ePc 10 11.00 -1.0
1.0s 20.00nm 4.6mb
e 16 30.00
HAU 22.98 81 eP 10 13.90 0.5
0.9s 16.70nm 4.6mb
Z 23s 0.30um 3.7MszX
BSF 23.32 81 eP 10 17.40 0.6
0.8s 17.05nm 4.6mb
CDF 23.45 80 eP 10 18.80 0.7
LPL 24.10 87 eP 10 23.90 -0.6
0.9s 5.90nm 4.2mb
LPG 24.12 87 eP 10 24.00 -0.8
GRF 25.58 75 eP 10 40.20 1.8
Z 18s 0.30um 3.9Msz
HFS 25.97 50 eP 10 40.90 -1.0
0.4s 1.20nm 3.9mb
Z 16s 0.22um 3.8MszX
LR 18 14.00
GEC2 27.39 76 P 10 47.70 -7.4X
1.3s 1.23nm 3.5mb
e 10 55.30
e 10 59.20
YKA 45.87 320 eP 13 15.10 -16.4X
0.9s 0.60nm
SES 50.15 304 eP 14 08.00 2.8
FBA 56.30 333 eP 14 47.80 -2.7
0.9s 0.80nm 3.7mb
BCAO 60.20 122 iPd 15 23.50 5.1X
0.8s 14.00nm 5.1mb
BAO 67.37 200 (P) 16 11.00 5.6X
ZOBO 74.45 219 Pc 16 41.50 -7.2X
LR 18 22.00
WB2 147.26 30 ePKP 24 51.30 0.7
0.6s 1.40nm
S.D. = 1.1 on 28 of 36 obs.

? MAR 03, 1993 05h 17m 31.01± 1.28s
25.419 N ±15.4km 90.230 E ±15.0km
DEPTH = 33.0km (normal)
4.5mb (1 obs.)
INDIA-BANGLADESH BORDER REGION (315)

GUN 4.62 303 P 18 41.60 1.0
PKI 4.82 297 P 18 42.80 -0.7
KKN 5.02 299 P 18 47.20 0.9
DMN 5.08 297 P 18 46.60 -0.6
GKN 5.63 298 P 18 54.00 -0.7
HYB 13.47 236 eP 20 42.50 0.2
WB2 62.23 132 eP 27 52.00 -0.1
0.6s 2.60nm 4.5mb
S.D. = 0.9 on 7 of 7 obs.

% MAR 03, 1993 06h 29m 20.78± 1.68s
39.817 N ± 9.5km 23.796 E ±12.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.1 (THE).

PAIG 0.14 321 ePg 29 23.66 -0.4
eSg 29 26.38
OUR 0.54 15 ePg 29 31.34 -0.3
eSg 29 39.34
THE 1.03 322 ePg 29 40.78 0.5
eSg 29 54.34
LIT 1.04 286 ePg 29 40.10 -0.4
eSg 29 54.94
SOH 1.06 342 ePg 29 41.06 0.3
eSg 29 55.90
SRS 1.31 353 ePb 29 44.90 -0.1
eSb 30 03.38
AGG 1.39 236 ePb 29 46.22 0.1
eSb 30 06.02
GRG 1.56 317 ePb 29 48.94 0.3
eSb 30 09.66
S.D. = 0.4 on 8 of 8 obs.

% MAR 03, 1993 06h 36m 03.33± 1.20s
41.132 N ±10.3km 22.439 E ± 6.2km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (THE).

GRG 0.18 189 ePg 36 07.26 -0.1
eSg 36 10.14
KNT 0.35 85 ePg 36 10.58 0.1
eSg 36 15.70
THE 0.64 141 ePg 36 15.18 -0.9
eSg 36 23.30
SOH 0.76 114 ePg 36 17.70 -0.5
eSg 36 28.30
SRS 0.87 91 ePg 36 19.94 -0.2
eSg 36 31.46
FNA 0.88 247 ePg 36 20.06 -0.2
eSg 36 31.46
LIT 1.03 178 ePg 36 22.94 0.1
eSg 36 37.30
OUR 1.42 124 ePb 36 29.70 0.6
PAIG 1.53 141 ePb 36 31.80 1.1
S.D. = 0.7 on 9 of 9 obs.

? MAR 03, 1993 07h 40m 17.63± 1.75s
38.466 N ±14.8km 29.232 E ±14.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.0 (ISK).

KHL 0.27 122 iPg 40 23.40 0.0
eSg 40 29.40
ALT 0.90 49 ePn 40 35.00 0.0
DST 1.23 338 ePn 40 41.00 0.4
KCT 1.91 339 ePn 40 50.00 -0.5
S.D. = 0.6 on 4 of 4 obs.

MAR 03, 1993 08h 18m 22.50± 0.64s
51.084 N ±10.8km 176.193 W ± 6.6km
DEPTH = 16.3km (2 depth phases)
4.4mb (10 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
ML 4.4 (PMR).

ADK 0.86 339 iPd 18 38.42 -0.1
SMY 6.23 289 eP 19 57.70 1.9
SDN 10.33 60 eP 20 52.90 0.1
SVW 15.18 41 eP 21 59.71 2.2
0.9s 23.18nm 4.5mb
KDC 15.27 55 eP 22 00.01 1.3
0.3s 6.08nm 4.4mb
TTA 16.08 35 eP 22 10.23 1.0
0.9s 7.28nm 3.8mb
SLKM 17.27 47 eP 22 22.39 -1.8
PMS 17.85 45 eP 22 30.60 -0.8
IMA 18.88 29 eP 22 43.60 -0.5
0.7s 3.20nm 3.6mb
KLU 19.58 46 eP 22 51.31 -1.1
FBA 20.20 36 eP 22 56.40 -2.4X
BALM 21.12 49 (P) 23 09.76 1.3
BRW 22.13 17 eP 23 16.79 -1.6
e 23 31.08
YKA 34.25 47 eP 25 06.30 -2.8X
0.5s 0.70nm 3.8mb
NEW 37.45 71 eP 25 36.99 0.6
0.7s 18.36nm 5.0mb
epwP 25 53.46
LCCM 41.76 71 eP 26 12.90 0.6
BW06 44.83 73 eP 26 37.22 -0.2
0.8s 9.85nm 4.8mb
epP 26 42.19 17km
esP 26 45.91
epwP 26 54.02
PV09 47.63 78 eP 27 00.00 0.3
GOL 49.19 74 eP 27 12.38 0.6
0.6s 4.21nm 4.6mb
epP 27 17.21 16km
(sP) 27 20.06
MIAR 59.67 72 (P) 28 27.16 -0.9
0.9s 5.75nm 4.7mb
LHS 67.15 63 eP 29 16.25 -1.1
GUN 73.48 294 P 29 55.40 -0.9
PKI 74.01 294 P 30 00.00 0.6
GKN 74.12 295 P 29 58.60 -1.2
DMN 74.15 294 P 30 01.00 0.9
WB2 82.96 226 eP 30 48.60 0.8
1.3s 1.80nm 4.1mb
GBA 89.51 291 P 31 18.00 -2.2
S.D. = 1.2 on 25 of 27 obs.

& MAR 03, 1993 08h 20m 51.05s
34.642 N 116.506 W
DEPTH = 5.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS).

GSC 0.70 340 ePc 21 04.23 -0.9
PEC 0.92 216 iPd 21 07.92 -1.3
SSK 1.07 247 eP 21 10.65 -1.2
S 21 24.50
PLM 1.32 193 eP 21 14.73 -1.3
ISA 1.91 303 ePn 21 22.36 -2.2
GLA 2.11 138 ePn 21 24.62 -2.9
ePg 21 29.91
TPNV 2.31 5 ePn 21 29.37 -1.2
BCH 2.99 281 ePn 21 38.12 -2.0
TNP 3.48 351 (Pn) 21 50.07 2.9
BONR 3.61 337 (Pn) 21 46.68 -2.4
ePg 21 58.78
ARUT 4.00 37 (P) 21 54.93 0.4
11 obs. associated

% MAR 03, 1993 08h 36m 49.77± 2.67s
44.250 N ±13.0km 6.823 E ±17.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (GEN).

PZZ 0.32 38 P 36 56.90 0.4
S 37 03.55
STV 0.36 91 P 36 56.54 -0.7
S 37 02.85
ENR 0.43 93 P 36 57.73 -0.8
S 37 04.82
BHB 0.67 28 P 37 03.13 0.0
S 37 14.66
RRL 0.67 358 P 37 02.86 -0.4
S 37 14.02
IMI 0.84 113 P 37 06.65 0.6
S 37 20.45
FIN 1.00 92 P 37 08.60 -0.1
S 37 23.18
PCP 1.27 76 P 37 14.44 1.1
S.D. = 0.8 on 8 of 8 obs.

MAR 03, 1993 08h 39m 32.23± 1.26s
36.697 N ± 7.1km 8.871 W ±12.2km
DEPTH = 33.0km (normal)
WEST OF GIBRALTAR (384)
MD 3.4 (RBA). mbLg 3.3 (MDD).

EVAL 1.91 62 ePn 40 03.80 0.7
eSn 40 22.50
CNIL 2.29 97 iP 40 12.50 4.0X
PLAT 2.58 102 iP 40 13.00 0.5
TSY 2.70 118 iP 40 14.00 -0.2
eS 40 41.50
EJIF 2.75 94 ePn 40 16.90 2.0
LIJA 2.78 85 iP 40 15.00 -0.5
EPRU 2.93 84 ePn 40 18.80 1.2
eSn 40 47.00
EHOR 3.10 68 ePn 40 19.50 -0.5
eSn 40 52.00
AVE 3.60 160 iPn 40 27.00 0.0
iSn 41 04.00
i 41 06.50
ELUQ 3.78 75 ePn 40 29.00 -0.6
eSn 41 09.00
EPLA 4.01 32 ePn 40 34.00 1.0
eSn 41 17.70
EGUA 4.26 87 ePn 40 36.00 -0.5
eSn 41 19.00
ECOG 4.29 81 ePn 40 37.10 0.2
eSn 41 20.00
EBAN 4.30 69 ePn 40 36.10 -1.0
eSn 41 20.00

```
03d  08h

PAB       4.56  50 ePg     41 29.00   48.2X
                   eSn     42 02.00
                   eSg     42 16.00
GUD       5.40  42 ePn     40 52.50   -0.1
                   eSn     41 50.00
EVIA      5.41  67 ePn     40 51.00   -1.8
                   eSn     41 48.00
TIO       5.91 166 iPn     40 59.50   -0.4
                   iSn     42 00.00
                   i       42 01.00
ANTZ      8.24 186 iPn     41 32.50    0.1
                   iSn     42 58.00
      S.D. = 0.9  on  17 of  19 obs.
-----------------------------------------
%  MAR 03, 1993  09h 00m 14.58± 0.73s
   39.135 N ± 6.4km    27.646 E ± 7.4km
    DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.9 (ISK).

IZM       0.79 202 iPg     00 30.00   -0.1
                   iSg     00 42.50
DST       0.90  58 iPn     00 32.00    0.2
EDC       1.22   8 ePn     00 37.00   -0.3
EZN       1.23 304 iPn     00 37.60    0.1
BNT       1.24  10 ePn     00 37.80    0.2
KCT       1.24  26 iPn     00 37.60    0.0
YLV       1.95  42 ePn     00 48.00   -0.2
      S.D. = 0.2  on   7 of   7 obs.
-----------------------------------------
%  MAR 03, 1993  10h 27m 26.53± 5.44s
   32.520 S ±34.8km    71.711 W ±30.6km
    DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 3.8 (SAN).

ROCH      0.74 128 iPd     27 41.13    0.4
                   iS      27 51.31
JACH      0.96 100 iPd     27 43.86    0.1
                   iS      27 56.63
LCCH      0.96 173 iP+     27 44.15    0.5
                   iS      27 56.17
PEL       1.06 126 iP      27 45.06   -0.2
                   iS      27 58.60
TACH      1.30 150 iP+     27 48.70    0.1
                   iS      28 04.86
FCH       1.44 124 iP      27 50.46   -0.4
                   iS      28 07.78
LNV       1.45 170 iP+     27 49.94   -0.8
                   (S)     28 06.69
PCH       1.49 138 eP      27 51.07   -0.3
                   iS      28 08.33
CHCH      1.67 148 iP      27 53.77   -0.1
                   iS      28 13.33
CACH      1.84 150 iP      27 57.07    0.5
                   iS      28 18.87
      S.D. = 0.5  on  10 of  10 obs.
-----------------------------------------
%  MAR 03, 1993  10h 29m 48.83± 1.00s
   38.342 N ± 9.6km    28.023 E ± 5.4km
    DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.1 (ISK).

IZM       0.60 276 iPg     30 00.50   -0.5
                   iSg     30 08.50
KHL       1.18  90 ePn     30 11.00    0.1
DST       1.35  20 iPn     30 12.90   -0.7
ALT       1.78  66 ePn     30 20.00    0.0
KCT       1.92   8 ePn     30 22.50    0.6
EZN       1.99 319 ePn     30 23.70    0.9
EDC       2.01 357 ePn     30 23.00   -0.1
BNT       2.01 358 ePn     30 22.70   -0.5
YLV       2.46  25 ePn     30 30.00    0.4
EYL       2.77  36 ePn     30 34.00   -0.1
      S.D. = 0.6  on  10 of  10 obs.
-----------------------------------------
%  MAR 03, 1993  11h 45m 26.32± 0.93s
   39.081 N ± 7.7km    27.617 E ± 9.7km
    DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

IZM       0.74 202 iPg     45 40.50   -0.3
                   iSg     45 52.50
DST       0.94  56 ePn     45 44.90    0.6
EZN       1.25 307 ePn     45 50.20    0.8

EDC       1.28   8 ePn     45 49.00   -1.0
BNT       1.29  10 ePn     45 49.70   -0.6
KCT       1.30  26 iPn     45 51.00    0.6
      S.D. = 1.0  on   6 of   6 obs.
-----------------------------------------
?  MAR 03, 1993  11h 49m 39.87± 6.19s
   42.488 N ± 8.8km     8.972 W ±56.6km
    DEPTH =  10.0km  (geophysicist)
 SPAIN                             (377)
      mbLg 2.9 (MDD).

EZAM      0.40 149 iPgd    49 47.70   -0.3
                   eSg     49 52.80
STS       0.50  38 iPg     49 50.00   -0.1
                   eSg     49 55.50
ERUA      1.36  93 ePn     50 05.10    0.3
                   eSn     50 23.00
EPLA      3.26 137 ePn     50 32.60    0.6
                   eSn     51 09.00
GUD       4.06 115 ePn     50 43.00   -0.4
      S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
?  MAR 03, 1993  12h 36m 17.92± 0.93s
   40.338 N ±12.0km    25.381 E ± 7.3km
    DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                        (365)

ALN       0.75  42 ePg     36 32.86    0.2
                   eSg     36 43.30
EZN       0.89 125 iPg     36 34.80   -0.1
                   iSg     36 47.30
OUR       1.07 270 ePg     36 38.46    0.4
                   eSg     36 53.26
SRS       1.57 300 ePb     36 45.30   -0.5
                   eSb     37 06.50
      S.D. = 0.7  on   4 of   4 obs.
-----------------------------------------
%  MAR 03, 1993  12h 44m 53.61± 1.48s
   38.249 N ±15.4km    28.712 E ± 7.6km
    DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.8 (ISK).

KHL       0.64  83 ePg     45 07.00    0.5
                   eSg     45 16.00
IZM       1.15 278 iPn     45 15.00   -0.2
DST       1.36 357 ePn     45 17.80   -0.8
ALT       1.36  53 ePn     45 18.00   -0.7
KCT       2.02 352 ePn     45 29.40    1.3
YLV       2.37  12 ePn     45 33.00   -0.2
      S.D. = 1.0  on   6 of   6 obs.
-----------------------------------------
   MAR 03, 1993  12h 54m 02.13± 0.95s
   12.470 N ± 3.9km   141.935 E ± 4.5km
   DEPTH =  49.7 ±  8.9 km
   5.3mb ( 41 obs.) 4.7Msz ( 16 obs.)
 SOUTH OF MARIANA ISLANDS          (210)

GUMO      3.07  68 eP      54 49.30    0.0
                   eS      55 28.20
                   eTT     57 17.50
PJG       3.07  68 eP      54 49.50    0.2
GUA       3.09  70 eP      54 49.20   -0.5
PLP      16.65 267 ePd     57 56.80    3.1X
DAV      16.98 253 eP      58 02.20    4.3X
CGP      17.42 258 ePc     58 03.80    0.5
RAB      19.43 148 e(P)    58 32.00    4.5X
CVP      20.10 287 eP      58 37.00    2.4
TGY      20.50 277 eP      58 36.50   -2.3
BAG      21.04 283 ePc+    58 45.00    0.5
         1.2s    312.50nm           5.5mb
                   e       02 43.00
KAGJ     21.23 333 P       58 46.90    0.8
PMG      22.34 166 eP      58 57.00   -0.2
WKYJ     22.41 346 eP      58 57.80    0.0
KUMJ     22.42 335 P       58 58.90    1.0
TKSJ     22.59 343 eP      58 59.40   -0.1
PPR      22.92 266 iPd     59 05.00    2.1
CHJJ     23.63 354 eP      59 09.60    0.0
KAKJ     23.69 356 eP      59 09.20   -0.9
SHNJ     23.70 337 P       59 11.20    0.9
YONJ     23.88 343 eP      59 12.90    0.8
MAT      24.20 353 (P)     59 14.00   -1.2
         1.3s     44.23nm           4.8mb
     Z  20s       1.77um            4.5Msz
                   eS      03 33.00
NIIJ     24.81 354 eP      59 20.90   -0.1

SSE      26.65 317 Pc+     59 38.00   -0.1
         4.0s      0.40nm           2.4mb X
     Z  20s        0.50um           4.1Msz
     N  10s        0.50um
     E  10s        0.50um
                   sS      04 16.00
VLA      31.75 346 eP      00 32.00    8.3X
         1.5s     63.00nm           5.2mb
     Z  11s        0.50um           4.5MszX
     N  15s        0.90um
     E  11s        0.50um
                   e       01 30.00
                   ePPP    01 46.00
                   iS      05 37.00
CTA      32.63 172 P       00 32.79    1.2
W82      33.06 193 eP      00 33.20   -2.1
         0.4s     10.00nm           5.0mb
WRA      33.07 193 P       00 33.50   -1.8
BJI      35.63 325 eP      00 57.00   -0.2
         1.5s    144.00nm           5.7mb
     Z  20s        1.20um           4.7Msz
     N  14s        0.57um
                   eS      06 32.00
                   eSS     08 52.00
ASPA     36.76 192 iPc     01 07.00    0.1
         0.5s      6.20nm           4.8mb
     Z  23s        1.80um           4.8MszX
                   e       02 39.30
KMI      39.04 295 P-      01 27.00    0.7
         1.5s     90.00nm           5.4mb
     Z  24s        1.00um           4.6MszX
     E  11s        0.40um
                   eS      07 04.00
LOE      39.10 282 eP      01 28.00    1.4
BRS      41.00 165 iP      01 41.50   -0.6
                   e       01 52.00
WARB     41.20 201 eP      01 44.30    0.5
LZH      41.54 311 Pd      01 48.00    1.3
         1.5s    108.00nm           5.4mb
     Z  18s        0.84um           4.7Msz
     E  13s        0.50um
                   pP      01 54.00  20kmX
                   sP      01 57.00
                   PP      03 25.00
                   eS      07 56.00
                   sS      08 08.00
                   eSS     10 52.00
BDT      41.70 282 eP      01 48.50    0.5
         1.0s     48.30nm           5.2mb
CHTO     41.80 284 iPd     01 50.10    1.3
         1.0s     19.75nm           4.8mb
DZM      41.91 145 iPd     01 50.80    1.1
PET      42.60  15 eP      01 55.00    0.1
STK      44.10 180 eP      02 06.90   -0.4
         1.0s      2.20nm           3.9mb X
ADE      47.27 184 eP      02 33.00    0.5
COOL     47.51 204 eP      02 33.70   -0.8
SMY      47.69  26 P       02 50.00   14.4X
     Z  20s        1.56um           5.0Msz
MGD      48.00   6 eP      02 36.00   -1.8
         1.0s     30.00nm           5.3mb
     Z  16s        0.50um           4.6MszX
                   e       02 52.00
                   ePPP    05 24.00
                   eS      09 35.00
                   eSS     13 00.00
MRWA     48.42 211 eP      02 40.50   -1.0
ZAK      49.22 328 iPd     02 48.00    0.6
         1.4s     94.00nm           5.6mb
     Z  19s        0.85um           4.8Msz
     E  17s        1.18um
                   e       04 04.00
                   eS      09 54.00
BAL      49.22 209 eP      02 47.00   -0.7
BFD      49.38 179 iPc     02 49.20    0.5
         0.7s      7.00nm           4.8mb
TOO      49.89 176 iPc     02 53.90    1.2
         0.9s     66.00nm           5.7mb
BOD      49.95 341 iPc     02 52.40   -0.5
         0.9s     32.00nm           5.4mb
YAK      50.25 353 iPd     02 53.50   -1.6
         1.1s    100.00nm           5.8mb
                   e       10 10.00
MUN      50.60 209 eP      02 57.50   -0.7
ADK      51.49  32 eP      03 04.53   -0.2
         1.3s    179.24nm           5.9mb
GUN      54.37 295 P       03 26.40   -0.5
```

PKI 54.76 295 P 03 29.40 -0.4
UER 54.78 325 iPd 03 29.20 0.1
0.8s 40.00nm 5.5mb
eS 11 14.00
KKN 54.89 295 P 03 29.40 -1.2
DMN 55.03 295 P 03 30.40 -1.3
GKN 55.47 295 P 03 34.00 -0.7
HON 57.86 73 P 04 00.00 8.5X
Z 18s 0.35um 4.5Msz
TIK 59.66 355 eP 04 02.00 -1.3
1.0s 14.00nm 5.0mb
e 04 11.00
e 04 45.00
ELT 59.83 325 eP 04 04.00 -0.7
2.0s 55.00nm 5.3mb
Z 12s 0.50um 4.9MszX
e 04 49.00
e 07 46.00
eS 12 21.00
ILT 61.03 16 iPc 04 12.00 -0.7
1.6s 36.00nm 5.3mb
i 04 19.40
eS 12 40.00
HYB 61.21 283 iPc 04 14.50 -0.2
1.0s 40.00nm 5.5mb
NDI 62.03 296 iPc 04 19.00 -1.1
GBA 62.68 279 P 04 24.00 -0.5
FRU 65.01 312 eP 04 40.00 0.5
1.5s 50.00nm 5.3mb
e 05 08.00
e 08 38.00
SVW 65.98 28 eP 04 45.90 0.5
NRI 66.13 342 ePd 04 44.00 -2.1
2.0s 53.00nm 5.2mb
e 05 12.00
TTA 66.41 26 eP 04 47.67 -0.4
1.4s 29.44nm 5.1mb
CP2 67.60 28 eP 04 55.11 -0.7
IMA 68.40 23 ePc 05 00.32 -0.3
1.4s 29.38nm 5.1mb
pP 05 09.55 30kmX
PMS 68.85 29 eP 05 02.80 -0.6
1.3s 72.80nm 5.5mb
PMR 69.13 29 eP 05 04.50 -0.5
0.9s 41.67nm 5.4mb
Z 19s 0.59um 4.8Msz
BRW 69.25 18 eP 05 05.82 0.2
FBA 70.45 25 eP 05 11.58 -1.4
1.3s 33.14nm 5.1mb
pP 05 20.05 27kmX
QUE 70.95 298 iP 05 15.00 -2.0
BALM 72.26 30 eP 05 23.54 -0.6
SVE 74.90 326 iPc 05 40.50 1.1
1.2s 140.00nm 5.8mb
ARU 76.03 325 eP 05 46.00 0.2
1.3s 140.00nm 5.7mb
MAIO 76.69 305 iPc 05 51.00 0.9
eS 15 44.00
ASH 77.43 306 eP 05 54.50 0.5
GMW 84.44 43 eP 06 32.46 1.7
SHW 85.10 44 eP 06 36.77 2.5
RMW 85.11 43 eP 06 34.52 0.3
YKA 85.16 27 eP 06 32.70 -1.3
1.3s 13.70nm 4.9mb
WDC 86.14 49 P 06 50.00 10.6X
Z 19s 0.31um 4.7Msz
RES 86.28 13 eP 06 42.00 2.5
1.0s 12.00nm 5.1mb
GRS 86.44 310 iPc 06 41.80 0.7
1.5s 100.00nm 5.8mb
KER 86.99 304 eP 06 45.00 1.1
DPW 87.36 42 eP 06 46.24 1.0
PYA 87.71 315 iPc 06 48.00 1.0
NEW 87.95 41 eP 06 49.31 1.2
1.3s 25.77nm 5.3mb
CMB 88.36 52 P 07 00.00 9.7X
Z 21s 0.12um 4.3Msz
OBN 88.45 326 iPc 06 50.50 0.3
1.2s 66.00nm 5.8mb
Z 20s 0.60um 5.0Msz
i 06 56.00
BCH 89.31 54 eP 06 56.09 1.2
PUL 89.83 332 (P) 06 56.00 -0.6
1.5s 140.00nm 6.1mb
Z 30s 0.80um 5.0MszX
BONR 89.97 51 eP 06 58.39 0.2
KAF 90.53 335 iP 06 58.30 -1.6
0.9s 35.80nm 5.8mb
SES 91.04 38 ePc 07 03.70 1.2
NUR 92.01 334 iP 07 05.70 -1.0
0.9s 21.30nm 5.6mb
LCCM 92.12 42 eP 07 09.20 1.5
DUG 93.38 48 P 07 20.00 6.4X
Z 21s 0.27um 4.7Msz
FCC 95.82 26 eP 07 27.50 3.2X
SLL 96.64 337 eP 07 26.50 -1.5
0.6s 2.00nm 4.8mb
GOL 98.87 46 P 07 50.00 11.2X
Z 21s 0.47um 4.9Msz
ALQ 99.97 51 P 07 50.00 6.2X
Z 21s 0.61um 5.1Msz
GEC2 103.78 328 Pdiff 07 58.20 -2.1X
0.8s 0.55nm 4.4mb
e 07 59.30
e 08 04.90
RSNY 114.31 28 PKP 12 50.00 11.8X
Z 21s 0.14um 4.5Msz
HRV 117.25 27 PKP 12 50.00 6.2X
Z 21s 0.20um 4.7Msz
BCAO 121.31 283 iPKPc 12 52.10 -0.3
0.9s 9.00nm
id 15 03.50
ic 16 37.00
FSA 150.43 121 ePKPd 13 52.50 7.7X
ZOBO 150.64 101 PKPc 13 46.20 0.0
e 15 28.00
LR 25 00.00
LPB 150.66 102 ePKP 13 39.00 -7.0X
Z 23s 0.76um 5.4MszX
LR 25 25.00
CNC8 150.75 102 ePKP 13 42.00 -4.3X
S.D. = 1.1 on 96 of 114 obs.

& MAR 03, 1993 12h 55m 36.39s
59.967 N 152.846 W
DEPTH = 92.9km
3.2mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.14 311 ePd 55 49.15 0.8
eS 55 59.86
INW 0.18 305 ePd 55 49.20 0.8
S 55 59.61
RS1 0.50 5 iPd 55 51.24 -0.6
RSO 0.50 5 iPd 55 51.21 -0.7
eS 56 03.29
RS2 0.50 5 iPd 55 51.24 -0.7
RDW 0.52 2 iPd 55 51.25 -0.8
RDN 0.55 4 iPd 55 51.63 -0.6
eS 56 03.22
NCT 0.60 356 iPd 55 51.85 -0.7
DFR 0.63 7 iPd 55 52.13 -0.8
RDT 0.65 20 iPd 55 52.20 -0.8
AUL 0.66 207 eP 55 52.40 -0.6
AUE 0.67 204 eP 55 52.27 -0.8
AUH 0.68 207 eP 55 52.62 -0.6
AUI 0.70 205 eP 55 52.50 -0.9
eS 56 04.98
PDB 0.70 256 iPc 55 52.77 -0.6
eS 56 05.29
XLV 0.77 132 iPd 55 53.50 -0.6
CNPM 0.93 118 iPc 55 54.94 -0.9
eS 56 09.83
BRLK 1.01 101 eP 55 55.77 -1.0
MCNL 1.09 225 iPc 55 56.61 -1.0
eS 56 11.99
NKA 1.12 45 iPc 55 58.83 0.9
CDD 1.12 202 ePd 55 56.74 -1.2
CKL 1.26 11 iPd 55 59.08 -0.7
CKT 1.28 14 iPd 55 59.16 -0.8
eS 56 16.61
SPU 1.28 17 iPd 55 59.15 -0.8
S 56 16.68
CKN 1.30 14 iPd 55 59.69 -0.6
S 56 18.61
BGL 1.32 10 iPd 55 59.96 -0.6
CP2 1.34 13 eP 56 00.18 -0.6
S 56 18.36
CPAM 1.34 15 iPd 56 00.11 -0.6
CRP 1.35 14 iPd 55 59.92 -1.0
S 56 17.70
SYI 1.38 170 iPd 56 00.32 -0.8
S 56 18.60
SLKM 1.42 66 ePc 56 00.41 -1.3
SEW 1.71 84 ePc 56 03.69 -1.7
S 56 26.74
SVW 1.79 311 eP 56 04.99 -1.5
S 56 26.48
MPA 1.82 72 ePd 56 05.35 -1.4
SUA 1.82 34 iPc 56 06.53 -0.5
eS 56 30.20
PMS 2.07 50 iPc 56 09.70 -0.4
PTE 2.10 63 ePc 56 08.65 -1.9
S 56 33.55
SKT 2.12 17 iPd 56 09.75 -1.1
PWA 2.23 39 P 56 11.50 -0.8
KDC 2.23 175 eP 56 09.78 -2.5
S 56 36.35
PLRM 2.45 47 eP 56 13.28 -1.9
PMR 2.45 47 eP 56 12.86 -2.3
S 56 39.42
GHO 2.64 45 ePc 56 16.06 -1.9
eS 56 47.30
SML 2.88 48 iPc 56 19.12 -2.0
HIN 3.20 80 ePc 56 21.96 -3.6
SCM 3.28 53 ePc 56 24.59 -2.2
TTA 3.34 334 eP 56 26.30 -1.2
VLZ 3.42 67 eP 56 25.57 -3.0
eS 57 03.14
CVA 3.58 78 eP 56 26.95 -3.8
TRF 3.70 18 eP 56 31.32 -1.3
KLU 3.73 63 iPc 56 29.99 -2.9
eS 57 11.25
SGAM 3.85 79 eP 56 30.85 -3.6
RND 3.94 27 eP 56 34.55 -1.3
RAGM 4.10 81 eP 56 33.99 -4.0
TZL 4.17 57 eP 56 36.40 -2.5
KAIM 4.24 87 eP 56 37.59 -2.3
SDG 4.36 51 eP 56 39.25 -2.4
PAX 4.65 46 eP 56 43.42 -2.2
GLB 4.68 68 ePc 56 42.49 -3.5
CRQM 4.88 76 eP 56 46.66 -2.3
SNH 5.02 83 eP 56 47.64 -3.1
TGL 5.04 77 ePd 56 48.64 -2.4
HDA 5.24 29 eP 56 51.44 -2.3
CCB 5.25 24 eP 56 51.56 -2.3
BALM 5.30 74 eP 56 51.19 -3.5
FBA 5.48 23 eP 56 54.75 -2.3
0.4s 3.91nm 4.0mb X
YAH 5.56 81 eP 56 55.87 -2.5
GLM 5.64 24 eP 56 56.74 -2.6
CTGM 5.78 75 ePc 56 59.26 -2.2
IMA 6.14 357 eP 57 04.47 -1.8
0.7s 5.01nm 3.9mb X
YKA 18.40 66 eP 59 42.90 -3.4
0.4s 0.60nm 3.2mb
71 obs. associated

---

* MAR 03, 1993 13h 06m 03.07± 0.57s
4.958 N ±14.2km 32.824 W ±17.5km
DEPTH = 10.0km (geophysicist)
4.5mb (6 obs.) 4.4Msz (3 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)

SOB1 16.21 210 eP 09 55.00 2.3
BAO 25.38 216 (P) 11 30.00 -2.4
LIC 27.69 86 P 11 52.20 -1.4
Z 20s 0.70um 4.2Msz
GRF 57.97 32 eP 15 58.40 0.3
Z 20s 0.40um 4.5Msz
e 16 05.30
PTJ 58.67 38 eP 16 03.10 -0.1
MOX 58.73 31 e(P) 16 04.90 1.5
2.0s 38.00nm 5.2mb
Z 19s 0.30um 4.4Msz
GEC2 58.85 34 eP 16 04.40 0.0
1.4s 7.31nm 4.6mb
e 16 10.60
e 17 31.90
e 17 36.10
e 17 43.50
KHC 58.93 34 P 16 05.00 0.1
1.5s 18.70nm 5.0mb
e 16 11.00
e 17 36.60
e 17 43.50
PRU 59.92 33 eP 16 11.50 -0.1
Z 23s 0.40um 4.5MszX
e 16 18.00
BRG 60.08 32 eP 16 02.60 -10.1X

03d 13h

1.4s 24.00nm
e 16 20.00
ZST 60.47 36 eP 16 14.20 -1.2
SRO 61.00 37 eP 16 19.00 0.0
KSP 61.33 33 eP 16 22.00 0.8
MLR 64.89 42 ePd 16 46.50 1.5
HFS 65.33 24 eP 16 47.00 -0.4
0.4s 1.20nm 4.4mb
ULM 69.16 322 eP 17 22.00 10.2X
RES 78.07 346 eP 18 04.00 0.8
1.0s 2.00nm 4.2mb
SES 78.69 320 eP 18 07.00 -0.1
YKA 81.83 332 eP 18 21.60 -1.9
0.9s 0.60nm 3.7mb
TOO 147.50 178 ePKP 25 47.00 0.1
S.D. = 1.3 on 18 of 20 obs.

MAR 03, 1993 13h 06m 27.94± 0.24s
13.154 S ± 6.7km 174.993 E ± 5.4km
DEPTH = 33.0km (normal)
5.4mb (19 obs.) 5.1Msz (15 obs.)
FIJI ISLANDS REGION (181)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 19C
Centroid Location:
Origin Time 13:06:27.7 0.6
Lat 13.13S FIX;Lon 175.00E FIX
Dep 15.0 FIX Half-duration 4.6
Moment Tensor; Scale 10**17 Nm
Mrr=-1.10 0.08 Mtt= 1.05 0.13
Mff= 0.05 0.15 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-0.31 0.08
Principal Axes:
T Val= 1.14 Plg= 0 Azm=196
N -0.04 0 106
P -1.10 90 180
Best Double Couple:Mo=1.1*10**17
NP1:Strike=286 Dip=45 Slip= -90
NP2: 106 45 -90

MBU 5.23 137 eP 07 46.20 0.2
SVA 5.96 146 eP 07 45.40 -10.8X
BKM 7.91 235 iP 08 22.50 -1.0
DZM 12.04 221 iPc 09 19.50 -0.8
BRS 25.14 232 eP 11 52.00 0.3
RMQ 27.95 238 eP 12 18.00 0.4
CNB 31.96 222 eP 12 54.10 0.8
1.1s 47.00nm 5.3mb
BWA 32.07 224 eP 12 52.80 -1.4
CAN 32.21 222 eP 12 54.20 -1.1
AFR 34.22 102 iPc 13 12.20 -0.7
1.5s 184.90nm 5.8mb
PAE 34.41 102 iPc 13 14.20 -0.4
1.7s 292.60nm 5.9mb
PPT 34.41 102 iPc 13 14.40 -0.2
1.3s 226.70nm 5.9mb
Z 28s 1050.00um 7.4MszX
PPN 34.55 102 iPc 13 15.60 -0.1
TOO 35.81 222 iPd 13 27.20 0.8
1.0s 88.00nm 5.6mb
STK 35.84 233 eP 13 27.10 0.5
0.7s 3.40nm 4.4mb
PMO 36.02 97 iPc 13 28.30 0.1
1.7s 475.00nm 6.1mb
VAH 36.27 98 iPc 13 30.30 0.0
1.5s 309.20nm 6.0mb
RUV 36.51 98 iPc 13 32.40 0.0
1.7s 423.50nm 6.1mb
BFD 37.57 225 eP 13 42.00 0.9
1.0s 33.00nm 5.2mb
WB2 39.46 255 eP 13 47.80 -9.4X
1.0s 2.20nm 3.9mb X
i 13 56.40
WRA 39.47 255 P 13 49.79 -7.5X
ASPA 40.24 249 eP 13 55.30 -8.3X
1.0s 8.70nm 4.5mb
Z 22s 1.50um 4.8Msz
i 14 02.80
e 15 54.80
HON 43.33 38 P 14 40.00 11.3X
Z 21s 1.72um 4.9Msz
MAT 60.38 326 eP 16 35.00 -1.4
1.3s 25.00nm 5.2mb
eS 24 57.00
BJI 75.98 317 eP 18 13.00 -0.5
1.7s 82.00nm 5.5mb
WDC 78.67 44 P 18 40.00 11.5X
Z 21s 1.27um 5.2Msz
CMB 78.99 47 P 18 40.00 9.6X
Z 20s 1.46um 5.3Msz
ISA 79.36 49 P 18 40.00 7.6X
Z 20s 0.97um 5.1Msz
NST 79.38 289 eP 18 39.00 6.3X
PMR 79.70 17 P 18 40.00 6.4X
Z 21s 1.40um 5.3Msz
BONR 80.44 47 (P) 18 36.99 -1.5
GSC 80.46 50 eP 18 35.88 -2.5
TPNV 81.52 49 (P) 18 45.17 1.2
0.7s 3.10nm 4.4mb
IMA 82.36 12 eP 18 47.86 0.2
2.1s 53.34nm 5.2mb
FBA 82.74 15 eP 18 48.76 -0.7
1.2s 16.04nm 5.0mb
LZH 82.97 309 Pc 18 53.00 1.5
2.0s 51.00nm 5.3mb
Z 20s 0.51um 4.9Msz
E 14s 0.36um
pP 19 01.00 25kmX
sP 19 04.50
ARUT 83.91 49 eP 18 57.69 1.4
TUC 84.03 55 eP 18 58.14 1.2
1.4s 25.89nm 5.2mb
Z 19s 0.46um 4.9Msz
DUG 85.25 47 P 19 10.00 7.1X
Z 19s 1.34um 5.4Msz
HVU 85.86 46 eP 19 06.37 0.4
DAU 86.44 47 eP 19 09.57 0.5
PV09 87.34 50 eP 19 14.40 1.0
PV10 87.37 50 eP 19 13.91 0.4
PV08 87.73 50 eP 19 15.97 0.6
SES 90.09 38 eP 19 25.00 -0.8
GOL 90.50 49 P 19 40.00 11.7X
Z 20s 0.76um 5.1Msz
GLD 90.62 49 eP 19 28.82 0.1
YKA 92.78 26 eP 19 36.40 -1.5
0.9s 2.30nm 4.6mb
MEO 94.50 55 iPc 19 45.80 -0.7
MIAR 98.49 57 P 20 10.00 5.4X
Z 20s 0.46um 5.0Msz
CEH 110.42 56 PKP 25 10.00 11.1X
Z 21s 0.29um 4.8Msz
RSNY 113.69 47 PKP 25 10.00 5.1X
Z 19s 0.41um 5.0Msz
HRV 116.03 49 PKP 25 20.00 10.6X
Z 20s 0.75um 5.3Msz
CBM 117.81 44 PKP 25 20.00 7.3X
Z 20s 0.93um 5.4Msz
KHC 140.98 341 ePKP 26 09.50 12.9X
e 26 21.00
HAU 143.99 347 ePKP 25 58.60 -3.2X
BSF 144.05 346 ePKP 25 58.60 -3.4X
GRR 144.70 355 ePKP 26 00.70 -2.3X
LPF 145.07 355 ePKP 26 02.40 -1.2
1.5s 73.65nm
LOR 145.19 349 ePKP 26 02.70 -1.2
1.4s 27.00nm
LBF 145.44 349 ePKP 26 03.50 -0.8
1.2s 30.95nm
SSF 145.45 350 ePKP 26 03.70 -0.6
1.4s 58.20nm
AVF 145.74 350 ePKP 26 04.40 -0.4
1.3s 31.05nm
SMF 145.79 349 ePKP 26 04.70 -0.2
1.1s 26.35nm
LPL 146.24 345 ePKP 26 07.10 1.1
1.4s 38.75nm
LPG 146.25 345 ePKP 26 07.20 1.1
1.1s 22.20nm
TCF 146.42 351 ePKP 26 07.30 1.3
1.3s 27.10nm
MAF 146.42 350 ePKP 26 07.00 1.0
LSF 146.55 352 ePKP 26 07.10 0.9
RJF 147.48 351 ePKP 26 11.00 3.3X
1.4s 58.40nm
BCAO 155.20 252 iPKPc 26 21.30 1.4
0.9s 14.00nm
id 26 47.00
S.D. = 1.0 on 49 of 71 obs.

MAR 03, 1993 14h 11m 29.70± 0.34s
13.314 S ± 9.1km 175.102 E ± 6.3km
DEPTH = 33.0km (normal)
4.9mb (7 obs.) 4.1Msz (1 obs.)
FIJI ISLANDS REGION (181)

SVA 5.77 146 iPd 12 56.60 1.4
DZM 11.99 222 iPc 14 21.00 -0.4
BRS 25.13 233 iP 16 54.00 0.6
RMQ 27.96 238 eP 17 20.40 1.0
CNB 31.92 222 eP 17 54.80 0.2
1.0s 31.00nm 5.2mb
PAE 34.28 102 eP 18 14.40 -0.8
PPT 34.28 102 iPd 18 14.70 -0.5
1.5s 291.50nm 6.0mb X
TVO 34.59 102 iPd 18 17.50 -0.5
1.4s 257.90nm 6.0mb X
TOO 35.77 222 iPd 18 27.50 -0.3
0.9s 42.00nm 5.4mb
STK 35.83 233 eP 18 27.20 -1.1
0.7s 2.30nm 4.2mb
PMO 35.89 97 iPd 18 28.80 -0.1
1.2s 247.50nm 6.0mb X
VAH 36.14 98 iPd 18 30.70 -0.3
1.1s 121.10nm 5.7mb X
RUV 36.38 98 iPd 18 32.80 -0.3
1.1s 155.80nm 5.8mb X
BFD 37.53 225 eP 18 42.60 0.1
1.0s 12.00nm 4.7mb
WB2 39.52 255 iPc 18 57.60 -1.8
0.9s 15.70nm 4.8mb
ASPA 40.28 249 iPd 19 03.90 -1.8
0.9s 44.80nm 5.2mb
Z 22s 0.30um 4.1Msz
e 21 10.00
CHTO 81.53 292 eP 23 48.00 2.1
LCCM 87.99 42 eP 24 18.10 0.2
SES 90.15 38 eP 24 27.00 -0.9
YKA 92.88 26 eP 24 38.40 -1.7
1.1s 2.40nm 4.5mb
LPF 145.24 355 ePKP 31 05.40 -0.2
1.3s 38.25nm
LOR 145.36 349 ePKP 31 05.70 -0.2
LBF 145.62 349 ePKP 31 06.40 0.0
1.1s 17.60nm
SSF 145.63 350 ePKP 31 06.70 0.3
1.0s 18.40nm
AVF 145.92 350 ePKP 31 07.30 0.5
SMF 145.97 349 ePKP 31 07.40 0.4
1.1s 17.10nm
BGF 146.23 350 ePKP 31 08.60 1.2
LPL 146.42 345 ePKP 31 10.00 2.0X
LPG 146.43 345 ePKP 31 10.20 2.1X
0.8s 8.20nm
MFF 146.58 354 ePKP 31 09.30 1.4
MAF 146.60 351 ePKP 31 09.70 1.7X
1.0s 12.40nm
LSF 146.72 352 ePKP 31 09.60 1.4
RJF 147.65 352 ePKP 31 12.60 2.9X
1.2s 28.25nm
CAF 147.94 351 ePKP 31 13.70 3.5X
BCAO 155.25 251 iPKPd 31 24.00 2.3X
0.9s 9.00nm
ic 31 48.00
S.D. = 1.0 on 29 of 35 obs.

MAR 03, 1993 14h 42m 39.56± 1.21s
32.994 S ± 8.1km 70.149 W ± 8.4km
DEPTH = 118.5 ± 16.0 km
CHILE-ARGENTINA BORDER REGION (127)
MD 4.0 (SAN).

FCH 0.35 200 iP+ 42 57.01 -0.2
iS 43 09.73
PEL 0.47 252 iP+ 42 56.99 -0.5
iS 43 09.26
JACH 0.49 310 iP 42 56.69 -0.9
iS 43 08.93
SAN 0.63 223 iP 42 58.34 -0.2
iS 43 12.08
PCH 0.70 206 iPd 42 59.33 0.2
iS 43 13.65
ROCH 0.73 272 iP+ 42 58.77 -0.7
TACH 0.93 225 iPd 43 01.18 0.1
iS 43 16.72
CHCH 1.03 204 iP 43 02.59 0.5
iS 43 19.57
MDZ 1.10 85 iP 43 03.90 1.1
iS 43 21.10
CACH 1.18 198 iP 43 04.99 1.2

iS 43 23.67
LCCH 1.28 248 iP 43 04.53 -0.2
iS 43 22.67
LNV 1.43 227 iP 43 06.27 -0.1
(S) 43 25.42
RTCV 1.77 51 ePc 43 10.80 0.2
CFA 2.13 50 eP 43 15.10 0.0
S 43 41.00
RTLL 2.19 41 iPd 43 16.00 0.1
S 43 43.00
RTRS 2.88 12 e(P) 43 26.50 1.7
MRA 3.79 82 ePc 43 36.40 -0.7
TCA 4.99 72 iP 43 52.00 -1.6
(S) 44 46.00
S.D. = 0.9 on 18 of 18 obs.

% MAR 03, 1993 15h 06m 12.42± 0.71s
26.889 S ± 8.2km 26.837 E ± 6.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.3 (PRE).

BFS 0.05 259 iPd 06 14.00 0.1
PRY 0.57 94 eP 06 23.00 -0.8
S 06 29.80
KSR 1.02 3 eP 06 32.00 -0.3
S 06 44.50
SWZ 1.38 257 eP 06 38.10 -0.3
S 06 56.00
SEK 1.59 154 eP 06 41.90 0.5
S 07 02.30
SLR 1.73 49 eP 06 44.50 1.0
S 07 06.50
S.D. = 0.8 on 6 of 6 obs.

MAR 03, 1993 15h 30m 54.67± 0.34s
37.000 N ± 3.7km 117.690 W ± 3.4km
DEPTH = 5.0km (geophysicist)
3.1mb (1 obs.)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 3.4 (GS), 3.5 (BRK).

MTUM 0.78 297 eP 31 09.15 -1.3
MRCM 0.93 316 eP 31 12.20 -0.9
BONR 1.07 333 ePn 31 15.23 -0.3
TNP 1.14 19 ePn 31 16.78 0.1
TPNV 1.15 92 ePnd 31 17.88 1.0
S 31 37.21
MEMM 1.20 304 eP 31 17.07 -0.4
ISA 1.48 206 ePn 31 21.13 -0.9
FRI 1.62 270 ePd 31 24.13 0.2
eS 31 44.32
GSC 1.84 157 ePn 31 27.54 0.3
PKEM 2.16 245 eP 31 33.55 1.7
CMB 2.38 297 ePc 31 35.44 0.4
eS 32 08.07
PHAM 2.47 243 (P) 31 38.18 1.9
PRI 2.54 251 ePd 31 39.63 2.2X
eS 32 15.29
BCH 2.65 228 ePn 31 39.03 0.1
SSK 2.78 180 (Pn) 31 39.81 -1.1
PRS 3.03 258 ePd 31 46.39 2.2X
ARN 3.09 278 ePn 31 44.97 -0.1
PEC 3.13 172 eP 31 46.08 0.4
MHC 3.17 277 ePc 31 49.56 3.2X
eS 32 32.73
COE 3.19 276 (Pn) 31 46.53 0.0
HMR 3.46 291 ePg 32 00.59 10.3X
ARUT 3.47 76 ePn 31 51.06 0.4
ePg 32 01.53
PLM 3.70 169 ePn 31 53.38 -0.6
ORV 3.94 312 (P) 31 56.79 -0.3
GLA 4.59 148 (Pn) 32 05.07 -1.2
ePg 32 21.26
MSU 4.62 69 (Pn) 32 07.43 0.4
DUG 4.98 49 (Pn) 32 15.47 3.5X
ePg 32 29.08
DAU 6.08 54 ePg 32 51.75 24.1X
HVU 6.10 37 ePg 32 48.59 20.7X
PV09 6.94 75 ePg 33 05.77 25.9X
PV10 7.00 76 (Pn) 32 39.52 -1.1
ePg 33 06.29
YKA 25.59 3 eP 36 27.20 1.2
0.7s 0.30nm 3.1mb
S.D. = 0.9 on 24 of 32 obs.

% MAR 03, 1993 15h 36m 44.81± 0.58s
46.077 N ± 4.9km 2.798 E ± 5.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (LDG).

MAF 0.22 312 Pg 36 49.60 0.1
Sg 36 52.80
TCF 0.46 297 Pg 36 54.30 0.1
Sg 36 59.80
BGF 0.48 4 Pg 36 54.40 -0.2
Sg 37 00.90
AVF 0.81 28 Pg 37 00.30 -0.2
Sg 37 10.90
SMF 0.92 51 Pg 37 02.50 0.1
SSF 1.10 26 Pg 37 05.60 0.2
Sg 37 19.80
RJF 1.19 230 Pg 37 06.70 -0.2
Sg 37 21.70
CAF 1.26 204 Pg 37 08.40 0.1
Sg 37 24.30
LOR 1.40 31 Pg 37 10.40 0.1
Sg 37 28.80
S.D. = 0.2 on 9 of 9 obs.

? MAR 03, 1993 16h 01m 56.98± 1.08s
26.518 S ± 8.1km 27.438 E ±11.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.4 (PRE).

PRY 0.41 176 eP 02 05.00 -0.2
S 02 15.50
KSR 0.81 323 eP 02 13.50 0.2
S 02 23.00
SLR 1.09 44 eP 02 17.00 -1.0
S 02 28.50
SEK 1.81 175 eP 02 33.00 3.9X
S 02 57.00
SWZ 2.00 250 eP 02 35.50 3.6X
S 03 04.00
BFT 2.48 71 eP 02 40.00 1.0
S 03 09.30
BLF 2.81 203 eP 02 47.00 3.5X
S.D. = 1.5 on 4 of 7 obs.

---

* MAR 03, 1993 16h 48m 43.26± 0.54s
73.568 N ± 8.5km 7.982 E ±11.1km
DEPTH = 10.0km (geophysicist)
4.4mb (8 obs.)
GREENLAND SEA (640)

KAF 13.32 140 eP 51 53.20 -1.4
HFS 13.67 168 eP 51 55.70 -3.5X
0.3s 1.60nm 4.4mb
NUR 14.54 146 eP 52 06.60 -4.0X
OBN 21.86 132 eP 53 37.00 -0.4
1.0s 12.00nm 4.3mb
CLL 22.44 172 eP 53 44.00 0.8
1.5s 20.00nm 4.4mb
BRG 22.92 170 eP 53 48.20 0.3
MOX 23.06 174 eP 53 49.30 0.0
1.3s 16.00nm 4.4mb
KSP 23.09 166 eP 53 49.00 -0.6
e 54 00.00
PRU 23.84 169 eP 53 50.50 -6.3X
GRF 24.00 175 eP 53 59.00 0.5
GEC2 24.94 171 P 54 07.70 0.1
1.1s 8.36nm 4.3mb
ZST 25.78 166 e(P) 54 14.10 -1.3
AVF 26.95 187 eP 54 27.50 1.3
BGF 27.20 188 eP 54 28.60 0.1
0.8s 8.85nm 4.5mb
FCC 38.08 304 eP 56 04.50 1.5
YKA 38.93 321 eP 56 08.70 -1.5
1.0s 1.30nm 3.6mb
SES 49.60 313 eP 57 35.00 -1.0
GKN 59.61 94 P 58 49.80 0.3
KKN 60.00 94 P 58 53.00 0.8
GUN 60.05 93 P 58 54.00 1.2
BCAO 69.35 169 iPd 59 51.90 -0.8
0.9s 9.00nm 4.9mb
S.D. = 1.0 on 18 of 21 obs.

& MAR 03, 1993 17h 37m 24.43s
33.972 N 117.850 W
DEPTH = 4.4km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS). Felt in
the Brea-Diamond Bar area.

SSK 0.27 29 iPd 37 29.91 0.0
PEC 0.58 98 iPc 37 35.01 -1.0
S 37 42.70
PLM 1.03 127 eP 37 43.18 -1.4
S 37 56.76
GSC 1.58 33 eP 37 52.68 -0.7
ISA 1.76 343 eP 37 54.74 -1.2
GLA 2.69 109 (P) 38 10.86 1.6
S 38 45.59
TPNV 3.24 23 ePn 38 16.34 -0.9
Pg 38 25.07
S 39 05.69
MEMM 3.79 347 (P) 38 28.36 3.5
8 obs. associated

& MAR 03, 1993 17h 45m 58.86s
33.975 N 117.847 W
DEPTH = 4.5km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.5 (PAS). Felt in
the Brea-Diamond Bar area.

SSK 0.27 28 iPd 46 04.30 0.0
PLM 1.03 127 eP 46 17.50 -1.5
S 46 31.05
GSC 1.58 33 eP 46 26.84 -0.9
S 46 48.33
ISA 1.76 343 ePn 46 29.19 -1.2
4 obs. associated

% MAR 03, 1993 18h 02m 03.33± 0.77s
44.479 N ± 6.1km 7.348 E ± 7.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

PZZ 0.18 279 P 02 07.34 -0.1
S 02 09.63
STV 0.24 184 P 02 08.49 0.1
S 02 11.37
ENR 0.26 168 P 02 08.86 0.0
S 02 12.33
BHB 0.37 351 P 02 10.98 0.1
S 02 16.44
ROB 0.42 116 P 02 11.80 -0.1
S.D. = 0.1 on 5 of 5 obs.

% MAR 03, 1993 18h 09m 34.21± 0.76s
38.665 S ± 6.8km 177.956 E ± 8.3km
DEPTH = 33.0km (normal)
NORTH ISLAND, NEW ZEALAND (159)
ML 4.0 (WEL).

NOZ 0.08 54 Pc 09 39.20 -0.7
eS 09 44.00
MAHZ 0.53 186 P 09 46.60 1.4
PUZ 0.64 22 Pd 09 46.90 0.1
eS 09 56.20
PAHZ 0.73 254 P 09 48.60 0.5
URZ 0.78 301 P 09 48.30 -0.4
eS 09 58.70
MOH 0.78 233 P 09 49.70 0.9
HBZ 1.10 14 P 09 53.40 0.1
TAZ 1.22 290 P 09 55.80 0.9
PATZ 1.36 281 eP 09 57.50 0.3
WAHZ 1.62 230 eP 10 00.50 -0.3
WLZ 2.02 292 P 10 06.30 -0.3
MNG 2.73 224 eP 10 14.20 -2.5
eS 10 46.30
S.D. = 1.1 on 12 of 12 obs.

MAR 03, 1993 19h 17m 43.39± 0.44s
45.948 N ± 4.5km 15.413 E ± 3.8km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.7 (GRF), 3.4 (BRA), 3.3
(VIE). MD 3.5 (LJU). Felt (V) at
Raka, Arto, Bucka and Leskovec;
(IV) at Sevnica and Krska Vas,
Slovenia.

PTJ 0.38 97 iPgd 17 51.50 0.2
i(Sg) 17 57.40
ZAG 0.42 108 iPgd 17 52.40 0.4

03d 19h

iSg 17 59.00
VBY 0.46 194 iPgd 17 51.50 -1.2
i 17 54.40
LJU 0.62 279 iPgd 17 55.50 -0.4
iSg 18 03.00
e 20 16.00
CEY 0.72 253 iPgd 17 56.90 -0.7
iSg 18 08.20
e 20 00.00
RIY 0.94 230 iPgd 18 01.00 -0.3
iSg 18 13.30
VOY 1.06 275 iPgc 18 03.20 -0.3
eSg 18 18.60
e 20 57.00
TRI 1.18 259 ePg 18 04.90 -0.4
iSg 18 22.00
SOP 1.91 24 ePn 18 19.50 3.3X
KMR 2.28 338 iPg- 18 02.10 -19.6X
iSg 19 04.80
VKA 2.40 15 iPnc 18 24.10 0.8
iPg 18 30.80
iSn 18 52.60
iSg 19 06.20
ZST 2.53 27 ePn 18 23.80 -1.3
i(Pg) 18 32.90
i(Sn) 19 06.30
SRO 2.73 46 eP 18 26.70 -1.3
e(Pg) 18 40.20
i 19 03.00
i 19 13.80
HVAR 2.87 165 iPn 18 31.40 1.4
iSn 19 06.60
WTTA 2.92 298 iPnc 18 31.60 0.7
iPg 18 48.30
iSn 19 18.00
iSg 19 32.60
WATA 2.99 299 iPnc 18 33.20 1.4
iPg 18 47.90
iSn 19 18.30
iSg 19 32.50
GEC2 3.12 339 Pn 18 33.80 0.2
Pg 18 41.20
Sn 19 11.50
Sg 19 25.20
SQTA 3.17 295 iPnd 18 35.90 1.6
iPg 18 51.20
iSg 19 38.60
OGA 3.17 288 ePn 18 42.10 7.6X
MOTA 3.28 297 iPnc 18 36.70 0.7
iPg 18 49.30
iSn 19 20.10
iSg 19 35.20
KHC 3.42 339 ePn 18 38.00 0.2
e 18 51.00
e 19 18.40
eSg 19 37.00
e 23 00.00
eSg 23 23.50
BGY 3.78 106 iPgd 17 57.30 -45.6X
i 17 59.30
i 18 05.00
iSg 18 06.50
i 18 07.60
e 19 51.00
PRU 4.08 352 Pn 18 47.00 -0.2
1.0s 24.90nm
ePg 19 01.00
eSg 19 48.00
e 19 53.50
GRF 4.69 325 ePn 18 56.90 1.0
ePg 19 14.10
e(Sn) 19 48.50
eSg 20 13.90
KSP 4.93 7 eP 19 14.00 14.7X
eS 20 23.30
BRG 5.03 349 e(P) 19 22.00 21.5X
i 19 55.00
i 20 20.00
MOX 5.34 333 ePn 19 04.30 -0.7
ePg 19 28.00
iSg 20 34.10
LPG 6.08 269 Pn 19 16.80 1.1
LPL 6.09 269 Pn 19 16.90 1.1
BSF 6.20 291 Pn 19 15.20 -2.1
Sn 20 21.20
HAU 6.53 292 Pn 19 20.00 -1.9
Sn 20 26.88

S.D. = 1.1 on 25 of 31 obs.

% MAR 03, 1993 20h 14m 34.65± 1.04s
27.097 S ± 9.2km 26.606 E ±12.2km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.5 (PRE).

BFS 0.25 39 iPd 14 40.00 0.2
S 14 41.00
PRY 0.79 78 eP 14 50.00 -0.6
S 14 58.00
SWZ 1.14 265 eP 15 03.00 6.4X
S 15 19.60
KSR 1.25 12 eP 14 58.00 -0.5
S 15 10.00
SLR 2.02 48 iPd 15 10.90 0.9
S 15 33.60
BLF 2.04 190 eP 15 16.00 5.8X
S 15 45.50
FRS 2.88 203 iPd 15 22.00 0.0
S 16 04.50
BFT 3.39 66 eP 15 29.50 0.0
S 16 07.00
S.D. = 0.7 on 6 of 8 obs.

MAR 03, 1993 21h 03m 03.96± 0.24s
13.164 S ± 7.7km 174.910 E ± 7.4km
DEPTH = 11.3km (5 depth phases)
5.4mb (21 obs.) 4.9Msz (11 obs.)
FIJI ISLANDS REGION (181)

SVA 5.99 146 eP 04 34.20 -0.5
BKM 7.83 234 iPd 05 00.70 0.1
DZM 11.98 221 iPd 05 59.00 1.3
RMQ 27.87 238 eP 08 56.30 0.4
CTA 28.28 252 P 09 04.19 4.7X
CNB 31.90 222 eP 09 31.70 0.0
1.1s 60.00nm 5.4mb
BWA 32.01 224 eP 09 31.90 -0.7
i 09 35.00 11km
CAN 32.14 222 eP 09 32.40 -1.4
i 09 37.80 19km
TOO 35.75 222 iPc 10 05.10 0.2
0.8s 50.00nm 5.4mb
STK 35.77 233 eP 10 04.90 -0.1
2.4s 3.00nm 3.7mb X
BFD 37.50 225 iPc 10 19.60 0.0
1.2s 50.00nm 5.2mb
WB2 39.38 255 eP 10 34.30 -1.2
0.9s 13.90nm 4.6mb
WRA 39.39 255 P 10 34.79 -0.8
ASPA 40.16 249 eP 10 40.70 -1.3
1.1s 39.00nm 5.0mb
Z 22s 0.60um 4.4Msz
e 12 49.50
HON 43.39 38 P 11 20.00 11.7X
Z 22s 0.89um 4.6Msz
MGD 75.55 348 eP 14 47.00 -2.9
e 15 02.00 53kmX
BCH 78.04 49 (P) 15 04.87 0.4
PHAM 78.09 49 (P) 15 10.75 6.1X
CMB 79.06 47 P 15 20.00 10.0X
Z 21s 0.82um 5.0Msz
PMS 79.32 17 eP 15 11.90 1.0
PMR 79.73 17 eP 15 14.00 1.0
1.5s 62.16nm 5.4mb
Z 21s 0.81um 5.0Msz
KMI 79.93 299 Pd 15 17.50 2.3
2.0s 80.00nm 5.4mb
pP 15 27.50 32kmX
BONR 80.51 47 eP 15 18.82 0.7
GSC 80.53 50 eP 15 17.28 -0.7
ILT 80.98 2 iPd 15 20.00 0.6
1.6s 36.00nm 5.2mb
SIT 81.13 25 P 15 30.00 9.5X
Z 21s 1.28um 5.3Msz
GLA 81.18 53 eP 15 21.29 -0.1
CHTO 81.30 292 eP 15 22.90 0.7
TPNV 81.59 49 eP 15 25.38 1.7
0.9s 5.43nm 4.6mb
IMA 82.39 12 eP 15 28.90 1.8
2.0s 88.90nm 5.5mb
epP 15 37.60 27kmX
RMW 82.48 38 eP 15 27.86 0.0
FBA 82.77 15 eP 15 27.00 -2.0
1.5s 108.11nm 5.8mb

YAK 82.86 340 eP 15 28.00 -1.5
2.0s 140.00nm 5.8mb
LZH 82.92 309 eP 15 32.00 1.5
1.6s 75.00nm 5.6mb
Z 20s 0.45um 4.8Msz
pP 15 35.00 10km
ARUT 83.98 49 eP 15 36.22 0.3
TUC 84.10 55 eP 15 36.58 0.0
1.5s 46.01nm 5.5mb
MSU 85.17 49 eP 15 41.94 0.0
HVU 85.92 46 eP 15 45.52 0.0
BOD 86.36 332 eP 15 45.70 -1.4
1.8s 77.00nm 5.6mb
DAU 86.51 47 eP 15 47.97 -0.7
e 16 09.11 77kmX
SRU 86.59 49 eP 15 48.69 -0.2
EMUT 86.62 48 eP 15 50.36 1.2
PV09 87.41 50 eP 15 52.58 -0.5
PV10 87.44 50 eP 15 52.36 -0.8
PV08 87.80 50 eP 15 54.42 -0.5
LCCM 88.00 42 eP 15 57.00 1.4
ALQ 88.36 54 eP 15 57.03 -0.5
1.3s 21.25nm 5.3mb
epP 15 59.90 9km
BW06 88.51 45 ePc 15 56.25 -1.9
1.7s 39.45nm 5.4mb
ZAK 88.70 323 iPc 15 58.80 0.3
2.0s 79.00nm 5.7mb
Z 14s 0.29um 4.8MszX
E 18s 0.51um
TIK 90.02 347 eP 16 03.00 -1.3
1.6s 26.00nm 5.2mb
SES 90.15 38 eP 16 05.00 -0.4
RSSD 92.75 45 eP 16 17.19 -0.6
1.6s 43.55nm 5.6mb
epP 16 20.00 9km
YKA 92.83 26 eP 16 15.70 -1.7
1.3s 5.80nm 4.8mb
MIAR 98.57 57 P 16 50.00 5.8X
Z 19s 0.25um 4.7Msz
RSNY 113.75 47 PKP 21 50.00 5.5X
Z 18s 0.26um 4.9Msz
KAF 126.20 342 ePKP 22 07.80 0.0
KSP 138.59 340 ePKP 22 34.00 2.4X
CLL 139.23 343 iPKPd 22 35.10 2.4X
1.7s 18.00nm
GEC2 141.17 340 PKP 22 38.50 2.0X
0.9s 1.12nm
e 22 41.40
CDF 143.39 346 ePKP 22 36.90 -3.4X
BSF 144.04 346 ePKP 22 38.90 -2.6X
OSS 144.21 342 PKP 22 42.77 0.9
FLN 144.30 355 ePKP 22 39.30 -2.4X
Z 20s 0.25um 5.0Msz
LDF 144.44 354 ePKP 22 39.70 -2.2X
GRR 144.71 355 ePKP 22 41.00 -1.4
LPF 145.08 355 ePKP 22 42.40 -0.6
1.2s 58.90nm
TMA 145.11 343 PKP 22 42.88 -0.5
LOR 145.18 349 ePKP 22 42.80 -0.5
1.3s 36.10nm
Z 21s 0.20um 4.9Msz
HYF 145.39 351 ePKP 22 43.90 0.3
MMK 145.41 344 PKP 22 44.86 0.8
LBF 145.44 349 ePKP 22 43.50 -0.3
1.6s 93.30nm
SSF 145.45 350 ePKP 22 43.80 0.1
1.5s 116.50nm
DIX 145.53 345 PKP 22 45.83 1.6
AVF 145.74 350 ePKP 22 44.50 0.3
1.3s 40.45nm
SMF 145.79 349 ePKP 22 44.80 0.5
1.4s 75.35nm
BGF 146.05 350 ePKP 22 45.50 0.7
1.3s 36.80nm
LPL 146.23 345 ePKP 22 47.30 1.9X
1.9s 104.70nm
LPG 146.24 345 ePKP 22 47.40 1.9X
1.4s 61.85nm
MFF 146.41 354 ePKP 22 46.50 1.2
1.4s 42.70nm
TCF 146.41 351 ePKP 22 46.90 1.5
1.5s 65.30nm
MAF 146.42 350 ePKP 22 46.90 1.5
1.4s 48.35nm
LSF 146.55 352 ePKP 22 46.90 1.3
1.2s 35.40nm

RJF 147.48 351 ePKP 22 49.70 2.6X
Z 20s 0.15um 4.8Msz
CAF 147.76 350 ePKP 22 50.90 3.3X
LFF 147.94 352 ePKP 22 51.10 3.3X
LPO 148.13 352 ePKP 22 51.90 3.8X
EPF 149.87 352 ePKP 22 57.90 6.9X
BCAO 155.12 252 iPKPd 23 01.00 1.8X
1.2s 42.00nm
ic 23 27.00
S.D. = 1.1 on 66 of 88 obs.

---

* MAR 03, 1993 21h 27m 53.96± 2.38s
44.314 N ±10.8km 6.765 E ±16.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.8 (GEN).

PZZ 0.31 51 P 28 00.79 0.4
S 28 04.13
STV 0.41 100 P 28 02.16 -0.2
S 28 06.74
ENR 0.48 100 P 28 03.44 -0.3
S 28 08.70
RRL 0.61 1 P 28 06.60 0.2
S 28 14.65
BHB 0.64 34 P 28 06.42 -0.3
S 28 14.15
ROB 0.79 91 P 28 09.85 0.4
S 28 19.60
IMI 0.90 116 P 28 11.36 0.0
RSP 0.91 23 P 28 11.13 -0.3
S.D. = 0.4 on 8 of 8 obs.

---

* MAR 03, 1993 22h 18m 37.06± 1.49s
30.819 S ±13.1km 70.727 W ±14.5km
DEPTH = 89.8 ± 26.7 km
CHILE-ARGENTINA BORDER REGION (127)

RTRS 1.27 60 iPc 18 59.70 -0.5
S 19 22.00
RTBS 1.38 128 eP 19 02.20 0.6
RTCB 1.78 112 ePd 19 07.80 0.8
ZON 1.90 113 eP 19 11.40 2.9X
RTLL 2.00 105 iPc 19 10.00 0.1
RTCV 2.14 120 e(P)c 19 12.30 0.5
CFA 2.27 111 ePc 19 14.10 0.6
S 19 51.00
PEL 2.32 179 (P) 19 17.38 3.2X
(S) 19 50.72
IHA 2.33 199 eP 19 06.50 -7.8X
eS 19 37.30
FCH 2.53 172 eP 19 20.09 2.8X
MDZ 2.60 143 eP 19 18.00 -0.1
iS 19 33.40
SAN 2.63 179 eP 19 19.66 1.3
eS 20 00.84
LCCH 2.74 195 iP 19 17.54 -2.3
PCH 2.80 176 iP 19 22.87 2.1
eS 20 06.15
TACH 2.83 184 iP 19 21.54 0.4
CHCH 3.11 179 eP 19 25.89 1.0
LNV 3.18 190 eP 19 23.57 -2.3
RTPR 3.67 83 ePc 19 31.80 -0.9
MRA 4.57 112 ePd 19 44.00 -1.1
S 20 41.20
TCA 5.29 97 iPc 19 53.30 -1.9
(S) 21 00.50
FSA 6.28 42 eP 20 55.00 46.1X
SIV 17.20 33 P 22 34.60 1.5
S.D. = 1.5 on 17 of 22 obs.

? MAR 03, 1993 22h 26m 56.07± 4.76s
29.040 S ±36.5km 67.393 W ±10.4km
DEPTH = 153.3 ± 45.9 km
LA RIOJA PROVINCE, ARGENTINA (138)

RTPR 1.47 149 iPc 27 25.90 0.0
S 27 47.50
RTRS 2.12 237 ePd 27 33.20 0.0
RTLL 2.47 202 iPd 27 37.40 0.0
S 28 08.50
CFA 2.66 196 ePd 27 39.80 -0.1
S 28 13.20
RTCB 2.73 206 ePc 27 40.70 0.0
S 28 14.50
RTCV 2.98 199 ePc 27 44.00 0.1
TCA 3.34 134 iPc 27 48.50 0.0
(S) 28 27.20
S.D. = 0.1 on 7 of 7 obs.

? MAR 03, 1993 22h 42m 10.22± 1.08s
40.728 N ± 9.9km 23.105 E ± 9.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.5 (THE).
THE 0.14 228 ePg 42 13.48 -0.1
eSg 42 15.52
SOH 0.21 64 ePg 42 15.16 0.3
eSg 42 18.40
KNT 0.46 340 ePg 42 19.72 0.1
eSg 42 26.04
SRS 0.54 43 ePg 42 20.68 -0.4
eSg 42 28.72
S.D. = 0.5 on 4 of 4 obs.

& MAR 03, 1993 23h 09m 12.30s
61.584 N 144.641 W
DEPTH = 48.5km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

GLB 0.42 109 iPc 09 21.97 -0.7
eS 09 30.15
eS 09 30.32
TZL 0.59 322 ePc 09 24.12 -0.6
eS 09 34.17
KLU 0.62 262 iPc 09 24.31 -0.8
eS 09 34.08
VLZ 0.93 242 iPc 09 28.20 -1.0
eS 09 40.86
SDG 1.04 336 iPd 09 29.90 -0.8
S 09 44.13
CRQM 1.10 138 ePc 09 30.88 -1.0
eS 09 47.18
SGAM 1.12 194 eP 09 30.98 -0.9
CVA 1.17 208 ePc 09 31.89 -0.7
eS 09 48.25
RAGM 1.20 181 ePd 09 32.44 -0.6
TGL 1.21 133 iPc 09 32.20 -1.0
eS 09 48.32
8ALM 1.24 115 iPc 09 32.84 -0.8
S 09 49.45
SCM 1.30 282 iPc 09 33.48 -1.0
eS 09 50.30
PAX 1.44 345 iPd 09 35.35 -1.2
eS 09 53.58
HIN 1.50 218 iPd 09 35.89 -1.3
SNH 1.66 147 eP 09 38.63 -0.9
eS 10 00.16
KAIM 1.67 176 eP 09 38.35 -1.2
CTGM 1.71 110 ePc 09 39.90 -0.5
SML 1.77 279 ePc 09 39.59 -1.5
YAH 1.87 130 eP 09 41.52 -1.1
TMW 1.91 23 eP 09 42.60 -0.4
GHO 2.05 277 eP 09 43.76 -1.3
PTE 2.24 253 ePc 09 46.40 -1.2
SEW 2.78 240 eP 09 52.77 -2.6
SLKM 2.92 251 eP 09 55.79 -1.6
SKT 3.30 280 eP 10 00.71 -2.0
25 obs. associated

MAR 03, 1993 23h 14m 25.91± 0.14s
13.342 S ± 3.9km 175.009 E ± 3.5km
DEPTH = 13.9km (8 depth phases)
5.9mb (65 obs.) 5.8Msz (49 obs.)
FIJI ISLANDS REGION (181)
Mw 5.9 (GS), 6.0 (HRV). Ms 6.1 (BRK). Complex event observed on broadband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=103 Dip=87 Slip= -90
NP2: 283 3 -90
Principal Axes:
T Plg=42 Azm=193
P 48 13
Comment: The focal mechanism is poorly controlled and corresponds to normal faulting. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sta: 11 Focal mech. M
Energy 6.1±1.4*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 12 No. of sta: 19
Moment Tensor; Scale 10**17 Nm
Mrr= 1.44 Mtt= 0.69
Mff=-2.13 Mrt=-6.70
Mrf= 1.15 Mtf= 3.70
Principal axes:
T Val= 8.08 Plg=43 Azm=166
N -0.25 30 288
P -7.84 33 39
Best Double Couple:Mo=8.0*10**17
NP1:Strike=184 Dip=30 Slip= 168
NP2: 285 84 60
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 41S, 91C
Centroid Location:
Origin Time 23:14:29.0 0.2
Lat 13.16S 0.02 Lon 175.25E 0.02
Dep 15.0 FIX Half-duration 2.3
Moment Tensor; Scale 10**17 Nm
Mrr=-9.20 0.14 Mtt= 8.78 0.19
Mff= 0.41 0.20 Mrt=-4.42 0.62
Mrf= 2.97 0.47 Mtf=-1.60 0.14
Principal Axes:
T Val= 10.33 Plg=14 Azm=193
N 0.48 10 286
P -10.81 73 49
Best Double Couple:Mo=1.1*10**18
NP1:Strike=270 Dip=32 Slip=-108
NP2: 112 60 -79

MBU 5.09 136 eP 15 14.00 -29.6X
SVA 5.79 145 eP 15 54.30 0.8
BKM 7.81 236 iP 16 20.70 -1.2
DZM 11.91 222 iPc 17 18.90 0.5
HNR 15.27 283 eP 18 05.00 2.3
SVO 15.47 284 eP 18 12.00 6.6X
RAB 24.32 290 iP+ 19 44.00 -0.3
BRS 25.04 233 iPc- 19 50.00 -1.2
i 19 55.50 20km
i 20 05.00
ePP 20 26.00
e 22 51.00
eS 24 24.00
MNG 27.17 179 eP 20 09.50 -1.3
DIW 27.37 182 eP 20 12.40 -0.3
KIW 27.42 180 eP 20 13.30 0.3
ARMA 27.47 228 iPd 20 17.60 3.8X
1.1s 49.00nm 5.1mb
QRZ 27.47 184 eP 20 12.60 -0.9
PMG 27.57 275 eP 20 17.00 2.3
1.2s 121.88nm 5.5mb
CAW 27.66 180 eP 20 14.70 -0.6
TCW 27.77 181 P 20 16.40 0.2
MRW 27.79 180 eP 20 16.30 -0.1
RMQ 27.86 238 iPd 20 17.80 0.5
1.3s 250.00nm 5.8mb
CTA 28.32 252 P 20 22.60 1.2
CTAO 28.32 252 ePc 20 21.83 0.4
ec 20 28.21 22km
ePP 21 06.50
ePcP 23 05.13
eS 25 05.43
KHZ 29.00 182 eP 20 25.70 -1.5
BWZ 31.39 187 eP 20 47.00 -1.5
CNB 31.84 222 iPc 20 54.10 1.4
1.3s 467.00nm 6.2mb
BWA 31.95 224 eP 20 54.20 0.6
i 20 58.80 16km
CAN 32.08 222 eP 20 58.10 3.4X
i 21 02.00 14km
i 21 09.70
i 21 22.40
CMS 32.31 231 eP 20 57.00 0.3
0.4s 14.00nm 5.2mb
AFR 34.17 102 iPd 21 11.90 -1.1
PAE 34.36 102 iPd 21 13.70 -1.0
1.7s 1664.50nm 6.7mb
PPT 34.36 102 iPd 21 13.90 -0.8
1.8s 2037.10nm 6.7mb
Z 27s 8600.00um 8.4MszX
PPN 34.50 102 iPd 21 15.10 -0.7
1.7s 1182.20nm 6.5mb
TVO 34.68 102 iPd 21 16.90 -0.6
1.5s 1048.80nm 6.5mb

03d 23h

TOO	35.68	222	eP	21 25.40	-0.5
	0.9s	353.00nm			6.2mb
STK	35.74	233	eP	21 26.40	0.1
	1.6s	20.90nm			4.8mb X
PMO	35.98	97	iPd	21 28.00	-0.5
	1.9s	2625.00nm			6.8mb
VAH	36.23	98	iPd	21 29.90	-0.7
	1.9s	1868.10nm			6.6mb
TPT	36.25	97	iPd	21 30.20	-0.5
	1.8s	1885.10nm			6.7mb
RUV	36.47	98	iPd	21 32.00	-0.6
	1.9s	2439.80nm			6.7mb
BFD	37.45	225	eP	21 41.80	1.2
	1.1s	189.00nm			5.8mb
TAU	37.93	214	eP	21 49.00	4.5X
			eS	27 40.00	
ADE	39.19	230	eP	21 56.60	1.3
WB2	39.43	255	eP	21 54.40	-3.1X
	0.8s	30.50nm			5.0mb
			i	21 56.70	8km
			i	21 59.60	
			e	30 14.50	
WRA	39.44	255	P	21 55.00	-2.6
	0.6s	3.50nm			4.2mb X
GUMO	40.10	311	Pc	22 06.22	3.3X
Z	28s	6.27um			5.3MszX
			eS	28 12.57	
ASPA	40.18	249	iPc	22 00.00	-3.7X
	0.8s	57.30nm			5.3mb
Z	23s	11.00um			5.6MszX
			eS	27 32.80	
HON	43.47	38	P	22 40.00	9.6X
Z	21s	14.98um			5.9Msz
KIP	43.53	38	(P)	22 32.26	1.3
FORT	46.48	240	eP	22 52.00	-2.5
	0.7s	48.00nm			5.6mb
WARB	47.02	247	eP	22 58.00	-1.0
	0.9s	112.00nm			5.9mb
DAV	53.12	290	eP+	23 47.00	1.3
CGP	54.45	291	eP	23 55.00	-0.5
NWAO	55.90	239	(P)	24 07.57	1.7
			iS	31 56.63	
KAKJ	59.25	327	P	24 27.60	-1.6
CHJJ	59.75	327	P	24 31.10	-1.7
WKYJ	60.35	323	eP	24 33.20	-3.7X
MAT	60.54	326	eP	24 36.00	-2.2
	2.3s	500.00nm			6.2mb
Z	20s	4.61um			5.6Msz
			eS	32 53.00	
NIIJ	60.64	327	P	24 38.80	0.0
MTMJ	60.80	326	P	24 35.40	-4.6X
TSRJ	61.05	324	P	24 40.60	-1.0
TKSJ	61.11	322	eP	24 39.00	-3.0X
BAG	61.38	297	eP	24 41.00	-3.4X
KKM	61.47	284	ePc	24 46.20	1.2
	1.8s	334.50nm			6.2mb
KUMJ	62.17	318	P	24 47.90	-1.3
YONJ	62.28	322	eP	24 47.00	-3.0X
ERM	62.40	334	(P)	24 53.91	3.3X
			ed	24 57.88	13km
KUSJ	62.65	335	eP	24 48.50	-3.7X
KUR	63.27	339	eP	25 04.00	7.7X
			eS	33 32.00	
ASAJ	64.34	335	eP	25 04.60	1.3
TATO	64.60	306	(P)	25 09.54	4.2X
			eS	33 47.87	
			eSS	37 55.82	
SMY	65.80	359	P	25 20.00	7.5X
Z	20s	5.21um			5.7Msz
LEM	66.51	268	ePc	25 18.00	-0.1
	1.5s	211.11nm			6.1mb
			eS	34 15.00	
YSS	66.69	337	(P)	25 15.60	-2.7
	2.5s	520.00nm			6.3mb
Z	19s	4.70um			5.7Msz
N	19s	2.90um			
E	19s	4.20um			
			e	25 48.00	133kmX
			eS	34 11.00	
			ePS	34 28.00	
PET	67.57	349	eP	25 24.00	0.2
Z	18s	6.40um			5.9Msz
N	18s	3.60um			
E	16s	1.10um			
			e	25 52.00	112kmX
			ePS	34 44.00	
			eSS	38 40.00	
CSY	67.71	203	eP	25 24.90	0.3
	1.0s	70.60nm			5.8mb
SSE	67.97	312	(P)	25 26.14	-0.7
	1.0s	13.00nm			5.1mb
Z	20s	2.30um			5.4Msz
N	14s	0.70um			
E	14s	0.80um			
			ic	25 29.95	12km
			ePP	27 44.85	
			iS	34 27.38	
			esS	34 39.96	
			PS	35 04.00	
VLA	68.65	327	iPc	25 32.50	1.7
	2.0s	221.00nm			6.0mb
N	19s	2.20um			
E	18s	0.80um			
			i	25 44.00	38kmX
			i	28 09.00	
			iS	34 30.00	
			iPS	35 03.00	
HKC	69.35	300	eP	25 42.00	6.5X
NJ2	70.17	311	Pd	25 41.00	0.7
Z	20s	1.42um			5.2Msz
N	14s	1.56um			
E	14s	1.40um			
GZH	70.37	301	P	25 45.00	3.3X
MDJ	70.89	327	eP	25 44.12	-0.3
			ec	25 46.19	7km
			ec	25 48.76	
			iS	35 01.07	
			esS	35 14.98	
QIZ	71.79	295	P	25 53.00	2.6
N	17s	2.12um			
DL2	71.97	319	eP	25 50.00	-1.0
Z	20s	1.85um			5.3Msz
E	16s	2.52um			
SNY	72.47	322	eP	25 52.60	-1.4
	1.4s	77.00nm			5.6mb
Z	37s	6.53um			5.6MszX
N	16s	1.37um			
			pP	26 03.60	36kmX
			sP	26 07.40	
CN2	72.60	325	eP	25 53.20	-1.5
	1.2s	790.00nm			6.7mb
Z	22s	6.44um			5.9Msz
N	14s	0.94um			
E	14s	0.96um			
			epP	26 01.40	26kmX
			ePP	28 40.00	
			eS	35 19.00	
WHN	72.81	308	eP	25 56.50	0.3
Z	20s	3.73um			5.7Msz
E	16s	1.84um			
			eS	35 22.00	
TIA	73.52	314	eP	25 58.90	-1.4
Z	38s	6.36um			5.6MszX
E	16s	2.09um			
IPM	75.55	278	ePc	26 14.00	1.6
MGD	75.74	348	eP	26 09.00	-3.6X
Z	18s	4.20um			5.8Msz
N	18s	3.90um			
E	18s	1.10um			
			i	26 18.00	29kmX
			e	29 06.00	
			eS	35 52.00	
			eSP	36 24.00	
			e	36 26.00	
BJI	76.13	317	(P)	26 13.14	-2.0
	2.0s	433.00nm			6.2mb
Z	20s	2.23um			5.5Msz
N	14s	1.23um			
SNG	76.62	281	eP	26 20.00	1.6
SPA	76.74	180	ePd	26 18.90	0.5
	2.3s	839.16nm			6.4mb
			i	51 16.10	
GYA	77.27	301	P	26 21.60	-0.4
	1.0s	19.00nm			5.1mb
Z	38s	3.67um			5.4MszX
N	20s	3.12um			
E	20s	1.45um			
TIY	77.53	314	eP	26 23.00	-0.2
	1.6s	180.00nm			5.9mb
Z	40s	7.66um			5.7MszX
N	20s	1.55um			
KMPM	77.66	43	(P)	26 22.77	-1.1
BKS	77.74	46	eP	26 23.54	-0.6
Z	21s	7.00um			6.0Msz
			eS	36 42.09	
			eScS	37 07.09	
			ePS	37 15.09	
			eSS	40 53.09	
			eLQ	46 07.09	
			eLR	49 19.09	
SVW	77.79	14	(P)	26 24.64	0.6
	1.2s	28.84nm			5.2mb
MHC	77.91	47	ePc	26 24.14	-1.2
Z	21s	10.00um			6.1Msz
RSO	77.95	16	eP	26 23.73	-1.4
ARN	77.99	47	eP	26 26.68	1.0
XAN	78.47	309	eP	26 28.09	-0.3
			ePP	29 27.69	
LOE	78.51	291	eP	26 29.10	0.3
SLKM	78.67	17	eP	26 28.52	-0.4
LGPM	78.76	43	eP	26 30.48	0.6
CRP	78.79	15	eP	26 28.42	-1.3
WDC	78.80	44	eP	26 30.22	0.3
Z	21s	7.00um			6.0Msz
			eS	36 34.03	
			eScS	37 14.03	
			eSP	37 34.03	
			eSS	41 00.03	
			eLQ	46 54.03	
			eLR	49 37.03	
WDC	78.80	44	P	26 34.47	4.5X
Z	20s	6.71um			6.0Msz
			S	36 44.87	
ORV	79.02	45	eP	26 31.80	0.6
HIA	79.05	327	(P)	26 30.70	-0.5
CMB	79.11	47	ePc	26 30.02	-1.8
Z	21s	8.00um			6.0Msz
			eS	36 38.69	
			eSKS	36 44.69	
			eScS	37 11.69	
			ePS	37 31.69	
			eSS	41 45.69	
			eLQ	46 50.69	
			eLR	50 07.69	
NST	79.45	289	eP	26 38.00	4.1X
PMS	79.47	17	eP	26 32.50	-0.7
	1.2s	111.00nm			5.7mb
ISA	79.47	49	P+	26 37.87	4.0X
Z	20s	6.14um			5.9Msz
			S	36 37.87	
HHC	79.59	316	P	26 35.00	0.6
	1.4s	37.00nm			5.2mb
Z	32s	4.43um			5.6MszX
N	18s	1.11um			
E	18s	1.99um			
PEC	79.73	52	eP	26 35.94	0.7
	1.5s	66.38nm			5.4mb
PLM	79.75	52	eP	26 35.52	0.0
PMR	79.87	17	eP	26 34.90	-0.4
	1.9s	407.60nm			6.1mb
Z	20s	3.50um			5.7Msz
MEMM	79.98	47	eP	26 40.95	4.6X
KMI	80.10	299	(P)	26 38.90	1.3
	2.0s	260.00nm			5.9mb
Z	24s	4.80um			5.8MszX
N	16s	1.80um			
E	18s	2.30um			
			eS	36 48.18	
MTUM	80.12	48	eP	26 38.31	0.9
BTO	80.52	316	eP	26 39.60	0.2
BONR	80.56	47	eP	26 40.91	1.0
GSC	80.56	50	eP	26 39.36	-0.4
KHT	80.62	288	eP	26 41.00	0.8
KLU	80.71	18	eP	26 39.50	-0.4
8DT	80.95	290	eP	26 41.20	-0.7
ILT	81.15	2	iPc	26 41.60	-0.3
	2.0s	197.00nm			5.8mb
Z	18s	2.80um			5.7Msz
			i	29 50.00	
			iS	36 50.00	
			ePS	37 32.00	
KVN	81.16	46	eP	26 43.55	0.6
GLA	81.20	53	eP	26 44.90	1.8
SIT	81.25	25	P	26 50.00	7.4X
Z	19s	4.81um			5.9Msz
CD2	81.27	305	eP	26 45.20	1.7
	1.4s	120.00nm			5.7mb
Z	26s	2.21um			5.4MszX
			SKS	36 59.00	
TNP	81.39	48	eP	26 44.90	0.8
	1.3s	43.18nm			5.3mb

```
CHTO    81.46 292 (P)     26 43.18  -1.4
        1.8s   121.48nm          5.6mb
    Z  24s     4.80um            5.8MszX
    N  16s     1.80um
    E  18s     2.30um
               iS       37 03.04
BALM    81.48  19 eP      26 42.57  -1.4
TPNV    81.63  49 (P)     26 46.02   0.6
        0.9s    15.27nm          5.1mb
    Z  21s    10.85um            6.2Msz
SHW     81.69  39 eP      26 46.59   1.2
GMW     82.02  37 eP      26 47.40   0.5
LON     82.21  38 eP      26 49.62   1.6
VGB     82.26  40 (P)     26 48.96   0.7
IMA     82.54  12 eP      26 48.88  -0.5
        2.1s   175.63nm          5.8mb
RMW     82.56  38 eP      26 50.16   0.3
FBA     82.92  15 eP      26 49.39  -1.8
        1.3s   118.44nm          5.9mb
YAK     83.06 340 eP      26 50.00  -2.0
        2.0s   260.00nm          6.1mb
               i        27 03.00  44kmX
               eS       37 08.00
               ePS      38 12.00
LZH     83.10 309 Pd      26 54.00   1.0
        1.5s   160.00nm          6.0mb
    Z  21s     2.76um            5.6Msz
    E  15s     1.28um
               pP       27 04.00  32kmX
               sP       27 07.50
               PP       30 06.50
               eS       37 07.00
               SS       42 30.00
TUC     84.13  55 Pc      27 05.44   7.3X
        1.7s   214.07nm          6.1mb
    Z  21s     2.02um            5.5Msz
               eS       37 31.03
               ePS      38 19.53
TUC     84.13  55 P       26 58.43   0.2
        1.7s   214.07nm          6.1mb
    Z  21s     2.02um            5.5Msz
DPW     84.91  38 eP      27 01.89   0.2
MZX     84.97  65 (P)     27 03.50   1.1
MSU     85.22  49 eP      27 05.02   1.3
DUG     85.37  47 eP      27 05.17   0.9
        1.4s    41.01nm          5.5mb
    Z  21s     8.14um            6.1Msz
NEW     85.73  38 eP      27 05.04  -0.8
        1.3s    41.78nm          5.5mb
HVU     85.98  46 eP      27 08.20   0.9
DAU     86.56  47 eP      27 10.60   0.2
BOD     86.56 332 eP      27 08.80  -0.8
        1.9s   195.00nm          6.0mb
BRW     86.59   9 eP      27 10.45   1.0
SRU     86.63  49 eP      27 10.97   0.3
PTI     86.66  45 eP      27 12.14   1.5
EMUT    86.66  48 eP      27 11.69   0.8
GTA     87.27 311 eP      27 12.00  -1.6
        1.0s    66.00nm          5.8mb
    Z  20s     3.46um            5.8Msz
    E  15s     0.82um
               sP       27 26.00
               SS       43 32.00
PV09    87.45  50 eP      27 14.93   0.2
PV10    87.48  50 ePd     27 14.71  -0.2
PV08    87.84  50 eP      27 16.55  -0.1
LCCM    88.07  42 eP      27 18.20   0.8
AGX     88.28  67 (P)     27 27.00   8.4X
ALQ     88.38  54 eP      27 19.40   0.2
        1.5s    86.17nm          5.8mb
    Z  19s     1.76um            5.5Msz
BW06    88.56  45 ePd     27 19.18  -0.8
        1.8s   140.85nm          6.0mb
ZAK     88.90 323 eP      27 21.00   0.0
        2.1s   218.00nm          6.1mb
    Z  18s     3.30um            5.8Msz
    N  18s     1.70um
    E  19s     4.37um
               e        30 45.50
               eS       37 53.00
               ePS      39 12.00
IRK     89.04 325 ePc     27 23.00   1.3
    Z  20s     1.69um            5.5Msz
    E  18s     1.76um
               e        27 37.50  49kmX
               (S)      38 10.00
               ePS      39 18.00
PAF     89.37 219 eP      27 24.00   0.6
               PP       30 51.00
               eS       38 12.00
               SS       44 06.00
III     89.98  71 (P)     27 28.50   1.5
TIK     90.21 347 eP      27 25.00  -1.7
        2.3s   177.00nm          5.9mb
               i        27 39.00  47kmX
               e        30 56.00
               eS       38 12.00
               ePS      39 26.00
SES     90.23  38 ePd     27 27.30   0.0
        1.8s   303.00nm          6.2mb
GOL     90.61  49 ePd     27 31.23   1.6
        1.5s    95.35nm          5.9mb
    Z  20s     3.95um            5.8Msz
               ePP      31 10.07
GLD     90.73  49 eP      27 31.93   1.9
        1.6s   146.07nm          6.0mb
    Z  20s     5.61um            6.0Msz
PPM     90.92  71 (P)     27 32.00   0.3
LSA     91.29 300 eP      27 34.75   1.6
               ePP      31 11.09
IISM    92.05  71 (P)     27 39.00   2.8
RSSD    92.80  45 eP      27 38.86  -0.7
        1.5s    89.76nm          6.0mb
    Z  21s     1.61um            5.5Msz
               SKS      38 24.80
YKA     92.95  26 eP      27 38.80  -0.7
        1.1s    15.20nm          5.3mb
WMOK    94.42  56 (P)     27 45.70  -1.3
    Z  21s     2.51um            5.7Msz
               SP       40 21.51
GUN     95.38 297 PKP     27 52.20   0.3
PKI     95.71 297 PKP     27 52.80  -0.6
KKN     95.87 297 PKP     27 54.00   0.0
DMN     95.98 297 PKP     27 54.80   0.2
GKN     96.47 297 PKP     27 56.00  -0.6
WMQ     97.19 313 P       27 59.00  -0.4
        2.0s    45.00nm          5.7mb
    Z  28s     4.34um            5.8MszX
    N  16s     2.76um
               pP       28 08.50  30kmX
               PP       31 56.00
MIAR    98.58  57 (P)     28 05.94   0.1
               SP       41 03.35
ELT     99.81 322 eP      28 10.00  -0.9
        2.0s    55.00nm          5.8mb
               e        39 51.00
CCM    101.01  53 (Pdiff28 23.51   6.7X
               eSKS     38 51.09
               ePS      41 21.07
NRI    101.30 339 ePdiff28 19.00   1.7
        2.2s    34.00nm          5.6mb
               e        41 25.00
SLM    101.87  53 Pdiff 28 30.00   9.4X
    Z  18s     1.08um            5.4Msz
RES    102.80  16 ePdiff28 23.00  -0.9
        1.0s     2.00nm          4.8mb X
NDI    103.03 297 ePdiff28 30.00   4.0X
               eS       39 08.00
MCWV   110.00  52 PKP     33 10.00  11.1X
    Z  21s     2.36um            5.7Msz
CEH    110.51  56 PKP     33 10.00  10.0X
    Z  21s     3.07um            5.8Msz
QUE    112.08 297 ePKP    33 10.50   7.1X
SVE    114.36 327 iPKP    33 06.00  -0.7
               e        44 49.00
               eSS      50 07.00
HRV    116.14  49 PKP     33 20.00   9.4X
    Z  20s     5.57um            6.2Msz
SIV    117.36 116 ePKP    33 17.00   3.3X
CBM    117.94  44 PKP     33 20.00   6.2X
    Z  21s     4.47um            6.0Msz
MAIO   118.28 304 ePKP    33 13.00  -2.0
               i        34 31.00
VAO    125.29 131 (PKP)   33 31.00   2.3X
KAF    126.40 342 iPKP    33 29.20  -0.4
        0.9s     6.10nm
MOS    126.46 332 ePKP    33 33.00   3.1X
    Z  23s     4.00um            6.0MszX
PUL    126.85 339 (PKP)   33 44.00  13.5X
    Z  20s     3.40um            6.0Msz
    N  21s     1.20um
    E  21s     1.50um
               e        57 06.00
OBN    127.30 331 iPKP    33 31.00  -0.5
        1.5s   105.00nm
    Z  20s     3.80um            6.1Msz
    N  20s     2.20um
    E  20s     2.70um
GRS    128.02 310 ePKP    33 32.00  -1.7
        1.9s    40.00nm
               e        40 42.00
NUR    128.16 342 iPKP    33 33.00   0.0
        0.9s    14.60nm
MTA    128.50 313 ePKP    33 32.00  -2.2X
CDCB   128.62 130 ePKP    33 32.00  -3.2X
               e        33 37.90
BAO    128.64 123 ePKP    33 35.60   0.2
               e        33 38.00
PYA    128.91 316 ePKP    33 38.00   3.0X
    Z  22s     2.40um            5.8Msz
               i        35 48.00
KIV    129.19 316 ePKP    33 30.00  -5.7X
APO    130.88 348 ePKP    33 37.40  -0.8
        0.7s     2.60nm
MNK    132.09 335 ePKP    33 39.00  -1.6
               eSS      53 48.00
               eSSS     58 16.00
MTD    133.08 231 ePKP    33 43.00  -0.8
SOB1   137.90 120 ePKP    33 40.80 -12.2X
               e        33 52.00
OJC    138.02 336 ePKP    33 54.70   2.6X
UZH    138.19 333 iPKP    33 52.80   0.4
    Z  22s     4.70um            6.2Msz
    N  22s     2.70um
    E  22s     5.00um
               e        34 03.00
KSP    138.79 340 ePKP    33 54.30   0.8
CLL    139.43 343 ePKP    33 53.00  -1.6
        2.1s    73.00nm
    Z  21s     2.00um            5.8Msz
BRG    139.53 342 ePKP    33 54.70  -0.1
        1.6s    27.00nm
               e        33 58.80
PRU    140.11 340 ePKP    33 58.50   2.6X
    Z  25s     4.90um            6.2MszX
               ePP      36 53.00
MOX    140.41 343 ePKP    33 57.20   0.8
        1.7s    29.00nm
SRO    140.53 335 ePKP    33 59.20   2.5X
ZST    140.70 337 ePKP    33 58.80   1.8
               e        34 01.60
KHC    141.17 341 PKPc    34 02.10   4.2X
        1.5s    22.30nm
    Z  24s     6.20um            6.3MszX
    N  24s     3.10um
    E  24s     2.60um
               e        34 30.50
               e        37 15.00
GEC2   141.37 340 PKP     34 00.80   2.5X
        1.1s     4.91nm
GRF    141.38 343 ePKP    34 00.00   1.8
    Z  23s     3.00um            6.0MszX
UCC    141.88 350 PKP     34 05.00   6.0X
DOU    142.52 350 PKP     34 05.70   5.6X
               e        34 12.00
FUR    142.74 342 ePKP    33 52.80  -7.8X
    Z  20s     3.00um            6.1Msz
HOFF   142.92 346 PKP     34 00.77  -0.1
SRBF   142.98 346 PKP     33 58.94  -2.0
PTJ    143.03 335 ePKP    34 01.80   0.5
WTTA   143.43 341 iPKPc   33 59.10  -2.9X
        0.8s    12.20nm
               i        34 08.80
MOTA   143.52 342 iPKPc   33 59.00  -3.2X
CDF    143.58 346 PKP     33 59.38  -2.8X
SQTA   143.60 341 iPKPc   33 58.50  -3.8X
VBY    143.63 336 ePKP    34 10.60   8.4X
LIBD   143.75 346 PKP     33 59.99  -2.3X
ECH    143.79 346 PKP     33 57.96  -4.5X
FEL    143.90 345 PKP     33 59.14  -3.6X
OGA    143.97 341 iPKPc   34 01.30  -1.7
VITF   144.05 347 PKP     34 01.08  -1.7
MOF    144.14 346 PKP     34 01.49  -1.6
HAU    144.17 347 ePKP    34 01.80  -1.3
        1.4s    66.20nm
    Z  22s     2.50um            5.9Msz
BSF    144.24 346 PKP     34 01.33  -2.0
BBS    144.41 345 PKP     34 02.79  -0.7
FLN    144.49 355 ePKP    34 00.30  -3.2X
        1.2s     3.95nm
    Z  21s     3.47um            6.1Msz
```

03d 23h

```
CTI     144.50 340 PKP    34 05.25    1.5
        1.8s      97.00nm
CTI     144.50 340 PKP    34 02.10   -1.7
LDF     144.62 354 ePKP   34 00.70   -3.1X
LOMF    144.68 346 PKP    34 03.28   -0.7
GRR     144.89 355 ePKP   34 01.80   -2.4X
SAL     145.25 341 PKP    34 08.70    3.8X
LPF     145.26 355 ePKP   34 03.40   -1.4
        1.6s     259.95nm
MDI     145.36 342 PKP    34 04.80   -0.2
LOR     145.38 349 ePKP   34 03.60   -1.5
        1.5s     115.95nm
      Z  21s       3.30um              6.1Msz
VAI     145.55 343 PKP    34 04.40   -1.0
HYF     145.58 351 ePKP   34 04.70   -0.8
LBF     145.63 349 ePKP   34 04.40   -1.2
        1.3s     103.25nm
SSF     145.64 350 ePKP   34 04.70   -0.9
        1.2s     119.60nm
AVF     145.93 350 ePKP   34 05.30   -0.7
        1.2s      71.70nm
SMF     145.98 349 ePKP   34 05.70   -0.5
        1.1s      87.65nm
ORO     145.99 344 PKP    34 06.70    0.4
RSM     146.04 337 PKP    34 07.50    1.2
ARV     146.22 336 PKP    34 08.30    1.6
BGF     146.24 350 ePKP   34 06.60    0.0
        1.0s      48.80nm
SFI     146.27 338 PKP    34 08.50    1.9
RSL     146.29 345 PKP    34 08.37    1.5
BOB     146.35 341 PKP    34 09.20    2.3X
PGD     146.36 338 PKP    34 08.50    1.4
LPL     146.42 345 ePKP   34 08.30    1.1
        1.8s     283.10nm
LPG     146.44 345 ePKP   34 08.40    1.1
        1.9s     319.05nm
MME     146.45 339 PKP    34 09.00    1.7
CRE     146.49 337 PKP    34 11.00    3.8X
MFF     146.60 354 ePKP   34 07.40    0.3
        1.5s     154.10nm
TCF     146.60 351 ePKP   34 07.50    0.3
MAF     146.61 350 ePKP   34 07.80    0.6
FIR     146.61 338 ePKP   34 09.00    1.8
ASS     146.69 336 PKP    34 07.90    0.4
LSF     146.74 352 ePKP   34 07.80    0.4
BNI     146.87 345 PKP    34 10.72    2.9X
        2.2s     302.90nm
GRN     146.92 346 PKP    34 08.56    0.8
AQU     146.99 335 PKP    34 12.90    4.9X
CKI     147.01 342 PKP    34 11.80    3.9X
DUI     147.10 333 PKP    34 11.30    3.1X
SSB     147.15 348 PKP    34 10.85    2.7X
SDI     147.34 333 PKP    33 49.50  -19.0X
               eSg        33 52.50
ORI     147.39 329 PKP    34 11.70    3.1X
SGO     147.57 330 PKP    34 11.40    2.6X
RFI     147.60 333 PKP    34 17.37    8.5X
RJF     147.67 351 ePKP   34 10.80    1.9
        1.5s     166.60nm
      Z  21s       2.55um              6.0Msz
CSI     147.68 328 PKP    34 11.90    2.8X
ROI     147.69 328 PKP    34 12.70    3.5X
RMP     147.73 335 PKP    34 16.70    7.6X
TDS     147.75 328 PKP    34 12.00    2.8X
RDP     147.77 335 PKP    34 12.90    3.7X
SBF     147.77 343 ePKP   34 13.30    4.1X
CAF     147.95 351 ePKP   34 11.60    2.2X
        1.7s     144.85nm
LFF     148.13 352 ePKP   34 12.10    2.5X
LPO     148.32 352 ePKP   34 12.40    2.5X
        1.5s     134.75nm
GRI     148.33 327 PKP    34 14.97    4.8X
        1.4s     212.40nm
CDR     148.39 345 ePKPd  34 13.60    3.5X
SOI     149.07 327 PKP    34 16.20    4.9X
GMB     149.10 327 PKP    33 51.86  -19.7X
EPF     150.06 352 ePKP   34 17.10    4.3X
ELIZ    150.13 355 ePKP   34 08.56   -4.3X
ETER    150.35 348 ePKP   34 09.87   -3.3X
STS     150.40   5 ePKP   34 17.16    4.0X
ECRI    150.76 356 ePKP   34 15.27    1.4
ERUA    151.00   3 ePKP   34 19.49    5.4X
EBR     152.21 351 ePKP   34 18.00    2.1X
GUD     152.79 359 ePKP   34 24.79    7.8X
PAB     153.89 359 ePKP   34 22.00    3.5X
ACU     154.60 352 ePKP   34 34.20   14.8X
EVIA    154.71 355 ePKP   34 32.93   13.3X
BCAO    155.15 251 iPKPc  34 21.00    0.2
        1.6s     104.00nm
                   ic     34 48.10
                   ic     38 19.10
MAL     156.71 359 ePKP   34 23.80    1.6
MBO     168.34  83 ePKP   34 36.80    2.9X
KDS     172.92  95 ePKP   34 37.00    0.8
LIC     172.93 180 PKP    34 36.56    0.3
        1.9s     102.50nm
KIC     173.06 182 PKP    34 36.60    0.3
        1.8s      97.00nm
TIC     173.34 180 PKP    34 36.46    0.0
    S.D. = 1.1  on 222 of 323 obs.
```

```
? MAR  04, 1993  01h 22m 53.71± 1.09s
  13.312 S ±19.0km  174.917 E ±17.2km
  DEPTH =  33.0km  (normol)
  4.5mb (  5 obs.)
 FIJI ISLANDS REGION              (181)

VUN       5.78 144 eP     24 19.00   -0.5
BFD      37.40 225 eP     30 07.60    2.1
         1.2s     13.00nm          4.7mb
W82      39.35 255 eP     30 20.90   -1.1
         1.2s      4.20nm          4.1mb
ASPA     40.11 249 iPc    30 27.40   -0.9
         1.4s     18.20nm          4.6mb
LZH      83.02 309 eP     35 17.50    0.0
         1.5s     19.00nm          5.0mb
YKA      92.96  26 eP     36 04.90    0.4
         0.5s      0.10nm          3.5mb
    S.D. = 1.5  on   6 of   6 obs.
```

```
• MAR  04, 1993  01h 58m 11.39± 0.69s
  17.018 S ±11.0km  167.642 E ±10.0km
  DEPTH =  10.0km  (geophysicist)
  4.6mb (  3 obs.)
 VANUATU ISLANDS                  (186)

BKM       0.86 138 iPd    58 26.60   -1.4
PVC       0.96 138 iP     58 31.00    1.3
                   iS     58 51.90
DZM       5.15 192 iPd    59 30.60    0.1
                   iS     00 43.00
RMQ      19.89 238 eP     02 51.00    5.0X
CNB      24.44 218 eP     03 40.50    9.0X
         1.0s     34.00nm          4.9mb
CMS      24.49 230 eP     03 36.60    4.7X
WB2      31.68 260 iPd    04 36.40   -1.0
         0.8s      8.90nm          4.7mb
ASPA     32.27 253 iPd    04 42.80    0.2
         0.7s     59.40nm          5.6mb X
                   epP    04 48.80   21kmX
WARB     39.06 249 eP     05 41.30    0.9
YKA      99.40  27 eP     11 55.10    0.1
         0.5s      0.10nm          3.7mb
HAU     145.50 338 ePKP   17 46.30   -5.1X
         0.8s      6.70nm
FLN     146.89 346 ePKP   17 49.70   -3.9X
LDF     146.96 345 ePKP   17 50.00   -3.7X
LOR     147.00 340 ePKP   17 51.00   -2.9X
         1.1s     10.00nm
LBF     147.21 339 ePKP   17 51.80   -2.5X
BCAO    147.24 251 iPKPc  17 54.50   -0.8
         0.7s      6.00nm
                   ic     18 08.50
SSF     147.30 340 ePKP   17 52.00   -2.3X
         0.8s      7.50nm
LPL     147.41 335 ePKP   17 55.40    0.5
         0.6s      3.50nm
LPG     147.42 335 ePKP   17 55.00    0.0
LPF     147.71 346 ePKP   17 51.90   -3.0X
    S.D. = 1.0  on  10 of  20 obs.
```

```
  MAR  04, 1993  04h 01m 56.65± 1.10s
  37.659 N ± 8.7km  137.576 E ± 8.8km
  DEPTH =  14.8 ±  6.4 km
  4.3mb (  1 obs.)
 NEAR WEST COAST OF HONSHU, JAPAN(226)

MTMJ      1.09 170 P      02 16.10   -0.6
                   S      02 31.40
NIIJ      1.21 110 iPd    02 18.00   -0.7
                   S      02 35.40
MAT       1.22 155 iPd    02 18.40   -0.6
                   eS     02 35.00
CHJJ      1.97 144 P      02 30.30    0.5
                   S      02 56.90
YAMJ      2.01  74 eP     02 31.10    0.7
                   eS     02 59.80
IIDJ      2.19 173 P      02 34.40    1.3
TSRJ      2.48 212 P      02 38.10    1.1
KAKJ      2.54 124 P      02 41.30    3.4X
OFUJ      3.51  65 P      02 51.90    0.1
AOMJ      3.62  36 eP     02 53.70    0.4
                   eS     03 37.10
WKYJ      3.79 206 P      02 57.50    1.7
YONJ      4.13 235 eP     02 59.50   -1.1
TKSJ      4.65 219 eP     03 12.40    4.4X
SHNJ      6.32 238 eP     03 31.40   -0.2
WB2      57.37 184 eP     11 44.10   -2.5
         0.5s      1.50nm          4.3mb
    S.D. = 1.3  on  13 of  15 obs.
```

```
• MAR  04, 1993  04h 07m 55.48± 1.29s
  25.981 S ±10.4km   27.373 E ±12.6km
  DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
       ML 3.1 (PRE). mbLg 3.4 (BUL).

BPI       0.62 108 eP     08 08.50    0.6
                   S      08 13.90
SLR       0.85  74 iPd    08 17.50    5.0X
                   S      08 25.50
PRY       0.95 175 eP     08 11.90   -2.2
                   S      08 18.50
BFS       1.05 210 eP     08 19.30    3.4X
                   S      08 30.90
SWZ       2.19 236 eP     08 39.20    6.0X
                   S      09 04.60
SEK       2.34 175 iPd    08 36.50    1.1
                   S      08 58.40
BFT       2.42  84 eP     08 40.00    3.4X
                   S      09 10.50
BLF       3.29 198 eP     08 49.20    0.4
                   S      09 25.00
FRS       4.17 205 iPc    09 01.80    0.7
                   (S)    09 55.00
BUL       5.92  11 iPn    09 34.00    7.9X
                   iSn    10 41.40
                   iSg    11 22.20
CIR       6.27  39 iPn    09 21.00  -10.0X
                   iSn    10 25.00
                   iSg    10 53.00
MTD       9.96  24 iPn    10 22.00   -0.4
                   iSn    12 10.00
                   iSg    13 06.00
WIN       9.97 288 eP     10 36.50   13.8X
                   S      12 18.50
    S.D. = 1.5  on   6 of  13 obs.
```

```
? MAR  04, 1993  04h 53m 00.76± 4.06s
  31.434 N ±32.7km  116.969 W ±17.1km
  DEPTH =   5.0km  (geophysicist)
  3.6mb (  1 obs.)
 BAJA CALIFORNIA, MEXICO          ( 48)

PLM       1.92   3 ePnd   53 32.96   -1.6
                   S      53 59.35
GLA       2.43  48 ePnc   53 40.07   -1.7
PEC       2.46 356 ePnc   53 41.38   -0.8
                   S      54 16.31
SSK       2.84 348 ePn    53 46.82   -0.9
GSC       3.86   2 ePn    54 02.21    0.0
ISA       4.40 344 ePn    54 09.15   -0.7
TUC       5.33  79 ePn    54 22.57   -0.5
TPNV      5.53   6 ePn    54 25.45   -0.5
MEMM      6.43 346 (Pn)   54 40.27    1.9
BONR      6.60 351 ePn    54 41.57    0.5
TNP       6.64 358 (Pn)   54 42.58    1.0
ARUT      6.97  24 eP     54 45.67   -0.6
MSU       8.08  28 (P)    55 03.23    1.4
DUG       9.37  20 (P)    55 18.88   -0.7
PV10      9.50  41 eP     55 22.30    0.8
                   S      58 04.06
PV09      9.54  40 eP     55 22.32    0.3
PV08      9.86  41 (P)    55 26.80    0.2
                   S      58 05.13
RSSD     16.25  35 (P)    56 53.56    2.1
         1.0s      4.54nm          3.6mb
    S.D. = 1.2  on  18 of  18 obs.
```

```
% MAR  04, 1993  04h 59m 06.58± 2.12s
  34.229 S ±19.1km   71.040 W ± 7.6km
```

DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.7 (SAN).

CACH 0.38 73 eP 59 15.38 -0.2
iS 59 30.50
LNV 0.41 311 iP+ 59 16.15 0.3
iS 59 31.65
CHCH 0.44 48 iP 59 16.93 0.6
iS 59 33.37
TACH 0.58 8 iP+ 59 19.24 0.9
iS 59 37.24
PCH 0.75 36 iP 59 20.89 0.1
iS 59 40.36
LCCH 0.87 329 iP 59 21.93 -0.5
iS 59 41.59
FCH 1.09 35 iP 59 25.28 -0.7
iS 59 48.51
PEL 1.12 15 iPd 59 26.26 0.2
iS 59 49.29
ROCH 1.25 1 iP 59 28.13 0.0
iS 59 53.59
JACH 1.59 14 iP 59 32.03 -0.8
iS 00 00.15
S.D. = 0.6 on 10 of 10 obs.

MAR 04, 1993 05h 43m 13.83± 0.58s
73.395 N ± 7.9km 7.467 E ± 7.1km
DEPTH = 10.0km (geophysicist)
4.6mb (11 obs.) 3.8Msz (1 obs.)
GREENLAND SEA (640)

JNE 5.40 251 eP 44 35.56 -0.7
JNW 5.41 252 eP 44 35.23 -1.2
JMI 5.55 251 eP 44 37.64 -0.8
ARA0 6.91 115 Pn 44 56.37 -1.2
Sn 46 08.13
MOR7 7.57 157 eP 45 06.33 -0.4
eS 46 20.52
NSS 9.05 168 eP 45 06.43 -20.9X
MOL 10.88 180 eP 45 50.59 -1.8
eS 47 42.46
HYA 12.30 183 eP 46 11.24 -0.4
NRA0 12.81 171 Pn 46 16.81 -1.7
Sn 48 32.76
KAF 13.28 139 iP 46 22.90 -1.8
0.7s 6.30nm 4.8mb
NUR 14.48 144 iP 46 38.70 -1.7
0.5s 8.70nm 4.6mb
OBN 21.85 131 ePd 48 08.00 0.1
1.5s 91.00nm 5.0mb
e 48 13.00
CLL 22.30 171 iP 48 15.40 3.1X
1.6s 31.00nm 4.5mb
BRG 22.78 169 e(P) 48 18.00 0.9
MOX 22.90 173 eP 48 20.80 2.5
1.5s 23.00nm 4.5mb
Z 18s 0.30um 3.8Msz
KSP 22.95 166 eP 48 20.30 1.5
PRU 23.69 169 P 48 29.20 3.2X
e 48 40.50
GRF 23.85 174 eP 48 32.50 5.0X
OJC 23.87 160 eP 48 31.00 3.3X
KHC 24.50 170 eP 48 37.50 3.6X
e 49 03.50
GEC2 24.79 170 P 48 39.30 2.5
1.3s 11.42nm 4.4mb
e 48 50.80
e 53 55.40
e 54 05.40
LDF 25.11 192 eP 48 41.30 1.6
1.1s 26.60nm 4.8mb
ZST 25.65 165 eP 48 46.00 1.3
LPF 25.73 193 eP 48 48.50 3.0X
0.9s 17.35nm 4.7mb
SRO 26.12 163 eP 48 49.60 0.5
LOR 26.26 186 eP 48 51.00 0.5
SSF 26.48 186 eP 48 53.10 0.6
BGF 27.01 187 eP 49 00.10 2.8X
0.6s 4.80nm 4.4mb
YKA 38.98 321 eP 50 40.00 -1.1
1.2s 2.00nm 3.7mb
FBA 40.99 344 eP 50 59.40 1.7
1.0s 0.90nm 3.5mb X
SES 49.60 312 eP 52 06.00 -0.6
GKN 59.75 94 P 53 21.60 0.6
KKN 60.13 93 PKP 53 24.40 0.7
GUN 60.19 92 PKP 53 25.20 0.9
DMN 60.26 93 PKP 53 23.80 -0.8
PKI 60.38 93 PKP 53 23.20 -2.3
BCAO 69.21 168 iPc 54 23.00 0.6
0.6s 6.00nm 4.9mb
S.D. = 1.4 on 29 of 37 obs.

? MAR 04, 1993 05h 48m 28.77± 1.10s
73.561 N ±15.3km 7.903 E ±19.0km
DEPTH = 10.0km (geophysicist)
3.4mb (1 obs.)
GREENLAND SEA (640)

ARA0 6.87 117 Pn 50 11.67 -0.3
Sn 51 24.17
NRA0 12.96 172 Pn 51 33.76 -1.6
OBN 21.87 132 eP 53 24.00 1.0
e 53 51.00
BRG 22.92 170 e(P) 53 35.00 1.6
KSP 23.09 166 eP 53 39.00 3.9X
ZST 25.78 166 e(P) 54 04.80 3.9X
YKA 38.93 321 eP 55 55.70 0.1
1.0s 1.00nm 3.4mb
PGP 83.46 64 iPd 00 56.80 -0.7
S.D. = 1.5 on 6 of 8 obs.

? MAR 04, 1993 06h 01m 46.53± 0.74s
37.360 N ±13.1km 142.427 E ±13.6km
DEPTH = 33.0km (normal)
4.7mb (4 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

GUN 47.93 276 P 10 24.40 0.2
PKI 48.45 276 P 10 28.40 0.2
KKN 48.46 276 P 10 28.40 0.3
DMN 48.68 276 P 10 28.80 -1.1
GKN 48.87 277 P 10 31.00 -0.2
0.6s 8.00nm 4.9mb
WB2 57.50 189 eP 11 34.20 -0.7
0.8s 6.70nm 4.7mb
ASPA 61.23 189 eP 12 01.20 0.6
0.8s 5.20nm 4.7mb
GBA 62.05 266 P 12 07.00 0.7
YKA 63.12 30 eP 12 12.60 -0.2
0.3s 0.10nm 3.4mb X
NB2 74.20 338 P 13 21.70 0.3
0.5s 0.50nm 3.8mb
S.D. = 0.6 on 10 of 10 obs.

& MAR 04, 1993 06h 27m 02.89s
63.264 N 143.839 W
DEPTH = 0.0km
CENTRAL ALASKA (1)
<AEIC>. ML 2.5 (AEIC).

TMW 0.39 81 eP 27 10.55 0.0
eS 27 15.78
DOT 0.40 346 eP 27 10.43 -0.4
S 27 16.38
PAX 0.80 249 eP 27 18.34 -0.5
eS 27 28.73
THY 0.88 281 eP 27 19.68 -0.7
S 27 31.29
SDG 1.08 227 eP 27 23.75 -0.3
S 27 38.40
TZL 1.43 212 eP 27 30.43 0.4
eS 27 51.34
HDA 1.79 311 eP 27 35.65 0.3
GLB 1.83 180 eP 27 36.48 0.6
KLU 2.03 210 eP 27 39.87 1.1
SCM 2.16 230 eP 27 40.89 0.1
BALM 2.34 162 eP 27 45.57 2.2
SML 2.54 237 eP 27 47.44 1.3
TRF 2.91 277 eP 27 51.74 0.2
13 obs. associated

MAR 04, 1993 06h 42m 40.17± 0.49s
9.853 N ± 6.4km 125.455 E ±10.8km
DEPTH = 10.0km (geophysicist)
4.6mb (11 obs.) 4.1Msz (4 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

PLP 1.39 340 ePd 43 05.80 0.3
iS 43 27.20
MAP 1.53 288 ePc 43 07.00 -0.5
iS 43 27.00
CGP 1.58 208 ePd 43 06.00 -2.3
eS 43 32.50
BIP 1.80 154 ePc 43 13.00 1.5
eS 43 39.00
DAV 2.75 178 eP 43 31.00 5.9X
CVP 8.56 336 eP 44 51.00 3.8X
SSE 21.51 350 Pc 47 31.50 0.1
1.0s 11.00nm 4.2mb
Z 20s 0.70um 4.1Msz
NJ2 22.92 345 eP 47 45.00 -0.4
KMI 26.39 308 eP 48 20.00 1.0
Z 24s 1.00um 4.3MszX
CHG 27.15 292 eP 48 31.20 5.4X
XAN 28.45 330 Pd 48 36.00 -1.4
0.8s 8.00nm 4.6mb
Z 16s 0.59um 4.3MszX
SS 54 40.00
TIY 30.12 339 eP 48 53.10 0.7
Z 22s 1.03um 4.4Msz
N 15s 0.46um
WRA 30.87 164 P 48 59.00 -0.1
0.4s 3.90nm 4.6mb
WB2 30.88 164 eP 48 58.00 -1.2
0.5s 1.00nm 4.0mb
BJI 31.18 346 eP 49 01.00 -0.5
1.2s 16.00nm 4.8mb
Z 20s 0.30um 4.0Msz
SNY 31.89 357 Pd 49 07.20 -0.6
LZH 32.67 326 eP 49 12.50 -2.4
2.0s 24.00nm 4.8mb
Z 15s 0.49um 4.3MszX
HHC 33.23 341 Pd 49 19.60 -0.1
1.0s 14.00nm 4.8mb
CN2 33.82 360 eP 49 24.80 0.2
0.8s 4.80nm 4.5mb
Z 18s 0.36um 4.1Msz
ASPA 34.32 166 eP 49 30.30 1.1
GTA 37.27 326 eP 49 53.00 -1.2
pP 50 07.00 53kmX
LSA 37.62 307 P 49 59.20 1.5
GUN 41.29 301 P 50 28.80 0.8
0.9s 59.00nm 5.3mb
PKI 41.59 301 P 50 31.80 1.4
KKN 41.76 301 P 50 32.60 0.9
0.8s 16.00nm 4.8mb
DMN 41.86 301 P 50 33.40 0.8
GKN 42.37 301 P 50 37.60 1.0
GBA 47.11 279 P 51 09.00 -5.6X
YKA 94.46 24 eP 56 00.90 -0.7
0.8s 0.50nm 4.0mb
S.D. = 1.2 on 25 of 29 obs.

MAR 04, 1993 06h 55m 13.69± 0.66s
49.097 N ± 4.7km 129.024 W ± 6.2km
DEPTH = 10.0km (geophysicist)
3.9mb (6 obs.)
VANCOUVER ISLAND REGION (25)

BPBC 1.34 37 P 55 39.15 0.8
EDB 1.47 57 P 55 40.61 0.5
S 56 01.63
HOLB 1.65 20 P 55 43.62 0.8
ETB 1.65 79 P 55 43.54 0.7
PHC 1.91 32 P 55 47.54 1.0
S 56 14.01
GDR 2.07 70 P 55 48.96 0.1
BTB 2.32 79 P 55 52.45 -0.3
OZB 2.33 92 P 55 51.28 -1.4
CBB 2.56 67 P 55 56.65 0.8
ALB 2.76 85 P 55 58.41 -0.3
PFB 3.07 98 P 56 01.68 -1.5
S 56 38.07
NAB 3.30 86 P 56 06.43 0.1
S 56 46.46
SHB 3.40 80 P 56 08.25 0.3
PGC 3.71 95 P 56 11.00 -1.2
0.4s 2.50nm
BIB 3.76 83 P 56 12.77 -0.1
VGZ 3.83 98 P 56 12.32 -1.6
S 56 56.81
WPB 3.84 79 P 56 14.51 0.4
WHB 4.08 73 P 56 18.98 1.5
HNB 4.23 85 P 56 19.48 -0.1
VDB 4.55 88 P 56 23.45 -0.7
LON 5.39 113 eP 56 35.37 -0.7
SHW 5.43 120 eP 56 37.13 0.4
NEW 7.93 92 (P) 57 09.91 -1.8
0.8s 50.67nm 5.8mb X

04d 06h

LGPM 9.28 150 eP 57 31.14 0.6
ORV 10.95 148 eP 57 53.74 0.4
SES 11.71 77 eP 58 04.00 0.3
LCCM 12.05 99 eP 58 08.20 -0.3
HVU 13.54 117 (P) 58 28.61 0.3
DUG 14.55 122 (P) 58 42.78 1.2
1.5s 16.81nm 4.4mb
BW06 14.93 108 (P) 58 48.13 1.5
1.1s 3.79nm 3.8mb
DAU 15.29 118 (P) 58 50.73 -0.7
YKA 15.62 25 eP 58 54.50 -0.7
1.0s 2.80nm 3.5mb
ARUT 15.96 129 eP 59 06.61 6.7X
MSU 16.08 125 (P) 59 03.12 1.5
PV09 17.79 119 eP 59 22.94 -0.2
RSSD 17.84 97 (P) 59 23.16 -0.5
1.0s 12.34nm 4.0mb
PV10 17.93 119 eP 59 25.21 0.4
PV08 18.02 118 (P) 59 26.58 0.6
FBA 18.72 335 eP 59 34.38 0.3
1.4s 25.40nm 4.2mb
IMA 21.29 332 eP 59 59.82 -2.5
0.8s 3.71nm 3.8mb
ULM 21.39 74 eP 00 06.00 2.7X
FCC 22.48 51 eP 00 19.50 5.4X
BRW 25.71 340 eP 00 45.88 0.7
JAQ 32.89 61 eP 01 49.00 -0.6
S.D. = 1.0 on 41 of 44 obs.

% MAR 04, 1993 07h 36m 39.00± 1.44s
40.025 N ± 7.9km 21.580 E ±12.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.6 (THE).

LIT 0.70 83 ePg 36 52.60 -0.3
eSg 37 04.00
FNA 0.77 348 ePg 36 53.76 -0.4
eSg 37 04.72
GRG 1.12 34 ePg 37 00.72 0.7
AGG 1.16 150 ePg 37 01.00 0.3
eSg 37 16.44
SOH 1.57 59 ePb 37 07.28 0.3
eSb 37 29.20
PAIG 1.62 93 ePb 37 07.00 -0.6
S.D. = 0.6 on 6 of 6 obs.

? MAR 04, 1993 07h 47m 14.16± 1.37s
51.144 N ±20.5km 15.694 E ± 8.4km
DEPTH = 10.0km (geophysicist)
POLAND (548)
MG 2.8 (WAR).

BRG 1.14 257 iPg 47 35.00 -0.4
iSg 47 54.80
PRU 1.37 213 ePg 47 39.50 0.2
0.4s 10.40nm
e 47 43.40
eSn 47 56.50
eSg 48 02.50
e 48 11.00
CLL 1.70 277 iPg 47 44.30 0.3
eSg 48 11.00
KHC 2.43 215 ePn 47 59.00 4.4X
ePg 48 06.50
eSn 48 29.00
Sg 48 38.00
MOX 2.63 261 ePg 48 03.00 5.6X
eSg 48 42.80
OJC 2.77 108 eP 47 59.30 -0.1
iS 48 33.00
S.D. = 0.6 on 4 of 6 obs.

% MAR 04, 1993 08h 47m 54.00± 0.64s
39.124 S ± 5.0km 174.647 E ± 4.8km
DEPTH = 241.7 ± 6.9 km
NORTH ISLAND, NEW ZEALAND (159)

NRZ 0.59 249 P 48 26.70 0.4
MOZ 0.63 11 P 48 26.10 -0.3
S 48 47.70
CNZ 0.70 96 P 48 26.70 -0.1
BSZ 0.71 162 P 48 27.00 0.3
NGZ 0.74 94 P 48 27.00 -0.3
WAHZ 1.44 114 P 48 31.30 -0.1
WLZ 1.46 31 P 48 31.90 0.4
eS 48 57.70
MNG 1.62 157 P 48 32.70 -0.1
S 48 57.90
TAHZ 1.63 91 P 48 33.60 0.6
TTH 1.74 105 P 48 34.20 0.4
KIW 1.75 173 P 48 33.80 0.0
DIW 1.77 198 P 48 34.20 0.2
TEHZ 1.88 118 P 48 35.30 0.3
PAHZ 1.89 83 P 48 35.20 0.0
MOH 1.94 91 P 48 35.90 0.3
PGZ 1.95 141 P 48 35.50 -0.1
CAW 2.01 171 Pc 48 36.20 0.0
MRW 2.11 179 Pc 48 37.10 0.0
S 49 05.40
URZ 2.11 67 P 48 36.20 -0.9
S 49 04.50
MTW 2.14 162 P 48 37.00 -0.4
WEL 2.16 178 P 48 37.30 -0.3
eS 49 06.70
BLW 2.33 164 P 48 39.10 -0.2
MOW 2.34 169 P 48 39.10 -0.3
ORZ 2.35 223 Pd 48 39.30 -0.2
eS 49 10.10
MAHZ 2.51 92 P 48 41.50 0.3
CCW 2.64 187 P 48 43.20 0.7
NOZ 2.69 80 P 48 43.10 0.1
THZ 2.95 206 P 48 45.90 0.0
S 49 23.00
PUZ 3.02 71 P 48 46.10 -0.5
HBZ 3.25 63 eP 48 49.10 0.0
KHZ 3.40 194 P 48 51.00 0.2
S 49 31.00
DSZ 3.40 219 P 48 50.80 -0.1
LTZ 4.07 205 eP 48 58.60 -0.2
eS 49 45.30
MQZ 4.82 197 P 49 06.70 -1.1
eS 49 59.30
EWZ 5.23 212 eP 49 12.60 -0.3
BWZ 6.47 212 eP 49 27.80 -0.6
ODZ 6.62 205 P 49 30.90 0.5
eS 50 40.90
TUZ 7.76 207 eP 49 46.10 1.2
S.D. = 0.5 on 38 of 38 obs.

% MAR 04, 1993 08h 54m 06.67± 4.99s
34.300 S ±42.9km 71.126 W ± 8.9km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.5 (SAN).

LNV 0.42 325 iPd 54 16.24 0.2
iS 54 26.70
CHCH 0.54 47 iPd 54 17.80 -0.1
iS 54 29.53
TACH 0.66 14 iPd 54 19.66 0.0
iS 54 32.82
PCH 0.85 37 iP 54 22.17 -0.1
LCCH 0.90 336 iP 54 22.55 -0.4
iS 54 37.38
FCH 1.19 36 iP 54 27.56 0.1
iS 54 46.71
PEL 1.21 18 iP 54 27.67 0.3
iS 54 46.67
ROCH 1.33 4 iP 54 29.34 0.1
iS 54 50.21
JACH 1.67 16 iP 54 33.96 -0.2
iS 54 58.16
S.D. = 0.3 on 9 of 9 obs.

---

* MAR 04, 1993 09h 25m 47.76± 1.49s
43.242 N ±19.8km 4.425 E ± 7.1km
DEPTH = 33.0km (normal)
NEAR SOUTH COAST OF FRANCE (379)
ML 3.1 (LDG).

GELF 0.75 79 Pg 26 02.61 0.8
Sg 26 11.25
PRAF 0.78 44 Pg 26 01.59 -0.8
Sg 26 09.20
TREF 0.80 61 Pg 26 02.78 0.2
BERF 0.93 85 Pg 26 05.23 0.7
Sg 26 16.16
PUYF 0.97 72 Pg 26 05.99 0.9
Sg 26 17.46
CDR 1.07 66 ePgd 26 05.80 -0.7
i 26 07.20
i 26 17.20
VILF 1.12 57 Pg 26 08.01 0.8
TAVF 1.25 72 Pg 26 10.87 1.9
GANF 1.32 54 Pg 26 11.25 1.3
CALN 1.86 73 Pn 26 16.90 -1.2
TOUF 2.19 68 Pn 26 22.20 -0.5
Sg 26 52.56
AURF 2.21 72 Pn 26 21.92 -0.9
Sg 26 53.70
SAOF 2.39 71 Pn 26 24.38 -1.1
CAF 2.39 316 Pn 26 24.80 -0.7
Pg 26 33.10
Sg 27 02.40
LPO 2.75 303 Pn 26 32.40 2.0
Sg 27 15.50
LPG 2.80 36 Pg 26 40.50 9.0X
LPL 2.81 35 Pg 26 40.50 8.9X
RJF 2.93 316 Pn 26 31.70 -1.4
EPF 3.00 267 Pn 26 37.10 3.0X
Pg 26 49.30
Sg 27 27.70
MAF 3.26 337 Pg 26 49.10 11.4X
Sg 27 24.60
SMF 3.43 353 Pg 26 51.30 11.1X
Sg 27 35.10
PGF 3.43 100 Pn 26 39.25 -1.1
BGF 3.50 342 Pg 26 52.90 11.7X
Sg 27 35.10
AVF 3.63 348 Pg 26 55.40 12.4X
Sg 27 40.00
LBF 3.76 355 Pg 26 56.20 11.4X
Sg 27 42.40
SSF 3.87 351 Pg 26 59.40 13.0X
Sg 27 43.60
MFF 4.67 318 Pg 27 14.20 16.4X
Sg 28 14.50
S.D. = 1.2 on 17 of 27 obs.

% MAR 04, 1993 09h 58m 45.73± 0.40s
41.512 S ± 4.7km 174.378 E ± 4.3km
DEPTH = 22.7 ± 5.5 km
COOK STRAIT, NEW ZEALAND (163)
ML 3.8 (WEL).

CCW 0.27 207 P 58 52.30 0.2
eS 58 57.00
TCW 0.31 346 P 58 52.10 -0.6
WEL 0.37 53 P 58 53.60 -0.1
eS 58 59.10
MRW 0.37 41 Pc 58 53.40 -0.3
eS 58 58.80
CAW 0.66 52 Pc 58 58.40 -0.1
KIW 0.76 32 Pc 59 00.20 0.0
DIW 0.79 334 P 59 00.50 -0.2
BLW 0.84 80 P 59 02.40 0.9
MTW 0.92 68 Pc 59 03.70 0.9
KHZ 1.10 214 P 59 06.50 0.8
THZ 1.13 257 P 59 06.30 0.0
eS 59 20.30
MNG 1.22 43 P 59 07.90 0.4
eS 59 23.70
ORZ 1.55 296 P 59 13.10 0.9
PGZ 1.69 59 eP 59 13.60 -0.5
DSZ 1.95 262 P 59 18.90 1.0
LTZ 2.02 230 P 59 18.90 -0.1
eS 59 42.80
WAHZ 2.36 40 eP 59 23.40 -0.4
NGZ 2.51 22 eP 59 25.40 -0.8
MQZ 2.54 210 P 59 24.10 -2.2
MOZ 3.02 6 eP 59 33.50 0.3
S.D. = 0.8 on 20 of 20 obs.

% MAR 04, 1993 10h 19m 29.93± 0.44s
44.585 N ± 3.5km 7.252 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

PZZ 0.13 234 P 19 33.37 0.1
S 19 35.59
BHB 0.26 2 P 19 35.70 0.3
S 19 39.04
STV 0.34 171 P 19 37.21 0.1
S 19 41.56
ENR 0.38 161 P 19 37.58 -0.1
S 19 42.64
RRL 0.47 315 P 19 39.41 -0.2
S 19 45.98
RSP 0.57 0 P 19 40.83 -0.7

```
            S        19 47.72
FIN    0.78 118 P    19 45.08  -0.1
            S        19 54.86
IMI    0.81 146 P    19 45.54  -0.2
            S        19 55.97
LSD    0.88 356 P    19 47.32   0.4
            S        19 57.74
PCP    0.93  92 P    19 47.74   0.1
            S        19 59.76
   S.D. = 0.4  on  10 of  10 obs.
----------------------------------------
% MAR 04, 1993  10h 36m 34.48± 0.58s
  26.888 S ± 6.0km   26.682 E ± 5.4km
  DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
    ML 3.4 (PRE).

BFS    0.09  96 iPd  36 36.40  -0.2
            S        36 36.60
PRY    0.71  93 eP   36 47.50  -1.2
            S        36 55.50
KSR    1.04  11 iPc  36 54.00  -0.7
            S        37 08.50
SWZ    1.25 256 eP   36 58.00  -0.2
BPI    1.40  60 eP   37 01.50   0.6
            S        37 18.70
SEK    1.66 150 eP   37 05.20   0.7
            S        37 24.00
SLR    1.84  52 iPd  37 08.00   0.9
            S        37 31.00
BLF    2.25 191 iPd  37 12.70  -0.4
            S        37 33.00
FRS    3.09 202 iPd  37 25.00   0.2
            S        38 00.70
BFT    3.25  69 eP   37 27.50   0.2
            S        38 09.00
   S.D. = 0.7  on  10 of  10 obs.
----------------------------------------
• MAR 04, 1993  10h 48m 24.64± 1.02s
  11.286 N ±14.1km   86.933 W ±11.8km
  DEPTH =   5.0km  (geophysicist)
  3.7mb (  1 obs.)
 NEAR COAST OF NICARAGUA           ( 74)
    MD 4.0 (APY).

SSN    1.06  89 iPc  48 43.50  -1.6
PYN    1.09 355 eP   48 50.78   5.2X
            eS       49 10.85
PYT    1.50  34 eP   48 54.18   1.9
MEO   25.69 337 iPd  53 58.00   0.6
ACO   27.60 338 iPc  54 13.20  -1.7
EEO   35.86   9 eP   55 27.50   0.1
SIV   37.28 136 P    55 40.60   1.0
LMN   39.27  25 eP   55 56.00   0.0
ULM   39.54 351 eP   55 57.50  -0.7
LCCM  40.46 333 eP   56 05.70  -0.4
JAO   43.34  10 eP   56 25.00  -4.3X
YKA   54.86 345 eP   57 53.40  -4.7X
    0.8s      0.70nm          3.7mb
WB2  139.41 253 ePKP 07 56.40   0.6
    0.8s      1.50nm
GBA  150.81  32 PKP  08 17.00   2.1X
   S.D. = 1.3  on  10 of  14 obs.
----------------------------------------
% MAR 04, 1993  10h 54m 15.03± 1.19s
  33.066 S ± 9.2km   70.487 W ±12.7km
  DEPTH =  33.0km  (normal)
 CHILE-ARGENTINA BORDER REGION     (127)
    MD 3.6 (SAN).

PEL    0.18 245 iP   54 24.04   2.5
            iS       54 37.65
FCH    0.31 148 iP   54 24.00   0.7
            iS       54 37.61
JACH   0.39 347 iP   54 23.19  -1.0
            iS       54 36.23
ROCH   0.45 282 iP   54 25.82   0.7
            iS       54 41.10
PCH    0.55 182 iP   54 26.58   0.1
            iS       54 42.75
TACH   0.70 213 iP   54 28.70   0.3
            iS       54 45.72
CHCH   0.88 189 iP   54 29.99  -1.0
            iS       54 48.78
LCCH   0.99 245 iP   54 31.84  -0.8
            iS       54 51.32
LNV    1.18 221 iP   54 33.72  -1.5
```

```
            (S)      54 54.22
   S.D. = 1.4  on   9 of   9 obs.
----------------------------------------
& MAR 04, 1993  11h 26m 43.39s
  59.828 N            153.902 W
  DEPTH = 156.2km
  2.5mb (  1 obs.)
 SOUTHERN ALASKA                   (  2)
    <AEIC>.

PDB    0.15 255 eP   27 03.67   0.7
            eS       27 18.43
INW    0.46  58 eP   27 04.47  -1.2
INE    0.48  61 eP   27 04.72  -1.1
AUL    0.51 152 eP   27 05.33  -0.4
AUI    0.55 154 eP   27 05.84  -0.1
            eS       27 22.02
MCNL   0.68 199 eP   27 06.12  -0.6
RDW    0.85  39 iP   27 07.03  -1.1
            eS       27 27.17
RS1    0.85  42 eP   27 07.13  -1.0
RS2    0.86  41 eP   27 07.17  -1.0
RSO    0.86  42 eP   27 07.14  -1.0
NCT    0.88  33 eP   27 07.30  -0.9
CDD    0.91 172 eP   27 07.68  -0.7
            eS       27 25.20
DFR    0.98  38 eP   27 07.94  -1.0
SYI    1.45 147 eP   27 12.21  -1.0
            S        27 32.87
BRLK   1.53  91 eP   27 12.97  -1.1
            S        27 33.82
SVW    1.54 327 P    27 14.50   0.3
CKL    1.58  29 eP   27 14.26  -0.4
CKT    1.61  31 eP   27 14.40  -0.6
NKA    1.61  54 eP   27 15.76   0.9
BGL    1.62  27 eP   27 15.08  -0.1
SPU    1.64  33 eP   27 14.58  -0.7
CP2    1.66  29 eP   27 15.46  -0.2
CPAM   1.68  31 eP   27 15.32  -0.4
CRP    1.68  30 eP   27 15.55  -0.3
            S        27 39.93
SLKM   1.96  68 eP   27 17.50  -1.4
SEW    2.26  81 eP   27 21.03  -1.2
SUA    2.26  42 eP   27 21.90  -0.6
MPA    2.37  72 eP   27 22.35  -1.2
SKT    2.45  27 eP   27 23.94  -0.7
PMS    2.57  55 P    27 25.00  -1.2
PTE    2.64  65 eP   27 24.98  -1.9
GHO    3.12  49 eP   27 31.09  -2.1
SML    3.37  52 eP   27 33.96  -2.4
HIN    3.75  78 eP   27 39.50  -1.7
SCM    3.80  55 eP   27 40.53  -1.3
TRF    4.02  24 eP   27 44.25  -0.7
YKA   18.94  65 eP   30 53.20  -1.1
    0.4s      0.10nm          2.5mb
    37 obs. associated
----------------------------------------
  MAR 04, 1993  11h 28m 24.16± 0.52s
  40.050 N ± 6.1km   21.665 E ± 4.0km
  DEPTH =  23.8 ±  4.6 km
  3.3mb (  2 obs.)
 GREECE                            (364)
    MD 3.5 (ATH).

KZN    0.27  18 ePb  28 30.00  -0.7
LIT    0.64  85 ePg  28 36.20  -0.4
            eSg      28 47.80
FNA    0.77 343 ePg  28 37.32  -1.5
            eSg      28 48.64
GRG    1.07  32 ePg  28 44.00   0.4
AGG    1.15 153 ePg  28 44.76   0.0
            eSg      29 01.12
IGT    1.15 244 ePg  28 44.04  -0.8
            eSg      28 59.60
THE    1.15  59 ePb  28 45.44   0.7
            eSb      29 01.72
KNT    1.45  40 ePb  28 50.28   1.2
            eSb      29 09.04
KEK    1.48 257 ePn  28 50.50   1.1
SOH    1.50  59 ePb  28 50.80   0.9
PAIG   1.55  94 ePb  28 50.44  -0.1
            eSb      29 10.56
OUR    1.80  80 ePb  28 54.68   0.6
            eSb      29 18.56
SRS    1.81  53 ePb  28 54.80   0.5
            eSb      29 18.08
VLS    2.05 204 ePn  29 02.00   4.2X
```

```
ULC    2.64 317 iPnd 29 05.97  -0.3
            iSn      29 37.98
PVY    2.84 334 iPnc 29 12.69   3.6X
            iSn      29 50.17
TTG    2.99 323 iPnd 29 11.94   0.9
            iSn      29 48.54
BDV    3.09 317 iPnd 29 11.82  -0.8
            iSn      29 47.88
IVA    3.12 335 iPnc 29 16.85   3.9X
            iSn      29 56.99
RDO    3.15  68 ePn  29 12.00  -1.3
HCY    3.38 316 iPnc 29 15.39  -1.3
            iSn      29 54.07
NKY    3.41 325 iPnd 29 18.04   0.9
            iSn      29 59.10
ALN    3.45  74 ePn  29 17.32  -0.3
VLI    3.47 163 ePn  29 22.00   4.0X
EZN    3.59  92 ePn  29 18.00  -1.6
BRY    3.69 322 iPnd 29 20.75  -0.4
            iSn      30 03.77
PLE    3.69 333 iPnc 29 24.22   3.1X
            iSn      30 09.17
MLR    6.28  29 eP   30 00.00   2.2X
VRI    6.90  31 eP   30 02.00  -4.3X
VBY    7.20 321 ePn  30 21.00  10.4X
            e(Sn)    31 36.50
NB2   21.98 346 P    33 14.70  -3.3X
    0.6s      1.00nm          3.4mb
YKA   71.94 340 eP   39 49.20   2.2
    0.4s      0.10nm          3.2mb
   S.D. = 1.1  on  23 of  32 obs.
----------------------------------------
  MAR 04, 1993  11h 42m 26.06± 0.26s
  73.561 N ± 4.2km    7.366 E ± 4.7km
  DEPTH =  10.0km  (geophysicist)
  4.8mb ( 48 obs.)  4.7Msz ( 24 obs.)
 GREENLAND SEA                     (640)

JNE    5.43 249 eP   43 46.91  -2.0
JNW    5.44 250 eP   43 46.99  -2.1
KBS    5.49   9 eP   43 50.00   0.2
JMI    5.58 250 eP   43 49.27  -1.8
ARA0   7.01 116 Pn   44 06.64  -4.5X
            S        45 19.69
KEV    7.25 112 iP   44 10.00  -4.5X
    0.8s     29.30nm          5.5mb
DAG    7.38 308 eP   44 14.00  -2.3X
    1.0s     23.00nm          5.3mb
MOR7   7.73 157 eP   44 16.22  -5.0X
            eS       45 34.63
SDF    8.81 125 iP   44 32.50  -3.8X
            i        49 52.00
NSS    9.22 167 eP   44 17.43 -24.4X
            eS       45 52.87
APA   10.45 112 iPc  44 52.40  -6.4X
MOL   11.04 180 eP   45 02.29  -4.6X
NB2   12.66 171 P    45 24.60  -4.2X
    0.5s      4.40nm          4.9mb
NRA0  12.98 171 P    45 29.50  -3.5X
            S        47 44.28
KAF   13.43 139 iP   45 33.40  -5.4X
    0.5s      9.50nm          5.1mb
HFS   13.70 167 eP   45 37.10  -5.4X
    0.4s      3.30nm          4.6mb
NUR   14.63 144 iP   45 47.60  -7.0X
    0.5s      7.20nm          4.5mb
BSD   18.78 166 iPc  46 47.60   0.5
    0.8s     29.00nm          4.5mb
EKA   18.80 199 P    46 49.00   1.7
    1.6s     38.80nm          4.4mb
GDH   19.09 288 eP   46 49.00  -1.7
            e        51 30.00
DMU   20.61 204 eP   47 10.00   2.5
DLF   21.15 204 eP   47 11.00  -2.1
DCN   21.19 205 eP   47 11.00  -2.5
DBN   21.56 184 eP   47 20.00   2.8
   Z  20s     0.40um          3.8Msz
            e(S)     51 23.00
MOS   21.62 129 eP   47 16.00  -1.7
            e        47 39.00
            e        47 56.00
WTS   21.65 181 eP   47 18.00  -0.1
    1.1s     29.30nm          4.6mb
OBN   21.99 131 ePc  47 18.00  -3.4X
    1.3s     93.00nm          5.1mb
            i        47 47.00
            e        48 00.00
```

04d 11h

CLL 22.46 171 eP 47 28.00 1.8
1.6s 53.00nm 4.8mb
UCC 22.88 185 P 47 36.00 5.7X
ENN 22.89 182 eP 47 31.00 0.6
0.8s 9.50nm 4.4mb
e 47 44.00
BRG 22.95 169 eP 47 30.20 -0.8
1.4s 36.00nm 4.7mb
Z 18s 2.00um 4.6Msz
N 18s 1.50um
E 18s 1.00um
i 47 37.70
e 51 48.00
MOX 23.07 173 ePc 47 32.20 0.0
1.3s 34.00nm 4.7mb
Z 18s 1.10um 4.3Msz
e 47 59.70
eS 51 50.00
KSP 23.12 165 eP 47 31.70 -1.0
SNF 23.17 185 P 47 35.40 2.3
TNS 23.43 178 ePc 47 43.30 7.6X
DOU 23.58 184 P 47 38.90 1.8
PRU 23.86 169 P 47 41.50 1.6
2.2s 76.20nm 4.9mb
Z 19s 1.80um 4.6Msz
N 19s 1.30um
E 16s 0.50um
e 47 46.50
e 49 19.50
GRF 24.01 174 eP 47 41.00 -0.4
Z 17s 1.00um 4.4MszX
e 47 43.00
e 47 48.10
e(S) 52 03.80
OJC 24.04 160 eP 47 40.90 -0.7
e 47 51.00
NRI 24.11 59 iPc 47 43.20 1.2
2.2s 235.00nm 5.4mb
e 48 18.00
KHC 24.67 170 eP 47 50.00 2.3
1.4s 12.50nm 4.4mb
Z 18s 2.10um 4.7Msz
N 18s 1.50um
E 18s 1.00um
e 47 57.00
e 48 06.50
RES 24.76 322 eP 47 53.00 4.6X
1.0s 3.00nm 3.9mb
pP 48 08.00 64kmX
GEC2 24.96 170 P 47 50.30 -0.3
1.4s 23.85nm 4.7mb
e 47 57.30
SPC 25.10 160 eP 47 52.90 0.8
FLN 25.12 192 eP 47 51.80 -0.3
1.2s 32.15nm 4.9mb
Z 23s 0.60um 4.0MszX
CDF 25.24 180 eP 47 52.60 -0.6
1.3s 23.85nm 4.7mb
LDF 25.27 192 eP 47 53.40 0.0
1.1s 26.35nm 4.8mb
GRR 25.52 193 eP 47 55.50 -0.3
HAU 25.65 182 eP 47 56.60 -0.4
Z 21s 0.70um 4.2Msz
ZST 25.82 165 eP 48 01.30 2.8X
e 00 50.20
BSF 25.82 181 eP 47 58.00 -0.7
0.8s 6.45nm 4.4mb
UZH 25.87 157 eP 47 57.50 -1.5
1.5s 64.00nm 5.1mb
e 48 32.00
LPF 25.89 193 eP 47 59.30 0.1
1.0s 27.80nm 4.9mb
SRO 26.29 163 eP 48 14.70 11.8X
i 48 17.40
ARU 26.37 103 eP 48 01.00 -2.6
2.0s 250.00nm 5.6mb
Z 16s 1.00um 4.5MszX
N 16s 1.00um
E 16s 0.50um
e 48 41.00
LOR 26.43 185 eP 48 04.00 -0.2
0.9s 9.50nm 4.5mb
Z 23s 0.95um 4.3MszX
SVE 26.59 100 ePd 48 06.00 0.4
2.8s 130.00nm 5.1mb
Z 15s 1.50um 4.7MszX
N 15s 1.00um

e 49 04.90
SSF 26.64 186 eP 48 04.90 -1.3
AVF 26.92 186 eP 48 10.20 1.5
1.2s 24.10nm 4.8mb
TCF 27.46 188 eP 48 12.50 -1.2
1.4s 27.90nm 4.8mb
KIV 33.82 131 (P) 49 09.40 -0.7
2.1s 30.00nm 4.9mb
PYA 33.82 131 eP 49 15.00 5.0X
Z 20s 2.00um 4.8Msz
GRO 35.05 128 iPc 49 22.00 1.5
1.5s 160.00nm 5.7mb
Z 15s 2.00um 5.0MszX
N 15s 3.00um
E 18s 1.50um
JAQ 37.62 285 eP 49 43.00 0.9
ERE 37.81 131 iP 49 46.00 2.0
FCC 37.94 304 eP 49 46.50 1.8
YKA 38.83 321 eP 49 50.70 -1.4
1.4s 3.60nm 3.9mb
GRS 38.87 129 eP 49 52.00 -0.9
1.2s 20.00nm 4.7mb
FBA 40.82 344 eP 50 11.45 2.9X
1.0s 5.38nm 4.2mb
CBM 41.67 274 P 50 20.00 4.3X
Z 21s 1.10um 4.7Msz
LMN 41.71 270 eP 50 21.50 5.4X
IRK 42.68 64 eP 50 23.00 -1.0
2.0s 39.00nm 4.8mb
Z 12s 0.41um 4.5MszX
E 18s 0.75um
e 52 04.00
FRU 43.08 97 (P) 50 29.00 1.6
Z 18s 0.90um 4.7Msz
e 52 06.00
e 52 43.00
ASH 43.22 116 eP 50 28.50 0.0
ZAK 44.14 66 eP 50 26.50 -9.3X
Z 15s 0.78um 4.7MszX
N 15s 0.58um
e 52 27.00
MGD 44.35 25 eP 50 36.00 -1.4
EEO 45.01 284 eP 50 47.50 4.6X
MAIO 45.07 116 eP 50 45.00 1.4
SVW 45.11 348 (P) 50 48.15 4.6X
0.8s 17.08nm 5.0mb
CIT 45.23 57 eP 50 44.00 -0.7
RSNY 45.66 278 P 51 00.00 11.9X
Z 21s 0.86um 4.7Msz
ULM 46.12 300 eP 50 52.00 0.4
HRV 46.70 274 P 51 00.00 3.7X
Z 18s 0.52um 4.5Msz
SES 49.47 312 eP 51 17.00 -0.8
NEW 52.74 316 eP 51 42.36 -0.3
1.0s 17.14nm 4.9mb
QUE 52.81 110 eP 51 38.80 -4.8X
RSSD 53.83 304 eP 51 51.83 0.9
0.7s 4.59nm 4.6mb
LCCM 53.97 311 eP 51 52.80 0.9
CEH 54.99 278 P 52 10.00 10.7X
Z 20s 0.64um 4.7Msz
YSS 55.91 35 eP 52 02.00 -3.8X
8W06 56.38 308 eP 52 08.93 -0.6
1.4s 12.62nm 4.8mb
8JI 57.06 60 eP 52 14.00 -0.1
1.5s 29.00nm 5.1mb
Z 20s 0.30um 4.4Msz
LZH 57.58 72 eP 52 17.50 -0.6
2.0s 34.00nm 5.0mb
Z 18s 0.49um 4.7Msz
E 15s 0.43um
sP 52 30.00
GLD 58.25 303 P 52 30.00 7.3X
Z 19s 1.46um 5.1Msz
GOL 58.33 303 eP 52 24.40 1.0
0.9s 6.31nm 4.7mb
Z 20s 1.31um 5.0Msz
OLY 58.77 289 eP 52 27.77 1.6
DUG 59.56 310 eP 52 33.68 1.8
0.8s 2.29nm 4.4mb
GKN 59.79 94 P 52 32.60 -0.9
KKN 60.17 93 P 52 34.80 -1.4
PV08 60.17 306 eP 52 37.33 1.1
GUN 60.23 92 P 52 36.00 -0.7
MIAR 60.23 291 P 52 50.00 13.7X
Z 19s 0.57um 4.7Msz
DMN 60.29 93 P 52 37.40 0.3

PV09 60.36 306 eP 52 36.57 -0.9
PKI 60.42 93 P 52 37.20 -0.8
PV10 60.45 306 eP 52 39.52 1.4
MSU 61.03 309 eP 52 41.51 -0.5
WDC 61.18 318 P 52 50.00 7.3X
Z 18s 1.17um 5.1Msz
WMOK 61.41 296 P 52 50.00 5.7X
Z 19s 1.39um 5.1Msz
TNP 62.53 313 eP 52 51.82 -0.2
0.8s 3.87nm 4.6mb
BONR 62.88 314 eP 52 54.42 0.0
ALQ 63.12 303 P 53 10.00 14.1X
Z 21s 1.07um 5.0Msz
CMB 63.22 316 P 53 10.00 13.6X
Z 18s 1.38um 5.2Msz
MTUM 63.51 314 eP 53 01.00 2.5
ISA 65.13 313 P 53 20.00 11.2X
Z 19s 1.28um 5.1Msz
TUC 66.66 306 eP 53 19.67 1.0
1.4s 11.95nm 4.9mb
Z 19s 0.86um 5.0Msz
KIC 67.53 193 P 53 21.60 -2.6
BCAO 69.38 168 iPc 53 35.00 -0.7
0.9s 18.00nm 5.2mb
GBA 71.43 105 P 53 48.00 -0.1
1.0s 2.00nm 4.2mb
CHG 72.55 83 eP 53 55.00 0.2
HON 84.85 346 P 55 10.00 8.3X
Z 21s 0.25um 4.6Msz
ASPA 122.55 61 ePKP 01 20.80 -1.7
0.7s 2.70nm
RMQ 128.66 46 iPKPd 01 45.00 10.8X
0.6s 12.00nm
CMS 132.87 51 ePKP 01 54.30 12.2X
8WA 136.26 49 ePKP 01 31.10 -17.4X
e 01 44.00
TOO 138.63 53 ePKP 01 53.20 0.4
0.9s 23.00nm
S.D. = 1.3 on 84 of 126 obs.

MAR 04, 1993 11h 50m 30.28± 0.81s
31.657 S ±11.4km 69.370 W ± 9.6km
DEPTH = 84.6 ± 12.2 km
SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.2 (SAN).

RT8S 0.07 267 ePd 50 41.80 -0.8
RTCV 0.74 106 iPc 50 47.10 0.1
RTLL 0.84 67 iPc 50 48.50 0.5
CFA 0.97 87 ePd 50 50.00 0.5
S 51 07.30
JACH 1.46 225 iPd 50 56.65 0.9
iS 51 15.13
FCH 1.84 205 iP+ 51 02.82 1.8
iS 51 25.38
PEL 1.85 217 iP+ 51 01.22 0.3
iS 51 22.55
ROCH 1.91 226 iPd 51 01.37 -0.5
iS 51 23.24
SAN 2.10 211 iP 51 04.61 0.4
iS 51 28.34
PCH 2.18 206 iP 51 06.20 0.8
iS 51 32.29
TACH 2.39 213 iP 51 07.64 -0.5
iS 51 34.65
CHCH 2.51 205 iP 51 10.05 0.1
iS 51 38.77
LCCH 2.60 225 iP 51 09.70 -1.3
iS 51 37.76
CACH 2.66 203 iP 51 12.86 0.8
iS 51 43.02
LNV 2.86 216 iP 51 12.52 -2.1
iS 51 43.54
MRA 3.20 105 ePc 51 17.70 -1.6
S 51 54.20
SIV 17.33 28 P 54 28.80 0.6
S.D. = 1.1 on 17 of 17 obs.

---

* MAR 04, 1993 11h 55m 15.86± 0.69s
73.728 N ±11.7km 8.893 E ±12.3km
DEPTH = 10.0km (geophysicist)
4.2mb (4 obs.)
GREENLAND SEA (640)

ARA0 6.71 121 Pn 56 57.70 1.0
Sn 58 12.24
KEV 6.92 116 eP 57 00.00 0.3

DAG 7.63 306 eP 57 10.00 0.5
esP 58 18.50
NRA0 13.09 174 Pn 58 19.92 -4.3X
KAF 13.28 142 eP 58 24.60 -2.1
NUR 14.53 148 eP 58 32.60 -10.5X
OBN 21.78 134 iPc 00 14.00 4.8X
1.3s 78.00nm 5.0mb
e 00 40.00
CLL 22.57 173 eP 00 18.00 0.9
1.8s 30.00nm 4.5mb
BRG 23.04 172 eP 00 20.40 -1.3
MOX 23.20 176 eP 00 24.00 0.8
OJC 24.06 163 eP 00 33.00 1.4
GRF 24.14 176 eP 00 33.30 0.9
KHC 24.77 173 eP 00 37.00 -1.5
e 01 38.50
GEC2 25.06 172 P 00 41.40 0.0
1.1s 2.80nm 3.9mb
e 00 46.80
SPC 25.12 162 e(P) 00 52.90 10.9X
YKA 38.97 322 eP 02 42.40 -0.7
1.3s 3.00nm 3.8mb
SES 49.67 313 eP 04 09.00 -0.2
BCAO 69.46 170 iPc 06 26.00 0.0
S.D. = 1.1 on 14 of 18 obs.

? MAR 04, 1993 11h 55m 46.64± 3.11s
31.080 S ±44.4km 178.985 W ±38.0km
DEPTH = 33.0km (normal)
4.9mb (6 obs.)
KERMADEC ISLANDS REGION (177)

DZM 15.81 301 iPc 59 37.90 9.4X
ARMA 25.24 264 iPc 01 16.00 4.7X
0.8s 10.00nm 4.5mb
CAN 27.06 252 eP 01 28.30 0.3
e 01 38.80
BFD 32.26 249 iPd 02 14.00 -0.3
0.8s 14.00nm 4.9mb
ASPA 42.23 268 iPd 03 38.40 -0.1
0.9s 19.80nm 4.8mb
WB2 43.27 273 iPd 03 46.90 -0.1
0.7s 44.40nm 5.3mb
i 04 01.50
WRA 43.28 273 P 03 47.20 0.2
0.8s 6.20nm 4.4mb
SPA 59.09 180 iPc 05 46.00 0.0
0.9s 17.27nm 5.2mb
YKA 106.42 26 ePKP 14 19.50 10.7X
0.9s 0.50nm
KAF 144.90 340 iPKP 15 13.50 -7.6X
0.9s 20.80nm
OBN 145.23 324 iPKPc 15 15.70 -6.2X
1.1s 97.00nm
e 15 37.00
NUR 146.65 339 ePKP 15 18.80 -5.3X
0.8s 29.50nm
BCAO 148.78 215 iPKPc 15 24.20 -4.8X
0.3s 15.00nm
ic 15 42.00
UPP 149.14 344 iPKP 15 30.40 2.3X
NB2 149.29 350 PKP 15 25.00 -3.4X
1.0s 78.70nm
HFS 149.73 347 ePKP 15 25.50 -3.5X
0.5s 1.20nm
KIC 154.82 166 PKP 15 52.30 14.7X
S.D. = 0.3 on 6 of 17 obs.

& MAR 04, 1993 12h 57m 39.82s
61.011 N 152.135 W
DEPTH = 107.3km
SOUTHERN ALASKA (2)
<AEIC>.

SPU 0.18 13 iPc 57 54.24 0.8
eS 58 06.00
CKT 0.19 350 iPc 57 54.31 0.8
eS 58 05.88
CKL 0.21 332 iPc 57 54.45 0.8
eS 58 06.38
CKN 0.21 354 ePc 57 54.62 1.1
CPAM 0.24 359 iPc 57 54.72 1.0
CRP 0.26 358 iPc 57 54.46 0.6
eS 58 06.61
CP2 0.26 349 iPc 57 54.89 1.0
eS 58 07.79
BGL 0.28 334 iPc 57 54.94 1.1
eS 58 06.89
RDT 0.46 197 eP 57 55.74 -0.7
DFR 0.50 213 ePc 57 55.80 -0.9
eS 58 08.47
NKA 0.51 121 iPc 57 58.05 1.4
NCT 0.60 221 iPc 57 56.73 -0.7
eS 58 10.11
RDW 0.63 212 ePc 57 57.00 -0.8
eS 58 10.50
RSO 0.63 209 ePc 57 57.11 -0.7
eS 58 10.33
RS1 0.63 209 ePc 57 57.15 -0.7
eS 58 11.05
SUA 0.81 55 iPc 57 59.04 -0.3
eS 58 14.07
SKT 1.02 16 iPd 58 00.43 -0.8
eS 58 16.44
eS 58 16.49
INE 1.06 206 eP 58 01.02 -0.9
INW 1.07 208 eP 58 01.20 -0.7
eS 58 18.89
SLKM 1.07 117 ePc 58 01.51 -0.3
eS 58 19.17
PWA 1.26 58 P 58 03.90 -0.1
PMS 1.27 78 P 58 03.90 -0.3
BRLK 1.40 153 eP 58 06.03 0.4
S 58 24.43
MPA 1.46 110 eP 58 06.11 -0.2
PTE 1.53 94 iPc 58 06.16 -1.0
PLRM 1.56 67 eP 58 06.24 -1.3
PMR 1.56 67 (P) 58 06.33 -1.3
PDB 1.60 221 iPd 58 07.15 -0.9
SEW 1.61 123 eP 58 07.47 -0.7
GHO 1.72 62 eP 58 08.59 -1.1
eS 58 31.13
AUL 1.76 202 eP 58 09.72 -0.4
AUI 1.80 202 eP 58 10.50 -0.1
SML 2.00 65 eP 58 11.73 -1.4
MCNL 2.14 212 eP 58 13.81 -1.2
SYI 2.41 183 eP 58 17.80 -0.8
SCM 2.45 68 eP 58 18.08 -1.1
TRF 2.60 19 ePc 58 19.69 -1.5
VLZ 2.82 85 iPc 58 22.11 -1.9
RND 2.85 31 eP 58 23.47 -1.1
KLU 3.04 78 ePc 58 25.13 -2.0
SDG 3.48 61 eP 58 31.85 -1.2
FBA 4.38 25 eP 58 43.10 -2.1
BALM 4.76 85 eP 58 48.14 -2.5
43 obs. associated

---

* MAR 04, 1993 13h 04m 06.60± 1.59s
51.266 N ±15.7km 15.740 E ± 7.4km
DEPTH = 5.0km (geophysicist)
POLAND (548)
MG 2.7 (WAR).

KSP 0.55 140 iPd 04 16.20 -1.4
0.5s 75.00nm
iS 04 25.30
BRG 1.20 252 iPg 04 30.20 0.8
iSg 04 50.00
PRU 1.49 211 Pg 04 34.30 0.3
0.4s 18.10nm
eSn 04 53.00
eSg 05 00.00
e 05 07.20
CLL 1.72 273 iPn 04 35.60 -1.7
iPg 04 38.20
eSg 05 04.00
VRAC 2.04 164 ePn 04 41.40 -0.5
e 04 46.20
eSg 05 14.10
KHC 2.55 214 Pn 04 49.50 0.2
e 04 59.00
e 05 25.00
eSg 05 33.00
e 05 35.60
MOX 2.68 258 ePg 04 58.80 7.6X
eSg 05 37.40
GEC2 2.76 209 Pn 04 52.70 0.3
Pg 04 59.40
Sg 05 44.20
OJC 2.78 111 eP 04 54.10 1.4
eS 05 30.50
WET 2.81 222 iPnc 04 53.60 0.6
S.D. = 1.2 on 9 of 10 obs.

& MAR 04, 1993 13h 20m 26.72s
63.024 N 149.202 W
DEPTH = 80.8km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.20 257 eP 20 38.59 1.5
S 20 47.90
RND 0.42 22 eP 20 39.87 -0.3
S 20 50.11
TRF 0.65 312 eP 20 42.61 0.2
MCK 0.72 9 eP 20 42.94 0.0
eS 20 54.73
GHO 1.26 174 eP 20 49.20 -0.3
S 21 06.68
SML 1.29 161 iP 20 49.36 -0.4
eS 21 07.20
PWA 1.41 193 eP 20 51.66 0.4
eS 21 11.02
PLRM 1.44 179 eP 20 51.81 0.2
PMR 1.44 179 eP 20 51.34 -0.3
SCM 1.48 143 iP 20 52.16 -0.1
S 21 12.07
SKT 1.50 227 eP 20 52.39 -0.2
eS 21 11.81
NEA 1.56 2 iP 20 52.44 -0.8
iS 21 12.25
THY 1.61 74 eP 20 54.10 0.1
PAX 1.70 90 eP 20 55.28 0.0
S 21 16.92
HDA 1.71 35 eP 20 54.44 -0.8
S 21 17.21
SUA 1.72 205 eP 20 56.40 0.8
S 21 20.06
CCB 1.74 20 eP 20 54.75 -0.9
S 21 17.97
SDG 1.75 105 eP 20 56.19 0.3
eS 21 18.41
PMS 1.79 186 eP 20 56.47 0.0
FBA 1.98 18 eP 20 58.00 -1.0
KLU 2.17 134 eP 21 00.73 -0.9
S 21 28.21
CRP 2.24 219 eP 21 03.30 0.6
eS 21 31.88
CPAM 2.25 219 eP 21 03.56 0.9
CP2 2.27 220 eP 21 04.06 1.0
SPU 2.28 217 eP 21 03.97 0.8
CKN 2.29 219 eP 21 04.56 1.4
CKT 2.31 219 eP 21 04.42 0.9
BGL 2.32 222 eP 21 04.36 0.8
VLZ 2.33 143 eP 21 01.96 -1.7
CKL 2.35 220 eP 21 04.90 0.8
MPA 2.55 182 eP 21 07.13 0.5
SLKM 2.57 191 P 21 07.53 0.5
SEW 2.93 182 eP 21 12.00 0.0
DFR 2.95 216 eP 21 13.85 1.5
GLB 2.98 120 eP 21 12.00 -0.7
35 obs. associated

MAR 04, 1993 13h 58m 56.35± 0.72s
43.436 N ± 4.5km 5.423 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.6 (STR).

GELF 0.05 177 Pg 58 58.11 -0.5
TREF 0.19 351 Pg 59 00.37 -0.2
PUYF 0.22 64 Pg 59 00.37 -0.8
BERF 0.23 122 Pg 59 01.57 0.2
CDR 0.35 46 ePgd 59 02.40 -1.1
PRAF 0.41 333 Pg 59 05.18 0.4
VILF 0.47 27 Pg 59 05.70 -0.2
TAVF 0.50 68 Pg 59 05.92 -0.5
GANF 0.66 32 Pg 59 09.54 0.0
CALN 1.11 73 Pg 59 18.16 0.9
TOUF 1.44 66 Pn 59 22.93 0.2
Sg 59 43.77
AURF 1.45 71 Pn 59 23.53 0.8
SBF 1.52 73 Pn 59 24.51 0.8
AUTN 1.56 68 Pn 59 24.62 0.3
Sg 59 47.54
SAOF 1.64 70 Pn 59 25.96 0.6
PGF 2.77 107 Pn 59 40.78 -0.9
S.D. = 0.7 on 16 of 16 obs.

? MAR 04, 1993 14h 11m 31.99± 8.23s
57.753 N ±68.4km 6.156 E ±26.3km

```
04d 14h

   DEPTH = 10.0km (geophysicist)
 NORTH SEA                               (534)
      MD 2.4 (BER).

KMY       1.54 342 eP      11 59.31  -0.2
                   eSg     12 16.34
ODD1      2.18   6 eP      12 09.22   0.4
                   eSg     12 30.10
EGD       2.57 350 eP      12 14.50   0.2
                   eSg     12 44.00
ASK       2.78 350 eP      12 17.00  -0.4
                   eS      12 45.70
HYA       3.42   0 eP      12 26.64   0.2
                   eSg     13 10.23
NRA0      4.07  40 ePn     12 34.93  -0.7
                   ePg     12 44.60
                   eSn     13 17.80
                   eLg     13 32.43
HFS       4.58  55 eP      12 43.20   0.4
        0.1s    0.50nm
     S.D. = 0.5  on   7 of   7 obs.
-----------------------------------------
   MAR 04, 1993  14h 35m 58.50± 0.13s
   13.241 S ± 3.8km  174.872 E ± 2.9km
   DEPTH = 18.6km  (geophysicist)
   5.8mb ( 50 obs.) 5.5Msz ( 34 obs.)
 FIJI ISLANDS REGION                     (181)
      Mw 5.7 (HRV). Depth from
      broadband displacement
      seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=120 Dip=80 Slip= -90
       NP2:       300    10      -90
       Principal Axes:
        T              Plg=35  Azm=210
        P                  55       30
      Comment: The focal mechanism is
        poorly controlled and
        corresponds to normal
        faulting. The preferred fault
        plane is not determined.
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 35S, 69C
      Centroid Location:
      Origin Time        14:36: 1.3 0.2
      Lat 13.11S 0.03 Lon 174.94E 0.03
      Dep  15.0 BDY Half-duration  1.7
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-4.37 0.08  Mtt= 3.42 0.12
        Mff= 0.96 0.12  Mrt=-1.48 0.39
        Mrf=-0.38 0.32  Mtf=-0.81 0.08
       Principal Axes:
        T  Val=  3.87   Plg= 9  Azm=194
        N        0.82        8      103
        P       -4.69       78      333
      Best Double Couple:Mo=4.3*10**17
       NP1:Strike=294 Dip=36 Slip= -77
       NP2:        98     55     -100

MBU       5.25 135 eP      37 18.00  -0.1
VUN       5.87 144 iP      37 27.20   0.5
SVA       5.95 145 iPd     37 28.50   0.7
BKM       7.76 235 iPd     37 51.90  -1.4
DZM      11.90 221 iPc     38 50.90   0.6
HNR      15.11 283 eP      39 35.00   2.2
                   e(S)    40 22.00
RAB      24.16 290 eP      41 14.00  -0.7
                   iS      45 38.00
ARMA     27.43 228 eP      41 50.00   4.6X
         1.1s    17.00nm          4.7mb X
RMQ      27.80 238 eP      41 49.00   0.3
         1.1s    49.00nm          5.2mb
CTA      28.22 252 P       41 54.50   2.0
CTAO     28.22 252 (P)     41 52.25  -0.2
                   ePP     42 39.43
                   e       43 25.78
                   eS      46 42.38
CNB      31.82 222 eP      42 24.50   0.0
         0.9s    37.00nm          5.3mb
BWA      31.93 224 eP      42 25.30  -0.1
CAN      32.06 222 eP      42 26.70   0.2
CMS      32.27 231 iPc     42 28.20  -0.1
AFR      34.32 102 iPd     42 45.30  -0.9
         1.7s   391.10nm          6.1mb
PAE      34.51 102 iPd     42 47.00  -0.9
         1.8s   595.60nm          6.2mb

PPT      34.51 102 iPd     42 47.20  -0.7
         1.4s   501.90nm          6.2mb
   Z  27s  *******um             9.0MszX
PPN      34.65 102 iPd     42 48.40  -0.7
         1.8s   481.60nm          6.1mb
TVO      34.83 102 iPd     42 50.00  -0.7
         1.7s   788.20nm          6.3mb
TOO      35.67 222 iPd     42 57.70   0.0
         0.9s   105.00nm          5.7mb
PMO      36.12  97 iPd     43 01.40  -0.2
         1.7s   767.60nm          6.3mb
VAH      36.37  98 iPd     43 03.20  -0.5
         1.6s   500.00nm          6.1mb
TPT      36.39  97 iPd     43 03.60  -0.3
         2.0s   804.70nm          6.2mb
RUV      36.61  98 iPd     43 05.30  -0.4
         1.8s   756.10nm          6.2mb
BFD      37.42 225 eP      43 12.50   0.1
         1.0s    50.00nm          5.3mb
WB2      39.33 255 iPc     43 26.90  -1.6
         0.9s     7.20nm          4.4mb X
                   iPcP    44 46.80
WRA      39.34 255 P       43 27.50  -1.1
         0.9s     3.60nm          4.1mb X
GUA      39.86 311 e(P)    43 32.00  -1.0
GUMO     39.93 311 e(P)    43 32.00  -1.5
ASPA     40.10 249 iPc     43 33.10  -1.8
         1.3s    72.10nm          5.2mb
   Z  21s     6.00um              5.4Msz
                   e       45 19.00
MTN      42.57 265 iPc     43 55.30   0.0
HON      43.47  38 P       44 11.45   9.1X
   Z  21s     6.85um              5.5Msz
                   S       50 43.63
SWI      44.90 282 ePd     44 13.50  -0.6
WARB     46.94 247 eP      44 29.00  -1.2
DAV      52.96 290 eP      45 08.00  -8.5X
MEEK     54.15 247 eP      45 24.00  -1.1
CGP      54.29 291 eP      45 26.50   0.3
NWAO     55.84 239 (P)     45 38.70   1.4
                   eS      53 26.39
                   eSS     57 05.32
CHJJ     59.60 327 P       46 03.10  -0.5
QCP      60.03 296 eP      45 51.00 -15.8X
WKYJ     60.18 323 P       46 08.10   0.4
MAT      60.39 326 iPd-    46 08.00  -1.0
         1.5s   188.89nm          6.0mb
   Z  20s     2.48um              5.4Msz
                   eS      54 27.00
MTMJ     60.64 326 P       46 10.40  -0.4
YAMJ     60.67 329 eP      46 10.50  -0.4
TSRJ     60.89 324 P       46 12.20  -0.2
TKSJ     60.94 322 P       46 13.10   0.3
BAG      61.21 297 eP      46 12.00  -3.2X
                   eS      54 40.00
KKM      61.32 284 ePc     46 16.00   0.1
         1.9s   420.70nm          6.3mb
KUMJ     62.00 318 P       46 20.00   0.0
YONJ     62.12 322 P       46 20.70  -0.1
KUSJ     62.50 335 P       46 21.90  -1.2
SHNJ     62.85 320 P       46 25.50  -0.1
ASAJ     64.19 335 P       46 34.80   0.5
SMY      65.70 359 P       46 50.00   6.2X
   Z  21s     2.17um              5.3Msz
LEM      66.38 268 ePd     46 49.00  -0.2
         1.5s   166.67nm          6.0mb
YSS      66.54 337 eP      46 46.42  -2.9
         1.5s     7.00nm          4.6mb X
   Z  19s     1.90um              5.3Msz
   N  19s     1.00um
   E  19s     1.10um
QZH      66.72 305 P       46 50.00  -0.9
   Z  20s     1.87um              5.3Msz
                   eS      55 37.00
PET      67.45 349 eP      46 54.00  -0.9
   Z  18s     2.90um              5.5Msz
                   e       49 26.00
                   eS      55 52.00
                   PS      56 16.00
CSY      67.75 203 eP      46 55.40  -1.4
         0.9s    30.80nm          5.5mb
SSE      67.81 312 (P)     46 55.00  -2.6
         6.0s     0.40nm          2.7mb X
   Z  20s     0.90um              5.0Msz
   E  16s     1.10um
                   ed      46 56.98
                   epPc    47 01.70  21kmX

                   eS      55 59.04
                   eScS    56 54.16
VLA      68.49 328 iPc     47 02.80   1.1
         2.0s   309.00nm          6.1mb
   N  18s     1.00um
   E  16s     0.50um
                   i       47 11.00
                   i       47 30.00
                   i       49 28.00
                   iS      56 07.00
                   e       56 27.00
                   ePS     56 34.00
NJ2      70.00 311 Pc      47 09.00  -2.2
         1.6s    25.00nm          5.1mb
   Z  18s     0.70um              5.0Msz
   N  15s     1.02um
   E  15s     0.82um
GZH      70.20 301 P       47 12.00  -0.6
   Z  30s     1.87um              5.2MszX
MDJ      70.73 327 (P)     47 14.29  -1.1
                   eS      56 33.56
                   eSKS    57 08.98
DL2      71.80 319 Pd      47 23.00   1.1
   Z  20s     0.62um              4.9Msz
   N  14s     0.72um
   E  14s     0.72um
SNY      72.31 322 iPd     47 24.00  -0.9
         1.6s   140.00nm          5.8mb
   Z  36s     2.89um              5.3MszX
                   ScS     57 20.00
                   SS      01 14.00
CN2      72.44 325 eP      47 26.20   0.5
         1.6s   140.00nm          5.8mb
   Z  24s     3.27um              5.5MszX
   N  14s     0.63um
   E  14s     0.51um
KGM      72.54 276 eP      47 27.00   0.1
WHN      72.64 308 eP      47 27.00  -0.1
   Z  20s     1.68um              5.3Msz
   E  20s     1.75um
                   eS      56 52.00
TIA      73.36 314 eP      47 31.10  -0.1
   Z  41s     3.05um              5.3MszX
   E  20s     2.39um
IPM      75.40 278 ePc     47 43.70   0.2
MGD      75.61 348 ePd-    47 42.00  -1.7
         1.5s    70.00nm          5.5mb
   Z  18s     2.00um              5.5Msz
   N  18s     2.00um
   E  18s     0.80um
                   e       47 48.00
                   ePPP    52 18.00
                   ePS     58 00.00
BJI      75.96 317 (P)     47 45.94  -0.1
         2.0s   310.00nm          6.0mb
   Z  24s     0.96um              5.0MszX
   N  16s     0.81um
SNG      76.47 281 eP      47 50.00   0.5
SPA      76.84 180 iPc     47 49.30  -1.5
         1.3s    85.83nm          5.6mb
GYA      77.10 301 P       47 52.00  -1.0
         1.2s   270.00nm          6.2mb
   Z  28s     1.54um              5.2MszX
   N  20s     1.81um
   E  20s     1.16um
TIY      77.37 314 Pd      47 55.00   0.9
         1.3s    69.00nm          5.6mb
   Z  44s     0.41um              4.4MszX
   N  15s     0.69um
ARN      78.02  47 eP      47 57.25  -0.4
XAN      78.30 309 ePd     47 59.58   0.3
                   epPc    48 04.96  17kmX
                   eS      57 53.75
                   iPS     58 31.49
                   eHSS    02 54.00
                   eSS     02 55.00
LOE      78.35 291 eP      48 02.00   2.2
LGPM     78.78  43 eP      48 00.32  -1.6
WDC      78.81  44 P       48 10.00   8.1X
   Z  21s     3.43um              5.7Msz
HIA      78.89 327 ePd     48 02.53   0.4
ORV      79.04  45 eP      48 02.63  -0.6
CMB      79.14  47 P       48 10.00   6.2X
   Z  21s     3.81um              5.7Msz
NST      79.29 289 eP      48 08.30   3.4X
PMS      79.41  17 eP      48 04.40  -0.4
         1.9s   211.00nm          5.8mb
```

HHC 79.42 316 Pd 48 06.60 1.2
1.7s 110.00nm 5.6mb
Z 36s 3.27um 5.4MszX
N 14s 0.32um
E 17s 0.99um
SSK 79.50 51 eP 48 06.21 0.2
ISA 79.51 49 eP 48 05.35 -0.5
1.8s 99.95nm 5.5mb
Z 19s 3.05um 5.7Msz
PEC 79.77 52 eP 48 07.68 0.4
1.8s 123.02nm 5.6mb
PLM 79.79 52 eP 48 07.50 -0.1
e 48 16.37
PMR 79.81 17 eP 48 06.40 -0.4
Z 20s 4.00um 5.8Msz
KMI 79.94 299 iPd 48 08.67 0.1
4.0s 0.80nm 3.1mb X
Z 26s 2.30um 5.4MszX
N 19s 1.70um
E 19s 1.70um
epPc 48 14.13 17kmX
eS 58 16.35
sS 58 45.00
MEMM 80.01 47 eP 48 09.08 0.7
COR 80.25 40 (P) 48 11.32 1.8
BTO 80.35 316 P 48 11.50 1.1
1.6s 98.00nm 5.6mb
N 13s 0.53um
E 13s 0.64um
pP 48 18.00 21kmX
KHT 80.46 288 iPd 48 13.00 1.8
BONR 80.59 47 eP 48 11.16 -0.8
GSC 80.60 50 eP 48 11.60 -0.2
CD2 81.11 305 Pc 48 15.00 0.5
1.6s 140.00nm 5.7mb
Z 25s 1.14um 5.1MszX
SKS 58 27.00
KVN 81.19 47 eP 48 14.38 -0.6
SIT 81.21 25 P 48 20.00 5.7X
Z 21s 3.96um 5.7Msz
GLA 81.25 53 eP 48 15.86 0.7
CHG 81.30 292 ePc 48 16.00 0.4
1.3s 55.29nm 5.4mb
CHTO 81.30 292 ePd 48 15.24 -0.3
epPc 48 22.19 22kmX
TPNV 81.67 49 eP 48 18.07 0.6
VGB 82.27 40 eP 48 19.64 -0.5
IMA 82.47 12 eP 48 21.30 0.4
2.2s 226.40nm 5.9mb
FBA 82.85 15 eP 48 22.10 -0.7
YAK 82.92 340 iPd 48 22.00 -1.1
1.8s 203.00nm 6.0mb
e 48 29.00
eS 58 44.00
ePS 59 30.00
LZH 82.94 309 ePd 48 25.10 1.1
1.7s 187.00nm 6.0mb
Z 20s 1.14um 5.2Msz
E 18s 0.30um
CIT 83.66 327 eP 48 29.00 1.8
ARUT 84.06 49 eP 48 30.38 0.7
TUC 84.18 55 eP 48 31.03 0.7
1.7s 112.69nm 5.8mb
Z 19s 1.57um 5.4Msz
e 48 41.56
DPW 84.91 38 eP 48 32.96 -0.6
MSU 85.25 49 ePc 48 36.45 0.7
DUG 85.39 47 eP 48 35.63 -0.7
NEW 85.74 38 P 48 50.00 12.3X
Z 19s 2.94um 5.7Msz
HVU 86.00 46 eP 48 39.48 0.2
BOD 86.41 332 eP 48 40.00 -0.7
2.0s 198.00nm 6.0mb
BRW 86.51 9 eP 48 42.10 1.2
DAU 86.58 47 eP 48 42.04 -0.4
SRU 86.67 49 eP 48 43.83 1.1
HHAI 86.83 44 eP 48 43.77 0.5
GTA 87.10 311 P 48 45.00 0.3
1.2s 160.00nm 6.1mb
Z 20s 1.73um 5.5Msz
E 18s 1.08um
pP 48 52.00 22kmX
sS 59 30.00
PV09 87.49 50 ePc 48 46.98 0.2
PV10 87.52 50 ePc 48 47.01 0.1
PV08 87.87 50 ePc 48 48.37 -0.3
LCCM 88.08 42 eP 48 49.40 0.1
ALQ 88.43 54 eP 48 51.20 -0.1
1.0s 23.10nm 5.5mb
Z 20s 1.86um 5.5Msz
ANMO 88.43 54 ePd 48 53.08 1.8
BW06 88.59 46 ePc 48 50.89 -1.0
1.7s 95.24nm 5.8mb
ZAK 88.74 323 iPd- 48 52.30 0.3
1.7s 119.00nm 5.9mb
Z 16s 1.98um 5.6MszX
E 17s 1.49um
eS 59 21.00
ePS 00 40.00
IRK 88.88 325 iPd 48 53.00 0.2
2.0s 70.00nm 5.6mb
Z 17s 0.86um 5.2MszX
E 20s 0.66um
e 49 02.00
e 49 08.00
e 52 19.00
eS 59 44.00
ePS 00 42.00
SES 90.23 38 eP 48 59.00 -0.2
GOL 90.64 49 ePc 49 02.45 0.8
1.6s 68.35nm 5.7mb
Z 19s 2.12um 5.6Msz
e 49 11.77
GLD 90.77 49 eP 49 03.50 1.4
1.6s 95.18nm 5.9mb
Z 19s 2.37um 5.6Msz
LSA 91.12 300 ePd 49 05.76 1.5
ic 49 10.72
RSSD 92.82 45 eP 49 11.32 -0.2
1.6s 71.01nm 5.8mb
Z 19s 0.88um 5.2Msz
MEO 94.64 56 iPc 49 19.60 -0.2
GUN 95.21 297 P 49 23.60 0.6
PKI 95.55 297 P 49 24.40 -0.1
KKN 95.70 297 P 49 25.60 0.5
1.0s 26.00nm 5.6mb
DMN 95.82 297 P 49 26.40 0.7
GKN 96.31 297 P 49 28.00 0.2
WMQ 97.03 313 ePd 49 30.64 0.1
ELT 99.65 322 iPc 49 42.40 0.4
2.0s 59.00nm 5.8mb
e 01 14.00
NRI 101.15 339 iPdiff49 48.50 0.0
1.7s 30.00nm 5.6mb
MCWV 110.05 52 PKP 54 40.00 9.2X
Z 19s 1.69um 5.6Msz
RSNY 113.83 47 PKP 54 50.00 12.0X
Z 18s 2.04um 5.8Msz
HRV 116.18 49 PKP 54 50.00 7.5X
Z 21s 2.74um 5.8Msz
CBM 117.95 44 PKP 55 00.00 14.3X
Z 20s 1.73um 5.7Msz
BAO 128.81 123 (PKP) 55 08.00 0.4
KIV 129.02 316 ePKP 55 07.50 0.3
1.6s 31.00nm
KIV 129.02 316 (Pdiff51 52.00 -1.4
BUL 133.07 226 ePKP 55 15.50 -0.1
SOB1 138.06 120 (PKP) 55 18.00 -7.1X
KSP 138.65 339 ePKP 55 25.50 0.4
e 58 13.50
CLL 139.29 343 ePKP 55 26.00 -0.2
2.2s 71.00nm
BRG 139.39 341 ePKP 55 25.70 -0.7
1.5s 24.00nm
MOX 140.28 343 ePKP 55 28.30 0.3
e 55 59.20
ZST 140.55 337 e(PKP)55 28.60 0.1
KHC 141.03 340 ePKP 55 28.50 -0.9
Z 22s 2.50um 5.9Msz
N 21s 1.50um
E 20s 1.10um
e 55 37.00
e 57 15.00
GEC2 141.23 340 PKP 55 31.20 1.3
1.1s 2.17nm
GRF 141.25 343 ePKP 55 29.00 -0.8
Z 24s 1.00um 5.5MszX
CDF 143.45 346 ePKP 55 30.30 -3.4X
TRI 143.89 337 ePKP 55 32.00 -2.4X
ZLA 144.04 344 ePKPc 55 32.90 -1.8
HAU 144.05 347 ePKP 55 32.10 -2.6X
1.8s 55.25nm
Z 21s 1.27um 5.7Msz
BSF 144.11 346 ePKP 55 32.20 -2.7X
OSS 144.27 342 ePKPc 55 34.40 -0.9
CTI 144.35 340 PKP 55 33.30 -2.1
FLN 144.38 355 ePKP 55 32.90 -2.3X
Z 22s 1.65um 5.8Msz
LLS 144.44 343 ePKPc 55 34.60 -1.0
VDL 144.65 342 ePKPc 55 35.50 -0.5
GRR 144.78 355 ePKP 55 34.60 -1.2
1.9s 165.05nm
LPF 145.15 355 ePKP 55 36.00 -0.5
1.8s 252.05nm
TMA 145.17 343 ePKPc 55 36.10 -0.8
LOR 145.25 349 ePKP 55 36.40 -0.3
1.7s 112.50nm
Z 22s 1.33um 5.7Msz
VAI 145.42 343 PKP 55 36.50 -0.5
HYF 145.46 351 ePKP 55 37.30 0.2
MMK 145.47 344 iPKPd 55 37.70 0.2
LBF 145.50 349 ePKP 55 37.10 -0.1
1.9s 220.45nm
SSF 145.51 350 ePKP 55 37.40 0.2
1.9s 338.20nm
EMS 145.72 345 ePKPc 55 38.40 0.6
AVF 145.80 350 ePKP 55 38.00 0.3
1.6s 119.40nm
SMF 145.86 349 ePKP 55 38.30 0.5
1.9s 262.70nm
ORO 145.86 344 PKP 55 38.50 0.5
ARV 146.07 336 PKP 55 40.30 2.0X
BGF 146.12 350 ePKP 55 39.20 1.0
SFI 146.13 338 PKP 55 34.80 -3.4X
RSL 146.16 345 PKP 55 39.09 0.6
BOB 146.21 341 PKP 55 38.20 -0.3
PGD 146.22 338 PKP 55 40.90 2.2X
LPL 146.29 345 ePKP 55 40.60 1.8
1.5s 95.60nm
LPG 146.30 345 ePKP 55 40.70 1.8
1.4s 100.65nm
MME 146.30 339 PKP 55 42.20 3.3X
CRE 146.34 337 PKP 55 40.30 1.5
FIR 146.47 338 ePKP 55 40.50 1.7
MFF 146.48 354 ePKP 55 40.30 1.5
1.8s 211.45nm
TCF 146.48 351 ePKP 55 40.20 1.4
1.6s 143.65nm
MAF 146.49 350 ePKP 55 40.50 1.7
1.5s 114.90nm
ASS 146.54 336 PKP 55 39.50 0.4
LSF 146.62 352 ePKP 55 40.60 1.6
BNI 146.74 345 PKP 55 40.30 0.9
DUI 146.94 333 PKP 55 37.40 -2.4X
SGO 147.42 330 PKP 55 43.00 2.6X
CSI 147.53 328 PKP 55 41.70 1.0
ROI 147.54 328 PKP 55 42.90 2.2X
RJF 147.55 351 ePKP 55 43.40 2.9X
1.5s 110.75nm
Z 21s 1.00um 5.6Msz
TDS 147.59 328 PKP 55 42.70 1.9
SBF 147.63 343 ePKP 55 43.20 2.4X
CAF 147.83 350 ePKP 55 44.60 3.6X
LFF 148.01 352 ePKP 55 44.80 3.5X
FRF 148.13 344 ePKP 55 44.70 3.2X
LPO 148.20 351 ePKP 55 45.30 3.7X
CDR 148.26 345 ePKPc 55 45.70 4.0X
LRG 148.31 344 ePKP 55 45.50 3.7X
LMR 148.38 344 ePKP 55 45.40 3.5X
2.0s 220.40nm
SOI 148.91 326 PKP 55 41.60 -1.3
EPF 149.94 352 ePKP 55 49.80 5.4X
1.8s 134.65nm
ECRI 150.65 356 ePKP 55 53.50 8.0X
EGRA 150.85 353 iPKP 55 53.00 7.3X
ETOR 152.39 355 ePKP 55 55.70 7.5X
GUD 152.69 358 ePKP 55 56.60 8.0X
BCAO 155.06 252 iPKPc 55 33.20 -19.3X
1.6s 91.00nm
id 56 17.80
LIC 173.03 181 PKP 56 08.20 0.0
KIC 173.15 183 PKP 56 08.00 -0.2
S.D. = 0.9 on 187 of 230 obs.

% MAR 04, 1993 14h 44m 19.06± 1.19s
33.995 S ±12.1km 71.081 W ± 6.5km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.3 (SAN).

LNV 0.28 278 iP 44 26.62 0.1

04d 14h

```
                    iS     44 35.61
CHCH    0.36  80 iP     44 27.77   0.1
                    iS     44 38.07
TACH    0.36  19 iPd    44 28.77   1.1
                    iS     44 39.45
PCH     0.60  52 iP     44 31.08  -0.1
                    iS     44 43.71
LCCH    0.66 322 iP     44 31.56  -0.3
                    iS     44 44.30
PEL     0.91  21 iP     44 35.62   0.1
                    iS     44 52.03
FCH     0.94  45 iP+    44 35.77  -0.4
                    iS     44 52.45
ROCH    1.02   3 iP     44 37.21  -0.1
                    iS     44 54.45
JACH    1.37  17 iP     44 41.75  -0.4
                    iS     45 02.47
    S.D. = 0.5  on   9 of   9 obs.
---------------------------------------
* MAR 04, 1993  14h 53m 17.49± 0.64s
  13.143 S ± 9.8km  174.897 E ± 8.7km
  DEPTH = 33.0km  (normal)
  4.8mb (  6 obs.)
 FIJI ISLANDS REGION                (181)

MBU     5.30 136 eP     54 36.00  -0.6
VUN     5.93 145 eP     54 45.20  -0.2
BKM     7.84 234 iP     55 08.10  -4.0X
DZM    11.99 221 iPd    56 08.90  -0.2
RMQ    27.88 238 eP     59 07.50   1.0
CNB    31.91 222 iPd    59 43.00   0.7
        1.0s    26.00nm          5.1mb
TOO    35.76 222 iPd    00 15.90   0.4
        0.8s    33.00nm          5.3mb
BFD    37.51 225 eP     00 31.00   0.9
        0.9s     9.00nm          4.6mb
WB2    39.38 255 eP     00 44.80  -1.2
        1.0s     6.10nm          4.3mb
ASPA   40.15 249 iPc    00 51.20  -1.2
        1.1s    25.40nm          4.9mb
MAT    60.32 326 eP     03 25.00  -0.5
SES    90.14  38 eP     06 17.00   1.4
YKA    92.81  26 eP     06 27.20  -0.4
        1.0s     2.40nm          4.6mb
    S.D. = 0.9  on  12 of  13 obs.
---------------------------------------
  MAR 04, 1993  14h 54m 56.87± 0.19s
  73.503 N ± 3.1km    7.936 E ± 3.6km
  DEPTH = 10.0km  (geophysicist)
  4.9mb ( 54 obs.)  4.9Msz ( 18 obs.)
 GREENLAND SEA                      (640)

TRO     5.22 133 eP     56 15.65  -1.0
                 eS     57 10.37
JNE     5.56 251 eP     56 18.63  -2.9
JNW     5.57 252 eP     56 18.09  -3.7X
JMI     5.71 251 eP     56 20.55  -3.2X
ARA0    6.84 117 Pn     56 34.10  -5.5X
                 Sn     57 48.37
KEV     7.08 113 eP     56 38.00  -4.9X
DAG     7.55 308 eP     56 43.00  -6.4X
      0.9s    48.74nm            5.7mb
    Z  19s    10.00um            4.1Msz
MOR7    7.61 159 eP     56 45.80  -4.6X
                 eS     58 07.83
SDF     8.65 126 iP     57 03.20  -1.6
APA    10.28 113 iPc    57 24.00  -3.3X
MOL    10.99 181 eP     57 30.22  -6.7X
AKU    11.87 242 eP     57 49.20   0.3
        1.1s    86.08nm          6.0mb X
NB2    12.58 173 P      57 54.90  -3.6X
        0.8s     9.10nm          5.1mb
NRA0   12.90 172 Pn     57 56.42  -6.3X
                 Sn     00 15.82
KAF    13.28 140 iP     58 01.90  -5.8X
        0.5s     9.40nm          5.1mb
HFS    13.61 168 eP     58 08.60  -3.4X
        0.4s     4.80nm          4.8mb
UPP    14.20 160 iP     58 25.80   6.1X
NUR    14.49 145 eP     58 17.90  -5.7X
PUL    16.21 136 eP     58 45.00  -0.8
    Z  22s     4.50um
    N  24s     4.20um
    E  24s     2.50um
COP    17.99 172 iPc+   59 06.70  -1.4
        0.7s    35.62nm          4.6mb
    Z  19s     2.50um
```

```
                 eS     02 38.00
BSD    18.69 167 iPc    59 17.60   0.9
        0.9s    37.00nm          4.6mb
EKA    18.80 200 P      59 18.00  -0.1
        1.7s    97.70nm          4.7mb
GDH    19.26 288 iPc    59 22.80  -0.9
        1.5s    55.56nm          4.6mb
                 i      04 10.00
WIM    20.12 202 eP     59 32.70  -0.5
DMU    20.62 206 eP     59 39.90   1.5
WIT    20.78 182 eP     59 42.00   2.0
WME    20.82 201 ePd    59 39.30  -1.2
DLF    21.17 205 eP     59 42.80  -1.2
        0.9s    48.00nm          4.9mb
DCN    21.21 206 eP     59 43.10  -1.3
        1.0s    70.00nm          5.0mb
MNK    21.29 147 eP     59 39.00  -6.2X
    Z  20s     6.70um            5.0Msz
    N  20s     5.00um
    E  14s     2.70um
                 eS     03 24.00
YRH    21.41 201 eP     59 44.80  -1.7
MOS    21.45 130 eP     59 51.00   4.1X
    Z  15s     3.90um            4.9MszX
                 e      59 55.00
                 e      00 10.00
DBN    21.51 185 eP     59 48.00   0.5
    Z  20s     0.80um            4.1Msz
WTS    21.59 182 eP     59 48.00  -0.3
        1.0s    44.90nm          4.8mb
OBN    21.83 132 eP     59 49.00  -1.6
    Z  12s     3.60um            5.0MszX
    N  16s     1.80um
                 i      59 54.00
                 e      00 15.00
CLL    22.38 172 eP     59 52.00  -4.2X
        3.1s   270.00nm          5.2mb X
                 eS     04 07.00
BNS    22.62 181 ePc    00 09.50  10.9X
ENN    22.84 183 eP     00 00.00  -0.7
        0.9s    22.40nm          4.7mb
                 e      00 25.00
UCC    22.84 186 P      00 01.00   0.3
BRG    22.86 170 iP     00 02.40   1.5
    Z  18s     3.00um            4.8Msz
    N  20s     3.00um
    E  20s     1.50um
                 eS     04 08.00
MOX    23.00 174 eP     00 00.70  -1.6
        1.4s    63.00nm          5.0mb
                 eS     04 20.00
KSP    23.03 166 eP     00 01.80  -0.8
        1.3s    41.00nm          4.8mb
                 i      00 07.70
                 ic     00 13.60
TNS    23.36 179 ePd    00 07.80   1.9
                 e      00 17.60
DOU    23.54 185 P+     00 06.80  -0.7
                 S      04 30.00
PRU    23.77 169 Pc     00 11.40   1.6
        2.2s    83.80nm          4.9mb
    Z  18s     3.00um            4.8Msz
    N  18s     1.90um
    E  15s     1.00um
                 e      03 39.00
                 e      04 32.00
OJC    23.93 161 eP     00 13.00   1.7
                 e      00 25.00
WLF    23.94 183 P      00 12.00   0.7
GRF    23.94 175 eP     00 12.00   0.6
    Z  17s     2.00um            4.7MszX
                 e      00 17.90
                 e      00 24.50
                 e      00 30.00
NRI    24.00  59 iPd    00 12.90   1.1
        1.6s    93.00nm          5.1mb
                 i      00 41.00
                 e      00 59.00
VRAC   24.57 166 eP     00 19.40   1.9
        4.5s  3756.00nm          6.3mb X
                 e      00 59.70
KHC    24.58 171 eP     00 18.50   0.8
    Z  16s     3.50um            4.9MszX
    N  16s     2.20um
    E  16s     1.00um
                 e      00 23.60
                 e      00 43.40
```

```
LVV    24.78 155 iP     00 21.00   1.4
    Z  18s     7.10um            5.2Msz
                 e      01 00.00
GEC2   24.87 171 P      00 18.10  -2.5
        1.0s     9.34nm          4.4mb
                 e      00 39.40
                 e      07 52.20
                 e      08 00.60
                 e      08 05.00
RES    24.91 322 eP     00 25.00   4.4X
        1.1s     5.00nm          4.1mb
SPC    24.99 161 eP     00 23.20   1.4
FLN    25.10 193 eP     00 22.60  -0.1
        1.1s    35.15nm          5.0mb
    Z  19s     0.80um            4.2Msz
CDF    25.18 181 eP     00 32.37   8.9X
LDF    25.25 193 eP     00 24.10   0.1
        1.3s    96.40nm          5.3mb
FUR    25.47 175 iPc    00 28.40   2.3
GRR    25.50 194 eP     00 26.90   0.5
HAU    25.59 182 eP     00 27.20  -0.1
    Z  21s     1.25um            4.4Msz
ZST    25.72 166 eP     00 28.00  -0.4
UZH    25.75 158 eP     00 28.50  -0.2
        1.0s    20.00nm          4.8mb
    Z  16s     4.80um            5.1MszX
    N  16s     3.20um
    E  16s     2.50um
                 i      01 04.50
BSF    25.76 182 eP     00 29.70   0.7
        1.3s    40.45nm          5.0mb
LPF    25.87 194 eP     00 29.30  -0.5
        0.8s    19.05nm          4.8mb
SRO    26.19 164 e(P)   00 34.30   1.5
ARU    26.20 103 ePc    00 33.00   0.1
        1.9s   200.00nm          5.5mb
                 e      01 12.00
                 e      01 26.00
                 e      05 10.00
LOR    26.39 186 eP     00 34.60  -0.1
    Z  23s     1.67um            4.5MszX
SVE    26.42 100 ePd    00 35.00   0.2
        3.0s   140.00nm          5.1mb
    Z  19s     3.00um            4.9Msz
    N  17s     1.50um
    E  17s     1.50um
                 e      01 10.50
                 eSS    06 40.00
AVF    26.88 187 eP     00 39.90   0.7
        1.6s    79.00nm          5.2mb
SMF    27.01 186 eP     00 40.90   0.5
        1.7s    93.35nm          5.2mb
BGF    27.13 188 eP     00 41.30  -0.2
MFF    27.23 192 eP     00 43.00   0.6
MAF    27.48 188 eP     00 47.00   2.4
        1.2s    30.35nm          4.9mb
SBF    29.73 181 eP     01 04.40  -0.6
        1.4s    73.60nm          5.3mb
KIV    33.66 132 (P)    01 38.60  -0.9
        1.9s    24.00nm          4.8mb
PYA    33.66 132 eP     01 45.00   5.6X
    Z  20s     2.50um            4.9Msz
GRO    34.89 129 eP     01 52.00   2.1
ELT    36.80  79 eP     02 04.80  -1.2
        2.4s    36.00nm          4.7mb
                 e      03 47.00
ERE    37.65 132 iP     02 13.00  -0.4
    Z  18s     1.25um            4.8Msz
                 i      03 40.00
                 eS     08 10.00
JAO    37.79 286 eP     02 13.00  -1.3
FCC    38.11 304 eP     02 18.50   1.6
GRS    38.71 130 eP     02 22.00  -0.4
        1.2s    10.00nm          4.4mb
YAK    39.28  39 eP     02 29.00   2.3
        1.8s    40.00nm          4.8mb
BOD    39.91  53 eP     02 29.70  -2.2
        1.5s    19.00nm          4.5mb
IMA    40.15 348 eP     02 34.70   0.7
FBA    40.92 344 eP     02 41.65   1.5
        1.1s     9.45nm          4.4mb
CBM    41.83 274 eP     02 47.86   0.0
        1.1s    19.26nm          4.7mb
    Z  18s     1.57um            4.9Msz
LMN    41.87 270 eP     02 52.00   3.8X
IRK    42.56  65 ePc    02 54.00   0.2
        1.6s    25.00nm          4.7mb
```

```
                e       04 38.00
                e       05 04.00
FRU      42.92  97 (P)  02 57.00    0.2
                e       05 16.00
ASH      43.05 117 eP   02 59.50    1.6
ZAK      44.02  67 eP   03 06.30    0.7
         1.8s     31.00nm          4.8mb
PMR      44.29 345 P    03 20.00   12.3X
      Z  20s    136.89um          6.9MszX
MGD      44.34  26 eP   03 08.00   -0.1
                e       05 00.00
CRP      44.83 347 (P)  03 13.32    1.0
CP2      44.84 347 (P)  03 14.06    1.6
8NH      44.87 276 eP   03 12.54   -0.1
MAIO     44.90 116 eP   03 14.00    1.0
                e       04 59.00
EEO      45.19 284 eP   03 17.50    2.4
SVW      45.20 349 eP   03 16.76    1.7
         1.3s     44.20nm          5.2mb
SLKM     45.45 345 eP   03 17.60    0.5
WMQ      45.74  84 P    03 21.10    1.5
         1.5s      9.50nm          4.5mb
      Z  18s      1.15um           4.9Msz
RSNY     45.83 279 P    03 30.00    9.8X
      Z  20s      1.66um           5.0Msz
ULM      46.29 300 eP   03 25.00    1.2
KSH      46.43  98 eP   03 20.80   -4.3X
      Z  24s      2.02um           5.0MszX
      N  16s      0.86um
      E  16s      0.81um
                sP      03 28.00
                ePP     05 12.00
HRV      46.87 275 P    03 40.00   11.6X
      Z  18s      1.01um           4.8Msz
SES      49.63 313 eP   03 46.00   -3.9X
         1.4s    106.00nm          5.6mb
MCWV     51.85 281 P    04 20.00   13.2X
      Z  18s      1.76um           5.1Msz
QUE      52.64 111 eP   04 12.70   -0.4
NEW      52.89 317 eP   04 13.68   -1.0
         1.2s     38.42nm          5.2mb
GTA      53.22  75 P    04 17.00   -0.3
         2.0s     24.00nm          4.8mb
RSSD     54.00 304 eP   04 21.77   -1.2
         1.4s     32.22nm          5.2mb
LCCM     54.13 312 eP   04 24.30    0.4
BTO      54.85  66 eP   04 29.00   -0.2
HHC      55.02  64 P    04 31.20    0.8
CN2      55.57  51 eP   04 29.40   -4.8X
         0.8s      8.00nm          4.8mb
FVM      56.33 290 (P)  04 38.93   -0.8
         1.0s     16.89nm          5.0mb
BW06     56.54 308 eP   04 40.26   -1.3
         1.6s     37.25nm          5.2mb
HHAI     56.67 311 (P)  04 43.00    0.7
NDI      56.88 101 eP   04 43.60   -0.2
8JI      56.95  60 eP   04 44.00   -0.1
         2.0s     62.00nm          5.3mb
      Z  18s      0.59um           4.7Msz
LZH      57.44  73 eP   04 48.00    0.1
         1.8s     30.00nm          5.0mb
                sP      04 59.00
TIY      58.20  65 eP   04 52.70   -0.3
OLY      58.94 290 eP   04 59.81    1.6
GKN      59.62  94 P    05 02.40   -0.8
LSA      59.88  87 P    05 03.60   -1.7
KKN      60.01  94 P    05 05.00   -0.9
GUN      60.06  93 P    05 05.80   -0.6
DMN      60.13  94 P    05 06.20   -0.6
PKI      60.25  93 P    05 07.00   -0.7
PV08     60.34 306 eP   05 06.99   -1.2
                e       06 06.81
MIAR     60.41 292 (P)  05 07.37   -0.9
         1.4s     38.35nm          5.3mb
PV09     60.52 307 eP   05 09.36   -0.1
PV10     60.62 306 eP   05 10.50    0.5
LGPM     61.07 319 (P)  05 12.39   -0.5
MSU      61.20 309 eP   05 13.39   -0.5
WDC      61.33 319 P    05 20.00    5.5X
      Z  21s      1.72um           5.2Msz
ARUT     62.17 310 eP   05 20.90    0.5
CD2      62.30  75 eP   05 21.00   -0.1
TNP      62.69 313 eP   05 22.56   -1.3
         1.0s      8.57nm          4.9mb
BONR     63.04 314 eP   05 26.22   -0.1
ISA      65.28 314 eP   05 40.36   -0.3
         0.9s     13.73nm          5.1mb
```

```
     Z  20s      1.92um            5.3Msz
TUC     66.83 306 eP    05 49.52   -1.1
        1.1s     13.58nm           5.1mb
HYB     67.94 104 eP    05 56.00   -1.6
BCAO    69.29 169 iPd   06 04.90   -1.0
        0.8s     14.00nm           5.2mb
                  id    06 23.50
GBA     71.26 106 P     06 16.00   -1.9
CHG     72.40  84 eP    06 24.70    0.0
ASPA   122.44  62 ePKP  13 51.20   -1.9
        1.6s      4.70nm
     S.D. = 1.2  on 119 of 149 obs.
-------------------------------------
*  MAR 04, 1993  15h 02m 26.90± 0.63s
   73.452 N ± 8.4km    7.954 E ±10.0km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  7 obs.)
 GREENLAND SEA                  (640)

ARA0     6.81 117 Pn    04 08.34   -0.9
                  Sn    05 19.38
KEV      7.05 112 eP    04 11.00   -1.6
NAO     12.73 174 P     05 38.30    7.8X
        0.6s      1.40nm           4.4mb
NRA0    12.85 172 Pn    05 32.91    0.9
KAF     13.23 140 eP    05 31.80   -5.3X
HFS     13.56 168 eP    05 40.50   -0.9
        0.4s      2.00nm           4.4mb
CLL     22.33 172 eP    07 31.00    5.3X
        1.7s     29.00nm           4.5mb
BRG     22.81 170 eP    07 31.80    1.3
                  eSg   23 57.80
MOX     22.94 174 eP    07 34.60    2.8X
        1.1s      9.00nm           4.2mb
KSP     22.98 166 eP    07 32.00   -0.1
OJC     23.88 161 eP    07 43.30    2.4X
YKA     39.02 322 eP    09 53.20   -1.4
        1.3s      2.60nm           3.7mb
IRK     42.58  65 ePc   10 25.00    1.0
        1.4s     12.00nm           4.4mb
SES     49.67 313 eP    11 20.00   -0.2
LZH     57.45  73 eP    12 19.00    1.0
                  Lg    16 31.50
GKN     59.61  94 P     12 33.80    0.7
KKN     60.00  94 P     12 36.60    0.7
GUN     60.06  93 P     12 36.20   -0.2
BCAO    69.24 169 iPc   13 35.20   -0.5
        0.6s      6.00nm           4.9mb
WB2    119.00  60 ePdiff17 43.60    6.0X
        0.3s      1.40nm
     S.D. = 1.0  on  14 of  20 obs.
-------------------------------------
%  MAR 04, 1993  15h 42m 19.14± 1.44s
   31.345 S ±11.5km   68.565 W ± 9.3km
   DEPTH =  91.7 ± 16.8 km
 SAN JUAN PROVINCE, ARGENTINA   (137)

RTLL     0.08  79 iPc   42 31.50   -1.0
                  S     42 42.20
RTCB     0.24 235 iPd   42 33.20    0.1
                  S     42 43.20
CFA      0.38 133 iPc   42 34.00    0.5
                  S     42 46.00
RTCV     0.51 177 iPd   42 34.70    0.3
                  S     42 46.80
RTBS     0.82 247 ePd   42 37.10   -0.1
RTRS     1.40 326 iPd   42 44.30    0.2
                  S     43 03.70
RTPR     2.05  60 ePc   42 53.00    0.4
MRA      2.65 114 ePc   43 00.90    0.2
                  S     43 27.20
TCA      3.40  91 iP    43 10.60   -0.5
                  (S)   43 49.00
     S.D. = 0.6  on   9 of   9 obs.
-------------------------------------
   MAR 04, 1993  16h 20m 45.74± 0.60s
   27.991 S ± 6.6km   26.670 E ± 7.2km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA       (584)
      ML 3.5 (PRE).

SEK      0.91 112 iPc   21 03.00   -0.7
                  S     21 13.00
BFS      1.09   5 iPc   21 06.80    0.0
                  S     21 20.30
BLF      1.19 201 iPd   21 09.50    1.0
                  S     21 24.50
```

```
PRY      1.28  34 eP    21 10.00    0.0
                  S     21 27.00
SWZ      1.44 304 iPc   21 14.50    1.8
                  S     21 33.40
FRS      2.11 214 iPd   21 24.70    2.5
                  S     21 48.50
KSR      2.13   6 iPd   21 23.50    0.9
                  S     21 48.50
BPI      2.18  34 eP    21 25.00    1.7
                  S     21 48.60
SLR      2.67  33 iPd   21 30.00   -0.3
                  S     21 59.60
BFT      3.79  53 eP    21 45.00   -1.3
                  S     22 33.50
GRM      5.31 181 eP    21 52.00  -15.6X
                  S     22 49.00
POF      6.06 255 e(P)  22 18.00   -0.2
                  S     23 20.00
CER      8.31 228 eP    22 47.00   -2.8
                  S     24 16.00
TUH      8.36 229 e(P)  22 55.00    4.5X
                  S     24 22.00
BLE      9.06 227 e(P)  23 00.20    0.0
                  (S)   25 26.50
WIN     10.20 300 eP    23 14.00   -2.1
                  S     25 10.50
KIC     45.67 314 P     29 09.30   -0.2
LIC     45.75 313 P     29 09.60   -0.5
TIC     46.07 314 P     29 12.70    0.1
     S.D. = 1.4  on  17 of  19 obs.
-------------------------------------
?  MAR 04, 1993  17h 00m 35.23± 1.87s
   39.697 N ±21.6km   25.616 E ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                     (365)

EZN      0.56  76 iPg   00 46.60    0.0
                  iSg   00 54.60
ALN      1.24  15 ePg   00 58.34    0.0
                  eSg   01 14.78
OUR      1.41 297 ePb   01 00.02   -0.8
                  eSb   01 17.46
BNT      1.89  69 ePn   01 34.00   26.2X
THE      2.24 296 ePn   01 13.66    0.8
     S.D. = 1.2  on   4 of   5 obs.
-------------------------------------
?  MAR 04, 1993  18h 23m 07.60± 8.86s
   39.668 N ±58.0km   19.228 E ±35.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION   (392)

VLO      0.83  14 ePg   23 23.20   -0.4
TPE      0.87  44 ePg   23 24.50    0.2
LSK      1.16  65 ePg   23 29.10   -0.2
TIR      1.75  16 ePn   23 39.20    1.1
                  eSn   24 02.00
LACI     2.00  10 ePn   23 41.00   -0.8
     S.D. = 1.0  on   5 of   5 obs.
-------------------------------------
*  MAR 04, 1993  18h 55m 38.05± 1.42s
   50.546 N ±16.8km   18.941 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 POLAND                         (548)
      ML 3.3 (WAR).

OJC      0.64 120 iPg   55 50.80   -0.1
                  iSg   55 59.00
SPC      1.60 148 iPn   56 06.50   -0.1
                  i(Sg) 56 26.30
KSP      1.71 281 ePn   56 08.60    0.6
        0.8s     45.00nm
                  iPg   56 11.20
                  iSg   56 34.30
                  i     56 39.10
VRAC     1.96 232 iPnc  56 11.00   -0.6
        0.7s     52.30nm
                  eSg   56 34.30
ZST      2.64 208 eP    56 22.20    0.8
                  e     56 55.60
SRO      2.77 189 eP    56 28.40    5.2X
VKA      2.85 218 eP    56 28.00    3.5X
                  i     56 31.80
PRU      2.88 261 eP    56 24.20   -0.6
        0.8s     15.30nm
                  Pg    56 31.30
                  Sg    57 06.10
BRG      3.19 278 ePg   56 37.00    7.8X
```

04d 18h

iSg 57 27.00
KHC 3.75 250 ePn 56 44.50 7.3X
e 56 53.50
e 57 20.50
eSg 57 31.00
e 58 02.60
e 59 10.50
CLL 3.83 284 ePg 56 53.00 14.7X
eSg 57 43.00
MOX 4.67 274 e(P) 57 06.20 16.0X
S.D. = 0.7 on 6 of 12 obs.

• MAR 04, 1993 19h 10m 18.93± 0.85s
19.815 N ±11.7km 38.697 E ±10.6km
DEPTH = 10.0km (geophysicist)
4.6mb (3 obs.)
RED SEA (554)
MD 4.3 (RYD).

ABHA 4.14 111 eP 11 21.30 -2.5
eS 12 03.30
KMTA 4.27 112 eP 11 25.30 -0.4
eS 12 13.30
DHJN 5.02 114 eP 11 39.00 2.6X
eS 12 30.00
WAJH 6.63 343 eP 11 56.60 -2.2
BADA 9.30 339 eP 12 36.00 0.0
AYN 9.34 345 eP 12 37.30 0.7
MAIO 24.54 44 eP 15 44.00 3.9X
BCAO 24.89 235 iPd 15 44.00 0.5
0.9s 14.00nm 4.6mb
GEC2 35.25 331 P 17 15.20 -0.5
1.1s 1.95nm 3.9mb
HYB 37.79 87 eP 17 38.00 0.6
GKN 42.58 70 P 18 18.40 1.3
DMN 42.99 70 P 18 21.80 1.2
KKN 43.15 70 P 18 23.00 1.2
PKI 43.26 71 P 18 23.00 0.1
GUN 43.68 70 P 18 26.40 0.1
LZH 58.79 59 Pd 20 20.00 -0.1
1.5s 27.00nm 5.1mb
pP 20 26.50 21kmX
S.D. = 1.2 on 14 of 16 obs.

? MAR 04, 1993 19h 41m 42.59± 2.36s
51.687 N ±27.1km 15.844 E ±10.7km
DEPTH = 10.0km (geophysicist)
POLAND (548)
MG 2.5 (WAR).

BRG 1.44 236 iPg 42 07.00 -1.8
iSg 42 27.00
CLL 1.82 259 ePg 42 15.00 0.9
eSg 42 44.00
PRU 1.89 206 eP 42 15.80 0.6
eSg 42 34.50
e 42 42.20
MOX 2.86 250 ePg 42 35.20 6.1X
eSg 43 14.60
OJC 2.90 119 eP 42 29.50 -0.1
eS 43 04.30
KHC 2.94 210 ePn 42 30.60 0.4
ePg 42 41.00
Sn 43 02.40
Sg 43 13.00
S.D. = 1.5 on 5 of 6 obs.

MAR 04, 1993 19h 42m 24.21± 0.19s
13.253 S ± 5.0km 175.007 E ± 4.5km
DEPTH = 33.0km (normal)
5.4mb (24 obs.) 5.0Msz (22 obs.)
FIJI ISLANDS REGION (181)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 25S, 36C
Centroid Location:
Origin Time 19:42:25.8 0.6
Lat 13.13S 0.08 Lon 174.81E 0.07
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-9.28 0.41 Mtt= 7.28 0.57
Mff= 2.00 0.60 Mrt= 0.98 2.47
Mrf=-4.24 1.96 Mtf=-1.17 0.45
Principal Axes:
T Val= 7.76 Plg= 7 Azm= 17
N 2.96 17 109
P -10.72 72 264
Best Double Couple:Mo=9.2*10**16
NP1:Strike= 88 Dip=41 Slip=-116
NP2: 302 54 -69

VUN 5.78 145 eP 43 50.10 0.1
SVA 5.87 146 eP 43 51.90 0.7
BKM 7.86 235 iPd 44 17.00 -2.2
DZM 11.97 222 iPc 45 14.90 -0.8
HNR 15.24 283 e(P) 46 02.00 3.2X
RMQ 27.91 238 eP 48 14.00 0.5
CTA 28.34 252 P 48 21.00 3.6X
CNB 31.90 222 iPd 48 50.00 1.0
1.0s 45.00nm 5.3mb
BWA 32.01 224 eP 48 49.00 -0.9
CAN 32.14 222 eP 48 51.50 0.5
CMS 32.36 231 eP 48 52.00 -0.9
TVO 34.70 102 iPd 49 13.90 0.5
TOO 35.75 222 iPd 49 23.00 0.9
1.0s 65.00nm 5.5mb
PMO 35.99 97 iPd 49 23.60 -0.7
1.3s 156.70nm 5.8mb
VAH 36.24 98 iPd 49 25.60 -0.8
1.5s 194.30nm 5.8mb
TPT 36.26 97 iPd 49 26.10 -0.5
1.5s 198.50nm 5.8mb
RUV 36.48 98 iPd 49 27.70 -0.7
1.5s 198.50nm 5.8mb
BFD 37.51 225 eP 49 38.10 1.3
1.1s 26.00nm 5.0mb
WB2 39.45 255 eP 49 52.00 -1.3
1.0s 13.30nm 4.7mb
WRA 39.46 255 P 49 53.29 -0.1
ASPA 40.21 249 iPc 49 59.20 -0.4
1.7s 55.80nm 5.0mb
Z 22s 1.50um 4.8Msz
e 52 03.80
HON 43.40 38 P 50 30.00 4.4X
Z 21s 1.78um 4.9Msz
CHJJ 59.68 326 eP 52 27.40 -0.4
MAT 60.47 326 eP 52 31.00 -2.2
1.3s 36.54nm 5.3mb
Z 20s 0.71um 4.8Msz
eS 00 47.00
MTMJ 60.72 326 eP 52 34.30 -0.8
TSRJ 60.98 324 eP 52 36.60 -0.1
LEM 66.51 268 iPc 53 14.50 0.8
YSS 66.60 337 eP 53 16.00 2.6
MGD 75.65 348 eP 54 06.00 -1.6
Z 17s 0.80um 5.1MszX
N 17s 0.70um
e 54 13.00
e 57 10.00
eS 03 52.00
e 04 21.00
BJI 76.06 317 eP 54 10.00 -0.2
2.0s 87.00nm 5.4mb
Z 20s 0.30um 4.6Msz
eS 03 44.00
eSS 08 32.00
LGPM 78.70 43 (P) 54 25.41 0.4
WDC 78.73 44 P 54 30.00 4.9X
Z 21s 1.16um 5.2Msz
CMB 79.05 47 P 54 40.00 13.0X
Z 19s 1.20um 5.2Msz
PMS 79.38 17 e(P) 54 27.30 -0.9
SSK 79.40 51 (P) 54 29.55 0.4
ISA 79.41 49 eP 54 28.54 -0.5
1.5s 17.84nm 4.8mb
Z 21s 1.05um 5.1Msz
PMR 79.79 17 P 54 40.00 9.7X
Z 21s 1.45um 5.3Msz
KMI 80.06 299 Pc+ 54 34.50 1.6
3.0s 0.40nm 2.9mb X
Z 26s 0.80um 4.9MszX
BONR 80.50 47 eP 54 35.27 0.2
CHG 81.42 292 eP 54 41.20 1.3
IMA 82.45 12 eP 54 44.70 0.3
2.7s 206.00nm 5.7mb
FBA 82.83 15 eP 54 44.95 -1.3
1.6s 55.10nm 5.4mb
YAK 82.98 340 iPc 54 46.00 -1.0
1.8s 70.00nm 5.5mb
Z 22s 1.00um 5.1Msz
N 22s 0.50um
E 22s 1.00um
LZH 83.04 309 eP 54 49.50 1.3
2.0s 67.00nm 5.4mb
Z 22s 0.51um 4.9Msz
pP 54 54.50 16kmX
sP 54 57.00
CIT 83.74 327 eP 54 52.60 1.4
ARUT 83.97 49 eP 54 52.48 -0.4
TUC 84.08 55 eP 54 54.34 0.9
1.6s 39.51nm 5.3mb
Z 19s 0.75um 5.1Msz
MSU 85.16 49 eP 54 59.72 0.8
DUG 85.31 47 eP 54 59.70 0.2
1.8s 21.00nm 5.0mb
HVU 85.92 46 (P) 55 02.44 0.0
BOD 86.48 332 eP 55 05.00 0.3
2.2s 76.00nm 5.5mb
PV09 87.40 50 eP 55 10.69 0.7
PV10 87.43 50 eP 55 09.93 -0.1
PV08 87.78 50 eP 55 11.60 -0.3
LCCM 88.00 42 eP 55 12.00 -0.5
ALQ 88.33 54 P 55 20.00 5.6X
Z 21s 0.35um 4.8Msz
BW06 88.50 45 ePd 55 14.00 -1.1
2.3s 71.60nm 5.6mb
ZAK 88.83 323 iPc 55 16.80 0.7
2.4s 106.00nm 5.7mb
Z 18s 0.51um 5.0Msz
E 18s 0.50um
eS 05 45.00
IRK 88.96 325 ePc 55 17.00 0.2
2.0s 33.00nm 5.3mb
e 55 31.50
LTX 89.01 60 eP 55 18.20 0.6
SES 90.16 38 eP 55 22.00 -0.4
GOL 90.55 49 P 55 30.00 5.2X
Z 19s 0.52um 5.0Msz
GLD 90.68 49 P 55 40.00 14.7X
Z 20s 0.81um 5.1Msz
RSSD 92.74 45 ePd 55 34.55 -0.2
1.6s 26.14nm 5.4mb
Z 21s 0.31um 4.7Msz
YKA 92.87 26 eP 55 33.30 -1.3
1.3s 3.60nm 4.6mb
WMOK 94.37 56 P 55 50.00 7.8X
Z 19s 0.42um 4.9Msz
FVM 101.59 54 Pdiff 56 30.00 15.2X
Z 20s 0.31um 4.8Msz
RSNY 113.74 47 PKP 01 10.00 8.7X
Z 21s 0.56um 5.1Msz
HRV 116.09 49 PKP 01 20.00 14.2X
Z 20s 0.94um 5.4Msz
CBM 117.87 44 PKP 01 20.00 10.9X
Z 19s 0.87um 5.4Msz
GEC2 141.29 340 PKP 01 52.60 -0.9
1.4s 3.06nm
HAU 144.09 347 ePKP 01 55.40 -2.9X
Z 23s 0.28um 5.0MszX
LPF 145.17 355 ePKP 01 59.00 -1.0
1.7s 88.25nm
LOR 145.29 349 ePKP 01 59.50 -0.8
1.4s 34.85nm
Z 21s 0.35um 5.1Msz
HYF 145.49 351 ePKP 02 00.40 -0.2
LBF 145.54 349 ePKP 02 00.10 -0.7
1.6s 54.75nm
SSF 145.55 350 ePKP 02 00.40 -0.3
1.7s 129.40nm
AVF 145.84 350 ePKP 02 01.10 -0.1
1.9s 97.65nm
SMF 145.89 349 ePKP 02 01.20 -0.2
1.7s 77.95nm
BGF 146.15 350 ePKP 02 02.20 0.4
1.5s 42.30nm
LPL 146.34 345 ePKP 02 03.70 1.3
LPG 146.35 345 ePKP 02 03.90 1.4
1.6s 42.90nm
MFF 146.51 354 ePKP 02 03.30 1.0
1.6s 62.20nm
TCF 146.51 351 ePKP 02 03.40 1.0
MAF 146.52 350 ePKP 02 03.60 1.2
SURF 147.28 344 PKP 02 07.06 3.2X
RJF 147.58 351 ePKP 02 06.40 2.3X
Z 23s 0.25um 4.9MszX
LFF 148.04 352 ePKP 02 07.70 2.9X
BCAO 155.18 251 iPKPc 02 16.00 -0.1
1.6s 391.00nm
ic 02 43.80
S.D. = 0.9 on 71 of 89 obs.

```
--------------------------------------
MAR 04, 1993 20h 09m 46.70± 0.43s
73.566 N ± 6.7km 7.998 E ± 7.4km
DEPTH = 10.0km (geophysicist)
4.6mb ( 25 obs.) 4.5Msz ( 2 obs.)
GREENLAND SEA (640)

ARA0   6.85 117 Pn    11 27.53  -2.0
                Sn    12 41.03
KEV    7.09 113 eP    11 31.00  -1.8
DAG    7.52 308 eP    11 35.00  -3.9X
       0.8s     9.70nm           5.0mb
APA   10.29 113 eP    12 14.20  -3.0X
NRA0  12.96 172 Pn    12 48.96  -4.4X
                Sn    15 05.41
KAF   13.31 140 iP    12 54.20  -3.8X
       0.3s     2.60nm           4.8mb
HFS   13.67 168 eP    12 58.10  -4.5X
       0.3s     2.00nm           4.5mb
NUR   14.53 146 iP    13 09.80  -4.2X
       0.4s     3.20nm           4.3mb
PUL   16.24 137 ePc   13 40.00   3.9X
WTS   21.66 182 eP    14 39.00   0.2
OBN   21.86 132 eP    14 43.00   2.3
       1.2s    44.00nm           4.8mb
                e     15 11.00
CLL   22.44 172 iPc   14 50.80   4.2X
       1.6s    41.00nm           4.7mb
ENN   22.90 183 eP    14 53.00   1.9
       0.8s     8.30nm           4.3mb
BRG   22.92 170 iP    14 53.00   1.7
       1.1s    19.00nm           4.5mb
                e     14 59.00
MOX   23.06 174 eP    14 51.70  -1.0
       1.3s    19.00nm           4.5mb
KSP   23.08 167 eP    14 54.00   1.0
PRU   23.83 170 eP    14 59.50  -0.7
                e     15 02.20
NRI   23.95  59 iPc   15 04.70   3.6X
       1.8s    54.00nm           4.8mb
GRF   24.00 175 eP    15 02.00   0.1
    Z  26s      0.40um           3.8MszX
KHC   24.64 171 eP    15 10.00   1.9
                e     15 15.00
                e     15 34.50
GEC2  24.93 171 eP    15 10.70  -0.3
       1.2s     8.80nm           4.3mb
SPC   25.05 161 eP    15 16.80   4.6X
LDF   25.31 193 eP    15 12.80  -1.7
       0.8s     9.80nm           4.5mb
GRR   25.57 194 eP    15 13.50  -3.4X
ZST   25.78 166 eP    15 17.00  -1.8
                e     47 56.30
UZH   25.80 158 eP    15 21.00   2.0
LPF   25.93 194 eP    15 18.90  -1.4
ARU   26.20 103 iP    15 23.00   0.3
       2.4s   200.00nm           5.4mb
SVE   26.41 101 ePc   15 25.00   0.4
       2.3s    40.00nm           4.7mb
                e     16 08.00
MFF   27.30 192 eP    15 33.10   0.3
GRO   34.91 129 eP    16 43.00   3.0X
ILT   38.71   4 eP    17 12.00   0.4
GRS   38.73 130 eP    17 12.00  -0.4
       1.3s    20.00nm           4.7mb
YKA   38.94 322 eP    17 12.00  -1.7
       1.0s     3.70nm           4.0mb
CBM   41.85 274 (P)   17 37.73  -0.1
       1.2s    10.66nm           4.4mb
IRK   42.52  65 ePc   17 44.00   0.7
       1.6s    13.00nm           4.4mb
    Z  14s      0.25um           4.3MszX
    E  14s      0.21um
ZAK   43.98  67 eP    17 57.50   2.5
       1.8s    14.00nm           4.5mb
                e     19 46.00
MGD   44.27  26 eP    17 47.00 -10.4X
MAIO  44.91 116 eP    18 05.00   2.0
WMQ   45.71  84 P     18 10.00   0.8
       1.5s     9.50nm           4.5mb
    Z  20s      0.37um           4.3Msz
                pP    18 16.00  20kmX
SES   49.60 313 eP    18 38.00  -1.5
GTA   53.19  75 P     19 08.00   1.1
       1.0s     8.00nm           4.6mb
    Z  18s      0.57um           4.7Msz
RSSD  53.98 304 (P)   19 13.60   1.0
       1.4s    16.17nm           4.9mb
CN2   55.52  51 eP    19 23.20  -0.4
       0.8s     6.70nm           4.7mb
BW06  56.51 308 (P)   19 33.90   2.7X
       1.4s     9.41nm           4.6mb
GKN   59.61  94 P     19 52.20  -0.7
KKN   59.99  94 P     19 55.00  -0.6
GUN   60.05  93 P     19 54.60  -1.6
DMN   60.11  94 P     19 55.60  -0.9
PKI   60.24  94 P     19 56.60  -0.8
XAN   60.70  69 eP    20 00.00  -0.2
MSU   61.17 309 eP    20 03.88   0.3
CD2   62.26  75 eP    20 08.60  -2.1
BONR  63.01 314 eP    20 17.21   1.3
BCAO  69.35 169 iPc   20 54.00  -2.1
       0.6s     6.00nm           4.9mb
CHG   72.37  84 eP    21 16.10   1.7
    S.D. = 1.4  on  42 of  56 obs.
--------------------------------------
% MAR 04, 1993 20h 18m 17.52± 2.38s
39.408 N ±15.7km 28.091 E ±14.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

DST    0.46  64 iPg   18 26.40  -0.5
                iSg   18 33.40
KCT    0.86  14 iPg   18 34.40   0.2
                eSg   18 47.40
EDC    0.95 349 iPg   18 36.00   0.3
BNT    0.96 352 iPg   18 35.00  -0.7
                eSg   18 49.00
YLV    1.52  40 ePn   18 44.90   0.1
ALT    1.61 102 ePn   18 46.00  -0.1
EYL    1.96  53 ePn   18 52.00   0.7
    S.D. = 0.6  on   7 of   7 obs.
--------------------------------------
• MAR 04, 1993 20h 33m 20.71± 1.90s
36.731 N ±10.9km 8.936 W ±19.8km
DEPTH = 10.0km (geophysicist)
WEST OF GIBRALTAR (384)
MD 3.2 (RBA). mbLg 3.4 (MDD).

EVAL   1.94  63 ePn   33 55.00   0.9
                eSn   34 10.50
EPRU   2.98  84 ePn   34 10.80   1.9
                eSn   34 38.90
EHOR   3.14  69 ePn   34 11.70   0.6
                eSn   34 41.50
AVE    3.65 160 iPn   34 19.50   1.1
                iSn   34 56.00
                i     34 58.00
                i     35 00.00
EPLA   4.01  33 ePn   34 23.20  -0.4
                eSn   35 01.40
ECOG   4.33  81 ePn   34 28.50   0.3
                eSn   35 11.70
EBAN   4.34  69 ePn   34 27.40  -0.9
                eSn   35 09.50
IFR    4.47 135 iPn   34 28.50  -1.8
                iS    35 10.00
                iSn   35 12.00
EVIA   5.45  68 ePn   34 42.40  -1.6
                eSn   35 35.50
TIO    5.95 166 iPn   34 50.50  -0.7
                iSn   35 52.00
ANTZ   8.27 186 iPn   35 24.00   0.5
                i     35 24.50
                iSn   36 50.00
                i     36 54.00
    S.D. = 1.3  on  11 of  11 obs.
--------------------------------------
% MAR 04, 1993 20h 46m 41.10± 0.74s
40.039 N ± 6.5km 29.325 E ± 6.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

DST    0.69 231 iPg   46 55.40   0.6
                iSg   47 04.40
KCT    0.77 286 iPg   46 56.40   0.2
                eSg   47 09.90
EYL    0.83  50 ePg   46 58.10   0.9
                eSg   47 10.90
ISK    1.05 349 ePg   47 00.60  -0.2
BNT    1.12 287 ePn   47 03.00   0.9
ALT    1.16 148 ePn   47 02.00  -0.8
EDC    1.16 286 ePn   47 02.00  -0.8
CTT    1.30 329 iPn   47 04.20  -1.0
    S.D. = 0.9  on   8 of   8 obs.
--------------------------------------
MAR 04, 1993 21h 40m 25.25± 1.08s
43.629 N ±11.0km 12.575 E ± 6.5km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
ML 3.3 (LDG). MD 3.2 (LJU), 2.8
(TRI).

FIR    0.97 279 e(Pn) 40 31.00 -12.6X
                i(Sn) 41 13.00
TRI    2.25  22 e(Pg) 41 04.20   1.2
                e(Sg) 41 28.70
CEY    2.49  31 e(Pn) 41 12.50   6.0X
                eSn   41 33.50
                e     42 40.00
VOY    2.58  21 e(Pn) 41 09.30   1.5
                e(Sn) 41 37.80
                e     42 06.00
VBY    2.68  45 ePn   41 07.00  -2.2
                i(Sn) 41 33.20
                i     41 49.50
PGF    2.83 249 Pn    41 11.00  -0.5
PTJ    3.31  46 e(P)  41 18.60   0.4
FRF    4.31 271 Pn    41 32.90   0.6
LMR    4.42 268 Pn    41 34.20   0.3
LRG    4.52 270 Pn    41 36.20   0.9
LPG    4.56 296 Pn    41 36.30   0.1
                Sn    42 35.40
LPL    4.58 296 Pn    41 36.60   0.2
                Sn    42 37.20
GEC2   5.28   8 Pn    41 42.30  -3.8X
                Sn    42 45.50
BSF    5.83 318 Pn    41 53.60  -0.3
                Sn    43 03.80
CDF    6.04 324 Pn    41 56.40  -0.4
HAU    6.17 317 Pn    41 58.50  -0.1
                Sn    43 12.00
SMF    6.87 299 Pn    42 08.40  -0.1
LBF    6.93 302 Pn    42 08.80  -0.5
                Sn    43 31.00
LOR    7.13 304 Pn    42 11.70  -0.4
                Sn    43 35.30
SSF    7.25 301 Pn    42 13.10  -0.7
                Sn    43 37.80
    S.D. = 0.9  on  17 of  20 obs.
--------------------------------------
& MAR 04, 1993 21h 42m 46.51s
61.589 N 150.959 W
DEPTH = 68.9km
SOUTHERN ALASKA ( 2)
<AEIC>. ML 2.7 (AEIC), 2.7
(PMR).

SUA    0.16 140 iPc   42 57.02   1.6
                eS    43 06.13
SKT    0.48 326 iPd   42 58.37  -0.9
                eS    43 08.13
                eS    43 08.20
PWA    0.52  83 P     42 59.50  -0.1
                S     43 09.50
CGLM   0.58 241 iPc   42 59.89  -0.4
                eS    43 10.06
CPAM   0.66 240 iPd   43 00.62  -0.6
CRP    0.66 241 iPd   43 00.32  -1.0
                eS    43 11.61
SPU    0.67 233 iPd   43 00.42  -0.8
                iS    43 11.72
CKN    0.69 239 ePd   43 01.01  -0.5
CP2    0.70 243 eP    43 00.98  -0.8
CKT    0.72 238 iPd   43 00.98  -0.8
                eS    43 12.69
PMS    0.76 117 P     43 01.70  -0.5
CKL    0.77 240 iPd   43 01.61  -0.9
                eS    43 13.74
NKA    0.86 189 ePc   43 04.75   1.3
PLRM   0.87  89 ePc   43 02.77  -0.8
                eS    43 15.80
PMR    0.87  89 eP    43 02.47  -1.1
                eS    43 14.37
GHO    0.99  78 eP    43 04.59  -0.6
SLKM   1.14 161 iPc   43 06.18  -0.9
PTE    1.19 127 iPc   43 06.72  -0.9
SML    1.27  79 ePc   43 07.76  -1.0
DFR    1.31 221 iPd   43 08.70  -0.6
```

04d 21h

MPA 1.35 144 ePd 43 08.97 -0.8
eS 43 26.35
NCT 1.41 224 ePd 43 10.06 -0.6
eS 43 28.66
RSO 1.43 218 eP 43 10.66 -0.4
RDW 1.43 220 ePd 43 10.56 -0.5
eS 43 29.90
SEW 1.66 153 eP 43 12.96 -1.1
SCM 1.75 80 eP 43 14.41 -0.9
INE 1.85 215 eP 43 16.78 0.0
TRF 1.89 9 eP 43 17.10 -0.3
VLZ 2.28 100 eP 43 20.66 -1.8
SVW 2.30 260 eP 43 21.19 -1.7
PDB 2.41 223 eP 43 23.03 -1.3
KLU 2.42 90 ePc 43 22.50 -2.1
AUE 2.54 209 eP 43 23.52 -2.6
TTA 2.72 302 eP 43 26.95 -1.9
PAX 2.92 59 eP 43 30.29 -1.3
SYI 3.07 194 eP 43 32.70 -1.0
CCB 3.39 24 eP 43 36.48 -1.6
GLB 3.43 89 eP 43 37.40 -1.3
FBA 3.62 22 (P) 43 40.47 -0.8
BALM 4.19 94 eP 43 47.67 -1.8
IMA 4.66 346 eP 43 54.20 -1.8
41 obs. associated

& MAR 04, 1993 21h 59m 54.24s
65.735 N 145.518 W
DEPTH = 4.0km
NORTHERN ALASKA (676)
<AEIC>. ML 2.6 (AEIC).

PRP 0.22 180 eP 59 58.83 0.1
eS 00 01.40
FYU 0.84 8 iP 00 10.03 -1.0
eS 00 22.88
GLM 1.09 227 iP 00 14.67 -0.6
eS 00 28.74
FBA 1.27 230 iP 00 18.00 -0.4
eS 00 34.75
MDM 1.38 237 eP 00 18.66 -1.6
eS 00 39.17
CCB 1.46 222 iP 00 21.04 -0.3
eS 00 40.23
HDA 1.47 205 eP 00 20.10 -1.4
eS 00 39.39
NEA 1.90 234 eP 00 27.01 -0.7
eS 00 53.37
DOT 2.19 163 eP 00 29.52 -2.4
MCK 2.49 218 eP 00 38.88 2.7
RND 2.75 213 eP 00 41.05 1.1
PAX 2.78 180 eP 00 38.81 -1.6
TRF 3.08 224 eP 00 44.93 0.2
SDG 3.22 180 eP 00 44.83 -1.8
HUR 3.30 215 eP 00 47.61 -0.1
IMA 3.37 279 eP 00 47.77 -1.0
16 obs. associated

MAR 04, 1993 23h 09m 22.51± 0.50s
43.191 N ± 4.5km 13.367 E ± 4.1km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
ML 3.8 (LDG), 3.8 (VIE), 3.3
(ROM). MD 3.6 (TRI), 3.6 (FIR).

ARV 0.44 315 P 09 34.15 2.7
RSM 0.99 318 P 09 44.79 3.5X
SFI 1.32 304 P 09 49.47 2.6X
PGD 1.38 300 P 09 51.83 3.9X
RMP 1.46 200 P 09 49.45 0.5
RDP 1.51 199 P 09 50.09 0.4
SDI 1.52 167 P 09 48.68 -1.1
FIR 1.64 292 ePn 09 54.50 3.0X
iSn 10 18.00
DUI 1.73 152 P 09 53.11 0.3
PII 2.14 285 P 10 00.98 2.3
MME 2.18 298 P 10 02.56 3.0X
BDI 2.19 294 P 10 01.37 1.8
HVAR 2.25 89 iPn 09 58.90 -1.5
RIY 2.27 18 iPnd 10 01.00 0.4
TRI 2.53 6 ePn 10 04.50 0.2
ePg 10 09.90
ePgPg 10 15.20
eSn 10 34.60
eSg 10 44.60
CEY 2.66 16 e(Pn) 10 06.50 0.3
ePg 10 14.00
eSn 10 38.50
e 12 50.00
VBY 2.68 30 iPn 10 06.60 0.1
i 10 14.40
i(Sn) 10 35.00
i 10 45.60
VOY 2.87 7 ePn 10 09.00 -0.2
e(Pg) 10 13.30
eSn 10 43.30
LJU 2.97 16 ePn 10 11.30 0.8
ePg 10 20.50
eSn 10 46.00
e 13 00.00
CTI 3.11 337 P 10 13.22 0.7
SAL 3.16 321 P 10 14.19 1.0
ZAG 3.22 35 e(P) 10 15.30 1.2
iSn 10 55.00
RBL 3.25 2 P 10 16.42 1.8
PGF 3.27 260 Pn 10 15.50 0.5
PTJ 3.28 33 ePn 10 15.30 0.2
iSn 10 56.60
FVI 3.43 353 P 10 17.40 0.4
MDI 3.68 316 P 10 21.20 0.6
PCP 3.74 293 P 10 22.62 1.0
S 11 04.48
FIN 3.88 287 P 10 24.64 1.2
S 11 07.69
CKI 3.88 290 P 10 24.75 1.2
KBA 3.89 360 iPnd 10 24.00 0.3
iPg 10 38.40
iSn 11 09.60
i(Sg) 11 33.90
SCE 4.02 344 iPnc 10 26.80 1.2
OGA 4.03 337 iPnc 10 26.30 0.5
IMI 4.05 282 P 10 28.12 2.3
ROB 4.13 287 P 10 28.48 1.4
OSS 4.18 328 iPc 10 29.60 1.8
WTTA 4.25 344 iPnd 10 30.40 1.5
iSn 11 20.70
iSg 11 44.50
VDL 4.31 321 ePc 10 30.70 1.0
TMA 4.33 314 iPd 10 30.00 -0.1
SBF 4.37 281 Pn 10 31.80 1.4
ENR 4.43 286 P 10 33.10 1.7
STV 4.50 286 P 10 33.93 1.5
ORX 4.57 304 P 10 32.19 -1.1
DOI 4.62 289 P 10 35.27 1.2
BHB 4.70 293 P 10 34.20 -1.0
PZZ 4.72 288 P 10 36.77 1.2
MMK 4.80 308 ePc 10 34.80 -2.0
LLS 4.81 321 ePc 10 37.30 0.4
RSP 4.81 296 P 10 34.71 -2.1
FRF 4.91 277 Pn 10 38.90 0.8
LSD 5.00 299 P 10 37.59 -2.0
LMR 5.01 274 Pn 10 39.90 0.4
RRL 5.05 292 P 10 39.74 -0.5
LRG 5.12 275 Pn 10 42.00 1.0
DIX 5.14 306 ePc 10 40.90 -0.7
BNI 5.16 293 P 10 41.50 -0.3
FUR 5.19 344 eP 10 24.80 -17.2X
LPG 5.28 298 Pn 10 42.20 -1.4
LPL 5.29 298 Pn 10 42.30 -1.5
EMS 5.42 304 ePc 10 46.10 0.6
ZLA 5.54 322 Pd 10 46.70 -0.4
GEC2 5.66 2 Pn 10 47.20 -1.6
Pg 11 13.60
Sn 11 51.40
SLE 5.72 325 iPc 10 48.70 -0.8
KHC 5.94 1 ePn 10 52.50 -0.2
e 10 57.00
e 11 05.70
FEL 6.01 323 eP 10 52.44 -1.2
BSF 6.55 317 Pn 10 59.50 -1.8
Sn 12 11.30
GRF 6.67 348 e(Pn) 11 06.00 3.1X
e(Sg) 12 12.20
CDF 6.74 323 Pn 11 02.50 -1.4
Sn 12 16.00
PRU 6.85 6 eP 11 09.00 3.6X
e 11 24.50
Sn 12 17.70
e 13 03.00
e 13 21.00
HAU 6.88 317 Pn 11 04.20 -1.7
Sn 12 19.00
MOX 7.55 351 ePn 11 19.00 3.7X
(Sn) 12 33.50
SMF 7.59 300 Pn 11 13.70 -2.1
Sn 12 34.80
LBF 7.65 303 Pn 11 14.40 -2.3
Sn 12 37.40
LOR 7.85 305 Pn 11 17.40 -2.1
Sn 12 40.90
AVF 7.96 300 Pn 11 18.60 -2.3
SSF 7.97 302 Pn 11 18.80 -2.4
Sn 12 43.30
BGF 8.19 298 Pn 11 21.70 -2.6
Sn 12 50.30
TCF 8.52 295 Pn 11 27.70 -1.2
WB2 125.84 84 ePdiff25 01.50 -2.9X
0.4s 2.50nm
ASPA 127.80 88 ePdiff25 12.70 -0.3
0.4s 2.70nm
S.D. = 1.4 on 70 of 80 obs.

? MAR 05, 1993 00h 08m 52.26± 1.70s
47.004 N ±27.9km 154.424 E ±25.8km
DEPTH = 33.0km (normal)
5.1mb (9 obs.)
KURIL ISLANDS (221)

KUSJ 7.91 244 eP 10 45.80 -1.9
ASAJ 8.76 255 eP 11 01.20 1.7
MAT 15.96 235 (P) 12 35.00 -0.8
LZH 38.78 272 Pd 16 16.50 1.0
1.0s 17.00nm 4.8mb
YKA 50.18 37 eP 17 46.20 0.0
0.8s 1.20nm 4.0mb X
RES 50.31 19 eP 17 49.00 2.0
GUN 55.87 276 P 18 30.00 0.6
0.6s 18.00nm 5.3mb
KKN 56.36 276 P 18 33.40 0.7
0.6s 22.00nm 5.4mb
PKI 56.41 276 P 18 33.00 -0.2
0.6s 13.00nm 5.1mb
DMN 56.59 276 P 18 34.60 0.1
0.6s 29.00nm 5.5mb
KAF 63.59 336 eP 19 19.70 -1.8
0.6s 1.50nm 4.3mb
NUR 65.36 335 eP 19 46.20 13.2X
0.5s 2.30nm
UPP 67.81 338 iP 19 47.40 -1.1
NB2 68.27 342 P 19 50.60 -0.9
0.7s 9.50nm 5.0mb
HFS 68.53 340 eP 19 51.70 -1.3
0.4s 8.20nm 5.2mb
GBA 71.32 270 P 20 12.00 1.3
KSP 76.07 334 eP 20 37.80 0.0
CLL 76.60 336 iP 20 41.00 0.3
1.3s 15.00nm 4.8mb
GEC2 78.62 335 P 20 52.50 0.5
0.6s 0.65nm 3.8mb X
e 20 56.30
S.D. = 1.2 on 18 of 19 obs.

% MAR 05, 1993 00h 36m 44.84± 2.79s
40.027 N ±12.3km 29.477 E ±19.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

YLV 0.55 352 iPg 36 55.70 -0.2
DST 0.78 238 iPg 37 00.00 0.0
iSg 37 09.20
KCT 0.89 285 iPg 37 02.70 0.8
ISK 1.09 343 ePg 37 05.70 0.5
BNT 1.24 286 iPn 37 07.70 -0.1
EDC 1.28 285 iPn 37 08.00 -0.5
CTT 1.37 325 iPn 37 09.60 -0.4
S.D. = 0.6 on 7 of 7 obs.

% MAR 05, 1993 01h 26m 12.34± 0.78s
40.421 N ± 7.7km 28.922 E ± 6.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.5 (ISK).

YLV 0.37 67 iPg 26 19.70 -0.3
eSg 26 24.20
KCT 0.47 249 iPg 26 21.50 -0.3
eSg 26 28.70
BNT 0.77 266 ePg 26 27.00 -0.3
eSg 26 38.70
EDC 0.81 265 ePg 26 28.00 -0.1

CTT 0.82 333 iPg 26 28.70 0.5
DST 0.84 196 ePg 26 29.20 0.5
S.D. = 0.5 on 6 of 6 obs.

? MAR 05, 1993 01h 47m 32.93± 0.95s
46.382 N ±13.6km 2.684 E ±13.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.6 (LDG).

MAF 0.18 207 Pg 47 37.20 0.2
Sg 47 40.50
BGF 0.21 32 Pg 47 38.10 0.6
Sg 47 41.80
TCF 0.34 254 Pg 47 39.80 -0.2
Sg 47 44.20
AVF 0.62 48 Pg 47 44.70 -0.6
Sg 47 54.30
S.D. = 0.9 on 4 of 4 obs.

% MAR 05, 1993 02h 46m 50.50± 1.85s
11.273 N ± 7.6km 61.870 W ±27.7km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 2.5 (TRN).

TCE 0.58 169 eP 47 02.36 0.0
iS 47 11.11
TRN 0.77 144 iP 47 04.55 -1.0
eS 47 15.70
GRW 0.91 13 eP 47 07.87 0.0
eS 47 21.26
e 47 23.75
TPP 1.04 157 eP 47 10.37 0.3
eS 47 26.80
TBH 1.11 135 eP 47 12.01 0.6
S.D. = 0.9 on 5 of 5 obs.

MAR 05, 1993 04h 42m 05.24± 0.46s
43.229 N ± 4.4km 13.349 E ± 4.6km
DEPTH = 24.1 ± 4.4 km
CENTRAL ITALY (381)
MD 3.7 (FIR), 3.5 (ROM), 3.5 (TRI).

ARV 0.40 312 P 42 14.60 0.8
ASS 0.53 253 P 42 15.25 -0.6
AQU 0.88 177 P 42 18.55 -3.2X
CRE 1.09 292 P 42 26.39 1.2
SFI 1.29 303 P 42 30.09 2.3
PGD 1.35 299 P 42 32.38 3.6X
RMP 1.50 199 P 42 30.62 -0.2
RDP 1.54 198 P 42 31.06 -0.4
SDI 1.56 167 P 42 31.09 -0.7
FIR 1.62 291 ePn 42 35.00 2.5
iSn 42 59.50
DUI 1.77 152 P 42 35.02 0.2
RFI 1.98 166 P 42 38.63 0.8
PII 2.11 284 P 42 41.18 1.5
BDI 2.16 294 P 42 41.79 1.3
RIY 2.24 19 e(Pn) 42 41.60 0.1
HVAR 2.27 90 iPn 42 40.10 -1.8
TRI 2.50 7 ePn 42 46.50 1.3
e 42 52.50
ePgPg 42 56.40
e 43 14.20
eSg 43 25.60
CEY 2.63 17 ePn 42 48.00 1.0
e 42 55.50
eSn 43 19.00
VBY 2.65 30 iPn 42 45.60 -1.8
i 42 54.60
i 43 15.90
i(Sn) 43 19.10
i 43 36.00
VOY 2.83 8 ePn 42 49.80 -0.1
e(Pg) 42 59.20
eSn 43 23.30
e 43 45.00
e 45 30.00
LJU 2.94 16 ePn 42 53.60 2.2
e 43 00.20
eSn 43 27.00
e 45 30.00
CTI 3.07 337 P 42 53.56 0.2
SAL 3.12 321 P 42 54.72 0.7
ZAG 3.20 35 e(Pn) 42 58.00 2.9X
iSn 43 36.60
BOB 3.21 300 P 42 57.77 2.4
RBL 3.22 3 P 42 56.47 1.0
PTJ 3.26 34 ePn 42 58.60 2.6
iSn 43 39.30
FVI 3.39 353 P 42 58.15 0.4
MDI 3.64 316 P 43 01.69 0.3
PCP 3.71 292 P 43 02.96 0.5
KBA 3.85 360 iPnc 43 04.80 0.3
i 43 18.90
iSn 43 50.70
i 44 17.10
FIN 3.85 286 P 43 05.07 0.6
CKI 3.86 290 P 43 05.15 0.7
SCE 3.98 344 iPnc 43 07.20 0.8
OGA 3.99 336 ePn 43 06.70 0.1
IMI 4.03 282 P 43 08.36 1.4
ROB 4.11 287 P 43 08.64 0.5
OSS 4.14 328 ePc 43 10.00 1.4
VAI 4.20 310 P 43 08.98 -0.4
WTTA 4.21 344 iPnc 43 11.00 1.3
iSn 44 00.10
VDL 4.27 321 iPc 43 11.20 0.7
TMA 4.30 314 iPd 43 10.50 -0.4
SBF 4.35 280 Pn 43 12.70 1.2
ENR 4.41 285 P 43 13.40 1.0
STV 4.48 285 P 43 14.27 0.8
ORO 4.53 304 P 43 12.75 -1.4
ORX 4.53 304 P 43 12.67 -1.6
DOI 4.59 288 P 43 15.50 0.4
BHB 4.67 292 P 43 14.59 -1.5
PZZ 4.69 288 P 43 16.05 -0.5
MMK 4.77 308 ePc 43 15.40 -2.2
LLS 4.77 321 ePc 43 17.80 0.2
RSP 4.78 296 P 43 14.95 -2.8
FRF 4.90 276 Pn 43 19.60 0.4
LSD 4.97 299 P 43 18.11 -2.4
LMR 4.99 274 Pn 43 20.70 0.1
RRL 5.02 292 P 43 20.26 -1.0
LRG 5.10 275 Pn 43 23.00 0.9
DIX 5.11 306 ePc 43 21.40 -1.0
BNI 5.14 293 P 43 22.04 -0.7
LPG 5.25 298 Pn 43 22.80 -1.6
LPL 5.27 298 Pn 43 23.00 -1.7
EMS 5.39 304 ePc 43 26.60 0.3
ZLA 5.50 322 Pc 43 27.30 -0.5
CDR 5.54 277 ePn 43 28.90 0.6
GEC2 5.62 2 Pn 43 27.90 -1.6
Sn 44 29.70
SLE 5.68 325 iPc 43 29.20 -1.0
KHC 5.91 1 ePn 43 32.00 -1.5
e 43 49.40
eSn 44 37.40
e 44 53.50
FEL 5.97 323 eP 43 32.89 -1.5
BSF 6.51 317 Pn 43 40.10 -2.0
Sn 44 50.90
GRF 6.63 348 e(Pn) 43 53.00 9.4X
eSg 44 52.10
CDF 6.70 323 Pn 43 42.90 -1.8
Sn 44 56.00
PRU 6.81 7 eP 43 45.50 -0.7
e 44 22.50
Sn 44 57.80
e 45 49.60
HAU 6.85 317 Pn 43 44.90 -1.8
Sn 44 58.40
MOX 7.51 352 ePn 44 02.00 6.0X
eSn 45 14.20
SMF 7.56 300 Pn 43 54.10 -2.6X
Sn 45 15.00
LBF 7.62 303 Pn 43 55.10 -2.4X
Sn 45 17.30
LOR 7.82 304 Pn 43 58.00 -2.3X
Sn 45 21.20
AVF 7.93 300 P 43 59.10 -2.7X
SSF 7.94 302 Pn 43 59.40 -2.6X
Sn 45 23.00
BGF 8.17 298 Pn 44 02.10 -3.1X
Sn 45 29.10
S.D. = 1.3 on 70 of 81 obs.

% MAR 05, 1993 05h 02m 52.92± 0.76s
44.472 N ± 6.2km 7.324 E ± 7.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

PZZ 0.16 282 P 02 56.62 -0.1
S 02 58.81
STV 0.23 180 P 02 57.90 0.0
S 03 00.97
ENR 0.25 164 P 02 58.48 0.1
S 03 02.04
BHB 0.37 353 P 03 00.70 0.1
S 03 06.19
ROB 0.43 114 P 03 01.57 -0.1
S 03 07.68
S.D. = 0.2 on 5 of 5 obs.

? MAR 05, 1993 05h 03m 18.35± 3.44s
38.484 S ±24.5km 175.266 E ±22.2km
DEPTH = 134.3 ± 33.7 km
NORTH ISLAND, NEW ZEALAND (159)

BSZ 1.34 191 eP 03 44.70 -0.6
eS 04 04.70
URZ 1.47 82 P 03 46.50 -0.2
S 04 06.00
MNG 2.14 176 P 03 55.60 0.9
eS 04 10.80
NOZ 2.18 94 P 03 55.40 0.3
PGZ 2.27 160 eP 03 56.00 -0.3
KIW 2.39 186 P 03 58.80 0.9
CAW 2.63 183 P 04 01.30 0.5
MTW 2.68 176 P 04 01.10 -0.4
MRW 2.78 189 eP 04 03.30 0.5
eS 04 31.50
BLW 2.89 177 eP 04 03.50 -0.7
MOW 2.93 180 P 04 04.20 -0.7
KHZ 4.14 198 eP 04 20.60 -0.3
eS 05 03.40
S.D. = 0.7 on 12 of 12 obs.

----

* MAR 05, 1993 06h 32m 49.01± 0.48s
15.983 S ±19.6km 173.376 W ±14.3km
DEPTH = 42.5km (6 depth phases)
4.9mb (7 obs.) 4.6Msz (1 obs.)
TONGA ISLANDS (173)

DZM 20.01 249 iPc 37 24.00 2.8
WB2 49.72 257 iPc 41 38.00 -1.4
0.7s 6.80nm 4.8mb
WRA 49.73 257 P 41 38.79 -0.7
ASPA 49.96 252 iPd 41 39.20 -2.0
1.0s 31.90nm 5.3mb
Z 21s 0.60um 4.6Msz
ORV 73.41 39 eP 44 18.49 -0.2
GSC 73.98 45 eP 44 21.65 -0.6
SPA 74.12 180 iPc 44 22.00 -0.6
1.3s 34.17nm 5.1mb
BONR 74.47 42 eP 44 25.30 0.0
TNP 75.25 43 ePd 44 29.53 -0.1
0.8s 10.74nm 4.9mb
e 44 42.08 43km
ARUT 77.60 45 eP 44 42.97 0.2
RMW 78.19 33 eP 44 45.97 0.3
pP 44 58.65 43km
CP2 78.81 10 eP 44 48.99 0.0
CRP 78.83 10 eP 44 48.00 -1.0
DPW 80.36 34 eP 44 57.22 -0.2
pP 45 10.04 43km
PV09 80.89 46 eP 45 01.07 0.3
PV10 80.90 46 eP 45 00.08 -0.6
pP 45 13.16 44km
PV08 81.26 46 eP 45 03.03 0.3
pP 45 15.62 42km
BW06 82.69 42 eP 45 08.94 -1.0
0.9s 10.06nm 4.9mb
LCCM 82.81 38 eP 45 10.70 0.3
FBA 82.96 11 eP 45 11.00 0.5
1.0s 15.00nm 5.0mb
epP 45 23.00 40km
GLD 84.17 46 eP 45 18.38 0.9
SES 85.67 35 eP 45 25.00 0.5
YKA 90.62 23 eP 45 47.00 -0.8
1.0s 1.40nm 4.3mb
KSP 144.37 349 ePKP 52 27.00 4.9X
SPC 145.07 344 iPKP 52 32.30 8.7X
MOX 145.19 354 ePKP 52 23.80 0.2
PRU 145.48 351 PKP 52 25.00 0.9
GRF 146.17 355 ePKP 52 38.00 12.7X
e 52 40.00
KHC 146.46 352 PKP 52 28.60 2.8X
1.2s 7.50nm

05d 06h

e 52 39.00
GEC2 146.72 351 PKP 52 27.70 1.4
0.9s 2.94nm
ZST 146.74 347 ePKP 52 26.00 -0.2
LPF 147.42 10 ePKP 52 27.90 0.6
CDF 147.66 359 ePKP 52 30.70 2.9X
BSF 148.24 360 ePKP 52 32.00 3.2X
LOR 148.72 4 ePKP 52 33.30 3.9X
SSF 148.90 4 ePKP 52 34.10 4.4X
0.7s 4.85nm
LBF 149.01 4 ePKP 52 34.30 4.4X
AVF 149.16 4 ePKP 52 34.30 4.2X
BGF 149.35 5 ePKP 52 34.90 4.5X
LSF 149.53 7 ePKP 52 35.10 4.4X
MAF 149.66 6 ePKP 52 35.80 4.9X
LPL 150.56 360 ePKP 52 39.00 6.5X
0.8s 6.70nm
LPG 150.58 360 ePKP 52 39.30 6.6X
OHR 152.12 337 ePKP 52 25.50 -9.3X
S.D. = 1.0 on 28 of 44 obs.

? MAR 05, 1993 06h 35m 10.07± 1.86s
18.116 N ±20.5km 76.933 W ± 7.5km
DEPTH = 10.0km (geophysicist)
JAMAICA REGION (86)
MD 2.4 (HOJ).

STH 0.12 109 iPc 35 13.93 0.9
S 35 16.70
HOJ 0.21 123 ePc 35 13.69 -0.9
S 35 16.54
PCJ 0.44 211 eP 35 19.31 0.4
S 35 26.30
SPJ 0.61 259 eP 35 22.06 -0.3
S 35 31.45
S.D. = 1.3 on 4 of 4 obs.

MAR 05, 1993 06h 44m 43.25± 0.69s
36.746 N ±10.7km 27.326 E ± 8.0km
DEPTH = 33.0km (normal)
4.1mb (7 obs.)
DODECANESE ISLANDS (369)
ML 3.9 (CSS).

ELL 2.07 89 iPn 45 19.00 2.5
KHL 2.35 47 ePn 45 20.00 -0.5
BCK 2.70 74 ePn 45 26.00 0.6
DST 3.03 19 ePn 45 28.00 -2.1
EZN 3.17 346 ePn 45 31.00 -1.0
ALT 3.19 43 ePn 45 37.00 4.7X
KCT 3.59 13 eP 45 48.40 10.5X
YLV 4.14 22 eP 45 57.00 11.2X
CSS 5.19 108 eP 46 02.60 1.9
eS 47 00.00
DSI 8.44 125 eP 46 46.30 0.2
PRNI 9.04 133 eP 46 52.80 -1.7
MBH 9.40 136 eP 46 57.20 -2.3
GEC2 15.66 325 Pn 48 30.50 7.4X
0.8s 0.85nm 3.0mb X
e 48 34.00
LPL 17.78 306 eP 48 54.00 4.1X
SMF 20.07 307 eP 49 17.80 1.3
0.6s 3.45nm 3.9mb
LBF 20.10 308 eP 49 17.70 0.8
0.8s 4.45nm 3.9mb
LOR 20.29 309 eP 49 18.60 -0.2
AVF 20.43 307 eP 49 21.90 1.7
0.9s 11.45nm 4.2mb
SSF 20.43 308 eP 49 21.30 1.0
0.8s 6.30nm 4.0mb
LDF 23.26 309 eP 49 47.50 -1.0
FLN 23.55 309 eP 49 50.10 -1.2
0.7s 5.50nm 4.2mb
GRR 23.66 308 eP 49 52.10 -0.2
0.9s 9.15nm 4.3mb
BCAO 33.16 196 ePd 51 25.10 6.3X
0.5s 3.00nm 4.5mb
ec 53 03.20
S.D. = 1.5 on 17 of 23 obs.

MAR 05, 1993 06h 55m 00.32± 0.27s
42.705 N ± 3.7km 141.564 E ± 3.6km
DEPTH = 144.2 ± 3.1 km
4.8mb (43 obs.)
HOKKAIDO, JAPAN REGION (224)

SAP 0.39 334 iP 55 21.10 0.9
iS 55 35.90
MRRJ 0.46 233 iPd 55 21.60 0.6
iS 55 37.00
HOOJ 1.31 104 iP+ 55 28.80 1.0
iS 55 49.30
ASAJ 1.62 29 iP+ 55 31.20 0.2
S 55 53.20
AOMJ 2.32 203 P 55 40.70 1.3
eS 56 09.00
KUSJ 2.34 79 iPd 55 39.90 0.2
S 56 07.90
OFUJ 3.62 179 P 55 55.40 -0.7
S 56 35.80
YSS 4.39 10 iPnc 56 05.90 -0.3
YAMJ 4.67 195 eP 56 09.80 -0.3
eS 57 03.20
KUR 5.20 59 iPnd- 56 17.00 -0.2
iS 57 15.00
NIIJ 5.80 201 P 56 25.80 0.6
KAKJ 6.58 190 P 56 33.00 -2.8
S 57 43.80
MAT 6.68 204 eP 56 37.00 -0.2
0.7s 32.88nm 4.8mb
eS 57 49.00
MTMJ 6.76 207 P 56 38.70 0.3
CHJ 6.97 197 P 56 40.70 -0.5
S 57 55.00
TSRJ 8.37 213 P 57 00.10 0.3
TKSJ 10.51 217 eP 57 27.40 -0.8
SKR 12.75 46 ePn 57 55.40 -2.0
eS 00 10.10
MGD 18.31 15 eP 59 02.00 -3.7X
BJI 19.22 271 eP 59 13.50 -1.9
1.2s 46.00nm 4.7mb
SSE 19.94 241 Pnd 59 11.50 -11.3X
0.6s 8.00nm
Z 20s 11.40um
N 12s 10.00um
E 10s 5.00um
pP 59 16.50 19kmX
sP 59 24.00
Sn 00 41.00
eSg 01 26.00
YAK 20.59 344 iP 59 25.50 -3.6X
1.0s 150.00nm 5.4mb
ePPP 59 52.00
iS 03 02.00
i 10 37.00
CIT 20.99 306 eP 59 22.00 -11.4X
SEY 21.21 14 eP 59 34.00 -1.3
0.9s 34.00nm 4.8mb
eS 03 17.00
BOD 22.92 321 eP 59 48.70 -3.4X
1.0s 30.00nm 4.7mb
SMY 23.89 54 (P) 00 03.05 1.6
IRK 26.66 304 ePc 00 26.00 -1.2
1.6s 65.00nm 5.0mb
e 00 42.90
e 03 35.00
e 05 54.30
e 09 09.00
e 12 09.00
LR 16 22.00
ZAK 27.18 300 iPc 00 31.50 -0.3
1.0s 34.00nm 4.9mb
ADK 29.41 57 eP 00 50.30 -1.5
1.2s 94.00nm 5.4mb
TIK 29.67 352 eP 00 50.00 -3.9X
1.0s 9.00nm 4.5mb
e 01 40.00
e 01 48.00
LZH 29.71 270 eP 00 55.00 0.2
2.0s 34.00nm 4.7mb
ELT 37.60 306 eP 02 02.00 0.0
0.9s 21.00nm 4.9mb
NRI 38.06 333 iPd 02 03.60 -2.2
TTA 40.80 38 eP 02 29.20 0.7
SVW 41.04 41 eP 02 31.36 0.9
1.0s 51.24nm 5.1mb
IMA 41.82 34 eP 02 36.06 -0.9
0.7s 8.45nm 4.5mb
RSO 42.49 42 eP 02 42.36 -0.2
CP2 42.66 41 eP 02 44.54 0.6
CRP 42.70 41 eP 02 44.32 0.1
SLKM 43.73 42 eP 02 51.53 -0.8
PMS 43.95 41 eP 02 54.10 0.0
0.6s 22.20nm 5.0mb
FBA 44.32 35 ePd 02 56.85 -0.2
0.7s 17.15nm 4.8mb
PRZ 45.50 292 eP 03 08.00 1.2
1.2s 60.00nm 5.1mb
Z 18s 2.50um 5.2Msz
E 18s 2.00um
KLU 45.64 40 eP 03 07.12 -0.5
GUN 46.97 270 P 03 19.60 0.8
0.5s 20.00nm 5.0mb
BALM 47.43 40 eP 03 21.43 -0.3
KKN 47.48 271 P 03 23.20 0.6
PKI 47.50 270 P 03 23.60 0.6
DMN 47.70 271 P 03 25.20 0.8
GKN 47.83 271 P 03 26.00 0.7
RES 57.10 15 ePd 04 32.50 -0.6
0.8s 12.00nm 4.9mb
HYB 58.64 265 eP 04 25.00 -19.6X
YKA 58.89 32 eP 04 44.70 -1.0
0.7s 11.50nm 4.9mb
WB2 62.69 188 iPd 05 07.80 -3.9X
0.7s 12.70nm 5.0mb
WRA 62.69 188 P 05 08.10 -3.6X
KAF 63.35 332 eP 05 14.60 -1.1
0.9s 18.00nm 5.0mb
OBN 63.67 322 eP 05 17.00 -0.8
1.0s 38.00nm 5.3mb
LON 64.40 49 eP 05 22.23 -0.6
SHW 64.48 50 eP 05 23.54 0.1
NUR 65.03 331 iP 05 25.90 -0.6
0.3s 4.90nm 4.9mb
DPW 65.70 47 eP 05 30.46 -0.7
VGB 65.70 50 eP 05 31.48 0.3
NEW 66.04 46 eP 05 32.96 -0.3
0.8s 23.36nm 5.2mb
ASPA 66.42 188 iPd 05 35.30 -0.5
0.5s 7.50nm 4.8mb
KIV 67.34 309 (P) 05 28.70 -13.0X
0.4s 17.00nm
SES 67.78 41 eP 05 44.00 -0.2
FCC 68.90 27 eP 05 54.00 3.2X
ORV 68.91 55 eP 05 50.55 -0.7
HFS 68.99 335 eP 05 50.70 -0.7
0.4s 4.10nm 4.6mb
NB2 69.02 337 P 05 50.90 -0.7
0.8s 89.70nm 5.6mb
WARB 69.91 194 iPc 05 45.10 -12.3X
0.4s 10.00nm
LCCM 70.35 45 ePd 06 00.00 -0.1
e 07 54.60
CMB 70.54 56 ePd 06 01.29 0.0
0.8s 12.54nm 4.8mb
KVN 71.28 54 eP 06 06.30 0.4
MEMM 71.66 56 eP 06 09.19 1.3
HHAI 71.77 48 eP 06 09.27 0.6
BONR 71.86 55 eP 06 09.82 0.3
TNP 72.43 54 ePd 06 12.51 -0.2
0.7s 14.30nm 4.8mb
HVU 72.56 49 eP 06 13.83 0.5
DUG 73.60 50 ePc 06 19.84 0.5
0.9s 16.95nm 4.8mb
BW06 73.64 47 ePd 06 18.90 -0.8
0.8s 12.23nm 4.7mb
TPNV 73.75 55 eP 06 20.57 0.2
0.7s 16.37nm 4.9mb
DAU 74.33 49 eP 06 23.71 -0.1
OJC 74.42 325 eP 06 24.40 0.6
e 06 27.20
GSC 74.50 56 eP 06 24.63 0.0
ULM 74.73 34 ePc 06 27.80 2.3
ARUT 74.86 52 eP 06 27.06 0.3
RSSD 75.55 43 eP 06 30.13 -0.5
0.8s 11.44nm 4.7mb
pP 06 56.18 101kmX
PV09 76.84 50 eP 06 38.16 0.2
PV10 76.98 50 ePd 06 39.29 0.6
PV08 77.05 49 ePd 06 39.33 0.1
GEC2 77.97 328 P 06 44.10 0.4
0.6s 0.58nm 3.5mb X
e 06 47.80
GLD 78.09 46 eP 06 45.56 0.9
1.2s 33.80nm 5.0mb
CDF 80.74 331 eP 06 59.30 0.7
1.0s 7.60nm 4.4mb
LOR 82.91 332 eP 07 09.90 0.1
0.8s 6.45nm 4.5mb
LBF 83.11 332 eP 07 11.00 0.1
0.9s 6.70nm 4.5mb

```
SSF     83.21 333 eP     07 12.20    0.9
LPL     83.39 330 eP     07 13.10    0.6
        1.4s     25.70nm          4.9mb
LPG     83.40 330 eP     07 13.30    0.6
        1.2s     12.20nm          4.6mb
AVF     83.49 333 eP     07 13.20    0.5
        0.7s      5.30nm          4.5mb
MAF     84.26 333 eP     07 17.50    0.9
        1.0s     11.60nm          4.7mb
TCF     84.32 333 eP     07 17.80    0.9
FVM     86.82  39 eP     07 29.51    0.1
        0.8s     33.27nm          5.3mb
ELC     87.94  38 eP     07 27.14   -7.6X
MIAR    88.07  43 eP     07 35.82    0.4
        0.8s      7.80nm          4.8mb
OLY     88.34  41 (P)    07 36.45   -0.3
SPA    132.51 180 iPKPc  14 08.70   10.7X
        1.2s      6.34nm
SIV    147.07  43 PKP    14 31.30    5.8X
BAO    151.80  20 ePKP   14 39.90    7.0X
                  e      14 43.00
                  e      14 49.90
    S.D. = 0.8  on  93 of 109 obs.
-----------------------------------------
   MAR 05, 1993  06h 55m 08.63± 0.40s
   37.178 N ± 3.3km    21.505 E ± 1.8km
   DEPTH =  38.8 ±   3.7 km
   5.2mb (102 obs.)  5.0Msz ( 15 obs.)
 SOUTHERN GREECE                  (368)
     Mw 5.2 (HRV). MD 5.0 (ATH).
     Minor damage in the
     Kalamata-Messini-Methoni area.
     CENTROID, MOMENT TENSOR     (HRV)
     Data Used: GDSN
     L.P.B.: 10S, 16C
     Centroid Location:
     Origin Time          06:55:10.2 0.7
     Lat 36.90N 0.10 Lon  21.41E 0.11
     Dep  37.0 FIX Half-duration  1.1
     Moment Tensor;    Scale 10**16 Nm
       Mrr= 7.59 0.97   Mtt=-2.89 0.73
       Mff=-4.69 1.20   Mrt= 3.99 1.57
       Mrf= 1.05 1.95   Mtf= 1.89 1.38
      Principal Axes:
       T  Val=   9.12   Plg=70  Azm=341
       N        -3.08      19       139
       P        -6.04       7       231
     Best Double Couple:Mo=7.6*10**16
      NP1:Strike=342 Dip=42 Slip= 120
      NP2:       125     55        66
VLS      1.23 324 ePn    55 30.00    0.3
VLI      1.24 111 eP     55 29.00   -0.7
ATH      1.93  65 eP     55 40.80    1.2
AGG      1.95  19 ePn    55 43.26    3.2X
                  eSn    56 09.10
IGT      2.52 339 ePn    55 50.46    2.3
                  eSn    56 24.26
KEK      2.86 333 ePn    55 54.50    1.6
SRN      2.94 337 iPnd   55 56.20    2.2
                  iSn    56 49.20
LIT      3.02  15 ePn    55 57.50    2.4
LSK      3.05 347 ePn    55 57.50    1.9
                  iSn    56 52.50
KZN      3.13   4 eP     56 00.00    3.2X
PAIG     3.23  31 ePn    55 59.62    1.5
                  eSn    56 39.70
TPE      3.32 340 iPnd   56 02.50    3.1X
                  iSn    56 55.00
FNA      3.60 358 ePn    56 05.22    1.8
THE      3.63  18 ePn    56 05.08    1.3
VLO      3.64 335 ePn    56 06.00    2.1
OUR      3.70  31 ePn    56 05.92    1.2
NPS      3.83 119 ePn    56 07.00    0.3
GRG      3.84  10 ePn    56 08.30    1.5
                  eSn    56 56.06
SOH      3.91  21 ePn    56 09.98    2.1
OHR      3.97 352 iPn    56 10.20    1.5
                  i      56 26.80
                  i      56 43.00
                  i      56 56.30
                  i      57 11.00
                  Lg     57 37.20
KNT      4.12  15 ePn    56 12.46    1.6
                  eSn    57 02.78
LCI      4.20 320 P      56 11.85    0.0
VAY      4.22  11 iPn    56 13.80    1.7
```

```
                  iSg    57 09.60
                  Lg     57 35.30
SRS      4.25  22 ePn    56 13.46    0.8
PRK      4.28  60 eP     56 14.00    0.9
GRI      4.34 294 P      56 14.51    0.7
SOI      4.42 283 P      56 14.47   -0.5
GMB      4.58 284 P      56 17.47    0.0
EZN      4.61  54 iP     56 17.20   -0.6
LACI     4.66 343 iPnd   56 18.90    0.5
                  iSn    57 27.50
TDS      4.75 303 P      56 20.93    1.2
SKO      4.79 359 iPn    56 21.00    0.8
                  iPb    56 32.30
                  iPg    56 40.00
                  i      56 49.00
                  iSn    57 15.00
                  iSb    57 27.50
                  iSg    57 40.00
                  LR     58 22.00
MSI      4.83 284 P      56 20.79    0.0
ATN      4.89 283 P      56 21.43   -0.3
ORI      4.90 308 P      56 22.75    1.0
BRT      4.99 319 P      56 23.37    0.4
RDO      5.05  37 iPnd   56 24.50    0.6
ULC      5.09 341 iPn    56 24.01   -0.4
                  eSn    57 18.15
ALN      5.13  42 ePn    56 26.20    1.2
MEU      5.25 271 P      56 25.95   -0.9
PZI      5.27 270 P      56 23.87   -3.2X
BCI      5.30 348 iPnd   56 26.40   -1.0
                  iSn    57 38.00
MNO      5.46 280 P      56 29.77   -0.1
BDV      5.50 339 iPn    56 29.06   -1.1
MGR      5.51 304 P      56 30.93    0.5
TTG      5.52 342 iPn    56 29.96   -0.5
                  eSn    57 29.24
PVY      5.54 348 iPn    56 31.65    0.8
HCY      5.75 337 iPn    56 32.07   -1.6
IVA      5.82 348 iPn    56 35.27    0.5
EDC      5.89  56 eP     56 35.00   -0.8
SGO      5.90 307 P      56 36.65    0.8
BNT      5.93  56 iP     56 35.50   -0.9
NKY      5.95 342 iPn    56 35.89   -0.8
GIB      5.99 280 P      56 37.36    0.0
DST      6.10  64 iP     56 38.00   -0.7
BRY      6.15 339 iPn    56 38.10   -1.4
KCT      6.17  58 iP     56 38.90   -0.9
PLE      6.35 346 iPn    56 42.27   -0.1
KHL      6.46  77 eP     56 43.00   -0.8
KSL      6.58  97 ePn    56 45.00   -0.4
CTT      6.68  51 iP     56 45.90   -1.0
DMK      6.70  44 iP     56 46.50   -0.6
ELL      6.74  91 iP     56 50.50    2.7
YLV      7.01  59 eP     56 51.40   -0.1
ITU      7.03  54 eP     56 53.00    1.3
ALT      7.04  72 eP     56 53.70    1.7
ISK      7.04  54 iP     56 51.90    0.1
DUI      7.06 312 P      56 52.95    0.8
HVAR     7.13 329 iPc    56 51.20   -1.9
RFI      7.14 308 P      56 53.56    0.3
GBZT     7.16  57 eP     56 59.20    5.7X
BCK      7.24  85 eP     56 56.00    1.2
HRT      7.32  58 eP     56 56.40    0.5
SDI      7.47 310 P      56 57.63   -0.3
EYL      7.55  61 eP     56 56.40   -2.7
GPA      7.55  63 eP     56 58.70   -0.4
DRA      7.78  15 ePd    56 57.00   -5.1X
BUC1     7.94  24 eP     57 08.00    3.6X
AOU      8.10 312 P      57 08.43    1.7
RDP      8.19 307 P      57 08.51    0.5
RMP      8.23 307 P      57 08.85    0.4
CMP      8.51  17 ePd    57 11.00   -1.3
TNR      8.72  13 ePc    57 16.00    0.8
DEV      8.76   6 ePc    57 16.50    0.8
ISR      8.81  24 eP     57 19.50    3.0X
MLR      8.95  20 ePd    57 20.00    1.5
ASS      8.97 314 P      57 20.31    1.6
PPCY     9.07 101 eP     57 22.00    1.9
                  eS     58 55.80
ARV      9.08 317 P      57 19.79   -0.5
BRD      9.31  25 eP     57 20.00   -3.4X
CFR      9.44  30 eP     57 30.00    5.0X
VRI      9.52  23 ePc    57 27.00    0.7
VBY      9.55 333 iPnd   57 24.50   -2.1
ZAG      9.57 336 eP     57 25.50   -1.4
PTJ      9.65 336 iP     57 25.40   -2.7
CRE      9.72 314 P      57 30.63    1.5
```

```
RIY      9.76 329 eP     57 26.80   -2.6
CSS      9.83  99 eP     57 28.50   -2.0
                  eS     59 11.30
SFI      9.96 316 P      57 33.04    0.8
CEY     10.06 330 eP     57 32.00   -1.7
                  eS     59 20.50
PPE     10.12  25 eP     57 24.50   -9.9X
FIR     10.21 313 eP     57 34.50   -1.2
                  i(S)   00 36.00
LJU     10.28 332 eP     57 34.90   -1.7
                  eS     59 29.50
TRI     10.31 328 e(Pn)  57 35.10   -1.9
                  e(Sn)  59 36.00
KAS     10.39  62 eP     57 40.50    2.3
VOY     10.52 330 eP     57 37.20   -2.8
                  e      57 38.50
                  eS     59 32.80
BMR     10.59   7 ePd    57 45.00    4.1X
PII     10.61 311 P      57 43.50    2.3
BDI     10.76 313 P      57 45.36    2.0
SRO     10.88 349 iP     57 42.30   -2.6
HLW     10.98 129 eP     57 40.00   -6.2X
                  ePPP   57 55.00
                  eS     59 36.00
                  eSSS   00 10.00
RBL     10.98 330 P      57 43.70   -2.6
PGF     11.00 303 eP     57 46.20   -0.5
        1.2s    351.10nm          6.4mb X
SOP     11.11 342 eP     57 41.00   -7.0X
KIS     11.24  27 eP     57 53.00    3.3X
      Z  11s      4.80um          5.1Msz
      E  12s      4.50um
FVI     11.43 328 P      57 51.20   -1.0
UZH     11.46   3 eP     57 53.00    0.3
        1.2s     80.00nm          5.7mb
      Z  12s     11.70um          5.8MszX
      N  12s      9.00um
      E  12s      2.30um
ZST     11.47 345 eP     57 49.30   -3.6X
                  i      58 09.10
                  i      59 11.60
CTI     11.52 323 P      57 51.63   -2.0
KBA     11.59 331 iPd    57 53.10   -1.6
        1.0s     43.50nm          5.6mb
                  i      58 02.60
                  i      58 20.20
                  i      59 18.80
                  iS     00 01.10
                  i      00 11.50
                  i      09 43.40
VKA     11.71 343 eP     57 56.00   -0.1
      Z  11s     16.70um          4.6Msz
                  LR     03 20.00
SAL     11.78 319 P      57 56.72   -0.2
SPC     12.04 356 eP     57 58.70   -2.0
KMR     12.14 336 iP+    58 00.60   -1.3
SCE     12.24 327 eP     58 02.50   -0.8
PCP     12.25 311 P      58 08.06    4.6X
FIN     12.29 309 P      58 03.51   -0.4
MDI     12.32 318 P      58 03.51   -0.7
IMI     12.34 307 P      58 03.88   -0.7
CKI     12.35 310 P      58 05.42    0.7
WTTA    12.44 327 iPc    58 05.50   -0.5
        0.9s     46.40nm          5.6mb
                  iS     00 24.50
WATA    12.52 327 iPc    58 05.70   -1.4
        0.8s     79.40nm          5.8mb
                  i      59 23.80
                  iS     00 23.40
                  i      00 34.50
GAZ     12.53  85 eP     58 08.00    0.9
ROB     12.54 309 P      58 06.73   -0.5
JVI     12.55 111 eP     58 01.90   -5.6X
SOTA    12.60 326 iPc    58 08.50    0.5
        1.2s     86.50nm          5.7mb
                  i      58 12.30
                  i      59 28.10
                  iS     00 23.20
                  i      00 41.00
SBF     12.61 306 eP     58 07.20   -1.0
        1.2s    177.30nm          6.0mb
OSS     12.71 322 ePd    58 10.20    0.6
MOTA    12.74 326 iPc    58 08.90   -1.0
        0.7s     36.20nm          5.5mb
                  iS     00 27.10
LVV     12.76   7 eP     58 20.00    9.9X
      Z  17s     11.00um
```

05d 06h

```
     N  14s      15.40um
     E  16s       5.70um
SALJ    12.77 110 P       58 06.20  -4.1X
ENR     12.79 308 P       58 11.62   1.0
KFNJ    12.83 110 P       58 08.46  -2.6
STV     12.86 308 P       58 10.40  -1.1
VAI     12.89 316 P       58 10.85  -0.9
MKT     12.90 115 eP      58 06.30  -5.8X
                  eS      00 20.30
MASJ    12.92 111 P       58 07.10  -5.3X
MKRJ    12.95 112 P       58 09.84  -2.9X
GEC2    12.97 336 Pn      58 10.00  -3.0X
                  Sn      00 36.20
TMA     12.98 317 ePd     58 11.80  -1.4
LISJ    12.99 113 P       58 07.71  -5.4X
FRF     12.99 304 eP      58 11.70  -1.5
        0.9s     25.20nm          5.2mb
LMR     12.99 303 eP      58 13.10  -0.1
        1.3s     59.95nm          5.5mb
DOI     13.03 309 P       58 15.17   1.4
OJC     13.09 355 eP      58 15.90   1.4
PZZ     13.12 308 P       58 13.97  -1.1
LRG     13.14 303 eP      58 13.90  -1.2
        1.3s     98.20nm          5.6mb
     Z  18s       1.45um          5.8Msz
DHLJ    13.15 115 P       58 13.50  -1.8
ORO     13.19 314 P       58 15.64  -0.2
BHB     13.19 310 P       58 14.17  -1.6
ORX     13.19 314 P       58 14.07  -1.9
KHC     13.26 337 P       58 15.50  -1.3
        1.0s     42.50nm          5.3mb
     Z  14s      19.20um
     N  12s      10.00um
     E  16s      11.80um
                  i       58 28.50
                  e       58 43.50
                  e       59 12.00
                  e       00 50.50
                  e       02 42.00
SURF    13.29 308 P       58 18.39   1.0
FUR     13.30 329 eP      58 15.90  -1.3
     Z  12s       8.00um
                  i       58 28.00
RSP     13.35 311 P       58 21.40   3.3X
MBH     13.38 120 eP      58 12.50  -5.9X
LLS     13.41 320 ePd     58 19.30   0.5
MMK     13.45 315 ePd     58 18.10  -1.3
WET     13.50 335 eP      58 16.80  -3.1X
     Z  16s      16.00um
AQBJ    13.52 119 P       58 15.60  -4.6X
RRL     13.52 309 P       58 21.60   1.2
LSD     13.58 312 P       58 21.60   0.5
BNI     13.66 310 P       58 24.04   2.0
PRU     13.75 341 eP      58 22.80  -0.4
        1.3s     36.60nm          5.0mb
     Z  13s      14.50um
     N  11s      12.20um
     E  15s       4.30um
                  i       58 32.70
                  S       02 20.00
DIX     13.78 315 ePd     58 24.40   0.6
LPG     13.84 312 eP      58 24.50  -0.1
        0.7s     19.30nm          5.0mb
LPL     13.86 312 eP      58 24.50  -0.3
        1.0s     30.40nm          5.0mb
HSHJ    13.95 120 P       58 21.10  -4.9X
RSL     14.01 312 P       58 26.89   0.1
EMS     14.04 314 ePd     58 27.80   0.6
ZLA     14.13 321 ePd     58 29.00   0.9
KSP     14.16 346 eP      58 27.50  -1.0
        0.8s     78.00nm          5.4mb
                  id      58 38.00
ANN     14.18  52 eP      58 34.50   5.8X
        1.5s     80.00nm          5.1mb
SLE     14.27 322 ePd     58 30.50   0.6
GRF     14.55 333 eP      58 29.30  -4.3X
     Z  18s       9.00um
                  id      58 41.00
                  e(S)    01 37.30
BBS     14.57 319 P       58 34.18   0.3
FEL     14.58 321 P       58 33.41  -0.7
BRG     14.72 341 iPc     58 35.50  -0.3
        1.3s     56.00nm          4.8mb
                  i       58 40.80
HOF     14.84 335 iPc     58 38.00   0.6
LOMF    14.85 318 P       58 38.41   0.7
LIBD    14.97 321 P       58 38.41  -0.6
MOF     15.01 320 P       58 39.11  -0.6
SSB     15.09 308 P       58 38.81  -2.0
BSF     15.17 319 eP      58 41.40  -0.4
        1.4s    264.90nm          5.3mb
MOX     15.21 335 eP      58 40.70  -1.5
        1.6s     31.00nm          4.3mb
     Z  19s      11.00um
                  eS      02 00.00
ECH     15.23 321 P       58 42.00  -0.5
WLS     15.27 322 P       58 42.26  -0.7
CDF     15.30 322 P       58 42.68  -0.8
CLL     15.37 340 iPc     58 44.90   0.7
        1.8s     77.00nm          4.6mb
                  i       58 50.20
HAU     15.52 319 eP      58 45.80  -0.4
        1.0s    177.60nm          5.2mb
     Z  18s       1.42um
COLF    15.73 308 P       58 46.93  -2.1
VITF    15.84 319 P       58 49.32  -1.0
TNS     16.07 328 ePnc    58 54.60   1.4
                  i       59 00.50
SMF     16.17 311 eP      58 52.60  -1.9
        1.0s     30.40nm          4.4mb
LBF     16.26 313 eP      58 53.90  -1.8
        1.2s     78.55nm          4.7mb
BRNL    16.29 342 eP      58 57.40   1.5
                  ic      59 00.00
BRN     16.32 342 eP      58 59.00   2.7
LOR     16.47 313 eP      58 56.50  -1.9
        1.0s     59.60nm          4.7mb
     Z  17s       2.65um
AVF     16.53 311 eP      58 57.10  -2.0
        1.1s     31.00nm          4.3mb
CAF     16.56 304 eP      58 59.70   0.2
        1.3s     57.05nm          4.5mb
SSF     16.57 312 eP      58 57.70  -1.9
        0.9s     68.45nm          4.8mb
WLF     16.70 323 iPc     59 05.02   3.9X
BGF     16.73 310 eP      58 59.90  -1.7
        1.2s     89.55nm          4.8mb
EBR     16.73 289 (P)     59 11.00   9.4X
MAF     16.75 309 eP      59 01.30  -0.6
        1.1s     54.45nm          4.6mb
TCF     17.00 308 eP      59 04.50  -0.5
        1.6s    176.60nm          4.9mb
RJF     17.06 305 eP      59 04.50  -1.2
        1.3s     77.25nm          4.7mb
     Z  22s       0.85um
LPO     17.06 302 eP      59 05.90   0.1
        1.2s     42.25nm          4.4mb
BNS     17.16 328 ePc     59 10.80   3.9X
HYF     17.19 312 eP      59 08.10   0.7
EPF     17.20 296 eP      59 08.30   0.8
        0.9s     20.45nm          4.3mb
MNK     17.24  12 eP      59 10.00   2.1
     Z  18s       6.10um
                  eS      02 32.00
LSF     17.41 308 eP      59 10.10  -0.1
        1.1s     94.25nm          4.8mb
KIV     17.44  61 iPd     59 12.70   2.1
        1.0s     74.00nm          4.8mb
                  ePPP    02 34.60
LFF     17.44 303 eP      59 10.50   0.0
        0.9s     26.35nm          4.4mb
ENN     17.56 326 eP      59 14.50   2.6
        0.9s     88.10nm          4.9mb
                  e       59 25.00
PYA     17.71  61 eP      59 15.00   1.1
        1.3s    150.00nm          5.0mb
     Z  14s       1.50um
                  iS      02 30.00
DOU     17.74 322 Pc+     59 16.30   2.2
        1.1s    398.40nm          5.5mb
                  S       02 42.00
ECHE    17.78 285 iPd     59 16.60   1.8
WTS     18.08 330 eP      59 21.50   3.2X
        0.7s     84.90nm          5.0mb
SNF     18.16 323 iPc     59 21.78   2.5
ERE     18.19  73 iP+     59 20.00   0.1
        1.4s     14.00nm          3.9mb X
     Z  12s       3.00um
                  e       02 38.00
UCC     18.31 323 P+      59 24.00   2.9X
MTA     18.53  69 iPc     59 24.00   0.0
        1.0s     50.00nm          4.7mb
     N  11s       1.00um
     E  11s       1.00um
MFF     18.62 307 eP      59 23.90  -1.1
        1.5s    242.35nm          5.2mb
ETOR    18.66 288 iPd     59 25.96   0.4
WIT     18.77 331 eP      59 30.00   3.3X
DBN     18.84 328 eP      59 29.00   1.4
     Z  18s       4.00um
                  eS      04 15.00
ENIJ    18.92 277 iPc     59 27.93  -0.8
EVIA    18.99 282 iPd     59 29.55  -0.2
EHUE    19.12 279 iPd     59 31.53   0.3
ECRI    19.18 294 eP      59 30.30  -1.6
GRO     19.42  64 eP      59 34.50   0.0
     Z  14s       4.00um
     N  14s       6.00um
     E  14s       4.00um
LDF     19.45 313 eP      59 33.30  -1.5
        0.9s     73.05nm          5.0mb
COP     19.51 344 iPc     59 35.60   0.3
        0.8s    128.36nm          5.3mb
                  eS      03 24.00
GRS     19.60  76 iPd     59 34.60  -2.1
        1.3s    100.00nm          4.9mb
     N  11s       1.18um
     E  11s       2.28um
                  eS      03 14.00
TAB     19.67  80 eP      59 41.00   3.6X
FLN     19.74 313 eP      59 36.10  -1.8
        0.8s     49.30nm          4.9mb
     Z  17s       1.30um
LPF     19.75 310 eP      59 35.70  -2.3
        0.9s     41.10nm          4.7mb
GRR     19.80 312 eP      59 36.60  -1.8
ECOG    19.95 278 iPc     59 41.43   1.1
EGUA    20.01 277 iPc     59 40.53  -0.3
GUD     20.24 288 iPc     59 42.71  -0.6
PAB     20.39 285 iPd     59 54.50   9.6X
        1.2s     54.69nm          4.8mb
                  eS      03 32.00
OBN     20.67  25 iPd     59 45.00  -2.5
        1.0s    380.00nm          5.7mb
                  eS      03 34.00
                  e       03 45.00
MAL     20.70 277 iPd     59 49.00   1.1
                  eS      03 53.00
KER     20.95  90 eP      59 48.00  -2.7
MUD     20.99 341 iPc     59 50.80   0.1
        0.7s     37.00nm          4.9mb
EHOR    21.21 280 eP      59 54.92   1.7
EPRU    21.31 278 eP      59 56.07   1.8
SHE     21.36  72 iPd     59 53.50  -1.1
        1.2s    110.00nm          5.1mb
     Z  14s       6.50um          5.2MszX
     N  14s       6.00um
     E  14s       4.00um
                  iS      03 48.00
LIJA    21.47 277 eP      00 00.00   4.1X
MOS     21.53  25 eP      59 55.00  -1.2
        1.0s    680.00nm          6.0mb
                  e       00 04.00
                  e       00 08.00
                  e       00 36.00
EJIF    21.59 276 iPc     59 57.79   0.8
ALJ     21.66 277 eP      00 01.00   3.2X
PLAT    21.88 275 eP      00 02.00   2.1
IFR     22.00 268 iP      00 02.00   0.7
                  i       00 05.00
CNIL    22.06 276 eP      00 02.00   0.3
TSY     22.20 274 iP      00 04.50   1.5
ERUA    22.57 292 iPd     00 07.69   1.1
UPP     22.83 355 iP      00 08.30  -0.7
        1.0s    100.00nm          5.2mb
                  iS      04 15.80
PUL     23.31  11 ePd     00 14.00   0.4
                  e       00 20.00
                  e       00 30.00
                  eS      04 22.00
                  e       04 38.00
NUR     23.44   4 iP      00 14.00  -0.9
        0.5s     95.50nm          5.6mb
HFS     23.51 350 eP      00 15.00  -0.7
        0.6s     98.60nm          5.5mb
     Z  16s       3.50um          4.9MszX
                  LR      09 10.00
KONO    23.76 345 eP      00 20.20   2.1
AVE     23.89 269 eP      00 10.00  -9.6X
                  i       00 30.50
TIO     24.58 264 iP      00 29.50   3.0X
```

EKA 24.69 325 P 00 28.00 0.9
1.6s 356.40nm 5.7mb
ESK 24.70 325 eP 00 29.40 2.2
0.6s 56.00nm 5.3mb
NB2 24.75 348 P 00 27.30 -0.4
0.7s 51.20nm 5.2mb
ESY 24.81 327 eP 00 25.90 -2.4
1.0s 20.00nm 4.6mb
EBL 24.91 326 eP 00 29.60 0.4
0.9s 49.00nm 5.1mb
KAF 25.14 5 iP 00 31.00 -0.3
0.6s 95.60nm 5.5mb
DLF 25.25 319 eP 00 33.80 1.4
1.4s 214.00nm 5.5mb
EDU 25.38 328 eP 00 33.40 -0.2
EBH 25.41 327 eP 00 35.10 1.2
ELO 25.64 327 eP 00 33.40 -2.6
DCN 25.67 318 eP 00 37.70 1.3
0.9s 106.00nm 5.4mb
DMU 25.74 320 eP 00 37.40 0.4
EAB 25.74 326 eP 00 36.50 -0.5
0.9s 85.00nm 5.3mb
ABHA 26.52 130 eP 00 45.00 0.2
VAL 26.75 314 eP 00 52.20 6.0X
KSB 26.83 327 eP 00 47.10 0.1
KAT 27.30 75 eP 00 57.00 5.6X
e 05 29.00
ANTZ 27.65 261 eP 00 55.00 0.3
ASH 29.10 77 eP 01 07.00 -0.7
MAIO 30.33 80 eP 01 17.00 -1.8
eS 06 24.00
SDF 30.42 4 iP 01 18.40 -0.7
APA 31.15 9 iPd 01 25.00 -0.6
ARU 31.31 40 eP 01 25.00 -2.1
1.4s 180.00nm 5.7mb
Z 16s 2.00um 4.9MszX
E 14s 1.50um
e 01 30.00
e 01 40.00
e 02 48.00
e 06 39.00
AAE 32.09 147 eP 01 36.50 1.8
SVE 32.51 40 ePc 01 36.00 -1.6
1.1s 200.00nm 5.9mb
Z 12s 2.00um 5.0MszX
N 12s 1.00um
E 12s 1.50um
e 02 47.00
e 03 07.00
TRO 32.54 358 eP 01 37.00 -0.7
BCAO 32.70 185 iPc 01 38.00 -1.6
0.7s 63.00nm 5.6mb
id 01 43.10
ic 02 08.10
KEV 32.77 4 iP 01 39.40 -0.3
1.0s 46.00nm 5.3mb
Z 20s 3.60um 5.1Msz
LR 15 50.00
QUE 38.16 87 eP 02 24.90 -1.4
eS 08 07.10
TIC 38.82 225 P 02 30.46 -1.3
0.8s 23.00nm 5.0mb
KDS 38.85 240 eP 02 33.00 1.1
KIC 38.90 224 P 02 31.54 -0.8
0.9s 32.50nm 5.1mb
LIC 39.17 225 P 02 33.94 -0.7
0.8s 51.50nm 5.4mb
Z 20s 0.43um 4.3Msz
FRU 40.51 65 iPd 02 45.00 -0.5
2.0s 140.00nm 5.4mb
e 02 50.30
NAI 40.81 156 iPd 02 55.50 7.2X
KBS 42.04 357 eP 03 01.60 4.2X
KSH 42.26 70 P 02 59.30 -0.6
0.7s 60.00nm 5.4mb
ELT 46.72 48 iP 03 33.00 -2.3
1.4s 141.00nm 5.7mb
Z 13s 2.00um 5.3MszX
eS 10 16.00
NDI 46.95 83 eP 03 36.00 -1.5
0.7s 89.04nm 5.8mb
NRI 47.54 26 iPc 03 42.50 0.9
1.2s 52.00nm 5.4mb
e 05 31.00
ePPP 06 30.00
eS 10 38.00
POO 49.23 97 iPd 03 50.50 -4.9X

WMQ 49.57 60 eP 03 56.00 -1.8
1.2s 43.00nm 5.4mb
Z 16s 2.95um 5.4MszX
N 10s 1.45um
E 10s 0.72um
sP 04 06.00
ScP 09 13.00
GDH 50.53 334 iPc 04 03.60 -1.0
0.6s 120.00nm 6.1mb
e 19 20.00
MTD 54.50 168 eP 04 39.40 4.5X
GBA 54.85 100 P 04 36.00 -1.5
BUL 57.40 172 eP 04 55.10 -0.7
CIR 58.65 169 eP 05 07.30 2.9X
WIN 59.57 185 eP 05 10.00 -0.9
1.0s 25.00nm 5.3mb
TIK 60.32 20 iPd 05 14.00 -1.4
Z 14s 2.50um 5.5MszX
e 07 32.00
BOD 60.76 38 eP 05 15.40 -3.1X
1.0s 34.00nm 5.4mb
LMN 62.21 308 eP 05 34.00 5.5X
SLR 62.90 173 eP 05 40.00 6.7X
Z 18s 3.09um 5.5Msz
KSR 62.91 175 eP 05 37.00 3.6X
0.6s 14.00nm 5.3mb
BFT 63.04 171 eP 05 40.50 6.2X
1.0s 40.00nm 5.5mb
CBM 63.78 310 P 05 50.00 11.2X
Z 18s 0.41um 4.6Msz
PRY 64.01 174 eP 05 38.00 -2.6
1.0s 50.00nm 5.5mb
Z 18s 6.10um 5.8Msz
JAQ 64.86 319 eP 05 47.00 1.2
BLF 66.08 176 eP 05 56.00 2.1
CD2 66.42 68 eP 05 54.50 -1.6
FRS 66.67 176 eP 05 57.20 -0.2
0.7s 11.00nm 5.0mb
HHC 66.96 56 eP 05 58.00 -1.5
1.2s 30.00nm 5.2mb
HRV 68.07 307 P 06 20.00 13.7X
Z 18s 0.45um 4.7Msz
RSNY 68.86 310 P 06 20.00 8.8X
Z 18s 0.67um 4.9Msz
TUH 70.15 182 e(P) 06 23.00 4.1X
CER 70.21 182 eP 06 22.00 2.6
1.0s 80.00nm 5.7mb
GRM 70.29 175 eP 06 10.50 -9.4X
EEO 70.42 314 eP 06 27.00 6.3X
FCC 70.50 330 eP 06 26.50 5.6X
CN2 74.00 47 eP 06 40.80 -1.1
1.2s 56.00nm 5.4mb
SNY 74.04 49 eP 06 37.20 -5.0X
SOB1 74.36 245 eP 06 44.70 0.3
MGD 74.50 24 eP 06 44.50 0.0
0.8s 50.00nm 5.5mb
CEH 76.59 305 P 07 10.00 13.2X
Z 19s 0.93um 5.1Msz
ULM 76.97 324 eP 07 02.50 3.8X
IMA 77.02 358 ePc 06 59.54 0.7
0.8s 12.75nm 5.0mb
FBA 77.91 355 ePc 07 04.87 1.3
0.7s 5.42nm 4.7mb
LHS 78.56 305 ePd 07 09.22 1.5
PRM 79.82 305 ePd 07 16.96 2.4
TTA 80.21 359 ePc 07 17.19 1.0
1.0s 12.65nm 4.8mb
YSS 81.05 36 iPc+ 07 20.30 -0.5
1.0s 110.00nm 5.8mb
KLU 81.14 354 eP 07 21.76 0.6
BALM 81.25 352 eP 07 22.89 1.1
PMR 81.28 355 P 07 30.00 8.3X
Z 20s 0.50um 4.9Msz
PMS 81.65 356 eP 07 25.40 1.6
0.7s 37.00nm 5.5mb
CRP 81.77 357 eP 07 24.87 0.4
CP2 81.77 357 ePd 07 25.03 0.4
SVW 82.03 359 eP 07 27.24 1.5
0.7s 31.50nm 5.5mb
RSO 82.60 357 (P) 07 30.35 1.5
ASAJ 83.11 38 eP 07 31.30 -0.3
SES 83.30 332 eP 07 34.00 1.5
BAO 83.78 245 eP 07 37.00 1.5
e 07 42.40
e 08 30.30
e 08 36.40
e 08 49.00

HOOJ 84.70 39 eP 07 39.30 -0.3
KUSJ 84.88 38 eP 07 39.80 -0.7
RSSD 85.24 324 eP 07 44.09 1.5
1.2s 17.84nm 5.1mb
Z 18s 0.68um 5.1Msz
TKSJ 85.39 50 eP 07 43.40 0.1
TSRJ 85.51 48 eP 07 40.70 -3.1X
MTMJ 85.86 46 eP 07 45.90 0.2
NIIJ 86.09 45 eP 07 45.20 -1.5
MAT 86.12 46 eP 07 46.00 -0.9
1.4s 62.79nm 5.7mb
MIAR 86.55 311 eP 07 50.93 1.9
1.1s 25.38nm 5.4mb
Z 18s 0.52um 5.0Msz
NEW 87.30 334 eP 07 53.45 1.0
0.9s 89.46nm 6.0mb
SDN 87.83 1 eP 07 55.70 1.0
0.5s 104.30nm 6.4mb X
DPW 88.01 334 ePc 07 57.20 1.3
BW06 88.80 326 eP 07 59.07 -1.0
1.2s 21.66nm 5.3mb
GLD 89.14 322 eP 08 03.54 1.9
1.5s 38.17nm 5.5mb
GOL 89.25 322 P 08 10.00 7.7X
Z 20s 0.66um 5.1Msz
MEO 89.31 315 iPd 08 04.20 1.9
WMOK 89.45 315 eP 08 03.85 0.9
1.0s 19.67nm 5.4mb
Z 18s 0.79um 5.2Msz
HHAI 89.61 328 eP 08 05.70 2.0
LEM 90.99 98 ePc 08 11.60 1.2
HVU 91.01 328 eP 08 11.63 1.4
PV08 91.72 323 eP 08 14.02 0.2
PV09 92.01 323 eP 08 15.96 0.8
PV10 92.07 323 eP 08 16.52 1.2
DUG 92.33 327 eP 08 17.22 0.9
1.1s 12.68nm 5.3mb
ALQ 93.47 320 P 08 30.00 8.2X
Z 18s 0.45um 5.0Msz
SIV 93.76 253 iP 08 17.10 -5.8X
ORV 96.40 332 eP 08 35.30 0.4
BONR 96.53 329 eP 08 37.51 1.7
CMB 97.30 331 P 08 50.00 11.0X
Z 20s 0.66um 5.1Msz
WRA 119.71 93 PKP 13 56.00 -0.5
0.5s 1.20nm
WB2 119.72 93 ePKP 13 54.80 -1.7
0.5s 7.80nm
ASPA 121.28 97 ePKP 13 55.80 -3.6X
0.5s 5.70nm
DZM 146.23 73 iPKPd 14 47.60 1.8
S.D. = 1.3 on 328 of 401 obs.

MAR 05, 1993 06h 57m 02.29± 0.75s
22.229 N ± 4.0km 121.058 E ± 5.8km
DEPTH = 10.5 ± 4.6 km
5.2mb (40 obs.) 5.0Msz (8 obs.)
TAIWAN REGION (243)

BBP 1.97 154 ePd 57 34.20 -1.8
eS 57 42.00
QZH 3.52 321 iPc 57 57.50 -0.6
Z 15s 25.70um
N 14s 18.20um
E 14s 15.50um
S 58 40.00
PIP 3.91 186 iPd 58 25.00 21.4X
CVP 4.56 171 ePc 58 13.00 0.2
eS 58 55.00
SZP 4.69 187 iPd 58 18.00 3.3X
BCP 5.80 184 eP 58 33.00 2.5
BAG 5.81 185 eP+ 58 26.00 -4.6X
HKC 6.38 272 eP 58 37.30 -1.3
MCO 6.95 271 eP 58 40.60 -6.0X
GZH 7.18 278 Pd 58 48.20 -1.6
0.8s 91.00nm 6.0mb
Z 12s 19.90um 4.6Msz
N 15s 7.37um
E 11s 14.90um
S 00 04.20
QCP 7.55 180 eP 58 45.00 -10.0X
NJ2 9.98 349 Pd 59 26.00 -2.6
0.6s 36.00nm 6.0mb
Z 16s 16.30um 7.4MszX
E 10s 20.40um
WHN 10.23 325 Pd 59 29.50 -2.6
0.6s 47.00nm 6.1mb

05d 06h

```
      Z  12s     16.80um
      N  10s      7.66um
      E  10s      6.94um
                  pP      59 38.60
                  S       01 21.00
QIZ     10.97 255 eP      59 42.00  -0.4
      E  13s      8.51um
                  S       01 39.80
PLP     11.62 161 ePd     59 54.20   3.0X
GYA     13.78 291 iPd     00 19.60  -0.5
        1.0s     25.00nm            5.0mb
      Z  16s      8.24um            4.1Msz
      N  12s      3.81um
      E  12s      4.36um
                  PP      00 30.80
CGP     14.14 165 eP      00 27.00   2.3
TIA     14.35 347 eP      00 29.50   2.1
        1.2s     49.00nm            5.1mb
      Z  14s     20.80um            9.0MszX
      N  11s      8.68um
      E  12s      3.58um
DAV     15.67 163 eP      00 44.00  -0.8
DL2     16.63   2 eP      01 00.00   3.1X
      Z  12s      6.29um
      N  12s      7.99um
                  eS      04 00.00
KKM     16.76 197 ePc     01 00.00   1.2
        1.5s    454.00nm            5.4mb
KMI     17.03 283 Pd      01 03.00   0.7
        2.0s    110.00nm            4.6mb
      Z  14s     10.20um            4.8Msz
      N  12s      3.90um
      E  12s      5.60um
                  sP      01 15.00
TIY     17.13 336 Pc      01 05.00   1.7
      Z  14s     23.00um
      N  12s     11.90um
      E  13s      7.74um
                  sP      01 12.00
CD2     17.71 303 eP      01 10.20  -0.4
        1.8s    370.00nm            5.2mb
      Z  14s     12.60um            4.8Msz
                  pP      01 14.00
                  PP      01 28.00
                  S       04 28.00
                  sS      04 39.00
BJI     18.23 348 ePc     01 17.50   0.5
        1.2s     59.00nm            4.6mb
      Z  14s      8.53um
      N  12s      6.40um
                  eS      04 42.00
SNY     19.66   6 Pc      01 32.00  -2.2
      Z  14s      5.77um
      E  12s      4.09um
                  S       05 12.00
HHC     20.23 339 iPc     01 41.20   0.9
        1.0s    140.00nm            5.3mb
      Z  16s     11.10um            5.3MszX
      N  12s      5.89um
      E  14s      3.03um
                  pP      01 51.00  39kmX
                  PP      02 05.00
LZH     20.37 316 iPc     01 42.50   0.6
        1.5s    220.00nm            5.3mb
      Z  16s      6.70um            5.1MszX
      E  11s      3.19um
                  pP      01 51.00  32kmX
                  sP      01 55.50
                  PP      02 05.00
                  eS      05 25.00
                  sS      05 39.00
                  SS      05 58.00
BTO     20.56 335 iPd     01 44.00   0.2
        1.2s     70.00nm            4.9mb
      N  13s      5.40um
      E  14s      7.52um
                  PP      02 04.00
                  S       05 27.00
MAT     20.61  42 eP      01 46.00   1.8
        1.1s     21.52nm            4.4mb
      Z  20s      1.42um            4.3Msz
                  eS      05 32.00
CHTO    20.98 265 ePc     01 48.80   0.6
        1.0s     30.25nm            4.6mb
BDT     21.34 260 eP      01 52.00   0.3
        1.0s     20.70nm            4.5mb
CN2     21.82   9 eP      01 57.00   0.6
```

```
        0.6s      4.70nm            4.1mb X
      Z  16s      5.59um            5.1MszX
      N  14s      3.52um
      E  14s      2.30um
                  epP     02 01.00  14kmX
                  eS      05 50.00
KHT     22.54 255 eP      02 03.20  -0.5
MDJ     23.41  15 eP      02 13.10   1.0
      Z  16s      4.60um            5.0MszX
      N  11s      0.95um
      E  11s      2.10um
OFUJ    24.33  42 eP      02 21.00  -0.1
GTA     24.92 318 P       02 27.50   0.5
        1.0s     85.00nm            5.4mb
      Z  16s      6.29um            5.2MszX
      E  10s      1.10um
                  sP      02 40.00
                  S       06 48.00
                  sS      07 00.00
LSA     27.84 292 P       02 42.60 -11.9X
        1.2s     12.00nm
      Z  18s      3.37um            5.0Msz
      N  11s      1.48um
LEM     31.74 206 ePc     03 30.70   1.8
MEEK    48.63 183 eP      05 46.00  -2.3
MAIO    54.68 299 eP      06 35.00   1.0
BWA     62.06 155 eP      07 24.20  -1.2
CAN     63.07 155 eP      07 30.10  -1.9
CNB     63.21 154 eP      07 31.40  -1.6
TOO     63.77 159 iPc     07 35.30  -1.3
        0.6s     11.00nm            5.2mb
KEV     70.74 338 eP      08 15.00  -5.1X
SDF     71.47 336 iP      08 24.20  -0.4
KAF     72.79 331 eP      08 31.50  -0.9
        1.2s     35.20nm            5.3mb
NUR     74.00 329 eP      08 33.30  -6.2X
HFS     79.21 331 eP      09 07.40  -1.3
        0.7s      5.10nm            4.7mb
      Z  20s      1.12um            5.2Msz
                  LR      41 41.00
NB2     79.89 332 P       09 10.10  -2.4
        0.9s      4.80nm            4.5mb
OJC     80.09 320 iP      09 14.40   0.7
RES     80.60   9 eP      09 16.00   0.0
        1.0s      4.00nm            4.4mb
KSP     81.88 322 ePc     09 23.80   0.7
SKO     82.23 312 iP      09 25.70   0.6
BRG     83.21 322 eP      09 29.80  -0.2
        1.5s     25.00nm            5.2mb
                  i       09 34.20
PRU     83.27 321 eP      09 31.80   1.5
CLL     83.54 323 iP      09 31.30  -0.3
        1.6s     27.00nm            5.2mb
KHC     84.21 321 eP      09 30.00  -5.2X
        1.0s      7.00nm            4.8mb
                  e       09 35.50
GEC2    84.27 321 P       09 36.10   0.5
        0.8s      3.99nm            4.7mb
                  e       09 38.40
MOX     84.62 323 eP      09 38.00   0.8
        1.5s     26.00nm            5.2mb
      Z  18s      1.30um            5.4Msz
VBY     84.84 317 eP      09 34.30  -4.0X
GRF     85.31 322 eP      09 41.70   1.1
      Z  18s      0.80um            5.2Msz
                  e       09 44.40
WLF     88.15 324 P       09 55.00   0.6
CDF     88.19 322 eP      09 54.60  -0.2
        0.9s      8.50nm            5.1mb
DOU     88.75 325 P       09 58.20   0.9
BSF     88.78 322 eP      09 57.00  -0.7
HAU     88.93 322 eP      09 57.80  -0.5
        0.8s      7.00nm            5.0mb
      Z  19s      0.63um            5.1Msz
LPG     90.05 320 eP      10 04.10   0.1
        0.7s     10.05nm            5.2mb
LPL     90.05 320 eP      10 04.00   0.1
        0.8s     10.05nm            5.1mb
PGF     90.21 317 eP      10 04.90   0.4
        0.9s     27.20nm            5.5mb
SBF     90.51 318 eP      10 05.60  -0.2
        0.7s     18.30nm            5.5mb
LOR     90.75 323 eP      10 06.30  -0.5
        0.9s     12.30nm            5.2mb
      Z  21s      0.57um            5.0Msz
LBF     90.84 322 eP      10 06.90  -0.4
        1.1s     30.50nm            5.5mb
```

```
SSF     91.06 323 eP      10 08.00  -0.2
        1.0s     16.60nm            5.3mb
SMF     91.11 322 eP      10 08.30  -0.2
        1.0s     21.80nm            5.4mb
AVF     91.30 323 eP      10 09.10  -0.2
        1.0s     18.80nm            5.4mb
HYF     91.43 323 eP      10 10.40   0.5
MAF     92.07 322 eP      10 13.20   0.3
        1.1s     23.70nm            5.5mb
TCF     92.24 323 eP      10 13.90   0.2
        1.1s     18.30nm            5.4mb
RJF     93.21 322 eP      10 18.80   0.7
        1.1s     38.60nm            5.7mb
KIC    119.82 292 PKP     15 54.30  -0.9
TIC    119.92 292 PKP     15 54.60  -0.8
LIC    120.14 292 PKP     15 54.70  -1.1
      Z  22s      0.22um            4.8Msz
SDV    147.02  22 ePKPd   16 45.20  -0.6
      S.D. = 1.2  on  73 of  85 obs.
```

```
? MAR 05, 1993 07h 11m 14.42± 3.55s
  37.649 S ±37.7km  175.528 E ±40.2km
  DEPTH = 306.8 ± 39.5 km
 NORTH ISLAND, NEW ZEALAND        (159)

URZ      1.39 117 P       11 57.60  -0.2
                  S       12 26.70
PAHZ     1.70 136 P       12 00.30   0.3
MOH      1.95 140 P       12 02.10   0.4
TTH      2.15 152 P       12 03.60   0.4
WAHZ     2.15 163 P       12 03.50   0.2
PUZ      2.20 102 P       12 03.50  -0.3
NOZ      2.20 117 eP      12 03.40  -0.3
HBZ      2.20  90 eP      12 03.90   0.2
MNG      2.97 181 P       12 10.50  -0.2
                  S       12 49.80
KIW      3.25 188 P       12 13.40  -0.1
CAW      3.47 186 P       12 15.40  -0.4
MRW      3.64 190 eP      12 16.80  -0.7
                  S       13 03.10
TCW      3.69 195 eP      12 18.20   0.2
KHZ      5.00 197 eP      12 33.30   0.6
                  eS      13 30.70
      S.D. = 0.4  on  14 of  14 obs.
```

```
? MAR 05, 1993 07h 48m 54.39± 3.00s
  53.440 N ±53.8km  162.981 W ±25.8km
  DEPTH =  33.0km  (normal)
  4.7mb (  3 obs.)
 SOUTH OF ALASKA                  ( 17)

KDC      7.34  50 (P)     50 42.44   0.5
                  S       52 31.85
ADK      8.48 265 (P)     50 57.21  -0.5
CP2      9.74  32 (P)     51 10.15  -5.3X
KLU     12.19  42 eP      51 47.11  -1.4
BALM    13.47  47 eP      52 05.63   0.1
FBA     13.83  28 (P)     52 09.94  -0.1
YKA     26.59  51 eP      54 37.40   6.4X
        0.5s      0.70nm            3.5mb X
KAF     64.56 355 eP      59 29.40  -0.4
        0.4s      2.90nm            4.7mb
NUR     66.24 356 eP      59 42.60   2.0
        0.4s      3.40nm            4.8mb
HFS     66.75   2 eP      59 43.70  -0.2
        0.4s      2.50nm            4.6mb
      S.D. = 1.2  on   8 of  10 obs.
```

```
  MAR 05, 1993 08h 14m 33.76± 0.53s
  28.803 N ± 6.4km  113.115 W ± 4.7km
  DEPTH =  10.0km  (geophysicist)
  4.9mb ( 15 obs.)
 BAJA CALIFORNIA, MEXICO          ( 48)
       Felt at Guerrero Negro.

TUC      4.03  29 ePn     15 35.64  -1.3
                  ePg     15 53.19
                  eS      16 46.42
PLM      5.56 326 ePn     15 56.41  -2.3
                  ePg     16 12.39
                  (S)     17 25.70
PEC      6.14 327 ePn     16 07.37   0.6
                  ePg     16 24.08
                  S       17 39.59
SSK      6.66 325 ePn     16 14.70   0.5
                  ePg     16 30.02
GSC      7.20 335 ePn     16 19.53  -2.1
```

```
ISA      8.21 328 (Pn)  16 35.10  -0.7
                  Sg    18 45.66
ALQ      8.34  41 ePn   16 36.61  -1.1
TPNV     8.54 343 ePn   16 39.84  -0.7
ARUT     8.96 358 (P)   16 44.90  -1.5
                  i     16 46.70
                  S     19 22.99
PHAM     9.33 321 eP    16 50.69  -0.6
PKEM     9.34 323 (P)   16 51.61   0.2
MTUM     9.67 333 ePn   16 56.69   0.5
                  eS    19 39.02
MSU      9.72   4 ePn   16 56.75  -0.1
                  eS    19 50.90
TNP      9.87 341 eP    16 59.77   0.9
                  S     19 54.63
MRCM     9.93 334 eP    17 01.45   1.7
                  eS    19 50.03
BONR    10.10 336 ePn   17 02.17   0.0
PV10    10.13  19 ePn   16 59.92  -2.7
PV09    10.22  18 eP    17 03.55  -0.3
                  S     19 56.39
PV08    10.43  20 ePn   17 05.71  -1.1
SRU     10.50  11 ePn   17 07.85   0.3
                  S     20 14.96
SAO     10.59 321 eP    17 10.20   1.6
     Z  18s      7.00um
                  eLQ   19 21.80
                  e     19 45.60
CMB     11.02 328 eP    17 15.49   0.9
     Z  18s      3.00um
                  eLQ   19 36.74
                  eSn   19 43.39
                  e     20 08.69
KVN     11.03 339 eP    17 15.90   1.2
                  S     20 31.35
ARN     11.06 323 eP    17 13.49  -1.6
                  S     20 24.54
MHC     11.11 322 eP    17 20.95   5.1X
     Z  18s      9.00um
                  eLQ   19 26.75
                  eSn   19 42.35
                  e     20 16.40
DUG     11.37   1 ePc   17 22.39   3.0X
        1.1s   117.65nm          6.1mb X
HMR     11.81 324 (P)   17 25.14   0.0
BKS     11.83 322 eP    17 35.69  10.3X
     Z  18s      9.00um
                  eLQ   20 12.69
                  eSn   20 22.59
                  e     20 46.24
CGX     12.63 134 (P)   17 43.00   6.6X
GLD     12.71  29 eP    17 40.15   2.6X
ORV     12.77 329 (P)   17 38.26   0.2
HVU     12.95   1 eP    17 41.85   1.2
WMOK    13.55  60 eP    17 48.22  -0.2
        1.4s   248.93nm          6.0mb X
WDC     14.06 329 eP    17 56.12   1.0
     Z  19s      6.00um
                  eLQ   21 10.37
ACO     14.14  53 iPc   17 57.70   1.5
MRX     14.14 127 (P)   18 09.00  12.7X
BW06    14.24  11 eP    17 57.72   0.0
        1.1s    29.70nm          4.9mb
LGPM    14.46 329 eP    18 02.64   2.1
HHAI    14.47   2 (P)   18 02.23   1.5
KMPM    14.69 325 (P)   18 04.09   0.6
FNO     14.79  60 iPd   18 05.70   0.9
OCO     14.84  59 iPc   18 07.50   2.2
CRX     15.41 124 (P)   18 22.00   8.8X
PCO     15.68  56 iPd   18 18.10   1.8
UNM     15.82 124 (P)   18 26.00   7.5X
MCMT    16.00   1 ePd   18 23.40   2.8
III     16.24 127 (P)   18 31.00   7.2X
PPM     16.40 123 (P)   18 33.00   6.9X
IIT     16.66 123 (P)   18 32.00   2.8
ACX     17.02 131 (P)   18 25.00  -8.5X
LCCM    17.03   3 eP    18 36.70   3.0X
IISM    17.38 121 (P)   18 43.50   5.6X
MIAR    17.58  66 (P)   18 40.59   0.2
        1.1s    64.30nm          4.7mb
VGB     17.75 342 eP    18 44.05   1.6
SHW     18.78 340 eP    18 54.75  -0.6
LON     19.17 342 eP    18 59.57  -0.3
DPW     19.44 350 eP    19 01.73  -1.6
OLY     19.49  64 ePc   19 02.50  -1.3
NEW     19.68 352 eP    19 04.84  -1.1
        0.9s    35.48nm          4.7mb
```

```
RMW     19.82 342 eP      19 06.05  -1.3
FVM     21.00  58 eP      19 18.92  -0.8
        1.4s   100.88nm            5.0mb
MCW     21.21 342 eP      19 21.61  -0.2
PGC     21.36 341 eP      19 22.00  -1.2
SES     21.62   4 ePd     19 25.50  -0.5
        1.4s   157.00nm            5.2mb
ELC     21.70  61 ePd     19 27.09   0.4
TPX     23.73 121 (P)     19 52.00   5.1X
ULM     25.09  27 eP      20 02.00   2.2
TKL     25.68  67 eP      20 06.00   0.5
PRM     26.70  71 eP      20 15.11   0.2
JSC     27.63  70 eP      20 23.29  -0.1
LHS     28.01  70 eP      20 26.86   0.0
NAV     28.28  64 eP      20 29.33   0.0
EEO     31.96  47 eP      21 05.50   3.6X
YKA     33.71 359 eP      21 14.80  -2.1
        1.0s     2.90nm            4.2mb
RSNY    34.35  52 (P)     21 23.28   0.6
JAO     36.92  37 eP      21 44.00  -0.4
BALM    37.67 337 (P)     21 49.72  -1.0
KLU     39.24 336 (P)     22 05.58   1.7
SLKM    40.28 333 (P)     22 13.45   1.0
PMR     40.50 334 ePd     22 14.80   0.7
        1.4s   104.67nm            5.3mb
CRP     41.49 333 eP      22 21.92  -0.6
FBA     42.15 339 eP      22 27.58   0.0
        1.4s    21.96nm            4.7mb
SVW     42.84 331 eP      22 33.50   0.1
TTA     43.92 333 eP      22 41.18  -0.9
        1.3s    28.42nm            4.9mb
IMA     44.80 338 eP      22 49.30   0.0
        1.4s    42.00nm            5.2mb
RES     46.87   7 eP      23 07.00   1.6
ADK     51.81 315 eP      23 43.63  -0.1
        1.0s    26.25nm            5.1mb
ZOBO    62.45 130 Pc      24 58.70  -1.7
LPB     62.64 130 P       25 00.20  -1.2
CNCB    62.92 130 P       25 03.10  -0.3
SIV     67.17 125 iPd     25 34.00   3.6X
SOB1    79.14 107 (P)     26 40.00  -0.6
NB2     79.76  24 P       26 42.40  -0.8
        0.9s     4.30nm            4.4mb
LDF     82.48  38 eP      26 56.70  -1.0
SSF     85.36  38 eP      27 10.60  -1.8
        1.1s    11.50nm            5.0mb
MAF     85.36  39 eP      27 08.60  -3.8X
LOR     85.42  38 eP      27 11.70  -1.0
        1.2s    14.90nm            5.1mb
LBF     85.66  38 eP      27 12.10  -1.8
        1.2s    13.10nm            5.0mb
CDF     86.47  35 eP      27 24.30   6.3X
MAT     86.69 310 eP      27 22.00   2.8
LPL     88.07  38 eP      27 18.60  -7.3X
LPG     88.09  38 eP      27 18.80  -7.3X
WB2    118.61 262 ePKP    33 21.90  -2.2X
        0.8s     1.50nm
WB2    118.61 262 iPKPd   33 32.80   8.7X
        0.7s     1.90nm
                  ePP     35 23.20
BCAO   123.01  63 iPKPc   33 30.40  -2.3X
        0.7s     6.00nm
CHTO   123.43 323 ePdiff30 13.90     8.7X
GBA    136.63 345 PKP     33 59.00   0.4
BUL    144.24  85 iPKPd   34 08.70  -3.6X
        1.0s     5.00nm
     S.D. = 1.3  on  83 of 108 obs.
```

MAR 05, 1993 08h 20m 55.37± 0.20s
28.710 N ± 3.3km 113.122 W ± 3.6km
DEPTH = 10.0km (geophysicist)
5.5mb (72 obs.) 5.8Msz (25 obs.)
BAJA CALIFORNIA, MEXICO (48)
Mw 5.7 (HRV). Felt at Guerrero Negro.

```
CENTROID, MOMENT TENSOR        (HRV)
Data Used: GDSN
L.P.B.: 26S, 53C
Centroid Location:
Origin Time          08:21: 0.7 0.3
Lat 29.25N 0.05 Lon 113.43W 0.04
Dep  15.0 BDY Half-duration   2.3
Moment Tensor;   Scale 10**17 Nm
  Mrr=-2.87 0.14  Mtt=-2.47 0.19
  Mff= 5.34 0.18  Mrt=-0.17 0.39
  Mrf=-0.37 0.55  Mtf=-0.03 0.15
 Principal Axes:
    T  Val=  5.35  Plg= 3  Azm= 90
    N       -2.40      20      181
    P       -2.95      70      353
 Best Double Couple:Mo=4.2*10**17
  NP1:Strike=160 Dip=46 Slip=-118
  NP2:        18     51      -64
```

```
TUC      4.12  29 ePn   22 03.25   3.5X
                  ePg   22 12.82
PLM      5.63 326 ePn   22 20.34  -1.0
                  ePg   22 35.88
PEC      6.21 327 ePn   22 29.66   0.3
                  ePg   22 47.55
SSK      6.73 326 ePn   22 38.27   1.4
                  ePg   22 54.12
                  eS    24 20.25
GSC      7.28 335 ePn   22 44.56   0.2
                  ePg   23 12.58
MZX      8.15 131 (P)   23 00.00   3.5X
ISA      8.28 328 ePn   22 59.43   1.0
                  eSg   25 08.39
TPNV     8.63 343 ePn   23 03.26  -0.1
ARUT     9.06 358 ePn   23 08.28  -1.0
                  eS    25 49.85
PHAM     9.40 321 eP    23 13.94   0.1
MTUM     9.75 334 (Pn)  23 18.31  -0.6
MSU      9.81   4 ePn   23 20.41   0.7
                  eS    26 16.24
TNP      9.95 341 eP    23 23.42   1.8
MRCM    10.01 335 eP    23 24.76   2.3
BONR    10.18 336 ePn   23 26.63   1.7
PV10    10.22  18 ePn   23 25.16  -0.3
PV09    10.31  18 ePn   23 26.80   0.1
PV08    10.52  20 ePn   23 29.69   0.1
SRU     10.60  11 ePn   23 31.05   0.6
SAO     10.65 321 eP    23 31.90   0.8
     Z  18s     33.00um
                  eLQ   25 49.50
CMB     11.10 329 eP    23 37.54   0.3
     Z  18s     28.00um
                  eLQ   25 54.54
                  e     26 32.99
KVN     11.11 339 eP    23 37.05  -0.4
ARN     11.13 323 eP    23 37.37  -0.3
COE     11.14 322 eP    23 37.39  -0.3
MHC     11.18 323 eP    23 44.70   6.3X
     Z  18s     40.00um
                  eLQ   26 00.50
                  e     26 52.00
DUG     11.46   1 ePc   23 45.48   3.3X
HMR     11.88 325 eP    23 48.73   1.0
BKS     11.90 323 eP    23 49.44   1.5
     Z  18s     42.00um
                  eLQ   26 17.79
                  eSn   26 24.19
                  e     27 21.54
AGX     11.92 122 (P)   23 58.00   9.8X
NTYM    12.50 323 eP    23 54.06  -2.0
CGX     12.57 133 (P)   24 04.50   7.3X
ORV     12.84 330 ePc   24 01.83   1.1
HVU     13.04   1 eP    24 04.72   1.2
LMEM    13.69 332 eP    24 17.76   5.8X
MRX     14.09 127 (P)   24 30.50  13.3X
WDC     14.14 329 eP    24 19.32   1.5
        1.2s    95.14nm          5.4mb
LGPM    14.54 329 eP    24 24.55   1.4
HHAI    14.57   2 eP    24 27.68   4.2X
KMPM    14.77 325 eP    24 27.65   1.6
                  e     24 36.70
FHC     14.99 326 eP    24 30.11   1.2
        1.1s   543.79nm          5.9mb
CRX     15.37 124 (P)   24 45.00  10.8X
III     16.19 126 (P)   24 50.00   5.3X
PPM     16.35 123 (P)   24 56.00   8.9X
IIT     16.62 122 (P)   24 55.00   4.8X
ACX     16.96 131 (P)   24 46.00  -8.4X
RSSD    17.01  23 eP    24 56.29   1.2
        1.1s   124.05nm          5.0mb
IISM    17.34 120 (P)   25 06.50   7.5X
VGB     17.84 342 eP    25 04.47  -0.7
SHW     18.87 340 eP    25 18.67   0.7
LON     19.25 342 eP    25 21.38  -1.3
BMW     19.43 339 eP    25 24.38  -0.4
DPW     19.53 350 eP    25 24.61  -1.3
NEW     19.77 352 ePc   25 26.84  -1.6
        1.3s   347.20nm          5.5mb
RMW     19.90 342 eP    25 29.56  -0.4
```

05d 08h

GMW		20.26	341	eP	25 31.88	-1.6
FVM		21.05	58	eP	25 42.39	0.5
		1.8s		722.60nm		5.7mb
MCW		21.30	342	eP	25 43.51	-0.8
GRT		21.33	63	(P)	25 46.12	1.5
PGC		21.44	341	eP	25 46.50	0.9
		1.3s		181.00nm		5.3mb
SES		21.72	4	ePd	25 48.60	0.1
		1.4s		657.00nm		5.9mb
				pP	25 57.00	30kmX
ELC		21.75	61	eP	25 49.59	0.7
TPX		23.69	121	(P)	26 13.00	4.9X
ULM		25.18	27	eP	26 24.50	2.3
TKL		25.73	67	eP	26 28.00	0.5
PRM		26.74	71	eP	26 37.79	0.9
JSC		27.66	70	eP	26 43.75	-1.6
LHS		28.04	70	eP	26 49.38	0.6
NAV		28.33	64	eP	26 51.09	-0.3
HBF		28.37	73	eP	26 52.57	0.9
BLA		28.61	64	eP	26 54.29	0.4
		1.5s		133.49nm		5.5mb
MCWV		29.46	59	P	27 10.00	8.5X
	Z	20s		4.95um		5.1Msz
CBN		31.13	63	eP	27 16.00	-0.3
WLVO		31.57	52	P	27 09.90	-10.1X
EEO		32.02	47	eP	27 29.00	4.9X
SIT		32.37	337	eP	27 30.10	3.2X
		1.5s		280.50nm		6.0mb
SIT		32.37	337	P	27 40.00	13.1X
	Z	18s		7.60um		5.4Msz
FCC		32.79	18	eP	27 33.50	2.9
YKA		33.80	359	eP	27 37.40	-1.9
		1.4s		23.00nm		4.9mb
TBR		33.95	58	eP	27 41.29	0.4
RSNY		34.41	52	eP	27 44.78	-0.1
		1.1s		99.54nm		5.6mb
HRV		36.13	56	P	28 10.00	10.5X
	Z	20s		12.97um		5.7Msz
JAQ		37.00	37	ePd	28 06.30	-0.3
BALM		37.76	337	eP	28 14.08	1.0
CBM		39.31	50	eP	28 24.98	-1.2
		1.5s		80.53nm		5.2mb
	Z	20s		4.21um		5.3Msz
KLU		39.33	336	eP	28 26.81	0.6
SLKM		40.36	333	eP	28 35.31	0.6
				e	28 38.78	
PMR		40.58	334	ePc	28 36.24	-0.1
		1.3s		428.25nm		6.0mb
	Z	20s		3.95um		5.3Msz
				e	28 40.52	
HON		41.14	270	P	28 50.00	8.6X
	Z	20s		3.89um		5.3Msz
RSO		41.38	331	eP	28 43.62	0.4
				e	28 47.47	
LMN		41.40	52	eP	28 49.00	5.6X
CRP		41.57	333	eP	28 44.26	-0.5
				e	28 48.42	
CP2		41.61	333	ePd	28 45.18	0.1
				e	28 48.98	
FBA		42.24	339	eP	28 49.74	-0.2
		1.4s		91.86nm		5.3mb
				e	28 54.08	
SVW		42.92	331	eP	28 55.28	-0.4
		1.2s		297.26nm		5.9mb
				e	28 58.90	
PSO		43.76	122	eP	29 08.00	4.6X
TTA		44.00	333	ePd	29 03.91	-0.5
		1.3s		131.85nm		5.6mb
				e	29 07.77	
BOG		44.10	115	eP	29 10.00	3.9X
				iS	35 52.00	
SDV		44.49	108	iPd	29 09.50	0.4
IMA		44.88	338	eP	29 10.98	-0.6
		1.1s		83.03nm		5.6mb
				e	29 14.87	
CAR		46.80	103	eP	29 46.00	18.7X
RES		46.97	7	eP	29 29.00	1.2
		1.3s		16.00nm		4.9mb
ADK		51.87	315	ePc	30 03.47	-2.4
		1.2s		136.36nm		5.8mb
				e	30 06.69	
GDH		52.77	23	ePc	30 10.00	-2.4
		1.2s		68.75nm		5.5mb
				e	37 45.00	
				e	40 45.00	
TPT		54.77	222	eP	30 28.10	0.5
RUV		54.79	222	eP	30 28.30	0.5
		2.1s		891.70nm		6.4mb
PMO		54.95	222	eP	30 29.30	0.3
		2.2s		787.30nm		6.4mb
VAH		54.98	222	eP	30 29.50	0.3
		2.2s		953.30nm		6.4mb
SMY		57.48	316	P	31 00.00	13.3X
	Z	20s		3.13um		5.4Msz
TVO		57.93	222	eP	30 53.60	3.3X
PAE		58.03	222	eP	30 54.10	3.2X
AFR		58.05	222	eP	30 53.60	2.6
		2.3s		896.60nm		6.4mb
ARE		60.30	133	eP	31 09.00	1.9
ZOBO		62.39	130	Pd	31 20.80	-0.9
		0.9s		19.46nm		5.3mb
	Z	25s		1.50um		5.1MszX
				LR	40 00.00	
LPB		62.59	130	P	31 22.30	-0.4
CNCB		62.86	130	Pd	31 24.80	0.1
DAG		63.28	15	iPc	31 24.20	-1.8
		1.1s		62.03nm		5.7mb
AKU		66.22	27	eP	31 46.00	0.8
		0.9s		23.53nm		5.4mb
PET		66.60	319	eP	31 49.00	1.3
		1.3s		120.00nm		5.9mb
				e	40 40.00	
SIV		67.12	125	iPd	31 56.00	4.3X
KBS		68.21	10	eP	32 00.50	2.9
MGD		68.47	328	ePd-	31 58.00	-1.5
	Z	14s		1.90um		5.5MszX
	E	14s		3.00um		
				i	32 02.00	
				e	34 34.00	
				eS	41 07.00	
				ePS	41 30.00	
HJA		69.12	133	ePd	32 05.30	1.4
FSA		70.81	136	ePc	32 15.80	1.6
TIK		71.19	343	iPd	32 13.00	-2.9
		1.6s		60.00nm		5.5mb
	Z	17s		3.00um		5.6MszX
				i	32 17.00	
				i	32 35.00	
				e	34 54.00	
				eS	42 15.00	
RTCB		73.23	141	ePc	32 30.70	2.0
RTLL		73.29	141	ePd	32 29.50	0.5
PEL		73.51	144	iPc	32 32.00	1.8
		1.7s		230.77nm		6.0mb
CFA		73.63	141	e(P)	32 31.70	0.8
TCA		75.50	139	eP	32 41.60	-0.2
DMU		76.11	36	eP	32 44.60	-0.2
DCN		76.19	36	eP	32 48.40	3.1X
YAK		76.57	334	iPc-	32 46.90	-0.4
		1.4s		210.00nm		6.0mb
	Z	16s		2.80um		5.7MszX
	N	16s		1.60um		
	E	16s		2.00um		
				i	32 56.00	
				eS	42 34.00	
				ePS	43 20.00	
DLF		76.61	36	eP	32 47.30	-0.3
BAO		76.82	116	eP	32 50.40	0.8
				e	32 55.00	
				e	33 24.00	
				e	33 39.20	
				e	33 49.00	
KEV		77.68	13	eP	32 53.00	-0.3
		1.3s		69.60nm		5.6mb
	Z	18s		5.20um		5.9Msz
				LR	13 55.00	
YSS		78.38	317	eP	32 57.00	-0.5
				e	42 54.00	
				e	47 59.00	
KUSJ		79.06	313	eP	32 59.80	-1.5
SOB1		79.12	107	eP	33 02.00	-0.1
SDF		79.47	15	iP	33 02.00	-1.1
NB2		79.85	24	P	33 05.20	-0.1
		1.3s		52.00nm		5.4mb
ASAJ		79.87	315	eP	33 05.90	0.2
APA		80.79	12	iPd	33 11.50	1.3
NRI		80.96	353	iPd-	33 10.00	-1.0
		1.5s		53.00nm		5.3mb
	Z	18s		5.00um		5.9Msz
	N	18s		2.60um		
	E	20s		5.60um		
				e	36 15.00	
				eS	43 22.00	
				ePS	44 22.00	
HFS		81.36	24	eP	33 13.00	-0.3
		1.3s		85.10nm		5.6mb
	Z	17s		3.43um		5.8MszX
				LR	04 02.00	
LPA		81.96	137	eP-	33 16.00	-0.7
CDCB		81.99	118	eP	33 18.20	0.9
MUD		82.13	28	iP	33 18.60	1.3
		1.2s		96.00nm		5.8mb
FLN		82.27	38	eP	33 18.40	0.2
		0.8s		13.15nm		5.1mb
	Z	19s		7.47um		6.1Msz
GRR		82.28	39	eP	33 18.60	0.3
		1.2s		38.10nm		5.4mb
LPF		82.38	39	eP	33 19.00	0.2
		0.9s		16.05nm		5.1mb
LDF		82.56	38	eP	33 19.70	0.0
UPP		82.92	23	iP	33 22.40	1.0
				i	33 25.40	
DBN		83.15	33	eP	33 25.00	2.3
	Z	18s		4.00um		5.8Msz
				ePP	36 32.00	
				ePS	44 35.00	
WIT		83.40	32	eP	33 26.00	2.0
MFF		83.70	40	eP	33 25.10	-0.6
		1.2s		38.40nm		5.5mb
EPLA		83.75	48	eP	33 27.00	0.9
KAF		83.80	18	eP	33 24.40	-1.5
		1.0s		47.10nm		5.7mb
WTS		84.00	33	eP	33 28.00	1.0
		1.0s		26.90nm		5.4mb
COP		84.00	28	eP	33 26.00	-0.9
	Z	18s		5.50um		6.0Msz
DOU		84.12	35	Pc	33 28.30	0.6
ENN		84.36	34	eP	33 29.00	0.2
		1.1s		27.60nm		5.4mb
ECRI		84.60	44	eP	33 31.40	1.0
EVAL		84.64	50	eP	33 29.30	-1.3
NUR		84.64	20	eP	33 30.00	-0.1
		0.8s		57.90nm		5.9mb
	Z	19s		5.00um		5.9Msz
				e	56 00.00	
				LR	09 50.00	
GUD		84.68	46	eP	33 30.70	-0.2
HYF		84.84	38	eP	33 30.90	-0.5
LSF		84.85	39	eP	33 30.80	-0.6
		1.0s		23.80nm		5.4mb
BOD		85.11	337	eP	33 31.10	-1.4
		1.1s		82.00nm		5.9mb
WLF		85.17	35	P	33 34.00	1.1
LFF		85.18	41	eP	33 32.80	-0.3
		1.0s		27.60nm		5.4mb
TCF		85.20	39	eP	33 32.50	-0.7
		1.0s		27.80nm		5.4mb
BGF		85.39	38	eP	33 33.50	-0.6
		0.9s		27.70nm		5.5mb
RJF		85.40	40	eP	33 33.70	-0.6
		1.0s		41.80nm		5.6mb
	Z	21s		5.63um		5.9Msz
SSF		85.44	38	eP	33 33.70	-0.7
		1.1s		37.35nm		5.5mb
MAF		85.44	39	eP	33 33.70	-0.7
		1.1s		28.35nm		5.4mb
LOR		85.50	38	eP	33 34.10	-0.6
		1.1s		33.70nm		5.5mb
	Z	20s		5.97um		6.0Msz
AVF		85.52	38	eP	33 33.80	-1.0
		1.1s		25.15nm		5.3mb
LPO		85.59	41	eP	33 34.70	-0.5
LBF		85.74	38	eP	33 35.30	-0.6
		1.2s		37.80nm		5.5mb
NIIJ		85.83	310	eP	33 36.10	-0.4
SMF		85.87	38	eP	33 35.60	-1.0
		1.1s		30.05nm		5.4mb
ETOR		85.90	45	eP	33 35.60	-1.3
CAF		85.94	40	eP	33 36.30	-0.7
		1.2s		41.95nm		5.5mb
EPF		86.07	42	eP	33 37.10	-0.6
		1.2s		15.75nm		5.1mb
EGRA		86.17	43	eP	33 33.60	-4.5X
HAU		86.34	36	eP	33 38.20	-0.7
		1.1s		31.25nm		5.4mb
	Z	20s		8.00um		6.1Msz
CHJ		86.45	309	eP	33 40.00	0.4
CDF		86.55	35	eP	33 39.20	-0.8
		1.1s		14.15nm		5.1mb
MAL		86.67	50	iPd	33 42.50	1.9
				iS	44 22.00	

```
BSF    86.68  36 eP     33 39.70  -1.0
       1.0s    20.80nm          5.3mb
MAT    86.74 310 eP     33 41.00  -0.1
       1.2s    57.81nm          5.7mb
     Z 22s     1.85um           5.4Msz
                 eS     44 21.00
EVIA   86.85  47 eP     33 42.70   1.0
ECOG   86.92  49 eP     33 40.20  -1.9
MOX    87.14  32 eP     33 41.80  -0.9
       1.4s    19.00nm          5.1mb
     Z 21s     4.90um           5.9Msz
                 eS     44 33.00
CLL    87.31  31 iP     33 43.00  -0.5
                 e      34 04.00
EBR    87.47  44 eP     33 46.00   1.6
GRF    87.62  32 eP     33 44.50  -0.5
       1.3s    22.00nm          5.3mb
     Z 19s     7.70um           6.1Msz
BRG    88.04  30 eP     33 46.60  -0.4
       1.3s    23.00nm          5.3mb
PRU    88.94  31 eP     33 51.00  -0.3
     Z 18s     4.20um           5.9Msz
     N 17s     3.80um
     E 17s     4.00um
                 e      37 19.50
KSP    89.09  29 eP     33 51.60  -0.4
                 e      37 15.00
KHC    89.11  32 eP     33 52.40   0.2
       1.5s     8.50nm          4.8mb
     Z 18s     6.80um           6.1Msz
     N 18s     3.00um
     E 18s     6.50um
                 e      37 20.00
                 e      44 52.00
GEC2   89.37  32 P      33 52.30  -1.3
       1.0s     3.51nm          4.6mb
                 e      33 56.30
CIT    89.81 333 eP     33 54.50  -1.0
MNK    90.97  22 eP     33 59.00  -1.7
     Z 18s     8.60um           6.2Msz
                 e      37 36.00
                 ePPP   39 36.00
ZST    91.40  31 eP     34 02.70  -0.1
SPC    92.01  29 eP     34 04.70  -1.2
OBN    92.58  17 eP     34 07.00  -1.1
       1.4s    70.00nm          5.9mb
                 e      37 52.00
                 e      44 47.00
                 (S)    45 12.00
                 eSS    51 26.00
IRK    92.96 338 eP     34 09.00  -1.0
                 e      34 10.30
                 e      37 56.00
KUMJ   94.02 310 eP     34 14.70  -0.5
SVE    94.66   3 ePd    34 17.50  -0.1
       3.0s   140.00nm          5.8mb
KAGJ   94.80 309 eP     34 18.70  -0.1
ZAK    94.90 338 eP     34 19.00   0.1
       1.3s    31.00nm          5.6mb
                 e      38 05.00
ARU    94.94   5 eP     34 19.00   0.0
       1.8s   250.00nm          6.3mb
KIV   104.37  18 (Pdiff34 58.60  -3.0X
       1.9s    51.00nm          6.1mb
                 e      39 24.20
                 (PS)   48 37.40
LZH   106.75 329 ePKP   39 40.00  17.1X
     Z 19s     2.66um           5.8Msz
     N 17s     1.82um
                 pPKP   39 46.00
MAIO  114.96   7 ePKP   39 30.00  -8.5X
WB2   118.60 262 iPKPd  39 44.30  -1.4
       0.6s     3.10nm
WRA   118.61 262 PKP    39 45.20  -0.5
       0.9s     1.20nm
ASPA  120.34 258 ePKP   39 51.60   2.6X
       1.0s     5.10nm
GKN   121.10 342 PKP    39 50.20  -0.3
KKN   121.12 341 PKP    39 49.60  -1.0
       0.8s    36.00nm
PKI   121.29 341 PKP    39 50.20  -0.9
       0.9s    25.00nm
DMN   121.34 341 PKP    39 50.80  -0.3
       1.0s    31.00nm
NDI   122.08 349 iPKPc  39 52.50   0.4
BCAO  123.06  63 iPKPc  39 53.00  -1.4
       0.7s     6.00nm
```

```
CHTO  123.50 323 ePKP   39 54.60  -0.5
HYB   132.78 345 ePKP   40 12.00  -0.9
WIN   134.96  94 ePKP   40 10.00  -7.2X
       0.6s    20.00nm
GBA   136.71 345 PKP    40 20.00  -0.4
NAI   140.40  52 ePKPd  40 28.00   0.4
     Z 18s     0.62um           5.4Msz
                 eSKS   46 28.00
                 eRSKS  08 14.00
FRS   143.86 102 iPKPc  40 29.50  -3.3X
       1.5s    30.00nm
BUL   144.26  85 iPKPc  40 30.60  -3.4X
       1.0s    20.50nm
                 i      40 31.40
KSR   144.47  95 iPKPc  40 31.50  -2.8X
       1.0s    52.00nm
BLF   144.50 101 iPKPc  40 32.10  -2.1X
       0.7s    66.00nm
PRY   145.21  97 iPKPc  40 34.00  -1.5
       1.0s    90.00nm
GRM   145.30 108 iPKPd  40 20.00 -15.3X
       1.0s   120.00nm
MTD   145.48  78 iPKPc  40 35.80  -0.3
SLR   145.65  94 iPKPd  40 49.20  13.0X
       1.3s  5150.00nm
     Z 20s     6.66um           6.4Msz
CIR   147.16  85 ePKP   40 39.00   0.4
     S.D. = 1.1  on 195 of 239 obs.
--------------------------------------
* MAR 05, 1993 08h 21m 51.86± 1.92s
  39.299 N ±15.9km   20.493 E ± 9.8km
  DEPTH =    7.5 ±  3.6 km
 GREECE-ALBANIA BORDER REGION    (392)
      ML 3.3 (TIR), 3.2 (THE).

IGT     0.26 332 ePg    21 56.88  -0.4
                 eSg    22 01.24
SRN     0.69 327 ePg    22 04.60  -1.2
                 iSg    22 15.70
TPE     1.06 340 iPnc   22 12.50   0.4
                 iSn    22 30.00
VLO     1.40 327 ePn    22 24.00   6.3X
AGG     1.46 100 ePb    22 18.72   0.2
                 eSb    22 38.20
FNA     1.63  24 ePb    22 20.60  -0.4
                 eSb    22 42.76
LIT     1.74  62 ePb    22 22.56   0.0
                 eSb    22 45.44
OHR     1.83   7 iPn    22 25.40   1.5
                 i      22 30.90
                 i      22 45.30
                 i      22 51.10
                 Lg     22 53.40
TIR     2.10 347 ePn    22 29.50   1.7
                 iSn    23 06.00
GRG     2.21  41 ePn    22 29.56   0.1
                 eSn    22 57.76
LACI    2.41 346 ePn    22 32.00  -0.2
PAIG    2.54  75 ePn    22 33.92  -0.2
VAY     2.57  38 iPn    22 35.00   0.5
KNT     2.62  44 ePn    22 34.76  -0.5
                 eSn    23 06.28
SOH     2.67  54 ePn    22 36.36   0.3
                 eSn    23 08.88
SKO     2.77  15 iPn    22 36.00  -1.3
SRS     2.99  52 ePn    22 39.68  -0.8
                 eSn    23 14.92
BCI     3.08 354 ePn    22 44.30   2.5X
     S.D. = 0.9  on  16 of  18 obs.
--------------------------------------
   MAR 05, 1993 08h 25m 28.16± 0.49s
   22.001 N ± 7.4km  120.937 E ± 8.1km
   DEPTH =  10.0km  (geophysicist)
   4.7mb ( 21 obs.)  4.8Msz (  1 obs.)
 TAIWAN                          (244)

BBP     1.82 148 ePc    26 00.00   0.2
                 iS     26 06.00
QZH     3.63 324 ePn    26 23.00  -2.6X
     Z 15s    11.20um
     N 10s     5.32um
     E 10s     5.33um
                 Sn     27 06.00
PIP     3.67 185 iPd    26 28.70   2.5X
CVP     4.35 169 iPd    26 28.70  -7.2X
SZP     4.45 186 ePd    26 46.00   8.8X
BAG     5.57 184 eP     26 46.00  -7.3X
```

```
HKC     6.28 274 iP     27 02.90  -0.2
GZH     7.10 280 Pc     27 14.00  -0.7
     Z 10s    10.80um
     N 16s     5.60um
     E 12s    15.80um
                 S      28 30.00
SSE     9.06   1 P      27 43.50   1.6
     Z 18s     6.20um
     N 10s     3.70um
     E 10s     2.60um
NJ2    10.18 350 Pd     27 52.50  -4.9X
     Z 13s     7.24um
     E 11s     9.31um
WHN    10.36 327 Pc     27 55.00  -4.8X
       0.8s    34.00nm          5.8mb X
     Z 12s     7.82um           4.3MszX
     N 11s     2.88um
     E 12s     3.48um
                 pP     28 02.60
                 eS     29 54.00
QIZ    10.81 256 eP     28 06.00   0.0
     N 13s     5.11um
                 eS     30 06.30
GYA    13.75 292 P      28 45.00  -0.8
     Z 16s     5.88um
     N 12s     2.04um
     E 12s     2.55um
                 PP     28 54.00
TIA    14.54 348 eP     28 55.00  -0.9
     Z 15s     8.77um
     N 13s     4.97um
     E 12s     2.23um
XAN    15.99 321 eP     29 12.00  -2.9X
     Z 14s     5.06um
     N 10s     2.61um
     E 12s     2.06um
                 pP     29 17.00
                 sP     29 20.20
DL2    16.86   2 eP     29 29.00   3.2X
     Z 14s     3.03um
     N 12s     3.33um
                 eS     32 28.00
KMI    16.97 284 Pd     29 28.50   1.0
     Z 13s     5.20um
     N 13s     2.30um
     E 13s     3.40um
TIY    17.29 337 Pc     29 30.00  -1.3
     Z 12s     5.66um
     N 12s     5.15um
     E 13s     4.03um
CD2    17.74 304 Pd     29 37.00   0.1
     Z 15s     5.31um
     N 11s     3.47um
BJI    18.43 348 eP     29 44.00  -1.4
       0.8s     8.00nm          3.9mb
     Z 14s     4.10um
     N 12s     2.99um
                 eS     33 12.00
SNY    19.89   6 Pc     30 03.00   0.4
     Z 14s     2.83um
     E 12s     1.91um
                 S      33 43.00
HHC    20.40 339 P      30 06.80  -1.2
       1.2s    41.00nm          4.6mb
     Z 16s     5.34um           5.0MszX
     N 13s     2.75um
     E 13s     1.42um
                 pP     30 17.00  41kmX
                 S      33 56.00
LZH    20.46 317 Pd     30 08.00  -0.7
       2.0s    71.00nm          4.7mb
     Z 15s     2.92um           4.8MszX
     E 10s     1.92um
                 PP     30 30.00
                 eS     33 51.00
                 SS     34 24.00
BTO    20.72 336 P      30 10.00  -1.4
     N 14s     2.55um
     E 14s     3.98um
                 ePP    30 30.00
                 S      34 02.00
MAT    20.85  42 eP     30 13.00   0.3
       1.0s    11.00nm          4.2mb
CN2    22.06   9 eP     30 19.60  -5.2X
       0.6s     3.70nm          4.0mb
     Z 15s     2.35um           4.7MszX
     N 15s     0.89um
```

05d 08h

E 15s 1.13um
GTA 25.02 319 eP 30 53.00 -0.8
1.2s 26.00nm 4.8mb
Z 16s 2.28um 4.8MszX
E 10s 0.44um
LSA 27.82 292 eP 31 22.30 2.0
WMQ 35.03 316 eP 32 21.20 -1.9
Z 16s 1.30um 4.8MszX
N 12s 1.23um
KSH 41.91 305 eP 33 18.00 -2.6
Z 20s 1.37um 4.8Msz
E 14s 1.01um
pP 33 24.00 20kmX
WRA 43.70 162 P 33 33.50 -1.7
0.4s 1.80nm 4.2mb
ASPA 47.11 164 iPc 34 01.30 -1.1
0.5s 5.20nm 4.9mb
WARB 48.22 173 eP 34 10.00 -1.0
0.6s 17.00nm 5.3mb
KAF 72.93 331 eP 36 59.80 0.6
NUR 74.13 329 eP 37 07.10 0.9
0.2s 1.20nm 4.6mb
NB2 80.04 332 P 37 36.80 -2.4
0.7s 1.30nm 4.0mb
GEC2 84.38 321 P 38 01.30 -0.8
0.7s 1.71nm 4.4mb
e 38 04.10
YKA 85.06 23 eP 38 02.50 -2.6
0.8s 1.30nm 4.2mb
CDF 88.30 322 eP 38 22.00 0.7
BSF 88.89 322 eP 38 25.20 1.0
HAU 89.05 322 eP 38 25.30 0.5
0.7s 5.30nm 4.9mb
LPG 90.15 320 eP 38 32.30 1.9
LPL 90.15 320 eP 38 32.30 2.0
LOR 90.86 323 eP 38 34.60 1.3
0.7s 5.30nm 5.0mb
LBF 90.95 322 eP 38 35.10 1.4
0.8s 9.00nm 5.1mb
SSF 91.17 323 eP 38 36.20 1.5
0.9s 6.40nm 5.0mb
SMF 91.22 322 eP 38 36.40 1.5
0.9s 12.30nm 5.2mb
AVF 91.41 322 eP 38 37.20 1.4
0.9s 10.00nm 5.2mb
MAF 92.18 322 eP 38 41.30 1.9
0.9s 10.80nm 5.2mb
TCF 92.35 323 eP 38 42.00 1.8
RJF 93.32 322 eP 38 46.90 2.3X
0.8s 7.50nm 5.2mb
SDV 147.27 22 iPKPd 45 11.60 -0.6
S.D. = 1.4 on 41 of 52 obs.

? MAR 05, 1993 08h 44m 26.79± 0.99s
39.299 N ± 9.6km 27.645 E ± 9.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

DST 0.82 68 iPg 44 41.90 -0.8
IZM 0.95 198 iPg 44 45.20 0.3
iSg 44 58.20
KCT 1.10 30 iPn 44 48.30 0.9
EZN 1.15 298 iPn 44 47.80 -0.4
S.D. = 1.3 on 4 of 4 obs.

* MAR 05, 1993 09h 12m 08.94± 0.71s
21.989 N ±13.1km 121.039 E ±17.2km
DEPTH = 10.0km (geophysicist)
4.2mb (6 obs.)
TAIWAN REGION (243)

BBP 1.77 151 ePd 12 41.00 1.3
eS 12 49.00
CVP 4.33 170 eP 13 02.00 -14.3X
SSE 9.07 1 ePn 15 20.00 57.2X
Z 16s 1.30um
N 12s 0.90um
E 10s 0.50um
GYA 13.85 292 P 15 27.20 -0.6
Z 24s 1.91um
TIY 17.34 337 eP 16 15.00 2.3
CD2 17.83 303 Pd 16 19.80 1.0
HHC 20.44 339 eP 16 48.80 -0.5
1.0s 16.00nm 4.3mb
LZH 20.53 317 eP 16 50.00 -0.3
1.5s 35.00nm 4.5mb
Z 16s 1.07um 4.3MszX
E 15s 1.28um
sP 17 02.50
BTO 20.77 336 eP 16 51.60 -1.1
GTA 25.09 319 eP 17 35.00 -0.3
WB2 43.66 162 iPc 20 14.60 -1.1
1.8s 2.90nm 3.8mb
ASPA 47.07 164 eP 20 45.20 2.3X
0.5s 4.10nm 4.8mb
GEC2 84.45 321 P 24 43.20 0.0
0.7s 0.93nm 4.1mb
e 24 45.80
YKA 85.04 23 eP 24 44.90 -0.8
0.9s 0.70nm 3.9mb
S.D. = 1.2 on 11 of 14 obs.

& MAR 05, 1993 09h 15m 56.38s
62.465 N 152.151 W
DEPTH = 120.7km
CENTRAL ALASKA (1)
<AEIC>.

SKT 0.57 149 iPd 16 14.71 -0.4
iS 16 28.94
CRP 1.20 180 eP 16 20.16 -0.9
eS 16 38.57
SUA 1.21 146 iPd 16 20.67 -0.4
eS 16 39.50
CP2 1.21 182 iPc 16 20.79 -0.4
BGL 1.21 185 iPc 16 20.81 -0.3
CPAM 1.21 180 iPc 16 20.70 -0.4
CKN 1.25 181 iPc 16 21.17 -0.2
HUR 1.27 65 iPd 16 21.38 -0.2
CKT 1.27 181 iPc 16 21.17 -0.5
eS 16 40.41
CKL 1.28 184 iPc 16 21.39 -0.4
eS 16 41.56
SPU 1.29 178 iPc 16 21.06 -0.8
TRF 1.31 40 ePd 16 21.80 -0.4
eS 16 42.42
PWA 1.35 126 P 16 22.50 0.1
S 16 42.40
GHO 1.67 113 iPc 16 26.09 -0.2
eS 16 49.01
PLRM 1.67 120 eP 16 25.70 -0.5
PMR 1.67 120 eP 16 26.03 -0.2
eS 16 48.43
PMS 1.73 134 P 16 26.50 -0.6
S 16 49.80
RND 1.78 56 ePd 16 27.05 -0.6
NKA 1.78 165 eP 16 29.39 1.8
TTA 1.84 286 iPc 16 26.94 -1.5
DFR 1.90 188 ePc 16 28.31 -0.8
RDT 1.90 184 eP 16 28.75 -0.4
SML 1.91 108 iPd 16 28.37 -0.9
MCK 1.94 48 eP 16 29.25 -0.3
NCT 1.95 191 iPc 16 29.16 -0.6
RDN 1.98 189 eP 16 29.74 -0.5
RDW 2.01 189 iPc 16 30.29 -0.4
RS2 2.03 189 iPc 16 30.48 -0.4
RSO 2.03 188 iPc 16 30.42 -0.5
RS1 2.03 189 iPc 16 30.49 -0.5
eS 16 58.56
SVW 2.14 232 eP 16 31.20 -0.9
SLKM 2.17 154 eP 16 31.94 -0.6
eS 16 59.01
PTE 2.19 136 iPc 16 31.30 -1.4
eS 16 59.22
SCM 2.35 103 ePc 16 33.59 -1.3
MPA 2.39 145 eP 16 34.16 -1.2
INW 2.45 192 ePc 16 35.58 -0.7
INE 2.45 191 ePc 16 35.43 -0.9
NEA 2.53 32 ePd 16 36.30 -0.8
SEW 2.70 150 eP 16 38.15 -1.2
BRLK 2.78 167 eP 16 41.11 0.7
PDB 2.86 201 iPc 16 40.71 -0.8
CCB 2.93 40 eP 16 41.50 -0.9
HDA 3.04 48 eP 16 42.83 -1.1
SDG 3.07 86 eP 16 43.21 -1.1
VLZ 3.07 113 eP 16 42.36 -1.9
KLU 3.10 106 iPc 16 42.86 -1.9
eS 17 19.28
PAX 3.12 78 eP 16 44.42 -0.6
FBA 3.12 37 eP 16 43.51 -1.4
TZL 3.18 95 eP 16 45.81 0.1
AUI 3.20 192 eP 16 48.09 2.1
GLM 3.30 38 eP 16 46.96 -0.5
HIN 3.42 125 eP 16 46.99 -2.0
MCNL 3.46 199 eP 16 48.99 -0.5
CVA 3.62 119 eP 16 49.62 -2.0
IMA 3.68 350 eP 16 51.25 -1.3
DOT 3.87 69 eP 16 54.50 -0.5
SYI 3.87 182 eP 16 52.55 -2.5
GLB 4.07 101 ePc 16 55.98 -1.8
RAGM 4.15 117 eP 16 58.91 0.0
CRQM 4.63 108 eP 17 04.60 -0.9
TGL 4.77 107 eP 17 05.30 -2.0
BALM 4.88 103 eP 17 06.63 -2.2
CTGM 5.36 101 eP 17 13.60 -1.8
YAH 5.42 108 eP 17 14.77 -1.6
64 obs. associated

MAR 05, 1993 09h 33m 16.45± 0.61s
10.884 N ± 8.8km 62.502 W ± 5.5km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)
MD 3.5 (TRN).

TCE 0.76 104 iPd 33 31.95 1.2
eS 33 40.39
TRN 1.11 102 iPd 33 35.58 -0.1
eS 33 48.62
TPP 1.18 119 iP 33 36.94 0.3
eS 33 51.79
TBH 1.47 106 iP 33 40.13 -0.7
GRW 1.51 33 eP 33 41.30 -0.3
eS 34 00.35
PIG 1.65 80 eP 33 42.81 -0.7
eS 34 02.39
SVB 2.67 27 eP 33 58.25 0.2
eS 34 31.58
SVV 2.73 27 eP 33 59.03 0.2
eS 34 32.41
LLAV 4.25 265 eP 34 28.70 8.1X
eS 35 13.40
OLLA 4.32 259 iP 34 22.60 1.0
eS 35 09.80
GUAC 4.74 262 iP 34 28.80 1.2
iS 35 13.80
CEOS 6.03 253 eP 34 43.60 -2.3
eS 35 35.10
S.D. = 1.1 on 11 of 12 obs.

? MAR 05, 1993 09h 35m 28.24± 0.96s
39.104 N ± 8.9km 27.660 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.77 204 iPg 35 43.20 -0.1
iSg 35 55.20
DST 0.90 56 iPn 35 45.90 0.3
EZN 1.26 305 ePn 35 51.80 0.2
KCT 1.26 25 iPn 35 51.30 -0.4
S.D. = 0.6 on 4 of 4 obs.

MAR 05, 1993 09h 39m 34.27± 1.01s
40.071 N ± 7.5km 5.913 E ± 5.8km
DEPTH = 42.1 ± 11.6 km
3.7mb (2 obs.)
WESTERN MEDITERRANEAN SEA (387)
ML 3.9 (LDG), 3.6 (STR).

ESEL 2.34 264 iPnc 40 12.00 0.9
eSn 40 39.40
ETER 3.21 315 iPnd 40 22.91 -0.5
eSn 41 00.60
LMR 3.29 8 Pn 40 24.60 0.0
Sn 40 59.90
PERF 3.33 317 P 40 24.02 -1.1
PGF 3.40 42 P 40 25.56 -0.6
S 40 59.84
LRG 3.40 6 Pn 40 27.80 1.7
Sn 41 03.50
FRF 3.53 9 Pn 40 29.20 1.2
Sn 41 05.30
CDR 3.60 358 ePg 40 30.00 0.9
i 40 30.70
eSn 41 07.50
i 41 08.40
VDCF 3.67 314 P 40 29.56 -0.5
CALN 3.75 11 P 40 30.73 -0.5
TRGS 3.84 311 P 40 32.36 -0.2
SBF 3.96 16 P 40 32.04 -2.0

```
                         S     41 15.13
AURF      3.96   15 P     40 32.43  -1.7
TOUF      4.06   14 P     40 34.93  -0.8
                    S     41 18.86
AUTN      4.08   16 P     40 34.48  -1.5
                    S     41 18.06
SAOF      4.10   17 P     40 34.96  -1.1
EBR       4.20  282 ePn   40 41.00   3.5X
                    eSg   41 26.00
EROQ      4.27  282 iPnd  40 39.33   0.8
                    eSn   41 25.10
GRBF      4.30  312 P     40 39.41   0.4
SALF      4.45  309 P     40 41.87   0.7
SURF      4.46    8 P     40 41.46   0.1
                    S     41 31.77
ENSF      5.00  305 P     40 49.71   0.8
EPF       5.12  307 Pn    40 51.60   1.1
                    Sn    41 50.20
ACU       5.15  254 ePn   40 51.36   0.5
                    eSn   41 47.10
EGRA      5.16  296 ePn   40 44.78  -6.2X
                    eSn   41 36.80
SSB       5.30  349 P     40 53.24   0.2
ECHE      5.32  267 ePn   40 53.24  -0.1
                    eSn   41 51.90
LPG       5.46    6 Pn    40 57.90   2.4
LPL       5.48    6 Pn    40 57.80   2.1
LBL       5.52  340 P     40 56.37   0.2
CAF       5.62  331 Pn    40 57.90   0.3
                    Sn    41 58.80
RSL       5.64    5 P     41 00.01   2.1
COLF      5.68  344 P     40 58.59   0.1
LPO       5.79  324 Pn    40 59.50  -0.4
                    Sn    42 03.30
PYM       6.06  340 P     41 03.69  -0.1
ETOR      6.12  280 ePn   41 05.30   0.6
                    eSn   42 12.90
PLDF      6.13  345 P     41 04.89   0.2
RJF       6.15  330 Pn    41 04.70  -0.3
                    Sn    42 11.00
LFF       6.19  324 Pn    41 04.80  -0.6
                    Sn    42 12.10
AGO       6.32  342 P     41 07.37   0.1
ELIZ      6.37  301 iPnd  41 07.95  -0.2
                    eSn   42 18.00
MAF       6.62  339 Pn    41 11.60   0.1
EVIA      6.68  260 iPnc  41 11.70  -0.8
                    eSn   42 24.00
SMF       6.74  348 Pn    41 13.60   0.4
TCF       6.78  338 Pn    41 13.90   0.2
ECRI      6.83  295 ePnc  41 13.76  -0.8
                    eSn   42 28.00
BGF       6.86  342 Pn    41 15.10   0.3
                    Sn    42 26.50
LSF       6.96  334 Pn    41 16.10  -0.1
AVF       6.97  345 Pn    41 16.90   0.5
LBF       7.05  349 Pn    41 18.10   0.5
SSF       7.20  347 Pn    41 20.80   1.1
LOR       7.35  349 Pn    41 22.50   0.8
HYF       7.57  343 Pn    41 22.50  -2.4
GUD       7.71  277 ePn   41 25.97  -1.0
                    eSn   42 50.10
MFF       7.88  328 Pn    41 28.60  -0.5
HAU       7.94    2 Pn    41 30.10   0.1
CDF       8.40    6 Pn    41 35.90  -0.4
LPF       9.40  330 Pn    41 49.20  -0.8
LDF       9.55  335 Pn    41 51.20  -0.9
GRR       9.63  332 Pn    41 52.50  -0.7
FLN       9.82  334 Pn    41 54.50  -1.3
NB2      21.25    7 P     44 18.90   0.2
        0.5s      1.50nm          3.6mb
YKA      67.23  334 eP    50 26.60   0.6
        0.7s      0.50nm          3.7mb
     S.D. = 1.0  on  61 of  63 obs.
-----------------------------------------
% MAR 05, 1993  09h 47m 31.90± 0.66s
   45.993 N ± 5.3km    2.870 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
     ML 1.7 (LDG).

MAF       0.31  317 Pg    47 38.70   0.3
                    Sg    47 43.30
TCF       0.55  303 Pg    47 42.80  -0.1
                    Sg    47 50.20
BGF       0.57  358 Pg    47 43.20  -0.2
                    Sg    47 50.70
```

```
AVF       0.87   23 Pg    47 48.40  -0.1
                    Sg    47 59.80
SMF       0.94   46 Pg    47 49.70  -0.1
                    Sg    48 02.70
RJF       1.17  235 Pg    47 53.70  -0.1
                    Sg    48 08.50
CAF       1.21  208 Pg    47 54.50   0.1
                    Sg    48 09.90
LBF       1.25   37 Pg    47 55.50   0.3
                    Sg    48 12.20
     S.D. = 0.2  on   8 of   8 obs.
-----------------------------------------
   MAR 05, 1993  11h 31m 00.90± 0.35s
   41.531 N ± 5.2km  142.078 E ± 7.0km
   DEPTH =  77.4km  (  3 depth phases)
   4.8mb ( 27 obs.)
 HOKKAIDO, JAPAN  REGION            (224)

MRRJ      1.17  320 iPd   31 20.90  -1.2
                    S     31 36.40
HOOJ      1.24   46 iP+   31 23.10   0.0
                    S     31 40.30
AOMJ      1.61  234 iP    31 27.10  -0.9
                    S     31 47.60
OFUJ      2.47  187 P     31 38.20  -1.5
                    S     32 08.20
KUSJ      2.50   50 iPd   31 38.80  -1.4
                    S     32 07.80
ASAJ      2.62    9 iPd   31 42.00   0.2
YAMJ      3.70  206 P     31 57.00   0.1
NIIJ      4.90  210 P     32 13.10  -0.6
YSS       5.50    5 iP    32 21.80  -0.2
KAKJ      5.52  196 P     32 18.50  -3.8X
KUR       5.61   47 eP    32 21.50  -2.0
        0.7s    340.00nm          5.7mb
                    iS    33 25.00
MAT       5.82  212 eP    32 26.00  -0.5
        0.7s     16.44nm          4.4mb X
                    (S)   33 45.00
MTMJ      5.95  215 P     32 28.90   0.5
CHJ       6.01  204 P     32 26.50  -2.6
                    eS    33 46.10
TSRJ      7.65  221 P     32 53.30   1.5
WKYJ      8.92  217 P     32 46.90 -22.3X
YONJ      9.26  230 eP    33 15.00   1.1
TKSJ      9.85  223 P     33 21.20  -0.7
MGD      19.36   13 eP    35 20.00  -2.7
BJI      19.65  274 eP    35 23.00  -3.0
        0.9s     43.00nm          4.7mb
SSE      19.75  245 P     35 26.50  -0.5
        1.0s     11.00nm          4.1mb
YAK      21.82  344 eP    35 45.20  -2.6
                    e     39 39.00
SEY      22.26   13 eP    35 50.00  -2.1
BOD      24.08  322 eP    36 09.20  -0.6
        0.5s     12.00nm          4.6mb
ELT      38.60  307 iPc   38 17.30  -0.4
        1.0s     25.00nm          5.1mb
IMA      42.60   33 eP    38 51.42   0.9
        0.5s      2.08nm          4.2mb
                    epP   39 10.39   78km
CHTO     43.05  252 eP    38 55.10   0.5
FBA      45.07   35 ePc   39 11.57   1.2
        0.8s      8.52nm          4.6mb
                    epP   39 30.81   79km
GUN      47.37  272 P     39 29.60   0.1
KKN      47.89  272 P     39 33.00  -0.3
PKI      47.91  272 P     39 33.60   0.0
        0.7s     22.00nm          5.2mb
DMN      48.11  272 P     39 35.40   0.3
        0.8s     40.00nm          5.4mb
GKN      48.26  273 P     39 36.00  -0.1
RES      58.13   15 ePc   40 48.50   0.4
        0.6s      4.00nm          4.7mb
                    pP    41 08.00   76km
YKA      59.69   32 eP    40 58.50  -0.6
        0.5s      0.70nm          4.0mb
QUE      60.18  285 eP    41 02.90  -0.2
GBA      62.16  264 P     41 16.00  -0.3
KAF      64.57  332 iP    41 30.70  -0.8
        0.6s      5.00nm          4.6mb
ASPA     65.31  188 P     41 37.70   1.0
NUR      66.24  331 iP    41 41.40  -0.9
        0.3s      6.70nm          5.0mb
KIV      68.38  310 eP    41 57.40   1.2
ORV      69.27   55 eP    42 01.50   0.0
FCC      69.77   27 eP    42 08.00   3.8X
```

```
HFS      70.21  335 eP    42 05.90  -1.0
        0.4s      4.70nm          4.8mb
NB2      70.25  337 P     42 06.70  -0.5
        0.6s      4.00nm          4.5mb
BW06     74.17   47 eP    42 31.13   0.2
        0.6s      1.11nm          4.0mb
KSP      76.56  328 eP    42 44.60   0.5
PV10     77.45   50 eP    42 50.82   1.3
LOR      84.12  333 eP    43 24.80   0.5
        0.6s      4.25nm          4.6mb
LBF      84.33  333 eP    43 25.90   0.5
        0.7s      3.65nm          4.5mb
LPL      84.60  330 eP    43 28.10   1.1
        0.6s      5.60nm          4.8mb
LPG      84.61  330 eP    43 28.30   1.2
        0.5s      5.05nm          4.8mb
SMF      84.67  333 eP    43 27.90   0.9
AVF      84.71  333 eP    43 28.10   0.9
        0.5s      5.70nm          4.8mb
LPF      85.04  336 eP    43 29.90   1.1
MAF      85.47  333 eP    43 32.50   1.4
        0.9s     11.80nm          4.9mb
TCF      85.54  333 eP    43 32.70   1.3
LSF      85.80  334 eP    43 33.90   1.2
        0.6s      8.75nm          5.0mb
RJF      86.63  333 eP    43 38.70   1.9
        0.4s      1.70nm          4.5mb
CAF      86.78  333 eP    43 39.30   1.7
        0.9s     16.85nm          5.1mb
LFF      87.21  334 eP    43 41.40   1.8
        0.8s      8.35nm          4.9mb
LPO      87.29  333 eP    43 41.60   1.6
        0.7s      8.80nm          5.0mb
SIV     147.65   45 iPKP  50 43.80   8.4X
     S.D. = 1.2  on  59 of  63 obs.
-----------------------------------------
% MAR 05, 1993  12h 23m 50.65± 0.77s
   42.619 N ± 7.1km   19.778 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
     ML 1.8 (TTG).

PVY       0.15  100 iPgc  23 54.16   0.0
                    iSg   23 56.48
IVA       0.27   19 iPgd  23 56.43   0.1
                    iSg   24 00.26
TTG       0.43  244 iPgd  23 59.28  -0.1
                    iSg   24 05.66
PLE       0.76  339 iPgd  24 05.46  -0.2
                    iSg   24 16.67
BDV       0.78  245 iPgc  24 05.87   0.0
                    iSg   24 17.32
BRY       0.95  288 iPgc  24 09.01   0.1
                    iSg   24 23.08
     S.D. = 0.2  on   6 of   6 obs.
-----------------------------------------
? MAR 05, 1993  12h 24m 27.31± 2.20s
   32.550 S ±27.4km   68.010 W ±12.0km
   DEPTH =  33.0km  (normal)
 MENDOZA PROVINCE, ARGENTINA        (139)

RTCV      0.82  327 ePc   24 41.80  -0.7
                    S     24 55.90
CFA       0.96  348 eP    24 44.80   0.3
                    S     25 01.00
RTBS      1.51  305 ePc   24 52.70   0.4
                    eS    25 14.50
MRA       1.95   87 eP    24 58.50  -0.2
                    S     25 25.00
RTPR      2.58   30 ePc   25 13.50   5.9X
TCA       3.15   68 e(P)  25 16.00   0.2
                    (S)   26 03.70
     S.D. = 0.6  on   5 of   6 obs.
-----------------------------------------
? MAR 05, 1993  12h 41m 44.77± 1.33s
   37.540 S ±19.1km  177.063 E ±27.4km
   DEPTH = 189.6 ± 21.3 km
   4.0mb (  1 obs.)
 OFF E. COAST OF N. ISLAND, N.Z.    (160)

URZ       0.72  177 P     42 11.60  -0.3
                    S     42 35.20
PUZ       1.09  120 P     42 12.10  -2.3
                    S     42 35.80
PAHZ      1.32  180 eP    42 17.20   0.9
NOZ       1.32  145 P     42 16.00  -0.2
MOH       1.59  178 P     42 20.20   1.5
```

05d 12h

TTH 2.01 185 eP 42 24.70 1.8
WAHZ 2.23 194 eP 42 26.60 1.2
TEHZ 2.45 185 eP 42 29.10 1.2
PGZ 3.14 191 P 42 36.60 0.7
MNG 3.31 201 P 42 38.30 0.2
eS 43 24.20
KIW 3.72 206 P 42 43.00 -0.1
MTW 3.81 198 P 42 43.90 -0.4
CAW 3.89 203 P 42 45.00 -0.3
BLW 4.02 197 eP 42 46.80 -0.1
DIW 4.07 216 eP 42 46.90 -0.7
MRW 4.11 206 eP 42 47.30 -0.9
eS 43 41.20
MOW 4.12 199 P 42 47.50 -0.8
WEL 4.14 205 eP 42 48.20 -0.3
TCW 4.26 210 P 42 49.10 -0.9
KHZ 5.57 208 P 43 05.70 -1.3
eS 44 13.50
ASPA 39.30 278 eP 48 57.80 1.0
0.8s 3.30nm 4.0mb
S.D. = 1.1 on 21 of 21 obs.
----
* MAR 05, 1993 12h 54m 13.71± 1.22s
39.224 N ±12.1km 118.496 W ± 6.6km
DEPTH = 5.0km (geophysicist)
NEVADA (37)
ML 2.7 (GS).

KVN 0.35 119 ePc 54 21.17 0.3
BONR 1.28 173 eP 54 38.46 0.4
TNP 1.52 138 eP 54 41.68 -0.1
S 55 01.77
MRCM 1.55 180 (Pn) 54 42.18 0.0
MEMM 1.59 193 (P) 54 44.15 1.6
MTUM 1.87 182 eP 54 44.79 -2.0
CM8 1.90 232 ePn 54 46.70 -0.4
S 55 13.75
ORV 2.35 279 eP 54 53.91 0.3
TPNV 2.88 141 ePn 55 01.77 0.5
S 55 43.95
ARUT 4.22 108 (Pn) 55 19.77 -0.5
S.D. = 1.0 on 10 of 10 obs.

% MAR 05, 1993 12h 56m 12.73± 0.94s
39.396 N ± 8.3km 22.765 E ±11.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

AGG 0.50 222 ePg 56 23.00 0.0
eSg 56 31.84
LIT 0.74 343 ePg 56 26.72 -0.5
eSg 56 38.32
PAIG 0.88 53 ePg 56 29.40 -0.3
THE 1.24 7 ePb 56 36.32 0.5
SOH 1.49 17 ePb 56 39.88 0.2
eSb 56 59.32
KNT 1.77 3 ePb 56 43.48 -0.1
S.D. = 0.4 on 6 of 6 obs.
----
* MAR 05, 1993 13h 04m 21.24± 0.92s
36.361 S ±17.9km 52.721 E ±13.6km
DEPTH = 10.0km (geophysicist)
4.9mb (6 obs.)
SOUTHWEST INDIAN RIDGE (428)

VTY 17.81 344 eP 08 32.00 1.0
AVY 17.92 344 eP 08 34.00 1.6
PRY 23.41 287 eP 09 29.00 -2.3
FRS 23.85 278 iPd 09 37.60 2.3
0.7s 16.00nm 4.7mb
BCAO 51.65 314 iPc 13 29.50 -0.9
0.7s 6.00nm 4.6mb
ASPA 69.57 105 iPd 15 33.80 1.2
0.6s 19.10nm 5.4mb
DMN 70.56 30 P 15 37.60 -1.1
PKI 70.65 31 P 15 38.80 -0.6
GKN 70.72 30 P 15 38.40 -1.2
KKN 70.79 30 P 15 38.60 -1.5
GUN 71.14 31 P 15 42.60 0.2
0.8s 17.00nm 5.2mb
WB2 71.90 102 iPc 15 47.90 1.1
0.7s 3.70nm 4.6mb
i 15 55.20
ePP 17 32.60
LZH 86.32 39 eP 17 05.50 0.8
1.5s 19.00nm 5.1mb
YKA 152.68 347 ePKP 24 10.70 -0.6
0.9s 2.10nm
S.D. = 1.5 on 14 of 14 obs.

MAR 05, 1993 13h 20m 21.13± 0.66s
39.096 N ± 7.0km 21.890 E ± 5.8km
DEPTH = 23.0 ± 6.3 km
GREECE (364)
ML 3.3 (THE). MD 3.2 (ATH).

AGG 0.35 102 ePg 20 28.72 -0.1
eSg 20 36.96
LIT 1.11 25 ePb 20 41.48 0.3
eSb 20 58.56
KZN 1.21 356 ePb 20 41.50 -1.3
IGT 1.28 290 ePb 20 42.64 -1.1
VLS 1.37 228 ePb 20 43.00 -1.9
LSK 1.45 317 ePn 20 44.70 -1.4
PAIG 1.61 58 ePb 20 48.72 0.3
eSb 21 10.24
SRN 1.66 299 ePn 20 51.20 2.1
iSn 21 11.20
FNA 1.73 347 ePb 20 50.12 -0.1
eSb 21 15.24
KEK 1.73 291 ePg 20 51.00 0.8
THE 1.74 28 ePb 20 50.32 0.0
eSb 21 15.52
TPE 1.88 310 ePn 20 55.40 3.1X
GRG 1.90 12 ePn 20 52.20 -0.4
SOH 2.06 33 ePn 20 54.96 0.0
eSn 21 22.32
OHR 2.18 338 iPn 20 58.90 2.2X
i 21 07.50
i 21 27.60
Lg 21 31.60
KNT 2.20 20 ePn 20 57.32 0.3
eSn 21 24.76
VAY 2.28 13 iPn 20 27.40 -30.7X
SRS 2.40 32 ePn 20 59.76 -0.1
eSn 21 29.72
VLI 2.51 160 ePb 21 02.50 1.1
TIR 2.73 326 ePn 21 06.40 1.9
SKO 2.89 353 ePn 21 05.00 -1.7
LACI 3.04 327 ePn 21 10.00 1.3
S.D. = 1.3 on 19 of 22 obs.

MAR 05, 1993 13h 56m 00.28± 0.70s
42.447 N ± 7.4km 24.247 E ± 9.5km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 3.2 (THE).

SRS 1.42 200 ePb 56 26.16 0.1
eSb 56 47.96
KNT 1.63 219 ePb 56 29.32 0.2
eSb 56 53.00
VAY 1.68 229 iPn 56 59.00 29.1X
SOH 1.76 203 ePb 56 30.96 0.0
GRG 2.03 223 ePn 56 35.32 0.3
eSn 57 03.36
ALN 2.05 138 ePn 56 34.88 -0.3
OUR 2.12 185 ePn 56 36.56 0.4
SKO 2.14 258 ePn 56 36.00 -0.5
FNA 2.72 233 ePn 56 44.60 -0.3
OHR 2.90 244 ePn 56 52.70 5.3X
MLR 3.28 21 eP 56 55.00 2.1
e 12 31.00
VRI 3.86 27 eP 56 59.00 -1.9
e 12 31.50
S.D. = 1.1 on 10 of 12 obs.

MAR 05, 1993 14h 00m 14.25± 0.27s
29.497 S ± 6.9km 60.914 E ± 5.3km
DEPTH = 10.0km (geophysicist)
5.5mb (27 obs.) 4.8Msz (5 obs.)
SOUTHWEST INDIAN RIDGE (428)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 23S, 39C
Centroid Location:
Origin Time 14:00:20.1 0.4
Lat 29.46S 0.06 Lon 61.13E 0.09
Dep 15.0 FIX Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr=-6.45 0.41 Mtt= 4.26 0.42
Mff= 2.19 0.49 Mrt= 5.66 1.20
Mrf= 5.92 1.60 Mtf= 2.99 0.53
Principal Axes:
T Val= 10.30 Plg=26 Azm=320
N 0.20 5 228
P -10.50 64 128
Best Double Couple:Mo=1.0*10**17
NP1:Strike= 62 Dip=20 Slip= -76
NP2: 226 71 -95

AVY 15.97 308 eP 04 00.60 -0.2
VTY 15.99 307 eP 04 01.80 0.7
CRZF 18.33 200 eP 04 36.00 6.0X
PAF 21.06 163 eP 05 06.00 5.4X
BFT 27.58 270 eP 06 04.00 0.2
GRM 29.48 254 eP 06 06.50 -14.1X
PRY 29.52 267 eP 06 17.00 -4.3X
0.5s 12.00nm 5.0mb
BLF 30.22 262 eP 06 24.00 -3.5X
KSR 30.28 269 eP 06 26.00 -2.0
0.7s 16.00nm 5.0mb
BUL 30.68 280 iPc 06 29.50 -2.0
1.0s 21.00nm 5.0mb
i 06 31.40
FRS 30.87 261 iPc 06 31.60 -1.3
CER 35.56 253 e(P) 07 14.00 0.3
NAI 36.26 316 eP+ 07 23.00 3.1X
Z 24s 0.70um 4.4MszX
ePPP 08 50.00
iS 13 10.00
GBA 45.72 23 Pd 08 37.00 -0.4
NVL 49.35 199 eP 09 13.00 7.7X
1.8s 54.00nm 5.3mb
Z 16s 0.70um 4.8MszX
N 17s 0.40um
E 17s 0.30um
HYB 49.65 22 eP 09 08.00 -0.2
IPM 51.26 55 ePc 09 21.80 1.3
BCAO 52.81 302 iPc 09 31.90 -0.4
1.1s 72.00nm 5.5mb
id 09 40.90
OUE 59.63 6 eP 10 21.10 0.1
NDI 59.91 17 eP 10 22.00 -0.7
CHTO 60.43 42 eP 10 25.90 -0.6
SPA 60.67 180 iPc 10 25.80 -2.0
0.9s 25.00nm 5.3mb
DMN 61.32 24 P 10 32.40 -0.3
1.1s 52.00nm 5.6mb
PKI 61.40 25 P 10 31.80 -1.5
1.0s 22.00nm 5.3mb
GKN 61.51 24 P 10 32.60 -1.3
0.9s 59.00nm 5.7mb
KKN 61.55 25 P 10 33.80 -0.4
1.1s 59.00nm 5.7mb
GUN 61.88 25 P 10 35.00 -1.6
ASPA 64.57 104 iPd 10 52.40 -1.7
0.7s 22.70nm 5.5mb
Z 22s 0.30um 4.4Msz
MAIO 65.46 359 iPd 10 59.00 -0.5
eS 19 50.00
WRA 66.42 100 P 11 05.09 -1.0
WB2 66.43 100 iPc 11 04.70 -1.4
0.9s 11.60nm 5.1mb
i 11 13.60
BFD 66.67 121 eP 11 07.20 -0.1
KMI 67.54 41 Pc+ 11 13.50 0.2
4.0s 0.60nm 3.1mb X
pP 11 23.00 30kmX
pP 11 25.00
sP 11 28.50
TOO 68.72 122 eP 11 21.00 0.6
0.9s 22.00nm 5.3mb
GRS 69.97 348 iPd 11 28.00 0.1
1.5s 120.00nm 5.8mb
ERE 70.98 347 iP 11 34.00 0.0
2.6s 50.00nm 5.2mb
BWA 72.12 120 iPc 11 43.10 2.0
epP 11 51.30 26kmX
CAN 72.20 121 eP 11 41.80 0.3
epP 11 50.50 28kmX
KIC 72.34 288 P 11 42.90 0.3
LIC 72.51 288 P 11 43.80 0.3
Z 20s 0.24um 4.5Msz
FRU 73.07 10 eP 11 46.50 0.2
3.0s 450.00nm 6.0mb
e 12 09.20
PYA 74.98 347 ePc 11 57.00 -0.3
i 12 07.00

```
ARMA     76.27 117 eP      12 06.30    1.1
CTA      76.48 106 iPc     12 15.00    8.6X
SKO      79.90 331 eP      12 20.00   -4.6X
SSE      83.16  49 Pc      12 41.50   -0.4
         1.0s    11.00nm            5.0mb
UZH      85.10 335 eP      13 01.20    9.9X
         1.4s    32.00nm            5.4mb
ELT      85.30  15 iPd     12 52.40    0.3
         2.6s   250.00nm            6.0mb
ARU      85.58 359 ePd     12 53.50    0.1
         2.2s   460.00nm            6.3mb
SRO      85.95 333 iP      12 55.50    0.0
SVE      85.96 360 iPd     12 56.00    0.7
         2.1s   220.00nm            6.0mb
      Z  19s      0.60um            5.0Msz
      N  19s      0.50um
BJI      86.13  39 eP      12 56.50   -0.1
      Z  24s      0.38um            4.7MszX
SPC      86.32 335 eP      12 58.10    0.5
ZST      86.74 332 eP      12 59.50    0.1
OBN      86.80 346 eP      13 00.00    0.5
         2.1s   290.00nm            6.1mb
      Z  20s      0.60um            5.0Msz
MOS      87.20 347 iPc     13 03.00    1.6
OJC      87.33 335 eP      13 12.00    9.8X
ZAK      87.94  26 eP      13 02.00   -3.0X
         3.0s   109.00nm            5.7mb
                   eS      23 36.00
GEC2     88.66 331 P       13 08.40   -0.3
         0.8s      1.02nm           4.2mb X
                   e       13 18.10
                   e       13 24.60
KHC      88.93 331 eP      13 09.00   -0.9
                   e       13 18.00
                   e       13 27.50
                   e       14 10.50
KSP      89.16 334 eP      13 11.00    0.0
                   e       13 22.00
PRU      89.19 332 eP      13 11.50    0.4
FUR      89.19 329 eP      13 11.30    0.1
LPG      89.38 325 eP      13 13.00    0.5
IRK      89.84  25 ePc     13 13.80   -0.3
         2.0s    33.00nm            5.2mb
BRG      90.12 332 eP      13 16.00    0.6
         1.3s    34.00nm            5.4mb
                   e       13 24.60
CLL      90.83 332 iPc     13 19.40    0.7
         2.7s   140.00nm            5.8mb
MOX      90.91 331 eP      13 20.50    1.4
CDF      91.20 328 eP      13 20.90    0.3
         1.6s    32.95nm            5.4mb
RES     133.13 351 ePKP    19 33.50    2.8X
IMA     137.73  20 ePKP    19 39.96    0.0
RSNY    141.87 306 PKP     20 00.00   12.1X
      Z  22s      0.27um            5.0Msz
EEO     144.60 310 ePKP    19 54.00    1.5
BALM    144.86  20 iPKPc   19 52.00   -0.6
CVL     145.39 295 ePKP    19 52.72   -1.3
                   e       20 03.11
FCC     146.08 337 ePKP    19 57.50    3.0X
YKA     146.87 356 ePKP    19 56.40    0.7
         0.8s    21.70nm
BLA     146.98 294 ePKP    19 58.21    1.4
NAV     147.27 294 ePKPd   19 58.70    1.5
                   e       20 08.51
LHS     147.29 289 ePKPc   19 58.61    1.3
                   e       21 00.94
JSC     147.65 288 ePKP    20 00.12    2.3X
                   e       20 09.43
PRM     148.56 288 ePKP    20 02.00    2.6X
ULM     152.87 326 ePKP    20 14.50    9.3X
RSSD    161.12 325 PKP     20 30.00   14.1X
      Z  21s      0.28um
BW06    164.69 333 ePKP    20 18.40   -1.0
GOL     164.81 316 PKP     20 30.00   10.3X
      Z  19s      0.67um            5.7Msz
PV08    167.48 319 ePKP    20 23.70    1.8
PV10    167.84 319 ePKP    20 23.35    1.3
                   e       20 31.81
BONR    171.54 356 ePKP    20 26.68    2.5X
                   e       20 35.64
                   iPKPab21 47.30
TUC     172.34 294 ePKP    20 26.88    2.5X
                   e       20 36.63
GSC     173.90 342 ePKP    20 28.02    3.1X
                   e       20 36.80
    S.D. = 1.0  on  68 of  91 obs.

-------------------------------------
* MAR 05, 1993   14h 47m 35.22± 2.67s
   60.441 N ±13.1km    4.811 E ±20.6km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                   (535)
      ML 1.5 (NAO). MD 1.9 (BER).

ASK       0.19  77 eP      47 38.20   -1.3
                   eS      47 41.15
BER       0.27 102 eP      47 44.15    3.3X
EGD       0.27 129 eP      47 41.00    0.2
                   eS      47 46.95
SUE       0.62 358 eP      47 47.12   -0.5
                   eS      47 54.41
HYA       0.99  42 eP      47 55.17    1.2
                   eSg     48 10.14
ODD1      1.05 120 eP      47 57.92    2.8X
                   eS      48 12.73
NRA0      3.33  82 ePn     48 28.92    0.5
                   ePg     48 36.19
                   eLg     49 26.29
      S.D. = 1.3  on   5 of   7 obs.
-------------------------------------
? MAR 05, 1993   14h 50m 19.35± 1.94s
   36.548 N ±23.7km   32.105 E ±24.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      ML 3.2 (CSS).

BCK       1.52 307 ePn     50 46.10   -0.5
PPCY      1.67 173 eP      50 48.00   -0.8
                   eS      51 11.60
ELL       1.78 277 iPn     50 51.10    0.7
CSS       1.87 147 eP      50 52.30    0.6
                   eS      51 20.00
KHL       2.71 312 ePn     50 58.00   -5.9X
      S.D. = 1.3  on   4 of   5 obs.
-------------------------------------
  MAR 05, 1993   14h 50m 50.16± 0.92s
   49.106 N ± 7.9km    6.856 E ± 7.9km
   DEPTH =   5.0km  (geophysicist)
 GERMANY                           (543)

RUP       0.61  13 ePg     51 01.72   -0.7
WLF       0.72 321 iPd     51 04.36   -0.3
                   iS      51 13.85
ABH       0.90  30 ePg     51 07.23   -0.6
FEL       1.45 148 ePg     51 17.26    0.1
TNS       1.52  42 ePnc    51 19.40    1.3
                   eSn     51 36.90
ENN       1.77 340 ePn     51 23.00    1.4
          0.6s     8.30nm
                   eSn     51 46.00
DOU       1.77 305 iPnc    51 21.10   -0.6
                   iPg     51 23.90
GEC2      4.52  91 Pn      52 00.30   -0.6
                   Sg      53 14.10
      S.D. = 1.0  on   8 of   8 obs.
-------------------------------------
& MAR 05, 1993   15h 16m 19.09s
   38.827 N           122.779 W
   DEPTH =   2.2km
 NORTHERN CALIFORNIA               ( 36)
      <GM-P>. MD 3.4 (GM). ML 3.6
      (BRK). Felt (IV) at Cobb.

NTYM      0.45 168 eP      16 28.11    0.1
ZSP       0.97 155 iPc     16 37.70   -0.6
                   eS      16 52.75
HMR       1.02 131 eP      16 38.83   -0.3
BKS       1.04 156 iPc     16 38.32   -1.1
                   eS      16 52.96
ORV       1.23  53 iPd     16 41.37   -1.4
JEGM      1.33 169 eP      16 41.93   -2.5
                   eS      17 01.72
PCC       1.36 167 iPc     16 43.02   -1.9
                   eS      17 04.81
STAN      1.50 161 ePc     16 46.83   -0.2
MHC       1.73 148 eP      16 49.61   -0.9
WDC       1.76   6 ePn     16 51.72    1.0
MIN       1.77  31 ePc     16 50.00   -1.0
ARN       1.77 146 ePn     16 48.93   -2.1
COE       1.79 151 ePn     16 49.87   -1.4
KMPM      1.90 327 ePn     16 53.52    0.7
LMEM      1.95  28 (Pn)    16 53.73    0.1
CMB       2.04 112 iPc     16 53.55   -1.3
                   eS      17 19.39
LGPM      2.08 359 ePn     16 57.93    2.4
FHC       2.18 335 (Pn)    16 59.71    2.8
SAO       2.31 152 eP      16 55.77   -3.1
LLA       2.64 146 eP      17 00.96   -2.5
MEMM      3.24 110 eP      17 12.32    0.5
                   eSg     17 58.44
PHAM      3.54 147 (Pn)    17 14.77   -1.4
MRCM      3.56 108 (Pn)    17 16.41   -0.2
BONR      3.62 103 ePn     17 17.21   -0.5
MTUM      3.64 113 ePn     17 17.82    0.1
KVN       3.66  85 ePn     17 16.36   -1.7
TNP       4.43  98 (Pn)    17 27.49   -1.6
                   ePg     17 39.09
ISA       4.67 131 ePn     17 29.91   -2.4
TPNV      5.49 108 (Pn)    17 43.53   -0.6
                   ePg     17 59.90
SSK       6.16 137 eP      17 51.17   -2.4
ARUT      7.42  95 ePg     18 33.32   22.2
YKA      24.22   9 eP      21 50.70   13.0
          0.7s     0.40nm
          32 obs. associated
-------------------------------------
  MAR 05, 1993   15h 19m 22.32± 0.29s
   36.434 N ± 4.6km   26.702 E ± 3.3km
   DEPTH = 149.7 ±  4.1 km
   4.2mb ( 17 obs.)
 DODECANESE ISLANDS                (369)

NPS       1.47 217 iPnd    19 52.00    0.2
IZM       2.01  13 iPn     19 57.40   -0.6
KSL       2.35  97 iPnc    20 03.10    1.1
                   eSn     20 31.00
ELL       2.60  82 iPn     20 06.50    1.2
PRK       2.83 353 ePn     20 07.00   -1.0
ATH       2.84 304 ePn     20 08.60    0.5
KHL       2.93  49 ePn     20 09.10   -0.3
VLI       3.04 276 ePn     20 11.00    0.2
BCK       3.28  71 ePn     20 15.10    1.2
DST       3.51  25 iP      20 15.60   -1.3
AGG       4.32 308 eP      20 28.24    0.7
RDO       4.79 349 ePn     20 33.00   -0.7
PPCY      4.85 107 eP      20 33.90   -0.6
                   eS      21 24.90
SOH       5.10 330 eP      20 38.40    0.4
VLS       5.17 291 ePn     20 39.00    0.1
SRS       5.27 333 eP      20 39.00   -1.1
KZN       5.47 316 ePn     20 43.00    0.1
CSS       5.59 103 eP      20 43.80   -0.7
                   eS      21 42.50
GRG       5.63 325 eP      20 45.52    0.5
KEK       6.35 303 ePn     20 55.30    0.6
ADI       7.77 113 eP      21 12.90   -0.9
GLH       8.27 114 eP      21 20.40    0.0
DSI       8.68 121 eP      21 25.80   -0.2
MBH       9.55 132 eP      21 37.30   -0.2
KBA      14.55 321 iPc     22 45.80    3.5X
          0.6s    11.60nm           4.4mb
GEC2     15.63 327 Pn      22 56.80    1.1
                   Sn      23 27.70
LPG      17.54 307 eP      23 18.90   -0.4
          0.7s     7.60nm           4.1mb
LPL      17.56 307 eP      23 19.10   -0.3
          0.5s     5.70nm           4.2mb
CDF      18.62 316 eP      23 30.60   -0.2
HAU      18.94 314 eP      23 33.60   -0.5
          0.4s     3.50nm           4.0mb
SMF      19.86 308 eP      23 42.90   -0.7
          0.5s     7.85nm           4.4mb
LBF      19.91 309 eP      23 43.70   -0.4
          0.5s     3.45nm           4.0mb
LOR      20.09 310 eP      23 46.40    0.4
          0.6s     3.25nm           3.9mb
AVF      20.22 308 eP      23 46.60   -0.6
          0.6s     3.45nm           4.0mb
SSF      20.23 309 eP      23 47.00   -0.3
          0.4s     6.05nm           4.4mb
BGF      20.46 307 eP      23 49.50   -0.1
          0.5s     5.70nm           4.3mb
CAF      20.46 302 eP      23 49.70    0.0
RJF      20.94 303 eP      23 54.00   -0.4
LPO      21.00 301 eP      23 54.60   -0.5
MFF      22.42 305 eP      24 08.90   -0.1
          0.4s     2.20nm           3.9mb
LDF      23.08 310 eP      24 15.50    0.2
          0.5s     3.65nm           4.1mb
FLN      23.36 310 eP      24 18.20    0.2
          0.7s     8.80nm           4.3mb
```

05d 15h

LPF 23.45 308 eP 24 19.10 0.2
GRR 23.46 309 eP 24 19.30 0.3
0.5s 7.75nm 4.4mb
NUR 24.13 358 eP 24 26.20 0.9
0.4s 2.50nm 4.1mb
HFS 25.15 345 eP 24 34.20 -0.6
0.4s 1.70nm 3.9mb
KAF 25.70 360 iP 24 42.50 2.6
0.4s 5.30nm 4.5mb
S.D. = 0.8 on 46 of 47 obs.

% MAR 05, 1993 15h 41m 20.79± 1.57s
33.134 S ± 6.4km 70.240 W ±12.5km
DEPTH = 13.4 ± 5.4 km
CHILE-ARGENTINA BORDER REGION (127)

FCH 0.20 192 iP 41 25.32 -0.3
(S) 41 28.15
PEL 0.37 268 iP 41 28.38 -0.3
iS 41 33.78
PCH 0.54 205 iP 41 31.69 0.1
iS 41 39.26
JACH 0.54 327 iP 41 31.74 0.1
iS 41 39.12
ROCH 0.67 284 iP 41 33.88 0.0
iS 41 43.01
TACH 0.78 228 iP 41 35.88 0.2
iS 41 46.20
CHCH 0.87 203 iP 41 37.45 0.2
iS 41 49.16
LCCH 1.16 253 (P) 41 42.43 0.2
iS 41 57.67
LNV 1.28 230 iP 41 43.91 -0.2
iS 42 00.51
S.D. = 0.3 on 9 of 9 obs.

MAR 05, 1993 16h 14m 27.63± 0.59s
31.989 S ±11.7km 67.379 W ± 5.6km
DEPTH = 119.8 ± 8.4 km
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.83 297 ePd 14 48.50 0.2
S 15 04.00
RTCV 0.99 277 iPc 14 50.00 0.1
S 15 07.70
RTLL 1.14 305 iPd 14 51.50 0.1
S 15 06.70
RTCB 1.31 292 iPc 14 52.70 -0.6
S 15 07.50
MRA 1.48 107 ePc 14 55.20 0.1
S 15 16.00
RTBS 1.80 280 eP 14 59.00 0.1
S 15 25.00
RTPR 1.84 24 eP 14 59.30 -0.2
S 15 23.90
TCA 2.46 75 iPc 15 07.60 0.0
(S) 15 34.00
RTRS 2.54 315 ePd 15 08.90 0.4
WB2 124.32 205 iPdiff29 48.80 0.0
0.3s 1.70nm
S.D. = 0.3 on 10 of 10 obs.

% MAR 05, 1993 17h 31m 47.54± 1.05s
34.073 S ±10.0km 71.016 W ± 6.5km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.0 (SAN).

CHCH 0.33 65 iP 31 56.38 0.6
iS 32 06.27
CACH 0.35 97 iP 31 55.72 -0.4
iS 32 05.93
LNV 0.35 290 iP 31 56.18 0.3
iS 32 06.18
TACH 0.42 9 iP 31 58.10 1.1
PCH 0.62 43 iP 31 59.90 0.0
iS 32 13.22
SAN 0.69 26 iP 32 01.30 0.5
iS 32 15.51
LCCH 0.75 322 iP 32 01.35 -0.4
iS 32 16.77
FCH 0.96 39 iP 32 04.63 -0.4
iS 32 21.65
PEL 0.97 17 iP 32 04.53 -0.3
iS 32 21.92
ROCH 1.10 0 iP 32 06.66 -0.2
iS 32 24.90

JACH 1.43 14 iP 32 10.75 -0.8
iS 32 32.51
S.D. = 0.6 on 11 of 11 obs.

MAR 05, 1993 17h 41m 50.78± 0.53s
51.611 N ± 3.8km 16.137 E ± 4.8km
DEPTH = 10.0km (geophysicist)
3.9mb (1 obs.)
POLAND (548)
ML 4.2 (GRF). MD 3.8 (VIE).

KSP 0.78 173 iPd 42 05.30 -0.6
0.7s 296.00nm
iS 42 15.00
BRG 1.56 243 iPn 42 18.60 0.0
iPg 42 19.80
iSg 42 39.40
BRNL 1.90 297 eP 42 25.00 1.5
PRU 1.91 213 iPnd 42 23.60 -0.1
Pg 42 25.40
i 42 29.50
eSg 42 47.00
i 42 57.00
CLL 1.98 262 iPn 42 25.10 0.4
0.5s 32.00nm
iPg 42 28.90
iSg 42 54.20
VRAC 2.32 173 ePn 42 30.20 0.6
ePg 42 34.60
eSg 43 02.90
OJC 2.70 120 iP 42 41.90 6.8X
iS 43 16.90
KHC 2.97 214 iPn 42 39.00 0.1
Pg 42 45.00
e 42 51.00
Sn 43 14.00
e 43 30.50
HOF 2.99 246 iPnc 42 39.40 0.3
MOX 3.01 253 ePn 42 39.60 0.3
iPg 42 48.10
iSg 43 27.90
GEC2 3.18 210 Pn 42 41.50 -0.4
Pg 42 48.20
Sn 43 28.30
Sg 43 37.10
WET 3.23 221 ePn 42 42.50 0.0
VKA 3.35 178 iPnd 42 45.20 0.9
i 42 52.80
iSn 43 36.60
ZST 3.48 169 ePn 42 45.70 -0.3
i 42 55.10
i 43 15.10
e(Sn) 43 33.70
i 43 40.80
SPC 3.58 131 e(Pn) 42 55.30 7.7X
i 43 02.00
i(Sn) 43 47.40
GRF 3.67 240 ePn 42 48.90 0.1
ePg 43 01.70
e 43 41.30
e 43 48.00
e(Sg) 43 53.10
SOP 3.94 176 eP 43 03.00 10.4X
SRO 4.06 159 e(Pn) 42 54.30 0.1
i 43 12.20
i 43 58.50
Lg 44 20.00
FUR 4.67 224 iPd 43 02.50 -0.4
KBA 4.89 203 iPnc 43 06.00 -0.2
i 43 14.30
iSn 44 14.10
i 44 28.10
i 44 34.50
TNS 5.06 257 ePnc 43 07.90 -0.6
eSn 44 32.90
WATA 5.21 217 iPnd 43 10.80 0.1
i 44 22.90
i 44 36.00
WTTA 5.25 216 iPnc 43 11.40 0.1
i 44 28.00
i 44 39.20
MOTA 5.38 219 iPnc 43 12.40 -0.8
iSn 44 30.20
SQTA 5.44 218 iPnc 43 14.60 0.6
i 44 44.00
PTJ 5.72 181 eP 43 41.30 23.4X
ABH 5.72 256 eP 43 17.03 -0.8

WTS 5.80 277 eP 43 19.00 0.2
0.7s 7.50nm 4.5mb X
e(S) 45 15.00
OGA 5.81 217 eP 43 19.30 0.1
RUP 6.08 255 eP 43 14.82 -8.1X
DOU 7.46 263 iP 43 41.70 -0.5
HFS 8.65 352 eP 43 57.60 -1.3
0.4s 1.90nm 4.7mb X
YKA 59.77 336 eP 51 58.40 0.7
0.7s 0.70nm 3.9mb
S.D. = 0.6 on 28 of 33 obs.

MAR 05, 1993 17h 48m 57.06± 0.38s
8.270 S ± 5.9km 122.527 E ± 7.9km
DEPTH = 33.0km (normal)
4.9mb (7 obs.)
FLORES REGION, INDONESIA (286)

MTN 9.60 119 iPd 51 14.70 -1.4
0.4s 113.00nm 6.4mb X
SWI 11.39 50 ePc 51 41.00 0.4
WB2 16.30 137 iPc 52 34.70 -10.6X
0.3s 1.00nm
i 52 40.50
iS 55 37.10
WARB 18.24 168 eP 53 09.00 -0.5
MEEK 18.64 191 eP 53 05.00 -9.4X
ASPA 18.79 146 iPd 53 14.80 -1.5
0.6s 35.90nm 4.8mb
Z 19s 0.70um 4.4Msz
eS 56 30.90
eScS 04 51.80
MRWA 21.73 196 eP 53 47.30 -0.2
COOL 22.54 183 eP 53 54.80 -0.8
BAL 22.88 193 eP 53 59.00 0.1
FORT 22.98 168 eP 54 00.00 0.1
0.7s 36.00nm 5.0mb
KLB 23.63 190 eP 54 06.40 0.2
MUN 24.31 193 eP 54 13.00 0.2
PMG 24.36 95 e(P) 54 12.00 -1.5
IPM 24.96 300 ePc 54 29.80 10.6X
NWAO 25.02 191 eP 54 20.00 0.4
CTA 25.79 120 iP 54 28.50 1.5
1.0s 10.00nm 4.4mb
KHT 32.98 314 eP 55 32.60 1.3
BFD 34.03 151 eP 55 41.10 0.9
0.9s 11.00nm 4.8mb
ARMA 35.01 133 eP 56 06.40 17.5X
0.7s 5.00nm
CHTO 35.57 319 eP 55 54.00 0.4
TOO 35.82 148 eP 55 58.00 2.4
BJI 48.42 353 eP 57 37.50 -0.6
1.4s 24.00nm 5.0mb
GBA 49.76 296 P 57 59.00 10.2X
HYB 50.39 301 eP 57 50.00 -3.7X
GUN 50.49 317 P 57 54.20 -0.4
PKI 50.59 316 P 57 54.00 -1.4
0.5s 12.00nm 5.1mb
KKN 50.82 316 P 57 56.20 -0.8
DMN 50.83 316 P 57 56.20 -0.9
GKN 51.40 316 P 58 00.60 -0.7
YAK 70.29 4 eP 00 11.00 2.1
1.9s 46.00nm 5.2mb
MAIO 73.84 311 eP 00 31.00 0.4
AIA 106.51 177 ePdiff03 27.60 18.7X
CNCB 153.00 157 PKP 08 58.00 11.3X
S.D. = 1.1 on 25 of 33 obs.

% MAR 05, 1993 17h 55m 15.11± 0.61s
26.920 S ± 6.2km 26.818 E ± 5.7km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.5 (PRE).

BFS 0.04 306 eP 55 17.00 0.5
S 55 17.80
PRY 0.59 91 eP 55 26.30 -0.5
S 55 34.00
KSR 1.05 4 eP 55 35.20 -0.4
S 55 48.00
SWZ 1.36 259 iPc 55 40.20 -0.6
S 55 55.40
SEK 1.57 153 eP 55 44.50 0.6
S 56 02.10
SLR 1.77 48 eP 55 47.20 0.5
FRS 3.11 205 eP 56 05.50 -0.2
S 56 40.00

```
     S.D. = 0.7  on   7 of   7 obs.
--------------------------------------
•  MAR  05, 1993  18h 20m 59.28± 0.92s
   4.334 S ±14.9km  152.551 E ±10.7km
   DEPTH = 103.9 ±  8.9 km
   4.1mb (  2 obs.)
 NEW BRITAIN REGION, P.N.G.       (192)

RAB      0.41 290 iP     21 15.00  -0.1
         0.5s  3323.94nm
                  iS     21 29.00
PMG      7.35 226 eP     22 46.00   0.3
HNR      8.92 125 e(P)   23 07.00   0.0
WB2     23.56 227 eP     26 01.30   0.0
                  i      26 20.30
                  eS     30 06.90
ASPA    26.33 221 eP     26 27.00  -0.4
        0.6s      3.00nm          4.0mb
                  i      26 49.30
YKA     95.13  28 eP     34 11.80   0.2
        0.5s      0.60nm          4.3mb
     S.D. = 0.4  on   6 of   6 obs.
--------------------------------------
•  MAR  05, 1993  18h 25m 39.73± 3.24s
   51.512 N ±22.8km  16.125 E ±18.4km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
      ML 3.6 (GRF), 3.4 (VIE).

KSP      0.68 171 iPd    25 52.70  -0.5
        0.5s   106.00nm
                  iS     26 02.10
BRG      1.51 246 iPg    26 07.20   0.3
                  iSg    26 27.70
PRU      1.83 214 ePn    26 11.00  -0.4
                  Pg     26 13.20
                  eSn    26 30.20
                  Sg     26 37.50
                  i      26 44.30
CLL      1.97 265 iPn    26 12.90  -0.5
                  iPg    26 26.00
                  iSg    26 42.00
VRAC     2.23 172 ePn    26 17.70   0.5
      0.1s       2.90nm
                  eSg    26 50.50
KHC      2.89 215 ePn    26 26.60  -0.1
                  Pg     26 36.50
                  Sn     27 02.40
                  Sg     27 11.00
                  e      27 16.50
                  e      27 31.40
MOX      2.97 255 ePn    26 28.00   0.2
                  iPg    26 35.60
                  iSg    27 15.40
GEC2     3.09 211 Pn     26 29.70   0.2
                  Pg     26 36.00
                  Sg     27 18.80
WET      3.15 223 ePn    26 30.50   0.1
VKA      3.25 178 iPgd   26 41.00   9.2X
                  iSg    27 23.70
ZST      3.38 169 eP     27 27.10  53.5X
GRF      3.62 242 ePn    26 37.00   0.0
                  e(Pg)  26 49.10
                  e      27 22.30
                  e(Sg)  27 37.50
KBA      4.80 203 e(Pn)  26 59.50   5.6X
                  iSg    28 13.80
     S.D. = 0.4  on  10 of  13 obs.
--------------------------------------
?  MAR  05, 1993  18h 39m 24.58± 1.46s
   45.670 N ±27.3km   27.825 W ±13.6km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  7 obs.)
 NORTHERN MID-ATLANTIC RIDGE      (403)

FLN     18.79  71 eP     43 51.00   5.0X
     Z  20s     0.20um
MFF     19.17  77 eP     43 51.90   1.3
TCF     20.83  77 eP     44 08.10  -0.5
        0.8s      9.65nm          4.2mb
MAF     21.08  78 eP     44 10.80  -0.4
        0.9s     12.30nm          4.3mb
BGF     21.22  77 eP     44 12.20  -0.4
AVF     21.53  76 eP     44 15.10  -0.6
        1.2s     14.90nm          4.3mb
SSF     21.60  75 eP     44 16.00  -0.4
        1.3s     20.20nm          4.4mb
BSF     23.70  72 eP     44 37.50   0.3
RES     40.54 338 eP     47 06.50   1.5
        1.0s      3.00nm          3.9mb
YKA     49.48 322 eP     48 15.10  -1.4
        1.0s      0.90nm          3.7mb
BCAO    57.51 121 iPc    49 17.00   0.6
        0.5s      5.00nm          4.8mb
     S.D. = 1.0  on  10 of  11 obs.
--------------------------------------
•  MAR  05, 1993  20h 12m 22.99± 2.15s
   32.042 N ±22.8km  116.213 W ±13.1km
   DEPTH =   5.0km  (geophysicist)
 CALIF.-BAJA CALIF. BORDER REGION( 45)
      ML 3.3 (GS).

PLM      1.42 337 eP     12 48.93  -0.7
                  eS     13 07.33
PEC      2.01 337 eP     12 57.62  -0.4
                  eS     13 23.99
SSK      2.49 331 ePn    13 05.81   0.7
                  eS     13 40.31
GSC      3.29 352 ePn    13 16.58   0.3
                  eS     14 07.79
ISA      4.07 333 eP     13 27.64   0.3
BCH      4.50 315 (Pn)   13 33.30  -0.2
TUC      4.61  85 ePn    13 35.05   0.0
TPNV     4.89 360 ePn    13 39.08  -0.1
     S.D. = 0.5  on   8 of   8 obs.
--------------------------------------
   MAR  05, 1993  20h 30m 05.67± 0.21s
   54.557 N ± 4.0km  161.845 W ± 2.6km
   DEPTH =  33.0km  (normal)
   5.2mb ( 75 obs.)  4.6Msz ( 13 obs.)
 ALASKA PENINSULA                 ( 12)
      Mw 5.1 (HRV). ML 5.1 (PMR). Felt
      (IV) at Cold Bay, King Cove and
      Sand Point.
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 17S, 21C
      Centroid Location:
      Origin Time        20:30: 8.7 1.4
      Lat 54.40N 0.11 Lon 161.41W 0.32
      Dep  49.3 9.1 Half-duration  1.0
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 1.92 0.32  Mtt=-3.50 0.38
        Mff= 1.58 0.43  Mrt= 4.46 0.66
        Mrf= 1.87 0.77  Mtf= 0.58 0.68
       Principal Axes:
        T   Val=  5.39  Plg=52  Azm=314
        N         0.65      21       73
        P        -6.04      30      176
      Best Double Couple:Mo=5.7*10**16
       NP1:Strike=312 Dip=25 Slip= 151
       NP2:        69     78        68

SDN      1.11  44 iPd    30 25.86   1.0
KDC      6.13  55 eP     31 33.98  -2.2
MCNL     6.20  39 eP     31 37.35   0.1
SYI      6.61  48 eP     31 42.04  -1.0
PDB      6.69  35 eP     31 44.11   0.0
INW      7.26  37 eP     31 52.69   0.5
INE      7.28  37 eP     31 53.19   0.7
SVW      7.36  24 eP     31 53.95   0.4
RDW      7.67  36 eP     31 58.38   0.3
RS1      7.67  36 eP     31 58.66   0.6
RS2      7.68  36 eP     31 59.09   1.0
RSO      7.68  36 eP     31 58.35   0.2
NCT      7.69  35 eP     31 58.44   0.2
REF      7.71  36 eP     31 59.32   0.7
DFR      7.79  35 eP     31 59.24  -0.4
CKL      8.36  33 eP     32 07.28  -0.2
BGL      8.39  33 eP     32 09.23   1.3
CKT      8.40  34 eP     32 08.35   0.2
CKN      8.43  34 eP     32 08.86   0.4
SPU      8.44  34 eP     32 08.17  -0.4
CP2      8.44  33 eP     32 09.03   0.3
CPAM     8.47  34 eP     32 09.73   0.7
CRP      8.47  34 eP     32 09.41   0.3
                  eSg    34 52.08
SLKM     8.63  42 eP     32 10.14  -1.1
SEW      8.70  45 eP     32 09.54  -2.6X
TTA      8.92  17 eP     32 14.90  -0.4
MPA      8.96  43 eP     32 14.14  -1.6
SUA      9.08  36 eP     32 16.25  -1.3
SKT      9.21  32 eP     32 19.37   0.3
ADK      9.30 259 (P)    32 22.37   2.1
PTE      9.32  42 eP     32 18.30  -2.3X
PMS      9.35  39 eP     32 20.30  -0.9
PWA      9.51  37 eP     32 23.70   0.4
PMR      9.74  38 eP     32 23.78  -2.6X
GHO      9.93  38 eP     32 25.12  -4.0X
HIN     10.11  48 eP     32 27.87  -3.7X
SML     10.17  39 eP     32 28.72  -3.6X
CVA     10.51  49 eP     32 32.43  -4.5X
VLZ     10.55  45 eP     32 34.64  -2.9X
SCM     10.56  40 eP     32 35.08  -2.6X
TRF     10.71  29 eP     32 38.61  -1.2
SGAM    10.73  50 eP     32 35.57  -4.4X
KAIM    10.85  53 P      32 38.80  -2.8X
KLU     10.91  44 eP     32 39.12  -3.5X
RAGM    10.92  51 eP     32 38.94  -3.6X
SDG     11.64  40 eP     32 49.59  -2.8X
CRQM    11.76  51 eP     32 50.94  -3.2X
GLB     11.76  47 eP     32 50.50  -3.6X
TGL     11.90  51 eP     32 53.02  -2.9X
PAX     11.94  39 eP     32 53.55  -2.9X
IMA     12.22  16 eP     33 00.50   0.2
BALM    12.23  50 eP     32 57.26  -3.1X
YAH     12.26  54 eP     32 57.98  -2.9X
HDA     12.40  31 eP     32 58.00  -4.5X
FBA     12.52  29 eP     33 00.35  -3.8X
CTGM    12.66  51 eP     33 03.51  -2.6X
ILT     15.56 336 iPd    33 46.50   2.6
        1.1s     36.00nm          4.5mb
     Z  16s      3.70um          5.3Msz
     N  16s      1.40um
     E  16s      1.40um
                  eS     36 44.00
PET     23.18 283 eP     35 10.50   0.6
        1.0s    150.00nm          5.4mb
     Z  20s      0.90um          4.2Msz
MCW     24.68  88 (P)    35 23.22  -1.4
YKA     25.37  53 eP     35 31.80   0.9
        0.6s      3.40nm        4.1mb X
SKR     25.55 279 eP     35 33.00   0.3
        0.8s    110.00nm          5.5mb
                  e      35 44.00
MGD     25.69 302 eP     35 35.00   1.1
        0.9s     50.00nm          5.1mb
                  e      35 44.00
                  e      36 32.00
RES     32.41  27 eP     36 34.50   0.5
        1.0s      2.00nm        4.0mb X
TIK     33.26 327 iPd    36 39.00  -2.3
        1.2s     20.00nm          4.9mb
     Z  15s      1.50um         4.8MszX
                  e      36 47.00
                  i      39 21.00
                  e      47 04.00
BONR    33.74 101 eP     36 46.49   0.2
HVU     34.42  91 (P)    36 51.11  -0.8
YAK     35.14 310 iPd    36 56.00  -1.7
        0.9s    174.00nm          6.0mb
     Z  22s      1.20um          4.6Msz
     E  22s      0.90um
                  e      39 26.00
                  iS     42 27.00
                  e      47 14.00
DUG     35.41  93 eP     36 59.57  -0.8
        1.1s      9.29nm          4.6mb
TPNV    35.61 101 eP     37 01.91  -0.2
        0.4s      2.49nm          4.5mb
FCC     36.04  55 eP     37 07.50   2.2
KUSJ    36.15 274 eP     37 04.30  -2.1
GSC     36.46 103 (P)    37 09.39   0.2
ASAJ    36.73 277 eP     37 11.60   0.3
MSU     36.89  95 (P)    37 13.92   0.9
HOOJ    37.42 274 eP     37 17.30   0.3
SRU     37.45  93 eP     37 17.22  -0.4
RSSD    38.06  81 eP     37 22.55  -0.2
        0.6s      3.39nm          4.4mb
PV10    38.80  92 (P)    37 29.61   0.5
ULM     39.15  68 eP     37 33.50   2.0
TUC     42.07 101 eP     37 56.11   0.3
        0.9s      5.31nm          4.3mb
NIIJ    43.27 272 P      38 06.00   0.6
KAKJ    43.30 269 P      38 05.90   0.2
BOD     43.98 310 iPd    38 10.70  -0.3
        0.9s     49.00nm          5.3mb
CHJ     44.08 270 P      38 12.80   0.7
MAT     44.21 271 eP     38 13.00  -0.1
        1.1s     68.35nm          5.4mb
MTMJ    44.41 272 P      38 14.40  -0.5
```

```
05d  20h

TSRJ     46.20 272 P       38 29.60    0.7
NRI      46.41 333 ePd     38 29.00   -1.1
         1.2s     14.00nm            4.8mb
                  e        38 42.00
                  e        40 05.00
CN2      46.69 288 Pc      38 31.40   -1.3
         1.0s     35.00nm            5.3mb
      Z  20s      0.31um             4.3Msz
DAG      46.86  11 eP      38 33.00   -0.7
         0.7s      6.85nm            4.7mb
JAQ      47.33  54 eP      38 36.00   -1.7
WKYJ     47.36 271 P       38 38.50    0.3
CIT      47.70 304 eP      38 41.00    0.4
YONJ     47.91 274 P       38 42.80    0.3
TKSJ     48.43 272 P       38 47.60    1.2
SNY      49.02 287 iPd     38 51.40    0.5
         1.0s     60.00nm            5.6mb
      Z  23s      0.76um             4.6MszX
                  eS       45 54.00
SHNJ     50.03 275 eP      38 59.30    0.5
KUMJ     51.34 273 eP      39 08.50   -0.2
IRK      51.88 309 ePd     39 12.30   -0.3
         1.4s     29.00nm            5.0mb
      Z  16s      0.34um             4.5MszX
DL2      52.10 286 eP      39 14.00   -0.4
         1.0s     62.00nm            5.5mb
KAGJ     52.28 272 eP      39 16.20    0.3
ZAK      53.65 308 iPc     39 25.80    0.1
         1.2s     22.00nm            5.0mb
      Z  20s      0.56um             4.6Msz
      N  18s      0.40um
      E  18s      0.50um
                  e        40 31.70
                  eS       46 44.00
BJI      54.32 291 eP      39 30.00   -0.8
         1.2s     33.00nm            5.2mb
      Z  20s      0.36um             4.4Msz
KEV      55.83 356 iP      39 40.20   -1.2
         0.4s     29.10nm            5.7mb
HHC      56.23 294 iPd     39 45.00    0.2
         1.1s     57.00nm            5.5mb
      Z  22s      0.65um             4.7Msz
BTO      57.23 295 P       39 52.00    0.1
LMN      57.90  55 eP      39 57.50    1.1
SSE      57.97 280 Pd      39 56.50   -0.5
         1.2s     89.00nm            5.7mb
TIY      58.02 291 P       39 57.00   -0.5
      Z  22s      0.90um             4.8Msz
SDF      58.19 356 iP      39 57.00   -1.1
NJ2      58.59 282 Pc      40 00.00   -1.4
ELT      58.72 319 iPd     40 01.00   -1.0
         1.4s     62.00nm            5.5mb
                  eS       49 49.00
WHN      62.27 284 eP      40 25.00   -1.5
         1.0s     18.00nm            5.2mb
XAN      62.65 291 P       40 28.00   -1.1
         1.2s     32.00nm            5.3mb
GTA      63.35 301 P       40 32.00   -1.7
         1.0s      8.30nm            4.8mb
      Z  18s      0.69um             4.9Msz
                  pP       40 40.00  26kmX
KAF      63.50 356 iP      40 32.80   -1.4
         0.5s     20.30nm            5.5mb
SVE      63.73 336 ePc     40 34.50   -1.3
         2.0s     60.00nm            5.4mb
      Z  16s      0.50um             4.8MszX
      N  17s      0.50um
      E  17s      0.10um
                  e        41 08.90
LZH      63.82 296 Pc      40 36.50   -0.4
         1.5s     52.00nm            5.4mb
      Z  20s      0.55um             4.7Msz
ARU      64.59 336 iPc     40 40.20   -1.2
         0.7s    100.00nm            6.0mb
                  e        41 09.00
NB2      64.62   4 P       40 40.40   -1.2
         1.0s     29.30nm            5.3mb
NUR      65.17 356 iP      40 43.80   -1.2
         0.7s     36.80nm            5.6mb
WMQ      65.58 312 P       40 48.00    0.0
         1.0s     35.00nm            5.4mb
      Z  20s      0.80um             4.9Msz
HFS      65.60   2 eP      40 46.10   -1.7
         0.5s     16.80nm            5.4mb
      Z  16s    141.00um             7.3MszX
                  LR       07 47.00
PUL      65.61 353 (P)     40 46.00   -1.9

         1.4s     80.00nm            5.6mb
      Z  22s      0.40um             4.6Msz
CD2      67.85 292 P       41 02.30   -0.3
EKA      69.08  13 P       41 09.00   -0.8
         0.7s      9.30nm            5.0mb
OBN      69.66 349 eP      41 12.00   -1.3
         1.1s     60.00nm            5.6mb
GYA      69.72 287 iPc     41 14.00   -0.3
         1.2s     41.00nm            5.4mb
DMU      69.94  15 eP      41 15.00    0.0
DCN      70.42  16 eP      41 17.70   -0.2
DLF      70.59  15 eP      41 19.00    0.1
FRU      71.71 320 iPc     41 27.00    1.0
         2.0s    140.00nm            5.6mb
                  e        41 51.20
KMI      72.94 289 Pc      41 33.00   -0.7
         2.0s     60.00nm            5.2mb
                  sP       41 49.00
WTS      73.40   7 eP      41 35.50   -0.1
         0.8s     14.40nm            5.0mb
KSH      74.08 317 P       41 41.20    1.2
         1.2s     50.00nm            5.4mb
      Z  24s      1.35um             5.2MszX
                  ePP      44 28.00
                  eS       51 06.00
CLL      74.42   3 iP      41 40.90   -0.7
         1.4s     38.00nm            5.2mb
ENN      74.55   8 eP      41 42.00   -0.3
         0.9s     16.40nm            5.0mb
BRG      74.88   3 iPd     41 44.40    0.1
         1.3s     46.00nm            5.3mb
                  i        41 55.00
KSP      74.96   1 eP      41 44.40   -0.3
MOX      75.03   4 iPc     41 45.20    0.1
         1.6s     52.00nm            5.3mb
DOU      75.10   9 Pc      41 45.50   -0.1
LSA      75.38 301 Pc      41 48.80    0.7
         1.2s     29.00nm            5.2mb
OJC      75.59 359 eP      41 48.30    0.0
WLF      75.66   8 Pc      41 50.00    1.3
PRU      75.78   2 Pc      41 49.50    0.1
                  e        42 07.50
FLN      75.86  13 eP      41 49.50   -0.4
         0.4s      3.00nm            4.6mb
      Z  23s      0.28um             4.5MszX
GRF      75.96   5 iPc     41 50.90    0.4
         1.2s     36.00nm            5.2mb
      Z  22s      0.10um             4.1Msz
LDF      76.08  12 eP      41 50.80   -0.3
GRR      76.18  13 eP      41 51.60   -0.1
         0.5s      5.10nm            4.8mb
VRAC     76.50   1 eP      41 53.80    0.4
LPF      76.51  13 eP      41 53.70    0.2
         0.6s      7.05nm            4.9mb
SPC      76.61 359 eP      41 54.10   -0.3
KHC      76.61   3 Pc      41 55.00    0.8
         1.2s     27.50nm            5.1mb
                  e        42 13.00
                  e        42 39.50
GEC2     76.90   3 P       41 55.90    0.0
         0.7s      6.72nm            4.8mb
CDF      77.00   7 eP      41 56.40    0.0
UZH      77.13 357 ePc     41 56.00   -0.9
         1.2s     47.00nm            5.4mb
                  e        42 05.00
HAU      77.33   8 eP      41 58.30    0.2
         0.8s      8.60nm            4.8mb
      Z  23s      0.20um             4.4MszX
BSF      77.54   8 eP      41 59.30   -0.1
ZST      77.62   1 eP      42 00.50    0.8
HYF      77.70  11 eP      42 00.50    0.3
LOR      77.83  10 eP      42 01.00    0.1
         0.6s      5.25nm            4.7mb
      Z  21s      0.17um             4.4Msz
SSF      78.00  10 eP      42 01.90    0.1
         0.5s      4.45nm            4.7mb
SRO      78.01 360 eP      42 02.30    0.5
MFF      78.03  13 eP      42 02.30    0.3
         0.6s     12.45nm            5.1mb
LBF      78.12  10 eP      42 02.40   -0.2
         0.7s      5.30nm            4.7mb
AVF      78.25  10 eP      42 03.10   -0.1
         0.8s     11.80nm            5.0mb
BGF      78.43  11 eP      42 04.10   -0.1
         0.5s      4.00nm            4.7mb
SMF      78.45  10 eP      42 04.20   -0.1
LSF      78.58  12 eP      42 05.00    0.0

TCF      78.62  11 eP      42 05.70    0.4
KBA      78.66   3 iPc     42 06.50    0.8
         1.1s     56.70nm            5.5mb
                  i        42 19.60
MAF      78.73  11 eP      42 06.30    0.4
         0.8s      5.90nm            4.6mb
GUN      79.45 304 P       42 11.00    0.5
PYA      79.52 342 iPd     42 11.00    0.8
KIV      79.66 342 iP      42 11.90    0.8
VRI      79.68 354 eP      42 11.00    0.0
LFF      79.78  12 eP      42 11.90    0.4
         0.7s     10.45nm            4.9mb
LPL      79.83   8 eP      42 13.40    1.3
         0.6s      2.05nm            4.3mb
KKN      79.84 304 P       42 12.80    0.4
LPG      79.85   8 eP      42 13.40    1.1
PKI      79.96 304 P       42 13.40    0.2
GKN      79.97 305 P       42 13.60    0.5
DMN      80.08 304 P       42 14.20    0.4
CHTO     80.08 288 eP      42 13.20   -0.4
MLR      80.11 354 eP      42 14.00    0.5
VBY      80.28   2 iP      42 14.80    0.6
CMP      80.38 355 ePc     42 18.00    3.2X
MTA      81.44 340 iP      42 21.00    0.7
         0.8s    120.00nm            6.0mb
SBF      81.53   8 eP      42 21.30    0.4
ASH      81.60 329 eP      42 23.00    1.8
LRG      81.85   9 eP      42 23.30    0.9
      Z  23s      0.17um             4.4MszX
FIR      81.86   5 eP      42 21.00   -1.5
MAIO     82.77 327 iPc     42 28.50    1.0
NDI      82.82 311 iPc     42 27.50   -0.2
         0.6s     30.00nm            5.6mb
PGF      82.95   7 eP      42 29.00    0.6
         0.5s      6.40nm            5.0mb
ERE      82.96 340 eP+     42 30.00    1.6
         1.2s     18.00nm            5.0mb
GRS      83.24 338 iPc     42 31.00    1.0
         1.2s     60.00nm            5.6mb
SKO      83.81 358 iP      42 33.30    0.7
VAY      84.42 357 eP      42 36.40    0.7
OHR      84.68 358 eP      42 36.00   -1.0
         1.4s    141.00nm            6.0mb
QUE      85.73 319 eP      42 43.50    0.8
HYB      91.89 304 ePc     43 11.30   -0.5
WB2      91.93 238 eP      43 11.00   -0.8
         0.9s      3.30nm            4.8mb
WRA      91.94 238 P       43 11.90    0.1
         0.5s      0.50nm            4.2mb
ASPA     95.30 236 eP      43 26.80   -0.4
         1.0s      4.50nm            4.9mb
GBA      95.70 303 P       43 30.00    0.7
SPA     144.37 180 iPKPc   49 35.40   -3.2X
         1.0s     16.00nm
BUL     144.73 343 iPKPd   49 49.00    8.4X
         1.0s     40.50nm
CIR     145.00 338 ePKP    49 40.20   -0.7
WIN     148.05   2 ePKP    49 48.00    1.9
         0.7s     18.00nm
BFT     149.85 338 ePKP    49 55.00    6.2X
KSR     150.62 344 ePKP    49 47.50   -2.4
PRY     151.56 342 ePKP    49 55.00    3.7X
FRS     154.67 345 e(PKP)50 01.00    5.8X
      S.D. = 0.9  on 185 of 214 obs.
----------------------------------------------
& MAR 05, 1993  20h 45m 43.14s
  59.451 N          152.566 W
  DEPTH = 70.1km
 SOUTHERN ALASKA                       (  2)
      <AEIC>.

AUE       0.42 258 ePd     45 55.01   -0.4
                   eS      46 03.64
XLV       0.43  89 ePc     45 54.76   -0.8
                   iS      46 04.38
AUL       0.45 262 ePd     45 55.25   -0.4
                   eS      46 05.15
AUI       0.46 256 ePd     45 55.14   -0.6
                   eS      46 04.09
AUH       0.46 259 ePd     45 55.38   -0.4
INE       0.66 338 iPd     45 57.06   -0.9
                   eS      46 08.29
INW       0.68 335 ePd     45 57.30   -0.9
                   eS      46 08.80
SYI       0.85 174 iPd     45 59.33   -0.7
                   eS      46 12.57
PDB       0.89 293 ePd     45 59.45   -1.1
```

eS 46 12.59
BRLK 0.91 69 eP 45 59.89 -0.9
MCNL 0.95 254 iPc 46 00.09 -1.1
eS 46 13.34
RS1 1.02 355 ePd 46 01.55 -0.8
RSO 1.02 355 iPd 46 01.53 -0.8
RS2 1.02 355 iPd 46 01.58 -0.8
RDW 1.04 353 iPd 46 01.75 -0.9
RDN 1.07 355 iPd 46 02.27 -0.7
eS 46 17.21
NCT 1.13 351 iPd 46 02.82 -0.9
eS 46 19.23
RDT 1.13 4 eP 46 02.71 -0.9
DFR 1.15 357 iPd 46 03.12 -0.8
NKA 1.46 27 ePc 46 08.98 1.1
SLKM 1.59 47 ePc 46 08.19 -1.5
S 46 30.23
SEW 1.71 66 eP 46 09.94 -1.4
KDC 1.71 179 eP 46 08.33 -3.0
CKL 1.76 4 iPd 46 11.53 -0.6
SPU 1.76 8 iPd 46 11.39 -0.7
CKT 1.76 6 iPd 46 11.56 -0.7
S 46 32.73
CKN 1.79 6 iPd 46 12.09 -0.4
S 46 34.92
BGL 1.82 3 iPd 46 12.45 -0.5
CPAM 1.82 6 iPd 46 12.55 -0.5
S 46 35.80
CP2 1.83 5 ePd 46 12.73 -0.5
CRP 1.83 6 eP 46 12.41 -0.8
MPA 1.92 56 eP 46 12.72 -1.5
SUA 2.21 23 ePc 46 18.13 -0.3
eS 46 46.52
SVW 2.25 319 iPd 46 17.33 -1.6
Sg 46 43.63
PTE 2.27 50 ePc 46 17.60 -1.5
PMS 2.34 38 P 46 19.20 -0.9
SKT 2.59 11 ePd 46 22.52 -1.0
eS 46 55.07
PLRM 2.74 37 eP 46 24.57 -1.0
PMR 2.74 37 eP 46 22.31 -3.3
GHO 2.94 36 eP 46 27.65 -0.9
SML 3.15 40 eP 46 29.79 -1.7
HIN 3.20 70 eP 46 29.15 -2.9
SCM 3.52 45 eP 46 34.80 -1.8
VLZ 3.53 59 eP 46 33.95 -2.7
CVA 3.60 69 eP 46 35.16 -2.4
TTA 3.87 336 ePd 46 39.72 -1.8
KLU 3.87 55 iPc 46 39.00 -2.6
RAGM 4.08 73 eP 46 41.91 -2.6
KAIM 4.16 80 eP 46 43.72 -1.8
TRF 4.16 14 eP 46 44.14 -1.6
RND 4.35 23 eP 46 46.77 -1.6
SDG 4.61 45 eP 46 50.24 -1.6
GLB 4.77 62 eP 46 50.81 -3.4
CRQM 4.90 70 eP 46 52.71 -3.4
SNH 4.97 77 eP 46 54.66 -2.2
TGL 5.04 71 eP 46 55.46 -2.6
BALM 5.33 68 eP 46 58.47 -3.7
YAH 5.52 76 ePc 47 02.53 -2.3
HDA 5.63 26 eP 47 03.85 -2.3
CCB 5.67 21 eP 47 04.15 -2.6
FBA 5.91 20 eP 47 07.55 -2.4
IMA 6.66 356 eP 47 18.54 -2.0
62 obs. associated

& MAR 05, 1993 21h 10m 34.90s
61.349 N 146.900 W
DEPTH = 29.4km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.3 (AEIC), 3.3 (PMR).

VLZ 0.35 128 iPc 10 42.46 -0.5
eS 10 49.00
KLU 0.49 73 iPc 10 44.28 -1.0
eS 10 52.23
SCM 0.53 337 iPd 10 44.93 -0.9
SML 0.83 305 iPc 10 48.94 -1.5
eS 11 00.82
HIN 0.98 168 iPd 10 51.19 -1.4
eS 11 04.97
CVA 0.98 145 ePd 10 51.27 -1.4
eS 11 05.14
TZL 0.99 45 iPc 10 51.91 -0.9
GHO 1.06 295 iPc 10 52.53 -1.3
eS 11 07.34
PLRM 1.10 284 iPc 10 52.99 -1.3
PMR 1.10 284 eP 10 52.84 -1.5
PTE 1.14 246 iPc 10 53.89 -1.0
eS 11 09.21
SGAM 1.19 135 eP 10 53.50 -2.1
eS 11 10.49
PMS 1.29 267 P 10 56.20 -0.8
SDG 1.35 28 ePc 10 56.61 -1.2
eS 11 14.10
RAGM 1.45 131 iPd 10 57.35 -2.1
PWA 1.46 283 P 10 58.50 -1.0
MPA 1.48 235 iPc 10 58.37 -1.4
eS 11 16.80
GLB 1.49 85 iPc 10 58.37 -1.6
eS 11 17.38
PAX 1.76 22 ePc 11 02.52 -1.4
eS 11 25.09
SEW 1.77 226 ePc 11 02.17 -1.8
eS 11 24.30
SLKM 1.83 244 iPc 11 03.38 -1.5
eS 11 27.41
SUA 1.85 275 iPc 11 03.75 -1.5
eS 11 29.63
KAIM 1.88 138 eP 11 03.10 -2.5
CRQM 1.92 106 eP 11 04.74 -1.7
TGL 2.07 105 ePc 11 06.28 -2.1
eS 11 32.66
HUR 2.08 323 eP 11 07.78 -0.7
NKA 2.20 256 eP 11 10.14 0.1
BALM 2.23 96 ePc 11 08.36 -2.3
RND 2.26 337 ePc 11 09.77 -1.2
SKT 2.30 288 iPc 11 09.73 -1.8
eS 11 38.87
SNH 2.31 119 eP 11 09.68 -2.1
SPU 2.50 268 iPc 11 12.37 -2.1
eS 11 42.59
BRLK 2.53 233 eP 11 12.86 -2.0
CPAM 2.53 270 ePc 11 12.93 -2.1
CKN 2.55 269 eP 11 13.67 -1.6
CKT 2.57 269 ePc 11 13.16 -2.3
MCK 2.57 339 eP 11 14.36 -1.1
CP2 2.58 270 eP 11 13.59 -2.2
CKL 2.63 269 iPc 11 13.95 -2.4
TRF 2.63 325 ePc 11 14.88 -1.6
BGL 2.65 271 eP 11 14.64 -2.0
YAH 2.71 109 ePc 11 15.17 -2.4
CTGM 2.73 96 eP 11 15.95 -1.8
DFR 2.92 257 ePc 11 17.82 -2.6
RDN 2.98 256 eP 11 19.58 -1.8
RSO 3.00 255 iPc 11 19.16 -2.5
RS2 3.00 255 ePc 11 19.23 -2.4
RS1 3.00 255 ePc 11 19.21 -2.5
RDW 3.01 256 eP 11 19.28 -2.6
NCT 3.05 258 iPc 11 19.71 -2.5
HDA 3.07 360 eP 11 20.45 -2.1
INE 3.29 250 iPc 11 22.97 -2.8
INW 3.32 250 eP 11 23.49 -2.7
CCB 3.34 353 eP 11 24.18 -2.1
NEA 3.39 344 eP 11 24.72 -2.3
FBA 3.59 354 P 11 26.50 -3.4
GLM 3.66 357 eP 11 29.74 -1.2
AUL 3.80 242 eP 11 31.51 -1.3
AUH 3.81 241 eP 11 30.80 -2.2
AUI 3.82 241 eP 11 30.80 -2.3
PDB 3.92 250 ePc 11 31.15 -3.4
SVW 4.22 271 iPc 11 35.03 -3.9
MCNL 4.29 243 eP 11 36.16 -3.7
TTA 4.56 294 eP 11 39.80 -3.9
IMA 5.61 331 eP 11 55.40 -3.2
65 obs. associated

MAR 05, 1993 21h 37m 50.08± 0.31s
13.714 S ± 7.0km 166.896 E ± 9.2km
DEPTH = 33.0km (normal)
4.8mb (6 obs.) 4.0Msz (1 obs.)
VANUATU ISLANDS (186)

BKM 4.14 162 iPd 38 53.20 0.6
iS 39 31.30
DZM 8.32 183 iPc 39 51.10 -0.4
iS 41 17.50
BRS 18.95 222 iP 42 12.00 0.8
CTA 20.73 249 iP 42 31.50 1.0
RMQ 21.22 230 iPd 42 35.10 -0.4
0.6s 48.00nm 5.1mb
ARMA 21.79 218 iPc 42 40.60 -0.7
1.1s 24.00nm 4.5mb
STK 29.39 228 iPd 43 51.60 -1.0
0.6s 16.50nm 4.9mb
WB2 31.72 254 iPd 44 13.70 0.3
0.5s 5.20nm 4.7mb
ASPA 32.71 248 iPd 44 21.40 -0.6
0.8s 14.40nm 4.9mb
Z 19s 0.30um 4.0Msz
WARB 39.66 245 eP 45 21.00 0.1
MEEK 46.85 246 eP 46 19.00 -0.1
YKA 96.81 27 eP 51 18.20 -0.3
0.8s 0.40nm 4.0mb
KAF 124.12 339 ePKP 56 45.00 -1.4
NUR 125.80 338 ePKP 56 48.80 -0.9
0.3s 2.80nm
HFS 129.65 343 ePKP 56 54.70 -2.4X
0.4s 0.70nm
FLN 143.53 346 ePKP 57 21.10 -2.0
0.5s 2.75nm
LDF 143.60 345 ePKP 57 22.00 -1.2
0.3s 1.40nm
LOR 143.66 340 ePKP 57 22.30 -1.1
0.5s 2.05nm
SSF 143.96 341 ePKP 57 23.40 -0.5
0.7s 14.00nm
GRR 143.97 346 ePKP 57 22.90 -0.9
0.6s 11.80nm
HYF 144.05 342 ePKP 57 23.90 -0.2
LPL 144.12 336 ePKP 57 24.40 -0.1
0.6s 4.35nm
LPG 144.13 336 ePKP 57 24.50 -0.1
0.4s 3.30nm
SMF 144.22 340 ePKP 57 24.00 -0.4
0.7s 7.60nm
AVF 144.25 341 ePKP 57 24.10 -0.3
0.6s 3.70nm
LPF 144.34 346 ePKP 57 24.30 -0.2
0.5s 10.95nm
BGF 144.62 341 ePKP 57 25.30 0.3
0.5s 5.30nm
MAF 145.01 341 ePKP 57 26.60 0.9
0.7s 3.10nm
TCF 145.06 341 ePKP 57 26.60 0.8
SBF 145.18 334 ePKP 57 26.70 0.5
0.4s 5.90nm
LSF 145.30 342 ePKP 57 27.10 0.9
0.6s 5.05nm
MFF 145.45 344 ePKP 57 27.70 1.3
0.7s 10.80nm
PGF 145.50 331 ePKP 57 28.00 1.2
0.4s 3.55nm
FRF 145.76 334 ePKP 57 28.60 1.5
LRG 145.97 334 ePKP 57 28.50 1.1
LMR 146.00 334 ePKP 57 28.70 1.2
RJF 146.16 341 ePKP 57 29.90 2.2X
0.6s 3.45nm
CAF 146.32 340 ePKP 57 30.60 2.6X
LFF 146.72 342 ePKP 57 31.50 2.9X
0.7s 10.70nm
LPO 146.82 341 ePKP 57 31.80 3.1X
0.5s 5.05nm
BCAO 147.46 257 iPKPd 57 31.00 0.3
0.5s 5.00nm
Ic 58 15.20
EPF 148.57 341 ePKP 57 36.50 4.8X
S.D. = 0.9 on 36 of 42 obs.

---

* MAR 05, 1993 22h 27m 22.98± 1.00s
32.306 N ±10.9km 140.818 E ±21.0km
DEPTH = 33.0km (normal)
5.0mb (7 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT 4.74 334 eP 28 36.00 2.0
eS 29 27.00
GUN 47.30 280 P 35 56.20 0.4
0.8s 21.00nm 5.2mb
PKI 47.81 279 P 35 59.60 -0.2
KKN 47.84 280 P 36 00.00 0.1
0.8s 17.00nm 5.1mb
DMN 48.05 280 P 35 59.80 -1.7
GKN 48.30 280 P 36 03.80 0.4
0.8s 16.00nm 5.1mb
WB2 52.32 188 eP 36 33.50 -0.3
0.3s 5.10nm 5.0mb
WRA 52.32 188 P 36 34.79 1.0
0.5s 2.40nm 4.4mb
ASPA 56.05 188 eP 37 01.80 0.8

05d 22h

0.5s 6.70nm 4.9mb
GBA 60.45 268 P 37 32.00 0.0
KAF 72.29 333 eP 38 45.90 -0.8
0.4s 1.70nm 4.4mb
NUR 73.89 332 eP 38 55.20 -0.9
HFS 78.19 336 eP 39 19.50 -0.8
0.3s 0.30nm 3.8mb X
S.D. = 1.1 on 13 of 13 obs.

---

* MAR 05, 1993 22h 56m 43.18± 1.16s
17.667 N ± 8.5km 61.004 W ±10.2km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
LEEWARD ISLANDS (92)
ML 3.7 (FDF). MD 3.4 (TRN).

CPB 0.78 268 eP 56 57.99 0.2
eS 57 08.29
BPA 1.02 233 eP 57 00.16 -1.1
S 57 11.50
SEG 1.35 201 ePd 57 05.38 -0.4
SFG 1.42 188 ePd 57 06.56 -0.3
MGH 1.49 231 ePc 57 07.67 -0.3
S 57 25.50
NEV 1.59 251 ePd 57 10.03 0.7
S 57 29.90
PAG 1.75 202 eP 57 12.74 1.0
S 57 33.00
MGG 1.76 190 eP 57 11.81 -0.1
CRM 2.90 178 eP 57 27.60 -0.5
FDF 2.92 183 eP 57 29.10 0.7
MVM 3.10 178 eP 57 30.20 -0.7
BIM 3.13 181 eP 57 32.30 0.9
YKA 58.01 334 eP 06 34.70 -0.1
0.6s 0.50nm 3.8mb
S.D. = 0.7 on 13 of 13 obs.

---

* MAR 05, 1993 23h 08m 23.25± 2.92s
32.133 S ±17.4km 71.759 W ±20.0km
DEPTH = 15.4 ± 7.6 km
NEAR COAST OF CENTRAL CHILE (135)
MD 4.4 (SAN).

IHA 0.90 174 eP 08 40.90 1.0
iS 08 52.20
ROCH 1.05 143 iPd 08 42.71 0.0
JACH 1.13 119 iP 08 43.89 -0.1
iS 08 58.56
LCCH 1.35 173 iP+ 08 47.09 -0.3
iS 09 04.35
PEL 1.36 138 iP+ 08 47.47 -0.1
iS 09 05.40
SAN 1.61 145 iP+ 08 51.16 0.0
iS 09 12.64
TACH 1.67 156 iP+ 08 52.17 0.2
FCH 1.72 134 iP+ 08 53.02 0.0
PCH 1.82 145 eP 08 54.36 0.1
LNV 1.84 171 eP 08 53.48 -1.0
CHCH 2.02 153 iP+ 08 57.40 0.2
iS 09 23.39
MDZ 2.57 108 iP 09 08.60 3.6X
iS 09 42.90
CFA 3.04 81 ePc 09 13.80 2.2
MRA 5.13 95 eP 09 40.70 -0.6
TCA 6.16 84 iP 09 54.20 -1.6
(S) 11 07.00
CNCB 15.63 14 P 11 51.00 -14.1X
ZOBO 16.12 13 eP 11 50.00 -21.4X
SIV 18.78 34 P 12 49.50 5.4X
S.D. = 1.0 on 14 of 18 obs.

% MAR 05, 1993 23h 57m 31.11± 0.56s
26.363 S ± 5.4km 27.433 E ± 5.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY 0.56 176 eP 57 42.00 -0.4
S 57 47.60
BPI 0.57 71 eP 57 42.20 -0.3
S 57 52.40
KSR 0.69 316 eP 57 44.50 -0.5
S 57 55.00
BFS 0.79 227 eP 57 47.90 0.9
SLR 0.99 51 eP 57 50.50 0.1
S 58 07.20
SEK 1.96 175 iPc 58 06.40 0.9
S 58 29.90
SWZ 2.05 246 iPd 58 07.60 0.8
S 58 35.40
BFT 2.44 75 eP 58 13.00 0.5
S 58 42.00
BLF 2.95 202 eP 58 19.00 -0.6
S 58 53.00
FRS 3.86 208 eP 58 31.00 -1.4
S.D. = 0.9 on 10 of 10 obs.

& MAR 06, 1993 00h 31m 57.06s
60.079 N 153.202 W
DEPTH = 122.9km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.04 108 iPc 32 13.32 0.8
eS 32 26.45
INE 0.07 105 iPc 32 13.30 0.6
eS 32 26.83
RS1 0.44 30 iPc 32 14.67 -0.8
RS2 0.44 30 iPc 32 14.68 -0.8
RSO 0.44 30 iPc 32 14.63 -0.9
RDW 0.45 26 iPc 32 14.66 -0.9
NCT 0.50 16 iPc 32 14.93 -0.8
DFR 0.58 26 eP 32 15.11 -1.1
PDB 0.58 240 iPd 32 15.23 -0.8
eS 32 29.64
RDT 0.64 38 eP 32 15.65 -0.9
AUL 0.71 190 iPd 32 16.28 -0.8
AUW 0.72 191 eP 32 16.30 -0.8
AUE 0.73 187 ePd 32 16.24 -0.9
AUH 0.73 190 iPd 32 16.52 -0.8
AUI 0.75 189 iPd 32 16.42 -1.0
eS 32 31.79
MCNL 1.07 213 iPd 32 19.17 -1.1
eS 32 36.82
CDD 1.17 191 iPd 32 20.07 -1.4
CKL 1.20 20 iPd 32 21.03 -0.8
eS 32 40.29
BRLK 1.21 104 eP 32 20.92 -0.9
eS 32 38.17
CKT 1.23 23 iPd 32 21.11 -1.0
eS 32 40.43
SPU 1.24 27 iPd 32 21.14 -1.1
eS 32 40.94
BGL 1.25 18 iPd 32 21.79 -0.6
CKN 1.25 23 iPd 32 21.61 -0.7
CP2 1.28 21 iPd 32 22.10 -0.7
CPAM 1.29 23 iPd 32 22.00 -0.8
CRP 1.30 23 iPd 32 21.80 -1.1
eS 32 41.80
SYI 1.53 164 iPd 32 23.63 -1.7
SLKM 1.55 73 eP 32 23.84 -1.8
SVW 1.58 312 iPc 32 24.63 -1.4
SUA 1.84 40 iPd 32 27.98 -1.3
eS 32 52.39
SEW 1.88 88 eP 32 27.57 -2.0
MPA 1.96 76 eP 32 28.62 -1.9
SKT 2.07 22 iPd 32 30.67 -1.4
PMS 2.14 55 P 32 31.00 -1.9
PTE 2.21 67 ePc 32 31.18 -2.6
PWA 2.27 44 P 32 33.50 -0.9
KDC 2.37 171 (P) 32 32.49 -3.3
eS 33 01.10
PLRM 2.51 51 eP 32 35.51 -2.0
PMR 2.51 51 eP 32 35.83 -1.7
eS 33 04.76
GHO 2.69 49 eP 32 36.44 -3.7
SML 2.94 52 eP 32 40.45 -2.9
HIN 3.36 82 ePc 32 46.24 -2.6
TRF 3.66 21 iPd 32 50.95 -2.1
RND 3.93 30 ePd 32 54.19 -2.4
44 obs. associated

---

* MAR 06, 1993 00h 34m 45.84± 1.27s
31.672 S ± 8.0km 71.535 W ±16.5km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

IHA 1.35 184 eP 35 10.50 -0.2
iS 35 30.90
PEL 1.63 154 iP+ 35 15.14 0.4
iS 35 37.44
MDZ 2.58 119 eP 35 31.60 3.3X
i 35 42.20
iS 36 09.40
CFA 2.81 90 ePd 35 34.40 2.7X
S 36 13.20
MRA 5.00 100 ePd 36 03.00 0.3
TCA 5.94 89 iPd 36 15.00 -1.0
(S) 36 24.00
FSA 7.38 42 eP 36 36.00 -0.1
ANT 8.00 7 eP 37 05.00 20.2X
CNCB 15.14 13 ePc 38 27.00 5.0X
LPB 15.39 13 (P) 38 26.30 1.1
ZOBO 15.63 12 ePc 38 26.20 -2.2
SIV 18.29 34 iP 39 03.20 1.8
KIC 73.95 72 P 46 19.00 -4.5X
GBA 146.36 115 PKP 54 25.00 -2.8X
S.D. = 1.5 on 8 of 14 obs.

MAR 06, 1993 00h 43m 06.91± 0.50s
46.463 N ± 7.1km 12.677 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 3.0 (LJU).

KBA 0.77 36 iPgc 43 21.80 -0.2
i 43 23.50
iSg 43 33.00
SCE 0.88 311 iPgd 43 23.30 -0.6
VOY 0.95 117 ePg 43 23.70 -1.3
e 43 26.50
eSg 43 38.50
e 43 41.50
e 44 35.00
TRI 1.07 135 ePg 43 26.80 -0.2
eSg 43 42.10
WTTA 1.07 319 iPgd 43 27.00 -0.2
iSg 43 41.90
WATA 1.15 320 iPgd 43 28.50 -0.1
iSg 43 44.40
OGA 1.21 290 ePg 43 30.10 0.6
SOTA 1.26 307 iPgc 43 30.10 -0.3
i 43 46.90
MOTA 1.39 310 iPnc 43 32.50 0.0
i 43 36.70
i 43 53.50
i 43 57.30
CEY 1.42 120 ePn 43 32.50 -0.2
eSg 43 53.00
e 44 25.00
VBY 2.04 117 iPn 43 43.40 1.7
iSn 44 11.30
GEC2 2.48 16 Pn 43 48.80 0.7
Pg 43 54.50
Sg 44 27.20
KHC 2.74 12 eP 44 00.00 8.3X
e 44 29.00
eSg 44 36.00
FEL 3.48 296 ePn 44 02.65 0.3
S.D. = 0.8 on 13 of 14 obs.

? MAR 06, 1993 01h 11m 36.30± 0.79s
15.858 N ±10.7km 87.462 W ±12.3km
DEPTH = 10.0km (geophysicist)
4.1mb (2 obs.)
HONDURAS (72)

MRL 2.29 250 ePc 12 14.75 -0.1
eS 12 44.45
YUP 2.80 234 eP 12 26.44 4.4X
eS 13 02.60
IXG 3.34 240 eP 12 34.94 5.1X
eS 13 24.74
PYN 3.48 173 ePg 12 31.84 0.2
MEO 21.33 334 iPd 16 29.20 3.5X
LCCM 36.21 331 eP 18 44.80 3.4X
SIV 40.99 139 eP 19 21.00 -0.3
YKA 50.35 344 eP 20 35.30 0.2
0.9s 2.40nm 4.2mb
GEC2 85.37 41 P 24 15.20 0.0
1.0s 1.39nm 4.1mb
PcP 24 17.50
S.D. = 0.3 on 5 of 9 obs.

MAR 06, 1993 01h 26m 44.76± 0.37s
57.962 N ± 3.2km 6.616 E ± 6.5km
DEPTH = 33.0km (normal)
NORTH SEA (534)
Felt (IV) in the Lindesnes
area, Norway.

```
KMY      1.44 331 eP    27 11.15   2.4
                  eS    27 29.12
ODD1     1.96   0 eP    27 17.65   1.4
                  eS    27 38.93
MUD      2.05 136 iPd   27 20.00   2.5
                  i     27 28.00
                  iS    27 45.00
EGD      2.42 343 eP    27 21.44  -1.4
                  eSg   28 00.67
BER      2.52 345 iP    27 22.69  -1.5
ASK      2.63 344 eP    27 24.05  -1.7
                  eSg   28 05.54
HYA      3.22 356 eP    27 36.18   2.0
SUE      3.25 344 eP    27 34.74   0.3
                  Lg    28 28.01
FOO      3.73 348 eP    27 41.82   0.4
                  eS    28 21.60
                  Lg    28 43.06
NRA0     3.75  40 Pn    27 40.87  -0.8
                  Pg    27 48.47
                  Sn    28 19.32
                  Lg    28 45.49
NB2      3.88  35 P     27 42.90  -0.6
     0.3s     31.20nm
HFS      4.26  56 eP    27 47.70  -1.2
     0.2s     18.50nm
MOL      4.65   5 eP    27 54.31  -0.1
                  eS    28 41.36
EKA      6.00 248 Pc    28 15.10   1.6
     0.2s      2.80nm           4.6mb
DMU      8.61 248 eP    28 50.50   0.5
DLF      8.78 243 eP    28 51.20  -1.1
DCN      9.11 245 eP    28 57.40   0.6
CDF      9.58 177 Pn    29 03.30  -0.1
FLN     10.14 208 Pn    29 10.10  -0.9
                  Sn    30 56.80
LDF     10.21 206 Pn    29 11.20  -0.8
                  Sn    30 58.50
GRR     10.58 208 Pn    29 15.80  -1.2
                  Sn    31 07.20
LOR     10.84 190 Pn    29 20.60   0.0
                  Sn    31 13.50
LPF     10.96 208 Pn    29 20.80  -1.3
                  Sn    31 14.60
SSF     11.08 191 Pn    29 24.30   0.4
                  Sn    31 19.10
LBF     11.11 189 Pn    29 24.50   0.1
                  Sn    31 19.10
BGF     11.65 193 Pn    29 31.70   0.1
TCF     12.00 195 Pn    29 36.50   0.2
MAF     12.02 194 Pn    29 37.40   0.9
MFF     12.10 203 Pn    29 35.80  -1.8
                  Sn    31 43.10
LSF     12.13 197 Pn    29 38.10   0.0
                  Sn    31 46.40
RJF     13.06 196 Pn    29 50.40   0.0
CAF     13.35 194 Pn    29 54.10  -0.2
LFF     13.54 198 Pn    29 57.10   0.4
LPO     13.72 197 Pn    30 00.10   1.1
ARA0    14.21  28 Pn    30 01.48  -3.9X
                  Sn    32 27.20
    S.D. = 1.2  on  34 of  35 obs.
------------------------------------------
  MAR 06, 1993  01h 45m 19.05± 0.24s
  38.751 N ± 4.1km  143.039 E ± 3.8km
  DEPTH =  17.0km  (  8 depth phases)
  5.1mb ( 63 obs.)  4.6Msz (  9 obs.)
 OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ     1.12 288 P     45 40.50   0.9
                  eS    45 58.50
YAMJ     2.43 257 P     45 59.50   0.9
KAKJ     3.41 223 eP    46 10.90  -1.6
                  eS    46 53.10
NIIJ     3.53 246 P     46 15.10   0.9
HOOJ     3.63   3 eP    46 14.40  -1.3
                  eS    46 57.00
MRRJ     3.96 338 eP    46 22.00   1.7
                  eS    47 07.80
CHJJ     4.20 231 eP    46 23.10  -0.7
MAT      4.42 242 iPc   46 27.90   1.0
                  eS    47 22.00
KUSJ     4.52  16 eP    46 25.60  -2.7
MTMJ     4.68 244 P     46 31.80   1.1
IIDJ     5.24 233 P     46 39.50   1.0
ASAJ     5.37 357 eP    46 39.80  -0.5
TSRJ     6.48 243 P     46 57.00   1.0
```

```
KUR      7.41  27 eP    47 07.00  -1.9
         0.5s   150.00nm           6.4mb X
                  iS    48 25.00
WKYJ     7.51 235 P     47 09.90  -0.6
YSS      8.27 358 ePc   47 19.00  -1.9
         0.8s    40.00nm           5.7mb
      Z  17s      2.00um           4.1Msz
      E  17s      2.50um
                  eS    48 46.00
YONJ     8.45 248 P     47 23.90   0.4
TKSJ     8.67 239 P     47 25.00  -1.6
SHK      9.33 246 eP    47 36.00   0.3
VLA      9.49 301 eP    47 40.00   2.0
         0.8s   160.00nm           6.4mb X
      Z  14s      1.10um
      N  16s      2.10um
      E  16s      1.80um
SHNJ    10.66 248 eP    48 02.80   8.8X
KUMJ    11.71 242 eP    48 13.60   5.4X
SSE     19.45 254 P+    49 42.00  -5.6X
         1.0s    25.00nm           4.4mb
      Z  20s      0.90um           4.8MszX
      N  14s      1.10um
      E  14s      0.80um
                  pP    49 52.50   43kmX
                  sP    49 55.60
                  eS    53 34.00
BJI     20.78 282 eP    49 58.00  -3.6X
         1.5s    58.00nm           4.7mb
      Z  14s      2.06um           4.7MszX
      E  14s      2.23um
                  eS    54 00.00
MGD     21.93  10 eP    50 12.00  -1.1
         1.2s   110.00nm           5.2mb
      Z  15s      0.60um           4.1MszX
      N  15s      0.50um
                  e     50 31.00   88kmX
                  e     50 51.00
                  eS    54 14.00
CIT     24.36 313 eP    50 36.00  -1.0
BOD     26.75 325 iPc   50 58.80  -0.5
         0.9s    58.00nm           5.2mb
CVP     27.96 227 eP    51 08.80  -1.9
IRK     29.93 310 eP    51 27.20  -0.9
         1.0s    30.00nm           5.1mb
      Z  16s      3.27um           5.1MszX
                  e     51 38.00   39kmX
                  e     52 27.00
ZAK     30.26 306 iPc   51 32.00   1.0
         1.8s    51.00nm           5.1mb
      Z  15s      3.33um           5.1MszX
      E  16s      3.69um
                  eS    56 33.00
                  eSS   58 23.00
LZH     31.08 277 eP    51 37.00  -1.6
         1.5s    65.00nm           5.3mb
      Z  18s      1.57um           4.7Msz
      E  12s      0.76um
                  pP    51 46.50   33kmX
                  sP    51 50.00
TIK     33.74 352 eP    52 00.00  -1.2
         1.0s     9.00nm           4.7mb
      Z  18s      0.70um           4.4Msz
                  e     52 11.00   40kmX
                  e     53 18.00
                  ePPP  53 36.00
                  e     54 47.00
                  eS    57 27.00
KMI     36.51 260 Pc    52 24.50  -1.1
         1.2s   100.00nm           5.5mb
      Z  16s      1.30um           4.8MszX
      N  15s      0.90um
      E  15s      0.90um
                  pP    52 32.50   27km
                  sP    52 37.00
                  eS    57 12.00
NRI     42.10 334 iPc   53 10.00  -1.2
         1.4s    28.00nm           4.8mb
                  e     53 16.00   20km
CHTO    42.97 255 ePc   53 19.70   0.8
         1.0s    10.00nm           4.5mb
RSO     44.76  39 eP    53 35.58   2.3
CRP     45.04  38 eP    53 36.30   0.9
KHT     45.73 251 eP    53 41.50   0.3
PMR     46.48  38 eP    53 46.43  -0.1
         1.0s    12.06nm           4.9mb
FBA     46.97  33 eP    53 51.01   0.6
```

```
         0.8s     4.93nm           4.6mb
GUN     48.28 275 P     54 01.20  -0.4
KKN     48.80 275 P     54 05.00  -0.5
PKI     48.81 275 P     54 04.80  -0.8
DMN     49.02 275 P     54 06.60  -0.6
GKN     49.20 276 P     54 08.20  -0.3
FRU     50.67 298 eP    54 19.00  -0.4
         2.0s    50.00nm           5.1mb
                  e     54 32.30   49kmX
SVE     54.73 318 iPc   54 49.00  -0.4
         1.3s    40.00nm           5.3mb
      Z  16s      2.00um           5.3MszX
      N  16s      0.50um
      E  16s      1.50um
ARU     55.93 318 iPc   54 57.00  -1.1
         1.5s   120.00nm           5.7mb
      Z  18s      2.50um           5.3Msz
      N  16s      0.50um
      E  18s      1.50um
                  e     55 06.00   29kmX
WB2     58.95 190 eP    55 15.90  -3.8X
         0.5s     8.80nm           5.1mb
WRA     58.95 190 P     55 17.39  -2.3
KBS     59.20 350 eP    55 22.60   1.7
HYB     59.54 268 iPc   55 22.50  -1.6
         1.0s    30.00nm           5.4mb
RES     60.62  15 eP    55 31.00   0.3
         1.0s     5.00nm           4.6mb
QUE     61.66 287 eP    55 38.60   0.0
YKA     61.68  31 eP    55 36.00  -2.0
         0.8s     1.00nm           4.0mb X
KEV     62.29 339 eP    55 41.00  -1.0
GBA     62.63 266 Pc    55 44.00  -0.9
ASPA    62.68 189 iPc   55 43.60  -1.4
         0.5s     5.20nm           4.9mb
SDF     63.92 337 iP    55 51.60  -1.2
MAIO    64.00 297 eP    55 53.00  -0.9
KAF     67.37 333 iP    56 13.80  -1.2
         0.7s    10.20nm           5.1mb
OBN     67.48 323 ePc   56 15.00  -0.8
         1.0s    38.00nm           5.5mb
      Z  16s      1.20um           5.2MszX
      N  16s      0.50um
      E  16s      1.10um
DPW     67.62  46 eP    56 16.94   0.0
                  e     56 21.42   14km
NEW     68.01  45 ePc   56 19.22  -0.1
         0.8s    13.91nm           5.2mb
                  e     56 24.02   15km
NUR     69.04 332 iP    56 24.50  -0.8
         0.6s    12.40nm           5.2mb
SES     70.02  41 eP    56 31.00  -0.6
KIV     70.75 311 ePc   56 36.20  -0.1
         1.3s    72.00nm           5.6mb
      Z  16s      0.40um           4.8MszX
                  e     56 41.90   18km
                  eS    06 25.00
ERE     71.84 307 iP    56 43.00   0.1
LCCM    72.33  45 eP    56 46.20   0.4
HFS     73.05 336 eP    56 48.10  -1.4
         0.5s     3.20nm           4.6mb
      Z  18s      0.38um           4.7Msz
                  LR    28 33.00
NB2     73.10 338 P     56 49.20  -0.6
         0.9s    17.50nm           5.1mb
BONR    73.22  55 eP    56 52.29   1.0
TNP     73.83  54 eP    56 54.29  -0.4
HVU     74.31  49 eP    56 58.23   0.8
DUG     75.27  50 eP    57 03.74   0.8
         0.8s     3.60nm           4.5mb
                  e     57 07.73   13km
BW06    75.55  47 eP    57 03.98  -0.6
         0.6s     3.80nm           4.6mb
DAU     76.06  49 eP    57 08.40   0.8
EMUT    76.70  49 eP    57 11.65   0.5
MSU     76.70  51 eP    57 11.80   0.6
                  e     57 16.59   15km
SRU     77.32  50 eP    57 14.87   0.4
RSSD    77.70  43 eP    57 16.82   0.3
         0.7s     4.69nm           4.7mb
OJC     78.32 327 eP    57 20.00   0.4
UZH     78.39 324 eP    57 19.50  -0.4
PV09    78.55  50 eP    57 22.10   0.7
PV10    78.68  50 ePd   57 22.59   0.5
PV08    78.78  49 eP    57 23.12   0.4
SPC     78.90 326 eP    57 23.20   0.2
KSP     79.31 329 iPc   57 25.30   0.4
```

06d 01h

e 00 24.00
BRG 80.22 330 iP 57 29.80 0.0
0.9s 12.00nm 4.9mb
CLL 80.24 331 iPc 57 29.70 -0.2
1.0s 26.00nm 5.2mb
i 57 45.70 57kmX
PRU 80.68 329 P 57 32.70 0.4
1.0s 9.30nm 4.8mb
i 57 48.50 56kmX
e 58 02.50
e 00 38.00
SRO 80.78 326 iP 57 33.70 0.9
MOX 81.30 331 ePc 57 35.70 0.2
1.3s 20.00nm 5.0mb
HOF 81.46 331 iPd 57 36.90 0.5
KHC 81.74 329 Pc 57 38.90 1.0
1.0s 7.90nm 4.7mb
e 57 55.00 57kmX
e 58 09.00
e 00 46.00
WTS 81.91 334 eP 57 39.00 0.4
0.7s 6.80nm 4.8mb
GEC2 81.92 329 P 57 38.70 -0.2
0.9s 4.29nm 4.5mb
e 57 42.90 13km
e 57 50.10
e 57 54.60
e 00 40.80
e 00 57.20
EKA 81.93 341 P 57 39.00 0.3
1.7s 30.30nm 5.1mb
WET 82.01 330 iPd 57 40.20 0.9
GRF 82.22 331 iPc 57 41.10 0.8
1.0s 22.00nm 5.2mb
Z 20s 0.20um 4.5Msz
ENN 83.24 334 eP 57 45.00 -0.6
0.7s 7.40nm 5.0mb
FUR 83.43 330 eP 57 47.10 0.5
1.0s 29.00nm 5.4mb
KBA 83.47 328 i(P) 57 48.30 1.2
SKO 83.70 320 eP 57 48.40 0.3
ARVI 83.71 304 eP 57 48.80 0.5
PRNI 84.03 304 eP 57 50.30 0.3
DMU 84.15 343 eP 57 51.40 1.2
MBH 84.49 304 eP 57 52.30 -0.1
DLF 84.62 342 eP 57 53.60 1.1
CDF 84.74 332 eP 57 53.60 0.2
0.9s 13.75nm 5.2mb
DCN 84.75 343 eP 57 54.30 1.2
BSF 85.41 332 eP 57 56.40 -0.3
1.4s 17.00nm 5.1mb
HAU 85.42 332 eP 57 56.60 -0.1
0.8s 7.40nm 5.0mb
Z 22s 0.25um 4.6Msz
LOR 86.94 334 eP 58 04.20 0.0
1.1s 29.80nm 5.4mb
Z 20s 0.20um 4.5Msz
FLN 87.06 337 eP 58 04.70 0.0
0.8s 7.50nm 5.0mb
Z 21s 0.28um 4.6Msz
LDF 87.09 337 eP 58 04.80 -0.1
0.8s 9.25nm 5.1mb
LBF 87.14 333 eP 58 05.10 -0.1
1.0s 12.40nm 5.1mb
SSF 87.24 334 eP 58 05.80 0.2
0.9s 10.95nm 5.1mb
HYF 87.35 334 eP 58 06.80 0.6
LPL 87.38 331 eP 58 06.80 0.2
0.9s 9.00nm 5.0mb
LPG 87.39 331 eP 58 07.00 0.3
0.8s 7.80nm 5.0mb
SMF 87.48 333 eP 58 07.10 0.3
1.1s 21.50nm 5.3mb
GRR 87.50 337 eP 58 07.20 0.4
0.7s 10.05nm 5.2mb
AVF 87.52 334 eP 58 07.20 0.3
0.8s 15.30nm 5.3mb
LPF 87.88 337 eP 58 09.10 0.5
0.9s 16.40nm 5.3mb
BGF 87.90 334 eP 58 09.30 0.5
MAF 88.29 334 eP 58 11.30 0.6
0.9s 8.50nm 5.1mb
TCF 88.35 334 eP 58 11.40 0.4
LSF 88.62 334 eP 58 12.60 0.3
0.7s 6.85nm 5.1mb
MFF 88.86 336 eP 58 13.90 0.5
0.8s 8.60nm 5.1mb
RJF 89.45 334 eP 58 16.70 0.5
0.9s 11.80nm 5.2mb
Z 22s 0.28um 4.6Msz
CAF 89.59 333 eP 58 17.60 0.7
0.7s 4.65nm 4.9mb
LFF 90.03 334 eP 58 19.60 0.7
0.8s 10.50nm 5.1mb
LPO 90.10 334 eP 58 19.90 0.6
0.7s 6.15nm 5.0mb
ZOBO 144.71 59 ePKPd 05 00.30 2.7X
CNCB 145.19 60 ePKPd 04 58.80 0.5X
SIV 148.99 50 PKP 05 09.20 5.4X
SOB1 150.37 8 ePKP 05 09.60 3.6X
S.D. = 0.9 on 129 of 138 obs.

MAR 06, 1993 02h 04m 37.95± 2.61s
11.099 N ±17.5km 87.064 W ±16.9km
DEPTH = 42.3 ± 19.7 km
4.3mb (7 obs.)
NEAR COAST OF NICARAGUA (74)
MD 4.1 (APY).

SSN 1.21 80 eP 04 58.50 -0.1
PYN 1.28 2 eP 04 59.71 0.1
eS 05 16.50
PYT 1.72 34 eP 05 05.88 -0.2
PRM 23.28 10 eP 09 43.55 0.8
LHS 23.96 13 (P) 09 49.88 0.5
MIAR 24.08 347 eP 09 52.04 1.5
0.7s 15.72nm 4.7mb
GRT 25.14 356 eP 09 58.42 -2.3
MEO 25.81 338 e(P) 10 01.10 -5.9X
FNO 25.82 340 iPd 10 05.00 -2.1
WMOK 25.84 337 eP 10 08.37 1.1
e 10 16.26
FVM 26.94 354 (P) 10 22.50 5.2X
0.6s 5.13nm 4.3mb
ALQ 29.58 326 eP 10 45.00 3.5X
0.9s 1.79nm 3.8mb
GOL 32.79 333 eP 11 13.00 3.3X
0.7s 4.25nm 4.4mb
PV08 33.47 328 eP 11 16.02 0.3
PV10 33.52 328 eP 11 14.86 -1.2
SRU 34.85 327 eP 11 27.80 0.4
EMUT 35.51 328 eP 11 32.67 -0.5
RSSD 36.02 339 eP 11 36.61 -0.7
0.6s 2.99nm 4.4mb
EEO 36.07 9 eP 11 38.00 0.6
BW06 37.14 332 eP 11 45.63 -1.1
0.6s 2.64nm 4.3mb
SIV 37.23 136 iP 11 54.20 6.7X
HVU 37.96 328 eP 11 54.63 1.0
BONR 38.69 319 eP 12 02.27 2.4
LMN 39.49 25 eP 12 08.00 1.9
ULM 39.70 351 eP 12 07.50 -0.3
JAQ 43.55 10 eP 12 36.50 -2.7
BAO 46.93 124 eP 13 07.00 0.2
e 13 08.30
e 13 13.50
FCC 47.86 355 eP 13 14.50 1.1
YKA 55.01 345 eP 13 58.50 -8.7X
0.8s 2.30nm 4.3mb
WB2 139.23 252 ePKP 24 02.30 -0.8
0.5s 1.30nm
GBA 151.04 32 PKP 24 26.00 3.2X
S.D. = 1.4 on 24 of 31 obs.

• MAR 06, 1993 02h 37m 55.36± 0.50s
0.980 N ±12.6km 28.121 W ± 9.9km
DEPTH = 10.0km (geophysicist)
4.6mb (13 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)

MBO 17.30 39 iPc 41 57.90 -0.8
KDS 19.53 53 iPc 42 23.30 -2.8
LIC 23.62 77 Pd 43 07.34 -0.3
Z 20s 0.21um 3.6Msz
TIC 23.72 76 P 43 10.06 1.5
KIC 23.93 77 Pd 43 10.60 0.0
0.9s 49.00nm 5.1mb
BAO 25.65 229 iPc 43 25.30 -2.0
e 43 30.80
SIV 36.65 241 P 45 08.30 4.0X
ZOBO 43.05 245 Pc 45 58.10 0.0
1.0s 7.50nm 4.4mb
LR 58 24.00
CNCB 43.10 244 Pc 45 58.30 -0.1
LPB 43.10 244 P 45 58.50 0.2
BCAO 46.72 85 iPd 46 27.50 0.6
0.8s 11.00nm 5.0mb
ic 46 34.20
LFF 50.66 26 eP 46 57.20 0.3
LSF 52.03 26 eP 47 07.10 -0.2
1.0s 8.80nm 4.6mb
TCF 52.36 26 eP 47 09.80 0.0
0.8s 4.45nm 4.4mb
LPF 52.40 23 eP 47 09.90 -0.1
MAF 52.47 27 eP 47 10.60 0.0
0.9s 4.90nm 4.4mb
LPL 53.92 30 eP 47 21.90 0.4
1.6s 17.40nm 4.8mb
HAU 55.52 27 eP 47 32.70 -0.3
1.2s 12.50nm 4.8mb
Z 20s 0.17um 4.1Msz
BSF 55.60 28 eP 47 33.10 -0.5
CDF 56.24 28 eP 47 37.70 -0.5
GRF 59.00 29 eP 47 57.80 0.3
0.8s 2.00nm 4.3mb
GEC2 59.67 31 P 48 01.50 -0.8
1.2s 2.46nm 4.2mb
e 48 10.60
KHC 59.79 30 eP 48 03.50 0.4
1.5s 8.50nm 4.7mb
e 48 12.50
MOX 59.83 28 e(P) 48 05.80 2.5
SKO 60.33 41 eP 48 06.00 -0.9
ZST 61.06 33 eP 48 10.50 -1.2
SRO 61.51 34 eP 48 17.00 2.3
KSP 62.23 30 eP 48 19.00 -0.6
SPC 63.34 33 e(P) 48 26.90 -0.3
OJC 63.67 32 eP 48 28.70 -0.4
MLR 64.86 39 eP 48 37.50 0.4
VRI 65.52 39 eP 48 41.50 0.3
NB2 66.97 20 P 48 49.00 -1.2
1.0s 4.30nm 4.6mb
ULM 75.16 322 eP 49 45.50 5.8X
FCC 76.90 331 eP 49 50.50 1.2
RES 83.04 346 eP 50 28.00 6.1X
SES 84.73 320 eP 50 35.00 4.0X
MAIO 87.50 54 eP 50 47.00 2.0
YKA 87.51 332 eP 50 44.90 0.6
1.3s 1.20nm 4.0mb
ASPA 151.50 144 ePKP 58 01.70 16.0X
0.9s 5.00nm
S.D. = 1.1 on 35 of 40 obs.

? MAR 06, 1993 02h 40m 21.02± 1.92s
17.019 N ±50.1km 95.231 W ±19.1km
DEPTH = 33.0km (normal)
OAXACA, MEXICO (60)

SCX 2.50 96 iP 41 00.30 0.0
iS 41 29.00
IISM 2.83 314 iP 41 03.63 -1.2
(S) 41 30.68
IIT 3.54 305 (P) 41 20.70 5.4X
TPX 3.55 126 iP 41 41.13 26.0X
PPM 3.82 303 iP 41 20.23 0.8
(S) 41 48.23
IIA 3.89 304 (P) 41 21.21 1.3
III 4.26 289 iPc 41 24.51 -0.9
(S) 42 02.30
UNM 4.41 302 (P) 41 03.00 -24.6X
ACX 4.43 269 (P) 41 24.27 -3.5X
MRX 6.26 296 (P) 41 51.14 -2.4X
JAQ 39.73 18 eP 47 38.50 -13.5X
YKA 47.41 348 eP 49 08.80 14.9X
0.7s 0.40nm
S.D. = 1.5 on 5 of 12 obs.

& MAR 06, 1993 02h 56m 37.86s
59.068 N 154.079 W
DEPTH = 116.8km
SOUTHERN ALASKA (2)
<AEIC>.

MCNL 0.18 312 iPd 56 53.51 0.8
eS 57 05.01
CDD 0.26 121 iPc 56 53.64 0.6
S 57 06.16
AUI 0.43 51 ePc 56 54.53 -0.7
eS 57 07.29
AUH 0.44 47 eP 56 54.88 -0.6
AUL 0.46 46 eP 56 54.88 -0.6

```
AUE     0.47  51 iPd    56 55.03  -0.4
PDB     0.72 355 iPd    56 56.31  -1.0
                 eS     57 10.74
SYI     0.99 117 ePc    56 58.69  -1.1
INW     1.11  25 iPd    57 00.05  -1.2
                 eS     57 17.44
INE     1.12  27 eP     57 00.42  -0.9
                 eS     57 18.15
CNPM    1.53  71 iPc    57 04.33  -1.5
                 S      57 24.99
RS1     1.55  25 iPd    57 05.05  -1.2
                 eS     57 26.64
RS2     1.55  25 iPd    57 05.09  -1.2
                 eS     57 26.69
RSO     1.55  25 iPd    57 05.11  -1.2
                 eS     57 26.63
RDW     1.56  24 iPd    57 05.13  -1.2
KDC     1.57 147 (P)    57 05.77  -0.4
                 eS     57 24.60
RDN     1.60  24 eP     57 05.59  -1.2
NCT     1.61  21 iPd    57 05.59  -1.3
DFR     1.68  24 iPd    57 06.43  -1.3
RDT     1.73  29 eP     57 06.89  -1.4
CKL     2.31  21 iPd    57 14.17  -1.5
CKT     2.34  23 eP     57 14.61  -1.4
SPU     2.35  25 eP     57 14.55  -1.7
BGL     2.36  20 iPd    57 15.05  -1.3
CKN     2.36  23 eP     57 15.34  -1.0
CP2     2.39  22 eP     57 15.21  -1.6
CPAM    2.40  23 eP     57 15.92  -1.0
CRP     2.41  23 eP     57 15.22  -1.8
SLKM    2.43  52 eP     57 15.45  -1.7
SEW     2.57  64 eP     57 17.71  -1.3
MPA     2.78  57 eP     57 19.87  -1.9
SUA     2.92  33 eP     57 22.06  -1.8
PTE     3.12  53 eP     57 23.96  -2.3
PMS     3.14  44 P      57 24.70  -2.0
SKT     3.18  22 eP     57 26.07  -1.1
KLU     4.73  56 eP     57 44.57  -3.7
                 eS     58 35.38
      36 obs. associated
-----------------------------------------
  MAR 06, 1993  03h 05m 49.87± 0.12s
  10.972 S ± 3.2km  164.181 E ± 2.8km
  DEPTH =  20.4km  (geophysicist)
  6.1mb ( 85 obs.)  7.1Msz ( 62 obs.)
 SANTA CRUZ ISLANDS REGION        (183)
     Mw 7.1 (GS), 7.1 (HRV). Ms 7.2
     (BRK). Mo=7.0*10**19 Nm (PPT).
     Felt (III) at Honiara,
     Guadalcanal. Depth from
     broadband displacement
     seismograms.
     FAULT PLANE SOLUTION: P-Waves
      NP1:Strike=155 Dip=88 Slip= 155
      NP2:      246     65         2
      Principal Axes:
       T              Plg=19  Azm=108
       P                  16      203
     Comment: The focal mechanism is
       moderately well controlled and
       corresponds to strike-slip
       faulting with a moderate
       reverse component. The
       preferred fault plane is not
       determined.
     RADIATED ENERGY
      No. of sta:  20  Focal mech.  F
      Energy      1.3±0.2*10**15 Nm
     MOMENT TENSOR SOLUTION
     Dep  17           No. of sta: 29
     Moment Tensor;   Scale 10**19 Nm
       Mrr=-0.27       Mtt=-3.70
       Mff= 3.96       Mrt= 0.49
       Mrf=-0.96       Mtf= 3.83
      Principal axes:
       T  Val=  5.63  Plg= 7  Azm=112
       N       -0.22      79      345
       P       -5.41       9      203
     Best Double Couple:Mo=5.5*10**19
      NP1:Strike=247 Dip=79 Slip=  -2
      NP2:      338     88      -169
     CENTROID, MOMENT TENSOR    (HRV)
     Data Used: GDSN
     L.P.B.: 41S, **C  M.W.: 38S, **C
     Centroid Location:
     Origin Time        03:06: 0.0 0.1
```

```
          Lat 10.73S 0.01 Lon 164.02E 0.00
          Dep  15.0 FIX Half-duration  8.6
          Moment Tensor;    Scale 10**19 Nm
            Mrr= 1.06 0.02  Mtt=-3.13 0.02
            Mff= 2.08 0.02  Mrt= 1.27 0.06
            Mrf=-2.52 0.06  Mtf= 3.46 0.01
           Principal Axes:
            T  Val=  4.71   Plg=28  Azm=109
            N        0.95       55      330
            P       -5.66       19      210
          Best Double Couple:Mo=5.2*10**19
           NP1:Strike=252 Dip=55 Slip=   7
           NP2:        158     84      145

HNR      4.44 290 iP-    06 57.00   -0.7
SVO      4.67 292 eP     07 02.00    1.0
BKM      7.73 150 iP     07 43.00   -1.1
                  iS     09 11.00
PVC      7.83 150 iP     07 45.20   -0.3
DZM     11.25 169 iPc    08 32.00   -0.7
RAB     13.68 299 iP+    09 04.00   -1.2
                  iS     11 20.00
MBU     15.32 115 eP     09 26.00   -0.7
VUN     15.49 118 iPc    09 29.00    0.1
SVA     15.53 119 P      09 30.70    1.3
PMG     16.83 274 eP     09 48.00    2.0
CTA     19.49 240 iPc    10 18.00   -0.8
                  i      10 21.00  11kmX
CTAO    19.49 240 ePd    10 18.66   -0.2
                  iS     14 00.74
BRS     19.54 212 iPc+   10 20.30    0.9
        1.0s      65.00nm         4.9mb X
                  i      10 30.00  42kmX
RMQ     21.21 221 iPd    10 38.00    1.2
ARMA    22.60 209 iPc    10 52.10    1.5
        0.9s     343.00nm          5.8mb
RIV     25.69 206 eP-    11 24.00    3.7X
                  eS     15 32.00
CMS     26.55 217 iPc    11 28.00   -0.3
        0.8s     358.00nm          6.1mb
BWA     27.43 209 eP     11 35.50   -0.8
                  i      11 40.30  17kmX
CNB     27.73 207 iPd-   11 40.10    1.0
        1.0s     290.00nm          6.0mb
                  iS     16 26.00
CAN     27.89 207 eP     11 40.90    0.3
                  i      11 45.90  18kmX
STK     29.46 222 P      11 55.00    0.3
WB2     30.06 249 iPc    11 56.60   -3.6X
        0.8s     148.80nm          5.9mb
                  i      11 59.80  11kmX
                  eS     16 56.80
WRA     30.07 249 P      11 57.50   -2.8
GUA     30.96 321 eP     12 08.80    0.7
        1.7s    1230.77nm          6.5mb
GUMO    31.03 321 eP     12 08.50   -0.1
        2.2s     621.80nm          6.1mb
     Z  27s      562.10um        7.1MszX
                  e(S)   17 17.10
MNG     31.17 163 eP     12 10.40    0.7
TOO     31.36 209 iPc    12 11.10   -0.4
        1.1s     795.00nm          6.5mb
ASPA    31.46 242 eP     12 08.70   -3.8X
        0.5s      51.70nm          5.7mb
     Z  23s      482.60um        7.1MszX
                  eS     17 21.60
MRW     31.53 165 P      12 21.00    8.1X
THZ     31.61 167 eP     12 14.00    0.3
MTN     32.38 263 eP     12 16.70   -3.9X
        0.5s      95.00nm          6.0mb
LTZ     32.47 169 eP     12 21.40    0.3
BFD     32.56 213 iPc    12 21.60   -0.3
        0.9s     289.00nm          6.2mb
ADE     33.28 220 iPd-   12 28.30    0.0
MMCZ    34.18 174 P      12 37.10    1.1
MHZ     34.25 174 eP     12 37.40    0.8
LRCZ    34.26 173 P      12 36.60   -0.2
SBCZ    34.28 174 eP     12 37.60    0.7
CMCZ    34.34 174 eP     12 38.20    0.9
TLC     34.36 174 eP     12 39.00    1.4
TAU     35.04 202 eP     12 34.13   -9.2X
                  ePP    14 05.00
                  eS     18 10.00
TAU     35.04 202 eP     12 47.00    3.7X
                  ePP    14 05.00
                  eS     18 10.00
WARB    38.50 242 eP     13 10.20   -2.5
```

```
         0.4s      57.00nm          5.7mb
FORT    38.84 234 eP     13 14.50   -0.9
DAV     42.41 293 eP+    13 43.20   -1.8
CTB     43.69 293 ePd    14 02.00    6.5X
CGP     43.77 295 eP     13 56.50    0.4
COOL    44.47 237 eP     14 00.00   -1.7
PLP     44.74 298 ePc    14 01.50   -2.5
AFR     45.01 104 eP     14 03.80   -2.3
        2.1s  5436.30nm             7.1mb
PAE     45.20 104 eP     14 05.30   -2.4
        1.5s  2156.10nm             6.9mb
PPT     45.21 104 eP     14 05.40   -2.3
        2.3s  8657.70nm           7.3mb X
PPN     45.34 104 eP     14 06.60   -2.1
        1.8s  3342.20nm             7.0mb
TVO     45.52 104 eP     14 08.20   -2.1
        1.8s  8203.50nm           7.4mb X
MEEK    45.60 243 eP     14 08.50   -2.3
        0.4s    71.00nm             6.0mb
PMO     46.80 100 eP     14 19.10   -1.2
        2.5s  8879.60nm           7.3mb X
VAH     47.05 101 eP     14 20.70   -1.6
        1.8s  3687.40nm           7.1mb X
TPT     47.07 100 eP     14 21.10   -1.3
        2.1s  6123.90nm           7.3mb X
RUV     47.29 101 eP     14 22.70   -1.5
        1.9s  5427.30nm           7.3mb X
KLB     47.45 237 eP     14 24.30   -1.0
BAL     48.08 239 eP     14 29.40   -0.9
        0.9s   179.00nm             6.1mb
NWAO    48.23 235 iPd    14 30.92   -0.5
                  ed     14 36.22  18kmX
                  ec     14 39.53
                  ePP    16 25.22
MRWA    48.38 241 eP     14 30.00   -2.6
        0.6s    45.00nm             5.7mb
TSM     48.52 286 eP     14 33.00   -0.8
MUN     48.83 237 eP     14 35.50   -0.5
        1.0s   140.00nm             5.9mb
RKG     48.88 233 eP     14 37.00    0.7
        1.0s    74.00nm             5.7mb
HON     49.09  49 P+     14 37.71   -0.3
     Z  19s    123.43um            6.9Msz
                  S      21 59.93
KIP     49.14  49 ePc    14 40.73    2.3
                  epPd   14 46.86  21kmX
                  iS     21 47.23
DHH     49.20  49 eP     14 36.80   -2.1
PGP     49.30 299 eP     14 40.00    0.2
OPA     49.30  49 eP     14 39.04   -0.7
TGY     49.59 299 ePd    14 40.00   -2.1
KKH     49.63  52 eP     14 40.93   -1.3
PPR     49.68 293 ePd    14 43.00    0.3
QCP     49.72 300 eP     14 41.00   -2.0
QVP     49.78 300 eP     14 45.00    1.6
MHA     50.02  52 eP     14 44.12   -1.1
HKL     50.04  51 eP     14 44.79   -1.1
CVP     50.62 304 eP     14 51.00    1.2
KKM     50.65 287 ePc    14 49.30   -0.9
        0.9s   136.10nm             5.9mb
BCP     50.97 302 eP     14 53.00    0.2
BAG     50.99 302 eP-    14 50.80   -2.1
        0.9s   349.58nm           6.3mb
                  iS     22 08.00
PIP     51.92 304 eP     15 01.50    1.8
MAT     53.21 334 P      15 09.00   -0.1
SHK     54.23 328 eP     15 16.00   -0.6
TATO    54.86 311 ePd    15 20.40   -0.9
                  epPc   15 28.35  26kmX
                  iS     23 01.40
                  esS    23 16.14
LEM     55.97 269 ePd    15 28.50   -1.3
        1.5s   305.56nm           6.1mb
                  eS     23 13.00
                  eLR    32 40.00
ERM     56.15 341 ePc    15 32.06    1.7
                  ed     15 36.03  13kmX
                  ec     15 41.33
QZH     57.01 309 Pd     15 36.00   -0.8
        1.5s   850.00nm           6.6mb
     Z  22s    142.00um            7.0Msz
     N  22s    107.00um
                  S      23 30.00
SAP     57.68 340 eP     15 48.00    6.8X
                  eS     23 44.00
KUR     57.85 346 iPc    15 43.00    0.6
        1.0s   470.00nm           6.5mb
```

06d 03h

```
      Z 16s   121.80um          7.1MszX
      N 16s   117.60um
      E 16s   100.80um
                  e     16 32.00 216kmX
                  iS    23 45.00
DRV    57.97 191 iP     15 47.00   4.0X
                  PP    18 15.00
                  S     23 45.00
                  SS    27 42.00
SSE    58.74 317 eP     15 48.04  -0.8
       1.0s    42.00nm          5.5mb
      N 16s    40.80um
      E 17s    45.60um
                  e     16 04.76  63kmX
                  iS    23 53.24
                  esS   24 07.59
                  eScS  25 33.94
HKC    59.13 304 eP     15 53.00   1.3
                  iS    24 04.00
MCO    59.54 304 eP     15 53.80  -0.8
GZH    60.18 305 Pd     15 59.00   0.1
       0.8s   130.00nm          6.1mb
      N 18s    39.90um
      E 20s   165.00um
                  pP    16 09.00  33kmX
                  S     24 13.00
YSS    60.83 343 ePc    16 02.89   0.0
       1.3s   340.00nm          6.3mb
      Z 18s    75.60um          6.9Msz
      N 18s    62.00um
      E 18s    49.00um
                  epPd  16 08.19  17kmX
                  ed    16 11.17
                  eS    24 20.06
                  esS   24 35.79
                  eScS  25 54.00
                  eSS   28 11.40
                  eSSS  30 47.00
NJ2    60.90 316 Pc     16 03.50  -0.2
       1.4s    78.00nm          5.6mb
      Z 22s    93.40um          6.9Msz
      N 15s    27.80um
      E 15s    55.10um
                  pP    16 14.00  35kmX
                  S     24 21.00
QIZ    61.29 299 ePd    16 06.74   0.1
                  ec    16 14.85  26kmX
                  iS    24 30.17
                  eScS  25 53.82
VLA    61.38 334 iPd-   16 09.50   2.8
       2.2s  1467.00nm          6.7mb
                  i     16 45.50 152kmX
                  iS    24 13.00
SKR    61.78 354 eP     16 08.00  -1.4
                  eS    24 28.00
KGM    61.89 278 eP     16 09.00  -1.7
WHN    63.20 312 Pd     16 18.50  -0.6
       1.5s   140.00nm          5.9mb
      Z 28s   133.00um          7.0MszX
      N 16s    26.50um
      E 18s    83.30um
                  S     24 50.00
DL2    63.50 324 Pc     16 22.50   1.5
       1.5s   480.00nm          6.4mb
      Z 30s   108.00um          6.8MszX
      N 18s    81.20um
      E 15s    36.10um
                  pP    16 30.00  24kmX
                  S     24 56.00
MDJ    63.58 333 ePc    16 23.14   1.8
                  ec    16 30.59  24kmX
                  iS    24 56.19
                  ePS   25 18.93
                  eScS  26 06.82
PET    63.91 356 iPc+   16 22.00  -1.3
      Z 18s    77.40um          6.9Msz
      E 20s    50.70um
                  e     16 29.00  23kmX
                  eS    24 50.00
SMY    64.02   7 eP+    16 25.22   1.2
       1.5s  1316.92nm          6.9mb
      Z 18s    68.45um          6.9Msz
SNY    64.43 327 Pc     16 28.00   1.0
       1.9s  2120.00nm          7.0mb
      N 17s    43.70um
      E 16s    55.60um
                  pP    16 35.00  23kmX

                  iS    25 04.00
TIA    64.54 319 Pd     16 26.80  -1.1
       1.5s    95.00nm          5.7mb
      N 16s    56.30um
      E 15s    37.70um
                  PP    18 45.00
                  S     25 02.00
IPM    64.72 280 ePd    16 28.70  -0.7
ADK    64.75  13 eP     16 34.40   5.5X
      Z 20s    65.00um          6.8Msz
ADK    64.75  13 eP     16 29.29   0.4
       1.8s  1111.11nm          6.7mb
CN2    64.90 330 P      16 29.90  -0.1
       1.0s   170.00nm          6.1mb
      Z 20s   104.00um          7.0Msz
      N 16s    63.80um
      E 16s    41.10um
                  epP   16 36.50  21kmX
                  eS    25 10.50
SNG    65.78 283 eP     16 36.00  -0.1
       1.2s   150.00nm          6.0mb
                  eS    25 08.00
CSY    65.90 201 iPc    16 37.40   1.3
       1.0s    60.80nm          5.7mb
SBA    66.88 179 iPc    16 47.20   5.0X
GYA    67.11 305 iPd    16 44.00  -0.7
       1.2s   160.00nm          6.0mb
      Z 22s   105.00um          7.0Msz
      N 20s    63.40um
      E 20s    80.00um
                  S     25 40.00
                  SS    30 00.00
BJI    67.47 322 eP     16 46.00  -0.5
       1.8s   380.00nm          6.2mb
      N 19s   123.00um
                  eS    25 36.00
LOE    67.83 294 iPd    16 49.00  -0.2
TIY    68.47 318 Pd     16 53.00   0.1
       1.4s   140.00nm          5.9mb
      Z 20s   112.00um          7.1Msz
      N 16s    66.70um
                  pP    17 02.00  29kmX
                  S     25 58.00
NST    68.70 292 eP     16 55.00   0.4
XAN    68.94 313 ePd    16 55.25  -0.6
                  esPc  17 04.85
                  ePP   19 26.53
                  iS    25 58.76
                  eScS  26 55.70
                  eSS   30 23.92
KMI    69.78 302 ePd    17 01.46   0.1
       1.5s   960.00nm          6.7mb
      Z 24s   107.00um          7.0MszX
      N 19s    75.20um
      E 19s    99.70um
                  esPc  17 10.24
                  iS    26 12.71
                  esS   26 24.13
                  SS    30 40.00
KHT    69.84 290 eP     17 01.50  -0.1
BDT    70.23 293 eP     17 02.80  -1.1
       1.1s    91.50nm          5.8mb
HHC    70.79 320 iPc    17 08.00   0.9
       1.6s   270.00nm          6.1mb
      Z 24s   200.00um          7.3MszX
      N 17s    37.30um
      E 17s   104.00um
                  S     26 22.50
                  ScS   27 01.00
CHTO   70.79 294 ePd    17 06.73  -0.7
       1.2s   187.50nm          6.1mb
                  esPc  17 15.17
                  iS    26 23.05
                  eScS  27 14.70
CD2    71.34 308 eP     17 08.40  -2.2
      N 18s    91.50um
                  ipP   17 19.90  38kmX
                  iPP   19 54.00
                  iS    26 24.00
                  isS   26 39.20
                  SS    31 01.00
HIA    71.55 331 ePc    17 11.81   0.3
                  isPc  17 20.75  67kmX
                  ed    17 30.02
BTO    71.63 319 P      17 12.50   0.3
       1.6s   290.00nm          6.1mb
      N 17s    53.60um

      E 17s    66.30um
                  sP    17 22.50
                  ePP   19 57.00
                  S     26 35.00
MGD    71.64 353 ePc+   17 10.00  -1.7
       1.6s   210.00nm          6.0mb
      Z 17s    65.00um          7.0MszX
      N 17s    41.00um
                  e     17 38.00 111kmX
                  iPPP  21 34.00
                  iS    26 27.00
                  iPS   27 00.00
SDN    72.39  20 eP     17 15.15  -1.1
       0.9s   272.82nm          6.3mb
LZH    73.58 313 eP     17 24.63   0.8
       2.0s   937.00nm          6.5mb
      N 18s    52.00um
                  PP    20 15.00
                  iS    26 55.06
                  esS   27 09.82
                  SS    31 45.00
CIT    76.30 331 eP     17 39.50   0.5
      Z 18s    60.44um          7.0Msz
      E 18s    32.23um
KDC    77.09  22 eP     17 42.29  -0.9
       1.4s   137.66nm          5.8mb
YAK    77.58 344 iPc+   17 45.30  -0.5
       1.6s   406.00nm          6.2mb
                  e     17 56.00  35kmX
                  e     20 48.00
                  iS    27 35.00
GTA    77.91 314 P      17 49.00   0.7
       1.2s   350.00nm          6.3mb
      Z 22s    88.80um          7.0Msz
      E 18s    46.10um
                  pP    17 55.00  19kmX
                  sP    17 59.50
                  S     27 32.00
SVW    78.52  19 eP     17 51.33   0.2
       1.0s   556.37nm          6.6mb
RSO    78.98  20 eP     17 51.86  -1.9
SPA    79.10 180 iPd    17 56.00   1.7
       1.3s   850.00nm          6.6mb
                  i     17 57.80   6kmX
ILT    79.63   7 iP     17 57.00   0.2
                  iS    28 00.00
CP2    79.73  20 eP     17 56.58  -1.3
BOD    79.76 335 eP     17 56.70  -1.1
       1.7s   301.00nm          6.0mb
CRP    79.76  20 eP     17 55.93  -2.1
SLKM   79.88  21 eP     17 57.39  -1.1
ZAK    80.76 325 iPd    18 03.80   0.6
       1.5s   272.00nm          6.1mb
      N 19s    51.50um
      E 18s   117.16um
                  e     21 07.00
                  eS    28 12.00
                  ePS   29 07.00
                  eSS   33 18.00
                  eSSS  36 40.00
LSA    81.02 303 ePd    18 06.50   0.8
                  ec    18 14.61  26kmX
                  ePP   21 12.79
                  eHPP  21 13.95
                  iS    28 15.59
                  esS   28 26.19
                  ePS   28 57.97
                  eSS   33 26.94
PMR    81.02  21 eP+    18 03.50  -0.9
       1.1s   275.49nm          6.2mb
      Z 18s    56.58um          7.0Msz
                  S     28 23.74
IRK    81.16 327 eP     18 04.00  -1.3
       9.0s     5.40nm          3.6mb X
      Z 18s    44.00um          6.9Msz
      N 25s    11.70um
      E 18s    48.12um
                  e     18 28.00
                  epP   18 49.30 185kmX
                  esP   19 25.00
                  e     20 22.00
                  ePP   21 10.00
                  ePPP  22 51.20
                  e     27 25.00
                  iS    28 14.00
                  esS   29 18.00
                  esS   29 59.00
```

			e	33 18.00		
			e	36 27.00		
			e	37 07.00		
			LR	50 47.00		
KLU	82.09	22	eP	18 09.47	-0.7	
IMA	82.86	16	eP	18 13.26	-0.8	
	1.6s	253.70nm				6.1mb
BALM	83.15	23	eP	18 14.47	-1.2	
KMPM	83.49	47	eP	18 19.21	1.4	
ARC	83.69	46	ePc	18 18.86	0.2	
Z	18s	80.00um				7.1Msz
			eS	28 52.86		
			eSP	29 34.86		
			eLQ	39 59.86		
			eLR	43 02.86		
FHC	83.72	47	eP	18 20.51	1.6	
	1.6s	1276.14nm				6.9mb
FBA	83.74	19	eP	18 16.73	-1.7	
SIT	83.92	29	eP	18 19.46	0.0	
	1.3s	189.51nm				6.2mb
Z	18s	63.69um				7.0Msz
STAN	83.92	50	eP	18 17.71	-2.2	
Z	18s	122.00um				7.3Msz
			eS	28 46.71		
			ePS	29 47.71		
			eSS	34 02.71		
			e(SSS)	37 14.71		
			eLQ	40 08.71		
			eLR	43 36.71		
BKS	84.03	50	ePc	18 20.09	-0.4	
Z	18s	81.00um				7.1Msz
			e(PP)	21 58.09		
			eS	28 46.09		
			ePS	29 28.09		
			eSP	29 48.09		
			eSS	34 03.09		
			eSSS	37 46.09		
			eLQ	39 50.09		
			eLR	43 18.09		
MAW	84.21	202	iP	18 25.90	5.1X	
	0.9s	120.00nm				6.1mb
Z	16s	39.58um				6.9MszX
COE	84.26	50	ePc	18 22.78	1.1	
SAO	84.28	51	eP	18 15.76	-6.0X	
Z	18s	166.00um				7.5Msz
			eS	28 45.76		
			ePS	29 48.76		
			eSS	34 14.76		
			eSSS	37 41.76		
			eLQ	40 02.76		
			eLR	43 34.76		
SAO	84.28	51	eP	18 22.87	1.1	
MHC	84.31	50	eP	18 19.06	-3.0X	
Z	18s	145.00um				7.4Msz
			ePP	21 45.06		
			eS	28 47.06		
			eSP	29 54.06		
			eSS	34 05.06		
			eSSS	37 41.06		
			eLQ	40 02.06		
			eLR	43 41.06		
PAF	84.34	221	iP	18 29.00	7.2X	
			ePP	21 00.00		
			iS	28 45.00		
			eSS	33 57.00		
ARN	84.39	50	eP	18 23.24	0.9	
LGPM	84.59	47	(P)	18 23.32	0.0	
WDC	84.68	47	ePc	18 23.38	-0.3	
	1.4s	214.10nm				6.2mb
Z	19s	89.46um				7.2Msz
			ec	18 26.69		
			epPd	18 31.00	24kmX	
			e	19 54.67		
PRI	84.69	52	ePc	18 23.79	-0.2	
PHAM	84.80	52	eP	18 25.51	1.1	
BCH	84.85	53	eP	18 25.87	1.1	
SBC	84.93	54	ePc	18 26.75	1.8	
			ec	18 28.40	5kmX	
			ed	18 32.71		
			ePP	21 45.29		
			eS	28 54.42		
			ePS	29 44.91		
GUN	84.94	300	P	18 24.80	-0.9	
PKEM	85.09	52	eP	18 27.38	1.6	
ORV	85.11	48	(P)	18 24.45	-1.4	
PKI	85.26	299	P	18 26.60	-0.7	
LMEM	85.37	47	eP	18 28.28	0.9	
KKN	85.42	299	P	18 25.00	-3.0X	
CMB	85.47	50	ePc	18 28.45	0.7	
Z	18s	109.00um				7.3Msz
			ec	18 30.60		
			epPd	18 34.58	19kmX	
			ed	18 36.40		
			e	19 57.16		
			ePP	21 43.27		
			ePP	25 37.69		
			eS	28 53.69		
			eScS	29 30.69		
			ePS	29 41.69		
			esP	30 00.69		
			eSS	34 37.69		
			eSSS	38 03.69		
			eLQ	40 19.69		
			eLR	44 25.69		
COR	85.50	43	ePc	18 28.77	1.2	
			ec	18 31.25		
			epPd	18 35.39	21kmX	
			e	20 00.85		
			e	21 48.55		
			iS	29 01.92		
			iPS	29 53.24		
DMN	85.53	299	P	18 27.60	-0.9	
FRI	85.67	51	iPc	18 29.82	1.1	
TIK	85.72	349	iPd+	18 27.50	-0.7	
	2.0s	410.00nm				6.3mb
Z	17s	47.00um				7.0MszX
			i	18 37.00	30kmX	
			i	18 44.00		
			ePPP	23 50.00		
			iS	29 03.00		
GKN	86.03	299	P	18 30.20	-0.7	
PAS	86.07	54	ePc	18 30.23	-0.5	
			ec	18 33.38		
			epPd	18 37.52	23kmX	
			ed	18 39.34		
BRW	86.17	12	eP	18 31.56	1.2	
BMW	86.19	41	eP	18 30.90	-0.3	
ISA	86.25	53	eP+	18 31.23	-0.5	
	1.4s	174.46nm				6.1mb
Z	18s	117.01um				7.3Msz
			PP	21 50.84		
			S	29 01.88		
			SP	29 58.84		
MEMM	86.46	51	eP	18 33.75	1.2	
SSK	86.47	54	eP	18 33.53	0.6	
UER	86.51	324	iPd	18 33.20	0.8	
	1.3s	200.00nm				6.2mb
			e	23 48.00		
			e	29 04.00		
			e	34 51.00		
MTUM	86.65	51	eP	18 32.89	-0.9	
SHW	86.75	42	eP	18 35.34	1.4	
MRCM	86.79	51	eP	18 35.16	0.7	
PGC	86.81	39	eP	18 35.00	1.0	
	1.5s	281.00nm				6.3mb
PEC	86.81	55	eP	18 33.58	-0.8	
	1.3s	303.30nm				6.4mb
GMW	86.85	40	eP	18 33.77	-0.5	
PLM	86.91	55	eP	18 34.90	-0.2	
BONR	87.02	51	eP	18 35.26	-0.4	
MCW	87.20	39	eP	18 36.50	0.5	
LON	87.21	41	eP	18 34.66	-1.4	
PFO	87.30	55	ePc	18 36.76	-0.2	
			epPd	18 44.04	23kmX	
			eSKS	29 07.33		
			eS	29 20.40		
			iPS	30 13.54		
RMW	87.44	41	eP	18 36.82	-0.4	
GSC	87.46	53	iPc	18 38.60	1.0	
			ec	18 40.75	7kmX	
			ed	18 45.06		
			eSKS	29 06.41		
			iPS	30 19.25		
KVN	87.48	50	eP	18 38.76	1.0	
VGB	87.49	43	eP	18 38.23	0.8	
TNP	87.88	51	eP	18 38.67	-1.0	
	1.2s	67.89nm				5.8mb
WMQ	87.96	315	(P)	18 37.83	-1.9	
			ec	18 49.58	38kmX	
			eSKS	29 07.36		
			iS	29 22.09		
			esS	29 34.84		
			iPS	30 24.66		
TPNV	88.32	52	ePc	18 43.16	1.3	
	1.0s	42.16nm				5.7mb
Z	18s	152.87um				7.5Msz
			ec	18 44.81		
			epPd	18 49.28	19kmX	
			ePP	22 26.20		
HYB	89.13	288	ePd	18 46.00	0.2	
			eSKS	29 16.00		
			eS	29 31.00		
GBA	89.43	284	P	18 47.00	-0.2	
DPW	89.89	41	eP	18 47.49	-1.3	
NEW	90.69	41	eP	18 51.23	-1.3	
	1.4s	247.67nm				6.3mb
ARUT	90.70	52	eP	18 52.06	-0.9	
ELT	91.58	324	eP	18 50.50	-5.8X	
			eS	29 32.00		
TUC	91.64	58	ePc	18 57.07	-0.2	
	1.4s	49.68nm				5.7mb
Z	18s	44.22um				6.9Msz
			ec	18 59.39	7kmX	
			esPd	19 06.67		
			eSKS	29 34.39		
			eS	30 02.37		
			iPS	30 09.49		
			SP	31 13.19		
DUG	91.72	50	eP-	18 56.62	-0.9	
	1.7s	188.74nm				6.2mb
Z	19s	49.55um				7.0Msz
MSU	91.83	51	eP	18 58.40	0.2	
HVU	92.10	48	eP	18 59.21	-0.1	
NDI	92.56	299	iPc	19 03.00	1.5	
	0.9s	63.03nm				6.0mb
DAU	92.93	50	eP	19 03.10	-0.2	
EMUT	93.14	50	eP	19 04.29	0.1	
SRU	93.22	51	eP	19 04.39	-0.1	
LCCM	93.60	44	ePc	19 05.50	-0.6	
PV09	94.17	52	eP	19 09.12	0.0	
PV10	94.22	52	ePc	19 10.19	0.9	
PRZ	94.23	312	eP	19 10.00	0.9	
	1.3s	250.00nm				6.5mb
			e	23 03.00		
			ePPP	25 03.00		
			eS	29 45.00		
			e	31 34.00		
PV08	94.56	52	eP	19 11.42	0.5	
BW06	94.64	47	ePc	19 10.93	-0.1	
	1.3s	80.09nm				6.0mb
BOM	94.76	288	eP	19 13.00	1.3	
			iS	30 23.20		
SES	95.05	40	eP	19 12.00	-0.5	
	1.1s	117.00nm				6.2mb
			pP	19 24.00	39kmX	
TLG	95.11	313	eP	19 14.00	1.0	
	1.8s	150.00nm				6.1mb
Z	19s	25.00um				6.7Msz
N	24s	15.00um				
E	19s	29.00um				
			iPPS	31 57.00		
NRI	95.35	340	iPd	19 13.00	-0.4	
	1.7s	40.00nm				5.6mb
			i	19 20.00	22kmX	
			e	22 59.00		
			e	29 50.00		
			eS	30 24.00		
AAA	95.43	313	eP	19 24.00	9.6X	
			ePPP	25 06.00		
			eSKS	29 49.00		
			eS	30 31.00		
			iPS	31 58.00		
			ePPS	32 32.00		
			eSS	37 00.00		
KSH	95.50	309	P	19 16.60	1.7	
	0.7s	30.00nm				5.8mb
Z	20s	50.70um				7.0Msz
N	18s	67.40um				
E	17s	25.00um				
			pP	19 26.00	29kmX	
			PP	23 11.00		
			SKS	29 50.00		
			S	30 32.00		
YKA	95.61	27	P	19 12.50	-2.3	
	0.9s	35.00nm				5.8mb
ALQ	95.67	56	eP+	19 16.47	0.5	
	1.0s	19.90nm				5.5mb
Z	18s	46.71um				7.0Msz
			SP	31 55.91		
ANMO	95.67	56	(P)	19 17.57	1.6	
			ePP	22 58.46		

06d 03h

```
                   eHPP   22 59.12
                   eS     30 40.04
                   iPS    31 53.92
NVL     96.31 189 eP     19 26.00    8.1X
     1.6s     82.00nm            6.0mb
   Z  18s     78.83um            7.2Msz
                   ePP    22 14.00
                   ePPP   23 24.00
                   eS     29 59.00
                   ePS    30 13.00
                   eScS   30 45.00
CRZF    96.97 220 eP     19 21.00   -0.4
                   ePP    23 18.00
                   ePPP   25 18.00
                   iSS    37 15.00
FRU     97.04 312 ePc    19 24.00    2.3
   Z  20s     44.00um            6.9Msz
                   e      19 32.00  25kmX
                   i      23 17.00
                   e      25 24.00
                   iPS    32 08.00
                   iSS    37 20.00
AAK     97.10 312 (P)    19 24.06    1.9
                   ed     19 40.95  59kmX
GOL     97.25  51 P-     19 24.22    1.2
   Z  18s     99.94um            7.3Msz
GLD     97.37  51 eP     19 24.20    0.7
     1.7s     81.87nm            6.0mb
   Z  18s    194.51um            7.6Msz
SNA     98.38 185 iPd    19 33.20    6.0X
     1.2s     36.00nm            5.8mb
RSSD    98.81  47 eP+    19 30.15    0.2
     1.4s     39.47nm            5.8mb
   Z  21s     26.28um            6.7Msz
                   ePP    23 25.33
                   SP     32 29.85
                   SS     37 52.79
QUE    101.63 299 ePdiff19 53.00   10.0X
                   e      25 31.00
                   e      28 02.00
WMOK   101.91  57 Pdiff+19 42.34   -1.6
   Z  18s     47.19um            7.0Msz
                   e      23 48.19
                   SKS    30 24.60
                   SP     33 08.79
                   e      34 09.04
                   e      38 58.40
MEO    102.07  57 iPdiff19 50.10    5.5X
RES    103.40  16 ePdiff19 58.00    8.5X
ULM    104.71  41 ePdiff20 02.00    6.1X
FCC    105.39  32 ePdiff20 05.00    6.3X
MIAR   106.18  57 (PKP) 24 15.79    1.0
   Z  18s     65.23um            7.2Msz
                   SP     33 50.49
                   e      34 50.66
                   SKKS   43 16.76
MIAR   106.18  57 ePdiff20 03.84    1.0
                   epPd   20 10.46
SVE    106.52 326 ePdiff20 05.00    1.2
ARU    107.69 326 ePdiff20 09.00    0.0
OLY    107.93  56 (PKP) 24 17.70   -0.4
CCM    108.13  54 ePdiff20 13.58    2.1X
                   epPd   20 19.37
                   ePP    24 36.75
                   eHPP   24 38.08
                   eSKS   30 52.74
                   iSDIF  32 23.37
                   iPS    34 00.63
MAIO   108.21 305 ePdiff20 18.00    6.0X
                   e      23 56.00
                   eS     31 00.00
FVM    108.78  54 (PKP) 24 19.53   -0.1
SLM    108.92  53 Pdiff+20 12.42   -2.5X
SLM    108.92  53 PKP    24 10.42   -9.4X
   Z  18s    172.42um            7.7Msz
                   PP     24 47.34
                   SP     34 17.66
ASH    109.12 306 ePdiff20 23.00    7.1X
   N  25s     56.70um
   E  25s     41.70um
                   i      27 14.00
                   e      30 45.00
                   iSS    40 20.00
KAT    110.72 308 ePdiff20 33.00   10.1X
   Z  18s      1.30um            5.6MszX
   N  18s     20.00um
   E  18s     30.00um
```

```
APA    114.91 341 ePKP   24 29.00   -1.4
KEV    115.34 345 ePKP   24 36.00    4.9X
   Z  21s     55.80um            7.1Msz
                   e      33 20.00
                   e      35 16.00
                   e      41 25.00
                   e      45 43.00
                   LR     16 00.00
BAK    115.50 310 ePdiff21 02.00   17.9X
                   iPPP   28 02.00
                   i      31 38.00
SHE    116.42 310 iPKP   24 22.00  -12.1X
   Z  18s     20.00um            6.8Msz
   N  18s     28.00um
   E  20s     30.00um
                   iPS    35 24.00
ANT    116.48 123 ePdiff20 36.00  -12.9X
MCWV   116.88  51 PKP    24 45.90   10.9X
   Z  18s     77.59um            7.4Msz
                   PP     25 39.20
                   SP     35 32.31
GDH    116.97  14 ePdiff21 00.00   10.0X
                   i      25 45.00
                   i      32 46.00
                   i      35 30.00
SDF    117.08 343 iPKP   24 38.60    4.1X
TCA    117.12 134 e(PKP)24 41.00    5.1X
CEH    117.97  55 Pdiff+20 59.19    3.9X
   Z  19s     35.70um            7.0Msz
                   PP     25 47.21
                   e      35 11.63
                   SP     35 45.92
                   SS     42 19.94
GRO    118.11 313 ePdiff21 08.00   12.3X
                   i      31 40.00
                   iSS    42 00.00
GRS    118.34 309 iPKP   24 37.00   -1.0
     1.3s     40.00nm
                   e      26 00.00
                   iPPP   28 21.00
                   i      31 33.00
                   iPS    35 42.00
                   iSS    42 22.00
KER    118.42 303 ePKP   24 41.00    2.7X
ARE    118.56 116 ePdiff21 04.00    5.3X
FSA    118.86 128 e(PKP)24 45.00    5.9X
MTA    119.08 312 ePKP   24 47.00    7.9X
   Z  18s      2.00um            5.8MszX
   N  18s     15.00um
   E  18s     29.00um
                   e      26 03.00
                   e      28 30.00
                   e      31 40.00
MOS    119.13 329 ePdiff21 15.00   15.1X
                   e      26 03.00
                   e      31 43.00
                   ePS    35 50.00
LPA    119.40 141 ePdiff21 04.00    2.3X
   Z  20s     17.02um            6.7Msz
                   ePP    26 02.00
LPA    119.40 141 ePKP+ 24 36.00   -3.9X
ERE    119.61 310 ePKP   24 50.00    9.7X
   Z  22s     28.00um            6.9Msz
                   i      26 01.00
                   i      31 45.00
                   iPS    35 48.00
                   iSS    42 16.00
RSNY   119.79  45 Pdiff+20 55.91   -7.3X
PYA    119.81 315 ePdiff21 12.00    8.7X
   Z  22s     34.80um            6.9Msz
                   i      26 03.00
                   e      31 50.00
                   iPS    35 52.00
                   iSS    42 24.00
OBN    119.93 328 ePdiff21 15.00   11.5X
     1.6s    128.00nm
                   e      26 06.00
                   e      31 46.00
                   iPS    35 56.00
                   iSSS   46 54.00
OBN    119.93 328 ePKP   24 44.50    4.2X
     1.7s    110.00nm
   Z  19s     15.00um            6.6Msz
   N  16s     19.00um
   E  19s     42.00um
                   ePP    26 06.00
                   i      26 30.00
```

```
                   i      26 38.00
                   iSKP   28 10.00
                   iPPPP  30 52.00
                   eSKS   31 46.00
                   iSKKS  33 08.00
                   i      33 54.00
                   iPS    35 56.00
                   ePPS   38 16.00
                   iSS    42 10.00
                   i      45 38.00
                   iSSS   46 54.00
                   i      50 08.00
                   i      53 38.00
                   LQ     58 48.00
KIV    120.08 315 ePKP   24 49.00    7.9X
     1.3s     37.00nm
   Z  20s     40.50um            7.1Msz
                   e      31 32.00
KIV    120.08 315 ePKP   24 44.30    3.2X
     1.3s     37.00nm
   Z  20s     40.50um            7.1Msz
                   eHPP   25 57.05
                   ePP    25 57.38
GRM    120.26 221 ePKP   24 47.50    5.8X
PUL    120.49 335 ePKP   24 45.00    3.8X
KAF    120.62 339 iPKP   24 42.80    1.4
     0.8s     11.20nm
KAF    120.62 339 ePKP   24 44.60    3.2X
     0.8s     11.00nm
LPB    121.52 117 PKP    24 50.50    5.5X
ZOBO   121.60 117 PKPc   24 47.00    1.6
     1.0s     15.00nm
BOG    122.02  91 ePdiff21 20.00    5.7X
                   ePP    26 24.00
BNH    122.03  44 ePKP   24 46.65    2.0
NUR    122.27 338 ePKP   24 42.70   -1.9
BFT    122.38 230 ePKP   24 52.00    5.8X
HRV    122.42  46 PKP    24 50.64    5.2X
   Z  18s     34.43um            7.0Msz
                   PP     26 20.32
                   SP     36 19.67
                   e      43 24.44
BLF    123.16 224 ePKP   24 55.50    8.0X
CBM    123.31  40 ePdiff21 18.19   -0.6
   Z  18s     50.98um            7.2Msz
FRS    123.35 223 ePKP   24 50.00    2.4X
PRY    123.57 227 ePKP   24 50.00    1.6
     1.0s     32.00nm
KSR    124.61 228 ePKP   24 57.00    6.5X
CER    124.66 216 ePKP   24 30.00  -20.1X
     1.0s    100.00nm
MNK    125.08 330 ePdiff21 32.00    5.6X
                   e      32 00.00
UPP    125.22 340 iPKP   24 54.10    3.8X
                   iPP    26 49.00
SIM    125.59 318 ePdiff21 34.00    5.0X
   Z  26s     37.00um            6.9MszX
   N  28s     42.00um
   E  28s     42.00um
                   e      26 50.00
                   ePS    36 48.00
                   eSS    44 00.00
SIM    125.59 318 ePdiff21 20.00   -9.0X
                   eSKS   31 02.00
MTD    125.62 240 ePKP   24 55.10    2.5X
GAZ    125.84 308 ePKP   24 49.00   -3.3X
LMN    125.85  41 ePKP   24 57.00    4.9X
NB2    126.22 344 PKP    24 54.10    1.7
     0.8s     13.10nm
HFS    126.26 342 ePKP   24 52.70    0.3
     0.7s      3.00nm
   Z  17s    *******um          10.2MszX
                   LR     12 08.00
AAE    126.27 273 ePKP   25 03.00    8.8X
POF    127.09 220 ePKP   25 12.00   17.1X
     0.5s     12.00nm
SIV    127.81 120 ePKP   25 01.00    4.3X
HRI    127.93 304 ePKP   24 59.30    2.7X
KIS    128.00 322 ePKP   24 56.00   -0.1
                   i      25 04.00
                   i      27 08.00
JVI    128.54 302 ePKP   25 00.20    2.5X
MKT    128.90 301 ePKP   25 01.00    2.6X
PPE    129.14 322 ePKP   25 03.00    4.7X
WAR    129.22 332 e(PKP)25 06.00    7.8X
   Z  20s     62.00um            7.3Msz
   N  20s     55.00um
```

```
     E  20s     62.00um
                    e        27 08.00
                    e        28 30.00
                    e        37 31.00
LVV     129.23 328 ePKP    25 01.00    2.7X
CFR     129.31 321 ePKP    25 01.00    2.4X
CSS     129.45 306 ePKP    25 06.80    7.5X
BRD     129.83 321 ePKP    25 02.00    2.4X
VRI     129.85 322 ePKP    25 03.00    3.3X
ISR     130.32 321 ePKP    25 10.00    9.3X
MLR     130.51 322 ePKP    25 01.00   -0.1
UZH     130.84 327 ePdiff22 10.00   17.7X
     2.0s    130.00nm
     Z  20s     48.50um              7.2Msz
     N  20s     34.20um
     E  20s     55.00um
                    i        25 02.00
                    i        25 10.00
                    i        27 15.00
                    ePPP     30 13.00
                    i        32 05.00
                    i        37 29.00
UZH     130.84 327 iPKPd   24 57.00   -4.4X
BUC1    131.04 321 ePKP    25 04.00    2.1X
OJC     131.13 330 ePKP    25 04.00    2.0X
                    i        25 11.10
                    e        25 15.00
                    i        27 31.00
CMP     131.18 322 ePKPc   25 08.00    5.7X
TNR     131.43 323 ePKPc   25 13.00   10.3X
SPC     131.57 329 ePKP    25 04.90    1.8
     Z  17s     78.80um              7.5MszX
                    ePP      27 25.20
KSP     132.34 333 ePKP    25 05.60    1.4
                    i        25 09.60
                    e        27 18.00
VRAC    133.28 331 PKP     25 08.30    2.3X
     2.7s    766.00nm
                    e        27 35.70
                    e        28 51.80
BUD     133.28 328 ePKP    25 06.30    0.2
BRG     133.34 334 iPKP    25 08.00    1.9
     1.7s    120.00nm
     Z  20s     38.00um              7.1Msz
     N  20s     35.00um
     E  20s     41.00um
                    i        25 14.80
                    i        33 44.00
CLL     133.41 335 ePKP    25 06.00   -0.2
     1.8s     43.00nm
     Z  18s     47.00um              7.2Msz
                    i        25 14.40
                    e        28 36.00
SRO     133.44 329 ePKP    25 08.20    1.8
                    ePP      27 41.00
WIN     133.61 224 ePKP    25 10.00    2.2X
     1.0s     60.00nm
     Z  22s    104.00um              7.5Msz
PRU     133.74 333 ePKP    25 10.50    3.6X
     Z  20s     44.50um              7.2Msz
     N  23s     36.80um
     E  23s     26.70um
                    i        25 17.60
                    iPP      27 48.30
                    iSS      45 24.00
ZST     133.79 330 ePKP    25 08.50    1.4
                    i        25 14.60
                    e(PP)    27 38.70
                    e        27 48.70
                    e        28 42.70
VKA     134.13 330 (PKP)   25 10.00    2.3X
     6.5s   5821.00nm
                    i        27 44.30
                    i        28 46.00
SOP     134.41 330 e(PKP)25 10.00    1.7
MOX     134.48 336 ePKP    25 11.30    3.0X
     Z  22s     51.00um              7.2Msz
VAO     134.50 138 ePKP    25 02.00   -7.3X
WIT     134.51 341 ePKP    25 13.00    4.8X
                    ePP      27 59.00
VAY     134.76 319 ePKP    25 13.00    3.9X
KHC     134.79 333 ePKP    25 12.00    3.0X
     1.3s     45.20nm
     Z  22s     61.30um              7.3Msz
     N  22s     24.80um
     E  22s     44.00um
                    e        25 20.50

                    e        25 44.00
                    ePP      27 52.00
                    e        27 56.00
                    e        30 10.00
GEC2    134.95 333 PKP     25 05.40   -4.0X
     0.8s      2.03nm
WET     135.09 333 iPKPc   25 13.80    4.2X
     Z  18s     41.00um              7.2Msz
SKO     135.14 320 iPKP    25 12.00    2.2X
     Z  22s     35.39um              7.0MszX
                    i        25 19.00
                    i        25 20.00
                    i        26 04.50
                    i        27 45.00
                    i        38 02.00
                    i        44 53.00
                    i        46 21.00
WTS     135.16 340 ePKP    25 12.00    2.5X
     1.2s    113.60nm
                    ePP      27 50.00
KMR     135.32 332 ePKP    25 10.00    0.0
                    i        27 52.50
GRF     135.38 335 ePKP    25 08.30   -1.8
                    e        25 20.20
                    e        27 47.20
DBN     135.59 342 ePKP    25 11.00    0.7
     Z  20s     25.90um              7.0Msz
                    ePP      27 55.00
                    eSS      45 33.00
                    eSSS     50 50.00
BNS     135.90 339 iPKP-   25 09.50   -1.5
     Z  19s     92.00um              7.5Msz
PTJ     135.91 328 iPKP    25 13.20    1.9
ZAG     135.96 328 e(PKP)25 15.00    3.8X
OHR     136.01 320 iPKP    25 14.70    3.1X
     1.3s    147.00nm
TNS     136.05 338 ePKPc   25 18.20    6.8X
KBA     136.39 331 (PKP)   25 11.00   -1.3
     1.6s    147.00nm
                    i        25 17.90
                    i        25 22.00
                    i        28 16.00
ENN     136.49 340 ePKP    25 18.50    6.4X
     1.2s     62.10nm
                    ePP      27 54.00
                    ePKS     28 10.00
FUR     136.53 334 ePKP    25 15.80    3.5X
     Z  20s     60.00um              7.3Msz
LJU     136.54 329 ePKP    25 15.00    2.6X
                    ePP      28 04.00
VBY     136.54 328 ePKP    25 16.50    4.1X
VOY     136.87 330 e(PKP)25 15.50    2.4X
UCC     136.97 341 PKP     25 14.00    1.0
                    PP       27 55.00
                    e        28 06.00
                    SS       46 06.00
FVI     137.01 331 PKP     25 21.00    7.8X
WATA    137.02 333 iPKPc   25 12.30   -1.2
                    i        25 19.60
                    i        28 04.20
WTTA    137.05 333 iPKPd   25 12.10   -1.5
                    i        25 19.40
                    i        27 59.40
DLF     137.13 352 ePKP    25 16.00    2.8X
TRI     137.16 329 e(PKP)25 17.70    4.2X
                    e(PP) 28 08.00
                    e(SKP)28 52.00
                    e(SKSP38 16.00
                    e        43 48.00
                    e(SSP)46 48.00
                    e(SSS)51 16.00
                    eLR      09 40.00
DCN     137.19 352 ePKP    25 14.00    0.7
MOTA    137.23 333 iPKPd   25 10.60   -3.3X
                    i        25 20.40
                    i        28 01.30
SNF     137.25 341 PKPc    25 18.20    4.7X
                    e        28 05.60
SQTA    137.27 333 iPKPc   25 10.80   -3.1X
                    i        25 18.40
                    i        28 07.60
HOFF    137.28 337 PKP     25 16.25    2.6X
LANF    137.31 337 PKP     25 15.78    2.0
WLF     137.35 339 PKP     25 09.00   -4.7X
                    e        25 15.00
                    e        25 23.00
DOU     137.51 341 PKP     25 12.80   -1.3

                    e        25 20.30
                    e        28 03.10
                    PKKS     38 27.00
                    SS       46 02.00
HCG     137.60 349 ePKP    25 13.90   -0.3
HAE     137.65 348 ePKP    25 16.90    2.6X
HTR     137.76 348 ePKP    25 17.10    2.6X
WLS     137.94 337 PKP     25 16.25    1.2
CTI     137.94 331 PKP     25 18.70    3.5X
CDF     137.97 337 PKP     25 16.43    1.3
FEL     138.12 336 PKP     25 15.64    0.2
ECH     138.18 337 PKP     25 15.03   -0.4
MOF     138.49 337 PKP     25 15.72   -0.4
BAO     138.60 129 ePKP    25 07.00  -10.2X
                    e        25 17.10
                    e        25 38.80
                    e        25 46.40
                    e        26 20.00
                    e        27 20.30
                    e        28 59.50
                    e        29 49.80
                    e        30 13.00
VITF    138.62 338 PKP     25 17.62    1.4
BSF     138.63 337 ePKP    25 03.60  -12.8X
     1.5s    136.30nm
HAU     138.66 337 ePKP    25 03.90  -12.4X
     0.9s     27.70nm
     Z  23s     50.00um              7.2MszX
ARV     139.12 328 PKP     25 26.10    8.8X
SFI     139.39 329 PKP     25 18.20    0.5
VAI     139.39 333 PKP     25 14.90   -2.7X
CSI     139.60 321 PKP     25 24.20    5.9X
TDS     139.64 321 PKP     25 25.30    7.0X
SGO     139.72 322 PKP     25 20.50    2.1X
FIR     139.79 329 ePKP    25 19.00    0.6
SDI     139.86 325 PKP     25 25.20    6.5X
BDI     139.91 330 PKP     25 16.10   -2.7X
ORO     139.93 334 PKP     25 19.70    0.9
BOB     139.93 332 PKP     25 18.30   -0.5
LOR     140.19 339 ePKP    25 08.30  -10.8X
     1.3s     94.25nm
     Z  23s     52.00um              7.2MszX
PII     140.20 330 PKP     25 21.80    2.7X
FLN     140.21 344 ePKP    25 06.40  -12.6X
     1.6s    151.75nm
     Z  23s     41.00um              7.1MszX
LDF     140.27 344 ePKP    25 06.20  -12.9X
     1.4s     87.15nm
LBF     140.39 339 ePKP    25 08.80  -10.7X
     1.2s     52.95nm
SSF     140.49 339 ePKP    25 08.90  -10.7X
     1.3s    140.10nm
LPL     140.54 335 ePKP    25 08.40  -11.7X
HYF     140.61 340 ePKP    25 09.80  -10.0X
GRR     140.65 344 ePKP    25 07.40  -12.4X
     0.9s     37.00nm
SMF     140.73 339 ePKP    25 09.40  -10.7X
     1.6s     98.25nm
CKI     140.73 332 PKP     25 20.70    0.6
SOI     140.74 319 PKP     25 24.70    4.4X
AVF     140.78 339 ePKP    25 09.40  -10.7X
     1.6s     53.50nm
BNI     140.94 335 PKP     25 21.90    1.2
LPF     141.03 344 ePKP    25 08.30  -12.2X
     1.1s     74.50nm
BGF     141.15 339 ePKP    25 08.60  -12.2X
     1.4s    107.60nm
SAOF    141.40 333 PKP     25 19.95   -1.4
TOUF    141.52 333 PKP     25 20.50   -1.3
MAF     141.54 339 ePKP    25 09.50  -12.1X
     1.7s    113.20nm
SBF     141.55 333 PKP     25 20.11   -1.6
AURF    141.58 333 PKP     25 20.61   -1.2
TCF     141.61 340 ePKP    25 09.40  -12.3X
     1.5s    158.25nm
PGF     141.82 330 PKP     25 21.63   -0.7
LSF     141.87 340 ePKP    25 10.10  -12.0X
     1.6s    169.15nm
CALN    141.88 333 PKP     25 20.72   -1.7
LRG     142.35 333 ePKP    25 09.80  -13.2X
     Z  21s     26.00um              7.0Msz
CDR     142.43 334 ePKP    25 24.90    1.7
CAF     142.84 339 ePKP    25 10.00  -13.9X
     1.6s    162.95nm
LFF     143.28 340 ePKP    25 11.00  -13.5X
     1.5s    288.30nm
LPO     143.36 340 ePKP    25 11.40  -13.3X
```

06d 03h

MTHF 144.37 337 PKP 25 26.83 0.3
LSPF 144.60 337 PKP 25 26.47 -0.4
PERF 144.62 336 PKP 25 28.05 1.1
LESF 144.76 338 PKP 25 26.99 -0.2
ETER 144.78 336 iPKP 25 26.42 -0.8
OGE 145.26 340 PKP 25 28.95 0.9
ENSF 145.30 339 PKP 25 29.69 1.4
JAU 145.34 340 PKP 25 29.92 1.6
BCAO 145.37 262 iPKPd 25 27.00 -2.1X
0.9s 189.00nm
ic 25 30.50
id 27 02.00
ESCF 145.37 340 PKP 25 29.86 1.6
MADF 145.39 341 PKP 25 29.49 1.2
ATE 145.41 340 PKP 25 29.73 1.5
ELYF 145.43 341 PKP 25 29.49 1.2
ISSF 145.49 340 PKP 25 30.66 2.1X
BOH 145.49 341 PKP 25 30.03 1.5
LHE 145.54 340 PKP 25 29.64 1.0
ELIZ 145.60 341 iPKPc 25 30.04 1.4
EGRA 146.07 339 iPKPc 25 30.75 1.4
ECRI 146.41 342 iPKPc 25 31.64 1.6
ESEL 146.86 333 ePKP 25 38.02 7.3X
EBR 146.97 337 ePKP 25 32.00 1.2
EROQ 147.00 337 iPKP 25 32.88 2.0
STS 147.58 350 iPKPc 25 36.18 4.4X
ERUA 147.79 348 iPKP 25 35.91 3.7X
ETOR 147.89 340 iPKPc 25 35.67 3.2X
SOB1 148.00 128 ePKP 25 34.50 1.2
e 25 38.90
e 25 56.40
EZAM 148.32 350 ePKP 25 42.54 9.5X
ECHE 148.59 338 ePKP 25 38.17 4.6X
GUD 148.70 343 iPKPc 25 36.06 2.2X
ACU 149.31 336 iPKPc 25 46.82 12.1X
EPLA 149.77 345 ePKP 25 41.65 6.3X
PAB 149.77 342 ePKPc 25 37.71 2.3X
1.8s 318.18nm
ec 25 43.34
ePKPab25 48.97
iPKKP 26 26.00
iPP 29 16.00
iPS 40 00.00
EVIA 149.99 339 iPKP 25 40.44 4.6X
EALH 150.27 337 ePKP 25 42.09 6.0X
EHUE 150.75 338 iPKPc 25 43.17 6.2X
EBAN 150.86 340 iPKPc 25 43.47 6.5X
ENIJ 151.35 337 ePKP 25 41.86 4.1X
ELUQ 151.56 340 ePKP 25 45.70 7.5X
ECOG 151.58 339 iPKP 25 44.45 6.2X
EHOR 151.63 342 ePKP 25 44.49 6.3X
EGUA 151.98 339 ePKP 25 45.23 6.5X
EVAL 152.28 344 ePKP 25 48.34 9.2X
MAL 152.37 340 iPKPc 25 46.50 7.3X
EPRU 152.41 341 ePKP 25 45.96 6.6X
LIJA 152.53 342 iPKP 25 48.00 8.4X
GIBL 152.76 343 iPKP 25 48.00 8.2X
ALJ 152.80 342 iPKP 25 50.00 10.0X
EJIF 152.96 341 ePKP 25 42.22 2.1X
SFS 153.18 343 iPKP 25 50.00 9.6X
CNIL 153.22 342 iPKP 25 52.00 11.6X
PLAT 153.36 342 iPKP 25 53.00 12.3X
IFR 155.51 338 iPKP 25 52.00 8.1X
i 25 53.50
i 25 56.00
TIO 158.62 339 iPKP 25 54.50 6.7X
i 26 32.00
ANTZ 161.71 343 iPKP 25 54.00 3.1X
i 26 00.00
LIC 168.34 247 PKP 26 06.20 9.2X
KDS 176.13 295 ePKP 26 09.00 8.9X
MBO 176.43 18 ePKP 26 05.40 5.3X
S.D. = 1.2 on 304 of 498 obs.

% MAR 06, 1993 03h 14m 37.39± 0.79s
37.563 S ± 9.0km 177.058 E ± 6.1km
DEPTH = 10.0km (geophysicist)
OFF E. COAST OF N. ISLAND, N.Z. (160)

URZ 0.70 177 P 14 50.50 -0.6
S 14 59.10
HBZ 0.99 92 eP 14 56.00 -0.1
PUZ 1.08 119 P 14 57.60 -0.1
S 15 11.90
WLZ 1.20 255 eP 15 00.00 0.3
NOZ 1.31 144 P 15 02.20 0.7
KUZ 1.34 307 P 15 02.00 -0.1

S.D. = 0.6 on 6 of 6 obs.

% MAR 06, 1993 03h 16m 59.27± 0.75s
37.530 S ± 9.3km 177.068 E ± 6.4km
DEPTH = 10.0km (geophysicist)
OFF E. COAST OF N. ISLAND, N.Z. (160)

URZ 0.73 177 Pc 17 12.70 -0.9
S 17 21.40
HBZ 0.98 94 eP 17 18.00 0.1
PUZ 1.09 120 P 17 19.70 0.0
S 17 34.10
WLZ 1.22 253 eP 17 22.80 0.9
NOZ 1.33 145 P 17 24.50 0.7
KUZ 1.33 306 eP 17 23.90 0.1
BRS 22.80 289 iPd 22 19.00 15.8X
RMQ 26.32 287 eP 22 36.00 -0.9
1.0s 29.00nm 4.9mb X
S.D. = 0.9 on 7 of 8 obs.

MAR 06, 1993 03h 35m 50.87± 0.98s
39.679 N ± 9.0km 19.511 E ± 7.8km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.1 (ATH).

KEK 0.22 81 ePg 35 55.80 0.1
SRN 0.43 62 iPgd 36 01.00 1.4
iSg 36 06.30
TPE 0.73 32 ePg 36 05.40 0.3
LSK 0.96 60 ePg 36 09.40 0.2
TIR 1.69 9 ePn 36 19.20 -1.3
iSn 36 41.20
VLS 1.72 150 ePb 36 20.00 -1.0
KZN 1.85 69 ePg 36 26.00 3.1X
LACI 1.96 4 ePn 36 23.40 -1.1
CSI 2.49 273 P 36 35.60 3.5X
SKO 2.72 32 ePn 36 39.30 3.9X
MMN 2.72 276 P 36 36.80 1.4
VAY 2.85 54 ePn 36 43.00 5.8X
S.D. = 1.3 on 8 of 12 obs.

---

* MAR 06, 1993 03h 37m 37.71± 1.81s
10.945 S ± 8.5km 163.882 E ±13.4km
DEPTH = 47.0 ± 14.6 km
4.5mb (8 obs.)
SOLOMON ISLANDS (193)

HNR 4.16 291 eP 38 40.00 -0.3
eS 39 34.00
SVO 4.38 294 eP 38 44.00 0.5
DZM 11.33 168 iPd 40 19.10 -0.9
BRS 19.41 211 iPc 42 03.50 0.4
RMQ 21.04 221 iPd 42 20.30 0.3
1.0s 33.00nm 4.6mb
ARMA 22.48 209 iPc 42 35.70 1.3
1.0s 15.00nm 4.4mb
CMS 26.40 217 eP 43 13.00 1.3
WB2 29.79 249 iPd 43 39.60 -3.0X
0.5s 20.70nm 5.1mb
WRA 29.80 249 P 43 40.20 -2.5
0.5s 3.20nm 4.3mb
ASPA 31.21 242 eP 43 51.70 -3.4X
2.1s 15.40nm 4.4mb
IMA 82.91 16 eP 49 59.40 0.7
0.9s 1.88nm 4.1mb
FBA 83.81 19 eP 50 04.00 0.9
0.8s 5.86nm 4.7mb
GUN 84.67 300 P 50 08.80 0.1
PKI 84.99 299 P 50 10.20 0.0
KKN 85.16 299 P 50 11.00 0.1
DMN 85.26 299 P 50 11.80 0.3
GKN 85.76 299 P 50 13.60 -0.2
YKA 95.73 27 eP 50 58.70 -0.8
0.8s 1.10nm 4.4mb
BCAO 145.08 262 iPKPc 57 11.50 -1.2
0.7s 18.00nm
S.D. = 1.1 on 17 of 19 obs.

MAR 06, 1993 03h 55m 50.08± 0.24s
29.264 N ± 4.4km 142.321 E ± 4.7km
DEPTH = 45.6km (3 depth phases)
4.7mb (22 obs.)
SOUTH OF HONSHU, JAPAN (211)

KAKJ 7.15 346 P 57 30.40 -4.3X
IIDJ 7.23 330 eP 57 36.60 0.7
CHJJ 7.32 338 P 57 32.40 -4.8X
S 58 51.80
MAT 8.04 336 eP 57 45.00 -2.1
0.8s 28.36nm 5.2mb X
eS 59 16.00
MTMJ 8.23 334 P 57 48.40 -1.4
NIIJ 8.43 342 P 57 49.00 -3.4X
PJG 15.78 171 eP 59 30.80 0.0
VLA 16.17 332 iP 59 42.00 6.5X
YSS 17.73 1 iPc 59 54.10 -0.9
1.0s 40.00nm 4.5mb
SSE 18.36 281 P 00 02.60 -0.4
1.4s 27.00nm 4.2mb
CVP 22.00 243 eP 00 46.00 3.9X
BAG 23.72 242 eP 01 01.00 1.9
BJI 23.96 304 eP 01 00.00 -1.0
1.5s 35.00nm 4.7mb
PGP 25.27 236 ePc 01 13.00 -0.8
CIT 31.13 325 eP 02 08.00 1.5
MGD 31.36 8 eP 02 07.00 -1.3
1.0s 20.00nm 4.9mb
e 02 20.00 51km
LZH 32.94 292 eP 02 22.50 -0.1
1.3s 26.00nm 4.9mb
BOD 34.62 334 eP 02 36.80 0.2
1.2s 16.00nm 4.8mb
ZAK 36.09 317 iPc 02 50.50 1.3
1.5s 62.00nm 5.3mb
IRK 36.22 320 eP 02 50.50 0.1
3.4s 199.00nm 5.5mb X
ELT 47.01 317 eP 04 17.50 -0.9
2.0s 73.00nm 5.3mb
GUN 49.16 283 P 04 36.20 0.2
WB2 49.52 190 iPc 04 37.10 -1.2
0.8s 27.40nm 5.3mb
i 04 41.40 14kmX
i 04 50.30
PKI 49.66 283 P 04 38.40 -1.4
KKN 49.71 283 P 04 40.00 0.0
DMN 49.90 283 P 04 41.40 -0.2
GKN 50.20 283 P 04 43.80 0.1
CP2 53.04 33 eP 05 03.94 -0.8
CRP 53.08 33 eP 05 04.32 -0.6
ASPA 53.24 190 eP 05 04.80 -1.6
PMR 54.55 33 eP 05 14.03 -1.5
0.9s 10.97nm 4.9mb
FBA 55.39 29 eP 05 21.70 0.1
1.0s 4.00nm 4.4mb
RMQ 55.78 173 eP 05 24.00 -0.8
KLU 56.09 33 eP 05 25.92 -0.9
GBA 61.69 270 P 06 06.00 -0.2
ARU 62.78 322 ePc 06 13.50 0.7
1.5s 100.00nm 5.7mb
e 06 26.00 43km
BWA 63.61 174 eP 06 18.00 -0.5
e 06 30.40 43km
CAN 64.55 174 eP 06 24.40 -0.2
BFD 66.09 180 eP 06 34.30 -0.1
TOO 66.55 177 iPc 06 37.10 -0.3
0.8s 27.00nm 5.3mb
MAIO 67.99 300 eP 06 48.00 1.2
ASH 68.26 302 eP 06 50.00 1.6
YKA 70.19 29 eP 06 57.80 -1.9
1.2s 4.90nm 4.3mb
GMW 72.11 45 eP 07 12.02 0.4
RMW 72.75 45 eP 07 16.69 1.2
KAF 75.58 334 eP 07 32.00 0.6
1.0s 9.60nm 4.7mb
ORV 76.36 52 eP 07 36.50 0.2
KIV 76.66 313 (P) 07 39.50 1.5
1.4s 22.00nm 5.0mb
SES 77.67 39 eP 07 45.00 1.6
KVN 78.94 51 eP 07 51.28 0.5
BONR 79.32 53 eP 07 53.31 0.3
LCCM 79.55 43 eP 07 53.20 -0.7
TNP 80.01 52 eP 07 57.01 0.4
1.1s 10.99nm 4.7mb
HVU 81.10 47 eP 08 02.83 0.6
NB2 81.65 338 P 08 05.50 1.0
1.1s 8.50nm 4.7mb
DUG 81.90 48 eP 08 06.68 0.3
0.6s 2.32nm 4.4mb
BW06 82.59 45 eP 08 09.27 -0.8
1.0s 3.46nm 4.3mb
ARUT 82.73 51 eP 08 11.47 0.7
MSU 83.20 50 eP 08 13.97 0.7
SRU 83.97 48 eP 08 17.49 0.4

```
RSSD    85.12  41 eP     08 23.17   0.3
        1.2s     5.80nm          4.6mb
PV09    85.22  48 eP     08 24.16   0.7
PV10    85.34  48 eP     08 24.56   0.5
PV08    85.49  48 eP     08 25.38   0.5
GEC2    89.72 329 PKP    08 45.30   0.5
        1.2s     1.91nm          4.3mb
ZOBO   149.20  72 PKPd  15 37.20   5.0X
        1.2s    10.14nm
LPB    149.35  72 ePKP  15 35.00   2.9X
CNCB   149.58  73 PKP   15 38.00   5.4X
SIV    154.75  64 PKP   15 49.80  10.4X
    S.D. = 0.9  on  60 of  69 obs.
--------------------------------------
* MAR 06, 1993  03h 56m 09.32± 1.17s
  11.139 S ±14.2km  163.907 E ±15.2km
  DEPTH =  33.0km  (normal)
  4.8mb (  4 obs.)
 SOLOMON ISLANDS                 (193)

HNR      4.25 293 eP     57 14.00   0.6
SVO      4.49 296 eP     57 18.00   1.2
BKM      7.73 148 iP     58 02.70   0.2
DZM     11.14 168 iPc    58 50.10   0.6
CTA     19.17 240 iPd    00 33.00  -0.1
RMQ     20.91 221 iPc    00 53.40   1.8
        1.1s    90.00nm          5.1mb
ARMA    22.32 209 iPc    01 09.10   3.3X
        1.1s    24.00nm          4.6mb
WB2     29.75 249 eP     02 13.60  -1.6
        1.1s     8.80nm          4.4mb
ASPA    31.15 242 eP     02 25.70  -1.9
PMO     47.03 100 eP     05 05.00  25.1X
        2.0s   515.50nm
TPT     47.30 100 eP     05 07.00  25.0X
        2.0s   485.10nm
RUV     47.53 100 eP     05 08.70  24.9X
        2.0s   548.10nm
KMI     69.64 302 eP     07 17.00  -1.2
LZH     73.49 313 eP     07 42.00   1.0
        2.0s    37.00nm          5.0mb
BCAO   145.08 262 iPKPd 15 45.30  -0.8
        0.9s    14.00nm
    S.D. = 1.4  on  11 of  15 obs.
--------------------------------------
? MAR 06, 1993  04h 17m 58.50± 3.99s
  17.587 S ±71.1km  70.343 W ±15.8km
  DEPTH = 122.1 ± 18.6 km
  4.1mb (  1 obs.)
 NEAR COAST OF PERU              (115)

ARE      1.57 315 iPc    18 27.50  -0.1
                  iS     18 49.50
CNCB     2.38  72 iPc    18 38.00   0.0
LPB      2.39  64 iPc    18 37.70  -0.2
        0.8s   373.13nm
ZOBO     2.48  59 iPc    18 39.10  -0.2
SIV      9.02  81 iPd    20 08.20   0.9
KIC     68.99  76 P      28 52.00  -1.1
YKA     87.07 341 eP     30 31.70   0.7
        0.7s     1.70nm          4.1mb
    S.D. = 0.9  on   7 of   7 obs.
--------------------------------------
? MAR 06, 1993  04h 26m 20.95± 2.74s
  11.642 S ± 9.3km  160.640 E ±44.7km
  DEPTH =  33.0km  (normal)
  3.9mb (  2 obs.)
 SOLOMON ISLANDS                 (193)

HNR      2.30 343 eP     26 57.00  -0.3
SVO      2.61 342 eP     27 02.00   0.3
CTA     16.18 237 iPd    30 02.50  -5.1X
BRS     17.32 204 iP     30 22.00   0.1
WB2     26.58 249 iPc    31 57.90  -0.2
        0.4s     5.30nm          4.5mb
WRA     26.59 249 P      31 58.70   0.5
        0.4s     0.40nm          3.4mb
ASPA    28.09 241 eP     32 11.60  -0.3
    S.D. = 0.4  on   6 of   7 obs.
--------------------------------------
  MAR 06, 1993  04h 32m 35.14± 1.33s
  11.002 S ± 7.6km  164.440 E ± 8.2km
  DEPTH =  42.7 ± 12.6 km
  4.7mb ( 11 obs.)
 SANTA CRUZ ISLANDS REGION       (183)

HNR      4.69 289 eP     33 46.00   0.7
                  eS     34 48.00
SVO      4.91 292 eP     33 48.00  -0.4
BKM      7.58 151 iPd    34 25.90  -0.1
                  iS     35 52.50
DZM     11.17 170 iPd    35 14.80  -0.6
BRS     19.65 212 iP     37 04.00   0.5
CTA     19.70 241 P      37 04.40   0.4
RMQ     21.36 222 iPc    37 22.20   1.1
        1.2s    53.00nm          4.8mb
ARMA    22.70 210 eP     37 38.20   3.8X
        0.7s     5.00nm          4.1mb
STK     29.61 222 eP     38 38.90   0.2
        1.0s     2.70nm          3.9mb
WB2     30.29 249 eP     38 42.30  -2.5
        0.4s     6.70nm          4.8mb
                  i      38 54.20
WRA     30.30 249 P      38 45.20   0.3
        0.5s     0.80nm          3.7mb
TOO     31.46 210 eP     39 07.00  12.0X
        1.1s    28.00nm
ASPA    31.67 243 eP     38 53.70  -3.3X
BFD     32.67 213 eP     39 17.00  11.5X
KMI     70.01 302 Pd     43 45.00  -0.1
        1.8s    60.00nm          5.3mb
                  pP     43 50.50  18kmX
LZH     73.78 313 eP     44 07.50   0.2
        1.0s    22.00nm          5.1mb
                  pP     44 16.50  29kmX
SVW     78.47  19 ePd    44 33.88   0.8
        0.9s    45.14nm          5.5mb
                  e      44 43.52
CRP     79.71  20 eP     44 39.60  -0.4
KLU     82.03  22 eP     44 52.33   0.3
                  e      45 03.30
IMA     82.81  16 eP     44 56.72   0.6
        1.0s     6.46nm          4.6mb
BALM    83.08  23 eP     44 57.52   0.0
FBA     83.68  19 eP     44 59.56  -0.9
        1.0s    16.22nm          5.1mb
GUN     85.18 299 P      45 00.00  -9.1X
MSU     91.65  51 eP     45 41.15   1.5
YKA     95.52  27 eP     45 54.90  -1.7
        1.2s     1.60nm          4.4mb
SOB1   147.78 128 (PKP) 52 18.00   2.9X
    S.D. = 1.0  on  20 of  26 obs.
--------------------------------------
  MAR 06, 1993  05h 50m 02.75± 0.19s
  11.025 S ± 4.5km  163.921 E ± 4.1km
  DEPTH =  27.5km  (  7 depth phases)
  5.6mb ( 51 obs.)  6.0Msz ( 30 obs.)
 SOLOMON ISLANDS                 (193)

HNR      4.22 292 eP     51 06.00  -0.9
                  i(S)   51 59.00
SVO      4.45 294 eP     51 10.00  -0.2
                  e(S)   51 39.00
BKM      7.82 148 iPc    51 57.00  -0.6
                  iS     53 27.00
DZM     11.25 168 iPc    52 42.10  -2.8
                  iS     54 49.00
RAB     13.48 299 eP     53 12.00  -2.8
MBU     15.53 114 eP     53 43.70   2.1
VUN     15.69 118 eP     53 51.80   8.1X
SVA     15.73 118 eP     53 43.60  -0.6
PMG     16.58 274 eP     54 00.00   5.0X
CTA     19.24 240 iP     54 24.50  -3.5X
        1.6s   466.67nm          5.5mb
                  i      54 29.50  19km
BRS     19.36 211 iP     54 27.00  -2.4
        1.1s    23.00nm          4.4mb X
                  i      54 40.00  58kmX
                  e      02 23.00
RMQ     21.01 221 iPc    54 46.10  -0.6
        1.1s   484.00nm          5.8mb
ARMA    22.43 209 eP     55 01.20   0.2
        1.1s   113.00nm          5.3mb
RIV     25.53 205 eP     55 25.90  -4.9X
BWA     27.26 209 eP     55 47.00   0.3
CN8     27.57 206 eP     55 52.00   2.4
        1.3s    67.00nm          5.2mb
CAN     27.73 207 eP     55 53.70   2.7
STK     29.25 221 eP     56 03.20  -1.6
        1.6s    12.20nm          4.4mb X
                  eS     01 06.50
WB2     29.80 249 eP     56 06.00  -3.8X
        0.4s    21.50nm          5.3mb
                  eS     01 00.60
WRA     29.81 249 P      56 06.80  -3.1X
GUA     30.84 322 eP     56 20.30   1.3
      Z  22s    21.87um          5.8Msz
GUMO    30.91 322 eP     56 20.60   1.1
      Z  23s    15.20um          5.6MszX
PJG     30.91 322 eP     56 20.30   0.8
TOO     31.19 209 iPd    56 23.50   1.6
        0.7s    31.00nm          5.3mb
ASPA    31.21 242 eP     56 18.30  -4.0X
        0.6s    21.60nm          5.2mb
      Z  23s    14.00um          5.6MszX
                  eS     00 50.20
BFD     32.38 213 eP     56 33.30   1.1
        1.0s    34.00nm          5.2mb
ADE     33.08 220 e(P)   56 37.20  -1.3
TAU     34.90 202 eP     56 58.00   4.0X
WARB    38.25 242 eP     57 20.00  -2.5
        0.5s    19.00nm          5.2mb
DAV     42.19 294 eP     58 13.50  18.3X
CGP     43.56 295 eP     58 08.50   2.2
AFR     45.25 104 iPc    58 19.40  -0.5
        1.5s   346.80nm          6.1mb
MEEK    45.35 243 eP     58 18.50  -2.2
PAE     45.44 104 iPc    58 21.10  -0.3
        1.8s   656.00nm          6.3mb
PPT     45.44 104 iPc    58 21.10  -0.4
        2.0s  1063.60nm          6.4mb
PPN     45.58 104 iPc    58 22.40  -0.1
        2.1s  1305.40nm          6.5mb
TVO     45.76 104 iPc    58 23.90  -0.1
        1.8s  1336.20nm          6.6mb
PMO     47.04 100 iPc    58 34.20   0.1
        1.9s  1284.30nm          6.6mb X
VAH     47.29 101 iPc    58 36.00  -0.1
        1.7s   729.30nm          6.4mb
TPT     47.31 100 iPc    58 36.20   0.0
        1.8s   732.00nm          6.4mb
RUV     47.53 101 iPc    58 37.90  -0.1
        1.9s  1159.50nm          6.6mb
HON     49.32  49 P      59 00.00   8.3X
      Z  19s     9.87um          5.8Msz
TGY     49.40 299 eP     58 53.00   0.5
QCP     49.53 300 eP     58 54.00   0.6
KKM     50.42 287 ePc    59 01.80   1.4
CVP     50.43 304 eP     59 02.00   1.7
BAG     50.80 302 ePd    59 02.80  -0.6
        1.9s   400.00nm          6.1mb
KAKJ    52.04 336 eP     59 12.20   0.0
IIDJ    52.38 333 eP     59 13.60  -1.3
CHJJ    52.39 334 P      59 16.40   1.5
WKYJ    52.43 330 P      59 14.80  -0.5
KAGJ    52.59 324 eP     59 20.90   4.5X
TKSJ    53.01 329 eP     59 18.50  -1.0
MAT     53.15 334 (P)    59 18.00  -2.5
        1.8s   159.09nm          5.7mb
                  eS     06 51.00
TSRJ    53.31 332 eP     59 22.80   1.1
MTMJ    53.36 334 eP     59 19.80  -2.4
NIIJ    53.41 335 eP     59 24.80   2.4
KUMJ    53.62 325 eP     59 26.40   2.4
YONJ    54.25 329 P      59 27.90  -0.7
LEM     55.71 269 ePc    59 39.00  -0.9
ASAJ    58.19 342 eP     59 56.30  -0.4
SSE     58.60 317 Pc     00 01.60   1.8
        1.0s    25.00nm          5.3mb
      Z  20s     5.90um          5.7Msz
      N  18s     2.10um
      E  18s     3.70um
                  pP     00 10.50  29km
                  S      08 04.00
                  i      14 46.00
YSS     60.81 344 iPc    00 17.00   2.3
        1.8s   290.00nm          6.1mb
                  e      00 27.20  33km
VLA     61.31 334 eP     00 18.00  -0.1
        2.0s   221.00nm          5.9mb
                  i      01 06.00 208kmX
PET     63.94 356 eP     00 36.00   0.6
        1.0s    60.00nm          5.7mb
      Z  20s     5.00um          5.7Msz
                  e      09 10.00
SMY     64.10   7 P      00 50.00  13.5X
      Z  20s    16.67um          6.2Msz
ADK     64.85  13 (P)    00 41.37  -0.1
        1.4s   139.21nm          5.9mb
SNG     65.54 283 eP     00 46.80   0.3
CSY     65.76 201 eP     00 48.80   1.7
```

06d 06h

```
      1.1s   12.90nm             5.0mb
BJI   67.35 322 eP    00 58.00   0.4
      1.7s   82.00nm             5.6mb
   Z  24s     7.64um             5.8MszX
   N  18s     8.89um
              eS      09 50.00
LOE   67.61 294 eP    01 02.90   3.2X
KMI   69.59 302 Pd    01 12.70   0.6
      1.8s  360.00nm             6.2mb
   Z  20s     5.00um             5.8Msz
   N  17s     1.80um
   E  17s     2.60um
              pP      01 21.00   27km
              sP      01 24.00
              S       10 18.00
CHTO  70.58 294 eP    01 17.90  -0.1
      1.2s   21.53nm             5.1mb
MGD   71.66 353 eP    01 23.00  -0.7
      1.0s   20.00nm             5.1mb
              e       01 35.00   40kmX
LZH   73.42 313 eP    01 35.80   1.0
      2.0s  155.00nm             5.7mb
   Z  20s     2.96um             5.6Msz
   N  14s     1.46um
              pP      01 45.50   31km
              sP      01 49.00
              PP      04 25.00
              eS      10 57.00
CIT   76.22 331 eP    01 52.00   1.6
YAK   77.56 344 eP    01 56.80  -0.7
      1.2s  176.00nm             6.0mb
              e       04 49.00
SVW   78.65  19 eP    02 02.36  -1.3
      1.3s  187.85nm             6.0mb
SPA   79.04 180 iPd   02 07.80   1.9
      2.1s  444.44nm             6.1mb
RSO   79.11  20 eP    02 05.03  -1.3
BOD   79.70 335 eP    02 08.70  -0.6
      1.7s   93.00nm             5.5mb
CP2   79.87  20 eP    02 09.77  -0.7
CRP   79.90  20 eP    02 08.13  -2.4
SLKM  80.02  21 eP    02 10.18  -0.9
ZAK   80.66 326 eP    02 13.60  -0.9
      2.0s  114.00nm             5.5mb
              e       05 26.70
IRK   81.07 328 eP    02 15.40  -1.3
      2.0s   78.00nm             5.4mb
   Z  18s     5.20um             5.9Msz
PMR   81.16  21 eP    02 17.36   0.4
      1.2s   48.18nm             5.4mb
   Z  21s     7.44um             6.0Msz
KLU   82.24  22 eP    02 22.87   0.2
IMA   82.98  16 eP    02 24.82  -1.7
      1.3s   34.89nm             5.3mb
BALM  83.30  23 eP    02 27.51  -0.7
KMPM  83.72  47 eP    02 32.43   1.7
FBA   83.87  19 eP    02 29.28  -1.6
      1.1s   38.76nm             5.5mb
SIT   84.09  29 P     02 40.00   7.9X
   Z  19s     9.62um             6.2Msz
ARN   84.62  50 P     02 32.40  -2.9X
ARN   84.62  50 (P)   02 35.52   0.2
GUN   84.75 300 P     02 37.20   0.6
LGPM  84.81  47 eP    02 36.47   0.2
WDC   84.91  47 P     02 50.00  13.4X
   Z  19s     3.47um             5.8Msz
PKI   85.06 299 P     02 38.00  -0.1
BCH   85.09  53 (P)   02 37.62  -0.2
KKN   85.23 299 P     02 39.60   0.8
PKEM  85.32  52 P     02 53.50  14.7X
DMN   85.33 299 P     02 39.80   0.4
ORV   85.34  48 eP    02 38.37  -0.4
CMB   85.70  50 eP    02 40.04  -0.7
      1.4s   23.36nm             5.2mb
   Z  18s     9.56um             6.2Msz
TIK   85.72 349 eP    02 38.00  -2.0
      2.0s  226.00nm             6.1mb
   Z  18s     8.00um             6.2Msz
              e       02 49.00   35km
              eS      13 13.00
GKN   85.83 299 P     02 41.60  -0.1
BRW   86.27  12 (P)   02 42.24  -0.5
ISA   86.48  53 eP    02 43.23  -1.4
      1.1s   15.12nm             5.1mb
   Z  19s    10.87um             6.3Msz
MEMM  86.69  51 eP    02 46.72   1.3
SSK   86.71  54 eP    02 46.34   0.4
```

```
MTUM  86.88  51 eP    02 46.80   0.0
SHW   86.95  42 (P)   02 45.16  -1.7
PGC   87.01  39 eP    02 49.00   2.2
PEC   87.05  55 (P)   02 46.37  -1.0
      1.5s   84.75nm             5.8mb
GMW   87.05  41 eP    02 46.68  -0.4
PLM   87.15  55 eP    02 47.68  -0.4
BONR  87.25  51 eP    02 49.01   0.4
                ePP   06 16.68
MCW   87.40  39 eP    02 49.35   0.6
LON   87.42  41 eP    02 48.14  -0.8
RMW   87.65  41 eP    02 49.88  -0.2
GSC   87.70  54 eP    02 50.65   0.1
KVN   87.71  50 (P)   02 49.69  -1.0
TNP   88.11  51 eP    02 53.13   0.5
      0.9s   15.31nm             5.3mb
TPNV  88.56  52 eP    02 55.86   1.1
      1.5s   66.39nm             5.7mb
HYB   88.90 288 eP    02 57.50   0.9
GBA   89.19 284 P     02 58.00   0.1
DPW   90.09  41 eP    03 01.70   0.1
NEW   90.90  41 eP    03 04.26  -1.0
      1.1s   27.34nm             5.5mb
ARUT  90.93  52 eP    03 06.99   1.1
ELT   91.47 324 eP    03 07.00  -0.7
      1.9s  125.00nm             6.0mb
TUC   91.88  58 P     03 20.00   9.8X
   Z  19s     1.39um             5.4Msz
DUG   91.95  50 eP    03 10.13  -0.3
      1.2s   10.88nm             5.2mb
   Z  20s     5.65um             6.0Msz
MSU   92.07  51 eP    03 12.12   1.0
HVU   92.32  48 eP    03 12.31   0.2
EMUT  93.37  50 eP    03 18.83   1.7
SRU   93.45  51 (P)   03 18.60   1.2
LCCM  93.81  44 eP    03 17.70  -1.2
PV09  94.40  52 eP    03 22.46   0.5
PV10  94.45  52 eP    03 24.89   2.7
PV08  94.79  52 eP    03 25.23   1.4
BW06  94.86  48 eP    03 22.73  -1.2
      1.9s   32.15nm             5.4mb
SES   95.26  40 eP    03 24.80  -1.3
NRI   95.31 340 (P)   03 25.00  -0.1
      1.8s   39.00nm             5.5mb
              e       07 24.00
YKA   95.78  27 eP    03 23.70  -3.6X
      1.0s    8.80nm             5.2mb
ALQ   95.91  56 P     03 40.00  11.1X
   Z  19s     3.72um             5.9Msz
FRU   96.89 312 eP    03 30.00  -2.9
              e       03 36.00   19km
GOL   97.48  51 P     03 50.00  14.1X
   Z  20s    16.06um             6.5Msz
GLD   97.60  51 P     03 50.00  13.6X
   Z  19s    14.82um             6.5Msz
RSSD  99.03  47 P     03 50.00   7.3X
   Z  20s     2.59um             5.7Msz
WMOK 102.15  57 Pdiff 04 10.00  13.2X
   Z  19s     4.33um             6.0Msz
MIAR 106.42  57 PKP   08 40.00  12.9X
   Z  19s     4.94um             6.1Msz
MCWV 117.12  51 PKP   09 00.00  12.7X
   Z  20s     6.67um             6.3Msz
CEH  118.21  55 PKP   09 00.00  10.6X
   Z  21s     3.62um             6.0Msz
RSNY 120.01  45 PKP   09 00.00   7.4X
   Z  20s     1.42um             5.6Msz
KAF  120.57 338 ePKP  08 54.40   1.3
      0.7s    2.80nm
CNCB 121.71 118 PKP   09 03.60   6.3X
ZOBO 121.79 117 PKPc  09 04.10   6.5X
NUR  122.22 338 ePKP  08 57.40   1.1
      0.6s    5.70nm
HRV  122.64  46 PKP   09 10.00  12.4X
   Z  18s     3.27um             6.0Msz
CBM  123.52  40 PKP   09 10.00  10.8X
   Z  20s     6.66um             6.3Msz
NB2  126.20 344 PKP   09 03.70  -0.4
      0.9s    2.90nm
HFS  126.23 342 ePKP  09 03.10  -1.0
      0.5s    0.70nm
   Z  18s  3507.00um             9.1MszX
              LR      56 10.00
SIV  128.01 120 PKPc  09 14.80   6.0X
UZH  130.75 327 ePKP  09 11.00  -2.0X
SPC  131.48 329 ePKP  09 19.00   4.3X
KSP  132.27 333 ePKP  09 19.60   3.7X
```

```
              e       12 45.40
BRG  133.28 334 ePKP  09 20.80   3.0X
      2.0s   30.00nm
              e       09 35.70
SRO  133.35 328 ePKP  09 23.50   5.5X
CLL  133.35 335 ePKP  09 23.00   5.1X
      1.1s   11.00nm
   Z  21s     3.50um             6.0Msz
PRU  133.67 333 ePKP  09 21.00   2.4X
   Z  18s     6.40um             6.4Msz
   N  18s     3.00um
   E  18s     4.00um
ZST  133.71 330 ePKP  09 22.70   4.0X
KHC  134.72 333 ePKP  09 23.50   2.8X
      1.0s    6.10nm
              e       09 28.50
              e       10 05.50
GEC2 134.87 332 PKP   09 22.40   1.3
      0.7s    1.53nm
BSF  138.58 337 ePKP  09 30.30   2.2X
BAO  138.77 129 (PKP) 09 28.00  -1.3
LOR  140.15 339 ePKP  09 30.70  -0.1
      1.0s    6.80nm
   Z  20s     2.70um             6.0Msz
LBF  140.34 338 ePKP  09 31.00  -0.2
SSF  140.45 339 ePKP  09 31.20  -0.1
      0.9s    6.70nm
LPG  140.49 335 ePKP  09 35.00   3.2X
GRR  140.63 344 ePKP  09 27.80  -3.8X
PGF  141.73 330 ePKP  09 36.90   3.0X
      1.0s   27.80nm
LFF  143.25 340 ePKP  09 33.60  -2.7X
LPO  143.32 339 ePKP  09 34.90  -1.5
ETER 144.72 335 ePKP  09 38.59  -0.3
BCAO 145.11 262 iPKPd 09 37.10  -3.3X
      0.7s   78.00nm
              ic      09 41.50
              ic      10 14.80
              id      10 44.00
ELIZ 145.57 341 ePKP  09 43.87   3.5X
EGRA 146.02 339 ePKP  09 41.20   0.1
ECRI 146.38 342 ePKP  09 44.74   3.0X
ESEL 146.79 333 ePKP  09 43.42   1.0
EROQ 146.95 337 ePKP  09 44.27   1.7
STS  147.59 350 ePKP  09 46.28   2.7X
ERUA 147.79 348 ePKP  09 46.65   2.7X
ETOR 147.85 340 ePKP  09 46.22   2.0X
SOB1 148.17 128 ePKP  09 45.90   0.5
ECHE 148.54 337 ePKP  09 50.24   5.0X
GUD  148.68 342 ePKP  09 48.67   3.1X
PAB  149.74 342 ePKP  09 52.00   4.8X
EPLA 149.75 345 ePKP  09 55.96   8.9X
EVIA 149.94 338 ePKP  09 49.76   2.2X
EALH 150.22 336 ePKP  09 48.80   1.0
EHUE 150.71 338 ePKP  09 53.70   5.0X
ENIJ 151.30 336 ePKP  09 56.52   7.0X
ELUQ 151.52 340 ePKP  09 57.81   7.9X
ECOG 151.54 339 ePKP  09 56.14   6.1X
EHOR 151.60 342 ePKP  09 52.92   3.0X
EGUA 151.93 338 ePKP  09 58.00   7.6X
EVAL 152.26 344 ePKP  09 58.46   7.6X
EPRU 152.38 341 ePKP  09 58.98   7.9X
EJIF 152.93 341 ePKP  09 56.94   5.1X
     S.D. = 1.3  on 143 of 210 obs.
-----------------------------------------
* MAR 06, 1993  05h 57m 58.91± 1.88s
  11.084 S ±10.6km  164.348 E ±12.9km
  DEPTH = 68.7 ± 17.2 km
  4.5mb (  9 obs.)
 SANTA CRUZ ISLANDS REGION          (183)

HNR    4.63 290 P     59 08.00   0.0
SVO    4.86 293 eP    59 07.00  -4.2X
DZM   11.11 170 iPc   00 37.00  -0.3
CTA   19.58 241 iPc   02 24.00  -0.3
      1.0s   15.00nm             4.2mb
RMQ   21.24 222 eP    02 43.00   1.7
      0.9s   23.00nm             4.5mb
ARMA  22.58 210 eP    02 59.00   4.4X
WB2   30.17 249 eP    04 03.40  -1.6
      1.0s    5.70nm             4.3mb
WRA   30.18 249 P     04 05.59   0.5
      0.5s    2.30nm             4.2mb
SVW   78.58  19 eP    09 55.29   0.9
      1.0s   35.00nm             5.3mb
PMR   81.07  21 eP    10 07.69   0.1
      0.9s   16.67nm             5.0mb
```

IMA 82.92 16 eP 10 18.20 0.9
0.9s 5.62nm 4.5mb
BALM 83.19 23 eP 10 19.50 0.7
FBA 83.79 19 eP 10 20.98 -0.6
0.8s 10.22nm 4.9mb
YKA 95.64 27 eP 11 16.10 -1.6
1.0s 1.10nm 4.3mb
BCAO 145.51 262 iPKPc 17 31.40 -0.5
0.6s 6.00nm
S.D. = 1.1 on 13 of 15 obs.

---

* MAR 06, 1993 06h 39m 44.45± 0.56s
10.808 S ± 8.1km 164.441 E ±10.5km
DEPTH = 33.0km (normal)
4.9mb (15 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR 4.63 287 eP 40 07.00 -46.9X
SVO 4.85 289 eP 40 57.00 0.0
BKM 7.75 152 iP 41 37.40 -0.5
iS 43 07.00
DZM 11.36 171 iPd 42 26.10 -1.6
iS 44 32.00
CTA 19.79 240 iPd 44 14.50 -0.6
e 44 29.00
BRS 19.82 212 iPc 44 16.50 1.2
1.0s 5.00nm 3.8mb X
RMQ 21.51 221 iPc 44 33.80 1.1
1.4s 146.00nm 5.2mb
ARMA 22.86 210 eP 44 48.20 1.9
0.7s 11.00nm 4.5mb
BWA 27.69 209 eP 45 31.70 0.0
CAN 28.16 207 eP 45 37.70 1.8
STK 29.75 222 eP 45 50.40 0.2
1.3s 3.40nm 4.0mb
WB2 30.35 249 eP 45 52.90 -2.8
0.5s 13.90nm 5.0mb
WRA 30.37 249 P 45 53.79 -2.0
0.5s 1.70nm 4.1mb
TOO 31.63 209 iPc 46 07.70 1.0
0.6s 13.00nm 5.0mb
ASPA 31.76 242 eP 46 04.80 -3.3X
1.0s 6.40nm 4.5mb
WARB 38.80 242 eP 47 07.00 -1.1
KMI 69.91 302 Pc 50 56.00 1.0
1.5s 40.00nm 5.3mb
pP 51 03.00 22kmX
LZH 73.65 313 eP 51 18.00 1.0
1.5s 24.00nm 5.0mb
SVW 78.29 19 eP 51 43.31 0.8
1.1s 43.92nm 5.4mb
PMS 80.39 21 eP 51 57.70 3.8X
1.2s 36.70nm 5.3mb
PMR 80.78 21 eP 51 55.79 -0.1
1.2s 39.39nm 5.3mb
IMA 82.63 16 eP 52 06.58 0.9
1.0s 6.28nm 4.6mb
BALM 82.90 23 eP 52 07.84 0.7
FBA 83.50 19 eP 52 09.55 -0.4
0.8s 14.99nm 5.2mb
YKA 95.35 27 eP 53 04.00 -2.3
1.1s 1.10nm 4.2mb
BCAO 145.64 262 iPKPc 59 21.90 -0.3
0.9s 27.00nm
ic 59 36.30
ic 59 45.90
SOB1 147.90 127 ePKP 59 28.30 2.5X
S.D. = 1.4 on 23 of 27 obs.

& MAR 06, 1993 06h 45m 31.10s
60.292 N 152.724 W
DEPTH = 110.8km
SOUTHERN ALASKA (2)
<AEIC>.

RS1 0.17 354 iPc 45 46.27 0.9
RSO 0.17 355 iPc 45 46.22 0.8
RS2 0.17 355 iPc 45 46.28 0.9
RDW 0.20 348 iPc 45 46.25 0.8
RDN 0.22 355 eP 45 46.37 0.9
INE 0.29 216 iPd 45 46.54 0.8
eS 45 59.22
NCT 0.29 339 eP 45 46.25 0.6
eS 45 59.39
DFR 0.30 4 iPc 45 46.32 0.6
INW 0.30 222 iPd 45 46.59 0.9
eS 45 59.32
RDT 0.32 29 eP 45 46.65 -0.7
PDB 0.89 236 iPd 45 50.50 -1.1
eS 46 05.90
CKL 0.93 12 iPc 45 51.16 -0.9
eS 46 07.73
CKT 0.95 15 iPc 45 51.18 -1.0
eS 46 07.61
SPU 0.95 20 iPc 45 51.16 -1.1
eS 46 07.50
CKN 0.97 16 iPc 45 51.63 -0.8
AUL 0.98 202 iPd 45 51.62 -0.8
BGL 0.99 9 iPc 45 51.89 -0.8
AUE 0.99 200 iPd 45 51.48 -1.0
AUH 1.00 202 iPd 45 51.85 -0.9
CP2 1.00 13 iPc 45 52.20 -0.7
CPAM 1.01 16 iPc 45 52.03 -0.8
CRP 1.02 16 iPc 45 51.78 -1.2
eS 46 08.76
AUI 1.02 201 iPd 45 51.84 -1.0
BRLK 1.06 119 eP 45 52.44 -0.9
eS 46 09.05
SLKM 1.26 79 iPc 45 54.26 -1.3
MCNL 1.38 217 iPd 45 55.49 -1.4
eS 46 14.76
CDD 1.44 199 iPd 45 56.06 -1.6
SUA 1.52 39 iPc 45 57.82 -0.9
eS 46 19.02
SVW 1.64 301 eP 45 57.99 -2.2
SEW 1.65 95 eP 45 58.60 -1.5
MPA 1.68 82 iPc 45 58.84 -1.7
SYI 1.70 174 iPd 45 59.19 -1.5
SKT 1.79 18 iPc 46 00.53 -1.4
PMS 1.82 57 P 46 00.80 -1.6
PTE 1.91 71 ePc 46 01.22 -2.2
PWA 1.95 44 P 46 02.50 -1.4
PLRM 2.19 52 eP 46 04.47 -2.5
PMR 2.19 52 ePc 46 04.56 -2.4
GHO 2.37 50 eP 46 06.91 -2.6
eS 46 35.94
SML 2.62 53 iPc 46 10.18 -2.6
SCM 3.05 57 ePc 46 15.69 -2.8
HIN 3.10 85 eP 46 16.79 -2.4
VLZ 3.25 72 eP 46 17.68 -3.5
TRF 3.37 19 eP 46 21.22 -1.8
CVA 3.47 83 eP 46 21.65 -2.5
KLU 3.54 67 iPc 46 21.91 -3.3
RND 3.62 29 eP 46 25.96 -0.4
TZL 3.95 60 eP 46 27.54 -3.2
RAGM 4.00 85 eP 46 28.70 -2.8
SDG 4.12 54 eP 46 31.69 -1.3
PAX 4.38 49 eP 46 34.31 -2.4
GLB 4.51 71 eP 46 34.69 -3.7
FBA 5.15 24 eP 46 44.29 -2.9
BALM 5.16 77 eP 46 44.38 -3.0
eS 47 40.41
54 obs. associated

---

* MAR 06, 1993 06h 47m 44.91± 2.01s
11.009 S ± 9.8km 163.876 E ±14.2km
DEPTH = 50.2 ± 16.4 km
4.6mb (9 obs.)
SOLOMON ISLANDS (193)

HNR 4.17 292 eP 48 49.00 1.3
SVO 4.40 294 eP 48 50.00 -0.9
DZM 11.27 168 iPd 50 25.20 -1.0
CTA 19.21 240 iP 52 07.00 -0.9
1.8s 96.59nm 4.8mb
BRS 19.35 211 iPc 52 10.50 1.1
1.0s 7.00nm 3.9mb
RMQ 20.99 221 iPc 52 28.00 1.6
1.3s 91.00nm 4.9mb
ARMA 22.42 209 iPd 52 43.10 2.3X
0.8s 9.00nm 4.3mb
STK 29.24 221 eP 53 44.50 0.2
1.0s 3.60nm 4.0mb
WB2 29.76 249 eP 53 47.20 -2.0
0.7s 12.80nm 4.7mb
eS 58 38.20
ASPA 31.18 242 eP 53 59.40 -2.3X
0.6s 8.70nm 4.7mb
ADE 33.06 220 eP 54 19.00 1.0
WARB 38.22 242 eP 55 01.00 -0.9
KMI 69.54 302 eP 58 50.00 -1.2
1.5s 40.00nm 5.1mb
LZH 73.38 313 eP 59 15.00 1.1
PKI 85.01 299 P 00 17.60 0.4
LCCM 93.83 44 eP 00 59.30 1.0
YKA 95.79 27 eP 01 05.90 -0.7
0.9s 1.00nm 4.3mb
BCAO 145.06 262 iPKPc 07 19.00 -0.5
0.6s 14.00nm
ic 08 07.90
S.D. = 1.3 on 16 of 18 obs.

---

* MAR 06, 1993 06h 55m 55.48± 1.11s
50.317 N ±17.5km 18.913 E ± 7.2km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.2 (WAR).

OJC 0.58 99 iPg 56 07.00 -0.2
iSg 56 15.40
SPC 1.42 142 ePn 56 21.70 0.2
i 56 26.20
i(Sg) 56 41.20
Lg 56 43.50
KSP 1.75 289 ePn 56 26.40 0.3
iPg 56 28.50
iS 56 51.90
VRAC 1.81 237 ePn 56 27.50 0.6
0.5s 40.20nm
eSg 56 50.90
ZST 2.43 210 eP 56 41.30 5.5X
SRO 2.54 189 eP 56 54.30 17.0X
PRU 2.83 265 Pg 56 47.90 6.4X
Sg 57 25.20
e 57 32.30
BRG 3.21 282 e(P) 56 55.00 8.0X
iSg 57 38.00
KHC 3.66 253 Pn 56 58.00 4.6X
e 57 02.30
GEC2 3.70 249 Pn 56 52.90 -1.1
Pg 57 01.70
Sn 57 54.90
Sg 58 00.80
S.D. = 0.9 on 5 of 10 obs.

---

* MAR 06, 1993 07h 15m 14.61± 1.28s
18.079 N ±10.1km 61.640 W ±16.9km
DEPTH = 33.0km (normal)
3.6mb (1 obs.)
LEEWARD ISLANDS (92)
ML 3.6 (FDF). MD 3.5 (TRN).

CPB 0.47 202 eP 15 23.91 -0.9
eS 15 33.28
BPA 1.05 191 eP 15 32.20 -0.8
NEV 1.29 224 eP 15 37.05 0.6
eS 15 54.69
MGH 1.46 202 eP 15 39.35 0.4
DEG 1.84 162 eP 15 44.70 0.2
PAG 2.04 181 eP 15 48.00 0.6
S 16 12.20
YKA 57.37 334 eP 25 01.70 -0.1
0.5s 0.30nm 3.6mb
S.D. = 0.8 on 7 of 7 obs.

MAR 06, 1993 07h 24m 35.55± 0.41s
11.018 S ± 7.3km 163.967 E ± 7.1km
DEPTH = 10.9km (2 depth phases)
5.0mb (17 obs.) 4.8Msz (1 obs.)
SOLOMON ISLANDS (193)

HNR 4.26 291 eP 25 43.00 1.2
eS 26 32.00
SVO 4.49 294 eP 25 46.00 0.9
BKM 7.80 148 iPd 26 32.00 0.2
iS 27 59.50
DZM 11.24 168 iPc 27 20.00 0.6
iS 29 23.10
PMG 16.62 274 eP 28 42.00 11.8X
CTA 19.28 240 iPd 29 03.00 -0.4
i 29 05.00 8km
i 29 16.50
e 29 30.00
BRS 19.39 211 iPc 29 06.50 1.9
1.3s 11.00nm 4.0mb X
RMQ 21.64 221 iPc 29 23.70 1.7
1.0s 137.00nm 5.3mb
ARMA 22.46 209 iPd 29 39.10 2.9X
1.3s 68.00nm 5.0mb
BWA 27.28 209 eP 30 21.00 -1.1
CNB 27.59 206 eP 30 27.40 2.5X

06d 07h

1.2s 28.00nm 4.9mb
CAN 27.76 207 eP 30 28.00 1.6
STK 29.29 221 iPc 30 40.70 0.5
1.2s 6.40nm 4.3mb
WB2 29.85 249 iPc 30 43.10 -2.2
0.4s 23.90nm 5.4mb
WRA 29.86 249 P 30 43.50 -1.9
0.7s 2.50nm 4.1mb
TOO 31.22 209 eP 30 58.70 1.4
1.2s 83.00nm 5.5mb
ASPA 31.25 242 iPc 30 55.00 -2.8
0.5s 15.50nm 5.2mb
Z 20s 2.00um 4.8Msz
eS 35 59.30
BFD 32.41 213 eP 31 17.90 10.3X
WARB 38.29 242 eP 31 56.50 -1.5
MEEK 45.39 243 eP 32 55.00 -1.2
PMO 47.00 100 eP 33 08.90 0.0
1.9s 346.20nm 6.1mb X
VAH 47.25 101 eP 33 10.50 -0.4
1.9s 418.70nm 6.2mb X
TPT 47.27 100 eP 33 10.90 -0.2
2.0s 319.50nm 6.1mb
RUV 47.49 101 eP 33 12.50 -0.3
2.0s 401.20nm 6.2mb X
MAT 53.16 334 eP 33 55.00 -0.8
1.0s 17.00nm 4.9mb
SSE 58.63 317 Pc 34 37.00 1.8
1.0s 13.00nm 5.0mb
KMI 69.62 302 eP 35 44.00 -3.6X
pP 35 48.50 14km
CHTO 70.62 294 eP 35 55.90 2.4X
LZH 73.45 313 eP 36 12.50 2.2X
1.4s 29.00nm 5.1mb
pP 36 22.50 32kmX
SVW 78.63 19 eP 36 39.74 0.9
1.5s 67.27nm 5.5mb
CRP 79.88 20 eP 36 45.30 -0.5
PMR 81.14 21 (P) 36 54.00 1.8
0.9s 10.83nm 4.9mb
IMA 82.96 16 eP 37 02.67 0.9
1.2s 5.71nm 4.6mb
FBA 83.85 19 eP 37 05.62 -0.5
0.8s 4.35nm 4.7mb
GUN 84.78 300 P 37 12.40 0.3
PKI 85.10 299 P 37 13.60 0.0
KKN 85.26 299 P 37 15.60 1.3
DMN 85.37 299 P 37 15.40 0.5
GKN 85.87 299 P 37 17.20 -0.1
LCCM 93.78 44 eP 37 58.20 4.1X
YKA 95.75 27 eP 38 00.00 -2.6
0.8s 0.70nm 4.2mb
HFS 126.24 342 ePKP 43 56.20 16.6X
0.7s 3.10nm
Z 16s 0.17um 4.8MszX
LR 19 43.00
BCAO 145.15 262 iPKPc 44 14.90 -1.0
0.7s 30.00nm
id 44 17.50
SOB1 148.14 128 (PKP) 44 24.00 3.2X
S.D. = 1.3 on 34 of 44 obs.

MAR 06, 1993 07h 36m 19.86± 0.21s
10.824 S ± 4.6km 164.238 E ± 4.8km
DEPTH = 23.7km (4 depth phases)
5.4mb (34 obs.) 5.0Msz (3 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR 4.45 288 iPc 37 28.00 0.5
iS 38 18.00
BKM 7.83 151 iPc 38 14.00 -1.2
iS 39 43.00
DZM 11.38 170 iPd 39 03.20 -1.0
iS 41 06.00
PMG 16.87 273 eP 40 20.00 3.8X
CTA 19.61 240 iPc 40 49.50 -0.3
ipP 40 54.00 18km
RMQ 21.36 221 iPc 41 08.90 1.1
1.2s 207.00nm 5.4mb
ARMA 22.75 209 eP 41 24.00 2.3
1.1s 65.00nm 5.0mb
BWA 27.58 209 eP 42 07.00 -0.3
CNB 27.88 207 eP 42 14.60 4.5X
1.1s 33.00nm 5.0mb
CAN 28.05 207 eP 42 13.20 1.7
STK 29.61 222 eP 42 25.30 -0.3
1.0s 11.70nm 4.6mb
WB2 30.16 249 iPd 42 27.50 -3.2X
0.8s 14.10nm 4.8mb
WRA 30.17 249 P 42 28.39 -2.4
TOO 31.52 209 iPd 42 43.00 0.6
1.0s 79.00nm 5.6mb
e 46 03.30
ASPA 31.58 242 eP 42 39.90 -3.2X
0.5s 7.40nm 4.8mb
Z 23s 1.70um 4.7MszX
eS 47 17.20
BFD 32.71 213 eP 42 53.30 0.5
1.0s 39.00nm 5.3mb
ADE 33.43 220 iPd 42 59.70 0.5
WARB 38.62 241 eP 43 41.00 -2.2
AFR 44.99 104 iPc 44 34.40 -1.1
PAE 45.19 104 iPc 44 35.90 -1.1
1.6s 495.00nm 6.2mb
TVO 45.50 104 iPc 44 38.80 -0.8
1.6s 676.60nm 6.3mb
PMO 46.77 100 iPc 44 49.70 0.1
1.5s 379.20nm 6.2mb
VAH 47.02 101 iPc 44 51.40 -0.2
1.5s 337.40nm 6.2mb
TPT 47.04 100 iPc 44 51.70 0.0
1.6s 363.20nm 6.2mb
RUV 47.26 101 iPc 44 53.40 -0.1
1.6s 390.50nm 6.2mb
HON 48.95 49 P 45 20.00 13.5X
Z 19s 0.73um 4.7Msz
WKYJ 52.41 330 P 45 37.00 4.2X
TKSJ 53.00 328 P 45 36.70 -0.4
MAT 53.11 334 eP 45 36.00 -1.9
1.7s 76.92nm 5.4mb
TSRJ 53.28 331 P 45 42.70 3.6X
YONJ 54.24 329 P 45 46.50 0.3
SSE 58.67 317 Pc 46 18.70 0.8
1.0s 21.00nm 5.2mb
E 12s 0.30um
VLA 61.27 333 iP 46 36.00 0.5
1.6s 138.00nm 5.8mb
e 46 45.00 29km
e 46 52.00
PET 63.76 356 eP 46 50.00 -1.9
e 47 20.00 123kmX
KMI 69.75 302 Pc 47 30.50 -0.2
1.5s 130.00nm 5.8mb
Z 20s 2.00um 5.4Msz
E 22s 2.10um
pP 47 36.50 19km
S 56 40.00
CHTO 70.78 294 eP 47 36.90 0.0
1.2s 27.08nm 5.3mb
MGD 71.50 353 eP 47 42.00 1.6
LZH 73.52 313 eP 47 53.00 0.0
1.6s 41.00nm 5.2mb
pP 48 02.00 29km
sP 48 05.50
CIT 76.20 331 eP 48 07.00 -0.9
YAK 77.45 344 eP 48 14.00 -0.6
1.5s 83.00nm 5.5mb
SVW 78.37 19 ePc 48 20.08 0.3
1.1s 40.26nm 5.4mb
BOD 79.65 335 eP 48 26.10 -0.6
1.7s 45.00nm 5.2mb
SLKM 79.73 21 eP 48 26.67 -0.5
PMS 80.47 21 eP 48 31.20 0.1
1.8s 95.10nm 5.5mb
ZAK 80.68 325 iPc 48 32.00 -0.3
1.7s 52.00nm 5.3mb
Z 17s 1.10um 5.3MszX
E 17s 0.99um
e 51 34.50
PMR 80.86 21 eP 48 32.58 -0.5
1.3s 47.58nm 5.4mb
Z 19s 0.66um 5.0Msz
IRK 81.07 327 eP 48 34.30 0.0
2.0s 48.00nm 5.2mb
Z 15s 0.46um 5.0MszX
KLU 81.94 22 eP 48 39.56 0.7
IMA 82.70 16 eP 48 43.70 0.9
1.0s 12.20nm 5.0mb
BALM 82.99 23 eP 48 44.52 0.2
FBA 83.58 19 eP 48 46.27 -0.9
0.8s 12.17nm 5.1mb
LGPM 84.45 47 eP 48 52.92 0.8
ORV 84.97 48 eP 48 55.02 0.4
TIK 85.58 349 iPc 48 56.00 -1.0
2.0s 41.00nm 5.3mb
i 49 10.00 48kmX
SHW 86.60 42 eP 49 03.40 0.7
PEC 86.68 55 eP 49 02.89 -0.4
1.3s 24.78nm 5.3mb
e 49 20.47 62kmX
GMW 86.70 40 eP 49 03.60 0.6
BONR 86.88 51 eP 49 04.95 0.4
RMW 87.30 41 eP 49 06.30 0.3
GSC 87.33 53 eP 49 06.85 0.4
ARUT 90.56 52 eP 49 22.48 0.7
ELT 91.50 324 eP 49 25.00 -0.4
1.9s 71.00nm 5.7mb
MSU 91.70 51 eP 49 27.95 0.8
HVU 91.96 48 eP 49 28.52 0.4
LCCM 93.45 44 eP 49 35.40 0.5
PV09 94.03 52 (P) 49 39.46 1.5
PV10 94.08 52 eP 49 39.16 1.0
PRZ 94.18 312 eP 49 39.00 0.7
1.5s 50.00nm 5.7mb
SES 94.90 40 eP 49 41.00 -0.3
YKA 95.46 27 eP 49 41.60 -1.9
1.1s 3.40nm 4.7mb
NB2 126.09 344 PKP 55 26.80 5.2X
1.0s 4.90nm
GEC2 134.84 333 PKP 55 46.20 7.5X
1.0s 1.51nm
GRF 135.27 335 e(PKP)55 47.70 8.3X
1.0s 3.00nm
BSF 138.52 337 ePKP 55 34.50 -11.2X
0.9s 4.90nm
BCAO 145.44 262 iPKPc 55 57.00 -1.7
1.0s 70.00nm
id 56 03.00
EGRA 145.95 339 ePKP 56 00.20 1.6
ETOR 147.77 340 ePKP 56 05.70 3.9X
SOB1 148.04 128 ePKP 56 04.60 1.7
GUD 148.58 343 ePKP 56 06.90 3.8X
PAB 149.65 342 ePKP 56 07.00 2.3X
EVIA 149.87 339 ePKP 56 09.50 4.4X
EALH 150.16 337 ePKP 56 10.80 5.4X
EHUE 150.64 338 ePKP 56 10.60 4.3X
EHOR 151.51 342 ePKP 56 10.70 3.3X
S.D. = 1.0 on 66 of 84 obs.

----

* MAR 06, 1993 08h 03m 55.42± 0.53s
10.880 S ±10.6km 164.293 E ±13.3km
DEPTH = 28.7km (4 depth phases)
4.8mb (10 obs.)
SANTA CRUZ ISLANDS REGION (183)

DZM 11.32 170 iPc 06 37.80 -0.6
CTA 19.63 240 iP 08 26.00 1.1
ipP 08 33.00 27km
BRS 19.68 212 iP 08 28.00 2.6
ARMA 22.73 209 eP 09 00.30 3.8X
STK 29.60 222 eP 10 01.20 0.8
2.1s 2.30nm 3.6mb X
WB2 30.19 249 eP 10 03.60 -2.2
1.1s 5.10nm 4.3mb
i 10 12.90 32km
WRA 30.20 249 P 10 05.90 0.0
0.6s 0.90nm 3.8mb
TOO 31.49 209 eP 10 21.70 4.6X
ASPA 31.60 242 eP 10 15.60 -2.6
0.7s 2.90nm 4.3mb
SSE 58.75 317 eP 13 53.00 -0.3
1.4s 36.00nm 5.3mb
KMI 69.82 302 eP 15 07.00 1.0
1.5s 40.00nm 5.3mb
LZH 73.59 313 eP 15 29.50 1.2
1.2s 20.00nm 5.0mb
pP 15 37.50 26km
SVW 78.40 19 eP 15 55.38 0.6
0.9s 35.38nm 5.4mb
RSO 78.85 20 eP 15 57.00 -0.4
SLKM 79.76 21 eP 16 02.31 0.2
IMA 82.74 16 eP 16 18.89 1.1
1.0s 7.00nm 4.7mb
e 16 28.39 30km
BALM 83.02 23 eP 16 19.13 -0.2
FBA 83.61 19 eP 16 21.83 -0.3
1.0s 12.69nm 5.0mb
LCCM 93.45 44 eP 17 10.50 0.7
YKA 95.48 27 eP 17 16.90 -1.6
1.1s 1.60nm 4.4mb
BCAO 145.49 262 iPKPd 23 33.00 -0.5

0.8s 11.00nm
id 23 44.20
ic 24 14.40
SOB1 147.97 128 (PKP) 23 37.00 -0.5
S.D. = 1.3 on 20 of 22 obs.

---

* MAR 06, 1993 08h 26m 50.15± 1.65s
11.014 S ± 8.9km 164.303 E ±10.2km
DEPTH = 42.2 ± 15.5 km
4.5mb (11 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR 4.57 290 eP 27 59.00 0.4
eS 28 54.00
SVO 4.79 292 eP 28 02.00 0.2
eS 29 00.00
BKM 7.64 150 iP 28 41.20 -0.5
DZM 11.18 170 iPd 29 29.90 -0.7
iS 31 16.40
BRS 19.57 212 iP 31 19.00 1.4
CTA 19.57 240 P 31 18.60 0.9
RMQ 21.26 221 iPc 31 36.90 1.8
0.9s 41.00nm 4.8mb
ARMA 22.62 210 eP 31 51.20 2.5
0.7s 8.00nm 4.3mb
STK 29.51 222 eP 32 51.10 -1.7
0.6s 2.40nm 4.1mb
WB2 30.16 249 iPc 32 56.50 -2.2
0.9s 6.40nm 4.4mb
WRA 30.17 249 P 32 57.50 -1.3
0.6s 0.90nm 3.7mb
ASPA 31.55 242 eP 33 08.80 -2.2
0.8s 4.30nm 4.3mb
SVW 78.52 19 eP 38 49.39 0.9
0.8s 30.50nm 5.3mb
RSO 78.97 20 eP 38 50.73 -0.4
CP2 79.73 20 eP 38 55.63 0.4
SLKM 79.88 21 eP 38 55.80 0.0
PMR 81.02 21 eP 39 01.29 -0.4
1.0s 14.00nm 4.9mb
IMA 82.86 16 eP 39 12.27 0.8
1.0s 4.85nm 4.5mb
BALM 83.14 23 eP 39 13.61 0.7
FBA 83.74 19 eP 39 15.13 -0.6
0.9s 10.78nm 4.9mb
YKA 95.60 27 eP 40 10.40 -1.6
0.9s 1.10nm 4.3mb
VBY 136.64 328 ePKP 46 13.70 3.9X
BCAO 145.48 262 iPKPc 46 28.00 1.6
0.8s 10.00nm
S.D. = 1.4 on 22 of 23 obs.

MAR 06, 1993 08h 37m 27.10± 0.21s
19.740 S ± 6.1km 177.717 W ± 5.4km
DEPTH = 576.1km (3 depth phases)
4.9mb (26 obs.)
FIJI ISLANDS REGION (181)

SVA 3.96 293 eP 38 50.80 -0.3
VUN 4.01 295 iPd 38 54.00 2.6
BKM 13.46 277 iPd 40 22.20 1.7
iS 42 50.50
DZM 14.98 258 iPc 40 35.90 0.4
iS 43 13.70
KUZ 17.89 197 eP 41 05.60 2.2
0.6s 172.00nm 5.8mb
URZ 18.99 193 eP 41 11.90 -1.9
NOZ 19.17 190 eP 41 16.80 1.4
MNG 21.61 194 eP 41 35.80 -2.0
THZ 23.36 198 eP 41 53.10 -0.5
e 42 07.80 63kmX
DSZ 23.68 200 eP 41 55.60 -0.8
e 42 07.60 48kmX
LTZ 24.48 198 eP 42 01.80 -1.7
e 42 15.30 56kmX
MSZ 27.59 202 eP 42 31.30 0.7
BRS 28.05 249 iPd 42 36.00 1.1
PMO 28.82 85 iPd 42 42.10 0.5
1.2s 121.40nm 5.4mb
VAH 29.02 86 iPd 42 43.50 0.2
1.4s 135.10nm 5.4mb
TPT 29.09 85 iPd 42 44.40 0.5
0.9s 71.10nm 5.3mb
RUV 29.26 86 iPd 42 45.70 0.3
0.9s 89.80nm 5.4mb
RMQ 31.50 251 iPc 43 05.40 1.1
0.6s 9.00nm 4.6mb
CNB 32.87 235 iPc 43 17.20 1.3
0.8s 15.00nm 4.7mb
CTA 33.84 263 iPc 43 23.00 -1.0
1.0s 47.50nm 5.1mb
e 45 46.00
PMG 35.44 282 eP 43 38.00 0.7
1.0s 148.00nm 5.6mb
TOO 36.56 233 iPd 43 47.30 0.9
0.7s 23.00nm 4.9mb
STK 38.36 243 eP 44 01.70 0.6
0.7s 5.80nm 4.3mb
ASPA 44.96 256 iPd 44 52.80 -0.6
1.1s 92.80nm 5.2mb
iPcP 46 21.30
iPcS 50 14.90
iS 50 47.30
WB2 44.96 261 iPd 44 52.80 -0.7
0.8s 45.60nm 5.1mb
eS 50 46.60
WRA 44.97 261 P 44 53.00 -0.6
0.7s 4.50nm 4.1mb
MTN 49.43 270 eP 45 26.10 -1.2
0.6s 128.00nm 5.6mb
GUA 49.46 309 eP 45 26.80 -0.6
0.8s 179.10nm 5.7mb
WARB 51.31 252 eP 45 40.00 -1.0
MEEK 58.42 250 eP 46 29.00 -1.6
CGP 63.23 291 iPc 47 01.50 -0.5
0.5s 14.00nm 4.7mb
MAT 69.76 323 iPc 47 40.70 -1.0
0.9s 19.33nm 4.6mb
ADK 71.32 1 eP 47 49.02 -1.3
0.5s 10.33nm 4.6mb
LEM 73.32 269 ePd 48 03.40 0.5
BONR 80.02 44 eP 48 39.95 1.1
pP 50 43.24 579km
SLKM 83.01 13 eP 48 52.57 -0.5
CP2 83.28 12 eP 48 53.87 -0.8
CRP 83.30 12 eP 48 53.48 -1.2
pP 50 55.90 567km
RMW 83.59 34 eP 48 57.48 1.2
MSU 84.39 46 eP 49 02.51 1.8
BJI 85.54 315 eP 49 06.00 0.2
1.5s 35.00nm 4.8mb
PV10 86.47 47 eP 49 11.30 0.6
PV08 86.83 47 eP 49 13.35 0.8
FBA 87.45 12 ePd 49 13.58 -0.8
0.7s 10.55nm 4.7mb
pP 51 19.70 582km
IMA 87.46 10 eP 49 13.98 -0.6
1.0s 4.13nm 4.2mb
BW06 88.23 43 eP 49 18.38 -0.5
1.0s 4.75nm 4.3mb
LCCM 88.31 40 eP 49 18.70 -0.3
CHTO 90.24 290 ePd 49 29.30 1.1
1.0s 22.50nm 5.1mb
SES 91.10 36 eP 49 32.00 0.4
LZH 92.52 307 eP 49 38.50 -0.1
1.5s 30.00nm 5.1mb
YKA 95.71 25 eP 49 50.20 -2.1
0.9s 0.90nm 4.0mb
MAIO 127.59 301 ePKP 55 29.00 -0.1
NB2 138.26 353 PKP 55 36.90 -11.5X
0.9s 2.80nm
HFS 138.83 351 ePKP 55 37.70 -11.7X
0.3s 1.40nm
EDU 143.04 5 ePKP 55 54.10 -2.8X
ELO 143.05 6 ePKP 55 53.80 -3.1X
EAB 143.27 6 ePKP 55 54.00 -3.3X
EBH 143.29 5 ePKP 55 55.10 -2.2X
1.1s 37.00nm
ESY 143.69 5 ePKP 55 56.30 -1.7
EAU 143.69 5 ePKP 55 56.80 -1.2
EBL 143.80 5 ePKP 55 56.70 -1.5
1.1s 24.00nm
EKA 144.23 5 PKP 55 58.00 -0.9
1.0s 21.90nm
DMU 145.18 10 ePKP 56 01.20 0.6
DCN 145.65 10 ePKP 56 02.80 1.4
KAS 145.65 316 iPKPd 56 03.80 1.9
DLF 145.82 9 ePKP 56 03.10 1.5
PPE 146.38 328 ePKP 56 06.00 3.2X
WIT 146.82 355 ePKP 56 07.00 3.8X
KSP 147.04 344 ePKP 56 03.50 -0.2
1.1s 58.00nm
id 56 06.80
i 58 22.50
VRI 147.07 328 ePKPc 56 06.50 2.6X
BHL 147.21 302 PKP 56 07.00 2.4X
SPC 147.27 338 ePKP 56 04.90 0.5
e 56 08.00
HRI 147.32 301 ePKP 56 08.20 3.3X
CLL 147.38 347 ePKP 56 03.00 -1.2
1.3s 12.00nm
i 56 07.50
pPKP 58 22.10
BRG 147.59 346 iPKP 56 04.40 -0.2
1.2s 44.00nm
i 56 07.80
e 58 23.10
WTS 147.61 355 ePKP 56 08.00 3.5X
1.0s 53.80nm
e 58 24.00
MMR 147.66 301 iPKPd 56 09.20 3.8X
MLR 147.73 328 ePKPd 56 08.00 2.8X
DSI 148.05 298 iPKPd 56 09.70 3.8X
PRU 148.28 345 PKPd 56 10.00 4.3X
1.0s 23.10nm
e 56 15.50
e 58 27.00
MOX 148.29 349 ePKP 56 05.70 0.0
i 56 09.90
VRAC 148.34 342 ePKP 56 10.30 4.5X
1.6s 216.30nm
e 56 15.80
eSg 09 27.80
HOF 148.55 348 ePKP 56 10.70 4.6X
PRNI 148.64 296 iPKPd 56 11.50 4.6X
CSS 148.69 305 ePKP 56 10.70 3.9X
ENN 148.91 356 ePKP 56 11.00 4.4X
0.8s 17.30nm
e 56 17.00
UCC 148.97 357 PKP 56 11.00 4.3X
SRO 149.12 339 ePKP 56 12.00 5.0X
ZST 149.18 340 ePKP 56 07.30 0.2
i 56 11.60
SNF 149.25 358 iPKPd 56 11.88 4.8X
GRF 149.27 349 iPKPd 56 07.50 0.3
e 56 12.50
KHC 149.31 345 iPKP 56 12.50 5.2X
1.0s 30.40nm
i 56 20.00
e 56 33.00
e 58 33.50
GEC2 149.54 345 PKP 56 07.40 -0.4
1.2s 3.63nm
DOU 149.66 357 PKPd 56 13.60 5.8X
1.0s 77.80nm
WLF 149.98 355 iPKPd 56 14.48 6.3X
HOFF 150.51 352 PKP 56 15.70 6.6X
FUR 150.72 348 iPKPd 56 15.70 6.2X
STR 150.89 353 PKP 56 16.62 7.0X
FLN 150.96 4 ePKP 56 09.80 0.0
WLS 151.10 353 iPKP 56 16.12 6.0X
CDF 151.11 353 PKP 56 16.49 6.3X
LDF 151.15 3 ePKP 56 10.20 0.2
KBA 151.27 344 iPKPd 56 15.70 5.2X
VITF 151.43 355 PKP 56 17.18 6.7X
FEL 151.55 352 PKP 56 17.06 6.2X
MOF 151.68 353 PKP 56 17.23 6.2X
BBS 152.02 352 PKP 56 18.68 7.3X
VBY 152.16 340 ePKP 56 19.30 7.7X
LOR 152.51 358 ePKP 56 12.40 0.3
SKO 152.53 328 ePKP 56 19.00 6.8X
SSF 152.73 358 ePKP 56 12.70 0.3
LBF 152.79 357 ePKP 56 12.80 0.3
MFF 153.13 4 ePKP 56 13.20 0.3
TCF 153.52 0 ePKP 56 13.80 0.3
1.3s 18.05nm
LSF 153.55 1 ePKP 56 13.50 0.0
1.0s 9.60nm
BCAO 158.04 228 iPKPc 56 19.40 -0.8
0.5s 23.00nm
ic 56 57.10
id 58 32.90
KIC 165.05 152 PKP 56 27.20 0.0
TIC 165.17 150 PKP 56 27.60 0.3
S.D. = 1.0 on 79 of 118 obs.

MAR 06, 1993 10h 02m 06.95± 0.14s
26.536 S ± 4.3km 177.355 W ± 3.6km
DEPTH = 18.2km (geophysicist)
5.9mb (63 obs.) 6.6Msz (63 obs.)
SOUTH OF FIJI ISLANDS (171)

06d 10h

Mw 6.6 (GS), 6.5 (HRV). Ms 6.6
(BRK). Mo=1.7*10**19 Nm (PPT).
Depth from broadband
displacement seismogroms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=175 Dip=90 Slip= 173
NP2: 265 83 360
Principol Axes:
T Plg= 5 Azm=130
P 5 220
Comment: The focal mechanism is
moderately well controlled and
corresponds to strike-slip
faulting with o small reverse
component. The preferred fault
plone is not determined.
RADIATED ENERGY
No. of sta: 16 Focol mech. F
Energy 4.6±1.1*10**14 Nm
MOMENT TENSOR SOLUTION
Dep 36 No. of sta: 28
Moment Tensor; Scole 10**18 Nm
Mrr=-0.09 Mtt= 1.69
Mff=-1.59 Mrt=-0.20
Mrf= 1.12 Mtf= 7.73
Principal axes:
T Val= 7.99 Plg= 4 Azm=321
N -0.01 82 202
P -7.98 7 51
Best Double Couple:Mo=8.0*10**18
NP1:Strike= 96 Dip=82 Slip= -2
NP2: 186 88 -172
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B.: 40S, **C M.W.: 38S, 75C
Centroid Location:
Origin Time 10:02:12.4 0.1
Lot 26.57S 0.01 Lon 177.29W 0.01
Dep 15.4 0.7 Half-duration 4.5
Moment Tensor; Scale 10**18 Nm
Mrr=-0.69 0.04 Mtt= 1.08 0.04
Mff=-0.38 0.05 Mrt=-1.75 0.18
Mrf= 0.76 0.18 Mtf= 6.34 0.04
Principal Axes:
T Vol= 6.81 Plg= 6 Azm=139
N -0.26 72 249
P -6.55 17 47
Best Double Couple:Mo=6.7*10**18
NP1:Strike=184 Dip=74 Slip=-173
NP2: 92 83 -16

SVA 9.23 334 eP 04 20.00 -2.1
VUN 9.33 335 ePd 04 23.00 -0.5
MBU 10.19 338 eP 04 33.00 -2.4
KUZ 11.76 208 eP 04 59.10 2.4
URZ 12.59 200 eP 04 59.00 -8.BX
e 05 17.90
eS 07 21.50
WLZ 12.77 206 eP 05 12.70 2.4
MOZ 13.64 207 eP 05 22.90 1.1
MNG 15.25 201 eP 05 30.10 -12.8X
eS 08 18.60
DZM 15.42 283 iPc 05 45.50 0.2
iS 08 53.90
PVC 15.89 301 iPc 05 54.70 3.4X
BKM 15.99 301 iPc 05 54.60 2.0
MRW 16.06 202 P 05 51.20 -2.2
S 08 38.00
RAR 16.93 75 P 05 59.56 -4.9X
THZ 17.18 205 eP 06 03.30 -4.2X
eS 09 06.50
KHZ 17.51 203 eP 06 02.50 -9.1X
eS 09 08.30
LTZ 18.29 205 eP 06 13.30 -8.1X
MQZ 18.96 203 eP 06 22.90 -6.5X
eS 09 43.80
MSZ 21.64 209 eP 06 56.30 -1.B
TUZ 21.99 205 eP 06 59.70 -1.8
BRS 26.61 261 iPc 07 43.00 -3.2X
1.2s 42.00nm 5.0mb
i 07 46.50 12kmX
AFR 27.04 76 eP 07 49.30 -0.8
2.1s 2761.10nm 6.5mb
PAE 27.16 77 iPc 07 50.20 -1.0
2.1s 1321.50nm 6.2mb
PPT 27.20 77 iPc 07 50.80 -0.8
2.1s 1939.20nm 6.4mb

PPN 27.34 77 iPc 07 52.00 -0.9
1.8s 908.00nm 6.2mb
TVO 27.40 77 iPc 07 52.40 -1.1
1.7s 1517.50nm 6.4mb
HNR 27.40 304 ePc 07 55.00 1.5
ARMA 27.49 255 eP 07 55.40 1.0
1.1s 109.00nm 5.5mb
RIV 28.10 247 eP- 08 02.00 2.4
Z 20s 0.57um 4.2MszX
eS 12 45.00
CNB 29.75 245 eP- 08 17.00 2.4
1.2s 142.00nm 5.7mb
PMO 29.76 73 iPc 08 13.80 -1.0
1.9s 595.90nm 6.1mb
VAH 29.88 74 iPc 08 14.60 -1.2
1.4s 481.00nm 6.1mb
CAN 30.05 245 eP 08 18.90 1.6
i 08 25.00 21kmX
RUV 30.12 74 iPc 08 16.80 -1.1
1.4s 555.90nm 6.2mb
RMQ 30.28 262 iPd 08 19.50 0.2
1.0s 451.00nm 6.3mb
BWA 30.42 247 eP 08 20.00 -0.5
i 08 26.20 21kmX
TAU 33.02 231 eP 08 47.00 3.8X
eS 13 56.00
TOO 33.16 241 eP 08 44.00 -0.5
0.9s 63.00nm 5.5mb
CTA 33.95 273 iPd 08 50.00 -1.5
2.0s 1352.94nm 6.5mb
CTAO 33.95 273 ePd 08 50.92 -0.6
ed 08 54.15
epPc 08 57.88 24kmX
BFD 35.44 243 eP 09 04.10 0.0
1.4s 158.00nm 5.7mb
e 10 33.30 479kmX
STK 36.07 252 eP 09 08.80 -0.7
1.5s 10.10nm 4.5mb X
PMG 37.63 290 eP 09 24.00 1.3
ADE 38.43 246 eP- 09 29.00 -0.4
ASPA 44.03 263 iPd 10 13.60 -1.9
1.5s 65.30nm 5.2mb
Z 19s 82.60um 6.7Msz
ipP 10 27.20 51kmX
ePP 11 56.10
iS 16 43.50
WB2 44.65 268 eP 10 17.50 -3.0X
0.6s 18.10nm 5.1mb
WRA 44.66 268 P 10 18.20 -2.4
0.9s 5.20nm 4.4mb X
FORT 47.70 252 eP 10 44.00 -0.5
0.6s 40.00nm 5.7mb
WARB 49.83 257 eP 10 57.00 -4.0X
KKH 50.37 26 (P) 11 03.64 -1.4
MHA 50.89 26 eP 11 08.20 -0.8
HON 51.14 23 P- 11 15.51 4.6X
Z 19s 21.05um 6.2Msz
S 18 43.38
DHH 51.16 24 eP 11 10.36 -0.7
KIP 51.23 23 Pd 11 14.12 2.6
iS 18 37.95
iSS 22 35.50
SBA 51.92 184 iPc 11 17.50 1.3
COOL 53.53 250 eP 11 25.50 -3.3X
GUMO 54.21 313 eP 11 33.60 -0.3
1.6s 310.30nm 6.1mb
Z 30s 71.50um 6.6MszX
ec 11 37.16 12kmX
ePcP 12 51.48
ePP 13 34.69
PJG 54.21 313 eP 11 23.20 -10.7X
NWAO 56.37 247 ePd 11 46.77 -2.7
ec 11 51.82 17kmX
iS 19 33.63
esS 19 44.39
MEEK 56.68 254 eP 11 50.00 -1.9
CSY 58.83 207 iPd 12 02.80 -3.5X
0.6s 52.10nm 5.8mb
SPA 63.62 180 ePd 12 37.70 -1.2
1.3s 783.33nm 6.7mb
DAV 64.61 293 eP+ 12 44.00 -1.8
CTB 65.81 292 ePd 12 59.50 6.0X
CGP 66.09 293 eP 12 51.00 -4.3X
KKM 71.95 287 ePc 13 31.30 -0.5
TGY 72.28 296 eP 13 37.00 3.4X
CVP 73.62 300 eP 13 41.00 -0.4
BCP 73.84 298 eP 13 44.00 1.1

BAG 73.86 298 eP- 13 41.00 -2.0
eS 23 10.00
CHJJ 74.63 325 P 13 46.40 -0.5
WKYJ 75.11 321 P 13 51.30 1.6
MAJO 75.42 324 P 13 52.98 1.6
MAT 75.42 324 (P) 13 50.00 -1.4
1.0s 20.00nm 5.1mb
Z 20s 10.64um 6.1Msz
eS 23 22.00
MTMJ 75.66 324 P 13 54.60 1.7
OFUJ 75.67 328 eP 13 52.90 0.1
YAMJ 75.75 327 eP 13 51.00 -2.2
TKSJ 75.81 320 P 13 56.00 2.3
MAW 76.12 200 eP 13 54.00 -0.9
0.8s 45.98nm 5.6mb
Z 16s 25.00um 6.6MszX
SHK 77.00 320 eP 14 02.00 1.7
YONJ 77.01 320 P 14 02.80 2.4
ERM 77.35 331 (P) 14 05.47 3.4X
ec 14 07.79 7kmX
ed 14 09.94
eS 23 55.46
KUSJ 77.58 333 eP 14 03.30 0.0
ADK 78.08 0 ePd 14 04.98 -0.8
1.0s 168.13nm 6.1mb
TATO 78.13 306 eP 14 04.42 -2.3
ed 14 06.40 6kmX
eS 24 03.05
iPS 24 37.65
SMY 79.28 355 P 14 20.00 7.6X
Z 19s 44.42um 6.8Msz
ASAJ 79.28 332 eP 14 14.00 1.4
QZH 80.24 304 Pd 14 19.00 0.8
Z 19s 12.00um 6.3Msz
N 19s 8.53um
S 24 24.00
SS 29 40.00
KGM 81.36 277 eP 14 23.50 -0.8
YSS 81.60 334 (P) 14 25.07 0.2
1.3s 90.00nm 5.7mb
Z 19s 10.30um 6.2Msz
N 19s 7.50um
E 19s 3.40um
eS 24 39.10
ePS 25 18.16
ePPS 25 41.00
PRS 81.80 43 iPc 14 27.66 1.5
BCH 81.84 44 eP 14 26.93 0.4
GCC 81.89 42 iPc 14 28.00 1.4
PET 81.93 346 iPc+ 14 26.00 -0.4
1.2s 160.00nm 6.0mb
Z 18s 28.10um 6.7Msz
N 20s 14.20um
E 20s 7.62um
eS 24 36.00
eS 30 04.00
eSS 33 20.00
JEGM 81.94 41 (P) 14 24.83 -2.0
SSE 82.02 310 Pd 14 28.00 0.6
1.5s 27.00nm 5.1mb
Z 20s 11.90um 6.3Msz
N 16s 5.50um
E 17s 3.80um
PP 17 36.00
S 24 41.00
SS 30 00.00
SAO 82.04 42 eP 14 46.76 19.3X
Z 17s 38.00um 6.8MszX
eS 24 44.76
eSP 25 40.76
eLR 38 55.76
SAO 82.04 42 eP 14 28.44 1.0
PHAM 82.07 43 eP 14 29.19 1.6
PRI 82.11 43 iPc 14 29.49 1.6
HKC 82.14 300 iP 14 33.00 4.8X
S 24 46.00
COE 82.23 42 eP 14 29.65 1.2
LLA 82.25 43 iPc 14 33.53 5.0X
MHC 82.31 42 ePc 14 37.06 8.1X
Z 17s 32.00um 6.8MszX
eS 24 48.06
eSP 25 46.06
eSS 30 25.06
eLQ 37 09.06
eLR 39 17.06
BKS 82.31 41 eP 14 33.09 4.3X
Z 17s 24.00um 6.6MszX

```
                 eS    24 43.09
                 eSP   25 44.09
                 eSS   30 06.09
                 eLQ   37 00.09
                 eLR   39 08.09
ARN    82.38  42 eP    14 30.25   1.0
PAS    82.39  46 (P)   14 29.69   0.4
                 eS    24 48.34
PKEM   82.40  43 eP    14 31.17   1.9
NTYM   82.41  40 eP    14 30.65   1.4
SSK    82.74  46 eP    14 32.28   0.9
NVL    82.75 183 iPd   14 29.60  -1.0
       1.8s   181.00nm          5.9mb
     Z  18s    32.00um          6.7Msz
     N  17s    29.90um
     E  17s    15.80um
                 ePcP  14 41.00
                 ePP   17 51.00
                 e     18 11.00
                 e     18 45.00
                 eS    24 53.00
PLM    82.75  47 eP    14 31.05  -0.4
HMR    82.76  41 eP    14 32.45   1.4
PEC    82.89  47 eP    14 30.95  -1.0
       1.3s   149.67nm          6.0mb
KMPM   82.97  38 eP    14 33.48   1.2
ISA    83.16  45 eP    14 33.23  -0.1
     Z  19s    26.13um          6.6Msz
PFO    83.18  47 (P)   14 33.67   0.1
                 eS    25 00.86
                 ePS   25 47.05
GZH    83.20 300 P     14 37.00   3.3X
     Z  20s    14.70um          6.4Msz
     N  12s     1.08um
     E  21s    14.50um
                 S     24 57.00
FRI    83.24  43 iPc   14 34.83   1.2
FHC    83.31  38 eP    14 36.48   2.6
       1.2s   200.69nm          6.2mb
SNA    83.36 178 e(P)  14 34.60   0.9
       0.9s   345.00nm          6.5mb
CMB    83.51  42 ePc   14 43.69   8.6X
     Z  17s    23.00um          6.6MszX
                 eS    24 50.69
                 eScS  25 08.69
                 eSKS  25 12.69
                 eSP   26 00.69
                 eSS   30 43.69
                 eLQ   36 14.69
                 eLR   39 34.69
CMB    83.51  42 eP    14 35.82   0.8
       1.0s    53.92nm          5.7mb
     Z  18s    20.53um          6.5Msz
PAF    83.53 217 eP    14 42.00   7.0X
                 iS    24 54.00
                 SS    29 51.00
VLA    83.55 325 eP    14 38.00   3.0X
     Z  20s     2.00um          5.5MszX
     N  18s     2.50um
     E  18s     2.70um
                 ePS   24 58.00
                 eSSS  33 46.00
ORV    83.86  40 iPc   14 36.36  -0.4
     Z  18s    17.00um          6.5Msz
                 eS    24 46.30
                 eSKS  25 10.30
                 eSP   25 53.30
                 eSS   30 29.30
                 eLR   39 46.30
QIZ    83.88 295 iPc   14 40.00   2.8X
     E  16s     6.54um
WDC    83.96  39 eP    14 45.03   7.9X
     Z  18s    29.00um          6.7Msz
                 eS    25 09.03
                 eSP   26 06.03
                 eSS   30 38.03
                 eLR   39 52.03
WDC    83.96  39 eP    14 38.64   1.5
       1.2s    13.67nm          5.1mb
     Z  19s    29.10um          6.7Msz
GSC    83.99  46 (P)   14 37.85   0.3
                 eS    25 08.22
                 ePS   25 55.40
LGPM   84.02  38 ePd   14 38.55   0.9
MEMM   84.15  43 eP    14 40.51   2.4
MTUM   84.18  43 eP    14 38.93   0.3
NJ2    84.19 310 Pd    14 40.00   1.5

     Z  36s    21.30um          6.3MszX
     N  19s    11.60um
     E  18s     8.03um
                 S     25 03.00
MIN    84.33  39 iPc   14 39.47   0.2
MRCM   84.41  43 eP    14 41.26   1.4
LMEM   84.48  39 eP    14 41.19   1.2
IPM    84.55 278 ePd   14 42.10   1.3
BONR   84.72  43 eP    14 40.96  -0.5
TPNV   85.36  45 eP    14 45.36   0.8
       0.9s    48.87nm          5.7mb
     Z  20s    41.83um          6.8Msz
TNP    85.46  43 eP    14 44.19  -0.9
       1.1s    77.23nm          5.8mb
KVN    85.54  42 eP    14 45.43   0.1
MDJ    85.78 325 eP    14 46.36   0.2
SNG    86.09 280 eP    14 49.00   0.6
                 eS    25 18.50
TUC    86.26  51 ePc   14 49.91   1.0
       1.4s   292.80nm          6.3mb
     Z  21s    41.84um          6.8Msz
                 ed    14 55.46  17kmX
                 eSKS  24 56.21
COR    86.28  35 Pd    14 54.89   6.3X
                 eS    25 32.38
                 iPS   26 20.55
WHN    86.49 307 ePd   14 50.00   0.0
     Z  24s    43.10um          6.8MszX
     N  26s    18.30um
     E  23s    28.40um
                 S     25 24.00
KDC    86.51  13 eP    14 48.25  -1.2
       1.3s    43.64nm          5.5mb
DL2    86.52 317 eP    14 52.00   2.1
       1.3s   100.00nm          5.9mb
     Z  30s     9.85um          6.0MszX
     N  13s     4.03um
     E  18s     4.41um
MRX    86.97  66 iP    14 54.50   2.0
SNY    87.19 320 iPd   14 51.00  -2.1
       1.6s   140.00nm          6.0mb
     Z  40s    24.20um          6.3MszX
     N  19s     7.75um
                 pP    14 57.00  19kmX
                 PP    18 16.00
CN2    87.42 322 P     14 54.50   0.3
       1.6s   270.00nm          6.3mb
     Z  29s    31.40um          6.6MszX
     N  22s    11.20um
     E  22s    11.30um
                 epP   15 04.00  30kmX
                 PP    18 18.00
                 eSKS  25 16.00
                 eS    25 26.00
BMW    87.61  34 eP    14 55.86   0.7
ARUT   87.65  45 eP    14 56.88   1.2
TIA    87.77 313 Pd    14 56.50   0.4
       1.7s   280.00nm          6.3mb
     Z  44s    57.40um          6.6MszX
     N  20s     5.61um
     E  17s     7.60um
SHW    87.92  35 eP    14 56.61  -0.1
VGB    88.22  36 eP    14 58.76   0.7
UNM    88.44  68 (P)   15 02.00   2.0
LON    88.52  35 eP    14 59.34  -0.1
GMW    88.57  34 eP    15 00.15   0.5
PPM    88.78  68 iP    15 03.70   1.8
MSU    88.89  45 eP    15 01.82   0.1
RSO    88.99  12 eP    14 59.76  -1.9
RMW    89.00  34 eP    15 00.95  -0.8
PGC    89.00  32 eP    15 02.00   0.4
SVW    89.10  10 eP    15 01.30  -0.7
       0.9s    18.30nm          5.4mb
MCW    89.32  33 eP    15 03.32   0.1
DUG    89.47  44 eP    15 04.35   0.1
       1.7s    50.80nm          5.5mb
     Z  19s    21.01um          6.6Msz
SLKM   89.52  13 eP    15 01.91  -2.0
CP2    89.83  12 eP    15 03.26  -2.3
LOE    89.83 289 eP    15 08.00   1.8
CRP    89.85  12 eP    15 02.60  -3.0X
MDZ    89.95 127 i(P)  15 07.40   0.6
GYA    90.14 300 P     15 10.00   2.3
       1.2s    49.00nm          5.6mb
     Z  26s    11.80um          6.2MszX
     N  18s     5.54um
     E  18s     4.26um

                 sS    26 10.00
MGD    90.19 345 eP    15 06.00  -1.0
       1.4s   180.00nm          6.1mb
                 i     15 16.00  31kmX
                 e     25 35.00
                 eS    26 00.00
                 ePS   27 06.00
                 eSS   32 00.00
                 eSSS  35 32.00
SRU    90.28  46 eP    15 08.07  -0.1
NST    90.39 287 eP    15 10.00   1.2
HVU    90.42  42 eP    15 08.65   0.0
SIT    90.49  21 P     15 20.00  11.6X
     Z  20s    17.79um          6.5Msz
DAU    90.56  44 eP    15 10.07   0.5
ALQ    90.72  51 eP    15 09.98  -0.3
       1.3s    83.28nm          5.9mb
     Z  20s    49.01um          6.9Msz
ANMO   90.72  51 (P)   15 12.24   2.0
                 ePP   18 48.33
                 eSKS  25 42.49
                 eS    26 10.08
PMR    90.73  13 eP    15 08.81  -0.6
       1.3s    93.10nm          5.9mb
     Z  21s    18.91um          6.5Msz
PV10   90.83  47 eP    15 10.31  -0.5
PV09   90.84  47 eP    15 10.31  -0.6
DPW    91.10  35 eP    15 11.24  -0.3
PV08   91.20  47 eP    15 12.51  -0.1
KHT    91.31 286 eP    15 13.20   0.1
KLU    91.33  14 eP    15 10.60  -1.7
TIY    91.73 312 Pc    15 15.30   0.6
       1.0s    86.00nm          6.1mb
     Z  40s    66.90um          6.8MszX
     N  16s     7.48um
BALM   91.78  16 eP    15 13.20  -1.3
NEW    91.91  35 eP    15 14.41  -0.8
       1.2s    21.37nm          5.4mb
XAN    92.24 307 ePc   15 17.16   0.1
                 epPc  15 22.87  18kmX
                 ePP   18 56.31
                 eSKS  25 51.66
                 eS    26 22.56
                 ePS   27 28.77
MRA    92.44 128 e(P)  15 19.30   1.2
KMI    92.60 297 ePc   15 20.12   1.0
       1.8s   360.00nm          6.5mb
     Z  20s    17.70um          6.5Msz
     N  16s     3.10um
     E  16s     5.90um
                 ed    15 22.02
                 epPc  15 25.41  17kmX
                 ePP   18 53.55
                 S     25 58.00
CHTO   92.83 289 ePc   15 20.80   0.8
       1.4s    77.40nm          5.9mb
BW06   92.95  43 eP    15 18.10  -2.3
       1.1s    25.65nm          5.6mb
LCCM   93.31  40 eP    15 22.10   0.2
TCA    93.82 128 ePd   15 25.00   0.3
GOL    93.95  47 eP    15 24.43  -0.7
       1.1s    40.19nm          5.7mb
     Z  20s    42.32um          6.9Msz
HHC    93.97 314 Pd    15 26.20   1.2
       1.4s    31.00nm          5.5mb
     Z  25s    19.20um          6.5MszX
     N  20s     8.00um
     E  23s     7.33um
                 PcP   15 27.00
FBA    93.99  12 eP    15 22.17  -2.2
       0.9s    12.74nm          5.3mb
IMA    94.07   9 eP    15 24.08  -0.8
       1.7s    30.38nm          5.4mb
GLD    94.08  47 eP    15 25.08  -0.5
       1.5s   126.83nm          6.1mb
     Z  20s    37.91um          6.9Msz
ILT    94.15 359 iPd   15 25.00   0.0
                 iS    25 58.00
CD2    94.52 302 iPc   15 28.30   0.7
     Z  26s    15.30um          6.3MszX
     N  14s     4.38um
CRZF   94.81 212 eP    15 36.00   7.2X
                 ePP   20 09.00
                 eS    27 54.00
BTO    94.84 313 P     15 29.50   0.5
     N  17s     4.12um
     E  17s     5.00um
```

06d 10h

```
                   ePP     19 22.00
                   SKS     26 05.00
WMOK    96.08  54 PKP     15 41.05    6.4X
     Z  20s     3.46um              5.8Msz
                   SP      28 27.50
                   SS      33 50.37
LPA     96.23 134 eP+     15 35.00   -0.5
     Z  19s    16.67um              6.5Msz
                   ePP     19 29.00
MEO     96.24  54 iPc     15 35.30   -0.1
ARE     96.31 112 eP      15 39.00    2.5
SES     96.38  36 eP      15 34.00   -1.7
ACO     96.73  52 iPd     15 38.60    1.0
LZH     96.87 307 eP      15 38.50    0.1
        1.5s   67.00nm              6.0mb
     Z  16s    25.70um              6.8MszX
     N  13s     8.91um
                   pP      15 48.00   30kmX
                   sP      15 51.00
                   eSKS    26 11.00
RSSD    97.07  44 eP      15 38.56   -0.6
        1.2s   55.09nm              6.0mb
YAK     97.88 338 eP      15 40.50   -1.6
        1.3s   41.00nm              5.8mb
     Z  18s     8.60um              6.3Msz
     N  19s     5.50um
                   eS      26 16.00
CIT     98.70 324 eP      15 50.00    3.9X
CNCB    99.03 114 P       15 52.00    2.9X
ZOBO    99.19 113 (PDIF)15 50.17    0.3
GTA    101.21 308 Pdiff  15 57.00   -1.0
     Z  24s    42.20um              6.9MszX
     E  16s     6.32um
                   PP      20 10.00
BOD    101.52 329 ePdiff16 00.50    1.8
        1.5s    9.00nm              5.1mb
YKA    101.72  25 ePdiff16 00.00    0.5
        0.9s    1.10nm              4.5mb X
CCM    102.99  54 Pdiffd16 09.71    4.0X
ZAK    103.62 320 ePdiff16 10.50    2.3X
        1.8s   24.00nm              5.7mb
                   e       20 20.00
                   e       26 49.00
                   eS      27 55.00
                   ePS     29 29.00
LSA    103.85 296 ePdiff16 15.00    4.6X
     Z  18s     2.37um              5.8Msz
     N  18s     5.24um
                   PP      20 28.50
SLM    103.95  54 Pdiff 16 20.00   10.0X
     Z  19s    20.54um              6.7Msz
TIK    104.69 345 ePdiff16 14.30    1.8
        2.0s   20.00nm              5.7mb
     Z  18s    16.50um              6.6Msz
                   i       20 35.00
HYB    109.90 280 ePdiff16 38.00    1.0
WMQ    111.26 309 Pdiff 16 43.80    1.3
     Z  26s    23.10um              6.6MszX
     N  16s     4.15um
                   PP      21 20.00
CEH    111.34  60 PKP     20 44.75    3.1X
     Z  20s    10.93um              6.4Msz
                   PP      21 30.06
                   SP      30 56.39
                   SS      37 22.13
MCWV   111.89  56 PKP     20 50.00    7.4X
     Z  21s    22.38um              6.7Msz
RES    113.40  17 ePKP    20 45.50    1.1
ELT    114.52 319 ePKP    20 29.00  -18.1X
        1.6s   34.00nm
                   e       27 28.00
NDI    114.93 291 ePKP    20 41.00   -7.8X
RSNY   116.93  51 (PKP)   20 49.78   -2.3X
     Z  21s    24.82um              6.8Msz
                   PP      21 54.42
                   SP      31 37.22
CER    118.37 196 ePKP    20 37.50  -17.7X
TUH    118.46 196 e(PKP)20 55.50    0.2
HRV    118.65  54 PKP     21 10.00   14.6X
     Z  21s    37.22um              7.0Msz
KSH    118.69 302 PKP     20 51.00   -4.8X
     Z  24s    16.20um              6.6MszX
     N  18s     8.67um
     E  18s     9.22um
                   PP      22 16.00
                   SKS     27 58.00
                   SKKS    29 06.00
```

```
FRS    119.96 203 iPKPc 20 57.00   -1.3
        0.7s   16.00nm
BLF    120.24 204 ePKP    20 57.50   -1.6
FRU    120.33 306 ePKP    20 54.00   -4.6X
                   e       22 24.00
                   e       28 00.00
PRY    121.72 206 ePKP    21 01.50   -0.4
        1.0s   20.00nm
CBM    121.73  50 PKP     21 10.00    8.9X
     Z  20s    35.12um              7.0Msz
BFT    121.74 209 ePKP    21 03.50    1.4
POF    121.98 198 e(PKP)21 10.00    7.9X
SLR    122.45 208 ePKP    21 02.50   -0.8
        0.9s   25.00nm
     Z  18s    78.60um              7.4Msz
KSR    122.90 206 ePKP    21 01.50   -2.7X
LMN    123.91  51 ePKP    21 07.00    1.6
SOB1   124.78 124 ePKP    21 04.40   -3.6X
CIR    125.04 214 ePKP    21 06.00   -2.3X
                   ipPKP   21 19.30
GDH    126.36  22 ePKP    21 04.00   -5.4X
                   e       23 13.00
BUL    127.20 211 iPKPd 21 10.60   -2.1X
        1.0s   20.50nm
     Z  18s    35.74um              7.1Msz
     N  17s    14.97um
     E  18s    15.12um
KBS    127.37 358 ePKP    21 12.50    1.4
MTD    128.58 216 iPKPd 21 14.20   -1.1
SVE    129.22 323 iPKPd 21 14.00   -1.2
        1.9s  100.00nm
     Z  23s    20.00um              6.7MszX
     N  23s     8.00um
     E  23s    13.00um
                   e       33 20.00
WIN    129.22 197 ePKP    21 08.00   -8.5X
        0.9s   46.00nm
     Z  18s    72.50um              7.4Msz
ARU    130.41 323 iPKPd 21 16.00   -1.5
        1.8s  300.00nm
     Z  21s    20.00um              6.8Msz
     N  22s     6.00um
     E  21s    15.00um
                   e       23 36.00
                   e       33 34.00
                   e       35 08.00
MAIO   131.12 296 ePKP    21 19.00   -0.6
                   i       24 46.00
ASH    132.16 298 ePKP    21 13.00   -8.4X
     Z  20s     7.43um              6.4Msz
     N  20s     9.26um
     E  20s     7.55um
                   e       21 25.00
                   e       23 41.00
                   i       26 39.00
                   e       28 31.00
                   ePS     33 53.00
KAT    133.83 300 iPKP+ 21 27.50    3.0X
     Z  20s     4.60um              6.2Msz
     N  20s     5.60um
     E  20s     4.20um
                   i       21 33.00
KEV    134.48 348 ePKP    21 26.00    1.2
     Z  22s     9.30um              6.5Msz
                   e       41 52.00
                   LR      19 00.00
APA    134.92 344 ePKP    21 25.60   -0.1
SDF    136.60 347 iPKP    21 26.50   -2.4X
NAI    137.00 235 ePKP    21 34.00    2.4X
     Z  20s     4.33um              6.2Msz
                   iSKKKS37 34.00
                   iPPS    42 08.00
                   iSS     47 44.00
BAK    138.70 302 iPKP    21 40.00    6.4X
                   iPPP    24 25.00
SHE    139.64 302 iPKPd 21 40.00    4.7X
KAF    141.08 343 ePKP    21 32.20   -5.1X
        0.8s   17.30nm
GRO    141.41 307 iPKP    21 31.00   -7.4X
MOS    141.41 329 ePKP    21 37.00   -1.0
     Z  22s    12.20um              6.6Msz
GRS    141.51 301 ePKP    21 39.00    0.0
        1.6s   50.00nm
AAE    141.64 250 ePKP    21 36.00   -4.1X
PUL    141.70 338 (PKP)   21 37.00   -1.4
     Z  20s    11.00um              6.6Msz
     N  20s     6.00um
```

```
                   e       24 44.00
OBN    142.25 328 iPKP    21 41.00    1.4
     Z  22s     2.70um              6.0Msz
     N  22s     8.40um
     E  22s     8.60um
                   i       22 05.00
                   i       22 18.00
                   e       22 36.50
                   i       24 09.00
                   ePP     24 44.00
                   eSKP    24 58.00
                   e       25 24.00
                   e       26 15.00
                   ePPP    27 37.00
                   e       34 40.00
                   e       35 48.00
                   iPS     37 20.00
                   iSS     43 20.00
                   i       44 38.00
                   eSSS    47 52.00
                   i       49 12.00
                   LQ      08 00.00
                   LR      12 28.00
MTA    142.36 305 ePKP    21 37.00   -3.2X
                   i       21 44.40
ERE    142.82 302 iPKP+ 21 39.00   -2.2X
                   i       24 47.00
NUR    142.86 342 ePKP    21 39.00   -1.4
        0.5s   12.70nm
PYA    143.11 309 ePKP    21 37.00   -4.4X
                   i       24 52.00
                   ePPS    37 18.00
KIV    143.38 309 iPKPc 21 40.80   -1.2
        1.6s   99.00nm
                   e       24 49.10
                   e       28 06.90
FOO    144.91 358 ePKP    21 41.98   -1.9
NB2    145.02 353 PKP     21 39.80   -4.4X
UPP    145.12 347 iPKP    21 39.90   -4.4X
                   i       21 44.90
SOC    145.56 309 iPKP    21 48.00    2.4X
        4.5s  300.00nm
     Z  20s     9.00um              6.5Msz
     N  20s     1.50um
HFS    145.56 350 ePKP    21 42.50   -2.6X
        0.4s   13.40nm
     Z  20s  7793.00um              9.5MszX
                   LR      09 51.00
BER    146.11 358 ePKP    21 47.70    1.8
KONO   146.55 354 (PKP)   21 47.92    1.2
ANN    146.76 312 iPKP    21 50.00    2.5X
        1.5s  200.00nm
     Z  21s     6.00um              6.4Msz
     N  22s     6.50um
     E  22s     6.00um
                   eSPP    37 42.00
MNK    147.03 333 iPKP    21 47.00   -0.6
     Z  22s    16.80um              6.8Msz
     N  22s     6.00um
                   e       25 08.00
                   e       28 24.00
                   eSS     44 10.00
                   eSSS    49 38.00
SIM    148.81 314 ePKP    21 54.00    3.2X
     Z  20s    11.00um              6.6Msz
KVT    148.90 306 iPKP    21 54.00    2.9X
GAZ    148.94 299 iPKP    21 54.20    3.0X
EDR    149.41   6 ePKP    21 55.30    4.0X
MUD    149.73 353 ePKP    21 55.00    3.3X
        1.5s  298.00nm
EDU    149.74   6 ePKP    21 55.50    3.7X
EAB    149.94   8 ePKP    21 55.90    3.8X
EBH    149.98   7 ePKP    21 56.00    3.8X
COP    150.02 349 iPKPc+21 55.50    3.3X
        1.2s  312.50nm
     Z  22s    12.22um              6.7Msz
BSD    150.08 346 iPKP    21 56.50    4.2X
        1.1s  180.00nm
ESY    150.40   6 ePKP    21 56.70    3.9X
        1.2s   81.00nm
KAS    150.43 308 ePKP    21 53.00   -0.5
EBL    150.50   7 ePKP    21 56.90    3.9X
        1.0s   59.00nm
HRI    150.62 291 ePKP    21 59.20    5.2X
SHMJ   150.64 290 PKP     21 57.50    3.5X
BHL    150.64 292 PKP     21 54.00    0.0
MASJ   150.72 288 PKP     22 00.00    5.8X
```

SALJ 150.74 289 PKP 22 00.00 5.8X
WAR 150.83 337 e(PKP)21 58.00 4.4X
e 22 20.00
e 25 35.00
EKA 150.92 7 PKP 21 59.00 5.4X
1.3s 62.30nm
KIS 150.92 322 iPKP 21 53.00 -0.9
i 21 59.00
e 25 38.00
e 28 56.00
LISJ 150.93 287 PKP 22 00.00 5.7X
MML 150.95 290 ePKP 22 00.00 5.5X
DHLJ 151.01 286 PKP 21 58.50 4.0X
LVV 151.51 330 ePKP 21 58.00 3.3X
e 29 01.00
ANTO 151.63 306 (PKP) 22 03.20 7.9X
RMN 151.67 286 ePKP 22 01.10 5.4X
DMU 151.76 12 ePKP 21 59.00 4.1X
PPE 152.09 321 ePKP 22 02.00 6.3X
DCN 152.22 13 ePKP 21 54.00 -1.6
PTT 152.32 324 iPKPc 21 55.00 -1.0
CFR 152.37 319 ePKP 22 02.00 6.0X
CSS 152.41 295 ePKP 22 03.00 6.5X
DLF 152.41 12 ePKP 22 00.00 4.2X
VRI 152.79 321 ePKP 22 03.00 6.3X
BRNL 152.91 346 ePKPc 21 59.60 3.0X
OJC 152.93 335 ePKP 21 56.40 -0.3
i 22 04.00
i 22 08.50
UZH 153.15 330 iPKP 21 56.00 -1.0
i 22 04.70
i 22 14.70
EYL 153.27 309 ePKP 21 50.00 -7.7X
BCAO 153.28 217 iPKPd 21 57.00 -1.3
1.0s 70.00nm
id 22 04.60
BMR 153.29 328 ePKPd 22 05.00 7.7X
ISR 153.33 320 ePKP 22 10.00 12.5X
MLR 153.46 321 ePKPd 21 56.00 -1.8
KSP 153.58 340 ePKP 21 57.00 -0.6
1.4s 165.00nm
i 22 05.00
SPC 153.58 334 iPKP 21 56.60 -1.3
i 22 07.20
HCG 153.81 9 ePKP 22 15.70 17.8X
ITU 153.84 310 ePKP 22 00.00 1.7
BUC 154.01 319 iPKPc 22 17.00 18.6X
CLL 154.03 345 iPKP 21 57.10 -1.1
1.6s 29.00nm
Z 20s 7.50um 6.5Msz
i 22 05.40
BUC1 154.09 319 ePKP 21 56.00 -2.5X
BRG 154.21 343 iPKP 21 58.00 -0.5
1.6s 140.00nm
Z 24s 11.50um 6.6MszX
N 24s 10.00um
E 24s 7.50um
i 22 07.20
TNR 154.27 323 ePKPc 22 11.00 12.2X
WTS 154.38 354 ePKP 21 58.00 -0.6
1.0s 47.40nm
DBN 154.40 356 ePKP 22 14.00 15.4X
Z 20s 9.00um 6.6Msz
e 27 40.00
e 33 48.00
e 47 35.00
HLW 154.52 284 e(PKP)22 02.00 2.5X
KHL 154.54 304 ePKP 21 59.00 -0.4
VRAC 154.82 338 PKP 21 58.20 -1.0
3.1s 2673.50nm
e 22 02.10
e 22 24.40
e 22 31.40
e 23 08.20
PRU 154.85 342 ePKP 21 58.50 -0.8
Z 22s 11.30um 6.6Msz
N 19s 8.00um
E 19s 6.50um
e 22 02.00
e 22 27.00
PP 25 31.00
eSKKS 33 26.00
SS 45 45.00
MOX 154.96 346 ePKP 21 58.90 -0.6
1.9s 33.00nm
Z 21s 11.00um 6.7Msz
BUD 155.43 333 ePKP 22 01.00 0.8

SRO 155.46 334 ePKP 22 02.00 1.8
i 22 29.70
ZST 155.60 336 ePKP 22 00.50 0.1
i 22 30.40
ENN 155.67 355 ePKP 22 03.00 2.6X
0.9s 35.10nm
e 26 10.00
UCC 155.74 357 PKP 22 02.00 1.5
VKA 155.81 337 (PKP) 22 03.00 2.3X
5.0s 1418.00nm
i 22 08.50
KHC 155.90 342 PKP 22 00.00 -0.9
2.0s 109.60nm
Z 20s 18.30um 6.9Msz
N 20s 8.10um
E 20s 13.50um
e 22 10.00
e 22 21.50
e 22 39.50
e 23 16.50
eSKKS 33 20.00
GRF 155.95 346 ePKP 21 59.90 -1.0
Z 21s 12.00um 6.7Msz
e 22 32.90
SNF 156.03 357 PKP 22 02.50 1.6
WET 156.07 343 ePKP 22 01.20 0.1
Z 19s 17.00um 6.9Msz
GEC2 156.12 342 PKP 21 59.00 -2.3X
1.1s 3.12nm
SOP 156.23 336 e(PKP)22 01.00 -0.3
DOU 156.43 357 PKPc 22 05.80 4.3X
Z 22s 13.10um 6.7Msz
e 25 11.00
PKKS 34 09.00
WLF 156.75 354 PKP 22 03.00 1.1
e 22 13.00
KBA 157.82 340 iPKPd 21 48.50 -15.1X
i 22 00.50
i 22 05.70
i 22 36.20
i 26 14.20
LDF 157.87 5 ePKP 22 02.20 -1.1
PTJ 157.95 335 ePKP 22 03.20 -0.4
ZAG 158.01 334 iPKP 22 06.00 2.5X
MBO 158.05 120 ePKP 22 03.90 -0.5
WTTA 158.13 343 iPKP 22 02.80 -1.1
i 22 39.50
i 26 11.80
SKO 158.20 320 ePKP 22 00.20 -3.7X
1.6s 434.00nm
Z 20s 11.60um 6.7Msz
i 22 11.00
i 22 38.80
i 22 40.00
i 23 43.00
SQTA 158.27 344 ePKP 21 59.00 -5.0X
LJU 158.35 337 ePKP 22 03.50 -0.5
LPF 158.35 7 ePKP 22 03.00 -0.8
HAU 158.37 353 ePKP 22 03.00 -0.9
Z 22s 15.95um 6.8Msz
BSF 158.49 352 ePKP 22 03.20 -1.0
1.6s 70.90nm
LIC 158.52 159 PKP 21 58.38 -6.7X
Z 20s 13.00um 6.8Msz
VBY 158.55 335 ePKP 22 05.50 1.3
VOY 158.58 338 ePKP 22 04.70 0.4
KIC 158.74 159 PKP 21 58.30 -7.0X
1.3s 43.50nm
e 22 39.20
PP 26 20.40
TRI 158.90 338 e(PKP)22 08.00 3.5X
e(PKKP22 48.00
e 27 28.00
e(SKSP36 24.00
e(SPP)40 00.00
e(SS) 46 28.00
e(SSS)52 52.00
eLR 20 04.00
TIC 158.91 158 PKP 21 58.92 -6.6X
OHR 159.11 319 iPKP 22 06.20 1.2
1.5s 370.00nm
i 22 40.30
CTI 159.25 342 PKP 22 04.50 -0.6
LOR 159.28 358 ePKP 22 04.40 -0.6
1.7s 76.45nm
Z 22s 24.00um 7.0Msz
HYF 159.31 0 ePKP 22 04.80 -0.2

SSF 159.50 358 ePKP 22 04.70 -0.5
1.6s 69.05nm
LBF 159.56 357 ePKP 22 04.60 -0.7
1.6s 64.05nm
AVF 159.78 359 ePKP 22 04.70 -0.8
1.4s 23.10nm
MFF 159.85 6 ePKP 22 05.00 -0.6
SMF 159.91 358 ePKP 22 04.90 -0.8
1.2s 22.30nm
BGF 160.02 360 ePKP 22 05.10 -0.7
1.7s 93.35nm
VAI 160.10 347 PKP 22 05.30 -0.5
TCF 160.28 1 ePKP 22 05.30 -0.8
1.6s 58.45nm
LSF 160.30 2 ePKP 22 05.20 -0.9
MAF 160.35 0 ePKP 22 05.60 -0.5
LPL 160.78 351 PKP 22 06.60 -0.3
LPG 160.79 351 ePKP 22 07.00 0.0
BNI 161.24 351 PKP 22 07.50 0.3
RJF 161.25 2 ePKP 22 06.70 -0.3
1.5s 43.35nm
Z 22s 24.00um 5.1Msz
FIR 161.43 340 ePKP 22 15.00 7.8X
LFF 161.57 4 ePKP 22 07.30 0.0
CAF 161.64 1 ePKP 22 07.50 0.0
EPF 163.44 6 ePKP 22 09.50 0.1
1.6s 54.75nm
EBR 165.64 7 ePKP 22 14.00 2.7X
PAB 165.77 23 (PKP) 22 11.74 0.1
ePKPab23 10.18
MAL 168.20 29 ePKP 22 12.00 -1.3
iPP 27 17.00
TIO 170.27 61 iPKP 22 13.00 -2.0
IFR 170.32 42 ePKP 22 08.00 -7.0X
S.D. = 1.2 on 274 of 406 obs.

MAR 06, 1993 10h 59m 13.49± 1.67s
13.212 S ±10.1km 175.084 E ± 5.4km
DEPTH = 36.5 ± 15.0 km
5.3mb (19 obs.)
FIJI ISLANDS REGION (181)

MBU 5.13 137 eP 00 29.00 -1.0
VUN 5.77 146 iPd 00 38.70 -0.3
SVA 5.86 147 eP 00 40.30 0.0
BKM 7.94 235 iPc 01 02.90 -6.6X
DZM 12.05 222 iPc 02 05.90 0.0
HNR 15.31 283 eP 02 50.00 1.3
BRS 25.17 233 iPc 04 38.00 0.7
ARMA 27.61 228 eP 05 02.00 2.3
RMQ 27.99 238 eP 05 02.00 -1.2
1.0s 25.00nm 4.9mb
CTA 28.43 252 P 05 09.10 2.0
CNB 31.98 222 eP 05 38.30 -0.3
1.1s 64.00nm 5.4mb
BWA 32.09 224 eP 05 38.60 -0.9
CAN 32.22 222 eP 05 41.50 0.8
PPT 34.31 102 iPc 06 00.20 1.3
1.4s 400.80nm 6.2mb
TVO 34.63 102 iPc 06 03.10 1.4
1.6s 440.30nm 6.1mb
TOO 35.83 222 eP 06 11.70 0.0
1.0s 75.00nm 5.6mb
PMO 35.92 97 iPc 06 12.90 0.3
1.5s 259.10nm 5.9mb
VAH 36.17 98 iPc 06 14.80 0.1
1.7s 300.00nm 5.9mb
TPT 36.19 97 iPc 06 15.10 0.2
1.5s 171.30nm 5.7mb
BFD 37.59 225 eP 06 26.40 0.0
1.2s 48.00nm 5.2mb
WB2 39.53 255 eP 06 40.00 -2.9
1.2s 13.50nm 4.6mb
ASPA 40.30 249 eP 06 47.00 -2.2
1.4s 54.20nm 5.1mb
MAT 60.48 326 (P) 09 17.00 -5.2X
1.4s 23.26nm 5.1mb
BJI 76.08 317 eP 10 59.50 0.3
PMS 79.32 17 eP 11 17.40 0.6
1.9s 90.70nm 5.4mb
PMR 79.73 17 eP 11 17.53 -1.3
1.3s 18.62nm 4.9mb
BONR 80.42 47 eP 11 23.62 0.1
GSC 80.43 50 eP 11 23.54 0.2
CHTO 81.48 292 eP 11 29.90 0.9
IMA 82.40 12 eP 11 32.66 -0.3
2.0s 38.88nm 5.1mb

06d 11h

RMW 82.41 38 eP 11 32.94 -0.4
FBA 82.77 15 eP 11 33.39 -1.4
1.3s 22.83nm 5.1mb
LZH 83.08 309 eP 11 38.50 1.3
1.5s 40.00nm 5.3mb
pP 11 45.00 21kmX
TUC 83.99 55 eP 11 42.52 0.7
1.4s 21.77nm 5.1mb
PV09 87.31 50 ePc 11 58.70 0.3
PV10 87.34 50 eP 11 58.38 -0.1
PV08 87.70 50 eP 12 00.63 0.3
SES 90.08 38 ePc 12 10.90 0.0
YKA 92.80 26 eP 12 21.40 -1.7
1.3s 2.30nm 4.4mb
MRA 106.31 130 ePKPc 17 41.20 4.9X
LPF 145.14 355 ePKP 18 47.30 -1.5
0.8s 10.35nm
LOR 145.26 349 ePKP 18 47.80 -1.3
HYF 145.46 351 ePKP 18 48.80 -0.6
LBF 145.52 349 ePKP 18 48.50 -1.1
1.4s 30.50nm
SSF 145.52 350 ePKP 18 48.70 -0.8
1.7s 75.00nm
AVF 145.81 350 ePKP 18 49.40 -0.6
1.3s 19.15nm
SMF 145.87 349 ePKP 18 49.60 -0.5
1.7s 56.60nm
BGF 146.12 350 ePKP 18 50.60 0.0
LPL 146.32 345 ePKP 18 52.10 0.9
LPG 146.33 345 ePKP 18 52.20 0.9
MFF 146.48 354 ePKP 18 51.50 0.4
TCF 146.49 351 ePKP 18 51.60 0.4
MAF 146.50 351 ePKP 18 52.00 0.8
1.8s 48.35nm
LSF 146.62 352 ePKP 18 51.90 0.5
RJF 147.55 352 ePKP 18 54.70 1.8
1.7s 65.45nm
S.D. = 1.1 on 52 of 55 obs.

MAR 06, 1993 11h 30m 34.90± 0.44s
12.586 N ± 3.8km 87.563 W ± 3.1km
DEPTH = 74.2 ± 4.0 km
5.4mb (66 obs.)
NEAR COAST OF NICARAGUA (74)
MD 5.2 (UPA), 4.7 (APY). Felt (VI) at Corinto; (V) at Chinondega and Leon; (IV) at Managua and (III) at Granada. Felt (V) at La Union and San Miguel; (III) at San Salvador, El Salvador.

PYN 0.57 111 ePd 30 48.64 -0.2
PYT 1.46 92 iPd 31 01.47 1.5
LFU 1.90 308 iPd 31 04.00 -2.0
SSN 2.10 127 ePd 31 07.66 -1.0
TME 2.25 309 eP 31 08.40 -2.3
YPE 2.57 307 iPd 31 13.10 -2.1
CUSS 2.67 300 eP 31 14.00 -2.6
YUP 2.71 307 iPd 31 15.18 -2.0
MRL 3.22 320 iPd 31 23.62 -0.7
IXG 3.23 300 iP 31 21.65 -2.8
PCG 3.46 302 eP 31 26.88 -1.0
TER 3.48 300 eP 31 25.75 -2.1
GCG 3.51 305 ePd 31 27.14 -1.2
eS 31 50.41
TPX 5.11 297 iP 31 49.00 -1.7
iS 32 29.70
BRU 6.19 127 iPc 32 07.90 1.8
eS 33 16.58
SCX 6.41 311 iP 32 09.50 0.8
(S) 33 27.50
ECO 8.36 112 ePc 32 36.06 0.3
UPA 8.66 114 iPc+ 32 41.90 2.1
SPJ 11.05 60 iPd 33 16.68 4.4X
PCJ 11.27 62 iPd 33 19.46 4.3X
IISM 11.39 305 eP 33 14.80 -2.0
STH 11.72 61 iPd 33 26.24 5.1X
IIT 12.16 303 (P) 33 32.00 4.7X
PPM 12.44 303 iPc 33 31.50 0.2
IIA 12.51 303 (P) 33 32.32 0.7
ACX 12.63 291 iP 33 32.30 -1.0
III 12.83 298 eP 33 35.00 -1.2
UNM 13.03 302 iP 33 39.30 0.5
CRX 13.47 302 iP 33 46.80 2.1
MRX 14.88 300 iP 34 04.00 1.4
CGX 16.82 297 iP 34 29.70 2.3
AGX 16.83 305 iP 34 30.00 2.8
TOV 17.65 97 ePc 34 39.50 1.9
iPP 34 41.20
GUAC 20.03 95 iPc 35 05.60 0.9
iS 35 10.90
LLAV 20.44 94 iPc 35 05.60 -3.3X
iS 35 10.70
OLLA 20.51 95 iPc 35 09.60 0.0
iS 35 16.10
PORP 20.89 72 P 35 15.50 2.2
APR 20.90 71 (P) 35 16.00 2.7
CLLP 20.96 72 P 35 16.00 2.1
HBF 21.29 17 eP 35 21.05 3.8X
SJG 21.36 72 i(P) 35 21.00 3.0X
SGS 21.50 16 ePc 35 22.67 3.4X
CPD 21.56 73 P 35 21.50 1.4
GUAN 21.65 95 iPd 35 21.60 0.5
PRM 21.92 12 ePc 35 26.53 3.1X
JSC 22.34 14 iPc 35 31.19 3.6X
MIAR 22.53 347 eP 35 31.37 1.9
0.6s 517.44nm 6.1mb
LHS 22.64 15 ePc 35 34.03 3.5X
OLY 23.09 352 iPc 35 36.27 1.4
TKL 23.22 8 iPc 35 39.60 3.4X
GRT 23.64 356 ePd 35 41.54 1.4
e 35 56.63
MEO 24.26 337 iPd 35 46.80 0.5
FNO 24.27 340 iPd 35 47.10 0.8
WMOK 24.29 337 P 35 46.89 0.3
0.7s 354.83nm 5.9mb
CEH 24.43 17 ePc 35 50.57 2.7
0.6s 387.43nm 6.0mb
e 36 05.72
ELC 24.64 357 iPc 35 50.63 0.8
RRO 24.78 339 iPc 35 52.50 1.3
MGH 24.86 77 eP 35 53.84 1.7
BPA 25.23 77 eP 35 55.44 -0.2
PAG 25.31 79 eP 35 55.00 -1.4
BLA 25.34 13 iPc 35 59.18 2.6
0.8s 153.20nm 5.5mb
e 36 14.48
NAV 25.36 13 ePc 35 58.94 2.2
e 36 13.76
FVM 25.42 355 iPc 35 57.15 -0.1
0.6s 126.67nm 5.6mb
PCO 25.45 342 e(P) 35 58.40 0.9
SVB 25.65 86 eP 36 01.39 1.8
TRN 25.69 92 eP 35 59.00 -0.9
SLB 25.85 84 eP 36 00.65 -0.8
SLB 25.85 84 eP 36 02.29 0.9
ACO 26.17 339 iPd 36 03.90 -0.3
CVL 26.56 16 ePc 36 09.75 2.0
e 36 24.31
MCWV 27.81 13 eP 36 20.79 1.7
0.6s 293.10nm 6.1mb
ALQ 28.08 326 ePc 36 22.05 0.3
0.6s 35.20nm 5.2mb
ePcP 39 36.14
TUC 28.97 316 ePc 36 29.52 -0.1
1.3s 112.64nm 5.3mb
GMTN 30.53 20 iP 36 45.80 2.5
GPD 30.56 20 iPc 36 45.38 1.8
DLA 30.61 9 P 36 43.90 0.0
PAL 30.74 20 ePc 36 46.31 1.2
TBR 30.75 20 iPc 36 46.84 1.6
LDN 30.84 9 P 36 45.90 -0.1
ELF 30.97 9 P 36 46.90 -0.3
TYNO 31.12 11 P 36 49.14 0.7
CRNY 31.13 21 iPc 36 50.14 1.6
GLD 31.23 333 ePc 36 50.21 0.5
1.0s 87.72nm 5.5mb
STCO 31.36 12 P 36 51.31 0.7
ACTO 31.58 10 P 36 53.21 0.7
PV08 31.96 328 iPc 36 56.90 0.6
ePcP 39 45.76
PV10 32.01 327 iPc 36 56.59 -0.1
iPcP 39 45.31
PV09 32.15 327 iPc 36 58.37 0.4
WLVO 32.21 12 P 36 58.81 0.9
ARE 32.95 151 eP 37 07.00 2.0
SRU 33.34 326 ePc 37 08.80 0.6
RSNY 33.75 17 eP 37 12.37 1.0
0.9s 134.72nm 5.9mb
epP 37 27.68 62kmX
PLM 33.79 313 eP 37 12.55 0.5
MSU 33.84 324 eP 37 13.41 0.9
EMUT 34.01 327 eP 37 14.76 0.8
ARUT 34.10 322 ePc 37 15.61 0.9
PEC 34.28 313 ePc 37 16.51 0.4
0.9s 45.29nm 5.4mb
iPcP 39 51.85
RSSD 34.46 339 iPd 37 18.45 0.7
0.6s 191.28nm 6.2mb
Z 20s 2.65um 5.0Msz
ZOBO 34.53 146 iPc 37 19.20 0.2
1.1s 26.10nm 5.1mb
S 39 53.00
DAU 34.67 327 iPc 37 20.65 0.9
e 37 34.32
EEO 34.69 10 eP 37 23.00 3.6X
LPB 34.75 146 P 37 21.50 0.8
S 37 54.00
GSC 34.78 316 ePc 37 21.00 0.5
BNH 34.82 21 eP 37 21.95 1.4
SSK 34.82 313 iPc 37 21.43 0.5
CNCB 35.04 146 iPc 37 24.00 0.7
S 39 55.70
TPNV 35.34 318 ePc 37 26.43 1.1
0.8s 51.85nm 5.5mb
ePP 38 38.59
ePcP 39 55.45
eScP 43 38.89
DUG 35.36 326 ePd 37 26.06 0.7
0.7s 92.92nm 5.8mb
8W06 35.61 332 iPc 37 26.76 -0.8
0.6s 102.47nm 5.9mb
ISA 36.12 315 ePc 37 32.49 0.7
0.8s 19.81nm 5.1mb
iPcP 39 57.96
MIM 36.17 22 ePc 37 33.64 1.7
e 37 49.46
HVU 36.45 328 iPc 37 35.19 0.6
CCH 36.53 144 eP 37 37.00 1.4
(S) 40 01.00
TNP 36.63 319 iPc 37 36.82 0.6
0.7s 30.68nm 5.3mb
ePcP 39 58.74
BCH 37.01 313 eP 37 39.68 0.4
iPcP 40 00.73
MTUM 37.09 317 ePc 37 40.89 0.8
iPcP 40 00.80
MRCM 37.23 318 eP 37 42.46 1.2
iPcP 40 01.56
BONR 37.26 318 iPc 37 43.00 1.4
HNME 37.34 23 eP 37 48.31 6.5X
PKEM 37.47 314 eP 37 43.99 1.0
MEMM 37.52 317 eP 37 44.98 1.7
iPcP 40 03.01
PHAM 37.56 314 eP 37 44.35 0.6
ePcP 40 01.82
KVN 37.76 320 ePc 37 46.52 0.9
iPcP 40 02.47
TPMT 38.09 332 ePc 37 50.40 2.0
e 40 04.90
ULM 38.17 351 ePd 37 50.30 1.6
LMN 38.36 26 iPc 37 54.90 4.5X
pP 38 11.00 64kmX
MEMT 38.45 333 iPc 37 52.90 1.5
BGMT 38.64 332 iPc 37 54.60 1.6
e 40 05.00
CMB 38.68 317 iPc 37 53.22 0.1
0.8s 27.73nm 5.2mb
iPcP 40 05.53
MCMT 38.71 331 iPc 37 55.60 2.0
SXM 38.98 334 ePc 37 57.70 1.9
LCCM 39.03 333 iPc 37 57.40 1.2
e 40 06.30
ARN 39.10 315 eP 37 56.46 -0.2
iPcP 40 06.86
COE 39.15 315 eP 37 57.59 0.5
iPcP 40 06.84
LRM 39.28 332 ePc 37 59.30 1.0
HBMT 39.33 332 iPc 37 59.30 0.6
BUT 39.47 332 iPc 38 00.80 1.0
HRY 39.69 334 iPc 38 02.40 0.9
HMR 39.69 316 eP 38 03.29 1.8
iPcP 40 09.46
ANT 39.78 155 eP 38 02.50 0.2
ORV 40.22 318 ePc 38 06.78 0.9
ePcP 40 09.65
NTYM 40.40 316 eP 38 08.18 0.9
iPcP 40 10.85
LMEM 40.80 319 eP 38 11.28 0.5
ePcP 40 12.98

NCM 41.26 332 iPc 38 14.80 0.4
WDC 41.45 319 ePc 38 13.93 -1.9
0.7s 30.35nm 5.2mb
iPcP 40 13.40
HJA 41.67 149 ePc 38 20.30 2.5
LGPM 41.81 319 eP 38 17.33 -1.7
iPcP 40 15.14
JAQ 42.18 10 ePc 38 21.00 -0.7
SES 42.31 338 iPc 38 23.50 0.6
0.7s 292.00nm 6.2mb
pP 38 31.00 25kmX
KMPM 42.39 318 ePc 38 24.51 0.8
iPcP 40 17.74
FHC 42.50 318 ePc 38 25.25 0.7
0.7s 340.89nm 6.3mb
ePcP 40 17.80
SLA 42.89 150 ePc 38 29.70 1.7
NEW 43.24 331 ePd 38 30.26 -0.2
0.7s 249.36nm 6.1mb
VGB 43.26 326 ePc 38 30.62 -0.1
DPW 43.48 330 iPc 38 32.55 0.1
ePcP 40 19.45
FSA 43.79 151 iPc 38 36.50 1.5
SHW 44.48 326 ePc 38 40.65 0.0
e 40 25.07
LON 44.59 327 iPc 38 41.39 -0.1
i 40 23.11
RMW 45.03 327 iPc 38 44.40 -0.6
BMW 45.20 325 iPc 38 46.13 -0.2
iPcP 40 25.85
GMW 45.61 327 iPc 38 48.68 -0.8
ePcP 40 26.55
MCW 46.34 328 iPc 38 55.04 -0.2
ePcP 40 29.34
FCC 46.35 355 ePd 38 57.30 2.3
PGC 46.64 328 ePc 38 57.50 0.0
0.8s 108.00nm 5.8mb
RTCV 47.81 158 e(P) 39 08.00 1.0
BAO 48.16 125 eP 39 07.60 -2.4
e 39 10.00
e 39 14.20
e 39 26.90
e 39 43.00
e 40 36.60
e 44 23.20
PEL 48.24 161 iP+ 39 10.80 0.5
1.5s 277.78nm 6.0mb
MDZ 48.62 159 i(P) 39 14.70 1.5
MRA 49.39 155 ePc 39 19.30 0.3
PPD 49.48 134 eP 39 19.00 -0.9
e 40 35.00
SOB1 51.17 113 eP 39 29.00 -4.0X
CACB 52.59 130 eP 39 42.40 -1.3
e 39 43.90
e 40 19.50
e 40 54.20
VAO 53.20 132 eP 39 46.10 -2.0
e 39 47.80
e 40 56.40
YKA 53.45 345 eP 39 48.20 -1.1
0.8s 77.20nm 5.8mb
GDH 60.62 13 eP 40 38.00 -1.9
e 42 55.00
RES 62.22 358 ePc 40 50.40 -0.2
0.8s 23.00nm 5.3mb
pP 41 12.00 85kmX
BALM 62.41 333 iPd 40 51.61 -0.6
epP 41 06.34 54kmX
ePcP 41 30.04
KLU 64.17 333 eP 41 02.56 -1.2
epP 41 18.01 56kmX
iPcP 41 37.42
RUV 65.32 247 iPc 41 11.30 -0.4
1.4s 582.00nm 6.3mb
TPT 65.46 247 iPc 41 12.50 -0.1
1.4s 350.30nm 6.1mb
VAH 65.56 247 iPc 41 12.90 -0.3
1.4s 477.50nm 6.2mb
MHA 65.62 287 eP 41 14.23 0.6
epP 41 31.84 66kmX
PMR 65.64 333 iPd 41 11.81 -1.2
0.7s 41.44nm 5.5mb
Z 21s 2.98um 5.5Msz
PMO 65.72 247 iPc 41 14.10 -0.1
1.7s 682.30nm 6.3mb
SLKM 65.79 331 iPc 41 13.00 -1.1
epP 41 28.29 55kmX
HKL 65.91 287 eP 41 15.34 -0.6
epP 41 33.33 67kmX
ePcP 41 42.13
KDC 66.14 328 ePc 41 15.40 -0.8
0.7s 29.45nm 5.3mb
epP 41 29.87 52kmX
FBA 66.26 336 iPc 41 15.69 -1.3
0.8s 37.44nm 5.4mb
epP 41 30.93 55kmX
CRP 66.92 332 iPc 41 19.97 -1.5
CP2 66.96 332 iPc 41 20.63 -1.2
RSO 66.98 331 ePc 41 20.63 -1.3
DHH 67.30 288 eP 41 20.96 -3.4X
TVO 67.95 245 iPc 41 28.20 -0.3
PPN 68.01 245 iPc 41 28.40 -0.4
1.4s 327.60nm 6.1mb
PAE 68.19 245 iPc 41 29.70 -0.2
1.2s 279.70nm 6.1mb
AFR 68.32 245 iPc 41 30.40 -0.3
SVW 68.50 331 iPc 41 29.49 -1.7
0.6s 39.67nm 5.5mb
IMA 68.97 336 iPc 41 32.39 -1.7
0.8s 8.91nm 4.7mb
SDN 70.04 324 eP 41 39.86 -0.7
0.8s 93.39nm 5.8mb
BRW 71.53 341 eP 41 48.40 -1.0
epP 42 04.26 57kmX
i 44 30.01
VAL 72.38 39 eP 42 11.00 16.3X
DCN 74.21 38 eP 42 03.40 -2.0
DMU 74.43 37 eP 42 04.70 -2.0
DLF 74.66 38 eP 42 05.70 -2.3
AVE 75.04 59 iP 42 09.50 -1.1
i 42 31.00
TIO 75.40 61 eP 42 15.00 2.1
WIM 75.75 37 eP 42 30.50 16.3X
YRC 75.84 38 eP 42 33.90 19.2X
EAB 75.88 35 eP 42 30.70 15.8X
ELO 76.22 35 eP 42 31.70 14.9X
1.3s 24.00nm
EBH 76.34 35 eP 42 33.60 16.1X
1.2s 38.00nm
EDI 76.54 35 eP 42 34.40 15.9X
ESK 76.55 36 ePc 42 34.00 15.3X
1.0s 80.00nm
EKA 76.58 36 Pd 42 17.00 -1.8
0.9s 13.60nm 4.9mb
EDU 76.61 35 eP 42 35.20 16.3X
1.2s 89.00nm
ESY 76.86 35 eP 42 36.00 15.6X
IFR 76.92 58 eP 42 05.00 -16.4X
GUD 76.95 51 eP 42 41.20 19.8X
ECOG 77.76 54 eP 42 44.17 18.3X
ECRI 77.98 49 eP 42 44.74 17.8X
EVIA 78.44 53 eP 42 47.99 18.4X
LPF 78.45 43 eP 42 27.40 -1.8
1.0s 15.00nm 4.9mb
EHUE 78.46 54 eP 42 48.10 18.4X
ETOR 78.52 51 eP 42 48.14 18.2X
GRR 78.53 43 eP 42 28.00 -1.7
0.8s 17.05nm 5.0mb
ELIZ 78.64 48 eP 42 48.70 18.2X
FLN 78.74 42 eP 42 29.20 -1.6
0.8s 16.10nm 5.0mb
ENIJ 78.87 54 eP 42 51.69 19.8X
LDF 79.00 43 eP 42 30.50 -1.8
0.9s 16.70nm 5.0mb
MFF 79.21 45 eP 42 31.70 -1.8
0.6s 7.20nm 4.8mb
ECHE 79.50 52 eP 42 53.42 18.2X
ADK 79.68 321 iPc 42 35.57 -0.2
0.6s 125.62nm 6.0mb
EPF 80.01 48 eP 42 36.60 -1.3
LFF 80.04 46 eP 42 36.40 -1.5
0.7s 10.05nm 4.9mb
ACU 80.08 53 eP 42 56.32 18.0X
EROQ 80.37 50 eP 42 58.27 18.5X
LPO 80.39 46 eP 42 38.30 -1.5
1.0s 15.00nm 4.9mb
LSF 80.41 45 eP 42 37.80 -2.1
RJF 80.53 46 eP 42 38.80 -1.8
TCF 80.87 45 eP 42 40.30 -2.0
CAF 80.97 46 eP 42 41.10 -1.8
HYF 81.01 44 eP 42 41.20 -1.8
MAF 81.12 45 eP 42 41.80 -1.9
0.9s 7.35nm 4.6mb
BGF 81.26 44 eP 42 42.30 -2.1
TIC 81.33 85 P 42 43.28 -2.0
0.7s 6.50nm 4.7mb
LIC 81.41 86 P 42 43.64 -2.1
AVF 81.57 44 eP 42 43.70 -2.2
SNF 81.57 40 P 43 02.60 16.8X
UCC 81.57 40 P 43 06.00 20.2X
SSF 81.63 44 eP 42 44.00 -2.2
0.8s 5.65nm 4.6mb
KIC 81.66 85 P 42 45.10 -1.9
LOR 81.83 43 eP 42 45.30 -2.0
0.7s 4.30nm 4.5mb
DOU 81.84 41 Pc 43 04.00 16.8X
1.0s 102.80nm
e 46 09.50
SMF 81.93 44 eP 42 45.50 -2.3
0.8s 5.65nm 4.6mb
LBF 81.96 44 eP 42 45.60 -2.4
ESEL 82.42 51 eP 43 08.53 18.0X
ENN 82.56 40 eP 42 49.00 -1.9
1.0s 90.00nm 5.7mb
i 43 08.00
WIT 82.63 38 eP 42 51.50 0.3
e 53 09.50
WTS 82.87 38 eP 42 51.50 -1.0
1.0s 151.30nm 5.9mb
i 43 10.00
e 43 38.00
e 46 11.00
WLF 82.91 41 iPd 43 10.02 17.3X
VITF 83.08 42 P 43 10.50 16.8X
NB2 83.30 29 P 42 54.00 -0.7
0.7s 8.10nm 4.8mb
HAU 83.36 42 eP 42 53.30 -1.9
0.9s 9.00nm 4.7mb
BSF 83.68 43 eP 42 54.90 -2.1
LOMF 83.80 43 P 43 13.90 16.4X
ECH 83.85 42 P 43 14.16 16.5X
CDF 83.88 42 eP 42 56.10 -1.8
0.8s 4.55nm 4.5mb
CDF 83.88 42 P 43 14.16 16.2X
MOF 83.90 42 P 43 14.16 16.1X
WLS 83.93 42 P 43 14.58 16.4X
LANF 84.11 41 P 43 15.95 17.0X
LPL 84.11 45 eP 42 58.20 -1.1
LPG 84.13 45 eP 42 58.50 -1.0
EMS 84.14 44 eP 42 58.30 -1.1
HOFF 84.22 41 P 43 16.50 17.1X
BBS 84.23 43 P 43 16.18 16.5X
TNS 84.25 40 ePd 43 16.60 16.9X
e 43 20.30
RRL 84.27 45 P 43 17.81 17.7X
LSD 84.42 45 P 43 18.78 17.9X
FRF 84.46 47 eP 42 59.20 -1.6
RSP 84.55 45 P 43 19.28 17.9X
PZZ 84.58 46 P 43 17.72 16.1X
BHB 84.62 45 P 43 18.96 17.3X
HFS 84.72 30 eP 42 59.90 -1.8
0.5s 4.40nm 4.7mb
STV 84.79 46 P 43 19.54 17.0X
SLE 84.82 42 ePd 43 01.20 -1.3
MMK 84.84 44 ePc 43 02.50 -0.5
ENR 84.86 46 P 43 19.98 17.0X
ORX 84.95 45 P 43 20.84 17.5X
ROB 85.16 46 P 43 21.59 17.2X
IMI 85.26 46 P 43 22.03 17.1X
COP 85.27 34 eP 43 07.00 2.5
i 43 26.00
FIN 85.42 46 P 43 22.53 16.9X
TMA 85.45 44 eP 43 04.80 -1.1
PCP 85.58 45 P 43 23.54 17.1X
GRF 86.11 40 iPc 43 08.10 -0.8
1.0s 15.00nm 5.0mb
e 43 26.60
e 43 30.30
MOX 86.11 39 eP 43 07.50 -1.4
1.4s 18.00nm 4.9mb
OSS 86.16 43 ePd 43 08.50 -1.0
PGF 86.36 47 eP 43 08.60 -1.8
FUR 86.54 42 iPc 43 28.90 17.8X
UPP 86.69 29 iP 43 12.00 0.6
CLL 86.78 38 iPc 43 10.80 -1.3
1.2s 16.00nm 5.0mb
WET 87.30 40 eP 43 14.00 -0.7
SDF 87.33 21 iP 43 13.40 -1.1
BRG 87.47 38 eP 43 14.00 -1.5
1.4s 60.00nm 5.5mb
e 43 32.00

06d 11h

KHC 87.75 40 Pc 43 16.00 -0.9
1.0s 26.80nm 5.3mb
e 43 34.50
e 44 01.00
e 44 24.50
e 46 49.00
GEC2 87.90 40 PKP 43 16.30 -1.4
0.7s 3.46nm 4.6mb
PRU 88.10 39 eP 43 20.30 1.8
e 43 39.50
KBA 88.18 42 iPd 43 18.00 -1.2
1.4s 61.30nm 5.6mb
i 43 39.80
i 46 49.90
VOY 88.84 43 eP 43 25.90 3.6X
e 43 41.50
KSP 88.90 38 eP 43 21.40 -0.9
e 43 39.80
e 46 57.40
LJU 89.26 43 eP 43 23.00 -1.2
e 43 41.50
CEY 89.28 43 eP 43 25.50 1.2
e 43 45.50
VRAC 89.58 39 P 43 40.60 15.1X
1.7s 142.50nm
e 43 46.50
PTJ 90.25 43 eP 43 22.60 -6.3X
ZST 90.26 40 e(P) 43 27.60 -1.1
i 43 46.30
e 46 09.80
e 46 55.70
SRO 91.15 40 eP 43 48.30 15.5X
i 43 54.60
MLR 96.89 41 eP 44 03.00 3.6X
e 47 31.00
MAT 114.84 321 ePKP 49 09.00 -0.1
FRS 115.92 117 iPKPc 49 11.20 -0.1
0.5s 37.00nm
CN2 116.32 334 ePKP 49 11.00 -0.7
BLF 116.67 116 iPKPc 49 13.20 0.2
0.5s 25.00nm
GRM 116.91 121 ePKP 49 00.30 -12.9X
0.5s 46.00nm
KSR 117.27 113 iPKPd 49 13.50 -0.8
1.0s 30.00nm
PRY 117.80 114 ePKP 49 15.50 0.3
0.5s 13.00nm
SLR 118.51 113 iPKPd 49 16.30 -0.3
1.3s 50.00nm
BUL 118.60 106 iPKPc 49 27.00 10.1X
1.0s 20.00nm
BFT 120.10 112 ePKP 49 21.00 1.3
MTD 121.17 102 iPKPd 49 22.00 0.2
CIR 121.42 107 iPKPd 49 21.90 -0.2
BRS 121.92 246 iPKP 49 24.00 1.1
ARMA 122.75 242 ePKP 49 26.20 1.7
1.0s 14.00nm
BJI 123.19 338 ePKP 49 24.50 -0.3
Z 24s 3.50um 5.9MszX
N 20s 2.44um
WMQ 123.70 4 PKP 49 25.60 -0.3
Z 20s 2.94um 5.9Msz
N 18s 2.61um
sPKP 49 44.10
HHC 123.96 343 iPKPd 49 27.60 1.0
Z 32s 4.92um 6.0MszX
N 18s 2.72um
E 17s 1.49um
CNB 124.08 236 ePKP 49 28.00 1.1
CAN 124.37 236 ePKP 49 28.40 1.0
BWA 124.98 237 ePKP 49 28.90 0.3
RMQ 125.54 246 iPKPc 49 31.40 1.5
0.6s 37.00nm
TIA 126.16 335 PKPd 49 31.30 0.5
TIY 126.56 340 PKPd 49 31.70 0.1
Z 28s 5.65um 6.1MszX
N 20s 3.63um
TOO 126.71 232 iPKPc 49 32.90 1.0
0.8s 70.00nm
GTA 127.82 353 ePKP 49 33.50 -0.6
CTA 128.00 254 iPKPc 49 36.00 1.2
1.0s 22.50nm
SSE 128.53 328 PKPd 49 37.50 2.1X
NJ2 128.91 331 PKPc 49 36.00 -0.1
BFD 129.08 232 iPKPc 49 37.20 0.9
1.0s 28.00nm
LZH 130.41 348 ePKP 49 39.50 0.4
XAN 131.05 342 PKP 49 40.00 -0.3
WHN 132.22 334 PKPc 49 43.00 0.5
CD2 135.41 346 iPKPd 49 49.10 0.5
NDI 136.41 20 iPKP 49 50.00 -0.5
VTY 136.42 104 iPKPc 49 53.10 2.1X
AVY 136.60 104 iPKPc 49 53.10 1.7X
CVP 138.20 315 ePKP 49 45.00 -9.2X
GYA 138.80 340 PKP 49 55.40 0.2
GKN 138.95 11 PKP 49 49.00 -6.5X
GUN 139.25 9 PKP 49 47.40 -8.9X
KKN 139.27 10 PKP 49 48.00 -8.1X
DMN 139.42 10 PKP 49 51.20 -5.3X
PKI 139.51 10 PKP 49 48.80 -7.9X
KMI 141.20 345 ePKP 49 56.00 -3.7X
CGP 141.73 302 iPKPc 49 57.00 -3.6X
MTN 142.28 265 ePKP 49 57.00 -4.5X
FORT 142.49 235 ePKP 49 58.00 -3.5X
0.7s 32.00nm
CTB 142.81 300 ePKP 50 01.00 -1.5
QIZ 144.21 331 PKPc 50 04.00 -0.7
WARB 145.14 242 iPKPc 50 06.10 -0.1
0.5s 30.00nm
PPR 145.71 309 iPKPd 50 09.00 1.6
HYB 147.19 25 ePKP 50 09.00 -0.7
0.8s 73.10nm
COOL 147.86 231 ePKP 50 09.00 -1.5
e 50 13.50
CHTO 148.15 348 ePKPc 50 11.70 0.5
0.8s 32.39nm
RKG 148.76 221 iPKPd 50 17.10 5.3X
1.0s 50.00nm
LOE 148.82 343 ePKP 50 14.10 1.8
BDT 149.66 348 ePKP 50 13.00 -0.5
0.7s 159.00nm
KKM 149.98 307 ePKPc 50 20.60 6.3X
1.0s 317.20nm
KLB 149.99 227 ePKP 50 14.00 0.3
GBA 150.03 30 PKPd 50 14.20 0.1
0.7s 10.00nm
MUN 150.86 225 iPKPd 50 16.40 1.4
0.8s 264.00nm
i 50 21.70
NST 150.91 345 ePKP 50 21.50 6.1X
BAL 151.29 228 ePKP 50 16.00 0.3
e 50 22.00
KHT 152.13 347 ePKP 50 18.30 1.0
SNG 158.75 337 ePKP 50 27.80 1.8
IPM 160.93 333 ePKPc 50 29.00 0.7
e 51 11.40
KGM 161.91 323 ePKPd 50 31.40 2.1X
1.1s 167.00nm
LEM 163.98 290 ePKPd 50 33.00 1.4
1.5s 250.00nm
S.D. = 1.3 on 295 of 386 obs.

MAR 06, 1993 11h 33m 56.54± 1.01s
36.107 N ± 4.6km 11.397 W ± 9.5km
DEPTH = 10.0km (geophysicist)
4.3mb (2 obs.)
NORTH ATLANTIC OCEAN (402)
MD 4.3 (RBA). mbLg 3.9 (MDD).

LIS 3.16 34 eP 34 49.10 1.9
iS 35 23.30
EVAL 4.01 67 iPnc 35 00.47 1.1
iSn 35 42.00
SFS 4.21 84 iP 35 06.00 3.9X
AVE 4.31 129 iPn 35 05.00 1.3
i 35 10.00
iSn 35 38.50
i 35 50.00
CNIL 4.33 85 iP 35 05.00 1.1
TSY 4.47 98 iP 35 08.00 2.1
iS 35 50.50
PLAT 4.56 88 iP 35 08.00 0.8
RSA 4.71 103 iP 35 09.50 0.3
iS 35 53.00
ALJ 4.71 81 iP 35 09.00 -0.4
CPS 4.73 92 iP 35 07.00 -2.6
iS 35 49.50
OJEN 4.74 88 iP 35 11.00 1.1
EJIF 4.80 84 iPnc 35 12.01 1.4
iSn 36 01.50
LIJA 4.89 79 iP 35 11.00 -0.9
EPRU 5.04 78 iPnc 35 14.82 0.9
iSn 36 06.50
EHOR 5.21 69 iPnc 35 16.88 0.5
iSn 36 10.80
OUK 5.70 148 iP 35 24.00 0.7
iS 37 20.00
EPLA 5.76 45 iPnc 35 24.53 0.4
eSn 36 23.50
IFR 5.77 115 iPn 35 24.00 -0.4
iSn 36 24.00
i 36 26.00
ELUQ 5.90 74 iPnc 35 26.15 0.0
eSn 36 27.40
TIO 6.21 145 iPn 35 30.60 0.0
i 35 31.50
iSn 36 35.00
i 36 37.00
EGUA 6.35 81 ePn 35 32.20 -0.3
eSn 36 39.10
EZAM 6.39 18 ePn 35 34.13 1.1
ECOG 6.40 77 iPnd 35 33.54 0.3
eSn 36 39.90
EBAN 6.42 69 iPnc 35 33.02 -0.4
eSn 36 39.80
PAB 6.55 56 iPn 35 34.50 -0.9
iPb 35 45.50
iPg 35 59.50
iSn 36 42.50
iSb 36 54.50
iSg 37 11.50
EMEL 6.91 94 ePn 35 39.08 -1.3
eSn 36 50.90
ERUA 7.09 26 ePn 35 43.46 0.6
eSn 36 57.60
STS 7.12 17 ePn 35 43.81 0.6
eSn 36 59.90
EHUE 7.25 74 iPnc 35 44.50 -0.7
GUD 7.27 49 iPnc 35 45.03 -0.5
eSn 37 00.70
ENIJ 7.45 81 iPnc 35 47.33 -0.6
EVIA 7.52 68 iPnc 35 48.16 -0.8
eSn 37 07.40
ANTZ 7.72 170 iPn 35 50.00 -1.7
i 35 52.00
iSn 37 10.00
i 37 13.00
ETOR 8.71 54 ePn 36 04.59 -0.9
eSn 37 35.30
ECHE 8.95 64 ePn 36 08.87 0.0
ACU 9.08 71 ePn 36 09.62 -0.9
ECRI 9.46 44 ePn 36 15.70 -0.1
ELIZ 10.37 44 ePn 36 28.63 0.3
EROO 10.38 59 ePn 36 29.62 1.1
eSn 38 15.90
EBR 10.44 60 eP 36 30.00 0.7
EGRA 10.53 51 ePn 36 36.02 5.5X
eSn 38 28.90
EPF 11.39 49 Pn 36 42.00 -0.3
Sn 38 39.40
LFF 12.76 43 Pn 37 00.30 -0.4
LPO 12.85 44 Pn 37 01.50 -0.4
Sn 39 11.90
RJF 13.41 43 Pn 37 08.10 -1.3
Sn 39 26.30
MFF 13.45 35 Pn 37 09.10 -0.7
Sn 39 24.10
CAF 13.49 45 Pn 37 09.90 -0.5
Sn 39 28.40
LSF 14.03 40 Pn 37 17.40 -0.1
Sn 39 40.90
TCF 14.41 41 Pn 37 22.20 -0.3
Sn 39 49.00
GRR 14.52 29 Pn 37 21.10 -2.8
Sn 39 48.60
MAF 14.56 42 Pn 37 22.50 -2.0
Sn 39 52.90
BGF 14.93 41 Pn 37 29.30 0.1
Sn 40 01.90
FLN 14.97 29 Pn 37 31.20 1.4
Sn 39 57.20
LDF 14.98 30 Pn 37 30.40 0.5
Sn 40 02.30
HYF 15.28 39 Pn 37 33.50 -0.3
Sn 40 10.90
AVF 15.34 41 Pn 37 34.40 -0.2
Sn 40 06.90
SMF 15.52 43 Pn 37 36.60 -0.3
SSF 15.60 41 Pn 37 37.50 -0.4
Sn 40 16.30
LBF 15.80 42 Pn 37 40.50 -0.1

Sn 40 22.20
LOR 15.91 41 Pn 37 42.40 0.4
Sn 40 26.20
LPL 16.60 50 Pn 37 54.50 3.4X
LPG 16.61 50 Pn 37 55.20 4.0X
DOU 18.16 35 P 38 14.30 4.1X
S 41 18.90
WLF 18.62 38 P 38 19.00 3.2X
GRF 21.31 43 eP 38 48.40 2.9
1.0s 8.00nm 4.1mb
GEC2 22.35 47 Pn 38 58.70 2.7
KHC 22.40 47 P 39 00.00 3.6X
1.2s 20.00nm 4.5mb
e 39 12.40
CLL 23.13 41 iP 39 15.50 12.0X
0.8s 10.00nm
PRU 23.34 45 eP 39 09.00 3.4X
e 39 17.30
e 39 21.50
ZST 24.19 51 eP 39 11.40 -2.4
KIC 30.23 167 P 40 16.60 7.0X
GUN 79.49 63 P 46 00.00 -5.5X
S.D. = 1.2 on 61 of 72 obs.

MAR 06, 1993 12h 24m 30.45± 0.30s
11.151 S ± 5.1km 163.245 E ± 6.0km
DEPTH = 34.9km (2 depth phases)
5.1mb (21 obs.) 4.7Msz (1 obs.)
SOLOMON ISLANDS (193)

HNR 3.67 297 iP 25 27.00 0.8
iS 26 13.00
SVO 3.92 300 eP 25 31.00 1.2
BKM 8.09 144 iPd 26 27.20 -1.3
iS 27 58.00
DZM 11.28 165 iPc 27 11.10 -1.4
iS 29 20.50
PMG 15.92 275 eP 28 19.00 5.3X
1.3s 188.46nm 5.1mb
CTA 18.61 239 P 28 49.29 2.0
BRS 18.92 210 iPc 28 51.60 0.6
1.5s 13.00nm 3.9mb X
RMQ 20.48 220 iPd 29 09.00 0.9
1.2s 176.00nm 5.3mb
ARMA 22.00 208 iPc 29 24.70 1.1
0.7s 34.00nm 4.9mb
BWA 26.83 208 eP 30 09.40 -0.3
CNB 27.16 205 eP 30 14.90 2.2
CAN 27.32 206 eP 30 17.90 3.8X
STK 28.72 221 eP 30 26.40 -0.4
0.8s 11.60nm 4.6mb
WB2 29.14 249 iPd 30 28.80 -1.9
0.4s 9.60nm 4.9mb
eS 35 20.00
WRA 29.15 249 P 30 29.39 -1.4
0.5s 3.40nm 4.3mb
ASPA 30.57 242 eP 30 41.00 -2.4
0.6s 21.90nm 5.1mb
Z 22s 1.70um 4.7Msz
eS 35 43.80
TOO 30.76 208 eP 30 45.30 0.4
0.7s 22.00nm 5.1mb
BFD 31.91 212 eP 30 55.80 0.8
ADE 32.56 219 e(P) 31 02.00 1.3
WARB 37.61 241 eP 31 43.30 -0.6
0.6s 30.00nm 5.3mb
MEEK 44.70 243 eP 32 41.80 -0.5
0.5s 36.00nm 5.5mb
MRWA 47.50 241 eP 33 03.40 -0.9
0.6s 21.00nm 5.3mb
MAT 52.97 335 (PKP) 33 47.00 1.0
LEM 55.05 269 ePd 34 01.20 -0.6
SSE 58.24 317 Pc 34 23.50 -0.5
1.0s 13.00nm 5.0mb
IPM 63.85 281 ePd 35 01.60 -0.7
BJI 67.04 322 eP 35 21.50 -0.9
KMI 69.09 302 Pc 35 36.00 0.2
2.0s 80.00nm 5.4mb
pP 35 44.50 27km
CHTO 70.03 295 eP 35 40.80 -0.5
LZH 73.02 313 eP 36 00.00 0.8
1.5s 40.00nm 5.2mb
pP 36 12.50 43km
YAK 77.50 345 eP 36 22.50 -1.4
1.1s 25.00nm 5.2mb
SVW 78.99 19 eP 36 32.41 0.2
0.8s 20.19nm 5.2mb
SLKM 80.38 21 eP 36 38.86 -0.8
IMA 83.28 16 eP 36 54.80 0.0
0.8s 3.74nm 4.5mb
BALM 83.68 23 eP 36 56.66 -0.2
FBA 84.20 19 eP 36 58.20 -1.1
0.7s 7.08nm 4.9mb
GUN 84.23 300 P 37 00.20 -0.5
PKI 84.54 299 P 37 01.80 -0.4
KKN 84.71 300 P 37 02.40 -0.5
DMN 84.81 299 P 37 03.20 -0.2
GKN 85.32 300 P 37 05.40 -0.4
ORV 85.91 49 eP 37 09.04 0.7
PEC 87.66 55 eP 37 17.09 0.1
0.6s 6.66nm 5.1mb
PLM 87.76 56 eP 37 18.50 0.8
BONR 87.84 51 (P) 37 19.28 1.1
NEW 91.43 41 eP 37 34.86 0.5
1.0s 7.32nm 5.0mb
ARUT 91.53 52 eP 37 36.52 1.3
HVU 92.90 48 eP 37 42.64 1.2
YKA 96.20 28 eP 37 54.00 -1.9
1.0s 1.60nm 4.5mb
NB2 126.14 344 PKP 43 32.80 2.2X
0.9s 2.00nm
GEC2 134.68 332 PKP 43 48.20 0.9
1.0s 0.93nm
BCAO 144.43 262 iPKPd 44 03.80 -2.1X
0.8s 11.00nm
SOB1 148.61 129 ePKP 44 14.00 1.3
S.D. = 1.1 on 49 of 53 obs.

• MAR 06, 1993 13h 01m 32.59± 0.56s
10.888 S ± 8.5km 164.319 E ± 9.0km
DEPTH = 33.0km (normal)
4.4mb (7 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR 4.54 288 eP 02 41.00 0.2
eS 03 32.00
SVO 4.76 291 eP 02 44.00 0.1
BKM 7.74 151 iPd 03 25.00 -0.8
iS 04 51.50
DZM 11.31 170 iPd 04 14.90 -0.1
iS 06 18.20
CTA 19.65 240 iPc 06 02.00 0.2
BRS 19.68 212 eP 06 04.00 1.9
RMQ 21.37 221 eP 06 21.60 2.1
0.9s 15.00nm 4.4mb
WB2 30.21 249 iPc 07 40.20 -2.4
0.3s 2.60nm 4.5mb
WRA 30.23 249 P 07 42.00 -0.7
0.4s 2.00nm 4.3mb
ASPA 31.62 242 P 07 53.79 -1.2
SVW 78.40 19 eP 13 32.47 1.2
1.2s 22.18nm 5.1mb
RSO 78.85 20 (P) 13 33.63 -0.4
SLKM 79.76 21 eP 13 39.19 0.5
IMA 82.74 16 eP 13 55.20 0.9
0.9s 2.71nm 4.3mb
BALM 83.02 23 eP 13 56.79 0.9
FBA 83.61 19 eP 13 58.08 -0.6
0.9s 8.54nm 4.9mb
e 14 08.92
YKA 95.48 27 eP 14 53.30 -1.7
1.2s 0.70nm 4.0mb
BCAO 145.51 262 iPKPc 21 18.00 7.9X
0.6s 6.00nm
id 21 27.00
S.D. = 1.3 on 17 of 18 obs.

% MAR 06, 1993 14h 30m 14.15± 0.53s
44.362 S ± 3.3km 168.320 E ± 4.6km
DEPTH = 10.0km (geophysicist)
SOUTH ISLAND, NEW ZEALAND (162)
ML 4.2 (WEL).

MSZ 0.42 223 Pd 30 22.70 -0.1
S 30 28.20
MMCZ 0.86 138 Pd 30 30.60 -0.3
LMZ 0.94 47 P 30 32.90 0.9
MHZ 0.98 136 Pd 30 32.70 -0.1
TLC 0.99 147 Pd 30 32.40 -0.6
LRCZ 1.02 134 Pd 30 33.40 -0.1
SBCZ 1.02 136 Pd 30 33.30 -0.1
CMCZ 1.04 139 P 30 33.70 -0.2
S 30 47.20
LSCZ 1.06 136 Pd 30 34.20 0.0
BWZ 1.13 99 P 30 35.90 0.6
S 30 50.70
BCZ 1.68 191 P 30 44.10 0.4
ODZ 1.79 113 P 30 45.90 0.6
TUZ 1.85 150 P 30 46.30 0.2
SIZ 2.52 183 P 30 55.80 0.1
MQZ 3.19 80 eP 31 05.40 0.1
LTZ 3.28 63 eP 31 06.40 -0.2
DSZ 3.65 46 eP 31 11.30 -0.6
QRZ 4.70 43 eP 31 26.70 -0.1
MNG 6.48 57 eP 31 51.40 -0.5
S.D. = 0.4 on 19 of 19 obs.

% MAR 06, 1993 14h 57m 13.31± 1.83s
40.100 N ± 9.0km 23.917 E ±15.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

OUR 0.24 12 ePg 57 18.66 0.3
eSg 57 22.54
PAIG 0.25 227 ePg 57 18.58 -0.1
eSg 57 22.50
SOH 0.84 329 ePg 57 28.74 -0.8
eSg 57 40.82
THE 0.90 306 ePg 57 30.90 0.4
eSg 57 43.06
SRS 1.05 346 ePg 57 32.78 -0.3
eSg 57 46.42
KNT 1.31 324 ePb 57 38.14 0.5
eSb 57 54.66
S.D. = 0.6 on 6 of 6 obs.

• MAR 06, 1993 15h 25m 59.40± 0.88s
10.563 S ±11.2km 164.110 E ±12.2km
DEPTH = 33.0km (normal)
4.4mb (5 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR 4.25 285 eP 27 03.00 -0.5
eS 27 55.00
SVO 4.46 288 eP 27 07.00 0.5
DZM 11.66 169 iPc 28 46.30 -0.4
CTA 19.63 239 eP 30 28.00 -0.4
BRS 19.85 211 iP 30 31.50 0.8
RMQ 21.48 220 eP 30 55.20 7.8X
0.7s 10.00nm 4.3mb
ARMA 22.92 209 eP 31 10.40 8.6X
1.1s 18.00nm 4.5mb
WB2 30.14 248 eP 32 08.00 -0.8
0.9s 1.80nm 3.9mb
KMI 69.50 302 eP 37 06.50 -0.9
pP 37 14.50 26kmX
sP 37 17.00
CHTO 70.56 294 eP 37 20.70 7.0X
LZH 73.25 313 eP 37 36.50 6.9X
YAK 77.17 344 eP 37 56.80 5.6X
1.5s 28.00nm 5.1mb
GUN 84.68 300 P 38 39.60 7.5X
PKI 85.00 299 P 38 40.80 7.1X
KKN 85.16 299 P 38 41.00 6.7X
DMN 85.27 299 P 38 42.40 7.5X
GKN 85.77 299 P 38 38.80 1.5
YKA 95.29 27 eP 39 20.10 -0.8
1.0s 1.30nm 4.3mb
GEC2 134.55 333 PKP 45 23.10 6.8X
0.9s 0.84nm
BCAO 145.35 262 iPKPd 45 37.60 1.0
1.0s 45.00nm
id 45 43.70
S.D. = 1.0 on 10 of 20 obs.

• MAR 06, 1993 16h 26m 34.59± 0.79s
10.971 S ±10.1km 163.863 E ±15.1km
DEPTH = 33.0km (normal)
4.5mb (15 obs.)
SOLOMON ISLANDS (193)

SVO 4.38 294 eP 27 42.00 1.5
e(S) 28 00.00
CTA 19.22 240 iPc 30 58.00 -0.9
BRS 19.38 211 iPd 31 02.50 1.8
1.0s 8.00nm 3.9mb
RMQ 21.01 221 eP 31 19.00 1.1
1.2s 100.00nm 5.1mb
e 31 34.00
ARMA 22.45 209 eP 31 34.00 1.7

06d 16h

0.9s 24.00nm 4.7mb
e 31 45.10
CMS 26.37 217 eP 32 10.10 0.4
0.8s 18.00nm 4.7mb
STK 29.26 221 eP 32 36.20 0.3
1.0s 3.00nm 4.0mb
i 32 56.30
eS 37 57.70
WB2 29.77 249 iPc 32 38.50 -2.1
1.0s 17.50nm 4.8mb
WRA 29.78 249 P 32 39.20 -1.5
0.7s 2.00nm 4.0mb
PJG 30.83 322 e(P) 32 58.40 8.4X
ASPA 31.19 242 iPd 32 50.90 -2.3
1.2s 15.70nm 4.7mb
MTN 32.07 263 eP 33 00.00 -0.9
e 33 19.00
WARB 38.22 241 eP 33 52.00 -1.4
0.5s 51.00nm 5.6mb X
e 34 13.00
MRWA 48.11 241 eP 35 13.00 -0.5
CN2 64.74 330 eP 37 10.80 -1.1
1.0s 5.80nm 4.6mb
GYA 66.85 305 P 37 26.40 0.4
XAN 68.71 313 P 37 37.50 0.1
1.0s 3.60nm 4.4mb
KMI 69.51 302 eP 37 43.00 0.3
1.5s 50.00nm 5.4mb
HHC 70.59 320 eP 37 49.00 0.2
CD2 71.09 308 eP 37 51.80 -0.2
BTO 71.42 320 eP 37 53.00 -0.9
LZH 73.35 313 eP 38 07.00 1.6
YAK 77.49 344 eP 38 27.00 -1.2
1.2s 30.00nm 5.2mb
GTA 77.68 315 eP 38 27.00 -2.9X
SVW 78.62 19 eP 38 35.00 0.5
0.9s 1.90nm 4.1mb
LSA 80.75 303 eP 38 49.30 2.1
IMA 82.94 16 e(P) 38 52.00 -5.4X
1.0s 1.40nm 4.0mb
FBA 83.84 19 eP 39 00.90 -0.9
1.1s 0.40nm 3.5mb X
GUN 84.67 300 PKP 39 08.80 1.6
PKI 84.98 299 PKP 39 09.40 0.6
KKN 85.15 299 PKP 39 11.60 2.1
DMN 85.25 299 PKP 39 11.20 1.2
GKN 85.76 299 PKP 39 10.20 -2.2
NEW 90.90 41 e(P) 39 35.00 -1.3
0.8s 1.88nm 4.5mb
POO 93.44 288 eP 40 06.00 17.5X
S.D. = 1.4 on 31 of 35 obs.

MAR 06, 1993 16h 26m 56.96± 0.15s
11.062 S ± 3.6km 163.386 E ± 3.2km
DEPTH = 25.3km (9 depth phases)
5.7mb (68 obs.) 6.6Msz (60 obs.)
SOLOMON ISLANDS (193)
Mw 6.7 (HRV). Ms 6.5 (BRK).
Mo=1.6*10**19 Nm (PPT). Felt
(III) at Honiara.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 44S, **C M.W.: 39S, 92C
Centroid Location:
Origin Time 16:27: 1.4 0.1
Lat 10.89S 0.01 Lon 163.44E 0.01
Dep 15.0 FIX Half-duration 5.0
Moment Tensor; Scale 10**18 Nm
Mrr= 1.49 0.05 Mtt=-4.95 0.05
Mff= 3.46 0.05 Mrt= 2.57 0.22
Mrf=-6.30 0.25 Mtf= 7.15 0.04
Principal Axes:
T Val= 10.05 Plg=30 Azm=110
N 1.39 50 337
P -11.43 24 215
Best Double Couple:Mo=1.1*10**19
NP1:Strike=255 Dip=50 Slip= 5
NP2: 162 86 140

HNR 3.75 295 iPd 27 57.00 2.4
iS 28 47.00
DZM 11.33 165 iP 29 39.00 -1.5
iS 31 40.20
MBU 15.99 113 eP 30 41.00 -1.0
PMG 16.05 274 eP 30 46.00 3.2X
VUN 16.14 117 ePc 30 44.00 0.1
SVA 16.18 117 eP 30 42.70 -1.6
CTA 18.77 239 iPd 31 17.50 0.7
1.3s 480.77nm 5.5mb
BRS 19.07 210 iPc 31 21.00 0.7
1.0s 87.00nm 4.9mb
i 39 47.50
MNDI 20.10 282 eP 31 34.00 1.9
RMQ 20.64 220 eP 31 39.00 1.6
1.2s 838.00nm 6.0mb
i 33 10.20
ARMA 22.15 208 iPc 31 53.70 1.0
1.0s 340.00nm 5.7mb
RIV 25.28 204 iPc- 32 26.10 3.2X
Z 20s 0.78um 4.2MszX
eS 36 34.00
CMS 26.02 216 eP 32 30.20 0.4
0.9s 250.00nm 5.8mb
BWA 26.97 208 eP 32 38.20 -0.5
i 32 43.00 17km
i 32 46.80
CNB 27.30 206 eP 32 43.40 1.7
1.0s 180.00nm 5.7mb
CAN 27.46 206 eP 32 43.60 0.5
i 32 48.10 16km
i 32 51.80
STK 28.88 221 P 32 57.40 1.5
WB2 29.30 249 eP 32 57.90 -1.9
0.6s 85.60nm 5.7mb
eS 37 49.80
WRA 29.31 249 P 33 11.90 12.0X
1.3s 10.80nm
GUA 30.55 323 eP 33 12.00 1.1
0.8s 149.25nm 5.9mb
Z 21s 128.69um 6.6Msz
GUMO 30.61 323 eP 33 12.20 0.7
1.9s 250.30nm 5.7mb
Z 22s 95.20um 6.4Msz
PJG 30.62 323 eP 33 12.00 0.5
ASPA 30.73 242 eP 33 10.30 -2.2
0.8s 73.30nm 5.6mb
Z 19s 275.00um 6.9Msz
iS 38 11.40
TOO 30.91 208 eP 33 14.90 1.0
0.7s 66.00nm 5.6mb
BFD 32.06 212 iPc 33 25.00 1.0
0.7s 25.00nm 5.3mb
TAU 34.68 201 eP 33 48.00 1.4
eS 39 12.00
FORT 38.15 234 iPd 34 17.50 1.4
0.8s 70.00nm 5.5mb
DAV 41.73 294 eP+ 34 44.00 -1.9
CTB 43.01 293 eP 35 01.00 4.6X
CGP 43.10 295 eP 34 57.50 0.4
PLP 44.09 299 ePc 35 04.50 -0.7
AFR 45.75 104 eP 35 17.40 -1.0
1.4s 958.40nm 6.5mb
PAE 45.94 104 eP 35 19.00 -0.9
1.9s 1485.60nm 6.6mb
PPT 45.94 104 eP 35 19.10 -0.8
1.8s 1657.30nm 6.7mb
PPN 46.08 104 eP 35 20.40 -0.6
2.2s 2066.60nm 6.7mb
TVO 46.26 104 eP 35 22.10 -0.4
1.9s 2850.50nm 6.9mb X
KLB 46.75 237 eP 35 24.00 -2.1
BAL 47.37 238 eP 35 29.50 -1.6
NWAO 47.54 235 eP 35 33.00 0.6
PMO 47.55 100 eP 35 34.10 1.4
2.1s 3771.00nm 7.1mb X
MRWA 47.66 241 eP 35 32.00 -1.4
0.6s 35.00nm 5.6mb
VAH 47.80 101 eP 35 35.90 1.3
2.2s 3333.60nm 7.0mb X
TPT 47.82 100 eP 35 36.10 1.3
2.2s 3038.40nm 6.9mb X
RUV 48.04 100 eP 35 37.80 1.3
2.2s 3161.40nm 7.0mb X
MUN 48.12 237 eP 35 36.80 -0.2
Z 20s 147.10um 7.0Msz
TGY 48.96 300 ePd 35 44.50 0.9
QCP 49.09 300 eP 35 44.00 -0.6
QVP 49.15 300 eP 35 44.20 -0.8
HON 49.74 50 P- 35 54.63 5.2X
Z 20s 34.85um 6.4Msz
S 43 11.65
KKM 49.93 288 ePd 35 49.70 -1.5
0.7s 84.50nm 5.9mb
OPA 49.95 49 eP 35 50.10 -1.0
CVP 50.02 304 eP 35 53.00 1.3
BCP 50.36 302 eP 35 53.00 -1.5
BAG 50.38 302 iP- 35 52.00 -2.7
eS 43 02.00
KAKJ 51.86 336 P 36 06.70 1.3
WKYJ 52.20 331 P 36 08.50 0.4
CHJJ 52.20 335 P 36 07.30 -0.7
TKSJ 52.77 329 P 36 11.80 -0.4
MAT 52.95 335 eP 36 11.00 -2.6
1.7s 142.31nm 5.6mb
eS 43 41.00
TSRJ 53.09 332 P 36 14.20 -0.4
MTMJ 53.16 334 P 36 13.50 -1.7
NIIJ 53.22 336 P 36 16.30 0.8
KUMJ 53.35 325 eP 36 17.50 0.9
YAMJ 53.63 337 eP 36 18.10 -0.4
OFUJ 53.83 339 eP 36 18.90 -1.1
SHK 53.90 329 eP 36 21.00 0.5
YONJ 54.02 330 P 36 22.50 1.1
SHNJ 54.40 327 eP 36 22.90 -1.3
LEM 55.19 269 ePc 36 30.50 -0.1
1.5s 316.67nm 6.1mb
eS 44 12.00
eLR 46 30.00
HOOJ 56.29 342 eP 36 40.30 2.5
QZH 56.46 310 Pd 36 39.00 -0.3
1.0s 110.00nm 5.8mb
Z 23s 34.30um 6.4MszX
N 16s 18.30um
sP 36 53.00
S 44 26.00
SS 48 12.00
KUSJ 56.54 344 eP 36 39.70 0.1
MRRJ 57.02 340 eP 36 42.80 -0.2
DRV 57.74 191 eP 36 45.00 -2.8
PP 39 09.00
S 44 54.00
KUR 57.76 347 eP 36 50.00 1.9
Z 18s 39.20um 6.6Msz
N 18s 33.60um
E 18s 30.80um
iS 44 44.00
eSS 48 28.00
ASAJ 58.06 343 eP 36 49.90 -0.4
SSE 58.27 317 Pd 36 51.00 -1.0
0.8s 61.00nm 5.7mb
Z 22s 44.90um 6.5Msz
N 22s 33.20um
E 20s 15.10um
pP 37 06.50 58kmX
iS 44 54.00
HKC 58.54 305 eP 36 54.50 0.5
S 45 00.00
GZH 59.59 305 Pd 37 01.00 -0.3
1.0s 130.00nm 6.0mb
Z 24s 34.10um 6.4MszX
N 16s 11.20um
E 20s 23.40um
sP 37 16.50
NJ2 60.42 317 Pc 37 06.00 -0.8
Z 20s 26.90um 6.4Msz
N 17s 24.60um
E 17s 29.60um
QIZ 60.66 299 Pd 37 07.00 -1.7
N 19s 15.50um
E 21s 34.50um
S 45 25.00
YSS 60.70 344 iPc 37 09.00 0.6
1.1s 100.00nm 5.9mb
Z 18s 19.20um 6.3Msz
N 18s 13.00um
E 18s 9.80um
e 37 21.80 45kmX
ePPP 40 58.00
iS 45 22.00
ePS 45 43.00
eSS 49 26.00
eSSS 51 52.00
VLA 61.11 334 eP 37 12.50 1.2
1.5s 114.00nm 5.8mb
Z 21s 13.80um 6.1Msz
N 20s 28.50um
E 15s 10.30um
ePPP 40 58.00
eS 45 33.00
e 52 14.00
KGM 61.13 278 eP 37 11.50 -0.5

```
WHN     62.69 313 eP     37 21.50  -0.6
    Z  20s    85.70um            6.9Msz
    N  20s    31.70um
    E  24s    43.90um
               pP     37 29.00  24km
               S      45 48.00
DL2     63.12 324 Pd     37 24.00  -0.8
      1.0s    89.00nm            5.8mb
    Z  20s    19.60um            6.3Msz
    N  15s    12.20um
    E  16s    15.20um
MDJ     63.31 334 eP     37 27.20   1.2
      1.3s    89.00nm            5.7mb
    Z  24s    32.40um            6.4MszX
               iS     45 59.00
PET     63.95 357 eP     37 30.00   0.0
    Z  20s    15.90um            6.2Msz
    N  18s    13.20um
    E  16s    15.60um
               e      37 38.00  26km
               eS     46 04.00
               eSS    50 08.00
IPM     63.97 281 ePd    37 29.50  -1.4
      1.0s    40.90nm            5.5mb
SNY     64.09 328 Pd     37 28.00  -3.1X
    Z  22s    36.80um            6.5Msz
    N  16s    23.80um
    E  16s    10.10um
TIA     64.10 319 Pc     37 31.50   0.1
      1.1s   110.00nm            5.9mb
    Z  19s    45.20um            6.7Msz
    N  16s     7.57um
    E  15s    24.80um
               sP     37 43.50
               S      46 06.50
SMY     64.20   7 P      37 26.08  -5.6X
    Z  20s    48.83um            6.7Msz
               S      46 19.81
CN2     64.59 330 eP     37 34.00  -0.4
      1.0s    75.00nm            5.8mb
    Z  23s    47.00um            6.6MszX
    N  20s    41.10um
    E  20s    35.00um
               epP    37 49.00  54kmX
               eS     46 14.00
               eSS    50 22.00
SNG     65.04 283 eP     37 36.00  -1.8
CSY     65.54 201 eP     37 39.70  -0.5
      0.8s    26.40nm            5.4mb
GYA     66.52 305 iPd    37 46.00  -1.3
      1.2s    65.00nm            5.6mb
    Z  36s    33.60um            6.3MszX
    N  18s    12.20um
    E  18s    13.80um
               pP     38 03.00  63kmX
BJI     67.06 322 eP     37 51.00   0.7
    Z  32s    35.80um            6.4MszX
    N  18s    25.90um
               eS     46 42.00
LOE     67.15 294 eP     37 51.40   0.1
NST     68.01 292 eP     37 57.20   0.5
TIY     68.02 318 Pd     37 55.00  -1.5
    Z  20s    53.20um            6.8Msz
    N  16s    18.40um
               pP     38 09.50  52kmX
XAN     68.43 313 P      37 57.50  -1.6
      1.0s    64.00nm            5.7mb
    Z  20s    27.30um            6.5Msz
    N  15s    13.90um
    E  15s     5.69um
               sP     38 11.00
               PP     40 28.00
               sS     47 19.00
               ScS    47 54.00
KHT     69.14 291 eP     38 02.50  -1.2
KMI     69.16 302 Pd     38 03.50  -0.5
      1.0s   120.00nm            6.0mb
    Z  26s    50.90um            6.6MszX
    N  19s    23.60um
    E  17s     8.80um
               pP     38 10.50  22km
               iS     47 11.00
BDT     69.55 293 eP     38 06.00  -0.1
CHTO    70.12 295 eP     38 09.00  -0.7
      1.0s    27.50nm            5.3mb
HHC     70.36 321 eP     38 11.00   0.1
      1.2s    97.00nm            5.8mb
```

```
    Z  25s    46.30um            6.6MszX
    N  16s    15.10um
    E  18s    12.30um
               sP     38 26.00
CD2     70.78 308 iPd    38 12.00  -1.6
      1.0s   460.00nm            6.6mb
    Z  24s    41.60um            6.6MszX
    N  15s    16.50um
               pP     38 30.00  67kmX
               iPP    40 55.00
               iS     47 25.90
               iSS    52 00.10
BTO     71.19 320 P      38 15.50  -0.4
    N  16s    12.40um
    E  15s    11.80um
               sP     38 28.50
               ePP    40 58.00
MGD     71.64 353 eP     38 17.00  -1.0
      1.3s    30.00nm            5.2mb
    Z  17s    18.00um            6.4MszX
    N  16s    12.00um
    E  16s    10.00um
               e      38 36.00  71kmX
               eS     47 30.00
               ePS    48 00.00
SDN     72.75  21 e(P)   38 21.90  -2.8
LZH     73.06 313 eP     38 28.00   0.8
      1.5s   350.00nm            6.2mb
    Z  19s    29.80um            6.6Msz
               pP     38 38.50  34km
               sP     38 43.00
               PP     41 16.00
               ScS    48 30.00
CIT     75.99 331 eP     38 45.00   1.4
GTA     77.41 315 P      38 53.00   1.1
      1.5s   130.00nm            5.7mb
    Z  24s    18.10um            6.3MszX
    E  20s    20.40um
               sP     39 03.00
               SS     53 35.00
YAK     77.45 344 eP     38 51.50   0.1
      1.0s   116.00nm            5.9mb
    Z  18s    19.20um            6.5Msz
    N  18s    14.50um
    E  14s     7.80um
               i      39 07.00  55kmX
               e      41 51.00
               iS     48 40.00
               ePS    49 08.00
KDC     77.47  22 e(P)   38 52.00   0.4
SVW     78.86  19 eP     38 59.90   0.6
      1.1s   139.09nm            5.9mb
SPA     79.01 180 iP     38 59.50  -0.7
RSO     79.33  20 eP     39 00.97  -1.1
BOD     79.52 336 eP     39 07.00   4.1X
ILT     79.80   7 iPd    39 02.00  -2.1
               iS     49 04.00
CP2     80.08  20 eP     39 06.70   0.6
CRP     80.11  20 eP     39 06.09  -0.1
SLKM    80.25  21 eP     39 06.84   0.0
ZAK     80.40 326 eP     39 09.50   1.8
      2.1s   220.00nm            5.8mb
    Z  19s    20.56um            6.5Msz
    N  19s    13.08um
    E  19s    21.11um
               eS     49 15.00
               ePS    50 10.00
               eSS    54 28.00
LSA     80.41 303 Pc     39 09.80   0.9
      1.0s    20.00nm            5.1mb
    Z  25s    31.10um            6.6MszX
    N  16s    16.00um
               PP     42 10.00
               S      49 15.00
IRK     80.82 328 ePc    39 10.80   0.9
      1.4s    23.00nm            5.0mb
    Z  21s    18.30um            6.4Msz
    N  20s    11.30um
    E  20s    14.60um
               ePcP   39 19.20  45kmX
               e      39 24.00
               e      39 46.50
               e      39 54.00
               e      40 04.50
               e      40 14.00
               e      40 40.50
               e      41 02.00
```

```
               ePP    42 10.00
               ePPP   44 28.00
               e      48 28.00
               eS     49 16.00
               ePS    49 52.00
               e      51 04.00
               e      52 48.00
               eSS    53 46.00
               e      57 00.00
               eSSS   58 10.00
               e      59 56.00
               e      00 56.00
               LR     09 02.00
PMR     81.38  21 (P)    39 13.48   0.8
      1.5s    88.90nm            5.6mb
    Z  21s    49.37um            6.8Msz
               S      49 31.15
KLU     82.47  22 eP     39 19.39   0.9
IMA     83.16  16 eP     39 22.34   0.3
      0.9s    19.60nm            5.3mb
BALM    83.54  23 eP     39 24.01   0.0
PAF     83.76 221 iP     39 32.00   6.8X
               iPP    42 33.00
               iS     50 00.00
               eSS    54 54.00
MAW     83.83 202 P      39 34.90   9.6X
FBA     84.07  19 eP     39 26.00  -0.5
      0.9s    48.53nm            5.7mb
SIT     84.38  29 P      39 40.00  11.9X
    Z  20s    33.87um            6.7Msz
PCC     84.46  50 eP     39 29.69   0.7
GCC     84.60  51 eP     39 30.45   0.8
BKS     84.68  50 ePc    39 28.09  -2.0
    Z  21s    21.00um            6.5Msz
               eS     49 48.09
               eSP    50 57.09
               eSS    55 27.09
               eLQ    01 27.09
               eLR    05 03.09
PRS     84.87  52 eP     39 30.33  -0.7
SAO     84.94  51 eP     39 31.12  -0.3
ARN     85.05  51 eP     39 32.18   0.2
LGPM    85.22  47 eP     39 32.69  -0.2
WDC     85.32  47 eP     39 32.70  -0.5
      1.3s    42.55nm            5.5mb
    Z  21s    25.93um            6.6Msz
PRI     85.35  52 eP     39 34.36   0.7
BCH     85.53  53 eP     39 33.57  -1.0
TIK     85.66 350 iPd    39 35.00   0.7
      2.0s   230.00nm            6.1mb
    Z  18s    23.00um            6.6Msz
               eS     50 07.00
               ePS    51 13.00
               eSS    55 40.00
ORV     85.75  49 ePc    39 31.30  -4.1X
    Z  21s    20.00um            6.5Msz
               eS     49 49.30
               eSP    51 05.30
               eSS    55 50.30
               eLQ    01 57.30
               eLR    05 29.30
ORV     85.75  49 eP     39 34.32  -1.1
PKEM    85.76  52 eP     39 36.53   1.0
LMEM    86.00  48 eP     39 37.13   0.2
UER     86.12 324 eP     39 38.80   1.9
      2.2s   100.00nm            5.7mb
    Z  20s    12.50um            6.3Msz
    N  16s     5.00um
    E  18s    10.00um
               e      50 09.00
CMB     86.13  50 ePc    39 27.69  -9.7X
    Z  21s    25.00um            6.6Msz
               eS     50 01.69
               eSKS   50 10.69
               eSP    51 11.69
               eSS    55 45.69
               eSSS   59 12.69
               eLQ    02 14.69
               eLR    05 39.69
CMB     86.13  50 eP     39 36.73  -0.6
      0.9s    24.25nm            5.4mb
    Z  21s    22.89um            6.5Msz
FRI     86.34  51 eP     39 38.42   0.1
BRW     86.41  12 eP     39 38.25   0.3
BMW     86.78  42 eP     39 41.19   0.8
ISA     86.92  53 eP     39 41.29  -0.1
      1.1s    38.32nm            5.5mb
```

06d 16h

Z 19s 28.26um 6.7Msz
MEMM 87.12 51 eP 39 43.04 1.0
SSK 87.15 55 eP 39 41.44 -1.2
MTUM 87.32 51 eP 39 43.65 0.3
SHW 87.33 42 eP 39 44.31 1.1
PGC 87.37 39 eP 39 44.50 1.5
GMW 87.42 41 eP 39 43.63 0.2
WMQ 87.47 315 eP 39 43.50 -0.3
1.5s 56.00nm 5.6mb
Z 24s 34.10um 6.7MszX
N 14s 15.10um
pP 39 53.00 30km
PP 43 12.00
SKS 50 04.00
S 50 13.00
PEC 87.50 55 eP 39 44.15 0.0
1.6s 179.46nm 6.1mb
PLM 87.60 56 eP 39 43.68 -1.1
BONR 87.68 51 eP 39 44.35 -0.9
MCW 87.77 40 eP 39 44.04 -1.0
LON 87.79 42 eP 39 45.11 -0.1
RMW 88.02 41 eP 39 46.24 -0.1
VGB 88.09 43 eP 39 46.86 0.2
KVN 88.13 50 eP 39 47.68 0.4
GSC 88.14 54 eP 39 47.42 0.2
HYB 88.41 288 eP 39 48.50 -0.3
TNP 88.54 51 eP 39 47.91 -1.3
1.0s 22.38nm 5.4mb
GBA 88.69 284 P 39 50.60 0.6
0.7s 3.00nm 4.7mb
TPNV 88.99 52 eP 39 51.30 -0.1
0.9s 16.29nm 5.4mb
Z 18s 30.47um 6.7Msz
DPW 90.47 41 eP 39 57.99 0.1
ELT 91.20 324 iPc 40 02.80 1.9
2.2s 168.00nm 6.0mb
Z 16s 8.30um 6.3MszX
eS 50 36.00
e 51 03.00
e 52 10.00
NEW 91.27 41 eP 40 01.47 -0.1
1.2s 55.74nm 5.8mb
ARUT 91.37 52 eP 40 02.55 0.2
NDI 91.91 299 eP 40 05.50 0.6
TUC 92.35 58 eP 40 07.33 0.4
1.0s 7.44nm 5.1mb
Z 20s 18.62um 6.5Msz
DUG 92.37 50 eP 40 07.43 0.5
0.8s 7.96nm 5.2mb
MSU 92.50 51 eP 40 08.45 0.8
HVU 92.74 48 eP 40 08.00 -0.6
PTI 93.26 47 eP 40 11.99 1.0
PRZ 93.72 312 eP 40 08.00 -5.1X
1.2s 50.00nm 5.8mb
Z 18s 14.50um 6.5Msz
E 18s 16.50um
eS 50 49.00
EMUT 93.79 50 (P) 40 14.70 1.1
LCCM 94.21 44 eP 40 12.60 -2.7
e 40 25.90 44kmX
PV09 94.84 52 eP 40 19.29 0.8
PV10 94.89 52 eP 40 19.16 0.5
KSH 94.95 309 eP 40 16.00 -2.8
0.7s 16.00nm 5.6mb
Z 24s 22.20um 6.5MszX
N 18s 12.30um
E 18s 21.90um
SKS 50 46.00
NRI 95.17 340 eP 40 20.00 1.1
e 40 30.00 31km
e 44 12.00
e 46 16.00
eS 51 34.00
ePS 53 02.00
eSS 57 59.00
PV08 95.23 52 (P) 40 22.50 2.1
BW06 95.27 48 eP 40 19.67 -0.7
1.1s 11.47nm 5.2mb
SES 95.62 40 eP 40 21.00 -0.5
NVL 96.10 189 eP 40 29.00 5.6X
1.4s 45.00nm 5.7mb
Z 16s 36.00um 6.9MszX
N 17s 30.50um
E 17s 17.00um
e 44 41.00
eS 49 58.00
CRZF 96.40 220 eP 40 30.00 4.8X

ePP 44 27.00
eS 50 42.00
iSP 52 57.00
iSS 58 15.00
FRU 96.52 312 eP 40 22.00 -3.8X
e 40 31.00 28km
e 51 06.00
e 53 10.00
e 58 20.00
e 02 00.00
GLD 98.04 51 P 40 40.00 7.2X
Z 19s 36.84um 6.9Msz
RSSD 99.44 47 eP 40 39.06 -0.1
1.0s 10.68nm 5.3mb
Z 22s 12.01um 6.4Msz
SVE 106.16 326 iPdiff41 15.00 6.4X
MIAR 106.88 57 PKP 45 30.00 7.5X
Z 18s 15.76um 6.6Msz
ARU 107.32 326 ePdiff41 29.00 15.3X
MAIO 107.62 305 ePdiff41 06.00 -9.7X
e 44 57.00
SLM 109.59 53 PKP 45 40.00 12.5X
Z 19s 11.48um 6.5Msz
GRO 117.60 313 ePdiff42 02.00 2.2X
i 46 59.00
i 52 28.00
GRS 117.79 309 iPKP 45 45.00 1.7
e 46 59.00
ePPP 49 30.00
e 52 26.00
ePS 56 47.00
eSS 03 20.00
CEH 118.66 55 PKP 45 50.00 5.2X
Z 19s 10.78um 6.5Msz
ERE 119.07 310 iPKP 45 35.00 -10.6X
Z 22s 5.00um 6.1Msz
i 47 07.00
e 52 42.00
iPS 56 53.00
i 03 20.00
OBN 119.59 328 ePKP 45 50.00 4.0X
Z 19s 4.90um 6.2Msz
N 20s 5.50um
E 20s 11.00um
iPP 47 04.00
e 48 06.00
e 48 20.00
i 49 02.00
ePPP 50 26.00
ePPPP 52 08.00
(SKS) 52 50.00
iSKKS 54 04.00
i 55 02.00
iPS 57 00.00
iSS 03 24.00
iSSSS 14 40.00
LQ 20 30.00
OBN 119.59 328 (Pdiff42 16.00 7.6X
N 20s 6.70um
E 20s 11.00um
e 52 50.00
iPS 57 00.00
iSS 03 24.00
RSNY 120.40 45 PKP 46 00.00 12.1X
Z 20s 10.25um 6.5Msz
KAF 120.41 338 ePKP 45 43.40 -3.9X
1.0s 8.20nm
NUR 122.06 337 ePKP 45 49.00 -1.5
0.7s 9.10nm
Z 23s 16.00um 6.6MszX
e 03 55.00
e 08 44.00
LR 36 55.00
CNCB 122.15 118 PKP 45 57.00 4.3X
LPB 122.17 118 (PKP) 45 56.20 3.6X
LR 47 38.00
ZOBO 122.24 117 PKPc 45 56.40 3.4X
1.2s 10.14nm
Z 24s 0.65um 5.2MszX
LR 47 36.00
HRV 123.04 46 PKP 46 00.00 7.0X
Z 18s 9.90um 6.5Msz
MNK 124.77 330 iPKP 46 00.00 4.1X
Z 22s 21.60um 6.8Msz
e 47 44.00
e 57 42.00
eSS 04 36.00

MTD 124.90 241 iPKPc 45 58.50 1.1
SIM 125.13 318 ePKP 46 10.00 13.0X
e 57 44.00
e 59 14.00
NAI 125.50 260 iPKPc 46 08.50 9.6X
Z 22s 10.00um 6.4Msz
iPP 47 50.00
iSKKKS55 10.00
iPS 57 54.00
eSS 04 50.00
BUL 125.76 235 iPKPd 46 00.00 0.8
1.0s 6.50nm
i 57 44.00
NB2 126.09 344 PKP 45 56.80 -1.7
0.9s 5.30nm
HFS 126.10 342 ePKP 45 57.10 -1.3
0.7s 3.00nm
Z 20s 16.93um 6.7Msz
LR 37 25.00
KIS 127.59 322 ePKP 46 16.00 14.4X
e 48 03.00
e 53 14.00
ePS 58 05.00
iSS 05 17.00
LVV 128.88 327 ePKP 46 22.00 18.0X
Z 19s 18.00um 6.8Msz
e 48 18.00
e 58 12.00
VRI 129.44 322 ePKP 46 10.00 4.8X
UZH 130.49 327 iPKP 46 09.00 1.9
1.4s 50.00nm
i 48 24.00
iPPP 51 16.00
i 58 32.00
iPPS 00 05.00
OJC 130.81 330 ePKP 46 08.70 1.0
e 48 27.00
SPC 131.24 328 ePKP 46 10.80 2.0X
KSP 132.06 332 ePKP 46 07.50 -2.6X
e 48 40.30
BUD 132.94 327 ePKP 46 22.00 10.2X
WIN 133.00 225 ePKP 46 13.00 0.0
1.0s 30.00nm
Z 22s 89.90um 7.4Msz
BRG 133.08 334 ePKP 46 17.80 5.8X
Z 18s 11.50um 6.6Msz
N 18s 11.00um
E 18s 6.50um
e 48 36.00
SRO 133.10 328 ePKP 46 24.00 11.9X
e 48 47.90
e 50 07.20
CLL 133.16 335 ePKP 46 13.00 0.9
1.2s 10.00nm
Z 18s 12.50um 6.7Msz
PRU 133.46 333 ePKP 46 19.70 7.0X
Z 23s 17.30um 6.7MszX
N 23s 11.50um
E 23s 6.80um
PP 48 53.50
SS 06 20.00
ZST 133.47 329 ePKP 46 20.90 8.1X
VKA 133.82 330 ePKP 46 13.00 -0.5
SOP 134.09 329 e(PKP)46 19.00 5.0X
MOX 134.24 335 ePKP 46 21.40 7.2X
Z 20s 12.00um 6.6Msz
WIT 134.33 340 ePKP 46 23.00 8.8X
KHC 134.51 332 ePKP 46 16.40 1.6
1.0s 7.00nm
Z 22s 21.40um 6.8Msz
N 22s 11.40um
E 22s 9.80um
i 46 22.00
e 46 30.00
e 47 13.50
e 50 04.00
EKA 134.58 349 PKP 46 22.00 7.3X
1.2s 8.10nm
GEC2 134.66 332 PKP 46 15.70 0.5
0.9s 1.63nm
SKO 134.70 320 ePKP 46 16.00 0.6
Z 20s 15.67um 6.7Msz
i 48 38.00
i 49 55.00
i 50 08.00
i 50 55.00
i 55 15.00

i 58 45.00
i 06 40.00
i 07 05.00
WTS 134.97 340 ePKP 46 22.00 6.5X
1.0s 17.90nm
GRF 135.13 335 ePKP 46 19.60 3.7X
Z 22s 16.00um 6.7Msz
DBN 135.42 341 ePKP 46 27.00 10.7X
Z 20s 9.50um 6.5Msz
e 50 48.00
e 51 37.00
OHR 135.56 319 ePKP 46 14.00 -3.1X
KBA 136.09 331 e(PKP)46 16.00 -2.1X
e 49 05.00
VBY 136.20 328 ePKP 46 19.20 1.1
e 46 23.50
LJU 136.22 329 ePKP 46 21.50 3.4X
ePP 49 04.00
ENN 136.31 339 ePKP 46 20.00 1.9
1.0s 10.00nm
CEY 136.48 328 ePKP 46 23.00 4.3X
FDF 136.48 80 ePKP 46 20.00 0.5
VOY 136.55 329 ePKP 46 23.60 4.7X
TRI 136.84 329 e(PKP)46 12.00 -7.3X
e(PP) 49 00.00
e(SKP)49 48.00
e 50 41.00
e(SP) 59 24.00
e(SS) 06 20.00
WLF 137.15 338 PKP 46 25.00 5.3X
DCN 137.17 352 ePKP 46 20.00 0.4
DOU 137.33 340 PKP 46 23.10 3.0X
Z 18s 6.80um 6.4Msz
SKP 50 03.00
e 51 29.00
SS 07 20.00
CDF 137.75 336 ePKP 46 11.30 -9.8X
BSF 138.41 336 ePKP 46 13.00 -9.3X
1.2s 14.00nm
HAU 138.44 337 ePKP 46 13.00 -9.3X
1.0s 11.00nm
Z 22s 12.43um 6.6Msz
BAO 139.15 130 ePKP 46 24.80 0.2
e 46 31.00
e 46 43.60
e 46 51.00
e 50 36.30
FIR 139.47 329 ePKP 46 24.00 -0.2
LOR 139.99 338 ePKP 46 18.50 -6.6X
1.3s 20.95nm
Z 22s 10.05um 6.5Msz
FLN 140.08 343 ePKP 46 17.50 -7.6X
1.1s 17.10nm
Z 22s 19.45um 6.8Msz
LDF 140.13 343 ePKP 46 17.50 -7.7X
LBF 140.18 338 ePKP 46 19.00 -6.5X
1.2s 11.60nm
LPL 140.29 334 ePKP 46 18.50 -7.4X
SSF 140.29 338 ePKP 46 19.30 -6.3X
1.1s 17.10nm
LPG 140.29 334 ePKP 46 18.70 -7.3X
GRR 140.52 343 ePKP 46 18.60 -7.3X
LPF 140.90 343 ePKP 46 19.40 -7.2X
1.1s 34.70nm
TCF 141.41 339 ePKP 46 20.60 -7.1X
1.0s 11.20nm
EGRA 145.87 338 ePKP 46 37.30 2.0
ECRI 146.25 341 ePKP 46 36.73 0.6
EBR 146.74 336 ePKP 46 41.00 4.2X
EROQ 146.77 336 ePKP 46 41.87 5.0X
STS 147.53 349 ePKP 46 40.82 2.8X
ETOR 147.70 339 ePKP 46 40.87 2.4X
GUD 148.55 342 ePKP 46 43.59 3.7X
SOB1 148.55 129 ePKP 46 41.20 0.7
e 46 48.30
PAB 149.61 341 ePKP 46 47.00 5.5X
ePP 49 28.00
EPLA 149.64 344 ePKP 46 49.07 7.6X
EVIA 149.78 338 ePKP 46 45.90 4.1X
EHUE 150.54 337 ePKP 46 52.06 9.1X
EBAN 150.67 339 ePKP 46 50.36 7.3X
ENIJ 151.12 336 ePKP 46 50.85 7.1X
ELUQ 151.38 339 ePKP 46 51.95 7.8X
ECOG 151.38 338 ePKP 46 51.09 6.8X
EHOR 151.47 341 ePKP 46 52.09 7.9X
MAL 152.17 339 ePKP 46 56.00 10.7X
iPP 51 33.00
EPRU 152.24 340 ePKP 46 57.33 11.9X
LIJA 152.36 340 ePKP 46 53.00 7.3X
ALJ 152.63 340 ePKP 46 55.00 8.9X
EJIF 152.79 340 ePKP 47 00.32 14.1X
MBO 176.67 6 ePKP 47 05.40 -1.1
S.D. = 1.1 on 207 of 301 obs.

• MAR 06, 1993 17h 15m 34.47± 0.51s
11.234 S ± 9.5km 163.297 E ±12.8km
DEPTH = 31.2km (2 depth phases)
4.7mb (13 obs.)
SOLOMON ISLANDS (193)

DZM 11.19 165 iPc 18 15.70 0.2
BRS 18.87 210 eP 20 03.00 8.2X
RMQ 20.45 220 eP 20 15.60 3.4X
1.2s 29.00nm 4.5mb
ARMA 21.95 208 eP 20 33.10 5.6X
1.0s 20.00nm 4.5mb
STK 28.69 221 eP 21 30.10 -0.8
0.2s 3.70nm 4.7mb
ASPA 30.57 242 eP 21 47.80 -0.1
0.7s 8.50nm 4.7mb
SSE 58.34 317 Pd 25 32.50 3.4X
1.0s 13.00nm 5.0mb
CN2 64.70 331 eP 26 11.00 -0.7
1.0s 5.80nm 4.6mb
TIY 68.09 318 eP 26 33.00 -0.6
XAN 68.49 313 P 26 35.70 -0.4
1.0s 2.10nm 4.2mb
KMI 69.18 302 eP 26 41.60 0.8
sP 26 54.50
CD2 70.82 308 P 26 50.50 0.0
LZH 73.12 313 eP 27 04.50 0.3
1.5s 24.00nm 5.0mb
Z 16s 3.12um 5.7MszX
pP 27 14.50 32km
GTA 77.47 315 P 27 29.50 0.6
1.0s 10.00nm 4.8mb
pP 27 39.00 30km
sP 27 47.00
SVW 79.05 19 eP 27 37.06 0.1
1.1s 16.47nm 5.0mb
IMA 83.35 16 P 28 00.10 0.5
1.0s 3.00nm 4.4mb
FBA 84.26 19 eP 28 03.41 -0.7
1.0s 5.88nm 4.7mb
GUN 84.32 300 P 28 03.80 -1.8
PKI 84.63 299 P 28 07.80 0.7
KKN 84.80 300 P 28 08.80 1.0
DMN 84.90 299 P 28 09.60 1.2
GKN 85.40 300 P 28 11.20 0.4
MSU 92.67 51 eP 28 46.77 1.7
YKA 96.25 28 eP 28 58.40 -2.2
1.1s 1.50nm 4.4mb
S.D. = 1.0 on 20 of 24 obs.

• MAR 06, 1993 17h 24m 36.61± 1.01s
11.176 S ±11.7km 163.527 E ±13.6km
DEPTH = 33.0km (normal)
3.9mb (2 obs.)
SOLOMON ISLANDS (193)

HNR 3.93 296 eP 25 36.00 -0.1
eS 26 25.00
SVO 4.17 299 eP 25 40.00 0.4
RMQ 20.64 220 eP 29 16.60 0.5
CMS 26.01 216 eP 30 08.80 0.4
WB2 29.39 249 eP 30 38.10 -1.2
0.9s 1.30nm 3.7mb
ASPA 30.80 242 eP 30 52.00 0.2
GUN 84.48 300 P 37 00.00 -8.3X
YKA 96.09 28 eP 38 02.20 0.4
0.9s 0.60nm 4.1mb
BCAO 144.70 262 iPKPc 44 12.00 -0.7
0.5s 5.00nm
S.D. = 0.7 on 8 of 9 obs.

• MAR 06, 1993 18h 08m 22.12± 1.58s
11.139 S ± 8.2km 163.614 E ± 9.2km
DEPTH = 37.9 ± 13.9 km
4.7mb (14 obs.)
SOLOMON ISLANDS (193)

HNR 3.99 295 iP 09 23.00 0.6
iS 10 08.00
SVO 4.23 298 eP 09 26.00 0.1
BKM 7.89 146 iPd 10 16.10 -1.3
DZM 11.20 166 iPd 11 01.20 -1.8
CTA 18.92 240 P 12 45.00 2.4
BRS 19.11 211 iP 12 45.50 0.7
RMQ 20.73 220 iPc 13 03.30 1.3
1.0s 30.00nm 4.6mb
ARMA 22.18 208 iPc 13 18.30 1.5
0.8s 19.00nm 4.6mb
CMS 26.09 216 eP 13 55.00 0.8
0.7s 8.00nm 4.4mb
STK 28.97 221 eP 14 21.00 0.6
0.8s 3.00nm 4.0mb
WB2 29.48 249 eP 14 23.80 -1.3
0.6s 6.40nm 4.5mb
WRA 29.49 249 P 14 24.60 -0.6
0.6s 1.90nm 4.0mb
ASPA 30.89 242 eP 14 35.60 -2.0
0.8s 11.80nm 4.7mb
TOO 30.95 209 eP 14 37.30 -0.6
1.0s 15.00nm 4.7mb
WARB 37.93 242 eP 15 38.00 0.0
SSE 58.48 317 eP 18 14.50 -2.5
1.0s 11.00nm 4.9mb
BJI 67.26 322 eP 19 12.50 -2.5
KMI 69.39 302 eP 19 28.00 -0.9
pP 19 31.00 10kmX
CHTO 70.35 295 eP 19 36.50 1.9
LZH 73.28 313 eP 19 53.00 1.0
1.2s 30.00nm 5.1mb
pP 20 03.50 34kmX
SVW 78.86 19 eP 20 23.27 0.5
1.0s 19.03nm 5.0mb
IMA 83.17 16 eP 20 46.20 0.7
1.1s 8.90nm 4.8mb
FBA 84.07 19 eP 20 49.30 -0.6
0.9s 8.33nm 4.9mb
GUN 84.54 300 P 20 53.60 0.1
PKI 84.85 299 P 20 54.00 -1.0
KKN 85.02 299 P 20 55.60 -0.1
DMN 85.12 299 P 20 56.40 0.1
GKN 85.63 299 P 20 58.40 -0.3
PLM 87.46 55 eP 21 08.93 1.4
BONR 87.56 51 eP 21 09.87 1.8
ARUT 91.24 52 eP 21 27.12 1.9
MSU 92.37 51 eP 21 32.60 2.1
YKA 96.02 28 eP 21 44.70 -1.7
0.9s 1.50nm 4.5mb
NB2 126.23 344 PKP 27 21.50 -0.6
0.7s 1.20nm
BCAO 144.79 262 iPKPd 27 56.00 -1.8
0.6s 20.00nm
id 28 07.10
S.D. = 1.4 on 35 of 35 obs.

MAR 06, 1993 18h 43m 47.42± 0.52s
42.917 N ± 5.7km 0.239 E ± 5.0km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.0 (LDG). mbLg 2.7 (MDD).
Felt (II) at Bogneres de
Bigorre, France.

ENSF 0.13 148 Pg 43 51.79 1.1
Sg 43 56.15
EPF 0.14 33 Pg 43 49.70 -1.0
Sg 43 52.00
BTH 0.39 302 iPgd 43 51.40 -3.9X
iSg 43 54.70
i(Lg) 43 56.30
SALF 0.72 102 Pg 44 01.89 0.3
EGRA 0.83 210 eP 44 02.40 -1.0
eS 44 12.50
GRBF 0.96 94 Pg 44 05.70 0.0
ELIZ 1.32 281 eP 44 12.60 0.8
LPO 1.89 21 Pg 44 19.70 -0.4
Sg 44 44.40
ECRI 2.05 262 eP 44 22.80 0.4
eS 44 48.70
LFF 2.05 10 Pg 44 22.90 0.5
Sg 44 48.00
CAF 2.40 33 Pg 44 30.30 2.9X
Sg 45 01.00
RJF 2.56 21 Pg 44 32.60 3.0X
Sg 45 04.20
ETOR 2.71 220 eP 44 31.20 -0.7
LSF 3.46 15 Pn 44 36.40 -6.0X
Pg 44 48.60

Sg 45 31.60
TCF 3.65 22 Pg 44 51.70 6.5X
Sg 45 39.40
MFF 3.70 356 Pg 44 52.70 6.9X
Sg 45 37.70
S.D. = 0.8 on 10 of 16 obs.

---

* MAR 06, 1993 19h 43m 53.30± 0.85s
51.126 N ± 8.2km 5.953 E ± 8.0km
DEPTH = 10.0km (geophysicist)
THE NETHERLANDS (540)
ML 2.2 (BNS).

ENN 0.36 183 eP 44 00.50 -0.2
0.5s 8.90nm
eS 44 06.00
BNS 0.79 101 iPgc 44 08.76 0.1
0.3s 77.00nm
iSg 44 19.08
WTS 1.02 31 eP 44 12.50 -0.1
0.7s 8.20nm
eS 44 26.00
SNF 1.22 240 iPd 44 16.00 -0.1
DOU 1.35 221 iPd 44 18.30 0.2
iS 44 36.20
WLF 1.47 175 iP 44 40.09 20.3X
S.D. = 0.3 on 5 of 6 obs.

& MAR 06, 1993 19h 49m 37.64s
58.468 N 154.316 W
DEPTH = 95.6km
ALASKA PENINSULA (12)
<AEIC>.

MCNL 0.72 359 iP 49 54.24 -0.8
S 50 06.90
AUI 0.98 28 iP 49 56.80 -1.0
eS 50 11.56
AUH 1.01 26 iP 49 57.31 -0.9
AUE 1.02 28 iP 49 57.48 -0.7
SYI 1.02 81 iP 49 57.16 -1.0
eS 50 12.08
AUL 1.02 26 iP 49 57.41 -0.9
KDC 1.21 126 eP 49 58.58 -1.8
eS 50 16.25
PDB 1.33 3 iP 50 00.67 -1.2
eS 50 17.96
INW 1.72 20 iP 50 05.53 -1.4
INE 1.72 21 iP 50 05.73 -1.4
RS1 2.15 21 iP 50 11.38 -1.4
RS2 2.15 21 iP 50 11.43 -1.4
RSO 2.15 21 iP 50 11.40 -1.4
RDW 2.16 20 iP 50 11.48 -1.4
BRLK 2.20 52 eP 50 11.23 -2.0
NCT 2.22 18 eP 50 11.70 -1.8
DFR 2.29 21 iP 50 13.01 -1.5
SVW 2.73 347 (P) 50 19.22 -1.2
CKL 2.91 19 iP 50 21.19 -1.8
SLKM 2.92 44 iP 50 20.70 -2.4
CKT 2.94 20 eP 50 21.58 -1.8
SPU 2.95 22 iP 50 21.38 -2.1
CKN 2.97 20 eP 50 22.38 -1.3
BGL 2.97 18 eP 50 22.27 -1.5
SEW 2.99 55 eP 50 21.16 -2.7
CPAM 3.00 20 eP 50 23.12 -1.1
MPA 3.24 49 eP 50 24.83 -2.5
SUA 3.50 29 eP 50 29.04 -2.0
PTE 3.60 46 iP 50 29.61 -2.7
PMS 3.68 39 P 50 31.00 -2.4
SKT 3.79 20 eP 50 32.43 -2.5
PWA 3.89 33 P 50 34.50 -1.8
BALM 6.57 62 (P) 51 09.64 -3.8
(S) 52 20.11
33 obs. associated

? MAR 06, 1993 19h 50m 26.55± 5.09s
31.689 S ±19.0km 179.554 W ±23.7km
DEPTH = 171.4 ± 40.8 km
4.7mb (9 obs.)
KERMADEC ISLANDS REGION (177)

DZM 15.73 304 iPd 54 00.10 -0.1
BRS 24.42 273 iPc 55 33.50 2.7X
ARMA 24.69 265 eP 55 37.10 3.7X
CAN 26.41 254 eP 55 55.50 6.5X
BWA 26.92 256 eP 55 52.50 -1.1
RMQ 28.12 272 iPd 56 06.30 1.9
1.3s 36.00nm 4.9mb
TOO 29.24 249 eP 56 15.00 0.6
0.8s 11.00nm 4.6mb
CMS 29.42 261 eP 56 17.30 1.4
0.8s 7.00nm 4.4mb
BFD 31.59 249 eP 56 34.70 -0.2
1.1s 26.00nm 4.9mb
CTA 32.73 282 iPc 56 45.20 0.2
1.0s 17.50nm 4.7mb
ASPA 41.73 269 eP 57 58.90 -1.4
1.3s 14.00nm 4.4mb
WB2 42.83 274 eP 58 07.80 -1.4
0.4s 32.10nm 5.3mb
WRA 42.84 274 P 58 09.10 -0.2
0.7s 4.60nm 4.2mb
SPA 58.48 180 ePd 00 06.50 -0.1
1.0s 55.00nm 5.4mb
KAF 145.29 339 iPKP 09 35.00 -9.4X
0.6s 8.30nm
OBN 145.43 323 iPKPd 09 38.00 -6.9X
1.6s 144.00nm
e 10 07.00
e 10 19.50
NUR 147.03 338 ePKP 09 40.70 -6.6X
0.9s 37.20nm
8CAO 148.01 216 iPKPc 09 46.00 -4.3X
0.6s 14.00nm
id 10 09.00
NB2 149.80 350 PKP 09 47.20 -4.5X
0.9s 4.40nm
HFS 150.21 347 ePKP 09 47.50 -4.8X
0.9s 3.40nm
HRI 150.27 283 ePKP 09 53.50 0.1
ARVI 150.33 277 ePKP 09 53.30 -0.1
BHL 150.41 284 PKP 09 54.00 0.4
SAGI 150.69 276 ePKP 09 54.00 0.0
S.D. = 1.0 on 15 of 24 obs.

MAR 06, 1993 20h 07m 06.26± 0.92s
56.246 N ± 8.2km 155.813 W ± 5.6km
DEPTH = 78.6 ± 8.1 km
4.4mb (4 obs.)
ALASKA PENINSULA (12)

KDC 2.36 49 iPd 07 44.81 1.3
SDN 2.80 253 eP 07 48.64 -1.0
SYI 3.01 37 iP 07 53.90 1.4
MCNL 3.05 14 iP 07 53.69 0.5
eS 08 27.67
AUI 3.35 21 eP 07 58.50 1.2
S 08 36.44
AUH 3.37 21 iP 07 58.94 1.2
AUW 3.37 21 eP 07 59.01 1.4
AUE 3.38 22 eP 07 59.22 1.5
AUL 3.39 21 eP 07 59.27 1.4
PDB 3.65 13 iP 08 01.79 0.2
eS 08 42.38
XLV 3.89 32 eP 08 05.92 1.1
INW 4.09 19 eP 08 08.48 0.7
eS 08 54.19
INE 4.09 20 iP 08 08.47 0.6
BRLK 4.39 35 iP 08 12.30 0.3
S 08 58.49
RS1 4.52 20 iP 08 14.64 0.7
eS 09 05.85
RS2 4.52 20 iP 08 14.69 0.7
eS 09 05.96
RSO 4.52 20 iP 08 14.66 0.7
RDW 4.53 19 iP 08 14.75 0.7
RDN 4.57 19 iP 08 15.32 0.8
NCT 4.59 18 iP 08 15.33 0.6
DFR 4.66 19 iP 08 16.28 0.6
SVW 4.88 1 eP 08 17.79 -0.9
SEW 5.13 38 iP 08 21.47 -0.6
SLKM 5.19 32 iP 08 22.48 -0.5
CKL 5.28 19 iP 08 24.69 0.2
CKT 5.31 19 iP 08 24.83 0.0
SPU 5.32 20 iP 08 24.83 -0.1
BGL 5.34 18 iP 08 25.59 0.4
CKN 5.34 19 iP 08 25.62 0.5
CP2 5.36 19 eP 08 25.50 -0.2
CPAM 5.37 19 iP 08 25.83 0.1
CRP 5.38 19 eP 08 24.57 -1.3
MPA 5.44 36 iP 08 26.06 -0.5
PTE 5.84 35 eP 08 31.03 -0.9
SUA 5.86 25 iP 08 32.16 -0.2
eS 09 35.59
PMS 5.97 30 P 08 33.50 -0.5
S 09 36.40
MID 5.98 54 P 08 35.50 1.5
SKT 6.16 19 eP 08 35.62 -0.9
PWA 6.23 27 P 08 37.00 -0.4
PLRM 6.38 30 eP 08 38.07 -1.4
PMR 6.38 30 eP 08 38.13 -1.3
HIN 6.43 46 eP 08 39.52 -0.7
GHO 6.58 30 eP 08 41.13 -1.3
SML 6.78 32 iP 08 44.29 -0.8
CVA 6.82 47 eP 08 44.66 -0.9
VLZ 6.95 41 iP 08 47.02 -0.4
SGAM 7.02 48 eP 08 47.95 -0.4
KAIM 7.08 54 eP 08 49.27 0.1
SCM 7.11 34 iP 08 48.97 -0.6
RAGM 7.18 50 iP 08 50.36 -0.3
KLU 7.34 40 iP 08 52.33 -0.5
HUR 7.44 22 eP 08 53.33 -0.8
TRF 7.74 19 iP 08 56.90 -1.6
TZL 7.89 38 eP 09 00.83 0.5
SNH 7.90 55 eP 09 00.26 -0.3
RND 7.99 23 eP 08 59.65 -2.1
CRQM 8.03 51 eP 09 02.04 -0.4
GLB 8.11 45 iP 09 02.95 -0.5
TGL 8.16 51 iP 09 03.87 -0.3
SDG 8.19 36 eP 09 05.11 0.7
YAH 8.47 55 iP 09 08.48 -0.1
BALM 8.50 50 eP 09 08.26 -0.6
PAX 8.53 34 eP 09 08.02 -1.2
CTGM 8.91 52 eP 09 14.61 0.2
NEA 8.99 19 eP 09 12.34 -3.1X
HDA 9.28 25 eP 09 16.76 -2.6X
CCB 9.30 22 eP 09 16.35 -3.3X
DOT 9.46 34 eP 09 21.46 -0.4
MDM 9.49 20 eP 09 19.41 -2.9X
FBA 9.53 21 eP 09 19.28 -3.4X
GLM 9.69 22 eP 09 22.26 -2.7X
IMA 9.91 5 ePc 09 26.97 -1.1
YKA 21.59 56 eP 11 53.00 2.4
0.6s 2.60nm 3.8mb
KAF 61.97 359 eP 17 20.00 0.5
0.3s 3.30nm 4.9mb
NB2 62.61 7 P 17 50.00 26.2X
0.9s 4.20nm
NUR 63.59 360 iP 17 31.00 0.8
0.4s 4.40nm 4.8mb
HFS 63.67 6 eP 17 31.20 0.5
0.4s 0.80nm 4.1mb
S.D. = 0.9 on 70 of 77 obs.

---

* MAR 06, 1993 20h 43m 57.32± 1.51s
40.237 N ± 8.1km 143.997 E ±15.9km
DEPTH = 14.6 ± 5.0 km
4.4mb (7 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 2.14 238 iP 44 33.60 0.7
eS 44 58.10
HOOJ 2.21 346 P 44 33.80 -0.1
eS 44 59.40
AOMJ 2.79 278 P 44 42.60 0.4
KUSJ 2.91 10 P 44 32.00 -11.8X
eS 45 15.30
MRRJ 3.10 316 P 44 46.30 -0.3
eS 45 21.50
YAMJ 3.70 237 iP+ 44 55.70 0.5
ASAJ 4.01 346 eP 44 59.10 -0.3
eS 45 42.50
NIIJ 4.92 234 P 45 12.60 0.2
KAKJ 5.03 218 P 45 12.30 -1.6
S 46 06.40
CHJJ 5.75 225 P 45 23.40 -0.7
S 46 26.50
MAT 5.85 233 iPc 45 26.00 0.3
0.7s 20.55nm 4.9mb X
(S) 47 03.00
MTMJ 6.08 235 P 45 29.40 0.5
GUN 48.90 274 P 52 44.80 -0.2
KKN 49.42 274 P 52 48.80 0.0
PKI 49.43 274 P 52 49.80 0.8
DMN 49.64 274 P 52 50.40 -0.2
GKN 49.80 275 P 52 50.40 -1.3
YKA 60.03 32 eP 54 05.50 0.1
0.4s 0.20nm 3.6mb
KAF 66.39 333 eP 54 46.00 -1.3
0.6s 1.80nm 4.4mb
NUR 68.07 332 eP 54 56.70 -1.3

```
          0.4s      4.20nm             5.0mb
HFS      71.99 336 eP      55 21.10   -0.8
          0.4s      1.20nm             4.3mb
NB2      72.00 338 P       55 21.50   -0.5
          0.7s      1.50nm             4.2mb
LOR      85.93 334 eP      56 38.60    0.8
          0.8s      1.90nm             4.3mb
LBF      86.14 334 eP      56 39.60    0.7
LPG      86.44 331 eP      56 43.20    2.4
AVF      86.52 334 eP      56 41.80    1.1
          0.5s      1.95nm             4.6mb
     S.D. = 1.0  on  25 of  26 obs.
----------------------------------------
? MAR 06, 1993  20h 53m 14.49± 2.23s
   9.748 S ±21.6km  165.383 E ±24.8km
   DEPTH =  33.0km  (normal)
   4.0mb (  2 obs.)
 SANTA CRUZ ISLANDS                (184)

HNR       5.37 273 eP      54 34.00   -0.4
                   eS      55 20.00
SVO       5.53 276 eP      54 37.00    0.4
RMO      22.91 221 eP      58 15.50   -1.2
CMS      28.24 217 eP      59 07.80    1.2
WB2      31.61 248 eP      59 34.30   -2.5X
          1.2s      1.70nm             3.8mb
WRA      31.62 248 P       59 38.50    1.6
          0.5s      1.60nm             4.1mb
ASPA     33.08 241 P       59 48.20   -1.4
TIY      68.37 317 eP      04 15.00   -0.2
     S.D. = 1.4  on   7 of   8 obs.
----------------------------------------
   MAR 06, 1993  20h 57m 51.09± 0.47s
   46.420 N ± 8.2km  153.256 E ± 6.7km
   DEPTH =  37.5km  (  3 depth phases)
   4.6mb ( 30 obs.)
 KURIL ISLANDS                     (221)

KUR       3.95 254 iPnc    58 51.00    0.2
       Z  14s       2.80um
SKR       4.65  23 (Pn)    59 01.20    0.5
       Z  12s       2.00um
       E  12s       3.30um
KUSJ      6.93 244 eP      59 28.00   -4.8X
                   eS      00 43.00
YSS       7.27 279 iPnd    59 40.50    3.0X
       Z  16s       0.40um
       E  16s       0.40um
PET       7.47  26 ePn     59 41.00    0.7
       Z  20s       0.45um
ASAJ      7.83 257 eP      59 45.70    0.3
HOOJ      8.20 244 eP      59 46.40   -4.1X
                   eS      01 14.40
MRRJ      9.59 250 eP      00 07.80   -1.8
MGD      13.78 355 eP      01 06.00    0.0
          1.0s     20.00nm             4.9mb
       Z  16s       0.50um             4.0Msz
       N  16s       0.50um
MAT      14.96 234 eP      01 16.00   -5.5X
SEY      16.52 359 eP      01 42.00    0.7
YAK      20.63 328 eP      02 28.00   -1.5
          1.0s     25.00nm             4.5mb
ILT      25.92  24 iPd     03 21.40    0.4
          1.8s     32.00nm             4.6mb
                   i       04 07.80 241kmX
BOD      26.19 310 eP      03 27.70    4.1X
          1.1s      8.00nm             4.2mb
ZAK      32.91 296 iPc     04 22.50   -1.1
          0.9s     13.00nm             4.8mb
       Z  14s       0.49um             4.4MszX
       E  14s       0.48um
IMA      34.02  36 eP      04 31.89   -1.4
          0.8s      2.07nm             4.1mb
FBA      36.36  38 eP      04 51.80   -1.2
          0.9s      4.76nm             4.4mb
LZH      38.00 272 eP      05 08.50    1.2
          1.5s     24.00nm             4.9mb
       Z  16s       3.12um             5.2MszX
                   pP      27 14.50
KMI      45.28 260 Pd      06 07.00   -0.1
          1.0s     30.00nm             5.1mb
                   e       06 13.00  20kmX
YKA      51.13  37 eP      06 49.80   -2.0
          0.7s      0.90nm             3.9mb
CHTO     52.14 257 eP      07 00.20    0.2
GUN      55.13 275 P       07 21.60   -0.8
ARU      55.32 318 eP      07 21.00   -2.0
```

```
KKN      55.62 276 P       07 26.20    0.5
PKI      55.67 275 P       07 20.20   -6.0X
DMN      55.85 276 P       07 22.80   -4.7X
GKN      55.93 276 P       07 28.60    0.7
TNP      63.38  62 eP      08 20.00    0.9
          0.7s      1.11nm             4.1mb
KAF      63.78 335 iP      08 20.00   -1.1
          0.8s     10.40nm             5.0mb
BW06     64.86  54 eP      08 28.29   -0.4
          0.8s      1.07nm             4.0mb
NUR      65.55 335 eP      08 31.40   -1.1
          0.7s      6.90nm             4.8mb
RSSD     66.96  50 (P)     08 40.59   -1.5
          1.0s      4.91nm             4.5mb
HYB      67.10 271 eP      08 42.00   -1.1
MAIO     67.11 299 eP      08 44.00    1.0
PV10     68.07  57 eP      08 48.32   -0.9
PV08     68.16  57 eP      08 49.96    0.1
NB2      68.57 341 P       08 50.80   -0.9
          0.8s      7.10nm             4.8mb
HFS      68.80 340 eP      08 51.70   -1.3
          0.5s      3.80nm             4.7mb
GBA      70.52 269 P       09 03.00   -1.1
KIV      71.10 314 (P)     09 07.10   -0.4
ASPA     71.93 199 eP      09 13.70    1.3
          2.1s      6.80nm             4.3mb
KSP      76.24 334 eP      09 37.60    0.5
SPC      76.39 330 eP      09 43.20    5.0X
CLL      76.81 336 iP      09 39.50   -0.7
          1.1s     11.00nm             4.8mb
PRU      77.53 334 P       09 44.50    0.3
                   e       09 56.50   40km
SRO      78.23 331 eP      09 48.70    0.6
ZST      78.30 332 e(P)    09 49.00    0.5
KHC      78.58 334 P       09 51.00    0.9
          1.0s      5.40nm             4.5mb
                   e       10 03.00   40km
GRF      78.76 336 iPc     09 51.60    0.6
          1.1s      8.00nm             4.6mb
GEC2     78.80 334 P       09 50.90   -0.4
          0.8s      1.77nm             4.1mb
                   e       10 01.10   32km
                   PcP     10 04.10
KBA      80.48 333 i(P)    10 03.30    2.8X
CDF      81.00 338 eP      10 03.60    0.5
          1.0s      7.60nm             4.6mb
BSF      81.66 338 eP      10 06.70    0.1
GRR      82.91 343 eP      10 13.50    0.6
LOR      82.92 340 eP      10 13.50    0.4
          0.9s      5.10nm             4.6mb
SSF      83.20 340 eP      10 15.00    0.5
          0.9s      4.10nm             4.5mb
AVF      83.49 340 eP      10 16.70    0.8
          0.9s      6.90nm             4.8mb
SMF      83.51 339 eP      10 16.80    0.7
          1.1s     14.90nm             5.0mb
LPL      83.82 337 eP      10 19.30    1.4
          0.6s      2.05nm             4.4mb
LPG      83.83 337 eP      10 19.40    1.3
BGF      83.83 340 eP      10 18.50    0.8
MAF      84.21 340 eP      10 20.70    1.1
          1.2s     14.00nm             5.0mb
LSF      84.43 341 eP      10 21.40    0.7
CAF      85.55 340 eP      10 29.30    2.9X
LFF      85.85 341 eP      10 29.50    1.7
          0.9s     11.80nm             5.1mb
MAW     131.97 211 e(PKP)16 57.00   -3.8X
          0.7s    100.00nm
     S.D. = 1.0  on  55 of  66 obs.
----------------------------------------
? MAR 06, 1993  21h 21m 47.85±11.03s
   11.463 S ±41.6km  162.643 E ±138.km
   DEPTH =  33.0km  (normal)
   4.0mb (  3 obs.)
 SOLOMON ISLANDS                   (193)

HNR       3.33 307 eP      22 39.00    0.1
                   eS      23 23.00
SVO       3.61 309 eP      22 43.00    0.2
                   eS      23 30.00
RMQ      19.87 219 eP      26 20.40    1.1
CMS      25.27 215 eP      27 12.60   -0.1
WB2      28.47 249 eP      27 41.40   -0.9
          0.5s      1.70nm             4.0mb
WRA      28.48 249 P       27 43.50    1.1
          0.7s      1.50nm             3.8mb
ASPA     29.90 242 eP      27 53.50   -1.6
```

```
          0.9s      3.30nm             4.1mb
     S.D. = 1.2  on   7 of   7 obs.
----------------------------------------
   MAR 06, 1993  21h 30m 51.38± 0.42s
   38.887 S ± 4.1km  175.854 E ± 4.8km
   DEPTH = 146.7 ±  5.5 km
   3.7mb (  1 obs.)
 NORTH ISLAND, NEW ZEALAND         (159)

NGZ       0.35 214 P       31 11.80   -0.1
CNZ       0.39 217 eP      31 12.00    0.0
WHH       0.50  90 eP      31 11.50   -1.2
PATZ      0.60  32 P       31 12.90   -0.3
UTU       0.76  21 P       31 14.70    0.5
TAZ       0.83  38 P       31 14.90    0.2
WAHZ      0.90 155 P       31 15.30    0.0
PAHZ      0.94  89 P       31 15.40   -0.2
TTH       1.00 131 P       31 16.20    0.1
                   S       31 31.00
MOH       1.04 104 P       31 16.40    0.0
URZ       1.17  58 Pd      31 17.30   -0.3
                   S       31 32.90
TEHZ      1.33 146 P       31 19.30    0.1
MAHZ      1.61 101 eP      31 22.00   -0.2
NOZ       1.73  82 P       31 23.70    0.2
MNG       1.75 189 P       31 24.30    0.5
                   S       31 44.70
PGZ       1.76 170 P       31 23.70   -0.2
KIW       2.10 200 P       31 28.30    0.4
MTW       2.29 187 P       31 30.00   -0.1
CAW       2.30 195 eP      31 30.50    0.2
HBZ       2.32  57 eP      31 31.30    0.8
DIW       2.42 217 eP      31 32.30    0.4
MRW       2.50 200 eP      31 33.00    0.2
MOW       2.57 190 P       31 33.40   -0.3
TCW       2.62 207 P       31 34.60    0.3
QRZ       3.21 232 eP      31 42.30    0.4
                   S       32 20.00
THZ       3.65 217 eP      31 47.00   -0.7
KHZ       3.94 206 eP      31 51.20   -0.2
DSZ       4.21 226 eP      31 54.90   -0.2
WB2      40.37 286 eP      38 15.90   -0.3
          0.9s      1.50nm             3.7mb
     S.D. = 0.4  on  29 of  29 obs.
----------------------------------------
? MAR 06, 1993  23h 02m 49.29± 0.83s
   55.250 S ± 8.8km  145.779 E ±37.2km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  4 obs.)
 WEST OF MACQUARIE ISLAND          (701)

DRV      11.78 191 eP      05 40.00   -0.2
TOO      17.68 359 eP      07 01.30    4.2X
CAN      20.05   8 eP      07 26.00    0.8
CNB      20.09   9 eP      07 25.10   -0.5
          0.9s     13.00nm             4.3mb
BWA      20.90   6 eP      07 33.80   -0.3
STK      23.55 351 eP      08 00.00   -0.3
          0.6s      2.00nm             3.9mb
                   i       08 03.10
ASPA     32.75 340 iPc     09 24.50    0.2
          0.9s      5.00nm             4.4mb
WB2      36.29 342 iPd     09 54.50   -0.2
          0.6s     13.30nm             5.0mb
GEC2    150.34 278 PKP     22 36.40    0.5
          0.7s      0.64nm
GRF     152.17 278 e(PKP)22 42.00    3.5X
     S.D. = 0.5  on   8 of  10 obs.
----------------------------------------
* MAR 06, 1993  23h 11m 36.98± 1.30s
   10.676 S ±14.5km  164.134 E ±16.0km
   DEPTH =  33.0km  (normal)
   4.1mb (  2 obs.)
 SANTA CRUZ ISLANDS REGION         (183)

HNR       4.30 286 eP      12 41.00   -0.8
                   eS      13 30.00
DZM      11.54 169 iPc     14 22.20   -0.5
CTA      19.60 239 iP      16 07.00    1.4
BRS      19.77 211 eP      16 07.00   -0.3
RMQ      21.41 221 eP      16 31.80    7.6X
ARMA     22.83 209 eP      16 49.50   11.0X
          1.0s      9.00nm
WB2      30.12 249 eP      17 50.40    4.2X
          0.7s      2.60nm             4.1mb
KMI      69.58 302 eP      22 50.00    4.5X
                   pP      22 56.00   19kmX
```

06d 23h

```
GUN     84.76 300 P      24 00.00 -10.0X
YKA     95.38  27 eP     24 59.20   0.3
         0.8s     0.70nm            4.2mb
BCAO   145.36 262 iPKPc 31 22.30   8.1X
         1.0s    20.00nm
                  id     31 28.00
      S.D. = 1.2  on    5 of   11 abs.
----------------------------------------
& MAR 06, 1993  23h 33m 28.56s
   58.221 N            155.975 W
   DEPTH = 125.2km
   3.2mb (  1 abs.)
 ALASKA PENINSULA                  ( 12)
      <AEIC>.

MCNL     1.29  41 P      33 53.20  -1.1
                  S      34 12.40
AUI      1.73  49 P      33 58.50  -1.0
AUW      1.74  47 P      33 58.00  -1.5
AUH      1.75  48 P      33 58.50  -1.2
AUL      1.76  48 eP     33 58.56  -1.2
AUE      1.77  49 eP     33 57.56  -2.3
PDB      1.82  30 P      33 59.20  -1.3
                  S      34 23.00
KDC      1.92 103 eP     33 59.46  -2.2
                  eS     34 24.64
SYI      1.93  77 eP     34 00.33  -1.4
INW      2.36  37 eP     34 05.67  -1.8
INE      2.38  38 eP     34 05.94  -1.8
RS1      2.79  35 eP     34 11.88  -1.1
                  S      34 43.55
RDW      2.79  34 eP     34 12.12  -0.9
RS2      2.79  35 eP     34 12.09  -1.0
RSO      2.79  35 eP     34 11.54  -1.5
NCT      2.82  32 eP     34 11.33  -2.0
SVW      2.90   3 iPd    34 12.47  -1.9
DFR      2.91  34 P      34 13.10  -1.5
BRLK     3.05  57 eP     34 15.10  -1.3
                  eS     34 47.63
CKL      3.51  30 eP     34 21.06  -1.5
CKT      3.55  31 eP     34 21.57  -1.5
BGL      3.55  29 eP     34 18.73  -4.4
CKN      3.57  31 eP     34 22.11  -1.2
SPU      3.57  32 eP     34 21.88  -1.5
CP2      3.59  30 eP     34 18.35  -5.4
CPAM     3.61  31 eP     34 22.32  -1.6
CRP      3.62  31 eP     34 22.51  -1.5
SLKM     3.73  50 P      34 23.60  -1.9
SEW      3.85  58 eP     34 24.52  -2.5
                  S      35 04.78
MPA      4.08  53 iP     34 28.01  -2.1
SUA      4.19  37 eP     34 29.26  -2.4
SKT      4.38  29 P      34 32.00  -2.2
PTE      4.42  50 eP     34 31.81  -2.9
PMS      4.44  44 P      34 32.70  -2.3
PWA      4.61  39 P      34 35.00  -2.2
PLRM     4.83  43 eP     34 37.05  -3.1
GHO      5.02  42 eP     34 38.33  -4.6
MID      5.15  72 P      34 42.20  -2.4
SML      5.26  44 P      34 41.70  -4.4
HIN      5.32  62 eP     34 43.38  -3.6
SCM      5.65  46 eP     34 47.21  -4.3
VLZ      5.69  55 P      34 48.90  -3.0
HUR      5.70  31 eP     34 48.73  -3.4
CVA      5.72  62 eP     34 48.47  -3.9
TRF      5.94  26 P      34 51.90  -3.6
SGAM     5.96  63 eP     34 51.83  -3.9
KLU      6.03  53 P      34 52.70  -4.1
RAGM     6.18  65 eP     34 55.03  -3.7
KAIM     6.20  69 eP     34 56.26  -2.7
RND      6.26  31 eP     34 55.65  -4.2
MCK      6.50  29 eP     34 59.83  -3.3
SDG      6.73  46 eP     35 01.60  -4.7
GLB      6.93  57 eP     35 05.08  -3.8
CROM     7.01  63 eP     35 06.63  -3.6
SNH      7.03  68 eP     35 06.58  -3.7
PAX      7.03  43 eP     35 06.25  -4.1
TGL      7.16  64 P      35 08.30  -3.8
NEA      7.18  24 eP     35 07.03  -5.3
CYK      7.18  69 eP     35 09.78  -2.5
BALM     7.46  62 P      35 12.50  -3.7
CCB      7.54  28 eP     35 11.56  -5.5
HDA      7.57  31 iP     35 11.74  -5.8
YAH      7.60  68 P      35 15.30  -2.8
MDM      7.70  25 eP     35 14.17  -5.1
FBA      7.75  27 P      35 14.60  -5.4
CTGM     7.92  64 eP     35 19.55  -2.9
```

```
GLM      7.92  27 iP     35 17.01  -5.3
IMA      7.95   7 eP     35 18.71  -4.1
YKA     20.63  61 eP     37 55.00  -4.3
         0.5s     0.60nm            3.2mb
        69 abs. assaciated
----------------------------------------
? MAR 07, 1993  00h 14m 15.10± 6.81s
   43.515 N ±12.1km   16.827 W ±58.0km
   DEPTH = 10.0km  (geophysicist)
 NORTH ATLANTIC OCEAN             (402)
      mbLg 3.0 (MDD).

STS      6.08  93 iPn    15 47.50   0.3
                  eSn    16 49.00
EZAM     6.13 100 ePn    15 48.50   0.6
                  eSn    16 52.00
ERUA     7.19  96 ePn    16 02.80  -0.1
                  eSn    17 17.00
EPLA     8.74 110 ePn    16 24.00  -0.4
                  eSn    17 56.00
GUD      9.85 103 ePn    16 40.00   0.1
                  eSn    18 23.80
EHOR    10.47 119 ePn    16 48.00  -0.2
ECRI    10.52  90 ePn    16 49.00   0.0
ETOR    11.29  99 ePn    17 00.20   0.6
LPF     11.91  62 Pn     17 04.90  -2.9X
                  Sn     19 02.80
GRR     12.13  61 Pg     17 11.40   0.6
                  Sn     19 07.10
MFF     12.19  70 Pn     17 08.90  -2.8X
                  Sn     19 07.90
FLN     12.49  59 Pn     17 15.50  -0.1
                  Sn     19 15.10
EPF     12.53  86 Pn     17 16.40   0.2
                  Sn     19 17.80
LDF     12.66  61 Pn     17 18.40   0.5
                  Sn     19 20.30
LFF     12.68  77 Pn     17 16.60  -1.6
                  Sn     19 19.30
LPO     13.00  79 Pn     17 19.90  -2.6X
                  Sn     19 28.90
RJF     13.24  76 Pn     17 25.00  -0.6
                  Sn     19 33.90
CAF     13.62  78 Pn     17 28.30  -2.4X
                  Sn     19 43.80
TCF     13.78  72 Pn     17 30.60  -2.1X
                  Sn     19 45.80
MAF     14.02  72 Pn     17 32.90  -3.0X
                  Sn     19 52.80
BGF     14.24  71 Pn     17 36.10  -2.6X
                  Sn     19 56.00
      S.D. = 0.7  on   14 of   21 abs.
----------------------------------------
? MAR 07, 1993  00h 17m 36.96± 2.30s
   42.393 N ±10.2km  142.092 E ±30.7km
   DEPTH =  54.1 ± 16.3 km
   4.4mb (  9 abs.)
 HOKKAIDO, JAPAN  REGION          (224)

SAP      0.87 320 iP     17 53.60   0.4
                  iS     18 09.70
MAT      6.57 208 (P)    19 13.00  -0.3
YAK     21.00 344 eP     22 16.60  -1.0
         1.3s    25.00nm            4.4mb
YKA     58.95  32 eP     27 32.80   0.2
         1.0s     0.90nm            3.9mb
HFS     69.44 335 eP     28 40.00  -0.9
         0.4s     1.50nm            4.3mb
NB2     69.46 337 P      28 39.60  -1.5
         1.0s     4.20nm            4.3mb
KSP     75.83 328 eP     29 19.70   0.9
LOR     83.36 333 iPd    29 59.50   0.2
         1.0s     5.00nm            4.5mb
LBF     83.57 333 iPd    30 00.60   0.2
         0.9s     3.75nm            4.4mb
SSF     83.66 333 iPd    30 01.00   0.2
         1.0s     4.00nm            4.4mb
SMF     83.91 333 iPd    30 02.50   0.5
         1.0s     5.40nm            4.5mb
MAF     84.71 333 iPd    30 07.00   0.9
         0.8s     3.10nm            4.4mb
      S.D. = 0.9  on   12 of   12 abs.
----------------------------------------
  MAR 07, 1993  00h 36m 33.25± 0.21s
   37.710 N ± 4.4km  141.579 E ± 3.6km
   DEPTH =  84.0km  ( 14 depth phases)
   4.8mb ( 55 abs.)
```

```
 NEAR EAST COAST OF HONSHU, JAPAN(228)

YAMJ     1.30 291 iP+    36 57.60   1.0
                  S      37 15.80
OFUJ     1.37   3 P      36 57.30  -0.1
                  S      37 14.90
KAKJ     1.88 217 iPd    37 03.90  -0.2
                  S      37 25.70
NIIJ     2.10 258 iP+    37 08.50   1.3
                  eS     37 34.30
CHJJ     2.65 232 iP+    37 15.40   0.7
                  eS     37 45.70
MAT      2.93 248 iPc    37 20.40   1.8
                  eS     37 58.00
VLA      9.15 309 iPd+   38 44.00  -0.5
         1.6s   317.00nm            5.9mb X
                  e      40 35.00
YSS      9.34   5 iPc    38 42.50  -4.5X
         0.9s    70.00nm            5.5mb
                  eS     40 21.80
SSE     18.06 255 Pc     40 39.20  -0.8
         1.2s    60.00nm            4.7mb
      Z  22s      0.50um            4.0Msz
                  pP     40 49.50
                  eS     44 16.00
                  sS     44 32.00
PET     19.37  32 eP     40 52.00  -2.6
MGD     23.17  12 eP     41 32.00  -0.8
         1.1s    30.00nm            4.6mb
                  e      41 46.00  59kmX
                  ePPP   42 20.00
                  eS     45 37.00
                  eSS    46 00.00
CIT     24.25 315 eP     41 41.50  -1.9
YAK     25.42 347 ePc    41 54.80   0.6
         0.8s    63.00nm            5.1mb
                  iS     46 12.00
BOD     26.97 327 eP     42 08.50   0.0
         0.6s    50.00nm            5.2mb
ZAK     29.96 307 iPc    42 34.00  -1.3
         1.0s    49.00nm            5.2mb
LZH     30.09 279 eP     42 35.00  -1.9
         1.4s    26.00nm            4.8mb
      Z  20s      0.30um            3.9Msz
                  pP     42 48.50  53kmX
                  sP     42 55.50
TIK     34.62 353 eP     43 17.00   1.3
                  e      44 47.00 514kmX
KMI     35.20 260 Pd     43 20.50  -0.9
         1.0s    40.00nm            5.3mb
                  pP     43 26.50  20kmX
ILT     37.38  23 iPd    43 37.20  -1.8
         1.0s    40.00nm            5.3mb
                  i      45 56.00
ELT     40.70 311 iPc    44 06.60  -0.1
         1.7s    42.00nm            5.0mb
                  eS     50 12.00
CHTO    41.59 255 eP     44 16.40   2.0
SVW     44.89  38 iPd    44 41.67   0.9
         0.6s    20.92nm            5.1mb
BRW     45.74  23 iPc    44 47.91   0.7
IMA     46.04  31 eP     44 50.40   0.5
         1.3s    21.10nm            4.9mb
RSO     46.29  39 eP     44 51.91  -0.1
GUN     47.22 275 P      45 00.00   0.0
PKI     47.75 275 P      45 03.60  -0.5
KKN     47.75 275 P      45 03.80  -0.2
PMS     47.82  37 eP     45 04.00   0.2
         0.7s    40.20nm            5.4mb
DMN     47.97 275 P      45 05.40  -0.3
PMR     48.01  37 eP     45 04.11  -1.1
         0.6s    14.04nm            5.0mb
GKN     48.16 276 P      45 07.20   0.1
FBA     48.46  33 iPd    45 08.80   0.1
         0.8s    10.92nm            4.8mb
                  epP    45 30.68  90km
KLU     49.55  37 iPd    45 17.22   0.1
BALM    51.32  37 iPc    45 30.58  -0.1
SVE     54.74 318 eP     45 56.00   0.1
                  e      46 15.00  75km
ARU     55.93 318 eP     46 04.00  -0.5
WB2     57.75 188 iPc    46 16.00  -1.6
         0.6s    25.40nm            5.5mb
                  i      46 36.40  80km
WRA     57.75 188 P      46 16.50  -1.1
         0.5s     7.00nm            5.0mb
HYB     58.35 268 eP     46 22.50   0.3
```

GBA 61.40 265 P 46 42.30 -0.7
0.4s 2.50nm 4.7mb
ASPA 61.47 188 eP 46 41.80 -1.4
1.0s 9.10nm 4.8mb
i 47 03.10 83km
RES 61.92 15 eP 46 45.50 -0.2
1.0s 6.00nm 4.6mb
YKA 63.16 30 eP 46 52.20 -1.8
0.8s 5.00nm 4.5mb
MAIO 63.43 297 eP 46 58.00 1.7
RMQ 64.21 173 eP 47 01.10 -0.1
SDF 64.44 337 iP 47 01.40 -0.9
WARB 65.08 195 eP 47 06.00 -0.9
e 47 28.00 86km
BRS 65.60 169 iPc 47 10.20 0.0
GMW 66.72 47 eP 47 17.84 0.6
RMW 67.33 47 eP 47 21.27 0.0
KAF 67.77 333 iP 47 22.50 -1.1
0.4s 7.30nm 5.0mb
DPW 69.17 45 eP 47 32.23 -0.3
NUR 69.42 332 iP 47 32.80 -0.9
0.3s 4.00nm 4.8mb
NEW 69.56 44 eP 47 34.18 -0.7
0.9s 14.65nm 4.9mb
KIV 70.56 311 eP 47 42.30 1.1
1.6s 39.00nm 5.1mb
e 48 00.30 67kmX
e 50 20.50
SES 71.56 40 ePd 47 46.40 -0.6
ORV 71.79 54 iPd 47 47.96 -0.5
FCC 73.34 27 ePd 47 59.50 2.4
CMB 73.37 55 ePd 47 57.80 0.0
1.2s 15.81nm 4.8mb
HFS 73.53 336 eP 47 57.10 -1.1
0.3s 4.60nm 4.8mb
NB2 73.62 337 P 47 58.30 -0.5
0.7s 5.50nm 4.6mb
LCCM 73.88 44 ePc 48 00.50 -0.3
KVN 74.25 53 eP 48 03.31 0.2
BONR 74.76 54 eP 48 06.38 0.2
HHAI 75.16 47 eP 48 09.13 1.0
TNP 75.37 53 eP 48 10.19 0.6
0.8s 10.88nm 4.8mb
epP 48 32.55 85km
HVU 75.86 48 iPd 48 12.77 0.6
ipP 48 35.19 85km
TPNV 76.67 54 eP 48 17.30 0.5
0.8s 13.32nm 4.9mb
DUG 76.82 49 eP 48 18.00 0.5
0.7s 4.96nm 4.5mb
BW06 77.10 46 iPd 48 18.45 -0.7
0.9s 7.62nm 4.6mb
epP 48 40.94 85km
DAU 77.61 48 ePd 48 22.62 0.5
MSU 78.25 50 eP 48 26.41 0.8
epP 48 48.81 84km
ULM 78.87 33 eP 48 30.50 2.1
SRU 78.87 49 ePd 48 29.10 0.2
epP 48 51.46 84km
RSSD 79.24 42 eP 48 30.36 -0.5
0.5s 4.30nm 4.6mb
KSP 79.60 328 eP 48 32.80 0.5
PV09 80.09 49 ePd 48 36.02 0.4
PV10 80.23 49 iPd 48 36.96 0.6
epP 48 59.63 85km
esP 49 14.94
PV08 80.33 48 eP 48 37.27 0.3
epP 48 59.47 83km
CLL 80.58 330 iPd 48 37.00 -0.5
1.3s 11.00nm 4.6mb
e 48 44.00 22kmX
PRU 80.98 329 P 48 40.20 0.6
e 48 49.20 29kmX
KHC 82.04 328 eP 48 45.50 0.2
e 48 55.50 32kmX
e 49 30.00
GEC2 82.21 328 P 48 45.90 -0.3
1.0s 2.65nm 4.1mb
e 48 53.60 24kmX
PP 51 54.40
GRF 82.55 330 iPd 48 48.70 0.8
0.9s 6.00nm 4.5mb
JAQ 83.33 21 eP 48 50.50 -1.3
ALQ 84.06 50 eP 48 56.98 0.9
1.1s 15.25nm 4.9mb
epP 49 19.85 85km
esP 49 33.07

CDF 85.12 331 eP 49 01.00 0.0
0.9s 6.70nm 4.6mb
BSF 85.78 331 eP 49 03.90 -0.4
0.4s 0.70nm 4.0mb
HAU 85.80 332 eP 49 04.10 -0.2
0.6s 3.45nm 4.6mb
LOR 87.34 333 eP 49 11.50 -0.3
0.7s 3.10nm 4.5mb
LBF 87.54 332 eP 49 12.50 -0.3
0.8s 3.35nm 4.5mb
FLN 87.55 336 eP 49 12.80 0.0
1.0s 7.60nm 4.7mb
LDF 87.58 336 eP 49 12.90 0.0
0.7s 3.75nm 4.6mb
SSF 87.65 333 eP 49 13.30 0.0
0.8s 2.70nm 4.4mb
LPL 87.72 330 eP 49 14.50 0.6
0.8s 2.55nm 4.4mb
LPG 87.72 330 eP 49 14.60 0.5
0.6s 1.80nm 4.3mb
SMF 87.88 332 eP 49 14.50 0.1
1.0s 5.00nm 4.6mb
AVF 87.93 333 eP 49 14.90 0.3
0.9s 7.20nm 4.8mb
GRR 88.00 336 eP 49 15.30 0.4
0.5s 2.40nm 4.5mb
LPF 88.37 336 eP 49 17.30 0.6
0.8s 5.25nm 4.7mb
EEO 88.46 27 eP 49 20.00 2.8
TCF 88.77 333 eP 49 19.00 0.3
1.0s 5.40nm 4.7mb
LSF 89.05 334 eP 49 20.50 0.5
MFF 89.32 335 eP 49 21.40 0.1
1.1s 10.75nm 5.0mb
CAF 89.99 333 eP 49 25.00 0.5
1.2s 9.20nm 4.8mb
MIAR 91.73 43 iPd 49 32.54 -0.1
0.8s 9.24nm 5.2mb
epP 49 55.93 86km
LPB 146.43 59 (PKP) 56 06.00 0.5
SIV 150.54 49 PKP 56 17.00 5.5X
i 56 22.20
S.D. = 0.9 on 107 of 109 obs.

• MAR 07, 1993 02h 24m 12.81± 0.98s
10.861 N ±14.2km 86.464 W ±10.9km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)
OFF COAST OF COSTA RICA (77)

III 14.63 302 (P) 27 42.00 2.4
PRM 23.42 9 eP 29 20.81 1.0
e 29 28.43
JSC 23.79 11 eP 29 24.59 1.1
e 29 32.16
LHS 24.07 12 iPd 29 27.08 0.9
GBTN 24.78 4 eP 29 32.89 -0.1
e 29 40.77
OLY 24.95 350 eP 29 33.11 -1.5
CEH 25.80 14 eP 29 42.59 0.0
0.8s 23.09nm 4.8mb
MEO 26.25 337 e(P) 29 45.10 -1.8
WMOK 26.29 337 ePd 29 47.36 0.1
0.9s 32.98nm 4.9mb
NAV 26.83 10 eP 29 51.58 -0.6
CVL 27.94 14 ePd 30 01.86 -0.4
ACO 28.16 338 e(P) 30 02.30 -1.9
PV08 33.98 328 eP 30 55.69 -0.3
ePcP 33 34.75
e 33 42.86
PV10 34.04 327 eP 30 55.59 -0.8
ePcP 33 33.71
PV09 34.18 327 eP 30 57.93 0.3
SRU 35.37 327 eP 31 07.27 -0.4
ePcP 33 37.81
MSU 35.86 324 eP 31 11.57 -0.3
EEO 36.21 9 eP 31 16.00 1.6
DAU 36.70 328 eP 31 18.90 -0.1
ePcP 33 42.83
BW06 37.63 332 eP 31 25.50 -1.2
0.7s 2.28nm 4.1mb
BONR 39.25 319 eP 31 41.27 0.8
LMN 39.47 24 eP 31 44.00 2.2
ULM 40.03 351 eP 31 46.50 0.2
ORV 42.22 319 eP 32 06.00 1.5
BAO 46.30 124 iPc 32 37.00 -0.7
e 32 44.00

FCC 48.15 355 eP 32 52.00 0.5
YKA 55.39 345 eP 33 41.70 -4.2X
1.0s 2.00nm 4.1mb
ADK 81.69 321 (P) 36 30.17 0.9
0.8s 30.60nm 5.4mb
WB2 139.72 252 ePKP 43 33.50 -6.5X
0.9s 1.20nm
GBA 150.92 34 PKP 43 59.20 0.5
0.8s 2.00nm
S.D. = 1.2 on 28 of 30 obs.

? MAR 07, 1993 03h 14m 29.11± 1.40s
36.450 S ±23.4km 177.733 E ±39.9km
DEPTH = 263.2 ± 27.2 km
3.7mb (1 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 1.23 159 P 15 06.10 -1.0
PUZ 1.67 166 P 15 09.90 -0.4
S 15 41.20
URZ 1.87 195 P 15 12.20 0.3
S 15 45.30
NOZ 2.18 174 P 15 15.00 0.5
PAHZ 2.46 192 P 15 18.20 0.9
MOH 2.72 190 eP 15 20.70 0.9
WAHZ 3.42 198 P 15 28.00 0.6
MNG 4.52 202 eP 15 39.80 -0.3
eS 16 37.10
KIW 4.93 206 eP 15 44.60 -0.4
MTW 5.02 200 eP 15 45.90 -0.1
CAW 5.10 203 P 15 46.60 -0.4
DIW 5.27 213 eP 15 48.50 -0.6
MRW 5.33 205 P 15 49.60 -0.2
WB2 41.25 281 eP 21 50.50 0.2
0.5s 2.00nm 3.7mb
S.D. = 0.6 on 14 of 14 obs.

MAR 07, 1993 03h 17m 17.06± 0.44s
36.010 N ± 4.5km 1.845 E ± 3.3km
DEPTH = 10.0km (geophysicist)
3.8mb (7 obs.)
NORTHERN ALGERIA (396)
mbLg 3.5 (MDD). Felt in
Tissemsilt Province.

ACU 3.08 325 ePn 18 06.80 0.2
eSn 18 45.00
EALH 3.20 306 ePn 18 08.50 0.1
eSn 18 48.80
ENIJ 3.40 288 ePn 18 11.00 -0.3
eSn 18 52.30
ESEL 3.84 12 ePn 18 17.40 -0.1
eSn 19 04.70
EMEL 3.97 261 ePn 18 18.20 -1.1
eSn 19 05.00
EHUE 3.99 298 ePn 18 19.90 0.3
eSn 19 06.50
ECHE 4.21 329 ePn 18 23.60 0.8
eSn 19 12.30
EVIA 4.35 308 ePn 18 25.20 0.4
eSn 19 15.80
EGUA 4.44 282 ePn 18 25.00 -1.0
eSn 19 16.30
ECOG 4.53 288 ePn 18 27.70 0.3
eSn 19 20.00
EBR 4.92 348 ePn 18 33.00 0.3
eSn 19 30.50
EROQ 4.94 347 ePn 18 32.60 -0.4
eSn 19 30.00
EBAN 4.99 297 ePn 18 33.00 -0.8
eSn 19 31.00
MAL 5.10 280 iPnd 18 34.00 -1.3
eSg 19 36.80
ELUQ 5.14 289 ePn 18 35.80 -0.2
eSn 19 35.00
EPRU 5.78 282 ePn 18 45.30 0.3
eSn 19 50.00
LIJA 5.92 281 iP 18 48.00 1.1
EJIF 5.93 276 ePn 18 45.60 -1.4
EHOR 5.96 290 ePn 18 46.70 -0.8
eSn 19 54.00
OJEN 5.98 273 iP 18 51.00 3.2X
PAB 6.04 308 iPn 18 48.50 -0.2
iSn 19 57.50
eSb 20 11.00
iSg 20 21.00
ALJ 6.05 278 iP 18 50.00 1.2

07d 03h

PLAT 6.16 273 iP 18 52.00 1.7
IFR 6.25 249 iP 18 51.50 -0.3
i 20 45.00
CNIL 6.40 276 eP 18 54.00 0.4
EGRA 6.40 345 ePn 18 52.50 -1.1
eSn 20 02.50
GUD 6.60 316 ePn 18 56.20 -0.5
eSn 20 11.00
EVAL 7.07 285 ePn 19 01.50 -1.6
eSn 20 22.00
EPF 7.11 351 Pn 19 04.30 0.7
ECRI 7.40 334 ePn 19 07.80 0.0
AVE 8.09 253 iP 19 17.50 0.1
i 20 15.00
i 21 40.00
LMR 8.15 25 Pn 19 16.70 -1.4
Sn 20 43.70
LRG 8.21 24 Pn 19 18.60 -0.3
Sg 20 47.40
CDR 8.23 20 ePnd 19 19.30 0.0
eSn 20 46.70
FRF 8.40 25 Pn 19 20.80 -0.8
Sn 20 49.70
PGF 8.56 38 P 19 22.07 -2.0
CALN 8.65 25 P 19 23.60 -1.6
LPO 8.68 357 Pn 19 26.20 0.7
CAF 8.91 1 Pn 19 29.50 0.8
AURF 8.92 26 P 19 27.20 -1.7
SBF 8.94 27 P 19 28.35 -0.8
LFF 8.96 355 Pn 19 29.20 -0.2
TOUF 9.00 26 P 19 29.06 -1.1
AUTN 9.05 27 P 19 29.32 -1.5
SAOF 9.09 27 P 19 30.21 -1.0
TIO 9.14 239 iP 19 33.00 0.9
i 21 58.00
i 22 09.50
IMI 9.15 29 P 19 30.39 -1.7
STV 9.23 25 P 19 33.46 0.3
ENR 9.25 26 P 19 33.18 -0.3
RJF 9.29 359 Pn 19 33.60 -0.3
PZZ 9.39 24 P 19 36.52 1.1
ROB 9.47 27 P 19 36.93 0.4
FIN 9.53 29 P 19 35.06 -2.2
RRL 9.66 21 P 19 40.87 1.6
BHB 9.74 23 P 19 41.14 1.0
PCP 9.94 29 P 19 41.65 -1.3
RSP 10.01 23 P 19 45.03 1.0
LPG 10.18 20 Pn 19 47.40 0.9
LPL 10.19 20 Pn 19 46.90 0.3
MAF 10.22 3 Pn 19 47.00 0.3
LSF 10.23 359 Pn 19 46.30 -0.7
LSD 10.26 21 P 19 49.61 2.1
TCF 10.27 1 Pn 19 47.20 -0.3
BGF 10.56 4 Pn 19 52.40 0.9
ORX 10.67 24 P 19 52.91 -0.2
MFF 10.69 353 Pn 19 52.20 -1.0
SMF 10.73 7 Pn 19 54.30 0.5
AVF 10.83 6 Pn 19 55.60 0.5
DIX 10.90 21 eP 19 57.70 1.4
MMK 11.04 23 ePd 20 00.20 2.0
LBF 11.08 8 Pn 19 59.70 1.1
SSF 11.11 6 Pn 19 59.30 0.3
LOR 11.35 7 Pn 20 02.50 0.3
LPF 12.20 351 Pn 20 13.50 -0.2
BSF 12.37 16 Pn 20 15.70 -0.4
HAU 12.44 14 Pn 20 16.20 -0.8
GRR 12.53 352 Pn 20 17.80 -0.3
LDF 12.66 354 Pn 20 19.00 -0.8
FLN 12.86 353 Pn 20 22.10 -0.4
CDF 13.03 16 Pn 20 24.10 -0.7
WLF 14.00 12 P 20 49.00 11.4X
DOU 14.22 7 Pc 20 43.20 2.8
SNF 14.60 6 P 20 38.00 -7.4X
GRF 15.29 24 e(Pn) 21 01.00 6.6X
1.0s 6.00nm 3.9mb
GEC2 15.50 31 Pn 20 58.10 0.8
KHC 15.68 30 eP 21 09.00 9.5X
1.0s 3.50nm 3.5mb
MOX 16.24 23 e(P) 21 13.20 6.5X
BRG 17.22 27 e(P) 21 23.00 3.9X
CLL 17.26 24 e(P) 21 24.00 4.5X
1.8s 23.00nm 4.0mb
KSP 18.11 31 eP 21 33.60 3.4X
EKA 19.63 351 P 21 51.00 2.5
0.7s 3.70nm 3.8mb
MLR 20.50 55 eP 21 56.00 -1.9
VRI 21.14 55 eP 22 08.00 3.6X
HFS 25.32 14 eP 22 46.20 1.0
0.4s 0.90nm 3.8mb
NB2 25.75 11 P 22 50.10 0.9
0.7s 0.80nm 3.5mb
KIC 30.12 193 P 23 29.00 -0.2
OBN 30.47 40 eP 23 33.00 1.1
2.0s 80.00nm 5.2mb X
e 23 35.00
GKN 68.69 70 P 28 24.60 1.4
DMN 69.25 70 P 28 28.40 1.7
KKN 69.29 70 P 28 28.20 1.3
YKA 69.47 334 eP 28 26.20 -1.0
0.5s 0.70nm 4.1mb
PKI 69.50 70 P 28 27.00 -1.4
GUN 69.69 70 P 28 29.80 0.3
WB2 135.55 82 ePKP 36 52.30 12.7X
0.8s 6.90nm
S.D. = 1.1 on 93 of 104 obs.

MAR 07, 1993 03h 31m 29.66± 1.27s
35.952 N ± 9.2km 1.896 E ± 5.7km
DEPTH = 16.6 ± 7.6 km
3.7mb (2 obs.)
NORTHERN ALGERIA (396)
mbLg 3.3 (MDD).

ACU 3.15 325 iPnc 32 19.97 0.5
eSn 32 53.80
ENIJ 3.46 288 iPnc 32 23.63 -0.3
eSn 33 02.90
ESEL 3.89 11 iPnc 32 29.35 -0.6
eSn 33 10.20
EMEL 4.01 262 iPnd 32 31.60 0.0
eSn 33 17.90
EHUE 4.05 299 iPnd 32 32.31 0.0
eSn 33 16.90
ECHE 4.28 329 ePn 32 36.93 1.3
eSn 33 22.60
EGUA 4.49 283 iPnd 32 37.81 -0.8
eSn 33 29.70
ECOG 4.59 288 iPnc 32 40.28 0.2
eSn 33 29.40
EBR 4.98 348 ePn 32 46.00 0.6
eSn 33 41.00
EROQ 5.00 347 ePn 32 45.94 0.2
eSn 33 38.90
EBAN 5.05 298 ePn 32 46.35 -0.1
eSn 33 42.20
MAL 5.15 280 ePn 32 46.00 -1.8
ELUQ 5.20 290 iPnd 32 49.10 0.4
eSn 33 46.40
EPRU 5.83 282 iPnc 32 57.45 -0.1
LIJA 5.97 281 iP 33 01.00 1.5
EJIF 5.98 277 ePn 32 58.69 -0.8
EHOR 6.02 290 iPnd 32 58.76 -1.4
eSn 34 05.80
ALJ 6.10 279 iP 33 03.00 1.7
PAB 6.11 308 ePn 33 03.00 1.5
iSn 34 05.00
IFR 6.27 249 iP 33 05.00 1.1
i 36 00.00
ETER 6.38 6 ePn 33 04.35 -0.9
eSn 34 10.90
CNIL 6.44 276 eP 33 04.00 -2.1
EGRA 6.47 345 iPnd 33 04.89 -1.5
eSn 34 11.60
GUD 6.67 316 ePn 33 09.99 0.5
eSn 34 20.80
EPF 7.17 351 Pn 33 18.10 1.7
ECRI 7.47 334 ePn 33 22.21 1.6
eSn 34 42.60
EPLA 7.52 305 iPnc 33 20.55 -0.6
eSn 34 43.20
AVE 8.12 254 eP 33 30.00 0.4
i 35 15.00
i 35 46.00
i 36 12.00
LMR 8.18 24 Pn 33 29.60 -0.9
Sn 34 55.20
LRG 8.24 23 Pn 33 31.10 -0.2
Sn 34 58.20
CDR 8.27 20 ePnd 33 31.90 0.3
eSn 35 00.30
FRF 8.43 24 Pn 33 33.70 -0.2
Sn 35 02.30
PGF 8.58 38 Pn 33 34.80 -1.4
Sn 35 02.60
LPO 8.74 357 Pn 33 37.40 -0.8
CAF 8.96 1 Pn 33 41.60 0.3
LFF 9.02 355 Pn 33 40.60 -1.4
TIO 9.15 239 iP 34 04.50 20.5X
i 36 42.00
IMI 9.18 28 P 33 43.51 -0.8
STV 9.26 25 P 33 45.52 0.0
ENR 9.28 25 P 33 45.98 0.2
RJF 9.35 358 Pn 33 45.40 -1.2
PZZ 9.42 23 P 33 48.59 0.9
ROB 9.50 27 P 33 49.46 0.7
FIN 9.56 28 P 33 47.53 -2.0
RRL 9.70 21 P 33 54.08 2.4
BHB 9.77 23 P 33 53.48 1.0
PCP 9.97 29 P 33 53.21 -1.9
RSP 10.05 22 P 33 57.14 0.8
LPG 10.22 20 Pn 34 00.30 1.4
LPL 10.23 19 Pn 33 59.50 0.5
MAF 10.27 3 Pn 33 59.50 0.2
LSF 10.29 359 Pn 33 58.30 -1.3
LSD 10.30 21 P 34 01.81 1.9
TCF 10.33 1 Pn 33 58.50 -1.6
ORX 10.71 24 P 34 05.70 0.3
BSF 12.41 16 Pn 34 27.50 -1.0
HAU 12.49 14 Pn 34 36.70 7.3X
CDF 13.07 16 Pn 34 36.70 -0.5
GEC2 15.53 30 Pn 35 11.10 1.7
HFS 25.37 14 eP 36 57.30 0.1
0.5s 0.80nm 3.7mb
YKA 69.54 334 eP 42 39.00 -0.1
0.6s 0.40nm 3.7mb
S.D. = 1.1 on 59 of 61 obs.

? MAR 07, 1993 03h 49m 04.62± 0.67s
24.181 N ±10.0km 125.232 E ±14.0km
DEPTH = 33.0km (normal)
4.3mb (14 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

MAT 16.63 39 (P) 52 58.00 1.2
TIY 17.37 324 Pc 53 09.00 2.9
Z 20s 0.75um
N 15s 0.57um
SNY 17.65 356 Pd 53 09.80 0.3
1.0s 18.00nm 4.2mb
HHC 20.18 329 eP 53 37.80 -1.5
1.0s 8.50nm 4.0mb
Z 16s 0.53um 4.0MszX
KMI 20.46 277 Pc 53 46.50 4.1X
1.0s 20.00nm 4.4mb
LZH 21.92 308 eP 53 58.50 1.4
1.0s 27.00nm 4.6mb
Z 15s 0.34um 3.9MszX
CHTO 25.02 263 eP 54 28.10 0.9
GTA 26.28 311 eP 54 37.00 -2.0
1.0s 6.00nm 4.2mb
WRA 44.75 168 P 57 17.10 0.3
0.6s 1.10nm 3.9mb
WB2 44.75 168 eP 57 16.70 -0.2
0.6s 4.80nm 4.5mb
i 57 24.10
ASPA 48.30 169 eP 57 45.60 0.7
0.4s 2.80nm 4.6mb
e 59 35.90
KAF 72.97 331 iP 00 31.50 -0.9
0.4s 2.60nm 4.6mb
NUR 74.28 330 eP 00 39.40 -0.6
0.6s 5.10nm 4.7mb
HFS 79.35 332 eP 01 08.30 -0.1
0.4s 1.10nm 4.2mb
NB2 79.93 333 P 01 09.50 -2.1
0.7s 1.90nm 4.2mb
YKA 81.51 24 eP 01 19.30 -0.5
0.5s 0.80nm 4.0mb
GEC2 85.16 322 P 01 39.00 0.1
0.5s 0.28nm 3.7mb
e 01 41.00
e 01 44.10
e 01 49.10
S.D. = 1.4 on 16 of 17 obs.

MAR 07, 1993 04h 20m 25.24± 0.57s
37.554 S ± 5.3km 177.108 E ± 3.7km
DEPTH = 9.3 ± 3.0 km
4.2mb (1 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)
ML 4.4 (WEL).

```
URZ      0.71 180 Pc     20 38.40   -0.8
                  S      20 47.20
TAZ      0.83 215 P      20 42.40    1.1
HBZ      0.95  93 P      20 43.40    0.0
UTU      0.96 229 eP     20 43.30   -0.2
PUZ      1.05 120 P      20 45.10    0.0
                  S      20 59.90
PATZ     1.06 219 eP     20 45.50    0.1
WLZ      1.24 255 P      20 48.10   -0.2
                  S      21 06.80
NOZ      1.29 146 P      20 49.60    0.4
PAHZ     1.30 182 eP     20 48.80   -0.6
KUZ      1.37 306 P      20 50.00   -0.4
                  S      21 09.20
MOH      1.58 179 eP     20 53.50    0.1
MAHZ     1.74 160 P      20 55.50   -0.3
TTH      2.00 186 P      20 59.80    0.4
MOZ      2.05 242 P      21 00.30    0.0
WAHZ     2.22 195 P      21 02.60   -0.2
WB2     40.99 283 eP     28 10.60    0.4
      0.7s      3.50nm          4.2mb
LIC    148.75 176 PKP    40 18.10    7.0X
KIC    148.91 176 PKP    40 18.00    6.7X
     S.D. = 0.5  on  16 of  18 obs.
---------------------------------------
% MAR  07, 1993  05h 06m 24.00± 0.79s
   38.657 S ± 7.2km  177.956 E ± 8.4km
   DEPTH =  31.7 ±  5.9 km
 NORTH ISLAND, NEW ZEALAND         (159)
      ML 3.8 (WEL).

NOZ      0.07  58 P      06 29.00   -0.4
MAHZ     0.53 186 P      06 36.30    1.2
PUZ      0.63  22 Pd     06 36.70    0.1
                  S      06 46.60
PAHZ     0.73 254 P      06 38.40    0.4
URZ      0.77 301 Pc     06 38.10   -0.4
                  S      06 48.80
MOH      0.79 233 P      06 39.80    1.0
HBZ      1.09  15 P      06 43.20    0.1
WHH      1.16 258 eP     06 45.20    1.0
TAZ      1.21 290 P      06 45.50    0.7
WAHZ     1.62 230 eP     06 50.60   -0.2
NGZ      1.91 253 eP     06 55.30    0.2
CNZ      1.96 253 P      06 55.50   -0.2
WLZ      2.02 292 eP     06 56.00   -0.5
MNG      2.74 223 P      07 03.70   -3.0
                  S      07 36.50
     S.D. = 1.2  on  14 of  14 obs.
---------------------------------------
% MAR  07, 1993  05h 45m 20.47± 0.56s
   26.372 S ± 6.0km   27.610 E ± 5.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.7 (PRE).

BPI      0.42  63 eP     45 28.90   -0.1
                  S      45 33.60
PRY      0.57 192 eP     45 31.00   -0.9
                  S      45 38.50
KSR      0.82 308 eP     45 37.00    0.1
                  S      45 48.50
SLR      0.88  44 iPd    45 37.20   -0.7
                  S      45 46.20
BFS      0.91 234 eP     45 39.10    0.7
                  S      45 54.50
SEK      1.94 180 iPd    45 55.60    1.0
                  S      46 19.10
SWZ      2.20 248 eP     45 58.00   -0.3
BFT      2.29  73 eP     46 00.50    0.7
                  S      46 27.90
BLF      3.00 204 e(P)   46 09.10   -0.7
     S.D. = 0.8  on   9 of   9 obs.
---------------------------------------
* MAR  07, 1993  05h 51m 29.24± 0.85s
   34.186 N ±15.4km   33.432 E ±18.2km
   DEPTH =  33.0km  (normal)
   3.0mb (  1 obs.)
 CYPRUS REGION                     (372)
      ML 3.0 (CSS).

CSS      0.78 354 ePd    51 43.60   -0.2
                  eS     51 55.00
PPCY     1.14 308 eP     51 48.20   -0.7
                  eS     52 03.00
ADI      1.86 126 eP     51 59.20   -0.2
JVI      2.77 144 eP     52 12.30    0.0
SAGI     4.09 165 eP     52 25.70   -5.4X
GEC2    20.71 321 P      56 10.20    0.9
         0.5s      0.40nm          3.0mb
      S.D. = 0.8  on   5 of   6 obs.
---------------------------------------
   MAR  07, 1993  06h 00m 30.39± 0.38s
   45.777 N ± 5.4km     6.318 E ± 4.6km
   DEPTH =  13.9 ±  3.5 km
 FRANCE                            (538)
      ML 2.5 (LDG).

RSL      0.23 112 Pg     00 35.16   -0.6
LPL      0.39 132 Pg     00 38.20   -0.5
LPG      0.41 132 Pg     00 38.70   -0.5
LSD      0.67 118 P      00 42.99   -0.5
                  S      00 53.10
RSP      0.91 133 P      00 42.02   -5.5X
RRL      0.92 159 P      00 48.29    0.5
BHB      1.15 144 P      00 52.23    0.7
ORX      1.17  96 P      00 53.01    1.0
SSB      1.34 249 Pg     00 53.79   -1.0
                  Sg     01 12.02
PZZ      1.39 156 P      00 56.39    1.0
COLF     1.86 263 Pn     01 00.78   -1.3
SMF      1.93 298 Pn     01 03.90    0.8
                  Sg     01 30.80
LBF      2.02 308 Pn     01 06.10    1.6
                  Sg     01 33.00
BSF      2.08   9 Pn     01 04.70   -0.7
                  Pg     01 09.30
                  Sg     01 36.20
HAU      2.23   1 Pn     01 06.70   -0.8
                  Pg     01 11.60
                  Sn     01 33.90
                  Sg     01 41.00
LOR      2.26 312 Pn     01 07.80   -0.1
                  Pg     01 11.60
                  Sg     01 39.30
AVF      2.29 297 Pn     01 08.80    0.5
                  Pg     01 14.40
                  Sg     01 41.40
SSF      2.33 304 Pn     01 09.90    1.0
                  Pg     01 14.40
                  Sg     01 42.50
BGF      2.54 289 Pn     01 11.20   -0.6
                  Pg     01 17.80
                  Sg     01 50.70
MAF      2.65 281 Pn     01 13.00   -0.5
                  Pg     01 20.30
                  Sg     01 50.50
      S.D. = 0.9  on  19 of  20 obs.
---------------------------------------
% MAR  07, 1993  06h 00m 58.04± 2.36s
   31.178 S ±18.3km   68.335 W ±13.9km
   DEPTH = 104.7 ± 29.8 km
 SAN JUAN PROVINCE, ARGENTINA      (137)

CFA      0.44 169 ePd    01 14.20    0.0
                  S      01 26.00
RTCV     0.70 194 ePc    01 16.00   -0.2
RTBS     1.07 243 eP     01 19.90    0.1
                  eS     01 35.00
RTPR     1.80  61 ePc    01 28.80    0.2
                  S      01 52.40
MRA      2.55 119 ePc    01 39.00    0.4
                  S      02 09.00
TCA      3.21  94 iPc    01 47.10   -0.5
                  (S)    02 24.00
      S.D. = 0.5  on   6 of   6 obs.
---------------------------------------
   MAR  07, 1993  06h 09m 26.02± 0.70s
   37.645 N ± 7.0km  137.604 E ± 6.3km
   DEPTH =  40.8 ± 11.2 km
   4.3mb (  4 obs.)
 NEAR WEST COAST OF HONSHU, JAPAN(226)

MTMJ     1.07 171 P      09 43.70   -1.2
                  S      09 59.10
NIIJ     1.18 110 P      09 45.80   -0.5
                  S      10 02.90
MAT      1.20 156 iPd    09 46.10   -0.6
                  eS     10 03.00
CHJJ     1.95 145 P      09 57.90    0.7
                  eS     10 23.90
YAMJ     1.99  74 eP     09 57.10   -0.9
                  S      10 22.60
IIDJ     2.18 173 eP     10 01.40    0.8
                  eS     10 31.00
TSRJ     2.48 212 eP     10 04.10   -0.7
KAKJ     2.51 124 eP     10 07.00    1.7
OFUJ     3.50  65 P      10 19.60    0.3
AOMJ     3.62  36 P      10 21.30    0.3
                  S      11 05.20
WKYJ     3.79 206 P      10 23.80    0.3
YONJ     4.14 235 P      10 27.30   -1.1
TKSJ     4.66 219 P      10 36.60    0.8
SHNJ     6.34 238 P      10 59.80    0.5
LZH     26.97 277 eP     15 07.50    1.6
         1.6s     28.00nm          4.6mb
    Z   15s      0.34um          4.0MszX
WB2     57.36 184 eP     19 11.50   -1.0
         0.6s      3.70nm          4.6mb
NB2     72.42 336 P      20 48.90   -0.7
         0.7s      1.40nm          4.0mb
GEC2    80.56 326 P      21 35.30   -0.2
         0.8s      0.70nm          3.7mb
      S.D. = 1.0  on  18 of  18 obs.
---------------------------------------
% MAR  07, 1993  06h 43m 28.86± 1.07s
   39.631 S ± 8.1km  173.956 E ± 8.2km
   DEPTH = 239.5 ± 11.7 km
 OFF W. COAST OF N. ISLAND, N.Z. (158)

BSZ      0.77 103 P      44 02.20    0.4
                  S      44 23.30
DIW      1.17 181 Pd     44 04.10    0.0
CNZ      1.31  71 P      44 04.90   -0.3
NGZ      1.35  71 P      44 05.30   -0.2
KIW      1.43 150 P      44 05.80   -0.1
MNG      1.53 131 P      44 06.80    0.1
                  S      44 31.10
TCW      1.60 171 P      44 07.50    0.3
ORZ      1.62 222 P      44 07.20   -0.2
                  eS     44 32.80
MRW      1.70 161 Pc     44 08.00   -0.1
                  S      44 33.70
CAW      1.70 150 P      44 08.00   -0.1
WAHZ     1.85  93 P      44 09.50    0.0
MTW      1.93 143 P      44 09.90   -0.2
MOW      2.04 152 P      44 10.80   -0.4
THZ      2.28 200 P      44 13.60    0.1
                  S      44 44.00
MOH      2.52  80 eP     44 16.70    0.7
PAHZ     2.53  73 P      44 16.40    0.4
DSZ      2.67 217 P      44 17.80    0.2
KHZ      2.80 186 P      44 19.00    0.1
                  S      44 53.90
URZ      2.81  62 P      44 18.40   -0.6
NOZ      3.33  74 P      44 25.40    0.6
LTZ      3.40 201 P      44 25.90    0.3
                  S      45 05.70
PUZ      3.70  66 P      44 28.60   -0.5
MQZ      4.19 193 P      44 34.50   -0.4
                  eS     45 20.50
      S.D. = 0.4  on  23 of  23 obs.
---------------------------------------
   MAR  07, 1993  07h 00m 39.74± 0.41s
   10.773 S ± 7.6km  164.230 E ± 8.2km
   DEPTH =  33.7km  (  8 depth phases)
   4.8mb ( 18 obs.)  4.9Msz ( 13 obs.)
 SANTA CRUZ ISLANDS REGION         (183)
      Mw 5.3 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 21S, 28C
      Centroid Location:
      Origin Time          07:00:39.0 1.1
      Lat 10.78S 0.12 Lon 164.10E 0.11
      Dep  18.8 4.6 Half-duration  1.5
      Moment Tensor;    Scale 10**16 Nm
        Mrr= 4.60 0.44  Mtt=-3.78 0.62
        Mff=-0.82 0.76  Mrt= 5.15 1.74
        Mrf= 7.40 2.11  Mtf=-0.04 0.46
       Principal Axes:
        T  Val= 11.01   Plg=54  Azm=299
        N       -2.59     9        43
        P       -8.42    34       139
      Best Double Couple:Mo=9.7*10**16
       NP1:Strike=264 Dip=14 Slip= 132
       NP2:        41      80        80

HNR      4.42 287 eP     01 49.00    2.7
                  eS     02 41.00
SVO      4.64 290 eP     01 52.00    2.7
```

07d 07h

BKM 7.88 151 iP 02 37.40 2.4
DZM 11.43 170 iPc 03 18.70 -5.2X
CTA 19.63 240 iPd 05 07.00 -1.7
1.0s 10.00nm 4.1mb
i 05 13.50 25km
e 05 19.00
eS 08 48.00
BRS 19.74 212 iPc+ 05 08.50 -1.3
0.8s 4.00nm 3.8mb
ipPc 05 18.50 43km
i 05 41.00
ePP 06 06.00
i 06 25.00
eS 08 54.00
RMQ 21.40 221 eP 05 28.00 1.2
0.9s 76.00nm 5.1mb
ARMA 22.79 209 eP 05 41.20 0.4
0.9s 43.00nm 4.9mb
e 07 13.00
CMS 26.74 217 iPd 06 18.10 -0.1
0.7s 28.00nm 5.0mb
STK 29.64 221 eP 06 44.30 -0.2
0.7s 4.40nm 4.3mb
WB2 30.17 249 eP 06 47.20 -2.2
0.6s 4.80nm 4.5mb
WRA 30.18 249 P 06 48.29 -1.2
0.7s 2.20nm 4.1mb
GUMO 30.90 321 eP 07 12.30 16.6X
Z 23s 0.69um 4.3MszX
TOO 31.56 209 eP 07 02.60 1.3
ASPA 31.60 242 eP 06 59.80 -2.1
0.6s 2.90nm 4.3mb
e 07 18.40 79kmX
BFD 32.75 213 iPc 07 21.10 9.4X
0.8s 26.00nm 5.2mb
ADE 33.47 220 e(P) 07 18.30 0.3
HON 48.92 49 P 09 40.00 15.2X
Z 18s 0.23um 4.2Msz
BAG 50.93 301 eP 09 40.00 -0.5
MAT 53.06 334 (P) 09 56.00 0.0
0.9s 8.40nm 4.7mb
eS 18 26.00
KMI 69.71 302 eP 12 00.00 11.0X
1.6s 50.00nm
pP 12 09.50 30km
LZH 73.48 313 eP 12 11.00 -0.2
2.0s 24.00nm 4.8mb
Z 16s 1.08um 5.2MszX
sP 12 30.00
YAK 77.40 344 eP 12 32.80 0.0
1.6s 41.00nm 5.2mb
SVW 78.32 19 eP 12 38.53 0.6
1.0s 54.17nm 5.5mb
e 12 49.37 35km
RSO 78.77 20 eP 12 39.50 -1.1
SPA 79.29 180 iPc 12 43.50 0.1
0.8s 25.00nm 5.3mb
PMR 80.82 21 P 13 00.00 8.7X
Z 19s 0.41um 4.8Msz
IRK 81.02 327 eP 13 10.10 17.6X
2.0s 29.00nm
LR 49 16.00
KLU 81.89 22 eP 12 57.06 0.0
e 13 08.30 36km
IMA 82.65 16 eP 13 01.41 0.4
1.0s 7.90nm 4.7mb
e 13 12.34 35km
BALM 82.95 23 eP 13 03.20 0.6
FBA 83.53 19 eP 13 04.70 -0.6
0.8s 13.38nm 5.1mb
e 13 14.78 32km
GUN 84.89 300 P 13 00.00 -13.4X
ORV 84.94 48 eP 13 12.80 -0.1
CMB 85.31 50 P 13 30.00 15.1X
Z 20s 0.71um 5.1Msz
ISA 86.09 53 P 13 30.00 11.2X
Z 19s 0.84um 5.2Msz
TUC 91.49 58 P 13 50.00 5.5X
Z 19s 0.56um 5.0Msz
DUG 91.55 50 P 14 00.00 15.3X
Z 18s 0.23um 4.7Msz
HVU 91.93 48 eP 13 46.86 0.4
e 13 57.39 33km
LCCM 93.42 44 eP 13 52.70 -0.5
PV09 94.01 52 eP 13 56.79 0.5
YKA 95.42 27 eP 13 59.70 -2.1
0.8s 0.60nm 4.1mb
ALQ 95.52 56 P 14 10.00 6.8X
Z 20s 0.40um 4.9Msz
GOL 97.09 51 P 14 20.00 9.8X
Z 20s 0.88um 5.2Msz
GLD 97.21 51 P 14 20.00 9.3X
Z 19s 1.18um 5.4Msz
RSSD 98.64 47 P 14 30.00 12.9X
Z 19s 0.16um 4.5Msz
MIAR 106.03 57 PKP 19 10.00 7.6X
Z 21s 0.25um 4.7Msz
RSNY 119.62 45 PKP 19 40.00 12.0X
Z 20s 0.23um 4.8Msz
HRV 122.25 46 PKP 19 40.00 7.0X
Z 19s 0.32um 5.0Msz
BCAO 145.44 262 iPKPd 20 16.00 -1.0
1.1s 33.00nm
ic 20 34.10
SOB1 148.08 128 ePKP 20 22.50 1.2
PAB 149.60 342 ePKP 20 29.00 6.0X
S.D. = 1.3 on 32 of 52 obs.

---

* MAR 07, 1993 07h 11m 49.96± 0.99s
1.160 S ±22.9km 127.027 E ±36.5km
DEPTH = 33.0km (normal)
4.7mb (2 obs.)
HALMAHERA, INDONESIA (267)

MTN 12.30 161 eP 14 46.00 0.2
WB2 20.00 159 iPc 16 21.50 -1.3
eS 20 03.10
ASPA 23.34 164 iPd 16 56.80 0.4
eS 21 14.30
STK 33.51 157 eP 18 29.40 0.8
0.7s 4.00nm 4.4mb
LZH 42.89 332 eP 19 47.50 0.2
1.2s 38.00nm 5.0mb
pP 19 57.00 32kmX
GUN 48.94 309 P 20 35.60 -0.1
PKI 49.14 309 P 20 37.00 -0.2
KKN 49.34 309 P 20 38.60 -0.1
DMN 49.39 309 P 20 38.80 -0.3
GKN 49.94 309 P 20 43.20 0.0
HYB 51.18 293 eP 20 53.00 0.4
S.D. = 0.6 on 11 of 11 obs.

% MAR 07, 1993 07h 20m 50.38± 0.58s
43.081 N ± 7.9km 0.626 W ± 4.3km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.0 (STR).

ESCF 0.04 94 Pg 20 52.30 -0.2
Sg 20 53.51
ATE 0.05 275 Pg 20 52.53 -0.1
Sg 20 53.86
ISSF 0.14 247 Pg 20 53.57 -0.1
Sg 20 56.46
OGE 0.14 52 Pg 20 53.81 0.1
LHE 0.17 179 Pg 20 54.33 0.1
JAU 0.19 103 Pg 20 54.83 0.1
BOH 0.28 275 Pg 20 56.54 0.2
Sg 21 00.96
S.D. = 0.2 on 7 of 7 obs.

MAR 07, 1993 07h 32m 09.01± 1.20s
29.521 N ± 9.9km 130.671 E ± 7.0km
DEPTH = 53.9 ± 9.7 km
4.5mb (15 obs.)
RYUKYU ISLANDS (238)

KAGJ 1.67 6 P 32 36.80 0.5
S 33 02.50
KUMJ 3.01 3 iPd 32 56.60 1.3
SHNJ 4.60 5 eP 33 18.20 0.5
TKSJ 5.30 32 P 33 27.90 0.4
YONJ 6.12 22 P 33 38.50 -0.6
WKYJ 6.28 41 P 33 39.80 -1.6
TSRJ 7.49 35 P 33 57.10 -1.0
SSE 8.35 283 Pd 34 10.00 0.0
0.6s 10.00nm 4.9mb
Z 20s 1.40um 4.3MszX
N 12s 1.10um
E 12s 0.90um
i 34 15.00
eS 36 04.00
MAT 9.43 40 (P) 34 24.00 -1.0
eS 34 42.00
CHJJ 9.56 45 eP 34 28.40 1.7
YSS 19.82 25 (P) 36 42.00 4.2X
LZH 23.44 293 eP 37 15.00 0.7
1.2s 33.00nm 4.7mb
Z 16s 1.08um 4.4MszX
E 15s 0.85um
PP 37 32.50
CIT 25.79 335 eP 37 37.20 0.8
ZAK 29.30 323 eP 38 08.00 -0.3
1.0s 6.00nm 4.2mb
Z 15s 0.89um 4.5MszX
N 14s 0.38um
E 15s 0.86um
BOD 30.55 343 eP 38 18.20 -1.1
CHTO 30.75 257 eP 38 21.00 -0.5
MGD 33.46 18 eP 38 44.00 -0.7
GUN 39.13 279 P 39 33.60 0.1
PKI 39.62 279 P 39 37.00 -0.5
0.6s 27.00nm 5.3mb
KKN 39.68 279 P 39 37.80 -0.1
DMN 39.87 279 P 39 39.00 -0.5
GKN 40.18 279 P 39 41.00 -0.9
TIK 42.17 359 eP 39 56.00 -1.5
NDI 46.36 283 iPc 40 31.50 -0.2
0.6s 40.00nm 5.5mb
WB2 49.30 175 eP 40 55.20 0.6
0.8s 2.40nm 4.3mb
GBA 51.55 264 P 41 12.00 0.1
ASPA 52.97 176 eP 41 27.80 5.4X
1.4s 3.40nm 4.2mb
SVE 55.03 321 iPd 41 37.50 0.4
Z 16s 1.00um 5.0MszX
N 16s 0.30um
E 16s 0.60um
ARU 56.18 320 ePc 41 45.00 -0.3
1.0s 50.00nm 5.5mb
e 42 02.00
GRS 67.84 304 iPc 43 04.20 0.3
0.9s 30.00nm 5.3mb
KIV 68.82 309 eP 43 10.00 0.2
1.3s 27.00nm 5.0mb
RES 71.91 12 eP 43 30.50 2.6
0.8s 3.00nm 4.3mb
YKA 74.64 26 eP 43 51.50 7.5X
1.0s 1.50nm 3.9mb
HFS 76.91 333 eP 43 56.20 -0.6
0.7s 3.10nm 4.4mb
Z 16s 174.00um 7.5MszX
LR 19 43.00
NB2 77.31 334 P 43 58.90 -0.2
0.6s 1.30nm 4.1mb
KSP 81.31 324 eP 44 21.30 0.5
GEC2 83.86 324 P 44 35.50 1.3
0.5s 0.30nm 3.6mb
e 44 38.70
FCC 84.50 22 eP 44 42.00 5.0X
ULM 90.51 28 eP 45 11.50 5.3X
S.D. = 0.9 on 34 of 39 obs.

% MAR 07, 1993 07h 40m 00.73± 1.11s
36.944 N ±11.9km 2.458 W ± 6.4km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.9 (MDD).

ENIJ 0.20 82 ePg 40 05.00 -0.2
eSg 40 08.30
EHUE 0.88 353 ePg 40 17.00 -0.6
eSg 40 28.80
EGUA 0.89 263 ePg 40 18.10 0.2
eSg 40 29.30
ECOG 0.95 291 ePg 40 18.30 -0.5
eSg 40 31.00
ELUQ 1.57 294 ePn 40 28.90 0.2
eSn 40 48.80
EVIA 1.69 359 ePn 40 31.50 0.9
eSn 40 52.80
S.D. = 0.7 on 6 of 6 obs.

---

* MAR 07, 1993 07h 49m 46.54± 0.52s
11.000 S ± 9.1km 164.434 E ±11.1km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)
SANTA CRUZ ISLANDS REGION (183)

DZM 11.18 170 iPc 52 27.00 -0.2
BRS 19.65 212 iPd 54 19.50 3.8X

```
CTA      19.69 240 iPc     54 16.00  -0.2
RMQ      21.36 222 eP      54 37.00   3.7X
ARMA     22.70 210 eP      54 50.30   3.6X
CMS      26.68 217 eP      55 25.40   0.9
         0.6s      3.00nm           4.1mb
WB2      30.28 249 iPd     55 56.90  -0.2
         0.5s      1.90nm           4.1mb
WRA      30.29 249 P       55 57.29   0.0
ASPA     31.67 243 P       56 09.10  -0.3
SVW      78.47  19 eP      01 45.40  -0.2
         1.0s     15.00nm           5.0mb
IMA      82.81  16 (P)     02 09.39   0.7
         1.3s      4.25nm           4.4mb
FBA      83.68  19 eP      02 12.93   0.0
         1.0s      5.38nm           4.6mb
YKA      95.52  27 eP      03 08.80  -0.3
         0.9s      0.50nm           4.0mb
      S.D. = 0.5  on  10 of  13 obs.
-------------------------------------------
   MAR 07, 1993 07h 58m 09.07± 0.25s
   10.889 S ± 5.1km  164.406 E ± 6.2km
   DEPTH =  35.8km  ( 13 depth phases)
   5.1mb ( 28 obs.)  5.3Msz ( 22 obs.)
 SANTA CRUZ ISLANDS REGION          (183)
       Mw 5.6 (HRV).
       CENTROID, MOMENT TENSOR      (HRV)
       Data Used: GDSN
       L.P.B.: 39S, 69C
       Centroid Location:
       Origin Time         07:58:12.8 0.4
       Lat 10.59S 0.04 Lon 164.28E 0.04
       Dep  16.1 2.1 Half-duration  1.4
       Moment Tensor;    Scale 10**17 Nm
         Mrr= 1.47 0.05  Mtt=-1.63 0.08
         Mff= 0.17 0.08  Mrt= 2.38 0.37
         Mrf=-0.40 0.16  Mtf= 0.12 0.05
        Principal Axes:
         T  Val=  2.80   Plg=61   Azm= 14
         N        0.16       3        278
         P       -2.95      29        186
       Best Double Couple:Mo=2.9*10**17
        NP1:Strike=267 Dip=17 Slip=  79
        NP2:        99     74         93

HNR       4.62 288 eP      59 18.00  -0.4
                   iS      00 14.50
SVO       4.84 291 eP      59 22.00   0.5
BKM       7.70 152 iP      00 00.00  -1.7
                   iS      01 25.50
DZM      11.29 170 iPc     00 49.10  -2.1
                   iS      02 51.10
CTA      19.72 240 iPc+    02 38.00  -0.8
         0.9s     58.82nm           4.9mb
                   i       02 46.00  31km
                   iS      06 22.00
BRS      19.73 212 iPd+    02 39.00   0.2
    Z  18s     51.00um
                   i       02 49.00  43km
                   ic      02 57.00
                   ePP     03 10.00
                   e       07 06.00
RMQ      21.42 221 eP      02 57.00   0.8
         0.9s     97.00nm           5.2mb
ARMA     22.78 210 eP      03 10.10   0.3
         0.8s     37.00nm           4.9mb
QLP      24.61 228 iPc     03 29.10   1.6
CMS      26.75 217 eP      03 46.60  -0.8
         0.8s     43.00nm           5.1mb
                   i       04 00.70  58kmX
BWA      27.61 209 eP      03 54.50  -0.7
                   i       03 57.00
                   ipP     04 05.40  41km
CNB      27.90 207 eP      04 02.50   4.6X
CAN      28.07 207 eP      04 00.50   1.1
STK      29.67 222 P       04 15.10   1.3
WB2      30.29 249 iPc     04 16.60  -2.9
         0.5s     11.80nm           4.9mb
WRA      30.30 249 P       04 17.50  -2.1
         0.6s      1.60nm           4.0mb X
GUA      31.03 321 eP      04 37.80  11.8X
GUMO     31.10 321 eP      04 36.90  10.4X
    Z  23s      2.13um          4.7MszX
PJG      31.10 321 eP      04 37.00  10.4X
TOO      31.54 209 eP      04 31.10   0.8
         1.1s     43.00nm           5.2mb
                   epP     04 41.30  37km
ASPA     31.70 242 eP      04 30.10  -1.7
```

```
               1.3s       6.10nm           4.3mb
            Z  19s        1.40um           4.7Msz
BFD           32.75 213 iPd     04 43.40    2.6
               0.9s      24.00nm           5.1mb
                        epP     04 51.80   29km
ADE           33.49 220 ePd     04 48.00    0.6
HON           48.87  49 P       07 00.00    6.5X
            Z  19s        1.07um           4.8Msz
BAG           51.14 301 eP      07 05.00   -6.2X
MAT           53.24 334 eP      07 22.00   -4.4X
               1.2s      31.25nm           5.2mb
            Z  20s        1.06um           4.9Msz
                        eS      14 54.00
SSE           58.83 317 Pc      08 06.00   -0.6
               1.0s      11.00nm           4.9mb
            Z  20s        1.40um           5.1Msz
            N  12s        1.10um
            E  12s        0.60um
                        S       16 11.00
                        sS      16 18.00
                        i       22 46.00
YSS           60.81 343 ePc     08 19.80   -0.1
               1.1s      30.00nm           5.3mb
            Z  17s        0.60um           4.8MszX
            N  17s        0.60um
            E  17s        0.50um
                        e       08 31.80   42km
                        (PPP)   12 04.00
                        eS      16 40.00
VLA           61.40 333 eP      08 25.00    1.0
                        e       09 04.00 166kmX
                        e       10 38.00
                        ePS     17 12.00
                        eSS     20 45.00
                        eSSS    23 36.00
SMY           63.91   7 P       08 50.00    9.6X
            Z  21s        1.68um           5.2Msz
KMI           69.92 302 eP      09 20.50    1.2
               1.5s      70.00nm           5.5mb
            Z  15s        1.20um           5.3MszX
            N  15s        0.70um
            E  15s        0.90um
                        pP      09 30.50   32km
                        sP      09 34.50
                        S       18 31.00
                        ScS     19 23.00
CHTO          70.96 294 eP      09 26.00    0.5
MGD           71.59 353 eP      09 26.00   -2.4
            Z  17s        1.20um           5.2MszX
            N  17s        0.70um
            E  17s        0.60um
                        e       09 45.00   71kmX
                        eS      18 42.00
                        e       19 33.00
LZH           73.68 313 eP      09 42.00    0.5
               1.4s      29.00nm           5.1mb
            Z  15s        0.68um           5.1MszX
            E  10s        0.37um
                        pP      09 53.50   38km
                        sP      10 00.00
CIT           76.33 330 eP      09 57.00    0.8
YAK           77.56 344 eP      10 00.00   -2.7
               1.0s      30.00nm           5.3mb
            Z  18s        0.90um           5.1Msz
            N  18s        0.50um
            E  18s        0.50um
                        e       12 58.00
                        e       19 56.00
SVW           78.37  19 ePc     10 08.16    0.8
               1.0s     108.35nm           5.8mb
                        e       10 18.26   32km
RSO           78.82  20 (P)     10 09.87   -0.1
SPA           79.18 180 iPc     10 13.40    1.6
ILT           79.52   6 iPc     10 12.50   -0.8
               1.5s      25.00nm           5.0mb
SLKM          79.73  21 eP      10 14.39   -0.3
BOD           79.78 335 eP      10 13.80   -1.1
               1.3s      14.00nm           4.8mb
PMS           80.48  21 e(P)    10 19.30    0.6
               0.9s      24.10nm           5.2mb
ZAK           80.82 325 eP      10 20.00   -0.6
               1.8s      17.00nm           4.7mb
PMR           80.87  21 eP      10 20.11   -0.5
               1.1s      38.38nm           5.3mb
            Z  19s        0.82um           5.1Msz
KLU           81.94  22 ePd     10 26.90    0.6
                        e       10 37.83   35km
```

```
IMA      82.71  16 ePc     10 30.79    0.4
         1.1s     19.52nm            5.1mb
                    e      10 41.54   34km
BALM     82.99  23 eP      10 31.81    0.0
FBA      83.59  19 ePc     10 33.90   -0.8
         0.9s     37.40nm            5.5mb
                    e      10 44.20   33km
SIT      83.74  29 P       10 50.00   14.5X
      Z  21s      1.92um             5.4Msz
WDC      84.47  47 P       10 50.00   10.4X
      Z  19s      1.39um             5.4Msz
GUN      85.09 299 P       10 44.60    1.1
CMB      85.25  50 P       10 50.00    6.4X
      Z  19s      1.77um             5.5Msz
PKI      85.41 299 P       10 44.80   -0.2
KKN      85.58 299 P       10 46.60    0.9
TIK      85.68 349 eP      10 44.00   -1.0
         2.0s     25.00nm            5.1mb
                    e      10 56.00   39km
DMN      85.68 299 P       10 46.60    0.3
ISA      86.02  53 P       11 00.00   12.4X
      Z  19s      2.12um             5.6Msz
GKN      86.18 299 P       10 49.40    0.8
PEC      86.58  55 (P)     10 50.62    0.3
         0.9s      7.17nm            4.9mb
BONR     86.80  51 (P)     10 51.33   -0.3
RMW      87.24  41 eP      10 54.17    0.9
TPNV     88.10  52 P       11 10.00   12.3X
      Z  18s      2.01um             5.6Msz
ARUT     90.47  52 eP      11 09.07    0.2
TUC      91.41  58 P       11 20.00    6.8X
      Z  18s      1.20um             5.4Msz
DUG      91.50  49 P       11 20.00    6.5X
      Z  19s      1.23um             5.4Msz
MSU      91.61  51 eP      11 14.97    0.8
                    e      11 30.09   52kmX
ELT      91.64 324 eP      11 13.20   -0.4
         1.7s     25.00nm            5.3mb
HVU      91.88  48 eP      11 15.92    0.7
LCCM     93.38  44 eP      11 22.30    0.2
PV09     93.94  52 eP      11 26.37    1.3
PV10     93.99  52 eP      11 26.06    0.8
PRZ      94.34 312 eP      11 28.50    1.9
         1.5s     30.00nm            5.5mb
BW06     94.42  47 eP      11 26.52   -0.5
         1.1s      2.54nm            4.6mb
YKA      95.44  27 eP      11 28.70   -2.2
         0.8s      1.20nm            4.4mb
ALQ      95.44  56 P       11 40.00    8.1X
      Z  19s      0.70um             5.2Msz
GOL      97.03  51 P       11 50.00   11.0X
      Z  19s      2.19um             5.7Msz
GLD      97.15  51 P       11 50.00   10.5X
      Z  19s      2.57um             5.7Msz
RSSD     98.59  47 P       12 00.00   14.1X
      Z  18s      0.42um             5.0Msz
WMOK    101.68  57 Pdiff   12 10.00   10.1X
      Z  18s      0.88um             5.3Msz
RSNY    119.58  45 PKP     17 10.00   13.1X
      Z  18s      0.52um             5.2Msz
CNCB    121.35 117 ePKP    17 02.90    1.1
ZOBO    121.43 117 ePKP    17 03.20    1.2
HRV     122.20  46 PKP     17 10.00    8.1X
      Z  18s      0.92um             5.5Msz
CBM     123.11  40 PKP     17 10.00    6.5X
      Z  20s      0.49um             5.1Msz
NB2     126.20 344 PKP     17 09.00   -0.2
         0.9s      1.90nm
GEC2    134.97 333 PKP     17 28.50    2.1X
         0.8s      0.96nm
VBY     136.59 328 ePKP    17 26.80   -2.6X
LOR     140.19 339 ePKP    17 36.60    0.6
         1.0s      2.80nm
SSF     140.49 339 ePKP    17 37.20    0.7
         0.9s      2.60nm
TCF     141.60 340 ePKP    17 38.00   -0.6
         1.0s      5.00nm
BCAO    145.60 262 iPKPd   17 45.10   -1.3
         1.0s     40.00nm
                    ic     18 13.00
                    id     18 33.20
ECRI    146.40 342 ePKP    17 46.80   -0.1
SOB1    147.87 127 ePKP    17 49.20   -0.8
ETOR    147.88 340 ePKP    17 53.00    3.6X
GUD     148.69 343 ePKP    17 55.40    4.7X
PAB     149.76 343 ePKP    17 59.00    6.7X
EVIA    149.99 339 ePKP    17 58.80    6.1X
```

07d 08h

EHUE 150.76 339 ePKP 18 00.30 6.4X
EGUA 151.98 339 ePKP 18 02.00 6.4X
EPRU 152.40 342 ePKP 18 09.00 12.7X
S.D. = 1.2 on 69 of 101 obs.

---

* MAR 07, 1993 08h 07m 49.22± 0.70s
10.954 S ± 9.4km 164.365 E ±11.3km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
SANTA CRUZ ISLANDS REGION (183)

SVO 4.83 291 eP 09 01.00 -0.5
DZM 11.23 170 iPc 10 30.00 -0.7
CTA 19.66 240 iPc 12 18.50 0.0
RMO 21.35 221 eP 12 37.40 1.5
CMS 26.68 217 eP 13 27.00 -0.2
WRA 30.24 249 P 13 59.00 -0.5
0.8s 0.80nm 3.6mb
SVW 78.45 19 eP 19 48.90 0.7
1.0s 8.00nm 4.7mb
IMA 82.79 16 eP 20 11.69 0.5
0.9s 2.08nm 4.2mb
FBA 83.66 19 eP 20 14.69 -0.9
1.0s 6.00nm 4.7mb
BCAO 145.55 262 ePKPd 27 37.00 10.2X
0.7s 3.00nm
S.D. = 0.9 on 9 of 10 obs.

---

* MAR 07, 1993 08h 21m 02.19± 0.54s
10.891 S ± 8.9km 164.401 E ±10.6km
DEPTH = 32.8km (4 depth phases)
4.5mb (12 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR 4.62 288 eP 22 12.00 0.5
eS 23 07.00
DZM 11.29 170 iPc 23 43.00 -1.4
CTA 19.72 240 iPc 25 32.00 -0.1
1.0s 15.00nm 4.2mb
i 25 44.00 56kmX
RMO 21.42 221 iPc 25 51.00 1.4
1.0s 49.00nm 4.9mb
ARMA 22.77 210 eP 26 05.20 2.1
0.9s 17.00nm 4.5mb
OLP 24.61 228 eP 26 22.20 1.3
CMS 26.75 217 eP 26 40.60 -0.2
0.8s 11.00nm 4.5mb
e 26 50.90 38km
WB2 30.29 249 eP 27 10.40 -2.5
0.9s 4.70nm 4.3mb
WRA 30.30 249 P 27 11.10 -1.9
1.0s 1.10nm 3.6mb
ASPA 31.69 242 eP 27 25.10 -0.1
0.7s 4.20nm 4.4mb
ADE 33.48 220 ePd 27 41.20 0.5
KMI 69.92 302 eP 32 13.00 0.2
pP 32 20.50 24km
sP 32 23.00
LZH 73.68 313 eP 32 34.50 -0.4
2.0s 37.00nm 5.0mb
Z 16s 0.34um 4.7MszX
pP 32 46.00 38km
SVW 78.38 19 eP 33 01.63 0.8
1.2s 35.49nm 5.3mb
IMA 82.72 16 eP 33 24.51 0.6
0.9s 4.19nm 4.5mb
e 33 34.41 31km
BALM 82.99 23 eP 33 25.60 0.3
FBA 83.59 19 eP 33 27.66 -0.5
0.9s 9.66nm 4.9mb
LCCM 93.39 44 eP 34 16.10 0.5
YKA 95.44 27 eP 34 23.30 -1.2
0.9s 0.50nm 4.0mb
BCAO 145.59 262 iPKPc 40 40.10 0.2
1.0s 15.00nm
id 40 50.00
S.D. = 1.2 on 20 of 20 obs.

& MAR 07, 1993 08h 24m 56.19s
61.438 N 146.659 W
DEPTH = 13.6km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.0 (AEIC).

VLZ 0.35 153 iPc 25 03.32 -0.2
eS 25 08.84
KLU 0.36 81 iPc 25 03.59 -0.3
eS 25 09.51
SCM 0.51 321 iPd 25 06.17 -0.3
eS 25 13.87
TZL 0.85 43 iPc 25 11.31 -0.9
SML 0.88 296 iPd 25 11.52 -1.3
eS 25 23.95
CVA 1.00 153 iPd 25 13.26 -1.5
eS 25 28.92
HIN 1.05 176 eP 25 14.70 -0.9
GHO 1.13 288 iPc 25 15.82 -1.3
eS 25 31.27
SGAM 1.18 142 iPd 25 15.99 -1.8
PLRM 1.20 279 iPc 25 16.82 -1.3
eS 25 33.11
PMR 1.20 279 iPd 25 16.74 -1.4
eS 25 31.78
SDG 1.21 25 iPc 25 16.60 -1.9
eS 25 31.77
PTE 1.28 244 iPc 25 18.29 -1.3
eS 25 35.60
GLB 1.37 89 ePc 25 18.07 -2.8
iS 25 36.44
PMS 1.41 263 P 25 20.50 -1.0
S 25 39.60
RAGM 1.43 137 eP 25 19.99 -1.8
PWA 1.56 279 P 25 22.30 -1.2
MPA 1.63 235 iPc 25 23.31 -1.2
eS 25 44.40
PAX 1.64 19 iPc 25 22.77 -2.0
eS 25 43.68
CRQM 1.84 110 eP 25 25.95 -1.9
eS 25 50.20
KAIM 1.88 143 eP 25 26.99 -1.1
SEW 1.92 227 eP 25 27.08 -1.6
SUA 1.96 273 iPc 25 28.39 -1.1
eS 25 54.80
SLKM 1.97 243 iPc 25 28.36 -1.2
eS 25 54.12
TGL 1.98 109 ePd 25 27.45 -2.3
eS 25 53.14
HUR 2.08 319 eP 25 30.06 -1.1
BALM 2.13 99 iPd 25 29.39 -2.5
RND 2.22 334 eP 25 32.79 -0.5
SNH 2.26 122 ePc 25 33.14 -0.6
SKT 2.38 285 iPc 25 34.04 -1.4
CYK 2.46 122 eP 25 35.03 -1.4
DOT 2.52 27 eP 25 37.66 0.2
MCK 2.53 336 eP 25 37.85 0.3
SPU 2.62 267 eP 25 37.06 -1.7
CTGM 2.62 98 eP 25 36.66 -2.3
TRF 2.63 322 iPd 25 38.41 -0.7
YAH 2.63 112 eP 25 35.84 -3.4
CPAM 2.65 268 eP 25 37.85 -1.5
CRP 2.65 269 eP 25 37.35 -2.1
CKN 2.67 268 eP 25 38.14 -1.5
BRLK 2.68 233 eP 25 37.84 -1.8
CKT 2.69 267 eP 25 38.31 -1.5
CP2 2.70 269 eP 25 39.04 -1.1
CKL 2.75 267 eP 25 38.80 -2.0
BGL 2.77 269 eP 25 39.51 -1.5
HDA 2.98 358 eP 25 43.51 -0.4
DFR 3.05 257 iPc 25 42.67 -2.4
RSO 3.13 254 eP 25 44.02 -2.2
RS2 3.13 254 eP 25 43.98 -2.3
RS1 3.13 254 eP 25 44.06 -2.2
RDW 3.15 255 eP 25 44.29 -2.2
NCT 3.18 257 eP 25 44.37 -2.4
CCB 3.26 351 eP 25 47.99 0.1
INE 3.43 249 eP 25 47.87 -2.6
INW 3.46 249 eP 25 48.44 -2.4
FBA 3.51 352 eP 25 51.21 -0.2
GLM 3.58 355 eP 25 53.04 0.6
SYI 4.04 228 iPc 25 57.03 -1.8
PDB 4.06 249 eP 25 56.04 -3.2
SVW 4.34 270 eP 25 59.72 -3.5
60 obs. associated

---

* MAR 07, 1993 08h 34m 36.41± 0.87s
38.241 N ± 7.9km 21.749 E ±10.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.1 (ATH).

VLS 0.92 266 ePb 34 54.00 0.1
VLI 1.79 148 ePn 35 07.50 -0.1
KZN 2.06 0 ePn 35 11.00 -0.6
OHR 2.96 346 ePn 35 24.30 0.0
VAY 3.14 11 ePn 35 27.40 0.6
S.D. = 0.6 on 5 of 5 obs.

---

* MAR 07, 1993 08h 53m 27.95± 2.59s
31.164 N ±26.2km 114.242 W ± 9.4km
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
GULF OF CALIFORNIA (49)

PLM 3.11 315 eP 54 19.03 0.9
TUC 3.16 68 eP 54 17.51 -1.2
S 55 03.78
PEC 3.67 319 (Pn) 54 25.53 -0.5
SSK 4.21 317 (Pn) 54 32.95 -0.8
GSC 4.65 333 (Pn) 54 38.40 -1.6
TPNV 6.01 344 (Pn) 54 59.03 -0.1
ARUT 6.64 5 (Pn) 55 06.84 -1.3
TNP 7.32 341 eP 55 17.32 -0.4
BONR 7.56 335 (Pn) 55 22.52 1.4
ePg 56 07.21
PV10 8.37 29 eP 55 33.79 1.3
WMOK 13.46 71 (P) 56 42.20 0.7
RSSD 15.23 29 (P) 57 04.79 -0.1
0.8s 2.71nm 3.7mb
RMW 17.28 342 (P) 57 32.58 1.8
S.D. = 1.2 on 13 of 13 obs.

---

* MAR 07, 1993 09h 20m 30.38± 0.98s
51.717 N ± 7.6km 6.845 E ±13.7km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.4 (BNS). Felt at Alsdorf.

WTS 0.28 356 ePg 20 36.30 0.1
0.7s 424.70nm
BNS 0.78 164 iPg 20 48.92 3.3X
0.7s 350.00nm
iSg 20 54.90
WIT 1.10 354 eP 20 56.00 4.9X
eS 21 24.00
ENN 1.11 212 ePc 20 51.00 -0.2
0.7s 23.20nm
id 20 54.20
iS 21 11.20
TNS 1.81 145 ePnc 21 03.10 1.3
iSn 21 23.70
iSb 21 27.50
ABH 1.89 166 eP 21 01.53 -1.5
SNF 2.02 234 iP 21 13.40 8.6X
RUP 2.02 176 eP 21 06.07 1.1
WLF 2.10 192 iPc 21 12.90 6.9X
iS 21 33.66
DOU 2.16 222 P 21 15.00 8.1X
iS 21 39.00
MOX 3.19 108 ePg 21 31.40 9.9X
eSg 22 04.00
GRF 3.44 124 e(Pn) 21 24.40 -0.7
e(Pg) 21 34.90
eSg 22 21.20
BRG 4.54 98 e(P) 22 02.00 21.4X
e 22 47.00
WET 4.64 121 iPc 22 03.10 21.0X
KHC 5.02 118 eP 22 04.50 16.9X
Z 18s 0.70um
N 18s 0.40um
E 18s 0.50um
e 23 09.00
e 23 27.00
PRU 5.17 107 eP 22 09.00 19.3X
e 23 03.00
e 23 09.00
GEC2 5.25 121 Pn 22 00.60 9.7X
Pg 22 10.20
Sn 22 45.80
Sg 23 20.10
KSP 5.99 95 eP 22 29.50 28.3X
eS 23 17.00
S.D. = 1.4 on 6 of 18 obs.

MAR 07, 1993 10h 34m 43.39± 0.64s
43.424 N ± 4.3km 5.441 E ± 5.0km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.5 (STR).

GELF 0.04 193 Pg 34 45.31 -0.2
TREF 0.20 348 Pg 34 47.41 -0.5

```
BERF     0.21 121 Pg     34 48.31   0.2
PUYF     0.22  60 Pg     34 47.56  -0.6
CDR      0.35  43 ePgd   34 49.70  -0.8
PRAF     0.43 333 Pg     34 52.60   0.5
VILF     0.47  25 Pg     34 52.74  -0.3
TAVF     0.49  66 Pg     34 53.12  -0.2
GANF     0.67  30 Pg     34 57.10   0.4
CALN     1.10  72 Pg     35 04.88   0.7
TOUF     1.44  65 Pn     35 10.62   1.0
AURF     1.45  71 Pn     35 10.12   0.4
AUTN     1.55  68 Pn     35 11.60   0.3
SAOF     1.63  69 Pn     35 12.31   0.0
PGF      2.75 107 Pn     35 27.50  -1.0
     S.D. = 0.6  on  15 of  15 obs.
---------------------------------------
% MAR 07, 1993  11h 00m 50.36± 0.63s
  39.489 N ± 6.3km    28.309 E ± 5.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
     MD 2.8 (ISK).

DST      0.27  65 iPg    00 55.70  -0.4
                  iSg    01 00.70
KCT      0.76   3 iPg    01 05.60   0.4
BNT      0.92 341 ePn    01 07.80  -0.1
YLV      1.35  37 iPn    01 14.90  -0.4
IZM      1.36 217 iPn    01 15.50   0.1
ALT      1.46 107 ePn    01 17.00   0.1
EZN      1.57 283 ePn    01 18.00  -0.3
EYL      1.78  52 ePn    01 22.00   0.5
     S.D. = 0.4  on   8 of   8 obs.
---------------------------------------
* MAR 07, 1993  11h 25m 43.98± 1.15s
  50.234 N ±15.8km    18.891 E ± 7.9km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
     ML 2.8 (WAR).

OJC      0.58  91 iPg    25 55.00  -0.8
                  iSg    26 03.50
SPC      1.37 139 iPn    26 10.30   1.1
                  i(Sg)  26 28.30
                  Lg     26 32.00
VRAC     1.75 239 iPnc   26 15.30   0.7
     0.6s     23.30nm
                  eSg    26 38.00
KSP      1.77 291 iPg    26 15.90   1.1
                  iS     26 38.00
ZST      2.35 211 eP     26 22.90  -0.3
SRO      2.45 189 eP     26 32.10   7.5X
PRU      2.81 267 ePg    26 36.50   6.7X
                  Sg     27 10.50
KHC      3.62 254 Pn     26 39.50  -1.8
                  Pg     26 52.40
                  e      27 22.50
                  Sg     27 33.50
                  e      27 38.50
     S.D. = 1.5  on   6 of   8 obs.
---------------------------------------
& MAR 07, 1993  11h 35m 51.90s
  66.230 N           150.013 W
   DEPTH =  17.5km
 NORTHERN ALASKA                  (676)
     <AEIC>. ML 2.8 (AEIC).

MDM      1.48 149 eP     36 17.16  -0.5
IMA      1.50 265 ePn    36 16.95  -1.2
                  S      36 36.84
FBA      1.62 144 ePn    36 17.18  -2.6
                  S      36 37.29
GLM      1.66 138 eP     36 19.61  -0.7
                  eS     36 41.35
NEA      1.71 166 eP     36 21.77   0.8
                  S      36 43.40
CCB      1.84 149 eP     36 22.04  -0.9
                  eS     36 47.14
FYU      1.95  78 eP     36 25.11   0.5
HDA      2.24 144 eP     36 27.48  -1.2
                  eS     36 58.26
MCK      2.55 169 eP     36 33.44   0.3
TRF      2.79 183 eP     36 36.40  -0.4
PMR      4.67 175 (P)    37 04.11   0.9
KLU      5.09 157 (P)    37 08.54  -0.6
     12 obs. associated
---------------------------------------
? MAR 07, 1993  11h 41m 29.73± 1.71s
  30.693 N ±15.3km    49.968 E ±33.8km
   DEPTH =  10.0km  (geophysicist)
   3.5mb (  2 obs.)
 WESTERN IRAN                     (347)

KER      4.38 327 eP     42 59.00  21.1X
MJMA     6.34 222 eP     43 05.50  -0.1
                  eS     44 17.00
RYD      6.65 207 eP     43 10.00   0.0
                  eS     44 22.00
QASM     7.29 233 eP     43 19.00   0.1
                  eS     44 36.00
HFS     38.07 331 eP     48 49.80   0.0
     0.6s      0.90nm          3.7mb
YKA     86.31 353 eP     54 12.80   0.0
     0.4s      0.10nm          3.4mb
     S.D. = 0.1  on   5 of   6 obs.
---------------------------------------
% MAR 07, 1993  12h 18m 02.09± 0.75s
  37.545 S ± 6.8km   177.087 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
 OFF E. COAST OF N. ISLAND, N.Z. (160)
     ML 4.1 (WEL).

URZ      0.71 179 Pc     18 15.20  -0.9
                  S      18 23.90
TAZ      0.83 214 P      18 19.20   1.2
HBZ      0.97  94 P      18 20.00  -0.4
PUZ      1.07 120 Pc     18 22.50   0.3
                  S      18 37.10
WLZ      1.23 254 P      18 25.20   0.3
NOZ      1.31 145 P      18 27.00   0.7
PAHZ     1.31 181 P      18 26.50   0.1
KUZ      1.35 306 P      18 27.10   0.2
                  S      18 46.40
MAHZ     1.76 159 P      18 32.80   0.1
TTH      2.00 186 P      18 36.80   0.5
MOZ      2.04 241 P      18 36.30  -0.6
WAHZ     2.23 195 Pd     18 39.70   0.1
MNG      3.31 202 eP     18 53.50  -1.5
     S.D. = 0.8  on  13 of  13 obs.
---------------------------------------
* MAR 07, 1993  12h 36m 25.80± 0.81s
   6.618 N ±21.2km    72.740 W ±17.8km
   DEPTH = 197.9 ± 15.2 km
   4.1mb (  1 obs.)
 NORTHERN COLOMBIA                ( 99)

BOG      2.38 214 eP     37 09.00   0.0
                  iS     37 40.00
SDV      3.07  43 iPnd   37 16.70  -0.1
                  iSn    37 54.60
TOV      4.29  43 ePnc   37 32.00   0.2
                  eSn    38 22.50
CEOS     4.98  61 iP     37 40.50  -0.1
                  iS     38 29.60
OLLA     6.78  60 iP     38 04.20   0.2
                  iS     38 13.50
GUAN     7.76  64 iP     38 17.10  -0.1
YKA     63.58 340 eP     46 37.20   0.0
     0.6s      1.90nm          4.1mb
WB2    150.56 241 iPKPd  55 59.50   8.9X
     0.5s      1.90nm
     S.D. = 0.2  on   7 of   8 obs.
---------------------------------------
% MAR 07, 1993  13h 41m 05.09± 0.43s
  44.444 N ± 3.7km     7.406 E ± 4.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
     ML 2.2 (GEN).

STV      0.21 196 P      41 09.59  -0.1
                  S      41 11.93
ENR      0.22 177 P      41 09.73  -0.1
                  S      41 12.16
PZZ      0.23 286 P      41 10.69   0.6
                  S      41 14.26
ROB      0.36 114 P      41 13.12   0.5
                  S      41 18.24
BHB      0.41 346 P      41 13.85   0.4
                  S      41 19.53
FIN      0.62 112 P      41 17.38  -0.3
                  S      41 25.70
IMI      0.64 147 P      41 17.43  -0.5
RRL      0.65 317 P      41 18.29   0.0
                  S      41 27.12
RSP      0.72 352 P      41 18.70  -0.6
                  S      41 28.04
PCP      0.82  83 P      41 21.59   0.6
                  S      41 32.39
LSD      1.03 350 P      41 24.11  -0.6
     S.D. = 0.5  on  11 of  11 obs.
---------------------------------------
  MAR 07, 1993  14h 11m 32.98± 0.24s
  85.405 N ± 4.4km    14.234 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
   4.7mb ( 30 obs.)  4.5Msz (  7 obs.)
 NORTH OF SVALBARD                (641)

KBS      6.54 184 eP     13 10.80  -0.6
DAG      9.76 228 eP     13 54.50  -1.7
     1.3s    119.23nm          6.2mb X
KEV     15.89 164 eP     15 15.00  -2.8
ARA0    16.08 166 P      15 16.55  -3.7X
                  S      18 01.23
RES     17.47 303 eP     15 34.50  -3.2X
     1.0s     19.00nm          4.2mb
SDF     18.22 165 iP     15 47.00   0.0
NRI     19.92  94 iPc    16 07.70   0.7
     1.5s     46.00nm          4.6mb
                  e      16 36.00
                  e      19 42.00
TIK     20.82  54 eP     16 19.00   2.6
     1.9s     36.00nm          4.4mb
BRW     23.39 353 eP     16 42.10   0.1
                  e      16 55.99
KAF     23.54 166 eP     16 46.00   2.5
     0.9s      8.90nm          4.3mb
NB2     24.51 184 P      16 54.10   1.2
     1.3s     39.50nm          4.9mb
NRA0    24.81 183 P      16 57.17   1.4
NUR     25.12 168 eP     16 57.80  -0.9
     0.7s      9.20nm          4.6mb
HFS     25.41 181 eP     17 02.60   1.1
     0.6s      5.00nm          4.4mb
ILT     26.76  11 iPc    17 13.30  -0.6
     1.3s     12.00nm          4.4mb
FBA     29.68 345 eP     17 40.60   0.2
     0.7s      2.25nm          4.1mb
SVE     30.34 128 ePd    18 03.90  17.6X
   Z  21s      0.50um          4.1Msz
   N  20s      0.50um
   E  20s      0.40um
YAK     30.40  57 eP     17 45.00  -1.7
     1.0s     30.00nm          5.1mb
ARU     30.62 130 eP     18 01.00  12.2X
   Z  18s      0.50um          4.2Msz
   N  16s      0.50um
YKA     30.76 315 eP     17 48.50  -1.4
     1.3s      5.30nm          4.3mb
OBN     30.85 155 eP     17 49.00  -1.7
   Z  16s      0.50um          4.3MszX
FCC     33.13 295 eP     18 12.50   1.9
BOD     33.40  73 iPd    18 11.80  -1.2
     1.0s     20.00nm          5.0mb
SVW     33.62 351 (P)    18 14.19  -0.8
CLL     34.25 181 e(P)   18 18.00  -2.5
OJC     35.37 174 eP     18 29.90  -0.1
PRU     35.58 180 eP     18 32.50   0.7
ELT     35.74 102 eP     18 34.00   0.9
     2.0s     18.00nm          4.6mb
KHC     36.43 181 eP     18 41.00   1.9
                  e      19 17.00
GEC2    36.72 181 P      18 43.10   1.5
     0.7s      0.82nm          3.6mb X
                  e      18 46.80
IRK     38.16  84 ePc    18 53.00  -0.5
     1.1s     26.00nm          4.9mb
   Z  14s      0.29um          4.2MszX
CIT     39.17  75 eP     19 03.80   1.8
ZAK     39.95  85 eP     19 09.30   0.9
     1.5s     12.00nm          4.3mb
   Z  18s      0.41um          4.3Msz
   N  18s      0.30um
   E  18s      0.30um
                  e      20 43.60
ULM     41.72 295 eP     19 27.00   4.1X
SES     42.61 309 eP     19 31.00   0.7
NEW     45.09 315 eP     19 50.86   0.4
     1.1s     12.35nm          4.8mb
FRU     45.21 116 eP     19 53.80   2.4
   Z  16s      0.50um          4.5MszX
WMQ     45.22 102 P      19 52.60   1.0
     1.0s      8.40nm          4.6mb
   Z  22s      0.66um          4.5Msz
```

07d 14h

pP 20 01.00 28kmX
DPW 45.55 316 eP 19 54.08 0.0
PRZ 45.84 112 eP 19 58.00 1.5
GMW 46.12 320 eP 19 59.17 0.7
PAB 46.28 200 eP 20 03.00 3.1X
LON 46.86 319 eP 20 04.58 0.2
LCCM 47.20 310 eP 20 07.30 0.1
MDJ 47.70 61 eP 20 10.50 -0.5
CN2 48.21 65 eP 20 14.50 -0.5
1.0s 4.60nm 4.5mb
Z 16s 0.29um 4.4MszX
RSSD 48.40 302 ePc 20 16.56 -0.1
0.9s 9.32nm 4.9mb
KSH 48.67 115 eP 20 22.00 3.3X
1.0s 10.00nm 4.8mb
Z 20s 1.12um 4.8Msz
N 16s 0.72um
S 27 19.00
sS 27 29.00
SNY 50.04 67 Pc 20 29.10 0.1
pP 20 36.40 24kmX
BW06 50.10 307 ePc 20 28.64 -1.2
1.3s 10.98nm 4.7mb
BTO 50.21 80 eP 20 30.00 -0.5
GTA 50.57 91 P 20 33.50 0.2
1.0s 19.00nm 5.0mb
Z 15s 0.57um 4.7MszX
pP 20 41.00 25kmX
BJI 51.25 74 eP 20 39.00 0.7
1.4s 24.00nm 4.9mb
TIY 53.27 78 eP 20 53.20 -0.4
Z 18s 0.73um 4.8Msz
LZH 54.20 87 eP 21 01.00 0.5
1.5s 54.00nm 5.4mb
Z 20s 0.49um 4.6Msz
pP 21 08.50 25kmX
PV08 54.22 306 eP 21 00.17 -0.7
e 21 07.83
PV10 54.45 306 eP 21 02.51 0.1
TIA 55.13 74 eP 21 07.20 0.0
BONR 55.43 315 eP 21 10.09 0.4
XAN 56.64 82 P 21 17.80 -0.3
1.0s 7.10nm 4.7mb
pP 21 25.50 25kmX
GSC 57.99 313 eP 21 28.22 0.6
CD2 59.33 88 iPd 21 36.80 -0.2
SSE 60.52 70 Pc 21 43.50 -1.6
1.0s 13.00nm 5.0mb
TUC 60.59 307 eP 21 45.58 -0.1
1.0s 9.72nm 4.9mb
GKN 60.70 107 P 21 46.00 -0.5
GUN 60.88 106 P 21 46.40 -1.6
KKN 60.96 107 P 21 47.80 -0.6
DMN 61.12 107 P 21 49.00 -0.5
PKI 61.18 106 P 21 48.80 -1.2
GYA 63.98 85 iPd 22 08.80 0.4
0.8s 23.00nm 5.4mb
KMI 64.99 89 Pc 22 14.00 -1.1
2.0s 60.00nm 5.4mb
Z 16s 0.60um 4.9MszX
pP 22 22.00 26kmX
HYB 70.74 114 eP 22 49.00 -1.8
GBA 74.44 116 Pc 23 13.00 0.4
KIC 79.31 199 P 23 40.16 0.3
LIC 79.45 199 P 23 40.74 0.2
BCAO 80.98 176 iPd 23 48.90 0.2
0.2s 8.00nm 5.4mb
S.D. = 1.2 on 69 of 76 obs.

MAR 07, 1993 14h 12m 09.96± 0.47s
44.545 N ± 4.1km 110.904 W ± 5.3km
DEPTH = 5.0km (geophysicist)
YELLOWSTONE REGION, WYOMING (459)
ML 2.8 (GS), 3.1 (BUT).

TPMT 0.57 289 iPc 12 21.40 -0.1
LTMT 0.86 269 eP 12 26.50 -0.7
MEMT 1.06 357 iPc 12 30.60 0.1
BGMT 1.06 311 iPc 12 29.80 -0.8
MCMT 1.42 282 ePc 12 36.20 -0.4
LCCM 1.46 332 iPc 12 37.60 0.4
LRM 1.68 320 ePn 12 40.60 0.2
HBMT 1.73 317 ePn 12 41.60 0.4
BUT 1.88 322 ePn 12 44.00 0.8
eSn 13 08.20
eSg 13 09.10
BW06 2.02 151 eP 12 46.56 1.3
S 13 14.68
HRY 2.26 344 ePn 12 48.60 -0.1
HVU 3.08 207 eP 13 01.46 1.1
S 13 45.24
NCM 3.67 317 ePn 13 09.00 0.3
DAU 4.14 184 (P) 13 14.51 -1.0
S 14 21.73
DUG 4.57 199 (P) 13 21.37 -0.1
RSSD 4.95 93 ePn 13 25.72 -1.2
S 14 45.26
S.D. = 0.8 on 16 of 16 obs.

• MAR 07, 1993 15h 15m 40.32± 2.82s
41.679 N ±20.3km 22.926 E ± 8.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.7 (THE), 2.2 (SKO).

VAY 0.45 217 iPg 15 49.30 -0.1
iSg 15 56.30
i 15 57.60
KNT 0.52 182 ePg 15 50.78 0.0
eSg 15 59.02
SRS 0.75 138 ePg 15 54.66 -0.4
eSg 16 07.18
GRG 0.82 209 ePg 15 55.82 -0.5
eSg 16 08.26
SOH 0.92 159 ePg 15 58.26 0.4
eSg 16 12.54
THE 1.05 178 ePg 16 00.38 0.3
eSg 16 15.62
FNA 1.47 233 ePb 16 07.22 0.3
eSb 16 26.86
S.D. = 0.4 on 7 of 7 obs.

? MAR 07, 1993 15h 16m 48.22± 1.09s
22.632 S ±54.7km 173.139 W ±18.7km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)
TONGA ISLANDS REGION (174)

DZM 18.90 268 iPc 21 09.90 1.2
RMQ 34.79 256 eP 23 39.20 1.2
CMS 37.41 247 eP 24 03.10 3.0X
CTA 37.82 266 iP 24 02.50 -1.2
ASPA 48.47 258 eP 25 29.70 -0.2
1.1s 11.10nm 4.8mb
WB2 48.80 263 iPd 25 31.50 -0.9
0.6s 13.00nm 5.1mb
WRA 48.81 263 P 25 32.00 -0.5
0.9s 2.20nm 4.2mb
KGM 84.81 274 eP 29 26.00 4.8X
IPM 87.91 276 ePc 29 41.60 5.2X
SES 90.99 34 eP 30 01.00 10.9X
BRU 93.86 82 iPd 30 05.00 0.4
eS 39 25.93
KMI 94.35 295 Pd 30 12.00 5.7X
1.8s 40.00nm 5.5mb
CHTO 95.21 288 eP 30 16.20 6.1X
YKA 96.60 23 eP 30 15.60 0.1
0.8s 0.60nm 4.1mb
KSP 150.89 348 ePKP 36 46.40 13.6X
CLL 150.98 352 ePKP 36 46.00 13.1X
1.7s 21.00nm
MOX 151.79 354 ePKP 36 48.80 14.6X
PRU 152.04 349 ePKP 36 53.00 18.4X
e 37 24.50
KHC 153.02 350 ePKP 36 50.00 14.0X
e 37 17.00
e 37 30.00
GEC2 153.28 350 PKP 36 51.60 15.1X
0.7s 0.66nm
S.D. = 1.1 on 8 of 20 obs.

• MAR 07, 1993 15h 48m 34.99± 1.95s
35.513 N ±21.0km 24.445 E ±11.5km
DEPTH = 10.0km (geophysicist)
3.7mb (3 obs.)
CRETE (370)
ML 3.3 (ATH).

NPS 0.99 104 ePn 48 54.00 0.3
VLI 1.71 315 ePb 49 07.00 2.0
ATH 2.52 347 ePn 49 17.00 0.4
IZM 3.66 37 iPn 49 34.70 1.8
VLS 4.08 312 ePn 49 35.50 -3.2X
ELL 4.59 73 iPn 49 45.00 -1.2
KHL 4.94 54 ePn 49 51.00 -0.1
KZN 5.23 337 ePn 49 53.90 -1.3
VAY 5.98 346 ePn 50 12.00 6.3X
OHR 6.28 334 ePn 50 05.20 -4.8X
CSS 7.29 92 eP 50 15.00 -9.1X
eS 51 37.30
BGIO 9.65 110 eP 50 43.80 -13.1X
DSI 9.94 110 eP 50 46.90 -13.9X
MBA 10.49 120 eP 50 53.00 -15.6X
GEC2 15.50 333 Pn 52 14.80 -0.4
KHC 15.78 333 eP 52 18.00 -0.8
1.0s 5.40nm 3.7mb
e 52 23.40
e 52 56.50
PRU 16.17 337 eP 52 23.00 -0.7
DOU 20.51 321 P 53 07.00 -8.7X
HFS 25.60 348 eP 53 58.60 -7.1X
0.4s 1.40nm 4.0mb
NB2 26.91 346 P 54 09.20 -8.7X
0.6s 0.80nm 3.6mb
BCAO 31.41 191 ePd 54 37.20 -21.3X
0.2s 16.00nm
S.D. = 1.3 on 10 of 21 obs.

? MAR 07, 1993 15h 53m 23.31± 5.13s
44.851 N ±38.2km 14.327 E ±12.1km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)
MD 2.7 (LJU), 2.4 (TRI).

CEY 0.89 5 ePg 53 41.00 0.6
eSg 53 55.50
VBY 0.93 45 ePn 53 40.60 -0.4
iSn 53 58.40
e 54 44.50
TRI 0.95 335 ePgc 53 40.50 -0.8
iSg 53 54.50
LJU 1.20 7 eP 53 46.50 0.8
e 53 51.00
iSg 54 04.50
e 54 20.00
VOY 1.22 346 ePnd 53 45.40 -0.7
eSn 54 03.30
e 54 57.20
PTJ 1.56 47 eP 53 54.60 3.4X
RBL 1.68 342 P 53 52.10 -0.8
eSg 54 15.10
FVI 2.05 329 P 53 59.50 1.3
eSg 54 22.30
S.D. = 1.1 on 7 of 8 obs.

% MAR 07, 1993 16h 27m 03.68± 1.51s
31.293 S ±11.1km 68.636 W ± 9.5km
DEPTH = 99.5 ± 17.1 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.15 104 iPc 27 18.00 -0.2
S 27 25.00
RTCB 0.24 216 iPd 27 18.20 -0.3
S 27 28.50
CFA 0.46 133 iPc 27 19.80 0.4
S 27 32.80
RTCV 0.57 172 iPd 27 20.30 0.1
S 27 32.40
RTBS 0.79 242 ePd 27 22.10 0.0
S 27 36.00
RTRS 1.33 327 iPd 27 28.20 0.1
S 27 47.00
RTPR 2.08 62 e(P)c 27 38.00 0.3
MRA 2.73 115 ePd 27 46.80 0.3
TCA 3.46 92 iP 27 56.00 -0.6
(S) 28 35.10
S.D. = 0.4 on 9 of 9 obs.

? MAR 07, 1993 17h 08m 08.76± 0.78s
53.176 N ±14.5km 175.245 E ± 9.4km
DEPTH = 33.0km (normal)
4.0mb (4 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

SMY 0.82 238 ePd 08 23.91 0.0
eS 08 52.56
ADK 5.09 101 (P) 09 24.67 -0.1
CRP 19.24 52 (P) 12 36.43 3.6X
IMA 20.05 38 (P) 12 46.63 5.0X
1.0s 2.87nm 3.6mb
YAK 25.44 308 iPd 13 34.40 -0.3

1.0s 30.00nm 4.8mb
YKA 36.66 47 eP 15 23.90 10.3X
0.8s 0.60nm
NB2 65.42 352 P 18 49.70 -0.2
0.8s 1.90nm 4.2mb
GEC2 77.16 348 P 20 00.90 0.5
1.0s 1.11nm 3.9mb
S.D. = 0.4 on 5 of 8 obs.

% MAR 07, 1993 18h 02m 24.78± 0.88s
26.393 S ± 7.0km 27.407 E ± 9.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

PRY 0.54 174 eP 02 34.50 -1.1
S 02 41.00
KSR 0.70 319 eP 02 38.00 -0.8
S 02 48.00
SLR 1.02 50 eP 02 45.00 0.3
S 02 57.00
SEK 1.93 174 eP 02 59.30 0.5
S 03 23.60
SWZ 2.02 247 eP 03 01.00 1.0
S 03 25.60
S.D. = 1.2 on 5 of 5 obs.

• MAR 07, 1993 18h 12m 46.02± 1.78s
6.465 N ±23.1km 73.084 W ± 8.5km
DEPTH = 154.8 ± 11.5 km
3.8mb (3 obs.)
NORTHERN COLOMBIA (99)

SDV 3.42 45 iPnd 13 40.60 0.9
iSn 14 18.50
TOV 4.64 44 ePnc 13 55.10 -0.5
eSn 14 46.10
CEOS 5.35 61 iP 14 04.50 -0.6
iS 15 00.70
UPA 6.86 292 eP 14 32.39 7.0X
eS 15 36.45
ECO 7.15 294 eP 14 29.43 0.1
BRU 9.68 285 eP 15 15.28 12.1X
JAQ 47.24 358 eP 21 05.50 0.4
ULM 47.63 340 eP 21 11.50 3.4X
YKA 63.61 340 eP 23 00.90 -1.3
0.7s 3.20nm 4.4mb
TIC 67.57 85 P 23 28.20 -0.1
LIC 67.59 86 P 23 28.40 -0.1
KIC 67.86 86 P 23 30.30 0.1
NB2 81.62 29 P 24 48.40 0.6
0.6s 0.90nm 3.7mb
GEC2 83.06 42 P 24 56.00 0.4
0.6s 0.51nm 3.5mb
e 24 59.70
WRA 150.19 241 PKP 32 24.20 8.7X
0.5s 1.50nm
S.D. = 0.8 on 11 of 15 obs.

% MAR 07, 1993 18h 55m 12.48± 1.30s
10.394 N ±16.4km 61.261 W ±10.8km
DEPTH = 33.0km (normal)
TRINIDAD (98)
MO 2.8 (TRN).

TPP 0.20 248 iP 55 18.56 -0.5
eS 55 25.74
TBH 0.21 65 iP 55 20.04 0.8
iS 55 27.07
TRN 0.29 331 iPd 55 20.44 0.4
eS 55 27.64
TCE 0.57 302 eP 55 24.36 0.3
eS 55 32.52
TPR 0.92 31 eP 55 28.09 -1.0
S.D. = 1.0 on 5 of 5 obs.

? MAR 07, 1993 19h 40m 57.42± 1.51s
13.772 N ±14.7km 144.835 E ±43.4km
DEPTH = 33.0km (normal)
4.0mb (3 obs.)
MARIANA ISLANDS (216)
Felt (III) in northern Guam.

GUMO 0.19 171 Pn 41 03.60 -0.3
Pg 41 04.40
eS 41 09.00
PJG 0.19 171 Pg 41 04.30 0.4
GUA 0.24 162 Pg 41 04.00 -0.5
eS 41 09.00
NMCC 1.61 32 eP 41 25.00 1.1
eS 41 43.00
WB2 35.06 197 eP 47 50.50 1.0
0.6s 1.60nm 4.1mb
ASPA 38.71 196 eP 48 22.50 2.2X
0.7s 3.30nm 4.2mb
YKA 82.71 27 eP 53 17.20 -1.8
0.5s 0.10nm 3.1mb
S.D. = 1.4 on 6 of 7 obs.

MAR 07, 1993 20h 26m 38.10± 0.19s
23.842 S ± 3.8km 67.972 W ± 5.7km
DEPTH = 124.1km (29 depth phases)
5.2mb (31 obs.)
CHILE-ARGENTINA BORDER REGION (127)

ANT 2.24 273 iP+ 27 13.00 -2.3
iS 27 39.20
SLA 2.43 112 iPc 27 20.50 2.7
HJA 2.44 76 iPc 27 21.20 3.4X
S 27 37.80
FSA 2.85 142 iP 27 26.10 2.9
CYA 4.98 157 iPd 27 52.70 0.7
RTPR 6.57 169 ePd 28 12.20 -1.3
CCH 6.65 15 P 28 15.40 0.3
CNC8 6.99 360 iPc 28 19.60 -0.3
(S) 30 15.00
LPB 7.27 359 Pc 28 21.80 -1.8
eS 30 10.00
eLR 30 45.00
RTLL 7.47 183 iPc 28 23.60 -2.3
S 28 44.20
ZOBO 7.52 359 P 28 25.00 -2.1
Z 23s 0.38um
S 29 47.00
LR 30 24.00
RTCB 7.65 185 iPc 28 26.00 -2.4
CFA 7.74 182 ePc 28 27.20 -2.3
RTBS 7.90 189 e(P) 28 30.00 -1.6
RTCV 8.00 183 ePd 28 30.70 -2.4
TCA 8.05 159 iPd 28 31.80 -1.9
(S) 29 58.00
ARE 8.05 335 eP 28 32.00 -2.0
iS 29 56.00
MRA 8.77 167 ePd 28 41.00 -2.3
MDZ 9.04 185 eP 28 46.50 -0.6
e(S) 29 18.00
SIV 10.15 41 iPc 29 03.00 1.1
PPD 15.46 87 eP 30 09.30 -1.3
e 30 12.50
e 30 16.60
eS 33 04.60
CAC8 19.70 88 eP 30 57.90 -2.3
e 30 58.80 4kmX
e 30 59.70
e 31 04.20
BAO 20.49 70 iPd 31 05.50 -2.7
e 31 29.00 126km
e 31 32.00
e 33 09.40
e 34 01.60
e 34 22.10
e 35 49.90
CDCB 21.85 85 ePc 31 20.30 -1.4
e 31 22.00 6kmX
eS 35 13.40
SOB1 29.68 65 eP 32 30.10 -4.3X
BIM 38.72 11 eP 33 49.72 -2.0
MVM 38.78 11 eP 33 52.21 0.0
FDF 38.91 11 eP 33 51.57 -1.8
CRM 38.97 11 eP 33 51.70 -2.1
HBF 57.68 348 eP 36 16.61 -1.1
JSC 59.16 347 ePd 36 26.55 -1.4
PRM 59.21 346 ePd 36 26.94 -1.4
LHS 59.27 348 eP 36 27.53 -1.2
SNA 59.60 159 iPd 36 32.10 1.5
0.7s 50.00nm 5.7mb
GBTN 61.15 345 eP 36 39.20 -2.3
NAV 62.02 348 eP 36 46.04 -1.3
UYO 62.94 335 iPd 36 52.20 -1.2
MIAR 62.95 336 iPd 36 52.00 -1.5
0.9s 18.74nm 5.0mb
e 37 22.52 126km
OLY 63.08 339 eP 36 51.79 -2.5
pP 37 22.51 126km
ELC 64.01 341 iPd 36 58.16 -2.2
epP 37 29.61 129km
NVL 64.35 159 iPd 37 02.00 -0.2
1.2s 98.00nm 5.6mb
e 37 06.00 13kmX
FVM 65.02 341 iPd 37 05.18 -1.7
0.5s 112.69nm 6.1mb
epP 37 36.15 127km
MEO 65.14 332 iPc 37 05.60 -2.1
WMOK 65.18 332 iPd 37 05.97 -2.1
0.6s 4.99nm 4.6mb
epP 37 39.61 139kmX
SPA 66.31 180 iPd 37 15.40 0.3
LIC 68.24 72 P 37 26.06 -1.7
0.8s 26.50nm 5.2mb
RSNY 68.32 355 ePc 37 27.23 -0.4
0.6s 30.21nm 5.3mb
epP 37 57.71 123km
TIC 68.44 72 P 37 27.82 -1.2
KIC 68.55 72 P 37 28.28 -1.4
0.7s 63.00nm 5.6mb
ALQ 68.92 327 ePd 37 31.86 0.1
0.7s 19.12nm 5.0mb
pP 38 01.63 120km
sP 38 14.80
LMN 69.42 2 eP 37 37.50 3.2X
EEO 70.86 352 eP 37 45.00 1.9
pP 38 04.50 73kmX
GOL 72.21 331 eP 37 51.20 -0.4
1.0s 12.89nm 4.7mb
epP 38 22.57 126km
PV08 72.86 328 iPd 37 55.88 0.4
epP 38 27.09 125km
PV10 72.90 327 ePd 37 55.17 -0.5
PV09 73.04 327 ePd 37 56.74 0.2
PLM 73.50 319 eP 37 59.76 0.6
PEC 74.05 319 iPd 38 02.72 0.5
0.8s 33.75nm 5.2mb
SRU 74.20 327 eP 38 03.19 0.1
pP 38 34.81 126km
MSU 74.59 325 ePd 38 06.24 0.8
pP 38 36.46 120km
SSK 74.59 319 ePd 38 06.17 0.7
ARUT 74.72 324 ePd 38 07.12 1.0
epP 38 38.09 123km
GSC 74.82 320 iPd 38 07.64 1.0
epP 38 38.67 123km
TUH 75.04 120 iPc 38 07.00 -1.0
0.5s 8.00nm 4.8mb
CER 75.13 120 iPd 38 08.50 -0.1
0.7s 44.00nm 5.4mb
RSSD 75.27 334 iPc 38 08.93 -0.2
0.7s 15.18nm 4.9mb
epP 38 40.32 125km
esP 38 54.83
DAU 75.56 327 iPd 38 11.59 0.6
ePcP 38 24.05
TPNV 75.66 322 ePd 38 12.56 1.1
0.7s 12.74nm 4.8mb
epP 38 43.95 124km
ISA 76.06 320 iPd 38 14.58 1.0
0.7s 22.32nm 5.1mb
ePcP 38 21.61
ipP 38 46.10 125km
esP 39 00.57
DUG 76.18 326 ePc 38 14.25 0.0
0.8s 10.90nm 4.7mb
ePcP 38 21.33
epPd 38 46.61 129km
BW06 76.57 330 iPd 38 15.60 -0.9
0.4s 2.95nm 4.4mb
epP 38 45.87 119km
BCH 76.70 318 iPd 38 18.33 1.1
epP 38 49.49 123km
WIN 76.93 109 iPd 38 19.80 0.8
0.8s 33.00nm 5.2mb
POF 76.99 116 iPc 38 19.50 0.6
0.6s 33.00nm 5.3mb
TNP 77.01 322 iPd 38 19.77 0.8
0.8s 7.60nm 4.5mb
epP 38 51.36 125km
PHAM 77.32 319 iPd 38 21.64 1.1
HVU 77.34 327 ePd 38 20.89 0.2
epP 38 52.09 123km
BONR 77.53 321 iPd 38 23.07 1.1
e 38 26.25
epP 38 54.06 122km

07d 20h

JAQ 77.61 355 ePd 38 21.00 -0.6
pP 38 39.00 66kmX
MEMM 77.70 321 ePd 38 24.04 1.5
ULM 77.80 342 ePd 38 25.50 2.7
pP 38 50.50 96kmX
KVN 78.18 322 eP 38 25.76 0.4
pP 38 57.41 125km
ARN 79.01 319 eP 38 30.76 1.0
pP 39 02.82 127km
TIO 79.66 50 iP 38 35.70 2.1
LCCM 79.99 331 eP 38 34.90 -0.1
NTYM 80.37 319 eP 38 37.20 0.3
ORV 80.45 321 ePd 38 38.19 0.8
pP 39 09.98 125km
MAW 81.85 163 iPd 38 45.60 1.4
0.8s 63.22nm 5.4mb
LGPM 82.11 321 eP 38 45.94 -0.2
pP 39 17.48 123km
BLF 82.16 118 iPd 38 43.30 -3.6X
1.2s 100.00nm 5.5mb
SES 83.15 334 ePd 38 51.00 -0.2
pP 39 23.00 125km
VIPM 83.30 325 P 38 53.25 1.0
JBO 83.55 326 P 38 54.38 1.1
DBO 83.79 323 P 38 55.53 0.9
PRY 84.06 117 iPd 38 56.50 -0.1
1.0s 60.00nm 5.4mb
VBEM 84.18 325 P 38 57.46 0.8
NEW 84.19 329 ePc 38 56.24 -0.2
0.6s 7.24nm 4.7mb
pP 39 27.35 121km
WAH2 84.30 327 P 38 57.78 0.8
DPW 84.42 329 ePd 38 58.09 0.4
pP 39 29.39 122km
SSOR 84.50 324 P 38 57.80 -0.4
SAW 84.88 328 P 39 00.31 0.4
ASR 84.91 326 P 39 01.25 1.0
FCC 85.10 347 ePd 39 03.90 3.2X
pP 39 27.00 86kmX
WTV 85.15 328 P 39 01.64 0.4
SLR 85.20 116 iPd 39 02.30 0.0
0.8s 40.00nm 5.4mb
LON 85.43 326 eP 39 02.58 -0.1
FMW 85.48 326 P 39 03.01 -0.1
KMOR 85.56 325 P 39 04.36 0.9
RMW 85.90 327 eP 39 04.66 -0.4
BMW 85.98 325 P 39 05.98 0.6
GMW 86.46 326 eP 39 06.39 -1.3
JCW 86.46 327 P 39 07.24 -0.4
BFT 86.67 116 eP 39 13.00 3.4X
MCW 87.23 327 P 39 12.00 0.6
STW 87.30 326 P 39 12.67 1.0
PGC 87.52 327 ePc 39 13.50 0.8
0.8s 50.00nm 5.6mb
BUL 87.77 111 eP 39 15.80 1.0
1.0s 13.00nm 4.9mb
ipP 39 20.10 13kmX
BCAO 88.58 85 iPc 39 18.90 0.2
1.0s 10.00nm 4.8mb
CSY 90.15 179 iPc 39 26.90 1.9
0.8s 116.20nm 6.0mb
MTD 91.74 109 eP 39 35.60 2.3
YKA 93.67 340 eP 39 41.20 0.1
0.6s 9.80nm 5.3mb
KAF 112.76 31 iPKP 45 00.00 -1.0
0.4s 1.60nm
ILT 119.65 336 iPKPc 45 14.00 0.0
1.0s 16.00nm
OLP 120.99 214 iPKPd 45 18.60 0.8
ARU 129.60 35 iPKPc 45 34.70 1.3
SVE 130.54 34 ePKPc 45 36.10 0.9
TIK 131.23 353 ePKP 45 31.00 -5.1X
0.9s 9.00nm
WB2 131.34 208 iPKPd 45 38.10 0.2
0.3s 61.20nm
WRA 131.35 208 PKP 45 34.20 -3.7X
0.8s 12.40nm
NRI 132.23 11 iPKPd 45 38.60 0.5
1.2s 15.00nm
e 46 13.00
MAIO 133.38 62 ePKP 45 42.00 0.6
e 48 09.00
MGD 134.87 334 ePKP 45 42.00 -1.3
YAK 139.99 347 ePKP 45 44.00 -8.8X
0.8s 20.00nm
FRU 143.83 49 ePKP 45 59.00 -1.2
1.6s 30.00nm
GBA 145.78 101 PKPd 46 04.00 -0.2
KSH 145.85 54 PKP 46 05.50 1.6
BOD 145.99 358 iPKPd 46 02.70 -0.6
0.7s 65.00nm
YSS 146.30 321 (PKP) 46 04.60 0.5
0.8s 50.00nm
e 46 38.60
PRZ 146.56 48 iPKP 46 07.00 2.0
1.0s 110.00nm
KUSJ 146.95 314 PKP 46 06.80 1.5
GUA 147.28 258 ePKP 46 08.70 2.1
0.8s 161.19nm
GUMO 147.34 258 ePKP 46 09.00 2.3X
1.0s 244.00nm
PJG 147.34 258 ePKP 46 09.10 2.4X
ASAJ 147.82 316 ePKP 46 10.30 3.6X
HYB 148.08 95 ePKP 46 08.50 0.6
1.0s 60.00nm
e 46 44.00
HOOJ 148.20 313 ePKP 46 11.30 4.0X
NDI 148.48 74 iPKP 46 09.50 1.3
MRRJ 149.64 315 PKP 46 14.60 5.1X
OFUJ 150.67 308 ePKP 46 16.70 5.5X
AOMJ 150.97 312 ePKP 46 18.40 6.8X
IRK 151.01 10 ePKPc 46 12.00 0.7
1.5s 18.00nm
e 46 25.00
e 46 42.30
WMQ 151.79 39 PKP 46 13.80 0.9
CIT 151.86 358 ePKP 46 12.00 -0.7
ZAK 152.64 12 ePKP 46 15.00 1.3
1.0s 13.00nm
MAT 154.16 305 ePKP 46 25.00 8.7X
LSA 160.48 68 ePKP 46 26.70 1.9
GTA 161.35 31 PKP 46 26.00 1.1
HHC 163.04 1 PKP 46 29.00 2.5X
BJI 163.47 349 ePKP 46 28.00 1.2
LZH 165.90 28 ePKP 46 31.00 1.7
TIA 166.91 342 ePKP 46 30.80 0.9
XAN 169.48 14 PKP 46 32.50 0.8
CD2 169.83 44 iPKPc 46 33.70 1.7
GYA 174.49 61 PKPd 46 35.00 0.9
S.D. = 1.3 on 146 of 164 obs.

MAR 07, 1993 21h 51m 38.95± 0.45s
44.259 N ± 3.8km 12.420 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 2.6 (TRI).

SFI 0.53 231 P 51 49.90 0.2
eSg 51 57.90
PGD 0.63 233 P 51 51.70 -0.1
eSg 52 00.90
CRE 0.72 208 P 51 52.90 -0.2
eSg 52 03.10
ARV 0.85 153 Pc 51 55.60 0.3
eSg 52 07.90
ASS 1.20 172 P 52 01.30 -0.1
eSg 52 18.70
BDI 1.33 262 P 52 03.60 0.1
eSg 52 18.30
PII 1.47 249 P 52 05.20 -0.3
eSg 52 23.50
TRI 1.74 33 ePg 52 14.10 4.8X
eSg 52 40.00
CTI 1.87 343 P 52 11.50 0.1
CEY 2.05 43 e(Pn) 52 19.50 5.6X
eSn 52 50.50
e 53 20.00
VOY 2.06 30 ePn 52 14.20 0.1
eSn 52 40.20
e 52 50.60
e 53 50.00
RBL 2.33 20 P 52 17.10 -0.9
FVI 2.35 6 P 52 18.70 0.6
VBY 2.37 57 eP 52 46.50 28.0X
eSn 53 00.50
KBA 2.89 13 e(Pg) 53 02.00 35.9X
iSg 53 19.70
S.D. = 0.4 on 11 of 15 obs.

MAR 07, 1993 22h 04m 45.97± 0.31s
13.265 S ± 9.4km 174.944 E ± 7.9km
DEPTH = 33.0km (normal)
4.8mb (11 obs.) 4.6Msz (5 obs.)
FIJI ISLANDS REGION (181)

MBU 5.19 136 eP 06 03.00 -0.4
BKM 7.80 235 iPc 06 44.60 4.5X
DZM 11.92 222 iPc 07 30.10 -6.7X
BRS 25.03 232 iP 10 06.00 -2.8
RMQ 27.85 238 eP 10 35.40 0.7
0.5s 6.00nm 4.5mb
CTA 28.28 252 iPd 10 40.50 1.9
CNB 31.85 222 eP 11 11.00 0.7
1.0s 23.00nm 5.0mb
CMS 32.31 231 eP 11 14.00 -0.2
TOO 35.70 222 eP 11 44.20 0.7
0.7s 31.00nm 5.3mb
BFD 37.46 225 eP 11 59.30 1.1
0.7s 7.00nm 4.6mb
WB2 39.39 255 iPc 12 13.00 -1.6
0.8s 11.60nm 4.7mb
WRA 39.40 255 P 12 14.19 -0.5
ASPA 40.15 249 iPd 12 20.50 -0.4
0.7s 43.30nm 5.3mb
Z 23s 0.30um 4.1MszX
HON 43.44 38 P 13 00.00 12.3X
Z 21s 0.49um 4.4Msz
PMR 79.81 17 P 17 00.00 7.8X
Z 20s 0.52um 4.9Msz
FBA 82.86 15 eP 17 07.15 -1.0
1.0s 4.96nm 4.6mb
YAK 82.97 340 eP 17 08.00 -0.7
LZH 83.01 309 eP 17 11.50 1.8
1.2s 25.00nm 5.2mb
pP 17 23.00 37kmX
ARUT 84.02 49 eP 17 15.39 0.5
TUC 84.13 55 eP 17 16.37 0.9
1.3s 8.28nm 4.7mb
MSU 85.21 49 eP 17 21.70 0.8
DUG 85.36 47 eP 17 21.47 0.0
1.5s 7.18nm 4.7mb
Z 20s 0.32um 4.7Msz
DAU 86.55 47 (P) 17 28.18 0.6
PV09 87.45 50 eP 17 32.36 0.4
PV10 87.48 50 (P) 17 31.96 -0.1
PV08 87.84 50 eP 17 33.17 -0.7
RSSD 92.79 45 P 18 10.00 13.3X
Z 21s 0.19um 4.5Msz
YKA 92.90 26 eP 17 54.90 -1.6
1.0s 1.10nm 4.2mb
RSNY 113.80 47 PKP 23 30.00 6.8X
Z 21s 0.13um 4.5Msz
LOR 145.29 349 ePKP 24 21.80 -0.3
1.2s 5.65nm
LBF 145.54 349 ePKP 24 22.30 -0.3
1.5s 30.30nm
SSF 145.55 350 ePKP 24 22.60 0.1
1.4s 22.65nm
AVF 145.84 350 ePKP 24 23.00 0.0
1.0s 3.80nm
SMF 145.89 349 ePKP 24 23.30 0.2
1.2s 14.90nm
LPG 146.35 345 ePKP 24 24.40 0.1
1.1s 7.35nm
MAF 146.52 350 ePKP 24 24.20 0.1
1.4s 13.50nm
LSF 146.65 352 ePKP 24 24.20 -0.1
1.4s 17.00nm
BCAO 155.12 251 iPKPd 24 49.00 11.2X
0.9s 14.00nm
id 25 05.20
S.D. = 1.0 on 31 of 38 obs.

----

* MAR 07, 1993 22h 18m 16.87± 0.45s
13.242 S ±11.7km 174.992 E ±10.6km
DEPTH = 33.0km (normal)
4.9mb (11 obs.) 4.7Msz (8 obs.)
FIJI ISLANDS REGION (181)

BKM 7.85 235 iPc 20 20.50 8.8X
DZM 11.97 222 iPd 21 09.00 0.7
HNR 15.23 283 eP 21 52.00 0.8
BRS 25.08 232 iP 23 39.00 -1.1
RMQ 27.90 238 iPd 24 06.00 -0.1
0.4s 7.00nm 4.7mb
CTA 28.33 252 iPd 24 09.30 -0.7
TOO 35.75 222 iPc 25 15.40 0.6
1.0s 57.00nm 5.5mb
BFD 37.51 225 eP 25 30.30 0.8
1.3s 42.00nm 5.1mb
WB2 39.44 255 iPc 25 44.80 -1.1
1.1s 10.80nm 4.5mb

WRA 39.45 255 P 25 45.20 -0.8
ASPA 40.20 249 iPd 25 51.20 -1.0
1.7s 51.00nm 5.0mb
Z 19s 0.60um 4.5Msz
HON 43.40 38 P 26 30.00 11.8X
Z 20s 0.85um 4.6Msz
CMB 79.05 47 P 30 30.00 10.4X
Z 19s 0.46um 4.8Msz
PMR 79.78 17 P 30 30.00 7.1X
Z 21s 0.63um 4.9Msz
KMI 80.04 299 Pc 30 26.00 0.6
CHTO 81.41 292 eP 30 33.30 0.9
FBA 82.82 15 eP 30 37.95 -0.9
1.0s 6.05nm 4.6mb
YAK 82.96 340 eP 30 38.00 -1.6
1.8s 50.00nm 5.3mb
Z 20s 0.50um 4.9Msz
N 18s 0.40um
E 18s 0.40um
LZH 83.03 309 eP 30 42.50 1.8
1.5s 54.00nm 5.4mb
pP 30 55.00 42kmX
sP 30 59.50
BW06 88.51 45 eP 31 08.00 0.2
1.5s 6.35nm 4.7mb
RSSD 92.74 45 (P) 31 27.38 0.0
1.1s 3.71nm 4.7mb
Z 21s 0.13um 4.4Msz
YKA 92.86 26 eP 31 26.70 -0.5
0.9s 0.80nm 4.1mb
MIAR 98.54 57 P 32 00.00 6.3X
Z 21s 0.15um 4.5Msz
RSNY 113.75 47 PKP 37 00.00 6.0X
Z 21s 0.29um 4.9Msz
LOR 145.27 349 ePKP 37 52.30 -0.6
1.6s 18.65nm
Z 23s 0.15um 4.7MszX
LBF 145.53 349 ePKP 37 53.00 -0.4
1.9s 50.35nm
SSF 145.54 350 ePKP 37 53.10 -0.3
1.7s 47.05nm
AVF 145.83 350 ePKP 37 53.90 0.0
1.6s 24.25nm
SMF 145.88 349 ePKP 37 54.00 0.0
1.2s 11.30nm
LPL 146.32 345 ePKP 37 56.60 1.6
1.5s 17.75nm
LPG 146.34 345 ePKP 37 56.80 1.6
1.5s 20.35nm
TCF 146.50 351 ePKP 37 54.70 -0.3
2.2s 73.80nm
MAF 146.51 350 ePKP 37 54.80 -0.2
1.7s 34.55nm
S.D. = 0.9 on 27 of 33 obs.

MAR 07, 1993 22h 42m 27.65± 0.93s
40.498 N ± 8.7km 19.710 E ± 7.5km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.6 (TIR).

VLO 0.17 260 iPgc 42 31.00 -0.4
iSg 42 35.50
TPE 0.31 131 iPn 42 34.10 0.1
iSn 42 42.20
SRN 0.66 160 ePg 42 43.70 3.0X
iSg 42 51.20
LSK 0.76 117 ePg 42 43.50 0.9
TIR 0.86 8 ePg 42 45.50 1.4
iSg 42 58.50
OHR 1.03 53 iPn 42 45.70 -1.4
SKO 1.97 41 ePn 43 14.00 12.6X
VAY 2.32 68 ePn 43 06.00 -0.4
S.D. = 1.3 on 6 of 8 obs.

MAR 07, 1993 23h 37m 08.87± 0.36s
43.717 N ± 5.7km 16.118 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.8 (LDG), 3.7 (TTG), 3.6
(VIE). MD 3.4 (TRI). Felt (III)
at Split, Croatia.

HVAR 0.59 156 iPg 37 21.60 0.8
iSg 37 29.80
VBY 1.89 341 ePn 37 42.80 1.3
iSn 38 06.70
BRY 1.95 114 iPnd 37 42.06 -0.4
iSn 38 08.52
RIY 2.04 323 ePn 37 45.60 1.9
i(Sn) 38 14.90
ZAG 2.10 357 e(Pn) 37 40.00 -4.5X
iSg 38 12.60
HCY 2.16 125 iPnd 37 45.72 0.4
iSn 38 14.53
PTJ 2.19 357 iPn 37 39.80 -6.0X
iSn 38 11.20
NKY 2.29 112 iPnd 37 47.72 0.3
iSn 38 17.26
CEY 2.35 330 ePn 37 50.30 2.1X
i 37 51.50
eSn 38 23.00
e 40 30.00
PLE 2.41 98 iPnc 37 48.92 -0.2
iSn 38 19.48
BDV 2.45 125 iPnc 37 50.16 0.6
iSn 38 21.85
LJU 2.58 335 ePn 37 53.00 1.6
eSn 38 26.50
e 40 00.00
TRI 2.60 321 ePg 37 51.00 -0.7
e 38 25.30
eSg 38 32.20
TTG 2.64 118 iPnd 37 52.43 0.3
iSn 38 25.67
VOY 2.80 326 ePn 37 56.20 1.5
eSn 38 34.00
e(Sg) 38 37.50
e 41 02.00
IVA 2.89 106 iPnd 37 55.85 0.0
iSn 38 31.40
ULC 2.89 126 iPnd 37 56.50 0.6
iSn 38 32.25
PVY 3.04 110 iPnd 37 57.91 0.0
iSn 38 35.28
KBA 3.89 331 ePn 38 12.00 1.9
i 38 15.70
i 38 23.00
iSn 38 57.60
iSg 39 21.10
SKO 4.28 112 ePn 38 13.50 -2.1
OHR 4.33 125 ePn 38 13.00 -3.4X
SRO 4.38 20 eP 38 15.00 -1.8
e 39 01.60
e 39 15.20
ZST 4.53 8 e(Pn) 38 15.10 -3.9X
e(Sn) 39 05.50
VKA 4.55 2 e(Pn) 38 19.00 -0.3
i 38 23.50
iSn 39 09.70
OGA 4.78 313 ePn 38 24.40 1.6
PGF 5.34 260 Pn 38 34.80 4.2X
GEC2 5.40 343 Pn 38 30.20 -1.2
Sn 39 30.90
KHC 5.69 343 ePn 38 36.00 0.5
e 38 46.00
e 38 57.00
e 39 04.50
Sg 39 37.50
e 39 51.00
e 40 08.00
e 40 14.00
GRC1 6.16 331 e(Pn) 38 41.50 -0.6
SBF 6.29 274 Pn 38 47.80 3.8X
Sn 39 59.30
PRU 6.37 351 eP 38 45.00 0.0
e 39 48.50
Sg 39 52.00
FRF 6.87 272 Pn 38 54.60 2.5X
Sn 40 15.00
LPG 6.92 288 Pn 38 51.90 -1.2
Sn 40 10.40
LPL 6.94 288 Pn 38 52.60 -0.6
Sn 40 13.50
LMR 7.00 270 Pn 38 55.00 1.2
Sn 40 16.70
FEL 7.03 309 eP 38 53.81 -0.6
LRG 7.09 271 Pn 38 57.90 2.7X
Sn 40 19.70
BSF 7.71 306 Pn 39 03.50 -0.4
CDF 7.73 310 Pn 39 03.00 -1.3
HAU 8.05 306 Pn 39 08.10 -0.6
Sn 40 39.70
LBF 9.15 295 Pn 39 23.10 -0.8
Sn 41 06.80
SMF 9.15 293 Pn 39 23.50 -0.4
LOR 9.31 297 Pn 39 24.60 -1.5
Sn 41 14.30
S.D. = 1.1 on 34 of 43 obs.

% MAR 07, 1993 23h 54m 43.18± 0.56s
40.948 S ± 5.3km 175.154 E ± 5.8km
DEPTH = 60.6 ± 10.4 km
NORTH ISLAND, NEW ZEALAND (159)

CAW 0.17 202 Pc 54 51.70 -1.0
KIW 0.20 294 P 54 50.80 -2.0
MTW 0.34 129 Pc 54 54.20 0.5
MNG 0.41 37 Pd 54 53.10 -1.3
S 54 59.40
MRW 0.44 230 Pc 54 54.50 -0.2
WEL 0.45 221 P 54 54.70 0.0
S 55 02.40
MOW 0.48 171 Pc 54 56.20 1.1
BLW 0.49 150 P 54 56.30 1.2
TCW 0.72 248 P 54 58.20 0.5
PGZ 0.91 69 P 55 00.60 0.4
DIW 0.95 278 P 55 01.20 0.5
CCW 1.07 221 eP 55 04.10 1.8
BSZ 1.16 351 P 55 04.50 1.0
WAHZ 1.55 37 P 55 08.90 0.0
TEHZ 1.59 53 eP 55 09.10 -0.3
CNZ 1.77 10 P 55 13.00 0.9
NGZ 1.80 11 P 55 13.50 1.0
NRZ 1.86 329 eP 55 13.80 0.6
THZ 1.88 244 eP 55 13.50 -0.1
KHZ 1.90 219 P 55 14.20 0.4
S 55 36.50
ORZ 1.99 273 eP 55 15.30 0.2
MOZ 2.45 354 P 55 22.30 0.8
DSZ 2.65 251 P 55 23.60 -0.7
LTZ 2.83 229 eP 55 26.00 -0.9
URZ 3.08 30 eP 55 27.90 -2.5
MQZ 3.32 213 eP 55 31.90 -1.9
S 56 07.70
ODZ 5.26 217 eP 55 57.20 -3.9X
S 56 53.00
S.D. = 1.1 on 26 of 27 obs.

& MAR 08, 1993 01h 04m 47.54s
66.232 N 149.991 W
DEPTH = 21.8km
NORTHERN ALASKA (676)
<AEIC>. ML 2.5 (AEIC).

MDM 1.47 149 eP 05 12.45 -0.5
S 05 31.20
IMA 1.51 265 P 05 13.10 -0.5
S 05 32.90
FBA 1.62 145 P 05 14.50 -0.6
GLM 1.65 138 eP 05 14.81 -0.8
eS 05 36.47
NEA 1.71 167 eP 05 17.00 0.7
S 05 38.60
CCB 1.84 149 eP 05 17.25 -0.9
S 05 42.16
FYU 1.94 78 eP 05 20.27 0.5
HDA 2.23 144 eP 05 22.60 -1.3
TRF 2.80 183 eP 05 31.13 -0.9
TTA 4.21 221 e(P) 06 00.30 8.3
10 obs. associated

• MAR 08, 1993 02h 43m 49.67± 2.60s
42.059 N ±22.3km 23.645 E ± 9.3km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 2.6 (THE).

SRS 0.94 182 ePb 44 07.54 -0.1
eSb 44 25.98
KNT 1.06 212 ePb 44 09.38 -0.2
eSb 44 27.30
VAY 1.09 228 iPn 44 09.70 -0.5
SOH 1.26 190 ePb 44 12.78 -0.3
GRG 1.44 221 ePb 44 16.06 0.2
eSb 44 38.38
THE 1.51 200 ePb 44 17.86 1.1
eSb 44 42.10
ALN 2.14 122 ePn 44 25.78 -0.2
S.D. = 0.6 on 7 of 7 obs.

08d 03h

MAR 08, 1993 03h 11m 57.47± 0.68s
26.824 S ± 6.1km 26.788 E ± 7.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.0 (PRE).

BFS 0.07 182 eP 12 00.50 1.1
S 12 01.80
PRY 0.62 100 eP 12 09.50 -0.4
S 12 16.00
KSR 0.96 6 eP 12 16.90 0.6
S 12 29.00
SWZ 1.35 254 eP 12 24.00 0.9
S 12 43.00
SEK 1.67 154 iPd 12 27.90 0.3
S 12 46.70
SLR 1.72 51 iPd 12 29.60 1.2
S 12 51.60
BLF 2.34 193 eP 12 36.80 -0.5
S 13 06.00
BFT 3.14 70 eP 12 49.00 0.3
S 13 25.00
FRS 3.19 204 iPd 12 47.50 -1.7
S 13 23.50
BUL 6.86 15 iPn 13 39.50 -1.8
iSn 14 55.30
iSg 15 27.10
S.D. = 1.2 on 10 of 10 obs.

& MAR 08, 1993 03h 26m 09.42s
36.166 N 120.727 W
DEPTH = 9.8km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.5 (GM).

PHAM 0.42 141 iPd 26 18.11 0.0
PKEM 0.51 102 eP 26 21.58 1.8
SAO 0.83 316 eP 26 24.15 -1.4
BCH 1.11 152 eP 26 30.14 -0.2
COE 1.33 325 eP 26 32.63 -1.3
S 26 53.67
ARN 1.35 332 eP 26 33.58 -0.7
S 26 53.78
MEMM 2.07 43 eP 26 47.08 2.4
MTUM 2.10 55 eP 26 42.06 -3.3
S 27 12.30
BONR 2.64 47 eP 26 55.45 2.4
9 obs. associated

& MAR 08, 1993 04h 14m 15.94s
59.504 N 152.749 W
DEPTH = 75.5km
SOUTHERN ALASKA (2)
<AEIC>.

AUE 0.35 246 iPd 14 27.76 -0.4
AUL 0.37 251 iPd 14 28.05 -0.3
eS 14 36.69
AUH 0.38 249 ePd 14 28.16 -0.4
AUI 0.39 244 iPd 14 27.96 -0.5
eS 14 36.89
INE 0.58 344 ePd 14 29.52 -0.9
eS 14 40.24
INW 0.60 341 eP 14 30.03 -0.5
CDD 0.74 219 iPd 14 30.95 -1.0
CNPM 0.77 88 iPc 14 31.34 -0.9
eS 14 43.32
PDB 0.79 292 ePc 14 31.51 -0.9
eS 14 43.82
MCNL 0.87 249 iPd 14 32.31 -1.2
eS 14 45.37
SYI 0.92 168 iPd 14 33.17 -0.8
eS 14 46.86
RS1 0.96 360 iPd 14 33.94 -0.8
eS 14 47.96
RSO 0.96 360 iPd 14 33.89 -0.8
RS2 0.96 360 ePd 14 33.97 -0.8
eS 14 48.03
BRLK 0.98 74 eP 14 34.01 -0.8
eS 14 47.28
RDW 0.98 358 iPd 14 34.08 -0.9
NCT 1.07 355 iPd 14 35.00 -0.9
eS 14 49.92
RDT 1.09 9 eP 14 35.09 -1.1
DFR 1.09 2 iPd 14 35.43 -0.8
eS 14 50.64
SLKM 1.62 50 eP 14 41.98 -1.2
CKL 1.71 7 iPd 14 43.61 -0.8
eS 15 04.99
SPU 1.72 11 iPd 14 43.51 -1.0
CKT 1.72 9 iPd 14 43.69 -0.9
CKN 1.75 9 ePd 14 44.19 -0.7
SEW 1.77 69 eP 14 44.62 -0.5
BGL 1.77 6 ePd 14 44.54 -0.8
CPAM 1.78 9 ePd 14 44.63 -0.8
CP2 1.78 8 iPd 14 44.72 -0.8
CRP 1.79 9 ePd 14 44.45 -1.2
eS 15 06.24
MPA 1.97 58 eP 14 46.29 -1.5
SUA 2.20 26 ePd 14 50.37 -0.8
PTE 2.31 52 eP 14 50.62 -1.9
PMS 2.36 41 P 14 51.70 -1.5
SKT 2.56 13 eP 14 54.76 -1.2
PLRM 2.75 39 eP 14 56.32 -2.3
GHO 2.95 38 eP 14 59.42 -2.1
SML 3.17 41 eP 15 02.23 -2.3
HIN 3.27 71 eP 15 03.53 -2.3
KLU 3.92 57 ePd 15 11.97 -3.1
eS 15 54.07
BALM 5.40 69 eP 15 33.09 -2.7
eS 16 29.37
40 obs. associated

---

* MAR 08, 1993 06h 10m 23.89± 1.20s
37.833 N ± 9.1km 20.897 E ±10.1km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.9 (ATH).

VLS 0.42 325 eP 10 32.80 0.3
AGG 1.64 43 eP 10 52.70 -0.1
VLI 1.97 124 eP 10 58.50 0.8
KEK 2.06 336 eP 11 02.00 3.0X
ATH 2.24 86 eP 11 02.00 0.5
KZN 2.56 15 eP 11 09.00 2.8X
FNA 2.97 7 eP 11 12.30 0.3
PAIG 3.02 45 eP 11 12.60 0.1
THE 3.22 29 eP 11 15.00 -0.5
KNT 3.67 24 eP 11 21.90 0.0
eS 12 06.80
SRS 3.89 32 eP 11 25.00 0.0
PRK 4.44 70 eP 11 35.50 2.7X
GBA 55.44 100 P 19 59.50 -1.5
S.D. = 0.7 on 10 of 13 obs.

? MAR 08, 1993 06h 11m 28.59± 9.28s
7.399 N ±182.km 76.519 W ±22.6km
DEPTH = 57.1 ± 19.9 km
3.7mb (1 obs.)
NORTHERN COLOMBIA (99)
MD 3.8 (UPA).

UPA 3.37 298 eP 12 19.84 -0.2
eS 12 58.64
ECO 3.70 302 eP 12 24.78 0.2
SDV 6.01 75 ePn 12 57.40 0.1
eSn 14 09.40
TOV 7.06 70 eP 13 11.70 -0.1
eS 14 31.50
YKA 61.59 341 eP 21 42.20 0.0
0.7s 0.40nm 3.7mb
S.D. = 0.3 on 5 of 5 obs.

---

* MAR 08, 1993 06h 15m 28.89± 0.69s
32.064 N ±14.6km 70.325 E ± 8.1km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)
PAKISTAN (710)

QUE 3.45 238 eP 16 21.20 -0.5
eS 18 09.40
NDI 6.84 118 iPnc 17 11.60 2.1
0.4s 50.85nm 5.8mb X
GKN 13.04 104 P 18 34.40 -0.2
DMN 13.57 105 P 18 41.20 -0.5
KKN 13.65 104 P 18 42.20 -0.5
PKI 13.84 105 P 18 44.60 -0.7
GUN 14.10 103 P 18 47.40 -1.3
HYB 16.37 151 eP 19 28.50 10.6X
eS 22 52.00
KAF 41.12 330 eP 23 11.30 0.3
APO 46.25 325 eP 23 51.50 -1.0
0.4s 2.20nm 4.5mb
WB2 80.17 121 eP 27 38.70 1.1
0.7s 2.50nm 4.3mb
YKA 85.69 2 eP 28 06.60 1.4
0.6s 0.70nm 4.1mb
S.D. = 1.2 on 11 of 12 obs.

MAR 08, 1993 07h 09m 41.82± 1.10s
43.769 N ± 7.6km 7.409 E ±11.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.2 (LDG).

REVF 0.04 226 Pg 09 43.50 -0.5
Sg 09 46.83
SBF 0.10 11 Pg 09 45.10 0.5
Sg 09 47.30
AURF 0.13 333 Pg 09 45.47 0.4
Sg 09 47.44
AUTN 0.23 3 Pg 09 46.69 -0.1
Sg 09 50.50
SAOF 0.24 26 Pg 09 46.84 -0.2
Sg 09 50.38
TOUF 0.27 335 Pg 09 46.89 -0.7
FRF 0.59 250 Pg 09 53.70 -0.1
Sg 10 01.50
LMR 0.79 237 Pg 09 56.90 -0.2
Sg 10 07.80
LRG 0.82 248 Pg 09 58.40 0.7
Sg 10 08.90
S.D. = 0.5 on 9 of 9 obs.

MAR 08, 1993 08h 01m 25.70± 0.18s
43.634 N ± 3.6km 146.034 E ± 3.3km
DEPTH = 71.1km (28 depth phases)
5.1mb (86 obs.)
KURIL ISLANDS (221)

KUSJ 1.10 241 iP+ 01 47.20 1.4
eS 02 01.60
KUR 2.07 39 ePn 02 00.50 1.7
iS 02 26.00
HOOJ 2.37 239 P 02 05.80 2.7
eS 02 33.60
ASAJ 2.50 282 iPd 02 09.20 4.3X
eS 02 40.80
MRRJ 3.83 253 P 02 25.60 2.1
eS 03 08.80
YSS 4.11 326 ePn 02 29.00 1.6
Z 15s 1.80um
AOMJ 5.21 236 eP 02 43.70 0.9
eS 03 38.80
OFUJ 5.61 217 eP 02 46.60 -1.8
eS 03 45.70
YAMJ 7.10 222 eP 03 08.20 -0.8
eS 04 27.80
NIIJ 8.34 222 P 03 25.10 -1.0
KAKJ 8.68 213 eP 03 27.10 -3.7X
eS 04 58.50
MAT 9.28 223 (P) 03 38.00 -1.0
0.6s 26.00nm 5.3mb
eS 05 17.00
CHJJ 9.31 218 P 03 37.90 -1.5
eS 05 15.70
MTMJ 9.45 225 eP 03 40.50 -0.9
SKR 9.82 41 ePn 03 47.00 0.7
OKH 10.13 349 ePn 03 51.20 0.6
Z 16s 1.00um
VLA 10.31 272 iPn 03 54.00 0.9
PET 12.58 37 ePn 04 38.00 14.8X
Z 28s 0.40um
MGD 16.74 8 eP 05 15.00 -1.8
Z 12s 0.40um
eS 08 22.00
SEY 19.65 9 eP 05 48.00 -3.1X
YAK 20.77 338 eP 06 00.00 -2.6
1.2s 141.00nm 5.2mb
i 06 21.00 104kmX
e 09 48.00
eS 17 18.00
CIT 23.17 303 eP 06 28.00 1.5
SSE 23.28 246 Pd 06 29.40 1.8
0.8s 14.00nm 4.4mb
i 06 48.50 86kmX
BOD 24.38 317 iPd 06 34.60 -3.5X
1.0s 20.00nm 4.5mb
TIK 29.30 349 eP 07 17.00 -6.0X
e 08 14.00 295kmX
ZAK 29.59 298 eP 07 25.30 -0.5

1.2s 16.00nm 4.6mb
E 11s 0.48um
ILT 30.59 25 iPc 07 32.40 -2.0
0.8s 10.00nm 4.6mb
LZH 32.97 271 Pd 07 56.00 0.3
1.5s 44.00nm 5.1mb
Z 20s 0.30um 4.0Msz
pP 08 08.50 48kmX
sP 08 13.50
PLP 37.13 216 ePc 08 32.00 0.9
TTA 38.03 39 eP 08 38.55 0.2
1.3s 19.32nm 4.9mb
epP 08 56.05 71km
esP 09 03.71
e 09 12.22
SVW 38.17 42 eP 08 40.29 0.8
0.8s 23.18nm 5.2mb
epP 08 58.19 73km
NRI 38.78 331 ePc 08 41.00 -3.4X
1.0s 8.00nm 4.6mb
BRW 38.95 26 eP 08 43.62 -2.2
IMA 39.23 34 eP 08 47.73 -0.6
0.5s 11.50nm 5.0mb
epP 09 05.81 74km
esP 09 15.13
KMI 39.70 257 Pd 08 53.20 0.4
1.0s 40.00nm 5.3mb
pP 08 58.00 16kmX
ELT 39.71 306 eP 08 51.00 -1.3
0.8s 28.00nm 5.2mb
eS 14 46.00
e 18 50.00
CP2 39.81 42 eP 08 54.38 1.1
CRP 39.85 42 eP 08 54.44 0.9
PMS 41.10 42 eP 09 04.00 0.3
0.8s 20.80nm 5.0mb
FBA 41.67 36 ePd 09 08.50 0.3
0.8s 26.12nm 5.1mb
epP 09 25.87 70km
esP 09 34.02
e 09 41.42
KLU 42.82 41 eP 09 17.71 -0.1
BALM 44.60 41 eP 09 32.24 0.0
epP 09 50.81 75km
CHTO 46.47 253 ePd 09 48.00 0.6
1.0s 15.50nm 4.9mb
PRZ 48.16 293 eP 10 01.00 0.4
1.0s 40.00nm 5.3mb
KHT 49.50 250 eP 10 11.50 0.5
GUN 50.21 273 P 10 16.60 -0.1
FRU 50.51 295 eP 10 18.80 0.4
e 10 38.00 77km
KKN 50.72 273 P 10 20.20 -0.2
PKI 50.75 273 P 10 20.40 -0.4
DMN 50.95 273 P 10 22.20 0.0
GKN 51.06 274 P 10 22.20 -0.7
SVE 52.68 316 iPc 10 34.00 -0.5
2.1s 80.00nm 5.4mb
e 11 02.50 121kmX
ARU 53.87 317 eP 10 42.00 -1.3
1.3s 100.00nm 5.7mb
RES 55.31 16 eP 10 53.00 -0.6
1.0s 18.00nm 5.1mb
NDI 56.02 279 iPd 10 58.80 -0.5
0.5s 91.55nm 6.1mb
YKA 56.35 33 eP 10 59.80 -1.4
0.7s 4.20nm 4.6mb
GMW 60.29 51 eP 11 29.73 0.9
RMW 60.89 51 eP 11 33.34 0.3
SHW 61.35 52 eP 11 37.16 0.9
HYB 61.96 268 iPd 11 39.50 -1.1
QUE 62.41 286 eP 11 43.70 0.1
NEW 63.02 48 eP 11 46.73 -0.5
1.2s 27.73nm 5.2mb
epP 12 05.05 69km
ASH 63.62 298 eP 11 47.50 -3.8X
KAF 64.05 333 eP 11 51.80 -1.9
0.5s 8.40nm 4.9mb
WB2 64.17 192 eP 11 53.60 -1.2
1.6s 10.90nm 4.5mb
e 12 18.30 98kmX
POO 64.66 272 iPd 11 57.00 -1.3
SES 64.89 44 eP 11 59.00 -0.4
pP 12 17.00 68km
OBN 64.92 323 iPd 11 58.00 -1.4
0.8s 29.00nm 5.3mb
e 12 31.00 136kmX
GBA 65.27 265 Pd 12 01.00 -1.1
0.6s 13.00nm 5.1mb
NUR 65.77 332 eP 12 03.30 -1.4
0.4s 10.90nm 5.2mb
FCC 66.53 30 ePc 12 11.70 2.1
pP 12 31.40 75km
CMB 67.29 59 eP 12 14.27 -0.6
0.8s 6.74nm 4.6mb
epP 12 33.41 72km
esP 12 42.11
ASPA 67.89 192 iPc 12 18.10 -0.5
0.7s 14.40nm 5.0mb
KVN 68.06 57 (P) 12 20.05 0.2
BONR 68.62 58 eP 12 23.48 0.0
epP 12 42.72 72km
HHAI 68.69 50 eP 12 24.45 0.8
TNP 69.21 57 ePc 12 26.62 -0.3
2.1s 29.70nm 4.9mb
KIV 69.23 311 iPd 12 27.20 0.3
1.1s 130.00nm 5.8mb
Z 18s 0.20um 4.4Msz
NB2 69.42 338 P 12 26.00 -1.6
0.6s 5.60nm 4.7mb
HVU 69.45 52 (P) 12 28.37 0.1
HFS 69.48 337 eP 12 26.00 -1.9
0.4s 5.60nm 4.9mb
MNK 69.55 326 eP 12 26.00 -2.4
GRS 70.07 306 iPd 12 32.00 -0.1
1.3s 40.00nm 5.2mb
DUG 70.46 53 ePd 12 34.59 0.1
0.6s 2.69nm 4.4mb
epP 12 52.37 66km
TPNV 70.52 57 (P) 12 35.34 0.4
0.9s 9.95nm 4.7mb
ERE 70.69 307 iP 12 36.00 0.2
1.1s 12.00nm 4.7mb
GSC 71.24 59 eP 12 39.12 -0.1
epP 12 57.37 68km
MSU 71.94 54 ePc 12 43.66 0.1
ipPd 13 01.90 67km
ULM 72.08 37 eP 12 46.00 2.2
pP 13 04.50 69km
RSSD 72.62 45 eP 12 46.63 -0.7
1.2s 12.03nm 4.7mb
ipP 13 05.27 69km
VRI 75.90 321 eP 13 06.50 0.5
SPC 76.09 327 eP 13 07.90 0.7
CVO 76.19 321 eP 13 08.50 0.9
KSP 76.26 330 iPd 13 07.80 -0.1
0.8s 25.00nm 5.2mb
i 13 27.40 73km
MLR 76.55 321 ePc 13 09.00 -0.8
JAO 76.57 24 eP 13 08.00 -1.6
CLL 77.04 332 iPd 13 11.50 -0.7
0.9s 39.00nm 5.4mb
i 13 31.20 73km
BRG 77.08 331 iP 13 11.80 -0.6
1.0s 20.00nm 5.0mb
i 13 14.60 9kmX
i 13 31.50
VRAC 77.41 329 eP 13 14.80 0.6
1.5s 180.80nm 5.8mb
PRU 77.60 330 Pd 13 15.50 0.2
0.7s 12.20nm 5.0mb
e 13 19.00 11kmX
e 13 35.70
BWA 77.72 178 eP 13 16.90 0.9
SRO 77.96 327 iP 13 18.20 0.9
0.5s 70.20nm 5.9mb
EKA 78.00 343 Pc 13 17.50 0.1
0.7s 11.10nm 4.9mb
MOX 78.07 332 eP 13 17.70 -0.2
1.0s 19.00nm 5.0mb
e 13 38.00 75km
ZST 78.13 328 eP 13 17.60 -0.6
HOF 78.26 332 eP 13 19.00 0.0
0.6s 21.00nm 5.3mb
WTS 78.44 336 eP 13 20.00 0.2
0.7s 32.90nm 5.4mb
e 13 39.50 72km
CAN 78.63 178 eP 13 21.60 0.6
KHC 78.67 330 iPd 13 22.00 0.8
0.8s 12.30nm 4.9mb
e 13 41.70 73km
GEC2 78.86 330 Pd 13 22.00 -0.4
0.6s 4.73nm 4.6mb
e 13 42.00 74km
e 13 56.90
WET 78.90 331 iPd 13 23.00 0.5
1.0s 32.00nm 5.2mb
GRF 79.02 332 iPd 13 23.60 0.5
0.9s 53.00nm 5.5mb
Z 26s 0.10um 4.0MszX
ipPc 13 43.80 75km
DIM 79.38 319 eP 13 25.00 -0.1
PGB 79.63 320 iP 13 27.00 0.4
PLD 79.73 320 eP 13 27.00 0.0
ENN 79.78 336 eP 13 27.00 -0.1
0.8s 23.80nm 5.2mb
e 13 30.50 11kmX
e 13 47.00
VTS 80.04 321 iPd 13 29.00 0.1
RZN 80.04 319 iPd 13 29.00 0.0
FUR 80.30 331 eP 13 30.80 0.8
0.8s 34.00nm 5.3mb
KBA 80.47 329 iPc 13 31.80 0.6
0.8s 23.90nm 5.2mb
HRI 80.53 307 eP 13 32.30 0.7
MMB 80.58 320 iPd 13 32.00 0.3
KKB 80.67 321 iP 13 32.00 -0.1
WATA 80.90 331 iPd 13 33.40 0.0
i 13 53.90 76km
WTTA 80.94 330 iPd 13 33.80 0.2
0.8s 21.60nm 5.1mb
MOTA 81.06 331 iPd 13 34.30 0.1
1.0s 44.10nm 5.3mb
VBY 81.06 327 eP 13 33.00 -1.0
SOTA 81.13 331 iPd 13 34.60 0.1
0.7s 13.00nm 5.0mb
SKO 81.33 322 iP 13 36.00 0.5
0.8s 144.00nm 6.0mb
i 13 39.20 10kmX
VAY 81.33 321 iP 13 36.30 0.8
CDF 81.43 334 eP 13 35.60 -0.4
0.8s 19.50nm 5.1mb
OGA 81.50 331 iPd 13 36.70 0.2
EEO 81.65 30 eP 13 19.00 -18.1X
ZLA 81.88 333 ePc 13 38.50 0.2
OSS 81.96 331 ePc 13 39.30 0.4
HAU 82.09 334 eP 13 38.80 -0.6
1.0s 16.20nm 4.9mb
BSF 82.10 334 eP 13 38.80 -0.7
LLS 82.20 332 ePc 13 40.50 0.3
WMOK 82.21 49 eP 13 40.50 0.3
0.7s 1.47nm 4.0mb X
OHR 82.31 321 iP 13 40.60 -0.1
0.8s 58.00nm 5.6mb
VDL 82.37 331 Pc 13 41.70 0.6
ARVI 82.76 306 eP 13 44.20 1.1
TMA 82.91 332 ePc 13 43.80 -0.1
FLN 83.41 338 eP 13 45.70 -0.4
0.6s 5.25nm 4.7mb
DIX 83.43 332 ePc 13 47.30 0.6
LDF 83.46 338 eP 13 46.60 0.2
0.6s 6.05nm 4.8mb
LOR 83.52 335 eP 13 46.30 -0.5
1.0s 25.40nm 5.2mb
MBH 83.58 305 eP 13 48.20 0.8
EMS 83.60 333 ePc 13 47.80 0.4
LBF 83.73 335 eP 13 47.40 -0.5
1.0s 18.20nm 5.0mb
SSF 83.81 335 eP 13 47.90 -0.3
0.9s 11.95nm 4.9mb
GRR 83.85 339 eP 13 48.40 0.0
0.5s 10.05nm 5.1mb
HYF 83.88 336 eP 13 48.70 0.1
SMF 84.08 335 eP 13 49.50 -0.1
1.0s 40.00nm 5.4mb
AVF 84.10 335 eP 13 49.60 -0.1
1.0s 29.60nm 5.3mb
LPL 84.15 333 eP 13 50.40 0.1
1.0s 19.40nm 5.1mb
LPG 84.16 333 eP 13 50.60 0.2
0.8s 13.05nm 5.0mb
LPF 84.22 338 eP 13 50.50 0.2
0.6s 7.60nm 4.9mb
BGF 84.46 335 eP 13 51.90 0.4
0.7s 7.95nm 4.9mb
MAF 84.85 335 eP 13 54.00 0.5
0.7s 16.85nm 5.2mb
TCF 84.90 336 eP 13 53.90 0.2
0.7s 6.85nm 4.8mb
MIAR 85.13 46 eP 13 55.58 0.6
0.9s 11.63nm 4.9mb

08d 08h

epP 14 13.92 66km
esP 14 23.64
LSF 85.13 336 eP 13 55.10 0.2
1.0s 32.40nm 5.3mb
ELC 85.14 41 (P) 13 55.52 0.5
epP 14 13.30 64km
MFF 85.29 337 eP 13 56.00 0.4
0.7s 18.10nm 5.2mb
OLY 85.45 44 eP 13 57.43 0.8
epP 14 15.26 64km
PGF 85.95 330 eP 13 58.50 -0.6
RJF 85.99 336 eP 13 59.50 0.3
0.8s 13.45nm 5.1mb
LRG 86.09 332 eP 13 59.60 0.0
0.7s 12.80nm 5.1mb
LMR 86.15 332 eP 13 59.70 -0.2
0.9s 35.40nm 5.4mb
CAF 86.17 335 eP 14 01.00 0.9
1.1s 43.00nm 5.4mb
LFF 86.55 336 eP 14 02.60 0.7
0.6s 13.00nm 5.2mb
LPO 86.65 336 eP 14 03.00 0.6
0.8s 12.35nm 5.1mb
LMN 86.79 21 ePc 14 06.40 3.3X
pP 14 26.50 73km
ZOBO 140.23 57 PKP 20 49.00 0.0
LPB 140.44 58 (PKP) 20 48.00 -1.1
CNCB 140.72 58 PKP 20 45.50 -4.3X
SIV 144.08 48 PKP 20 57.60 2.6X
SOB1 145.18 12 ePKP 20 55.50 -1.4
BAO 149.64 28 ePKP 21 08.80 4.7X
e 21 12.00
e 21 31.00
S.D. = 0.9 on 167 of 180 obs.

% MAR 08, 1993 08h 17m 32.96± 0.93s
40.296 S ± 5.2km 173.444 E ± 5.8km
DEPTH = 215.5 ± 10.3 km
COOK STRAIT, NEW ZEALAND (163)

DIW 0.62 144 P 18 02.20 -0.1
S 18 19.80
ORZ 0.88 232 Pc 18 03.60 -0.3
S 18 22.80
TCW 1.11 146 Pc 18 05.40 0.1
BSZ 1.24 67 Pd 18 06.60 0.3
KIW 1.25 117 P 18 06.20 -0.2
MRW 1.34 135 Pc 18 07.00 0.0
S 18 28.30
CAW 1.48 124 P 18 08.20 0.0
THZ 1.52 195 P 18 08.60 0.0
S 18 32.30
MNG 1.59 102 P 18 09.30 0.2
S 18 32.10
MOW 1.77 130 P 18 10.70 -0.1
MTW 1.79 120 Pd 18 10.90 0.0
BLW 1.88 125 P 18 11.60 -0.2
DSZ 1.91 220 Pc 18 12.40 0.3
CNZ 1.96 57 P 18 12.60 -0.1
NGZ 2.00 57 Pd 18 13.00 -0.2
MOZ 2.07 31 P 18 13.70 0.0
S 18 42.50
KHZ 2.12 178 Pc 18 14.30 0.2
S 18 41.60
PGZ 2.18 99 P 18 15.00 0.2
WAHZ 2.31 76 P 18 16.20 -0.1
LTZ 2.64 199 P 18 20.00 0.3
S 18 51.40
MQZ 3.46 190 P 18 28.80 -0.4
S 19 07.10
NOZ 3.93 66 P 18 35.30 0.4
PUZ 4.35 61 P 18 39.90 -0.3
S.D. = 0.2 on 23 of 23 obs.

% MAR 08, 1993 08h 51m 13.33± 0.83s
40.652 N ± 7.0km 23.376 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.8 (THE).

SOH 0.17 354 ePg 51 17.69 0.5
eSg 51 20.08
THE 0.31 267 ePg 51 19.92 0.1
eSg 51 25.16
SRS 0.49 19 ePg 51 22.92 -0.4
eSg 51 30.56
OUR 0.56 124 ePg 51 24.76 0.1
eSg 51 32.20
KNT 0.63 325 ePg 51 26.16 0.3
GRG 0.80 293 ePg 51 28.44 -0.4
S.D. = 0.5 on 6 of 6 obs.

& MAR 08, 1993 09h 09m 02.11s
33.997 N 117.207 W
DEPTH = 12.6km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.1 (PAS), 2.8 (GS).
Felt (IV) at Loma Linda and
Yucaipa.

PEC 0.11 160 iPd 09 05.08 -0.3
SSK 0.46 298 iPc 09 10.81 -0.8
S 09 15.71
PLM 0.70 156 eP 09 14.94 -0.9
GSC 1.34 14 ePc 09 26.21 -0.4
S 09 42.69
ISA 1.96 328 ePn 09 34.60 -0.9
ePg 09 37.64
Lg 10 03.03
BCH 2.65 297 ePn 09 44.20 -1.3
TPNV 3.05 15 ePn 09 50.63 -0.4
ePg 09 57.64
MEMM 3.92 339 (Pn) 10 02.97 -0.3
BONR 4.05 348 (Pn) 10 05.34 0.0
ARUT 4.86 38 ePn 10 15.67 -1.2
MSU 6.07 41 (Pn) 10 33.37 -0.6
11 obs. associated

% MAR 08, 1993 10h 09m 08.47± 0.66s
44.331 N ± 6.0km 7.370 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

STV 0.09 201 P 09 11.25 0.1
S 09 12.94
ENR 0.11 161 P 09 11.58 0.2
S 09 13.58
PZZ 0.26 312 P 09 14.22 0.2
S 09 18.06
ROB 0.36 96 P 09 16.33 0.4
S 09 21.91
BHB 0.52 352 P 09 18.65 -0.3
S 09 25.66
IMI 0.56 138 P 09 19.39 -0.6
S 09 27.06
S.D. = 0.5 on 6 of 6 obs.

% MAR 08, 1993 10h 21m 53.63± 0.66s
44.328 N ± 6.0km 7.362 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

STV 0.09 198 P 21 56.39 0.1
S 21 57.95
ENR 0.11 158 P 21 56.76 0.2
S 21 58.68
PZZ 0.26 313 P 21 59.19 0.0
S 22 03.17
ROB 0.37 95 P 22 01.52 0.3
S 22 06.97
BHB 0.52 352 P 22 03.99 -0.1
S 22 11.22
IMI 0.56 138 P 22 04.56 -0.6
S 22 12.28
S.D. = 0.4 on 6 of 6 obs.

• MAR 08, 1993 10h 32m 30.42± 1.50s
10.858 N ±10.9km 62.366 W ±11.6km
DEPTH = 135.2 ± 28.1 km
NEAR COAST OF VENEZUELA (97)
MD 3.2 (TRN).

TCE 0.62 105 eP 32 50.02 -1.0
eS 33 01.65
TRN 0.97 102 iPd 32 53.45 -0.3
eS 33 07.10
TPP 1.05 121 eP 32 55.58 1.1
eS 33 11.88
TBH 1.33 106 eP 32 57.62 0.3
eS 33 16.75
GRW 1.47 28 eP 32 59.03 0.1
eS 33 18.99
PIG 1.53 78 eP 32 59.59 0.1
eS 33 18.87
TPR 1.59 78 iP 33 00.17 -0.1
eS 33 20.65
BOT 1.65 79 eP 33 00.58 -0.3
eS 33 19.65
SVB 2.64 24 eP 33 13.04 -0.1
eS 33 49.52
SVV 2.69 25 eP 33 14.18 0.3
eS 33 51.56
GUAN 3.35 255 iP 33 23.70 1.1
CEOS 6.15 253 iP 33 59.20 -1.1
iS 35 08.00
S.D. = 0.8 on 12 of 12 obs.

% MAR 08, 1993 11h 20m 24.05± 0.90s
46.611 N ±11.1km 2.852 E ±10.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.8 (LDG).

BGF 0.05 184 Pg 20 26.80 0.5
Sg 20 27.90
AVF 0.39 62 Pg 20 32.00 0.0
Sg 20 37.20
MAF 0.44 207 Pg 20 32.70 -0.3
Sg 20 37.20
TCF 0.55 234 Pg 20 35.10 -0.1
Sg 20 42.30
SSF 0.64 45 Pg 20 37.00 0.2
Sg 20 46.00
SMF 0.68 87 Pg 20 37.30 -0.3
S.D. = 0.4 on 6 of 6 obs.

• MAR 08, 1993 11h 42m 47.34± 1.58s
21.116 S ±15.8km 120.884 E ±15.2km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

MEEK 5.88 200 eP 44 18.50 1.9
0.2s 6.00nm 5.0mb
eS 45 21.00
MRWA 9.20 208 eP 45 01.00 -2.0
eS 46 36.40
COOL 9.73 179 eP 45 10.40 0.0
eS 46 52.00
KLB 10.80 194 eP 45 25.00 -0.1
eS 47 15.00
FORT 11.58 148 eP 45 36.00 0.3
0.3s 1.00nm 4.6mb
eS 47 40.00
MUN 11.60 200 eP 45 36.00 0.1
eS 47 33.00
ASPA 12.31 104 eP 45 45.60 0.0
eS 47 56.90
WB2 12.67 87 eP 45 49.60 -0.9
eS 48 02.60
MTN 12.79 52 eP 45 52.70 0.7
eS 48 07.00
S.D. = 1.2 on 9 of 9 obs.

• MAR 08, 1993 12h 04m 32.80± 0.90s
13.268 S ±14.7km 175.078 E ±14.9km
DEPTH = 33.0km (normal)
4.8mb (5 obs.)
FIJI ISLANDS REGION (181)

VUN 5.73 146 eP 05 58.00 0.2
DZM 12.01 222 iPc 07 22.60 -2.2
RMQ 27.96 238 eP 10 24.50 2.0
CNB 31.94 222 eP 10 59.30 1.4
TOO 35.78 222 eP 11 31.60 0.6
1.1s 50.00nm 5.4mb
WB2 39.51 255 iPc 12 01.80 -0.6
0.8s 5.80nm 4.4mb
ASPA 40.27 249 eP 12 07.40 -1.3
1.1s 22.10nm 4.8mb
LZH 83.11 309 eP 16 58.50 1.4
1.6s 25.00nm 5.1mb
YKA 92.85 26 eP 17 41.40 -1.7
1.0s 1.20nm 4.3mb
SSF 145.58 350 ePKP 24 09.40 0.0
1.0s 7.80nm
TCF 146.54 351 ePKP 24 11.20 0.2
S.D. = 1.5 on 11 of 11 obs.

MAR 08, 1993 12h 38m 39.91± 0.45s

41.540 S ± 6.4km 174.368 E ± 5.5km
DEPTH = 31.9 ± 4.9 km
4.3mb (1 obs.)
COOK STRAIT, NEW ZEALAND (163)
ML 4.3 (WEL).

CCW 0.24 208 Pc 38 46.80 0.0
TCW 0.33 348 Pc 38 46.50 -1.5
WEL 0.39 50 Pd 38 47.90 -0.9
S 38 53.40
MRW 0.40 40 Pc 38 47.90 -1.0
MOW 0.67 80 P 38 53.70 0.6
CAW 0.68 51 Pc 38 52.90 -0.3
KIW 0.79 31 P 38 54.60 -0.1
DIW 0.81 335 Pc 38 54.90 -0.1
BLW 0.85 79 Pc 38 56.90 1.4
MTW 0.93 66 Pc 38 58.10 1.3
KHZ 1.07 215 P 39 00.80 2.1
THZ 1.12 258 eP 39 00.00 0.5
MNG 1.25 43 P 39 02.40 1.2
QRZ 1.56 297 P 39 07.30 1.6
PGZ 1.71 58 P 39 07.40 -0.5
DSZ 1.93 263 P 39 12.60 1.4
LTZ 1.99 231 P 39 12.30 0.2
WAHZ 2.38 40 eP 39 17.50 -0.1
TEHZ 2.42 51 eP 39 17.40 -0.7
MQZ 2.51 210 P 39 18.30 -1.0
ODZ 4.43 217 eP 39 44.60 -2.1
BWZ 4.44 226 eP 39 45.30 -1.5
WB2 40.10 290 iPc 46 13.90 -0.4
0.4s 2.50nm 4.3mb
S.D. = 1.2 on 23 of 23 obs.

? MAR 08, 1993 12h 48m 08.31± 4.70s
62.078 N ±20.1km 3.650 E ±37.7km
DEPTH = 10.0km (geophysicist)
NORWEGIAN SEA (642)
MD 2.4 (BER).

FOO 0.82 125 eP 48 23.66 -0.5
eS 48 28.16
SUE 1.15 152 eP 48 32.08 2.2
eS 48 43.64
HYA 1.52 126 eP 48 34.57 -0.9
eS 48 46.85
ASK 1.77 154 eP 48 38.32 -0.7
eS 48 57.26
MOL 1.89 73 eP 48 41.42 0.6
eS 48 59.40
EGD 1.97 156 eP 48 41.40 -0.6
eS 49 03.83
ODD1 2.61 145 eP 48 51.16 -0.2
eSg 49 22.12
NRA0 4.03 106 ePn 49 16.42 5.1X
ePg 49 22.22
eLg 50 07.29
S.D. = 1.4 on 7 of 8 obs.

% MAR 08, 1993 13h 05m 06.13± 0.94s
26.176 S ±10.9km 29.284 E ± 8.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

BFT 0.84 55 eP 05 23.00 0.0
S 05 33.00
SLR 1.00 296 iPd 05 25.40 -0.3
S 05 35.50
KSR 2.17 278 e(P) 05 44.00 0.4
S 06 11.00
BLF 4.01 223 e(P) 06 09.00 -0.7
FRS 4.99 224 iPd 06 24.10 0.6
(S) 07 13.00
S.D. = 0.7 on 5 of 5 obs.

% MAR 08, 1993 13h 08m 55.87± 1.28s
33.627 S ± 6.7km 71.595 W ±12.2km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.5 (SAN).

LCCH 0.15 8 iP+ 09 02.25 0.2
iS 09 07.54
LNV 0.36 155 iP+ 09 04.43 0.0
iS 09 11.41
TACH 0.55 93 iP+ 09 07.13 -0.1
iS 09 16.51
ROCH 0.82 37 iPd 09 10.79 -0.4
iS 09 22.57
CHCH 0.84 112 iP 09 11.20 -0.2
iS 09 23.67
PEL 0.90 58 iP 09 12.72 0.5
iS 09 25.94
PCH 0.90 90 iP+ 09 12.21 -0.1
iS 09 25.28
CACH 0.96 121 (P) 09 23.00 9.8X
iS 09 28.19
FCH 1.13 75 iP+ 09 16.08 0.3
iS 09 32.20
JACH 1.26 42 iPd 09 17.04 -0.4
iS 09 33.65
S.D. = 0.3 on 9 of 10 obs.

---

* MAR 08, 1993 14h 03m 30.93± 0.91s
11.048 S ±12.4km 163.835 E ±14.7km
DEPTH = 33.0km (normal)
4.5mb (3 obs.)
SOLOMON ISLANDS (193)

HNR 4.15 292 eP 04 34.00 0.4
eS 05 30.00
DZM 11.24 167 iPc 06 13.00 0.5
CMS 26.29 217 eP 09 05.50 0.2
WB2 29.71 249 iPc 09 35.40 -1.1
0.5s 3.60nm 4.4mb
KMI 69.53 302 Pd 14 40.00 0.9
1.5s 30.00nm 5.1mb
pP 14 46.50 21kmX
YKA 95.84 27 eP 16 54.70 -0.3
1.0s 0.90nm 4.2mb
8CAO 145.02 262 iPKPd 23 07.00 -0.6
0.4s 10.00nm
id 23 11.10
S.D. = 0.8 on 7 of 7 obs.

% MAR 08, 1993 14h 16m 46.84± 1.00s
40.284 N ± 7.5km 23.423 E ± 9.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.6 (THE).

PAIG 0.41 151 ePg 16 55.18 0.0
eSg 17 02.02
OUR 0.43 83 ePg 16 55.46 -0.2
eSg 17 02.34
SOH 0.54 354 ePg 16 57.10 -0.7
SRS 0.84 9 ePg 17 03.86 0.8
eSg 17 16.14
GRG 1.03 311 ePg 17 06.30 0.0
S.D. = 0.7 on 5 of 5 obs.

& MAR 08, 1993 14h 21m 36.43s
61.703 N 150.996 W
DEPTH = 64.8km
4.6mb (22 obs.)
SOUTHERN ALASKA (2)
<AEIC>. ML 4.3 (AEIC), 4.4
(PMR). Felt (IV) at Skwentna and
Willow; (III) at Anchorage and
Chugiak; (II) at Palmer.

SUA 0.27 153 iPd 21 47.25 0.1
SKT 0.38 318 iPd 21 47.08 -0.8
eS 21 56.10
PWA 0.54 95 P 21 49.20 -0.1
CGLM 0.63 231 iPd 21 49.93 -0.5
CRP 0.71 232 iPd 21 50.89 -0.6
CPAM 0.71 231 iPd 21 50.89 -0.5
SPU 0.73 225 iPd 21 50.89 -0.7
iS 22 02.77
CP2 0.74 234 iPd 21 51.20 -0.7
CKN 0.75 230 iPd 21 51.23 -0.5
CKT 0.77 230 iPd 21 51.23 -0.9
CUT 0.78 26 eP 21 52.10 -0.1
eS 22 03.77
BGL 0.80 237 iPd 21 51.68 -0.8
CKL 0.82 232 iPd 21 51.86 -0.9
PMS 0.83 123 P 21 52.20 -0.6
PLRM 0.90 96 iPc 21 52.65 -0.9
eS 22 06.32
PMR 0.90 96 iPc 21 53.30 -0.3
GHO 0.99 85 iPc 21 54.19 -0.7
eS 22 08.32
SLKM 1.26 162 ePc 21 57.04 -1.3
PTE 1.27 131 iPc 21 57.40 -1.1
SML 1.27 84 iPc 21 57.58 -1.0
RDT 1.32 212 eP 21 58.47 -0.9
DFR 1.38 217 iPd 21 59.30 -0.9
HUR 1.43 26 iPd 21 59.96 -0.7
eS 22 18.57
MPA 1.45 146 iPc 21 59.77 -1.2
eS 22 18.48
RDN 1.47 216 iPd 22 00.53 -0.8
eS 22 19.58
NCT 1.48 220 iPd 22 00.71 -0.8
eS 22 20.30
RDW 1.51 217 iPd 22 01.23 -0.7
RS2 1.51 215 iPd 22 01.30 -0.7
RSO 1.51 215 iPd 22 01.29 -0.7
RS1 1.51 215 iPd 22 01.36 -0.7
SCM 1.75 84 iPc 22 03.88 -1.3
SEW 1.77 154 eP 22 03.93 -1.5
eS 22 25.53
TRF 1.79 10 iPd 22 04.63 -1.1
INE 1.93 212 eP 22 06.56 -1.2
INW 1.95 213 eP 22 06.86 -1.0
BRLK 1.95 178 eP 22 07.27 -0.6
RND 1.98 29 iPd 22 07.03 -1.3
MCK 2.25 24 ePc 22 11.31 -0.7
XLV 2.28 189 P 22 12.80 0.3
SVW 2.30 257 P 22 11.30 -1.5
VLZ 2.31 102 iPc 22 10.33 -2.6
KLU 2.44 93 iPc 22 12.45 -2.3
PDB 2.48 221 iPd 22 13.76 -1.5
HIN 2.55 119 ePc 22 12.95 -3.3
AUL 2.62 208 eP 22 16.83 -0.4
AUE 2.63 208 eP 22 16.88 -0.4
AUH 2.64 208 ePd 22 16.93 -0.6
TTA 2.65 300 P 22 16.00 -1.7
TZL 2.66 80 iPc 22 16.80 -1.0
AUI 2.66 208 eP 22 17.31 -0.5
eS 22 48.47
SDG 2.69 70 ePc 22 17.16 -1.1
CVA 2.80 112 iPc 22 16.31 -3.4
PAX 2.88 61 eP 22 19.64 -1.3
eS 22 52.56
THY 2.98 52 eP 22 21.96 -0.3
NEA 3.01 16 eP 22 20.25 -2.5
MCNL 3.02 215 eP 22 21.24 -1.6
SGAM 3.06 111 ePc 22 19.73 -3.7
SYI 3.18 193 ePd 22 23.76 -1.3
MID 3.24 133 P 22 24.00 -1.9
HDA 3.28 32 ePd 22 24.36 -2.1
CCB 3.29 25 iPd 22 24.32 -2.3
RAGM 3.35 110 eP 22 23.68 -3.8
GLB 3.45 91 iPc 22 25.87 -3.0
MDM 3.50 20 iPd 22 27.31 -2.3
FBA 3.52 23 P 22 27.70 -2.2
GLM 3.68 25 iPd 22 29.85 -2.2
DOT 3.75 56 ePd 22 30.98 -2.1
CRQM 3.92 101 eP 22 32.96 -2.6
KDC 4.04 191 P 22 35.70 -1.4
TMW 4.05 63 P 22 37.50 0.2
TGL 4.06 100 ePc 22 34.36 -3.2
BALM 4.22 95 ePc 22 36.03 -3.8
SNH 4.26 107 eP 22 36.32 -4.0
CYK 4.46 108 eP 22 39.49 -3.6
IMA 4.54 346 P 22 42.20 -2.1
YAH 4.70 103 eP 22 43.17 -3.4
CTGM 4.71 95 eP 22 44.03 -2.8
FYU 5.49 25 eP 22 54.76 -2.8
SIT 9.24 113 eP 23 45.10 -4.3
YKA 16.91 71 eP 25 29.10 -0.7
0.5s 2.90nm 3.7mb
NEW 23.30 110 eP 26 38.00 -0.9
0.9s 8.77nm 4.2mb
RES 23.34 34 eP 26 38.50 -0.5
0.7s 2.00nm 3.7mb
VGB 23.84 119 eP 26 43.68 -0.5
epP 27 02.48 84kmX
SES 24.59 99 eP 26 50.00 -1.4
LCCM 27.49 107 eP 27 16.20 -2.1
FCC 27.64 70 eP 27 19.50 0.2
BW06 30.92 108 eP 27 46.04 -3.0
0.5s 1.80nm 4.1mb
8ONR 31.19 124 (P) 27 50.20 -1.3
ULM 31.90 85 ePc 27 57.30 0.1
RSSD 32.42 101 eP 27 59.66 -2.4
0.5s 9.27nm 4.9mb
epP 28 19.21 84kmX
MSU 33.23 116 eP 28 07.99 -1.3
SRU 33.45 114 ePd 28 09.26 -1.8

08d 14h

PV09 34.57 113 eP 28 18.51 -2.3
PV10 34.71 113 eP 28 20.36 -1.6
PV08 34.72 112 eP 28 19.78 -2.4
JAQ 38.77 66 ePd 28 52.30 -3.4
WMOK 42.34 105 iPc 29 23.12 -2.2
0.8s 6.46nm 4.5mb
e 29 50.10
EEO 42.35 76 eP 29 25.00 -0.2
FVM 43.63 94 eP 29 32.48 -3.2
0.4s 10.81nm 5.0mb
CVL 49.32 84 (P) 30 18.10 -2.4
LMN 49.39 67 eP 30 20.50 -0.5
PRM 50.62 90 eP 30 27.17 -3.3
JSC 50.98 89 eP 30 29.86 -3.3
NB2 56.83 10 P 31 10.40 -5.5
0.6s 1.50nm 4.2mb
SLL 57.55 9 eP 31 15.00 -5.9
0.7s 1.80nm 4.3mb
EKA 60.59 20 P 31 38.00 -4.0
0.9s 10.50nm 5.0mb
FLN 67.37 21 eP 32 21.90 -4.4
0.5s 6.10nm 4.8mb
LDF 67.60 20 eP 32 23.20 -4.5
0.5s 4.50nm 4.7mb
GRR 67.67 21 eP 32 24.00 -4.1
0.6s 5.50nm 4.7mb
LPF 67.99 21 eP 32 26.20 -3.9
0.7s 8.95nm 4.8mb
GEC2 69.12 11 P 32 33.50 -3.7
0.8s 1.00nm 3.8mb
HAU 69.14 16 eP 32 33.20 -4.0
0.8s 5.10nm 4.5mb
LOR 69.51 18 eP 32 35.40 -4.1
0.8s 7.10nm 4.6mb
MFF 69.52 21 eP 32 35.70 -3.9
0.7s 4.95nm 4.5mb
SSF 69.66 18 eP 32 36.50 -3.9
0.8s 8.20nm 4.7mb
LBF 69.81 18 eP 32 37.00 -4.4
0.9s 10.80nm 4.8mb
AVF 69.90 18 eP 32 37.70 -4.2
0.5s 3.00nm 4.5mb
SMF 70.12 18 eP 32 36.60 -6.6
0.8s 14.25nm 5.0mb
118 obs. associated

MAR 08, 1993 14h 42m 12.44± 0.64s
15.930 N ± 8.7km 97.964 W ± 8.2km
DEPTH = 10.0km (geophysicist)
4.6mb (13 obs.) 4.1Msz (9 obs.)
NEAR COAST OF OAXACA, MEXICO (66)

ACX 2.04 297 iPd 42 44.61 -2.7
iS 43 15.00
III 2.83 330 (P) 42 59.30 0.6
IISM 3.09 10 (P) 43 11.00 8.8X
PUE 3.10 356 (P) 43 11.50 8.9X
(S) 43 46.00
PPM 3.18 349 iP 43 04.70 0.7
(S) 43 58.90
IIA 3.27 348 (P) 43 11.07 6.3X
UNM 3.58 341 iP 43 16.30 6.9X
(S) 44 03.20
CRX 3.82 335 iP 43 22.60 9.6X
(S) 43 57.00
MRX 4.85 321 iP 43 30.51 3.3X
SCX 5.18 80 (P) 44 32.20 60.3X
UYO 18.43 9 iPd 46 21.10 -8.6X
MEO 18.78 358 iPc 46 32.10 -2.0
MIAR 18.95 11 eP 46 33.50 -2.6
2.7s 68.37nm 4.4mb
OCO 19.52 1 iPd 46 43.60 0.6
TUC 20.04 327 eP 46 49.36 0.7
1.4s 31.50nm 4.5mb
OLY 20.34 15 (P) 46 49.99 -1.7
ALQ 20.41 340 eP 46 52.77 0.2
1.1s 25.73nm 4.5mb
Z 21s 1.32um 4.3Msz
ACO 20.71 357 iPc 46 54.20 -1.3
PRM 22.89 35 (P) 47 17.71 0.3
FVM 22.95 15 eP 47 18.71 0.7
0.9s 10.50nm 4.4mb
JSC 23.66 36 eP 47 25.71 0.9
LHS 24.06 37 eP 47 29.65 0.9
PV10 24.39 339 (P) 47 30.49 -1.8
PV08 24.44 339 eP 47 34.45 1.6
PV09 24.54 339 eP 47 34.64 0.9
GLD 24.56 346 eP 47 36.02 2.2
1.1s 24.42nm 4.8mb
PEC 24.88 319 eP 47 37.82 1.0
1.2s 42.37nm 5.0mb
SRU 25.58 337 eP 47 43.25 -0.3
GSC 25.62 322 eP 47 44.84 1.0
e 48 03.08
ARUT 25.71 331 eP 47 46.45 1.8
MSU 25.74 334 iP 47 46.45 1.4
CEH 26.05 37 eP 47 47.48 -0.2
1.0s 37.33nm 5.0mb
NAV 26.17 32 (P) 47 49.66 0.8
EMUT 26.31 337 eP 47 51.25 0.9
TPNV 26.48 326 eP 47 56.05 4.2X
1.3s 31.16nm 4.8mb
S 52 46.54
ISA 26.86 321 P 48 10.00 14.7X
Z 18s 0.56um 4.2Msz
DAU 26.99 337 eP 47 57.23 0.5
DUG 27.42 335 eP 48 01.74 1.4
1.3s 12.44nm 4.5mb
BCH 27.56 318 (P) 48 02.07 0.4
BONR 28.34 325 eP 48 07.51 -1.4
BW06 28.54 342 eP 48 09.75 -0.9
1.3s 18.83nm 4.7mb
RSSD 28.57 351 P 48 20.00 9.2X
Z 18s 0.17um 3.7Msz
HVU 28.75 337 eP 48 12.97 0.5
CMB 29.58 322 P 48 30.00 10.1X
Z 18s 0.36um 4.0Msz
LCCM 32.02 342 eP 48 42.00 0.6
WDC 32.53 324 P 49 00.00 14.3X
Z 18s 0.26um 4.0Msz
ULM 34.27 2 eP 49 04.00 3.3X
RSNY 34.73 30 eP 49 03.48 -1.2
1.9s 54.65nm 5.1mb
Z 21s 0.14um 3.7Msz
HRV 34.83 35 P 49 20.00 14.4X
Z 18s 0.24um 4.0Msz
DPW 35.96 337 eP 49 14.84 -0.4
SES 35.97 346 eP 49 15.00 -0.2
LON 36.57 332 eP 49 20.90 0.5
RMW 37.11 333 (P) 49 24.79 -0.1
GMW 37.61 332 eP 49 27.43 -1.6
JAQ 41.60 20 eP 50 02.50 0.5
ZOBO 43.49 136 eP 50 18.00 -0.6
Z 23s 0.36um 4.2MszX
S 56 53.00
LR 05 16.00
LPB 43.69 136 eP 50 20.00 0.0
Z 18s 0.34um 4.3Msz
LR 05 30.00
CNCB 43.97 136 eP 50 23.00 0.6
YKA 47.97 350 eP 50 51.00 -2.0
1.0s 3.80nm 4.4mb
SIV 48.29 129 P 51 00.40 4.3X
PMR 58.13 334 P 52 20.00 11.7X
Z 18s 0.32um 4.5Msz
FBA 59.24 338 eP 52 14.91 -1.2
1.2s 4.97nm 4.5mb
HYB 146.69 6 ePKP 01 55.00 -0.3
GBA 150.31 9 PKPd 02 05.60 4.7X
0.9s 3.00nm
S.D. = 1.2 on 46 of 64 obs.

MAR 08, 1993 15h 30m 08.47± 0.29s
8.948 S ± 5.1km 123.944 E ± 7.9km
DEPTH = 80.3km (5 depth phases)
5.0mb (22 obs.)
FLORES REGION, INDONESIA (286)

MTN 8.05 119 iPd 32 02.30 -2.5
eS 34 23.00
WB2 14.86 138 iPd 33 30.60 -5.1X
eS 36 04.30
LEM 16.31 276 iPd 33 58.50 4.3X
CGP 17.30 2 iPc 34 09.00 2.6
ASPA 17.46 148 iPc 34 05.70 -2.7
Z 23s 0.30um
eS 37 05.50
MEEK 18.31 195 eP 34 19.00 0.3
0.3s 8.00nm 4.4mb
e 34 24.00
eS 37 30.00
PLP 20.01 3 ePc 34 38.20 0.9
MRWA 21.50 199 eP 34 53.00 0.6
0.3s 3.00nm 4.1mb
eS 38 44.00
COOL 21.98 186 eP 34 57.00 -0.2
eS 38 55.00
FORT 22.06 171 eP 34 58.00 0.1
0.6s 25.00nm 4.8mb
iS 38 56.70
PGP 22.50 352 ePd 35 05.00 2.6
BAL 22.58 196 eP 35 03.00 -0.1
PMG 22.92 93 eP 35 16.00 9.6X
0.9s 124.37nm 5.3mb
KLB 23.25 193 eP 35 10.40 0.9
e 35 27.50 76km
eS 39 25.00
KGM 23.26 297 ePc 35 13.00 3.2X
MUN 24.02 196 eP 35 17.60 0.7
e 35 37.00 87km
eS 39 44.00
CTA 24.24 120 ePc 35 20.00 0.8
1.0s 25.00nm 4.6mb
e 35 30.00 37kmX
NWAO 24.66 194 eP 35 21.00 -2.1
eS 39 58.00
OLP 26.03 135 iPd 35 36.50 0.6
e 35 53.50 74km
IPM 26.51 300 ePc 35 41.40 1.0
RMO 29.28 130 iPd 36 05.40 0.0
0.4s 7.00nm 4.7mb
CMS 30.28 141 iPd 36 14.50 0.3
0.7s 13.00nm 4.8mb
BFD 32.77 152 eP 36 37.00 1.1
0.5s 4.00nm 4.5mb
BRS 32.83 128 iP 36 37.00 0.4
e 37 39.00 319kmX
ARMA 33.53 133 iPc 36 44.20 1.4
0.5s 10.00nm 4.9mb
KHT 34.46 313 iPc 36 52.60 1.8
TOO 34.51 149 iPc 36 53.10 2.1
0.9s 27.00nm 5.2mb
CAN 34.83 143 eP 36 55.20 1.4
CNB 35.05 142 iPd 36 57.10 1.5
BDT 35.85 317 eP 37 03.00 0.5
CHTO 37.00 318 ePc 37 14.10 1.9
1.0s 43.25nm 5.3mb
KMI 39.67 329 eP 37 37.00 2.3
1.0s 20.00nm 5.0mb
pP 37 40.00 10kmX
SSE 39.90 356 Pc 37 36.30 0.1
0.8s 17.00nm 5.0mb
TKSJ 43.76 12 P 38 07.60 -0.1
WKYJ 44.33 14 P 38 12.30 -0.1
YONJ 44.81 11 P 38 15.90 -0.2
MAT 47.19 16 eP 38 34.00 -1.0
0.8s 17.16nm 5.0mb
LZH 48.63 338 eP 38 46.50 0.2
pP 39 07.50 86km
GBA 51.31 295 P 39 05.00 -1.9
GUN 51.94 316 P 39 11.80 -0.2
HYB 51.94 300 eP 39 10.00 -1.7
PKI 52.05 315 P 39 12.20 -0.6
KKN 52.28 316 P 39 13.80 -0.5
DMN 52.29 315 P 39 14.00 -0.4
GKN 52.86 315 P 39 18.20 -0.3
NDI 58.58 311 iPc 39 57.50 -1.9
0.6s 23.33nm 5.5mb
ZAK 61.76 345 eP 40 19.30 -1.4
1.0s 11.00nm 4.9mb
MOY 63.55 344 eP 40 32.20 -0.3
BOD 67.04 354 iP 40 53.50 -1.4
1.1s 28.00nm 5.1mb
OUE 67.13 308 eP 40 56.40 0.2
ELT 69.73 337 iPc 41 10.50 -1.1
0.7s 29.00nm 5.3mb
YAK 70.89 3 iPc 41 16.80 -1.6
0.9s 102.00nm 5.7mb
MGD 72.07 14 eP 41 24.00 -1.6
0.5s 20.00nm 5.3mb
e 41 45.00 79km
MAIO 75.34 311 eP 41 45.00 -0.2
TIK 80.47 2 eP 42 11.00 -1.4
1.0s 20.00nm 5.0mb
SVE 83.39 330 ePd 42 28.70 0.8
ARU 84.22 329 ePd 42 32.00 -0.1
2.2s 200.00nm 5.7mb
Z 16s 0.50um 5.0MszX
E 16s 0.50um
YKA 112.10 25 ePKP 48 34.20 -1.6
0.4s 0.50nm

```
KIC     129.11 271 PKP    49 10.00    0.1
CNCB    151.82 155 iPKPc  49 59.30    8.9X
LPB     152.02 155 ePKP   49 58.00    7.5X
ZOBO    152.22 154 ePKP   49 59.00    7.9X
     S.D. = 1.3   on   55 of  62 obs.
--------------------------------------
?  MAR  08, 1993  15h 39m 47.11± 0.95s
   37.390 N ± 8.2km    3.599 W ±12.6km
     DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
     mbLg 2.7 (MDD).

ECOG      0.12 167 iPgd   39 49.50   -0.6
                   eSg    39 53.00
EGUA      0.56 177 ePg    39 59.00    0.6
                   eSg    40 06.90
EHOR      1.38 289 ePn    40 12.30   -0.1
                   eSn    40 30.50
EVIA      1.52  34 ePn    40 14.50    0.1
                   eSn    40 35.00
     S.D. = 0.9   on    4 of   4 obs.
--------------------------------------
   MAR  08, 1993  16h 59m 06.94± 0.70s
   43.410 N ± 5.1km    5.460 E ± 5.3km
     DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE      (379)
     ML 2.5 (STR).

GELF      0.04 222 Pg     59 07.65   -1.4
BERF      0.19 120 Pg     59 11.04   -0.2
PUYF      0.21  55 Pg     59 10.58   -1.0
TREF      0.22 346 Pg     59 10.58   -1.1
CDR       0.35  40 ePgd   59 12.70   -1.4
PRAF      0.45 332 Pg     59 16.07    0.0
VILF      0.48  23 Pg     59 15.99   -0.7
TAVF      0.48  64 Pg     59 16.07   -0.7
GANF      0.67  29 Pg     59 19.59   -0.7
     S.D. = 0.6   on    9 of   9 obs.
--------------------------------------
   MAR  08, 1993  17h 03m 20.66± 0.27s
   11.123 S ± 5.5km  163.298 E ± 5.9km
     DEPTH =  27.7km  (  3 depth phases)
   4.9mb ( 23 obs.)  5.1Msz ( 22 obs.)
 SOLOMON ISLANDS                 (193)
     Mw 5.6 (HRV).
     CENTROID, MOMENT TENSOR     (HRV)
     Data Used: GDSN
     L.P.B.: 38S, 70C
     Centroid Location:
     Origin Time          17:03:21.9 0.3
     Lat 11.18S 0.03 Lon 163.37E 0.03
     Dep  15.0 FIX Half-duration   1.4
     Moment Tensor;    Scale 10**17 Nm
       Mrr= 1.90 0.05   Mtt=-1.88 0.06
       Mff=-0.02 0.07   Mrt= 1.31 0.22
       Mrf= 0.62 0.16   Mtf=-0.10 0.05
      Principal Axes:
       T   Val=  2.44   Plg=69  Azm=322
       N        -0.12      10       79
       P        -2.32      18      172
     Best Double Couple:Mo=2.4*10**17
      NP1:Strike=278 Dip=28 Slip= 111
      NP2:        74     64       79

HNR       3.70 297 eP     04 18.50    1.1
                   iS     05 10.00
SVO       3.95 299 eP     04 22.00    1.1
                   eS     05 14.00
BKM       8.08 144 iP     05 17.00   -2.1
                   iS     06 53.50
DZM      11.30 165 iPc    06 02.00   -1.5
                   iS     08 05.50
PMG      15.97 275 eP     07 12.00    6.8X
         1.2s     93.75nm          4.8mb
CTA      18.66 239 iPc-   07 39.00    0.1
         1.5s     34.72nm          4.3mb
                   e      07 48.00
                   e      08 27.00
                   eS     11 03.00
BRS      18.97 210 iPd+   07 43.50    1.0
         1.0s      9.00nm          4.0mb
                   iS     11 24.00
RMQ      20.54 220 iPc    08 00.30    0.6
         0.8s     46.00nm          4.9mb
ARMA     22.05 208 iPc    08 15.60    0.5
         1.0s     44.00nm          4.8mb
QLP      23.65 227 iPd    08 32.00    1.3
CMS      25.92 216 iPd    08 52.50    0.2
         0.7s     23.00nm          4.9mb
BWA      26.88 208 eP     09 04.10    2.9
CNB      27.21 206 eP     09 08.60    4.4X
         1.2s     29.00nm          4.8mb
CAN      27.37 206 eP     09 06.30    0.6
WB2      29.20 249 eP     09 21.60   -0.7
         0.7s     15.40nm          4.9mb
WRA      29.21 249 P      09 21.50   -0.9
GUA      30.55 323 eP     09 37.40    3.1X
GUMO     30.61 323 eP     09 38.20    3.4X
       Z  22s      1.22um          4.5Msz
                   eS     14 35.30
ASPA     30.62 242 iPd    09 32.90   -2.1
         0.8s     19.60nm          5.0mb
       Z  19s      2.90um          5.0Msz
                   eS     14 33.30
MEEK     44.76 243 eP     11 34.00    0.1
HON      49.85  50 P      12 20.00    6.4X
       Z  19s      0.95um          4.8Msz
MAT      52.97 335 (P)    12 37.00   -0.1
         1.5s     30.56nm          5.0mb
                   eS     19 55.00
SSE      58.26 317 P      13 13.20   -2.0
         1.0s     11.00nm          4.9mb
       Z  22s      1.00um          4.9Msz
       E  12s      0.30um
                   S      21 14.00
                   sS     21 32.00
VLA      61.13 334 iP     13 35.00    0.2
                   i      14 15.00 171kmX
                   iS     22 02.00
                   iSS    25 48.00
PET      64.01 357 eP     13 48.00   -5.7X
                   ePS    22 36.00
SMY      64.27   7 P      14 10.00   14.5X
       Z  21s      1.68um          5.2Msz
KMI      69.12 302 eP     14 27.00   -0.1
         1.5s     60.00nm          5.5mb
       Z  16s      0.70um          5.0MszX
                   pP     14 37.00   32km
                   eS     23 30.00
CHTO     70.07 295 eP     14 32.30   -0.4
LZH      73.04 313 eP     14 50.00   -0.5
         1.5s     67.00nm          5.4mb
       Z  16s      0.59um          5.0MszX
       E  15s      0.51um
                   pP     15 00.00   32km
                   i      15 10.00
CIT      76.01 331 eP     15 07.00    0.0
SVW      78.94  19 eP     15 23.80    0.7
SPA      78.95 180 iPc    15 34.40   11.2X
         1.0s     27.50nm
RSO      79.42  20 (P)    15 25.81   -0.1
BOD      79.54 336 eP     15 25.00   -1.3
         1.7s     23.00nm          4.9mb
ILT      79.87   7 iPc    15 26.00   -1.9
         1.4s     23.00nm          5.0mb
       Z  18s      0.70um          5.0Msz
                   i      15 32.00   19km
                   eS     25 34.00
                   ePS    26 19.00
CP2      80.17  20 eP     15 30.95    1.0
CRP      80.20  20 (P)    15 29.73   -0.3
ZAK      80.40 326 eP     15 30.00   -1.0
         2.0s     44.00nm          5.1mb
       Z  16s      0.69um          5.1MszX
       E  18s      0.81um
                   e      18 29.00
                   eS     25 31.00
PMS      81.08  21 e(P)   15 37.30    2.8
PMR      81.47  21 P      15 50.00   13.6X
       Z  21s      1.14um          5.2Msz
MOY      82.30 326 eP     15 40.90    0.0
KLU      82.56  22 eP     15 43.05    0.8
IMA      83.24  16 eP     15 46.30    0.5
         1.1s     10.20nm          4.9mb
BALM     83.63  23 (P)    15 48.86    1.0
FBA      84.16  19 eP     15 49.90   -0.4
GUN      84.26 300 PKP    15 51.20   -0.8
SIT      84.47  29 P      16 00.00    8.1X
       Z  18s      1.75um          5.5Msz
PKI      84.57 299 PKP    15 52.60   -1.0
DMN      84.84 299 PKP    15 54.00   -0.8
LGPM     85.32  47 eP     15 56.49   -0.2
GKN      85.35 300 PKP    15 53.00   -4.2X
WDC      85.42  47 P      16 10.00   12.9X
       Z  20s      0.79um          5.1Msz
BCH      85.63  53 eP     15 58.87    0.5
TIK      85.71 350 iP     15 56.00   -1.8
         2.0s     41.00nm          5.3mb
                   e      16 13.00  60kmX
CMB      86.23  50 eP     16 01.54    0.3
         0.7s      4.55nm          4.8mb
       Z  18s      0.75um          5.1Msz
ISA      87.03  53 eP     16 05.32    0.1
         1.2s     14.00nm          5.1mb
       Z  18s      1.65um          5.5Msz
SHW      87.44  42 (P)    16 06.68   -0.3
PEC      87.60  55 eP     16 07.40   -0.6
         1.2s     34.90nm          5.5mb
PLM      87.71  56 eP     16 08.52   -0.1
BONR     87.79  51 eP     16 09.65    0.6
GSC      88.25  54 eP     16 11.07    0.0
ARUT     91.47  52 eP     16 26.80    0.6
TUC      92.45  58 P      16 40.00    9.3X
       Z  18s      0.73um          5.2Msz
DUG      92.47  50 P      16 40.00    9.3X
       Z  18s      0.36um          4.9Msz
MSU      92.60  51 ePd    16 32.11    0.6
HVU      92.84  48 eP     16 32.84    0.4
DAU      93.68  50 (P)    16 36.37   -0.2
LCCM     94.31  44 eP     16 41.80    2.7
PV09     94.94  52 (P)    16 43.76    1.4
PV10     94.99  52 eP     16 43.52    1.0
BW06     95.38  48 eP     16 43.62   -0.5
         0.9s      2.83nm          4.7mb
YKA      96.15  28 eP     16 44.30   -2.6
         1.0s      2.70nm          4.7mb
ALQ      96.47  56 P      17 00.00   10.7X
       Z  21s      0.67um          5.1Msz
GOL      98.02  51 P      17 10.00   13.8X
       Z  18s      1.74um          5.6Msz
GLD      98.14  51 P      17 10.00   13.3X
       Z  19s      1.88um          5.6Msz
RSSD     99.55  47 P      17 10.00    7.0X
       Z  21s      0.19um          4.6Msz
MIAR    106.99  57 PKP    22 00.00   14.0X
       Z  20s      0.44um          5.0Msz
SLM     109.70  53 PKP    22 00.00    9.0X
       Z  18s      0.54um          5.2Msz
RSNY    120.51  45 PKP    22 20.00    8.6X
       Z  19s      0.32um          5.0Msz
ZOBO    122.29 117 ePKP   22 06.00  -10.4X
       Z  19s      0.22um          4.8Msz
                   LR     02 15.00
CBM     123.99  40 PKP    22 30.00   11.9X
       Z  19s      0.69um          5.3Msz
GEC2    134.68 332 PKP    22 41.10    2.5X
         0.9s      1.34nm
                   e      22 49.00
                   e      22 56.90
BCAO    144.49 262 iPKPc  22 53.50   -3.7X
         0.9s     14.00nm
                   ic     23 05.10
                   ic     23 42.60
SOB1    148.58 129 ePKP   23 07.00    3.1X
     S.D. = 1.2   on   58 of  84 obs.
--------------------------------------
?  MAR  08, 1993  18h 07m 47.37± 3.62s
   35.032 S ±29.7km   70.541 W ±13.8km
     DEPTH =  10.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION   (127)
     MD 4.0 (SAN).

CACH      0.91 357 iP+    08 03.86   -1.1
                   iS     08 19.13
CHCH      1.10 355 iP+    08 07.33   -0.7
                   iS     08 25.46
LNV       1.29 326 iP+    08 10.46   -0.8
                   iS     08 29.53
PCH       1.41   1 iPd    08 12.87   -0.3
                   iS     08 34.35
TACH      1.41 346 iP+    08 12.60   -0.5
                   iS     08 33.68
SAN       1.58 356 iP+    08 15.79    0.3
                   iS     08 38.09
FCH       1.71   7 iP+    08 18.14    0.4
                   iS     08 43.03
LCCH      1.77 331 iP+    08 18.35    0.1
                   iS     08 43.90
PEL       1.89 356 iP+    08 20.87    0.9
                   iS     08 47.96
ROCH      2.09 349 iP+    08 23.80    0.7
```

iS 08 53.54
JACH 2.34 359 iPd 08 28.32 1.7
iS 09 01.22
MRA 4.80 58 ePc 08 59.50 -1.9
TCA 6.20 55 e(P) 09 22.50 1.3
S 10 59.00
S.D. = 1.1 on 13 of 13 obs.

? MAR 08, 1993 18h 21m 49.94± 0.93s
44.330 N ± 9.3km 7.375 E ± 8.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.3 (GEN).

STV 0.09 203 P 21 52.60 -0.1
S 21 54.34
ENR 0.11 162 P 21 52.92 0.1
S 21 54.89
PZZ 0.26 312 P 21 55.57 0.0
S 21 59.33
ROB 0.36 95 P 21 57.30 0.0
S 22 02.84
S.D. = 0.1 on 4 of 4 obs.

MAR 08, 1993 18h 38m 39.51± 1.11s
38.701 N ± 8.5km 143.719 E ± 9.9km
DEPTH = 12.3 ± 5.0 km
4.4mb (5 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 1.64 284 P 39 07.50 -0.8
eS 39 27.90
YAMJ 2.94 261 P 39 26.50 -0.3
AOMJ 3.18 307 eP 39 31.80 1.6
eS 40 12.00
HOOJ 3.69 355 eP 39 37.80 0.3
eS 40 19.60
KAKJ 3.76 230 P 39 37.80 -0.7
NIIJ 4.00 250 P 39 41.70 -0.2
MRRJ 4.23 332 eP 39 45.20 0.1
eS 40 31.30
KUSJ 4.46 9 eP 39 47.50 -0.8
eS 40 36.20
CHJJ 4.60 236 P 39 49.50 -0.9
MAT 4.88 245 eP 39 55.00 0.6
0.5s 28.17nm
(S) 41 01.00
MTMJ 5.15 248 P 39 59.10 0.9
ASAJ 5.47 352 eP 40 02.00 -0.7
IIDJ 5.65 237 eP 40 06.20 0.9
YAK 24.88 344 eP 44 04.10 1.1
0.7s 30.00nm 5.1mb
KMI 37.02 261 eP 45 49.50 -1.6
pP 45 54.50 17kmX
GUN 48.81 275 P 47 25.20 -1.7
KKN 49.34 276 P 47 34.20 3.4X
PKI 49.34 275 P 47 35.40 4.4X
GKN 49.74 276 P 47 34.00 0.2
WB2 58.99 190 iPd 48 41.00 -0.2
0.6s 6.50nm 4.9mb
YKA 61.45 31 eP 48 58.30 0.7
0.4s 0.20nm 3.6mb
GBA 63.16 266 P 49 12.00 2.4
OLP 64.94 179 iPd 49 21.40 0.4
HFS 73.31 336 eP 50 10.90 -1.3
0.5s 1.00nm 4.2mb
NB2 73.34 338 P 50 12.60 0.1
0.7s 1.70nm 4.2mb
ZOBO 144.28 60 (PKP) 58 18.00 -0.1
LPB 144.47 60 (PKP) 58 17.00 -1.2
CNCB 144.75 61 PKP 58 20.30 1.5
SIV 148.62 51 PKP 58 34.60 10.1X
S.D. = 1.1 on 26 of 29 obs.

MAR 08, 1993 19h 13m 21.94± 0.34s
36.632 N ± 9.3km 51.082 E ± 4.8km
DEPTH = 33.0km (normal)
4.4mb (14 obs.)
NORTHERN IRAN (348)
Felt strongly at Kelardosht.
Also felt at Tehran.

KER 3.96 236 iPc 14 23.30 1.2
eS 15 20.00
TAB 4.05 292 e(P) 14 25.00 1.7
MAIO 6.79 90 ePn 15 03.00 1.1
0.9s 8.53nm 4.6mb
eSn 16 24.00
QUE 14.72 111 eP 16 58.60 8.9X
OBN 20.97 336 iPd 18 09.00 4.7X
0.8s 17.00nm 4.5mb
e 18 31.00
VAY 22.61 291 eP 18 23.00 2.2
OJC 26.25 311 eP 18 56.60 1.0
GKN 29.52 97 P 19 25.80 0.1
GEC2 29.74 306 Pd 19 27.40 0.0
0.6s 2.63nm 4.2mb
DMN 30.06 98 P 19 30.80 0.2
KKN 30.12 97 P 19 30.80 -0.3
PKI 30.32 97 P 19 33.40 0.4
GUN 30.55 96 P 19 34.80 -0.2
CLL 30.69 311 iPd 19 36.50 0.9
0.8s 11.00nm 4.7mb
GBA 32.89 127 Pd 19 54.80 -0.4
0.6s 2.00nm 4.2mb
HFS 33.47 327 eP 19 59.90 0.1
0.4s 1.90nm 4.3mb
LPG 34.21 299 eP 20 05.90 -0.8
0.7s 3.40nm 4.4mb
LPL 34.22 299 eP 20 06.50 -0.3
0.5s 2.20nm 4.3mb
HAU 34.52 303 eP 20 08.00 -1.1
NB2 34.97 327 P 20 12.70 -0.1
0.7s 2.20nm 4.2mb
SMF 36.21 301 eP 20 22.90 -0.5
AVF 36.54 301 eP 20 25.60 -0.6
0.6s 2.25nm 4.2mb
MAF 37.11 300 eP 20 30.70 -0.2
TCF 37.35 301 eP 20 32.80 -0.2
0.7s 3.95nm 4.4mb
LFF 38.48 299 eP 20 42.40 -0.1
LDF 38.84 304 eP 20 45.20 -0.3
0.8s 7.95nm 4.5mb
MFF 38.96 301 eP 20 45.80 -0.6
FLN 39.08 305 eP 20 46.70 -0.7
GRR 39.34 304 eP 20 49.10 -0.5
LPF 39.48 304 eP 20 50.30 -0.4
EKA 40.87 315 P 21 11.00 8.9X
0.8s 3.80nm 4.2mb
BCAO 43.81 231 iPd 21 24.90 -1.6
0.9s 9.00nm 4.6mb
S.D. = 0.9 on 29 of 32 obs.

? MAR 08, 1993 19h 26m 56.82± 6.28s
33.847 N ±39.6km 34.581 E ±40.7km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)
ML 3.3 (CSS).

BHL 0.89 86 Pg 27 14.00 0.0
Sg 27 22.00
FAM 1.24 338 eP 27 29.40 9.5X
eS 27 47.60
SHMJ 1.49 138 P 27 23.80 0.1
CSS 1.52 317 ePd 27 33.60 9.6X
eS 27 55.80
SALJ 2.05 153 P 27 32.20 0.3
PPCY 2.12 300 eP 27 45.10 12.4X
eS 28 12.70
MASJ 2.32 155 P 27 35.20 -0.5
SHWJ 3.54 167 P 27 52.30 -0.8
AYN 5.11 166 eP 28 16.00 0.8
BADA 5.32 176 eP 28 18.30 0.1
S.D. = 0.7 on 7 of 10 obs.

& MAR 08, 1993 20h 33m 05.77s
41.489 N 112.793 W
DEPTH = 6.7km
UTAH (478)
<SLC-P>. ML 3.4 (SLC), 3.2 (GS).

HVU 0.29 3 ePd 33 11.69 -0.1
DUG 1.29 181 ePn 33 29.17 -1.0
S 33 45.52
PTI 1.42 13 ePn 33 30.47 -1.7
S 33 49.81
DAU 1.58 132 ePn 33 33.98 -0.7
ePg 33 35.70
S 33 55.62
EMUT 2.25 137 ePn 33 44.67 0.4
ePg 33 48.47
BW06 2.73 61 ePn 33 50.42 -0.7
ePg 33 55.13
Sg 34 31.54
SRU 2.94 143 ePn 33 54.51 0.5
MSU 3.01 171 ePn 33 53.61 -1.4
ePg 34 04.00
ARUT 3.73 188 (Pn) 34 03.06 -2.2
PV09 4.10 136 ePn 34 09.94 -0.6
S 35 14.22
PV10 4.24 136 ePn 34 11.96 -0.6
ePg 34 25.13
S 35 18.09
PV08 4.31 131 ePn 34 12.80 -0.8
ePg 34 26.77
TNP 4.82 226 (P) 34 35.57 14.9
BONR 5.52 232 (Pn) 34 30.01 -0.7
ePg 34 49.83
14 obs. associated

& MAR 08, 1993 20h 38m 59.05s
34.930 N 116.856 W
DEPTH = 0.1km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS).

GSC 0.37 6 iPd 39 06.59 0.1
SSK 1.00 224 ePd 39 17.73 -1.2
S 39 29.70
PEC 1.07 194 iPd 39 18.94 -1.1
S 39 32.96
ISA 1.51 299 ePn 39 25.03 -2.5
ePg 39 25.89
S 39 45.28
PLM 1.57 180 eP 39 27.21 -1.3
S 39 49.46
TPNV 2.07 14 P 39 34.18 -1.5
BCH 2.66 276 ePn 39 41.64 -2.4
MTUM 2.79 331 ePn 39 41.43 -4.5
ePg 39 51.46
S 40 27.78
PKEM 2.88 294 (P) 39 44.49 -2.7
MRCM 3.04 335 (Pn) 39 44.88 -4.7
TNP 3.16 355 (Pn) 39 49.19 -2.0
MEMM 3.21 329 (Pn) 39 49.65 -2.0
ePg 40 00.97
BONR 3.24 339 ePn 39 51.22 -1.1
ePg 39 59.79
CMB 4.21 318 (P) 40 03.83 -2.1
ARN 4.49 304 ePn 40 08.60 -1.4
COE 4.54 302 (P) 40 07.63 -3.0
MSU 5.19 45 ePn 40 18.60 -1.5
17 obs. associated

% MAR 08, 1993 21h 18m 08.05± 3.62s
31.328 S ±25.8km 68.431 W ±18.7km
DEPTH = 162.5 ± 37.8 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.03 268 iPc 18 29.30 -0.9
CFA 0.32 149 ePc 18 31.20 0.5
S 18 44.00
RTCV 0.54 190 iPd 18 32.00 0.7
S 18 45.00
RTBS 0.93 249 e(P)c 18 33.20 -0.5
RTRS 1.46 322 iPd 18 38.80 0.4
S 18 56.30
MRA 2.56 116 ePc 18 58.30 7.4X
TCA 3.29 91 eP 19 00.00 -0.1
S 19 47.60
S.D. = 1.0 on 6 of 7 obs.

& MAR 08, 1993 21h 45m 22.11s
62.038 N 147.322 W
DEPTH = 40.1km
CENTRAL ALASKA (1)
<AEIC>. ML 2.6 (AEIC).

SCM 0.21 181 iPd 45 28.98 -0.6
eS 45 34.94
SML 0.53 245 iPc 45 32.40 -0.9
iS 45 41.12
GHO 0.80 251 iPc 45 36.22 -0.9
eS 45 47.38
KLU 0.86 129 iPc 45 36.85 -1.1
eS 45 48.98
TZL 0.89 89 iPc 45 37.89 -0.5
SDG 0.97 59 iPc 45 38.41 -1.0
eS 45 51.24
PLRM 0.97 243 iPc 45 38.30 -1.1
eS 45 52.39

VLZ 1.03 152 eP 45 39.12 -1.0
S 45 52.78
PAX 1.27 42 iPc 45 42.80 -1.0
eS 45 59.00
PWA 1.27 253 eP 45 43.85 0.2
PMS 1.33 234 ePc 45 44.67 0.1
HUR 1.43 312 eP 45 45.52 -0.4
PTE 1.43 216 iPc 45 46.09 0.1
eS 46 05.33
RND 1.54 333 eP 45 47.14 -0.5
CVA 1.68 152 eP 45 49.43 0.0
HIN 1.69 166 eP 45 49.75 0.0
SUA 1.73 252 eP 45 50.45 0.2
GLB 1.77 108 ePc 45 50.08 -0.8
MPA 1.84 213 eP 45 51.70 -0.1
SGAM 1.85 146 eP 45 51.22 -0.7
MCK 1.85 337 eP 45 52.13 0.1
TRF 1.97 317 eP 45 53.32 -0.5
SKT 1.99 270 ePc 45 53.91 0.0
SLKM 2.08 224 eP 45 55.10 -0.2
RAGM 2.09 141 eP 45 55.18 -0.4
SEW 2.20 209 eP 45 56.04 -0.9
HDA 2.38 4 eP 45 59.87 0.3
CROM 2.39 121 eP 45 59.83 0.0
SPU 2.42 251 ePc 46 00.07 -0.1
CPAM 2.43 253 eP 46 00.40 0.0
CRP 2.43 254 eP 46 00.88 0.4
CKN 2.46 253 eP 46 00.87 0.1
CP2 2.47 254 eP 46 01.26 0.2
CKT 2.48 252 eP 46 00.87 -0.2
TGL 2.52 119 eP 46 01.51 -0.1
BGL 2.54 254 eP 46 02.14 0.2
CKL 2.54 253 eP 46 01.56 -0.4
BALM 2.59 111 ePc 46 01.53 -1.1
CCB 2.63 355 eP 46 01.24 -1.8
DFR 2.97 243 eP 46 07.59 -0.3
RSO 3.06 241 eP 46 08.62 -0.8
CTGM 3.07 108 eP 46 08.80 -0.6
RDW 3.08 242 eP 46 08.89 -0.7
43 obs. associated

MAR 08, 1993 21h 50m 41.72± 0.18s
6.706 S ± 3.2km 131.616 E ± 4.6km
DEPTH = 26.3km (8 depth phases)
5.5mb (47 obs.)
TANIMBAR ISLANDS REG., INDONESIA(281)
Mw 5.5 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 35S, 60C
Centroid Location:
Origin Time 21:50:49.4 0.3
Lat 6.74S 0.03 Lon 131.82E 0.03
Dep 49.5 2.6 Half-duration 1.5
Moment Tensor; Scale 10**17 Nm
Mrr= 0.58 0.05 Mtt=-1.08 0.06
Mff= 0.50 0.09 Mrt= 0.72 0.08
Mrf= 0.93 0.08 Mtf= 1.80 0.05
Principal Axes:
T Val= 2.42 Plg=32 Azm=304
N -0.17 57 119
P -2.26 2 213
Best Double Couple:Mo=2.3*10**17
NP1:Strike=343 Dip=66 Slip= 157
NP2: 83 69 26
MTN 6.12 184 iPd 52 12.00 -0.8
MNDI 11.98 88 e(P) 53 31.50 -2.6
WB2 13.43 169 eP 53 47.20 -5.9X
iS 56 08.40
DAV 14.97 336 eP- 54 14.00 0.6
1.2s 275.00nm 5.5mb
eS 57 12.90
PMG 15.62 101 eP 54 20.00 -1.9
CTB 15.67 332 ePd 54 13.00 -9.5X
CGP 16.57 335 ePc 54 33.00 -0.9
ASPA 17.01 173 iPc 54 35.20 -4.3X
Z 20s 6.60um
i 54 42.90
eS 57 32.70
TSM 17.54 308 ePc 54 46.00 -0.1
MAP 18.55 336 eP 54 59.00 0.4
PLP 18.94 340 ePc 55 03.00 -0.5
CTA 19.46 135 iPc+ 55 07.00 -2.6
1.0s 107.50nm 5.1mb
ipP 55 17.00 40kmX
i 55 45.00
eS 58 45.00
PGP 22.70 332 ePd 55 44.00 1.3
QLP 23.13 150 iPc 55 47.60 0.7
eS 59 56.70
TGY 23.23 333 ePc 55 49.00 1.0
MEEK 23.37 211 eP 55 49.40 0.2
0.5s 75.00nm 5.5mb
e 56 03.00 57kmX
eS 00 06.00
QCP 23.64 334 eP 56 04.00 12.1X
QVP 23.66 334 eP 55 53.30 1.2
LEM 23.83 268 ePc 55 55.50 1.5
1.5s 261.11nm 5.5mb
GUA 24.06 33 eP 55 57.50 1.5
0.9s 557.98nm 6.1mb
pP 56 04.60 25km
GUMO 24.07 33 eP 55 57.00 0.9
1.0s 756.00nm 6.2mb
Z 23s 1.26um 4.3MszX
pP 56 04.70 27km
eS 00 10.00
PJG 24.08 33 eP 55 56.30 0.2
FORT 24.18 187 eP 55 57.50 0.5
eS 00 23.00
BAG 25.43 335 ePc+ 56 08.00 -1.3
0.8s 223.88nm 5.8mb
eS 00 30.00
RMO 25.57 142 iPc 56 10.80 0.5
0.5s 89.00nm 5.6mb
eS 01 32.50
COOL 25.98 261 eP 56 14.00 -0.2
0.6s 42.00nm 5.2mb
CVP 26.11 338 ePc 56 16.00 0.6
MRWA 26.81 211 eP 56 21.60 -0.2
0.5s 26.00nm 5.1mb
eS 01 23.00
PIP 27.14 337 eP 56 22.00 -2.8
BAL 27.59 209 eP 56 29.00 0.1
0.4s 24.00nm 5.2mb
eS 01 35.00
KLB 27.94 206 eP 56 32.10 0.0
0.4s 15.00nm 5.1mb
eS 01 49.00
CMS 28.01 153 eP 56 32.50 -0.2
ePKKP 23 10.30
HNR 28.18 97 eP 56 41.00 6.7X
BRS 28.75 138 iPc 56 38.00 -1.5
0.6s 16.00nm 4.9mb
i 56 46.50 30km
eS 01 57.00
ADE 28.87 168 iPc 56 41.00 0.5
MUN 28.97 208 eP 56 41.00 -0.3
eS 02 13.00
NWAO 29.32 205 eP 56 45.50 1.1
Z 20s 1.40um 4.6Msz
ARMA 30.16 144 eP 56 52.50 0.3
0.4s 14.00nm 5.1mb
RKG 30.83 204 eP 56 59.00 1.1
0.5s 18.00nm 5.2mb
IPM 32.53 289 ePd 57 11.30 -1.7
CAN 32.66 153 iPc 57 13.90 0.0
ipP 57 23.00 31km
CNB 32.82 153 eP 57 15.60 0.3
0.8s 46.00nm 5.5mb
TOO 33.22 160 iPc 57 19.80 1.1
0.9s 151.00nm 5.9mb
eS 03 27.30
SNG 33.86 293 eP 57 06.00 -18.5X
eS 02 44.30
DZM 36.91 118 iPc 57 50.30 -0.2
NNT 37.04 301 eP 57 51.80 0.3
KAGJ 37.68 359 eP 58 01.70 5.0X
LDE 38.03 309 eP 58 00.10 0.3
NST 38.30 306 eP 58 01.00 -1.1
TAU 38.63 161 eP 58 07.00 2.4
SSE 38.89 346 Pc 58 07.50 0.6
1.2s 45.00nm 5.1mb
Z 24s 1.50um 4.7MszX
E 12s 0.30um
PPP 59 54.00
S 04 00.00
KUMJ 39.03 359 P 58 09.00 1.0
KHT 39.09 303 iPc 58 08.70 -0.1
BDT 40.06 307 eP 58 16.00 -0.8
0.8s 109.00nm 5.6mb
TKSJ 40.53 3 P 58 21.00 0.6
WKYJ 40.88 5 P 58 20.80 -2.5
CHTO 40.99 309 ePc 58 24.70 0.3
1.0s 60.00nm 5.3mb
YONJ 41.70 2 P 58 30.70 0.7
TSRJ 42.22 5 P 58 35.20 1.0
KMI 42.32 319 P+ 58 36.50 1.0
2.0s 230.00nm 5.6mb
Z 26s 1.20um 4.7MszX
pP 58 43.50 24km
sP 58 48.00
eS 04 18.00
IIDJ 42.38 8 P 58 44.10 8.5X
CHJJ 43.09 9 P 58 40.10 -1.2
KAKJ 43.43 10 eP 58 43.50 -0.6
MTMJ 43.45 7 P 58 44.10 -0.3
MAT 43.46 8 iPd 58 43.70 -0.7
0.8s 28.36nm 5.1mb
eS 05 04.00
NIIJ 44.26 8 eP 58 50.40 -0.4
YAMJ 45.33 9 P 59 00.30 0.9
OFUJ 46.50 11 eP 59 08.00 -0.6
AOMJ 47.72 9 eP 59 29.50 11.3X
MRRJ 49.65 9 eP 59 35.30 2.2
LZH 49.92 330 iPc 59 35.50 0.0
1.8s 189.00nm 5.8mb
Z 23s 0.93um 4.7MszX
pP 00 00.00 102kmX
sP 00 15.00
eS 06 39.00
sS 07 23.00
HOOJ 50.00 11 eP 59 37.40 1.6
KUSJ 50.98 12 eP 59 42.90 -0.3
ASAJ 51.56 10 eP 59 47.60 0.0
GUN 55.98 310 P 00 19.80 -1.1
PKI 56.17 310 P 00 21.00 -1.3
KKN 56.37 310 P 00 22.60 -1.0
DMN 56.42 309 P 00 23.20 -0.8
GKN 56.97 310 P 00 26.80 -1.0
GBA 57.45 291 Pc 00 29.00 -2.1
0.7s 10.00nm 5.0mb
HYB 57.63 295 ePc 00 31.00 -1.4
1.2s 78.60nm 5.6mb
eS 08 26.00
CIT 60.48 347 eP 00 52.00 0.4
ZAK 61.93 340 iPc 01 01.60 0.2
2.1s 139.00nm 5.7mb
Z 16s 0.30um 4.5MszX
eS 09 14.00
NDI 63.09 307 iPc 01 08.00 -1.5
0.6s 60.00nm 5.9mb
eS 09 31.00
IRK 63.20 342 eP+ 01 09.00 -0.8
1.5s 56.00nm 5.5mb
e 01 16.80 25km
e 01 24.20
eS 09 38.00
e 10 11.00
PET 63.76 18 eP 01 30.00 16.5X
MOY 63.81 339 iPc 01 14.90 1.1
1.6s 145.00nm 5.9mb
BOD 65.88 350 iPc 01 26.80 -0.3
0.9s 49.00nm 5.6mb
UER 66.36 335 iP 01 30.00 -0.2
2.0s 130.00nm 5.7mb
eS 10 16.00
MGD 68.31 10 ePd 01 43.00 0.6
0.9s 30.00nm 5.4mb
e 01 58.00 54kmX
e 02 02.00
YAK 68.53 359 iPc 01 42.40 -1.3
1.0s 176.00nm 6.1mb
e 02 03.00 78kmX
ePPP 05 54.00
iS 10 41.00
e 11 05.00
e 11 23.00
ePS 11 38.00
PRZ 68.78 321 iPd- 01 47.50 1.6
1.4s 200.00nm 6.0mb
eS 10 51.00
ELT 70.93 333 iPc 01 58.90 0.3
2.2s 144.00nm 5.7mb
e 04 31.00
iS 11 10.00
FRU 71.37 319 iPc 02 02.80 1.2
2.4s 170.00nm 5.7mb
TIK 78.20 359 iPd 02 40.00 0.0
1.0s 29.00nm 5.3mb

08d 22h

i 02 48.00 26km
MAIO 79.75 309 iPc 02 50.00 0.6
0.8s 20.13nm 5.2mb
eS 13 08.00
NRI 81.58 346 iPc 02 57.70 -0.5
e 03 05.00 23km
e 03 15.00
ILT 82.20 17 iPc 03 02.00 0.6
0.6s 20.00nm 5.3mb
i 03 18.00 57kmX
eS 13 14.00
SPA 83.33 180 iPc 03 08.00 0.4
1.0s 38.00nm 5.5mb
SVE 85.34 329 iPd 03 18.00 0.4
2.1s 180.00nm 5.9mb
ARU 86.28 328 eP 03 22.00 -0.3
1.0s 70.00nm 5.8mb
SVW 87.62 28 eP 03 31.30 2.5
TTA 88.03 26 eP 03 32.80 2.1
IMA 89.94 23 e(P) 03 40.80 1.0
ERE 92.08 310 eP 04 05.00 14.9X
e 14 51.00
KIV 93.83 314 (P) 03 58.10 -0.1
1.7s 28.00nm 5.4mb
NAI 94.63 268 iPc 04 06.60 4.0X
Z 24s 0.19um 4.5MszX
OBN 98.33 325 ePd 04 18.00 -0.2
1.0s 17.00nm 5.5mb
SLR 99.00 243 e(P) 04 07.20 -14.9X
Z 20s 2.66um 5.7Msz
KAF 103.04 332 ePdiff04 37.90 -1.3
0.7s 5.60nm 5.4mb
NUR 104.13 331 ePdiff04 42.90 -1.2
YKA 106.78 26 ePdiff05 01.30 5.5X
0.7s 0.40nm 4.6mb
YKA 106.78 26 ePKP 09 06.90 0.9
0.6s 0.60nm
UZH 107.74 319 ePdiff05 02.00 1.6
0.8s 18.00nm 6.2mb
NB2 110.24 333 Pdiff 05 09.00 -2.4X
0.7s 1.50nm
KSP 111.04 322 ePKP 09 08.00 -6.5X
BRG 112.46 323 e(PKP)09 24.20 7.1X
VBY 113.12 317 ePKP 09 20.00 1.4
GEC2 113.22 321 PKP 09 18.30 -0.5
0.6s 1.45nm
BCAO 113.40 272 ePKPc 09 20.10 0.0
1.0s 5.00nm
ic 09 33.40
GRF 114.49 322 e(PKP)09 13.00 -8.2X
Z 22s 0.20um 4.7Msz
e 10 28.00
e 19 56.00
BSF 117.90 321 ePKP 09 27.10 -0.7
0.6s 2.05nm
LPG 118.80 319 ePKP 09 29.60 -0.3
0.7s 4.30nm
LPL 118.81 319 ePKP 09 29.60 -0.2
0.7s 4.30nm
LOR 119.94 322 ePKP 09 30.80 -0.8
LBF 119.99 321 ePKP 09 30.90 -0.9
0.6s 1.45nm
SSF 120.25 321 ePKP 09 32.20 0.0
0.6s 2.45nm
BGF 120.87 321 ePKP 09 33.50 0.1
0.6s 6.05nm
TCF 121.39 321 ePKP 09 34.50 0.1
0.6s 3.50nm
LPF 122.53 324 ePKP 09 36.60 0.2
MFF 122.69 322 ePKP 09 36.80 0.0
0.6s 6.05nm
LIC 136.93 272 PKP 09 57.50 -7.5X
TCA 139.12 159 ePKP 10 01.00 -7.7X
ARE 147.56 135 ePKP 10 28.00 4.2X
MBO 148.20 286 iPKPd 10 31.40 6.9X
CNCB 149.64 141 ePKP 10 30.70 3.3X
i 10 34.00
LPB 149.78 140 ePKP 10 32.00 4.5X
ZOBO 149.94 140 PKP 10 33.50 5.5X
i 10 40.00
LR 02 20.00
VAO 150.44 183 ePKP 10 34.50 6.6X
e 10 43.50
PPD 151.30 174 ePKP 10 35.80 6.7X
e 10 44.80
SIV 154.19 151 PKP 10 47.40 14.0X
SOB1 162.52 205 ePKP 10 58.00 14.9X

S.D. = 1.1 on 113 of 142 obs.

MAR 08, 1993 22h 17m 22.64± 0.40s
3.498 S ± 5.8km 146.694 E ± 9.4km
DEPTH = 33.0km (normal)
4.9mb (17 obs.) 4.6Msz (3 obs.)
BISMARCK SEA (203)

FINC 3.31 160 eP 18 12.20 -1.1
MNDI 4.01 229 eP 18 28.00 4.4X
PMG 5.89 176 eP 18 48.50 -1.4
1.0s 280.00nm 5.8mb
HNR 14.42 115 eP 20 49.00 2.5
CTA 16.49 181 iP 21 17.00 3.7X
1.5s 62.50nm 4.5mb
GUA 17.02 354 e(P) 21 19.50 -0.4
PJG 17.07 354 e(P) 21 18.50 -2.0
MTN 17.97 238 eP 21 32.00 0.2
0.8s 35.00nm 4.5mb
WB2 20.30 215 iPc 21 58.00 -0.6
1.0s 38.40nm 4.7mb
WRA 20.31 215 P 21 58.70 0.0
RMQ 22.95 175 iPd 22 26.10 0.9
0.5s 34.00nm 5.1mb
QLP 23.08 186 iPd 22 27.10 0.7
ASPA 23.56 211 iPc 22 32.20 1.1
1.4s 35.40nm 4.7mb
Z 21s 1.80um 4.5Msz
eS 26 50.10
BRS 24.46 167 iPc 22 39.00 -0.9
DZM 26.61 136 iPc 22 58.60 -1.6
ARMA 27.18 171 iPd 23 05.00 -0.3
0.3s 7.00nm 4.8mb
MAT 40.61 349 (P) 25 02.00 0.9
1.6s 83.33nm 5.2mb
eS 31 20.00
SSE 42.13 327 P+ 25 14.00 0.4
1.4s 31.00nm 4.8mb
Z 20s 0.90um 4.6Msz
N 14s 0.40um
LOE 48.98 297 eP 26 06.10 -2.3
NST 49.85 294 eP 26 18.00 3.0X
KMI 51.26 306 P 26 27.00 1.0
1.4s 70.00nm 5.4mb
pP 26 31.00 13kmX
CHTO 51.95 297 eP 26 36.00 4.9X
1.2s 23.61nm 5.0mb
LZH 56.14 318 eP 27 00.50 -1.2
1.5s 44.00nm 5.3mb
Z 22s 0.51um 4.6Msz
pP 27 15.00 53kmX
GUN 66.26 302 P 28 09.80 -0.8
PKI 66.56 302 P 28 14.00 1.6
YAK 66.62 351 eP 28 11.00 -0.7
1.2s 50.00nm 5.5mb
KKN 66.73 302 P 28 15.00 1.6
DMN 66.83 302 P 28 14.40 0.3
GKN 67.34 302 P 28 16.40 -0.8
TTA 78.88 23 (P) 29 25.11 1.0
1.7s 17.38nm 4.8mb
IMA 81.34 21 (P) 29 38.15 0.9
1.4s 14.69nm 4.8mb
QUE 82.90 301 eP 29 48.80 2.7
FBA 83.01 23 eP 29 44.40 -1.3
1.2s 15.41nm 5.0mb
YKA 97.11 28 eP 30 51.40 -1.1
1.0s 3.20nm 4.8mb
GEC2 119.68 326 PKP 36 13.60 2.5X
0.9s 0.56nm
SIV 146.40 126 PKP 37 05.20 3.6X
PPD 149.11 146 (PKP) 37 06.60 0.8
S.D. = 1.3 on 31 of 37 obs.

% MAR 08, 1993 22h 21m 52.54± 1.02s
41.073 N ±13.9km 24.544 E ± 6.3km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.2 (THE).

SRS 0.72 274 ePg 22 06.97 0.2
eSg 22 18.28
OUR 0.85 210 ePg 22 08.96 0.0
eSg 22 21.36
SOH 0.94 255 ePg 22 10.40 0.0
eSg 22 23.04
ALN 1.15 98 ePg 22 14.04 0.0
eSg 22 29.56

KNT 1.25 275 ePb 22 15.48 -0.2
eSb 22 32.76
S.D. = 0.2 on 5 of 5 obs.

----

* MAR 08, 1993 23h 47m 26.03± 1.66s
49.173 N ±14.8km 6.918 E ± 8.7km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
mbLg 2.7 (UCC).

RUP 0.54 10 ePg 47 36.26 -0.6
WLF 0.70 315 iPd 47 39.56 -0.3
iS 47 48.88
ABH 0.82 30 ePg 47 41.45 -0.5
TNS 1.45 43 ePgd 47 54.20 1.9
eSn 48 12.20
eSb 48 15.80
eSg 48 19.30
ENN 1.72 338 iPc 47 59.00 2.9X
0.5s 28.30nm
eS 48 21.50
DOU 1.77 302 iP 47 57.20 0.3
iS 48 19.80
GRF 2.86 78 ePg 48 20.80 8.3X
eSg 48 59.00
GEC2 4.48 92 Pn 48 34.70 -0.8
Pg 48 50.50
Sg 49 51.20
S.D. = 1.3 on 6 of 8 obs.

& MAR 09, 1993 00h 14m 08.37s
57.764 N 156.263 W
DEPTH = 126.4km
3.5mb (1 obs.)
ALASKA PENINSULA (12)
<AEIC>.

MCNL 1.75 35 iP 14 38.27 -1.2
eS 15 01.64
KDC 2.02 89 iPc 14 41.38 -1.4
eSg 15 07.15
AUI 2.17 42 eP 14 43.67 -1.0
eS 15 10.54
AUW 2.18 41 eP 14 43.83 -1.0
AUH 2.18 41 eP 14 43.89 -1.0
AUL 2.20 41 eP 14 44.06 -1.0
AUE 2.20 42 eP 14 44.15 -1.0
SYI 2.22 66 eP 14 43.82 -1.5
PDB 2.30 27 iP 14 44.80 -1.5
eS 15 12.67
INW 2.82 34 eP 14 51.54 -1.7
INE 2.84 34 eP 14 51.94 -1.6
XLV 2.92 53 eP 14 53.77 -0.7
CNPM 3.17 54 eP 14 55.96 -1.8
eS 15 31.80
RS1 3.25 32 eP 14 57.31 -1.7
RS2 3.26 32 eP 14 57.11 -2.0
RSO 3.26 32 eP 14 57.24 -1.8
RDW 3.26 32 eP 14 57.27 -1.8
NCT 3.29 30 eP 14 57.54 -1.9
REF 3.29 32 eP 14 57.73 -1.8
SDN 3.37 226 eP 14 57.07 -3.4
DFR 3.38 31 eP 14 57.57 -3.1
BRLK 3.44 52 eP 14 59.27 -2.2
RDT 3.45 34 eP 14 59.38 -2.1
NKA 3.95 39 eP 15 07.34 -0.8
CKL 3.98 29 eP 15 07.42 -1.3
CKT 4.02 29 eP 15 07.50 -1.7
BGL 4.03 28 eP 15 08.19 -1.1
SPU 4.04 30 eP 15 07.58 -1.9
CKN 4.05 29 eP 15 07.86 -1.7
CP2 4.06 29 eP 15 08.55 -1.4
CPAM 4.08 29 eP 15 08.51 -1.6
CRP 4.09 29 eP 15 08.11 -2.1
SLKM 4.15 46 eP 15 08.49 -2.5
SEW 4.24 54 eP 15 09.04 -3.0
MPA 4.48 50 eP 15 13.00 -2.4
SUA 4.65 35 eP 15 15.21 -2.6
PTE 4.84 47 eP 15 16.97 -3.2
SKT 4.85 27 eP 15 18.32 -2.1
PMS 4.88 42 P 15 17.70 -3.1
PMR 5.27 40 eP 15 22.11 -3.9
GHO 5.47 40 eP 15 24.55 -4.3
SML 5.70 41 eP 15 27.56 -4.4
SCM 6.08 44 eP 15 33.04 -4.2
KLU 6.44 50 eP 15 37.86 -4.3
BALM 7.82 59 eP 15 57.49 -3.4

FBA 8.23 26 eP 16 00.52 -5.7
YKA 20.99 59 eP 18 40.00 -2.6
0.7s 1.40nm 3.5mb
47 obs. associated

% MAR 09, 1993 00h 48m 55.90± 0.66s
26.832 S ± 6.3km 26.826 E ± 6.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

BFS 0.08 209 iPd 48 59.00 1.2
S 48 59.90
PRY 0.59 100 eP 49 06.90 -0.8
S 49 13.50
KSR 0.97 4 eP 49 15.00 0.1
S 49 28.00
SWZ 1.38 255 eP 49 21.00 -1.0
S 49 39.50
SEK 1.65 155 eP 49 25.60 -0.1
S 49 44.60
SLR 1.70 50 iPd 49 27.30 0.7
S 49 49.20
BLF 2.34 194 iPc 49 36.10 0.3
S 50 03.00
BFT 3.11 69 eP 50 00.50 13.8X
S 50 32.00
FRS 3.20 204 iPd 49 47.10 -0.6
S 50 23.50
S.D. = 0.9 on 8 of 9 obs.

MAR 09, 1993 00h 51m 39.59± 0.66s
38.355 N ± 5.7km 28.077 E ± 5.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.3 (ISK).

IZM 0.64 274 iPg 51 52.80 0.3
iSg 52 00.30
KHL 1.14 91 iPg 52 01.40 0.5
eSg 52 15.90
DST 1.32 19 iPn 52 03.30 -0.7
ALT 1.74 66 ePn 52 10.50 0.4
KCT 1.90 6 ePn 52 11.30 -1.1
BNT 2.00 357 ePn 52 14.30 0.5
ELL 2.17 137 ePn 52 16.00 -0.3
BCK 2.18 113 ePn 52 16.00 -0.5
GPA 2.59 41 ePn 52 23.00 0.7
EYL 2.73 35 ePn 52 24.00 -0.4
HRT 2.75 26 ePn 52 25.00 0.4
CTT 2.80 5 ePn 52 26.30 1.0
DMK 3.47 356 ePn 52 34.00 -0.7
S.D. = 0.7 on 13 of 13 obs.

MAR 09, 1993 01h 29m 14.64± 0.20s
55.678 S ± 4.8km 146.999 E ± 4.4km
DEPTH = 10.0km (geophysicist)
5.5mb (38 obs.) 6.0Msz (52 obs.)
WEST OF MACQUARIE ISLAND (701)
Mw 6.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 43S, **C M.W.: 32S, 52C
Centroid Location:
Origin Time 01:29:23.1 0.1
Lat 55.91S 0.01 Lon 146.91E 0.02
Dep 15.0 FIX Half-duration 2.8
Moment Tensor; Scale 10**18 Nm
Mrr=-0.13 0.01 Mtt= 0.61 0.02
Mff=-0.49 0.01 Mrt= 0.93 0.04
Mrf= 0.25 0.04 Mtf=-1.50 0.01
Principal Axes:
T Val= 1.87 Plg=19 Azm= 31
N 0.00 59 267
P -1.87 24 130
Best Double Couple:Mo=1.9*10**18
NP1:Strike=169 Dip=59 Slip= -4
NP2: 261 86 -149

MCQ 6.97 85 eP 30 55.10 -4.0X
DRV 11.52 194 eP 32 10.00 8.1X
TAU 12.78 1 eP 32 22.00 3.0X
TUZ 17.22 65 Pc 33 16.70 0.2
2.0s 689.00nm 5.4mb
TLC 17.47 62 P 33 19.30 -0.5
CMCZ 17.60 63 P 33 21.80 0.4
MMCZ 17.63 62 P 33 21.90 0.1
SBCZ 17.66 62 P 33 21.70 -0.4
MHZ 17.66 62 P 33 22.10 -0.1
LRCZ 17.69 62 P 33 21.30 -1.3
MSCZ 17.71 63 P 33 21.90 -0.8
TOO 18.14 356 eP 33 29.90 1.8
0.9s 188.00nm 5.2mb
BWZ 18.34 62 P 33 31.10 0.7
BFD 18.75 349 iPc 33 36.20 0.7
1.2s 160.00nm 5.1mb
eTT 51 19.00
CSY 20.30 224 eP 33 49.20 -3.6X
1.3s 97.00nm 5.0mb
CAN 20.41 5 eP 33 55.20 0.9
i 33 58.90
CNB 20.43 6 iPc 33 55.30 0.8
0.7s 123.00nm 5.4mb
DSZ 21.34 60 P 34 02.00 -1.8
ADE 21.49 341 eP 34 06.00 0.7
RIV 22.04 9 eP 34 15.00 4.2X
iS 38 25.00
SBA 23.32 170 iPc 34 24.00 0.9
BLW 23.46 64 P 34 24.90 0.1
KIW 23.55 63 P 34 24.80 -0.8
MNG 24.02 63 P 34 29.00 -1.2
ARMA 25.46 9 iPd 34 45.50 1.3
1.0s 79.00nm 5.4mb
FORT 28.27 324 eP 35 09.00 -0.8
0.7s 63.00nm 5.5mb
BRS 28.57 11 iPd+ 35 13.00 0.4
1.0s 16.00nm 4.8mb
ipPc 35 25.70 50kmX
iS 40 09.00
QLP 29.14 355 iPc 35 17.90 0.2
RMQ 29.19 3 iPc 35 18.30 0.1
0.8s 71.00nm 5.5mb
COOL 30.78 313 eP 35 31.00 -1.3
KLB 31.63 307 eP 35 39.00 -0.8
MUN 32.02 305 eP 35 41.00 -2.1
Z 20s 91.20um 6.5Msz
N 20s 51.50um
E 20s 38.20um
BAL 32.95 307 eP 35 50.00 -1.2
ASPA 33.41 338 iPc 35 54.10 -1.2
0.7s 40.60nm 5.5mb
eS 41 24.30
MRWA 34.45 307 eP 36 04.00 -0.3
SPA 34.50 180 iPd 36 02.70 -1.9
1.3s 235.00nm 5.9mb
Z 18s 0.78um 4.5MszX
i 37 14.30
i 47 14.30
CTA 35.54 359 iPc+ 36 13.00 -0.6
i 36 21.50
e(PP) 37 16.00
e 37 33.00
eS 41 57.00
MEEK 35.56 313 eP 36 12.70 -1.1
DZM 36.55 31 iPc 36 22.00 -0.3
WB2 36.93 340 iPc 36 24.30 -1.0
0.6s 103.40nm 5.8mb
WRA 36.93 340 P 36 35.20 9.8X
0.9s 23.50nm 5.0mb
MTN 44.48 338 eP 37 27.50 -0.1
0.9s 111.00nm 5.7mb
PAF 44.92 244 eP 37 33.00 2.2
eS 44 18.00
SS 47 57.00
PMG 46.15 0 eP 37 42.00 1.1
NVL 49.88 198 eP 38 07.00 -2.4
1.6s 50.00nm 5.2mb
Z 18s 6.50um 5.7Msz
N 20s 6.30um
E 20s 3.50um
e 38 52.00
ePP 40 00.00
eS 45 21.00
eSS 48 52.00
SNA 52.39 193 e(P) 38 28.80 0.4
1.0s 30.00nm 5.2mb
KHKI 53.31 320 ePd 38 37.00 1.2
e 43 09.10
TRT 55.03 317 ePc 38 47.20 -1.3
CRZF 55.94 236 eP 38 54.00 -0.8
ePP 40 24.00
iS 46 33.00
eSS 50 33.00
LEM 57.85 312 ePd 39 09.20 0.3
1.5s 138.89nm 5.8mb
eS 47 18.00
eLR 48 00.00
VAH 63.70 78 iPc 39 51.10 2.7X
1.4s 250.90nm 6.2mb
PMO 63.74 78 iPc 39 50.70 2.0
1.3s 159.60nm 6.0mb
RUV 63.87 78 iPc 39 52.10 2.6
1.4s 219.60nm 6.2mb
TPT 63.91 78 iPc 39 51.90 2.1
1.1s 66.90nm 5.7mb
DAV 65.02 336 eP 40 02.00 5.1X
GUMO 69.02 358 eP 40 20.00 -2.2
1.5s 230.70nm 6.1mb
Z 18s 0.89um 5.0Msz
e 40 26.80
eS 49 09.10
IPM 70.91 311 ePc 40 31.90 -1.9
SNG 73.41 311 eP 40 50.00 1.4
eS 50 24.40
BAG 75.20 334 e(P) 40 50.00 -9.1X
e 43 46.00
eS 50 37.00
GRM 77.86 228 iPc 41 00.30 -13.5X
0.7s 50.00nm
BLE 80.49 221 iPd 41 29.00 1.1
1.0s 110.00nm 5.8mb
CER 80.73 222 iPc 41 28.00 -1.2
1.0s 80.00nm 5.7mb
QIZ 80.79 325 eP 41 35.50 5.9X
N 18s 2.65um
E 20s 3.63um
KHT 81.10 313 eP 41 30.80 -0.4
NST 81.27 315 eP 41 32.00 -0.1
FRS 81.48 228 iPc 41 34.10 0.9
0.8s 20.00nm 5.2mb
BLF 81.67 229 eP 41 34.40 0.0
BFT 82.90 234 iPc 41 42.50 1.5
1.0s 50.00nm 5.6mb
PRY 82.99 232 eP 41 40.50 -0.8
0.5s 8.00nm 5.2mb
GZH 83.52 329 eP 41 48.00 4.4X
Z 20s 1.87um 5.5Msz
N 11s 1.22um
E 14s 2.37um
S 52 08.00
SLR 83.66 233 iPc 41 44.20 -0.6
0.8s 33.00nm 5.6mb
Z 18s 24.40um 6.6Msz
QZH 83.88 334 eP 41 49.00 3.6X
Z 22s 2.97um 5.6Msz
S 52 11.00
SS 57 40.00
KSR 84.17 232 iPc 41 46.00 -1.4
1.0s 40.00nm 5.6mb
CHTO 84.58 315 ePc 41 49.10 0.0
1.6s 87.93nm 5.7mb
eS 52 17.20
CIR 86.18 238 iPd 41 57.30 0.0
MDZ 86.62 150 eP 42 00.50 1.2
BUL 88.33 236 eP 42 07.80 -0.1
GYA 88.75 325 P 42 09.20 -0.2
1.0s 21.00nm 5.4mb
Z 28s 5.38um 5.8MszX
N 22s 5.22um
E 22s 2.31um
pP 42 18.00 27kmX
KMI 88.87 321 Pd 42 11.00 0.8
2.0s 60.00nm 5.5mb
Z 20s 10.20um 6.2Msz
N 20s 9.30um
E 20s 4.10um
pP 42 17.00 19kmX
S 52 52.00
sS 53 07.00
SSE 89.20 338 eP 42 12.00 0.7
Z 20s 5.00um 5.9Msz
N 20s 2.90um
E 18s 2.20um
PP 45 48.00
eSKS 52 40.00
S 53 01.00
SS 59 01.00
TCA 89.22 153 ePc 42 09.90 -2.0
HON 89.71 50 P 42 20.00 6.1X
Z 19s 5.35um 6.0Msz
MTD 89.80 240 iPd 42 16.90 2.1

09d 01h

GBA 90.02 294 P 42 14.50 -1.0
1.0s 4.00nm 4.6mb
WHN 90.30 332 Pc 42 16.50 0.1
0.7s 34.00nm 5.7mb
Z 24s 4.04um 5.8MszX
N 18s 2.08um
E 18s 2.56um
SKS 52 48.00
S 53 10.00
NJ2 90.63 336 Pd 42 22.80 4.9X
Z 18s 3.53um 5.8Msz
N 18s 3.82um
E 15s 0.90um
WIN 91.23 225 iPc 42 22.00 0.6
1.3s 50.00nm 5.7mb
Z 22s 29.70um 6.7Msz
MAT 92.16 353 (P) 42 25.00 0.1
1.1s 27.85nm 5.6mb
Z 20s 1.77um 5.5Msz
eS 53 34.00
HYB 92.66 297 eP 42 28.50 0.8
CD2 93.82 324 iPd 42 32.90 0.2
Z 25s 3.22um 5.7MszX
E 19s 5.74um
TIA 95.02 336 eP 42 37.30 -0.7
Z 18s 4.79um 6.0Msz
N 19s 2.88um
E 19s 2.39um
XAN 95.10 329 P 42 39.50 1.0
0.7s 1.60nm 4.6mb
Z 24s 4.67um 5.9MszX
N 15s 1.31um
E 17s 2.87um
S 53 54.00
LSA 97.44 313 eP 42 49.40 -0.4
Z 36s 13.80um 6.2MszX
N 18s 4.64um
TIY 97.59 333 eP 42 51.00 1.3
Z 20s 4.99um 6.0Msz
N 18s 3.61um
SS 00 48.50
PKI 98.06 308 P 42 53.60 1.1
GUN 98.14 308 P 42 50.80 -2.1
DMN 98.23 308 P 42 53.80 0.7
KKN 98.30 308 P 42 54.20 0.8
LZH 98.54 326 eP 42 53.00 -1.2
2.0s 34.00nm 5.7mb
Z 32s 4.73um 5.8MszX
E 15s 0.94um
pP 43 00.00 22kmX
GKN 98.77 308 P 42 56.40 0.9
BJI 98.89 337 eP 42 57.50 2.1
Z 24s 4.10um 5.8MszX
N 22s 2.96um
E 20s 2.94um
SKS 53 36.00
eS 54 24.00
eSS 01 08.00
SNY 99.15 342 eP 42 56.00 -0.6
Z 13s 5.33um 6.2MszX
E 22s 4.78um
BTO 100.93 332 ePdiff43 11.00 6.0X
N 18s 1.95um
E 18s 3.39um
MDJ 101.00 347 ePdiff43 08.00 3.0X
GTA 102.88 324 ePdiff43 19.00 5.3X
Z 22s 7.35um 6.2Msz
E 20s 1.85um
PP 47 35.00
SKS 53 56.00
S 54 58.00
SMY 110.34 17 PKP 48 00.00 12.7X
Z 20s 6.77um 6.2Msz
ZAK 111.78 332 iPKP 47 48.00 -2.1
2.0s 18.00nm
Z 18s 3.30um 6.0Msz
N 18s 1.40um
E 18s 4.04um
ePS 58 08.00
MOY 113.58 331 ePKP 47 53.70 0.2
BCAO 114.49 239 iPKPd 47 56.10 -0.4
1.0s 10.00nm
ic 48 50.50
FRU 115.60 309 ePKP 47 48.00 -9.8X
Z 20s 3.30um 5.9Msz
N 20s 2.30um
E 20s 2.00um

BOD 116.22 341 ePKP 48 15.00 16.6X
MAIO 117.76 294 ePKP 48 03.00 0.8
ELT 119.49 323 ePKP 48 04.00 -0.7
1.5s 17.00nm
Z 22s 3.00um 5.9Msz
e 59 11.00
e 05 49.00
ISA 120.98 71 PKP 48 06.40 -1.9
Z 18s 4.15um 6.1Msz
CMB 121.74 68 PKP 48 20.00 10.4X
Z 18s 3.36um 6.0Msz
WDC 122.51 65 PKP 48 20.00 9.1X
Z 21s 3.49um 6.0Msz
LGPM 122.61 64 PKP 48 10.70 -0.6
TUC 122.67 79 PKP 48 20.00 8.4X
Z 20s 5.80um 6.2Msz
BONR 122.78 70 PKP 48 12.20 0.3
TPNV 123.13 72 PKP 48 20.00 7.5X
Z 19s 6.78um 6.3Msz
LTX 124.43 87 PKP 48 15.50 0.3
SVW 124.90 30 e(PKP)48 17.00 2.0X
ILT 125.86 15 iPKPd 48 14.80 -1.8
1.3s 26.00nm
e 55 20.00
LIC 125.88 215 PKP 48 13.90 -4.4X
SLKM 126.01 33 PKP 48 15.50 -1.7
TTA 126.27 28 e(PKP)48 20.30 2.6X
MSU 126.48 73 PKP 48 17.80 -1.3
ALO 127.04 81 PKP 48 30.00 9.8X
Z 20s 4.43um 6.1Msz
PMR 127.19 33 e(PKP)48 24.20 4.9X
Z 20s 5.00um 6.2Msz
DUG 127.34 71 PKP 48 19.30 -1.2
Z 19s 4.16um 6.1Msz
TIK 127.66 353 iPKP 48 17.00 -2.9X
1.5s 24.00nm
e 50 26.00
ePPS 02 08.00
SRU 127.80 74 PKP 48 19.60 -1.9
PV10 128.09 76 PKP 48 20.50 -1.7
PV09 128.13 76 PKP 48 20.30 -2.0
DAU 128.33 72 PKP 48 21.50 -1.2
PV08 128.45 76 PKP 48 22.20 -0.8
HVU 128.48 70 PKP 48 22.90 0.2
ERE 128.58 287 iPKP 48 24.00 1.2
SIT 128.62 43 PKP 48 30.00 7.8X
Z 21s 4.62um 6.1Msz
IMA 129.38 27 ePKP 48 21.00 -2.6X
1.5s 25.40nm
MTA 129.48 289 ePKP 48 24.00 -0.3
e 48 29.00
HHAI 129.74 69 PKP 48 24.30 -0.7
FBA 130.09 30 e(PKP)48 26.50 1.7
BW06 130.89 71 PKP 48 28.00 0.7
GOL 131.05 77 PKP 48 40.00 12.2X
Z 20s 5.38um 6.2Msz
GLD 131.16 77 PKP 48 40.00 12.1X
Z 19s 5.29um 6.2Msz
WMOK 131.21 87 PKP 48 25.70 -2.2X
Z 20s 3.74um 6.1Msz
MEO 131.36 87 iPKPc 48 23.80 -4.4X
LCCM 131.73 67 ePKP 48 28.90 0.2
NRI 131.85 336 ePKP 48 25.00 -3.0X
SVE 131.95 312 iPKPd 48 44.00 15.5X
4.0s 280.00nm
Z 18s 2.50um 6.0Msz
N 19s 1.50um
E 19s 1.00um
e 50 50.50
e 02 44.00
KIV 132.15 289 ePKP 48 31.10 1.6
2.1s 36.00nm
e 50 53.90
ACO 132.41 85 iPKPc 48 31.10 1.0
ARU 132.55 311 ePKP 48 33.00 3.3X
Z 20s 2.50um 5.9Msz
N 18s 1.50um
E 20s 1.00um
MIAR 134.02 91 PKP 48 40.00 6.8X
Z 18s 1.29um 5.7Msz
RSSD 134.77 74 PKP 48 30.60 -4.0X
Z 19s 3.05um 6.0Msz
SES 135.10 63 ePKP 48 25.00 -9.8X
pP 48 36.00
SLM 138.81 90 PKP 48 50.00 7.9X
Z 18s 1.08um 5.6Msz
PRM 139.98 102 PKP 48 45.10 0.7

GBTN 140.11 98 PKP 48 41.60 -2.9X
YKA 140.20 46 ePKP 48 47.70 3.9X
1.3s 6.80nm
JSC 140.74 102 PKP 48 45.30 -0.4
LHS 141.14 103 PKP 48 44.50 -1.9
MOS 141.80 300 ePKP 48 53.00 6.1X
Z 22s 4.00um 6.1Msz
N 23s 3.70um
E 23s 4.40um
OBN 141.99 299 iPKP 48 52.00 4.8X
1.5s 70.00nm
Z 20s 2.30um 5.9Msz
N 18s 1.20um
E 18s 1.60um
i 49 14.00
e 50 16.00
ePP 52 08.00
ePKS 52 48.00
(SKKS)59 08.00
ePS 02 04.00
(PPS) 04 12.00
iSS 11 00.00
eP'SKS13 36.00
LR 36 44.00
VRI 142.10 281 ePKP 48 44.00 -3.8X
MLR 142.31 280 ePKP 48 44.00 -4.3X
OHR 142.43 270 ePKP 48 41.00 -7.6X
SKO 142.63 272 ePKP 48 42.00 -6.8X
ULM 142.91 71 ePKP 48 48.50 -0.5
CEH 143.13 103 PKP 49 00.00 10.2X
Z 20s 1.43um 5.7Msz
SSR 144.28 276 ePKPd 48 50.00 -1.5
BZS 144.81 277 ePKP 48 50.00 -2.4X
CVL 144.98 101 PKP 48 49.40 -3.5X
MCWV 145.38 98 PKP 49 00.00 6.5X
Z 20s 2.46um 6.0Msz
LVV 145.84 285 ePKP 48 53.00 -1.0
UZH 146.16 282 iPKP 48 56.00 1.5
1.0s 55.00nm
e 55 40.00
e 16 50.00
HVAR 146.23 269 iPKP 48 56.70 1.8
DLA 146.52 92 PKP 48 56.70 1.4
LDN 146.86 92 PKP 48 57.40 1.5
ELF 146.88 92 PKP 48 57.90 2.0
PUL 147.09 304 (PKP) 48 45.00 -10.6X
e 48 59.00
UZD 147.09 276 e(PKP)48 58.00 1.9
PSZ 147.10 279 ePKP 48 59.00 2.8X
BUD 147.35 278 ePKP 48 56.00 -0.5
SPC 147.60 281 e(PKP)49 01.00 3.9X
FCC 147.79 59 ePKPd 49 00.50 3.7X
APA 148.02 318 ePKP 49 00.00 3.1X
ZAG 148.10 273 ePKP 49 01.50 3.8X
ANTZ 148.15 221 ePKP 48 55.00 -3.4X
i 49 02.00
i 49 09.00
PTJ 148.17 273 ePKP 49 00.10 2.1X
VBY 148.33 272 ePKP 49 02.00 3.9X
OJC 148.38 283 ePKP 49 01.50 3.4X
1.1s 72.00nm
e 49 02.40
i 49 08.00
ZST 148.82 277 ePKP 49 02.00 3.2X
CEY 148.94 272 ePKP 49 03.50 4.3X
LJU 149.06 272 ePKP 49 03.00 3.7X
TRI 149.30 271 e(PKP)49 08.00 8.4X
eLR 41 36.00
TIO 149.31 227 iPKP 49 05.50 5.2X
GPD 149.32 101 PKP 49 01.40 1.5
GMTN 149.38 101 ePKP 49 04.90 5.0X
VOY 149.41 272 ePKP 49 04.00 4.0X
FIR 149.54 266 ePKP 49 05.00 5.0X
PAL 149.61 102 PKP 49 02.70 2.5X
KAF 149.69 307 ePKP 49 04.10 4.4X
1.3s 44.50nm
VRAC 149.70 279 ePKP 49 05.70 5.6X
1.5s 176.50nm
RBL 149.83 272 PKP 49 06.00 5.5X
RES 149.93 28 ePKP 49 04.00 4.3X
1.0s 11.00nm
NUR 150.01 303 ePKP 49 01.00 0.8
0.8s 12.80nm
Z 20s 3.00um 6.1Msz
LR 00 10.00
PGF 150.03 262 ePKP 49 06.60 5.6X
1.3s 112.30nm

BDI 150.09 266 PKP 49 14.30 13.3X
EEO 150.23 88 ePKP 49 11.50 10.5X
KBA 150.32 273 iPKPc 49 04.20 2.8X
1.2s 49.40nm
i 49 06.50
i 49 14.90
FVI 150.37 272 PKP 49 07.10 5.9X
KEV 150.59 322 ePKP 49 07.00 6.2X
1.1s 43.20nm
Z 19s 3.10um 6.1Msz
LR 03 00.00
IFR 150.60 233 ePKP 49 08.00 5.8X
i 49 11.00
KSP 150.63 281 ePKP 49 05.00 3.5X
0.9s 33.00nm
i 49 08.00
SDF 150.64 317 iPKP 49 05.00 4.0X
CTI 150.69 270 PKP 49 05.90 4.0X
1.2s 113.50nm
SAL 151.07 268 PKP 49 09.70 7.4X
GEC2 151.08 276 PKP 49 04.10 1.7
e 49 09.70
e 49 11.80
e 49 17.30
e 49 23.00
e 49 32.80
e 49 38.10
PRU 151.19 279 PKP 49 08.90 6.6X
1.3s 30.30nm
Z 18s 2.20um 6.0Msz
N 18s 1.10um
E 18s 0.80um
PP 52 56.00
KHC 151.30 277 PKP 49 09.00 6.4X
1.1s 10.90nm
Z 20s 3.00um 6.1Msz
N 20s 1.80um
E 18s 0.80um
e 49 22.60
e 49 38.50
e 50 10.50
WTTA 151.39 272 i(PKP) 49 09.10 6.1X
1.4s 149.00nm
i 49 15.90
i 49 22.80
AVE 151.42 229 ePKP 49 05.00 1.8
i 49 16.00
WATA 151.47 272 iPKPd 49 04.40 1.3
i 49 09.40
i 49 23.90
OGA 151.52 271 ePKP 49 08.00 4.8X
IMI 151.53 263 PKP 49 10.24 7.1X
FIN 151.53 264 PKP 49 09.87 6.8X
PCP 151.55 265 PKP 49 12.71 9.5X
RSNY 151.56 95 PKP 49 07.20 4.1X
Z 21s 2.60um 6.0Msz
SQTA 151.61 271 iPKPc 49 06.30 3.0X
1.0s 72.70nm
i 49 10.00
WET 151.70 276 iPKPc 49 09.90 6.7X
MOTA 151.74 272 iPKPd 49 05.90 2.4X
1.0s 69.60nm
i 49 10.10
SBF 151.75 262 ePKP 49 10.60 7.1X
1.0s 88.40nm
ROB 151.78 264 PKP 49 10.88 7.4X
OSS 151.91 270 iPKPc 49 10.70 6.9X
HRV 151.92 102 PKP 49 10.00 6.3X
Z 18s 2.46um 6.1Msz
BRG 151.96 280 iPKPc 49 10.80 7.3X
1.4s 64.00nm
Z 20s 2.50um 6.0Msz
N 20s 1.50um
E 20s 2.00um
i 49 24.20
ENR 151.99 263 PKP 49 11.06 7.2X
FRF 152.00 261 ePKP 49 11.50 7.7X
1.2s 93.40nm
STV 152.05 263 PKP 49 12.34 8.4X
LRG 152.09 261 ePKP 49 11.70 7.8X
Z 20s 4.03um 6.2Msz
VDL 152.18 269 ePKPc 49 12.20 8.0X
VAI 152.22 267 PKP 49 08.10 4.1X
TMA 152.30 268 ePKPc 49 11.20 6.8X
PZZ 152.34 263 PKP 49 12.43 8.0X
BHB 152.45 264 PKP 49 10.60 6.2X
ORX 152.53 266 PKP 49 12.48 7.9X

CDR 152.57 260 ePKPc 49 13.50 8.9X
EGUA 152.59 239 ePKP 49 13.00 8.2X
LLS 152.67 269 ePKPc 49 12.50 7.6X
CLL 152.69 280 ePKP 49 11.00 6.5X
1.1s 25.00nm
Z 20s 2.00um 5.9Msz
i 49 27.10
RRL 152.77 264 PKP 49 11.11 6.0X
MMK 152.78 267 ePKPc 49 11.50 6.4X
EHUE 152.88 242 ePKP 49 14.00 8.7X
LSD 152.89 265 PKP 49 12.98 7.7X
GRF 152.91 276 ePKP 49 07.50 2.6X
Z 27s 2.00um 5.8MszX
e 49 12.90
BNI 152.91 264 PKP 49 13.70 8.5X
ECOG 152.94 240 ePKP 49 13.50 8.0X
DIX 153.11 266 ePKPc 49 12.00 6.4X
LPG 153.14 265 ePKP 49 13.90 8.2X
1.0s 20.60nm
MOX 153.15 278 ePKP 49 11.30 6.1X
1.3s 20.00nm
Z 22s 1.60um 5.8Msz
LPL 153.16 265 ePKP 49 13.90 8.2X
1.1s 27.10nm
EJIF 153.19 236 ePKP 49 16.00 10.3X
UPP 153.23 300 iPKP 49 25.50 20.6X
ZLA 153.35 270 ePKPc 49 14.60 9.0X
EMS 153.38 266 ePKPc 49 14.00 8.1X
ECHE 153.40 246 ePKP 49 19.50 13.6X
BNH 153.43 98 PKP 49 11.30 5.5X
SLE 153.45 270 ePKPc 49 13.40 7.7X
EVIA 153.47 243 ePKP 49 15.00 8.9X
EPRU 153.49 237 ePKP 49 16.00 9.9X
EBAN 153.74 240 ePKP 49 16.00 9.6X
PAND 154.14 254 PKP 49 22.03 15.0X
EHOR 154.18 238 ePKP 49 17.00 10.0X
TNS 154.73 275 ePKPc 49 16.70 9.3X
e 49 30.90
ETOR 154.87 247 ePKP 49 18.00 10.1X
PAB 155.09 242 ePKP 49 19.00 10.8X
HFS 155.22 300 ePKP 49 28.50 20.9X
0.7s 3.80nm
Z 20s 1.46um 5.8Msz
LR 42 23.00
JAO 155.55 76 ePKP 49 12.00 3.7X
LBF 155.57 265 ePKP 49 18.70 10.1X
1.1s 16.35nm
WLF 155.76 272 PKP 49 29.00 20.3X
SSF 155.88 264 ePKP 49 19.10 10.1X
1.0s 7.60nm
CBM 156.59 97 PKP 49 20.00 10.1X
Z 20s 3.46um 6.2Msz
LMN 157.80 103 ePKP 49 20.50 9.0X
S.D. = 1.2 on 132 of 285 obs.

? MAR 09, 1993 01h 50m 49.57± 1.00s
36.984 N ±10.0km 4.714 W ± 9.0km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.3 (MDD).

ELUQ 0.68 32 eP 51 03.00 0.0
eS 51 13.00
EJIF 0.81 229 eP 51 05.20 0.0
eS 51 17.80
EHOR 0.94 333 eP 51 07.50 0.0
eS 51 21.00
ECOG 0.96 72 eP 51 08.00 0.0
eS 51 21.00
S.D. = 0.1 on 4 of 4 obs.

% MAR 09, 1993 02h 28m 18.45± 0.79s
42.305 N ± 5.7km 18.776 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (TTG).

BDV 0.04 119 iPgd 28 20.89 0.3
iSg 28 22.04
HCY 0.25 305 iPgc 28 24.05 0.3
iSg 28 28.04
TTG 0.38 71 iPgc 28 26.17 -0.1
iSg 28 31.76
ULC 0.49 134 iPgd 28 28.01 -0.4
iSg 28 35.66
NKY 0.53 18 ePg 28 28.95 -0.3
iSg 28 36.95

BRY 0.62 344 iPgc 28 30.49 -0.5
iSg 28 39.90
PVY 0.93 71 iPgc 28 36.46 0.1
iSg 28 50.11
IVA 1.00 55 ePg 28 37.65 0.1
iSg 28 52.49
PLE 1.12 24 iPgc 28 40.06 0.5
iSg 28 56.35
S.D. = 0.4 on 9 of 9 obs.

MAR 09, 1993 02h 40m 51.00± 0.58s
18.516 S ± 4.3km 169.098 E ± 6.3km
DEPTH = 225.5 ± 5.1 km
4.8mb (24 obs.)
VANUATU ISLANDS (186)

PVC 1.07 316 iP 41 23.70 -0.4
iS 41 47.90
BKM 1.17 316 iPc 41 24.60 -0.2
iS 41 48.00
DZM 4.33 215 iPc 41 59.00 0.7
iS 42 53.00
BRS 17.42 237 iPc 44 42.50 0.9
0.5s 11.50nm 4.6mb
ARMA 19.80 230 eP 45 07.10 1.0
0.4s 9.00nm 4.7mb
RMQ 20.38 243 iPd 45 13.40 1.5
0.4s 34.00nm 5.2mb
MOZ 20.53 167 P 45 13.90 0.7
PAHZ 21.42 163 P 45 24.20 2.3
CTA 21.62 262 iPd 45 25.50 1.6
1.0s 12.50nm 4.4mb
i 45 33.50
WAHZ 22.02 165 P 45 28.70 0.9
TEHZ 22.41 164 eP 45 31.50 0.0
MNG 22.70 167 P 45 34.50 0.2
PGZ 22.88 166 P 45 35.50 -0.5
PMG 23.11 290 eP 45 39.40 0.9
THZ 23.40 173 P 45 41.70 0.7
BWA 24.29 225 eP 45 48.20 -1.3
QLP 24.30 246 iPd 45 49.90 0.4
LTZ 24.34 174 P 45 49.20 -0.6
0.7s 51.00nm 5.2mb
CAN 24.44 223 eP 45 51.40 0.6
CMS 24.67 234 iPd 45 53.10 0.2
0.6s 19.00nm 4.8mb
MMCZ 26.41 180 P 46 07.50 -1.3
LRCZ 26.47 180 P 46 08.30 -1.1
SBCZ 26.50 180 eP 46 08.70 -0.8
LSCZ 26.52 180 eP 46 08.70 -1.0
CMCZ 26.56 180 eP 46 09.60 -0.4
BFD 29.79 226 eP 46 38.20 -0.6
0.8s 11.00nm 4.6mb
WB2 32.81 262 iPd 47 03.80 -1.5
0.3s 20.00nm 5.2mb
i 49 44.20
WRA 32.82 262 P 47 04.10 -1.3
0.7s 2.60nm 4.0mb
ASPA 33.18 255 iPd 47 07.60 -0.9
0.4s 200.20nm 6.1mb X
iS 52 08.90
MEEK 47.07 251 iPd 49 01.60 -0.6
0.3s 35.00nm 5.2mb
KLB 47.90 244 iPd 49 07.10 -1.4
MAT 62.05 332 eP 50 48.00 -1.8
1.0s 14.00nm 4.6mb
SPA 71.60 180 iPd 51 48.50 -0.9
0.9s 18.64nm 4.8mb
TIA 73.32 318 eP 51 59.40 -0.3
CN2 73.77 329 Pc 52 02.00 -0.1
0.8s 17.00nm 4.8mb
GYA 75.30 305 P 52 11.20 -0.2
1.0s 12.00nm 4.6mb
TIY 77.22 317 eP 52 22.40 0.7
XAN 77.53 312 P 52 23.50 0.0
0.8s 11.00nm 4.6mb
pP 52 29.00 18kmX
KMI 77.78 302 Pd 52 26.50 1.2
1.0s 60.00nm 5.3mb
HHC 79.59 319 P 52 35.30 0.7
1.0s 14.00nm 4.6mb
CD2 79.69 307 eP 52 36.00 0.7
LZH 82.15 312 eP 52 49.00 0.9
1.5s 32.00nm 4.8mb
SVW 84.24 16 eP 52 59.30 1.3
TTA 85.67 15 eP 53 06.20 1.1
PMS 86.09 19 eP 53 06.60 -0.5

09d 02h

```
        0.7s    15.00nm            4.9mb
YAK     86.12 343 eP      53 06.00  -1.2
        1.0s   100.00nm            5.6mb
GTA     86.53 313 P       53 13.00   3.1X
        1.0s    28.00nm            5.0mb
IMA     88.85  14 eP      53 20.10  -0.3
        0.9s     4.30nm            4.4mb
FBA     89.43  17 eP      53 21.90  -1.0
        0.9s    21.80nm            5.1mb
GUN     92.74 298 PKP     53 39.20  -0.2
PKI     93.02 298 PKP     53 40.40  -0.3
KKN     93.20 298 PKP     53 41.20  -0.2
DMN     93.29 298 PKP     53 41.60  -0.2
GKN     93.81 298 PKP     53 43.40  -0.7
YKA    100.09  27 ePdiff54 10.50  -1.1
        0.7s     2.30nm            4.7mb
KAF    129.34 338 ePKP    59 29.90  -3.6X
        0.4s     1.40nm
NUR    131.02 338 ePKP    59 35.50  -1.2
        0.4s     3.80nm
NB2    134.71 345 PKP     59 43.40  -0.5
        0.7s     1.20nm
MOX    143.27 336 iPKPd   59 56.60  -3.1X
        1.4s    15.00nm
VAY    143.50 316 iPKP    59 57.52  -2.8X
GEC2   143.79 332 PKP     59 57.50  -3.3X
        1.0s     8.74nm
SKO    143.91 317 iPKP    59 58.80  -2.3X
      Z  20s     1.73um            5.8Msz
                  LR      24 29.00
GRF    144.18 335 iPKPc   00 00.00  -1.3
PTJ    144.79 327 ePKP    00 00.60  -1.9
KBA    145.26 330 iPKPd   00 02.80  -0.6
        1.1s    21.50nm
                  i       00 18.00
LJU    145.42 328 e(PKP)00 03.00  -0.5
VBY    145.42 327 ePKP    00 04.30   0.8
VOY    145.75 329 ePKP    00 03.50  -0.7
HCG    145.79 352 ePKP    00 04.10   0.2
WATA   145.87 332 iPKPd   00 04.90   0.5
WTTA   145.90 332 iPKPc   00 05.00   0.5
        1.0s    22.10nm
                  id      00 05.20
HAE    145.91 351 ePKP    00 04.60   0.5
HTR    145.97 352 ePKP    00 04.90   0.7
WLF    146.04 340 iPKPd   00 06.06   1.7
MOTA   146.07 333 iPKPc   00 05.30   0.6
        0.9s    25.60nm
                  id      00 05.50
SQTA   146.12 333 iPKPc   00 05.30   0.5
        1.1s    32.10nm
DOU    146.14 342 PKPc    00 05.50   1.0
        0.7s    17.80nm
CDF    146.72 338 ePKP    00 07.20   1.5
        0.9s    21.45nm
SLE    146.81 336 iPKPd   00 07.40   1.7
OSS    146.99 333 iPKPd   00 08.80   2.5X
LLS    147.33 334 iPKPd   00 09.30   2.5X
BSF    147.39 338 ePKP    00 08.80   2.0X
        1.0s    11.60nm
HAU    147.40 338 ePKP    00 08.90   2.2X
        0.8s    11.95nm
VDL    147.44 333 ePKPd   00 09.80   2.8X
TMA    147.99 334 ePKPd   00 10.90   3.0X
BCAO   148.01 248 iPKPc   00 11.10   2.5X
        0.2s    24.00nm
                  id      01 09.60
MMK    148.41 335 ePKPd   00 12.70   4.1X
DIX    148.61 335 ePKPd   00 13.20   4.2X
FIR    148.67 328 ePKP    00 12.50   3.8X
FLN    148.67 347 ePKP    00 11.90   3.3X
        0.4s     8.10nm
LDF    148.75 346 ePKP    00 12.00   3.3X
        0.6s     7.05nm
EMS    148.81 336 ePKPd   00 13.40   4.2X
LOR    148.87 340 ePKP    00 12.70   3.7X
        0.5s     7.30nm
LBF    149.09 340 ePKP    00 13.30   3.9X
GRR    149.10 347 ePKP    00 13.20   3.9X
        0.4s     7.50nm
SSF    149.17 341 ePKP    00 13.60   4.2X
        0.8s    18.55nm
HYF    149.25 342 ePKP    00 14.10   4.5X
LPL    149.35 335 ePKP    00 14.50   4.4X
LPG    149.35 335 ePKP    00 14.70   4.5X
        0.8s    10.75nm
SMF    149.43 340 ePKP    00 14.00   4.1X
```

```
AVF    149.46 341 ePKP    00 13.80   3.9X
LPF    149.48 347 ePKP    00 14.20   4.3X
        0.8s    38.00nm
BGF    149.82 341 ePKP    00 15.10   4.7X
        0.5s     6.25nm
MAF    150.21 341 ePKP    00 16.10   5.0X
        0.4s     0.95nm
TCF    150.26 342 ePKP    00 16.10   5.0X
        0.6s     5.75nm
SBF    150.40 333 ePKP    00 16.10   4.6X
        0.9s    35.05nm
LSF    150.49 342 ePKP    00 16.30   4.8X
        0.5s     5.70nm
MFF    150.62 345 ePKP    00 16.80   5.2X
        0.6s     4.80nm
PGF    150.69 329 ePKP    00 17.20   5.2X
        0.8s    29.40nm
FRF    150.98 333 ePKP    00 17.80   5.5X
LRG    151.19 333 ePKP    00 18.20   5.7X
LMR    151.22 333 ePKP    00 18.20   5.6X
RJF    151.36 342 ePKP    00 18.60   5.8X
        0.7s     3.75nm
CAF    151.53 340 ePKP    00 19.20   6.1X
        0.4s     0.80nm
LFF    151.92 342 ePKP    00 20.00   6.4X
LPO    152.02 341 ePKP    00 20.20   6.4X
        0.4s     2.20nm
     S.D. = 1.0  on  73 of 116 obs.
----------------------------------------
   MAR  09, 1993  04h 40m 31.37± 0.56s
   51.376 N ± 4.8km    15.823 E ± 4.2km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)
        ML 3.6 (GRF), 3.5 (VIE).
KSP       0.61 151 iPd    40 42.50  -1.2
        0.4s   149.00nm
                   iS     40 51.90
BRG       1.29 248 iPn    40 54.80  -0.4
                   iPg    40 56.00
                   iSg    41 16.00
PRU       1.61 211 iPn    41 00.40   0.5
        0.3s    54.50nm
                   iPg    41 02.40
                   Sn     41 18.00
                   Sg     41 26.00
                   i      41 33.00
CLL       1.77 269 iPn    41 01.30  -0.9
                   iPg    41 04.40
                   iSg    41 30.10
VRAC      2.13 166 iPnc   41 07.20  -0.2
        0.3s    11.50nm
                   e      41 10.40
                   eSg    41 40.80
KHC       2.67 214 Pn     41 15.00  -0.2
                   e      41 22.60
                   e      41 50.50
                   Sg     42 01.70
HOF       2.72 249 iPnc   41 15.80  -0.1
MOX       2.76 256 ePn    41 15.80  -0.6
                   iPg    41 24.30
                   iSg    42 03.50
OJC       2.78 113 iP     41 20.00   3.3X
                   iS     41 55.30
GEC2      2.88 209 Pn     41 18.00  -0.2
                   Pg     41 24.70
                   Sg     42 04.60
WET       2.92 221 iPnc   41 19.30   0.5
VKA       3.13 174 ePn    41 22.00   0.3
                   iPg    41 30.20
                   iSg    42 13.70
                   i      42 16.80
ZST       3.29 165 e(Pn)  41 33.00   9.1X
                   i      42 17.60
GRF       3.39 242 iPnd   41 25.70   0.4
                   ePg    41 38.60
                   eSg    42 21.30
SPC       3.58 126 e(Pn)  41 28.60   0.3
                   e      41 37.10
                   e      42 20.20
SRO       3.92 155 eP     41 49.30  16.5X
                   e      42 09.70
FUR       4.36 224 iPnc   41 39.40   0.2
KBA       4.60 202 iPnc   41 42.50  -0.2
                   i      41 51.10
                   i      42 37.60
                   i      42 47.10
```

```
                   iSg    43 00.00
WATA      4.90 216 iPnc   41 47.00   0.0
                   iSg    43 10.40
WTTA      4.94 215 iPnc   41 47.80   0.2
                   iSg    43 14.20
MOTA      5.08 219 iPnc   41 49.10  -0.3
SQTA      5.14 218 iPc    41 51.00   0.7
OGA       5.50 217 iPd    41 56.10   0.6
HFS       8.86 353 eP     42 42.70   0.4
         0.5s     1.80nm         4.7mb X
    S.D. = 0.5  on  21 of  24 obs.
----------------------------------------
   MAR  09, 1993  04h 45m 58.87± 0.36s
   39.892 S ± 4.1km    73.247 W ± 8.2km
   DEPTH =  33.0km  (normal)
   5.3mb ( 14 obs.)
 NEAR COAST OF CENTRAL CHILE       (135)
LNV       6.11  15 iP     47 29.33   0.2
CACH      6.14  21 iP     47 31.26   1.4
CHCH      6.30  20 iP     47 32.56   0.6
                   iS     48 35.78
TACH      6.50  17 iP     47 34.29  -0.4
LCCH      6.54  12 iP     47 34.28  -1.0
PCH       6.63  20 iP     47 37.22   0.6
SAN       6.75  19 eP     47 38.15  -0.1
FCH       6.97  21 iP     47 41.76   0.2
IHA       6.97  11 eP     47 39.00  -2.3
                   e(S)   49 19.00
PEL       7.04  18 iPd    47 41.88  -0.5
ROCH      7.14  15 iP     47 43.30  -0.6
JACH      7.51  17 iP     47 47.87  -1.0
MDZ       7.84  28 eP     48 12.70  19.1X
                   e      49 44.50
RTBS      8.77  22 e(P)   48 07.90   1.6
RTCV      8.88  27 e(P)   48 07.70  -0.2
ZON       9.12  25 eP     48 12.00   0.8
CFA       9.21  28 eP     48 12.00  -0.5
MRA       9.63  42 e(P)   48 20.40   2.2
RTRS     10.18  19 eP     48 26.00   0.2
RTPR     11.04  32 e(P)   48 35.80  -1.7
TCA      11.06  42 iP     48 37.80  -0.1
CYA      12.97  31 ePd    49 00.50  -3.1X
FSA      15.04  26 e(P)   49 28.00  -2.6
HJA      17.91  24 eP     50 06.20  -0.8
ARE      23.39   4 iPc    51 09.50   3.5X
CNCB     23.45  13 iPc    51 10.90   4.1X
LPB      23.70  12 P      51 10.30   1.2
         0.9s    36.97nm           4.9mb
      Z  18s     0.69um            4.2Msz
                   eLR    58 45.00
ZOBO     23.94  12 iPc    51 14.70   3.1X
         1.0s    26.25nm           4.7mb
      Z  20s     0.61um            4.1Msz
                   S      55 40.00
                   LR     58 35.00
PPD      25.79  53 eP     51 28.30  -0.2
SIV      26.07  27 iPc    51 37.20   6.0X
VAO      27.89  61 eP     51 48.50   0.7
                   e      51 59.10
                   e      52 15.00
CACB     28.96  59 eP     51 57.30  -0.3
                   e      52 05.10
                   e      01 28.20
SOB1     41.99  52 eP     53 49.60   1.0
SNA      46.67 154 iPc    54 26.50   0.9
         1.0s    62.00nm           5.5mb
SPA      50.30 180 iPc    54 52.70  -1.4
         1.2s    78.17nm           5.6mb
NVL      51.35 155 eP     55 00.00  -1.7
CER      71.27 118 iPd    57 16.80  -0.2
         1.0s   120.00nm           5.9mb
LTX      74.46 333 P      57 35.34  -0.2
WIN      76.15 108 iPc    57 46.50   0.8
         1.0s    40.00nm           5.4mb
FRS      77.54 118 iPc    57 54.10   1.0
         0.7s    27.00nm           5.4mb
LIC      77.58  71 Pc     57 54.24   0.8
         0.7s    31.00nm           5.4mb
      Z  20s     0.19um            4.4Msz
TIC      77.87  71 P      57 56.16   1.1
         0.8s    30.50nm           5.4mb
BLF      78.53 118 eP     57 58.10  -0.7
ALQ      80.53 333 eP     58 09.29   0.1
         0.8s     3.50nm           4.4mb
PRY      80.79 117 eP     58 09.00  -2.0
         0.5s     8.00nm           5.0mb
```

SLR 82.12 117 eP 58 17.00 -0.8
0.6s 13.33nm 5.2mb
BFT 83.35 118 eP 58 25.00 0.7
PV10 84.52 332 eP 58 29.84 0.1
PV08 84.56 333 eP 58 30.41 0.3
GSC 84.92 326 eP 58 32.75 1.1
LMN 85.70 6 eP 58 39.00 3.9X
SRU 85.70 332 eP 58 35.71 0.1
MSU 85.79 330 eP 58 37.08 1.0
BUL 85.98 113 eP 58 37.30 -0.2
EEO 86.31 356 eP 58 41.50 3.4X
DAU 87.11 332 eP 58 43.57 0.9
DUG 87.50 331 eP 58 44.72 0.4
0.9s 5.27nm 4.8mb
LCCM 92.10 334 eP 59 06.00 0.3
BCAO 94.18 88 iPd 59 17.00 1.1
0.8s 14.00nm 5.4mb
ic 59 25.20
WRA 115.14 209 PKP 04 37.30 -1.4
0.6s 0.40nm
GEC2 116.90 48 PKP 04 40.60 -0.7
0.8s 1.48nm
e 04 44.10
e 04 49.20
NB2 121.46 35 PKP 04 48.40 -1.1
0.7s 2.50nm
HFS 122.17 36 ePKP 04 48.20 -2.6X
0.5s 1.50nm
Z 18s 0.12um 4.6Msz
LR 50 36.00
MAIO 142.97 80 ePKP 05 25.00 -5.8X
GBA 143.28 127 PKP 05 28.00 -3.7X
POO 144.56 117 iPKPd 05 32.50 -1.4
QUE 146.24 94 ePKP 05 38.20 1.5
HYB 146.87 124 iPKPc 05 39.00 1.3
1.0s 70.00nm
e 06 19.00
NDI 153.27 106 ePKP 05 55.00 7.9X
YAK 153.82 335 ePKP 05 52.00 5.2X
0.8s 50.00nm
e 12 00.00
e 15 45.00
S.D. = 1.1 on 57 of 70 obs.

• MAR 09, 1993 05h 07m 28.55± 1.64s
44.169 N ±11.6km 147.903 E ± 9.1km
DEPTH = 82.3 ± 16.0 km
4.5mb (21 obs.)
KURIL ISLANDS (221)

KUSJ 2.55 246 eP 08 10.00 1.4
ASAJ 3.79 271 eP 08 30.20 4.5X
HOOJ 3.81 244 eP 08 29.10 3.0X
MRRJ 5.28 253 eP 08 50.10 3.5X
OFUJ 6.90 225 P 09 07.30 -1.7
S 10 21.30
MAT 10.61 227 (P) 09 56.00 -3.6X
(S) 11 49.00
MDJ 13.11 278 eP 10 31.50 -1.1
1.0s 18.00nm 4.7mb
CN2 16.16 277 eP 11 11.60 -0.3
1.0s 8.10nm 3.8mb
BJI 23.82 271 eP 12 36.50 1.9
1.4s 29.00nm 4.5mb
HHC 26.85 276 eP 13 07.00 3.8X
1.4s 46.00nm 4.8mb
TIY 27.41 269 eP 13 13.00 4.8X
BTO 28.05 276 P 13 18.50 4.6X
LZH 34.30 272 eP 14 09.50 0.5
1.0s 15.00nm 4.9mb
GTA 35.76 279 eP 14 22.00 0.7
IMA 38.03 34 ePc 14 40.66 0.6
0.7s 7.93nm 4.8mb
FBA 40.44 36 eP 15 00.95 1.1
0.9s 9.80nm 4.7mb
WMQ 42.45 291 P 15 18.00 1.3
0.7s 7.60nm 4.6mb
YKA 55.15 34 eP 16 53.40 -0.8
0.9s 2.40nm 4.2mb
NEW 61.65 49 e(P) 17 41.10 1.3
1.0s 2.00nm 4.2mb
KAF 64.18 334 iP 17 54.40 -1.7
1.0s 19.10nm 5.0mb
WB2 64.99 194 iPd 18 01.50 -0.3
0.9s 4.30nm 4.4mb
e 18 25.70
WRA 65.00 194 P 18 01.60 -0.2
0.8s 0.90nm 3.8mb
NUR 65.91 333 iP 18 05.90 -1.3
0.3s 6.00nm 5.0mb
BGMT 66.26 49 eP 18 10.30 0.2
GBA 66.66 266 P 18 35.00 22.4X
TNP 67.78 58 eP 18 20.20 0.5
1.0s 4.00nm 4.3mb
BW06 69.22 50 eP 18 28.00 -0.6
1.0s 1.00nm 3.7mb
epP 18 40.00 41kmX
NB2 69.41 339 P 18 27.70 -1.4
0.4s 2.50nm 4.5mb
HFS 69.51 337 eP 18 28.20 -1.5
0.3s 2.40nm 4.5mb
RSSD 71.28 46 e(P) 18 40.30 -0.7
0.7s 111.07nm 5.9mb X
pP 18 52.61 42kmX
CLL 77.19 333 iP 19 14.40 -0.2
1.1s 14.00nm 4.8mb
KHC 78.86 331 eP 19 24.00 0.2
GEC2 79.06 331 P 19 24.80 -0.2
0.4s 1.04nm 4.1mb
e 19 26.70
e 19 35.30
GRF 79.16 333 eP 19 26.70 1.3
KBA 80.69 330 iPc 19 34.80 1.0
0.8s 8.60nm 4.7mb
i 19 36.40
S.D. = 1.1 on 27 of 35 obs.

MAR 09, 1993 05h 28m 59.32± 0.96s
38.318 N ± 4.4km 143.626 E ± 4.8km
DEPTH = 22.0 ± 6.4 km
5.0mb (22 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 1.71 297 iP+ 29 28.50 0.4
S 29 48.50
YAMJ 2.83 268 P 29 44.60 0.5
S 30 16.70
AOMJ 3.37 313 P 29 54.20 2.4
KAKJ 3.47 234 P 29 52.30 -0.9
S 30 28.80
NIIJ 3.82 255 P 29 58.60 0.4
S 30 40.90
HOOJ 4.07 356 iP+ 30 01.30 -0.4
S 30 45.50
CHJJ 4.34 240 P 30 05.00 -0.5
S 30 52.40
MRRJ 4.54 335 P 30 08.80 0.4
eS 30 59.00
MAT 4.66 249 iPc 30 10.80 0.6
0.7s 205.48nm
eS 31 04.00
KUSJ 4.85 9 iP+ 30 10.80 -1.9
S 31 03.80
MTMJ 4.94 251 P 30 15.20 1.0
IIDJ 5.38 240 P 30 21.50 1.1
S 31 21.00
ASAJ 5.84 353 iP+ 30 25.70 -1.1
TSRJ 6.72 248 P 30 39.10 -0.1
KUR 7.60 23 eP 30 48.00 -3.4X
0.5s 80.00nm 6.1mb X
eS 32 08.50
WKYJ 7.67 240 P 30 51.30 -1.2
YSS 8.72 356 iPc 31 05.00 -2.0
1.0s 50.00nm 5.7mb
Z 16s 1.10um 4.3Msz
N 16s 1.10um
eS 32 38.00
YONJ 8.73 252 eP 31 08.00 0.7
TKSJ 8.87 244 eP 31 07.90 -1.3
VLA 10.11 302 iPc 31 27.00 0.7
1.2s 106.00nm 6.1mb X
Z 12s 0.50um 6.6Msz
E 14s 1.50um
SKR 15.19 32 eP 32 39.70 5.7X
PET 18.01 30 eP 33 11.00 1.4
Z 24s 0.40um
SSE 19.78 255 Pd 33 30.50 -0.4
1.0s 21.00nm 4.4mb
Z 20s 0.60um 4.6Msz
N 14s 0.70um
pP 33 42.00 52kmX
eS 37 15.00
MGD 22.27 10 eP 33 56.00 -0.2
0.9s 20.00nm 4.6mb
e 34 09.00
CIT 24.99 313 eP 34 23.00 0.2
YAK 25.23 345 iPc 34 24.30 -0.5
1.0s 80.00nm 5.3mb
BOD 27.37 325 iPc 34 44.50 -0.1
0.9s 71.00nm 5.3mb
ZAK 30.89 306 eP 35 15.30 -0.8
1.4s 34.00nm 5.0mb
Z 16s 1.39um 4.7MszX
N 16s 0.29um
E 17s 1.41um
LZH 31.60 278 eP 35 22.50 -0.3
1.5s 67.00nm 5.3mb
Z 16s 0.93um 4.6MszX
E 14s 0.65um
pP 35 37.50 61kmX
sP 35 42.50
MOY 32.50 308 eP 35 30.40 0.2
ILT 36.18 23 eP 36 00.50 -1.2
KMI 36.89 261 Pc 36 08.00 -0.4
1.5s 50.00nm 5.1mb
pP 36 15.00 24kmX
ELT 41.54 310 iPc 36 46.50 0.1
0.9s 40.00nm 5.1mb
Z 14s 0.60um 4.6MszX
eS 43 07.00
NRI 42.69 335 eP 36 55.00 -0.6
1.1s 15.00nm 4.6mb
e 37 07.00
CHTO 43.31 256 eP 37 01.30 0.0
FRU 51.28 298 eP 38 04.00 0.4
e 38 10.70
NDI 55.15 281 iPc 38 32.00 -0.5
SVE 55.36 318 ePc 38 33.50 -0.1
1.1s 40.00nm 5.4mb
Z 17s 1.10um 5.0MszX
N 17s 0.40um
E 17s 0.70um
ARU 56.56 318 ePc 38 41.50 -0.7
1.5s 160.00nm 5.8mb
e 38 49.00
WB2 58.60 190 iPc 38 55.30 -1.6
0.7s 16.50nm 5.2mb
RES 60.92 15 eP 39 13.50 1.2
1.0s 4.00nm 4.5mb
YKA 61.81 31 eP 39 17.60 -0.9
0.8s 1.50nm 4.2mb
ASPA 62.33 190 eP 39 22.10 -0.2
0.7s 7.40nm 4.9mb
GBA 63.06 266 Pc 39 27.00 -0.3
FMW 66.08 48 P 39 47.47 0.6
ASR 66.53 49 P 39 50.37 0.7
WTV 66.68 47 P 39 50.58 0.1
SSOR 66.68 51 P 39 51.58 0.9
SAW 67.00 47 P 39 52.62 0.1
CROR 67.51 50 P 39 56.60 0.8
DPW 67.59 46 P 39 56.59 0.3
KAF 67.96 333 iP 39 57.60 -0.7
0.5s 5.70nm 5.0mb
VIPM 67.98 50 P 39 59.66 0.7
LNOR 68.63 48 P 40 03.44 0.7
NUR 69.63 333 iP 40 07.90 -0.6
0.4s 9.00nm 5.3mb
SES 70.04 41 eP 40 11.00 -0.3
KIV 71.38 312 eP 40 20.40 0.8
0.9s 45.00nm 5.6mb
i 40 32.30
LCCM 72.31 45 eP 40 25.70 0.5
HFS 73.63 336 eP 40 32.20 -0.2
0.4s 2.50nm 4.6mb
NB2 73.67 338 P 40 31.90 -0.8
0.8s 3.70nm 4.5mb
OJC 78.94 327 eP 41 02.90 0.4
KSP 79.92 329 eP 41 08.30 0.5
KHC 82.35 330 eP 41 21.50 0.9
e 41 52.50
GEC2 82.53 329 Pd 41 22.10 0.5
0.6s 0.60nm 3.9mb X
SSF 87.83 334 eP 41 51.90 3.9X
AVF 88.11 334 eP 41 49.90 0.6
0.6s 2.05nm 4.6mb
ZOBO 144.53 61 ePKP 48 28.00 -8.8X
LPB 144.72 61 ePKP 48 29.00 -7.9X
CNCB 145.00 61 (PKP) 48 29.00 -8.5X
i 48 37.60
SIV 148.91 51 PKP 48 55.80 12.6X
S.D. = 0.8 on 63 of 70 obs.

```
-----------------------------------
* MAR 09, 1993 05h 59m 28.16± 1.08s
  10.923 S ±13.1km 164.446 E ±15.5km
  DEPTH = 25.1km ( 2 depth phases)
  4.4mb ( 5 obs.)
 SANTA CRUZ ISLANDS REGION        (183)

HNR    4.67 288 eP    00 40.00   1.1
                eS    01 32.00
DZM   11.25 170 iPc   02 11.10   0.5
                iS    04 14.10
BRS   19.72 212 iP    04 01.90   2.9X
                epP   04 09.50  29km
CTA   19.74 240 iPc   03 58.50  -0.8
      1.0s    12.50nm        4.2mb
RMO   21.42 222 eP    04 17.50   0.9
CMS   26.75 217 eP    05 08.20   0.4
      0.6s    7.00nm         4.5mb
WB2   30.32 249 iPd   05 37.70  -2.4
      0.8s    5.60nm         4.4mb
KMI   69.97 302 eP    10 41.00   0.8
      1.5s   30.00nm         5.2mb
                pP    10 47.50  21km
YKA   95.45  27 eP    12 51.00  -0.6
      0.9s    0.50nm         3.9mb
HFS  126.29 342 ePdiff15 26.10  16.8X
      0.4s    3.10nm
EKA  134.64 350 Pdiff 15 38.00  -8.5X
      1.9s   71.80nm
BCAO 145.63 262 iPKPc 19 07.20   0.1
      1.0s   15.00nm
                ic    19 26.90
SOB1 147.82 127 (PKP) 19 15.00   4.4X
    S.D. = 1.3 on 9 of 13 obs.
-----------------------------------
  MAR 09, 1993 06h 10m 23.60± 0.92s
  37.762 N ± 8.0km  20.884 E ± 6.9km
  DEPTH = 10.0km (geophysicist)
  3.7mb ( 3 obs.)
 IONIAN SEA                        (399)
    ML 3.9 (ATH), 3.9 (THE).

VLS   0.48 331 ePg   10 32.80  -0.5
AGG   1.70  42 ePb   10 52.70  -0.7
               eSb   11 14.50
VLI   1.94 122 ePn   10 58.50   1.5
KEK   2.12 337 ePb   11 02.00   2.4
SRN   2.22 342 ePn   11 03.40   2.4
ATH   2.25  84 ePn   11 02.00   0.6
               eSn   11 34.50
LSK   2.39 355 ePn   11 05.70   2.2
TPE   2.62 345 ePn   11 07.50   0.9
KZN   2.63  15 ePn   11 09.20   2.3
VLO   2.91 339 ePn   11 16.30   5.5X
FNA   3.04   7 ePn   11 12.30  -0.4
PAIG  3.07  44 ePn   11 12.60  -0.4
THE   3.29  29 ePn   11 15.00  -1.2
OHR   3.35 359 iPn   11 16.70  -0.3
               i     11 24.50
               i     12 02.70
               i     12 10.10
               Lg    12 27.80
TIR   3.67 348 ePn   11 23.70   2.2
KNT   3.74  24 ePn   11 21.90  -0.6
               eSn   12 06.80
VAY   3.79  20 iPn   11 24.00   0.8
SRS   3.95  31 ePn   11 25.00  -0.6
LACI  3.97 347 ePn   11 24.40  -1.4
SKO   4.23   6 iPn   11 29.20  -0.3
               iPg   11 43.20
               i     11 46.80
               i     12 22.50
               i     12 33.50
               Lg    13 04.50
MMB   4.41  29 iP    11 31.00  -1.1
SDA   4.41 346 ePn   11 33.20   1.1
KKB   4.44  22 iP    11 32.00  -0.4
PRK   4.48  69 ePn   11 35.50   2.5
NPS   4.55 122 ePg   11 46.50  12.4X
BCI   4.64 353 ePn   11 35.20  -0.2
RZN   4.91  36 iPc   11 38.00  -1.3
RDO   4.94  45 ePn   11 39.50  -0.1
IZM   5.07  81 ePn   11 42.00   0.5
VTS   5.14  20 eP    11 42.00  -0.6
KDZ   5.22  41 iP    11 42.00  -1.6
HVAR  6.38 329 i(Pn) 12 00.50   0.6
VBY   8.81 333 iPn   12 32.50  -1.3
                eSn   14 07.30
VOY    9.76 330 e(Pn) 12 45.80  -1.3
                eSn   14 31.00
NUR   22.89   5 eP    15 32.10   3.9X
NB2   24.08 348 P     15 38.40  -1.4
      0.6s    1.00nm         3.6mb
KAF   24.61   6 eP    15 43.60  -1.2
      0.9s    7.90nm         4.4mb
BCAO  33.24 184 iPc   17 02.10  -1.0
      0.2s   12.00nm         5.5mb X
YKA   73.88 340 eP    21 57.90  -2.1
      0.4s    0.20nm         3.5mb
    S.D. = 1.4 on 36 of 39 obs.
-----------------------------------
  MAR 09, 1993 07h 45m 43.67± 0.15s
  59.624 S ± 5.6km  25.709 W ± 5.2km
  DEPTH = 33.0km (normal)
  5.7mb ( 26 obs.) 6.1Msz ( 49 obs.)
 SOUTH SANDWICH ISLANDS REGION  (153)
     Mw 6.3 (HRV). Ms 6.1 (BRK).
     CENTROID, MOMENT TENSOR      (HRV)
     Data Used: GDSN
     L.P.B.: 46S, **C  M.W.: 30S, 48C
     Centroid Location:
     Origin Time        07:45:52.3 0.1
     Lat 60.33S 0.01 Lon  24.76W 0.02
     Dep  15.0 FIX Half-duration  3.6
     Moment Tensor;   Scale 10**18 Nm
       Mrr= 2.24 0.03  Mtt= 0.08 0.03
       Mff=-2.32 0.02  Mrt=-0.02 0.09
       Mrf= 2.07 0.09  Mtf=-1.30 0.02
      Principal Axes:
       T  Val=  3.12   Plg=65   Azm=246
       N        0.41       16        14
       P       -3.53       19       110
     Best Double Couple:Mo=3.3*10**18
     NP1:Strike=224 Dip=30 Slip= 124
     NP2:         7     65        72

SNA   14.45 147 e(P)  49 00.20  -7.3X
      0.7s  415.00nm         6.1mb
AIA   18.47 236 eP    50 03.40   5.1X
NVL   18.90 141 eP    49 59.00  -4.4X
      1.4s  520.00nm         5.6mb
                e     50 11.00
                e     50 41.00
                e     53 32.00
SPA   30.55 180 iPc   51 54.20  -1.8
      2.0s 1000.00nm         6.3mb
   Z  18s    10.98um         5.6Msz
                i     52 00.50
LPA   32.44 305 eP+   52 12.00  -0.5
   Z  20s    21.28um         5.8Msz
                epP   52 22.00  35kmX
                ePP   53 20.00
MAW   36.84 140 e(P)  52 49.00  -0.8
      0.9s   26.67nm         5.1mb
   Z  16s    27.08um         6.1MszX
TCA   38.35 300 iP    53 02.20  -0.9
BLE   38.71  68 iPd   53 08.60   2.7X
      1.5s  220.00nm         5.7mb
MDZ   38.98 294 eP    53 09.70   1.4
CER   39.45  69 iPc   53 11.00  -1.2
      1.3s  220.00nm         5.8mb
VAO   39.55 328 eP    53 13.60   0.4
                e     53 22.00
                e     53 30.70
                e     53 56.00
PEL   39.62 292 ePd   53 12.50  -1.1
CFA   39.76 296 e(P)  53 14.30  -0.5
RTPR  40.09 299 ePc   53 16.90  -0.5
RTLL  40.10 296 ePd   53 17.80   0.2
IHA   40.17 291 eP    53 22.50   4.5X
RTBS  40.28 294 e(P)d 53 21.20   2.3
CACB  40.75 329 eP    53 23.20   0.1
                e     53 42.80
                e     54 04.50
CYA   41.37 301 ePc   53 26.20  -1.8
CDCB  41.64 333 (P)   53 23.70  -6.6X
                e     55 22.00
PPD   41.72 323 eP    53 31.30   0.5
                e     55 17.60
SBA   42.56 184 iPc   53 40.00   2.9X
GRM   43.02  76 iPc   53 22.00 -19.4X
      1.0s  140.00nm
FSA   43.52 302 e(P)  53 45.00  -0.4
SLA   44.49 304 ePd   53 52.40  -1.2
FRS   45.32  72 iPd   54 01.00   1.1
      0.9s   66.00nm         5.5mb
CRZF  45.76 109 iPd   54 09.00   5.7X
                ePP   55 54.00
                iS    00 45.00
                eSS   04 09.00
HJA   45.79 305 ePd   54 03.50  -0.2
BLF   46.27  72 iPc   54 07.30  -0.4
      0.8s   40.00nm         5.4mb
SWZ   47.47  70 iPd   54 16.90  -0.2
ANT   47.52 299 eP    54 14.00  -3.3X
WIN   47.68  58 iPc   54 20.50   1.6
      1.4s  110.00nm         5.7mb
   Z  22s    59.50um         6.5Msz
PRY   48.71  72 eP    54 24.00  -2.8X
      1.5s  120.00nm         5.7mb
KSR   49.33  71 iPc   54 29.50  -2.1
      1.5s  130.00nm         5.7mb
SLR   50.10  72 iPc   54 35.00  -2.5
      1.2s   60.00nm         5.5mb
   Z  18s    75.90um         6.7Msz
SIV   50.62 314 Pc    54 44.40   3.0X
BFT   51.00  74 iPc   54 44.50   0.1
      1.0s  106.00nm         5.8mb
SOB1  51.60 341 eP    54 48.00  -0.8
                e     54 49.60
                e     54 56.60
PAF   51.88 124 iP    54 54.00   3.5X
                eS    02 21.00
CNCB  52.57 306 iPc   54 56.10  -0.6
LPB   52.87 306 Pc    54 57.00  -1.8
      1.0s  100.00nm         5.7mb
   Z  20s    20.57um         6.2Msz
                S     02 22.00
                LR    11 24.00
ZOBO  53.11 306 iPc   54 59.40  -1.4
                (S)   02 02.00
                LR    11 40.00
DRV   53.58 173 eP    55 12.00   9.1X
                PP    57 06.00
                S     02 47.00
ARE   54.37 302 eP    55 10.00   0.4
CIR   55.69  72 iPd   55 17.00  -1.9
LIC   67.67  22 P     56 40.00   0.6
   Z  20s     4.00um         5.6Msz
TIC   68.08  22 P     56 42.00   0.0
BCAO  72.73  47 iPd   57 09.60  -0.6
      1.1s  116.00nm         5.8mb
                ic    57 14.00
                ic    58 38.00
MBO   74.10   9 iPc   57 19.40   1.5
                iS    07 01.90
TLC   74.84 191 eP    57 20.90  -1.3
CMCZ  74.86 191 eP    57 21.10  -1.2
LSCZ  74.89 191 eP    57 21.30  -1.1
SBCZ  74.92 191 eP    57 21.40  -1.2
LRCZ  74.94 191 eP    57 20.50  -2.3
                e     57 33.60
MHZ   74.95 191 eP    57 21.50  -1.3
NAI   75.31  66 iPKPc 57 34.50   9.1X
   Z  20s     9.68um         6.1Msz
                iPP   58 33.00
                iPS   07 38.00
                ePKKS 12 26.00
LTZ   76.88 193 P     57 33.40  -0.3
                e     57 45.40
                e     57 47.50
SDV   77.09 314 iPd   57 34.30  -1.0
TOV   77.62 315 eP    57 38.50   0.4
TAU   77.67 175 eP    57 35.00  -2.9X
THZ   77.81 194 eP    57 39.50   0.7
UPA   80.63 306 iPc+  57 53.25  -1.0
TOO   82.89 173 eP    58 05.00  -0.9
      0.7s   41.00nm         5.6mb
BFD   83.06 171 iPc   58 07.80   1.0
      0.9s   35.00nm         5.5mb
ADE   84.88 167 eP    58 18.00   2.0
AAE   85.29  63 eP    58 22.00   3.4X
                S     08 52.00
CAN   85.30 176 eP    58 19.50   1.3
                i     58 26.10
CNB   85.32 176 eP    58 21.00   2.7X
      1.1s   60.00nm         5.7mb
BWA   86.17 175 eP    58 21.60  -0.9
                i     58 26.80
                i     58 36.60
STH   87.83 312 Pd    58 31.49   1.0
```

```
ANTZ   88.74  14 iP     58 37.00   2.4
                 i      58 39.00
CMS    88.96 173 eP     58 35.10  -0.9
       1.1s    33.00nm          5.6mb
MEEK   89.17 149 eP     58 34.00  -3.0X
YBT    90.14  14 eP     58 44.00   2.9X
ARMA   90.27 178 eP     58 45.00   2.8X
       0.8s    13.00nm          5.3mb
TVO    90.35 233 eP     58 54.00  11.3X
       1.3s   376.90nm
RAR    91.15 222 (P)    58 42.00  -4.2X
TIO    91.50  16 iP     58 50.50   2.9X
OUK    91.69  15 eP     58 52.50   4.3X
RUV    91.92 235 eP     58 59.60   9.8X
       1.4s   355.50nm          6.6mb
VAH    91.97 235 eP     58 59.80   9.7X
       1.1s   129.90nm          6.3mb
TPT    92.20 235 eP     59 01.00   9.9X
       1.4s   409.50nm          6.7mb X
PMO    92.30 235 eP     59 01.50  10.0X
       1.4s   281.40nm          6.5mb
BRS    93.30 179 iPc-   58 58.50   2.3
     Z 18s    86.00um           7.2MszX
                 eSKS   10 00.00
OLP    93.71 171 eP     58 59.80   1.8
AVE    93.81  15 iP     59 06.00   8.1X
RMO    94.09 175 eP     59 02.00   2.2
       0.5s     9.00nm          5.5mb
IFR    94.35  17 iP     59 04.00   3.3X
ASPA   95.34 161 iPc    59 04.20  -1.4
       0.8s    20.30nm          5.6mb
                 e      03 02.30
                 eS     09 40.00
WRA    99.06 161 P      59 23.40   1.0
       1.4s     2.00nm          4.5mb X
WB2    99.06 161 eP     59 22.80   0.4
       1.1s     3.00nm          4.7mb
CTA   100.31 172 ePdiff59 18.00   -9.9X
     Z 21s    19.71um           6.6Msz
                 eS     10 57.00
                 e      17 50.00
PAB   100.38  17 ePdiff59 38.00   10.1X
                 ePP    04 30.00
                 iS     11 16.00
EBR   102.40  20 ePdiff59 44.00    7.3X
                 e      10 16.00
                 e      11 14.00
CEH   104.86 318 Pdiff  00 00.00  12.2X
     Z 21s     3.14um           5.8Msz
GBTN  106.48 314 (PKP)  04 10.38   4.5X
GBA   108.28  94 PKP    04 11.00   1.2
MCWV  108.52 319 PKP    04 20.00  10.4X
     Z 20s     3.18um           5.9Msz
HRV   108.54 326 PKP    04 22.35  12.8X
     Z 20s     5.05um           6.1Msz
                 SS     20 12.32
MIAR  109.15 306 Pdiff+00 10.34    3.4X
ITU   110.01  41 ePdiff00 16.00    5.4X
LJU   110.35  29 ePdiff00 20.00    8.0X
                 e      04 28.00
RSNY  111.27 325 PKP    04 30.00  15.3X
     Z 20s     3.41um           5.9Msz
SLM   111.37 311 PKP    04 30.00  15.0X
     Z 21s     3.70um           5.9Msz
MEO   111.46 302 e(PKP)04 05.50   -9.8X
WMOK  111.51 302 PKP    04 30.00  14.6X
     Z 20s     1.87um           5.7Msz
CBM   111.72 330 ePKP   04 18.84   3.4X
     Z 20s     3.15um           5.9Msz
                 PP     05 04.79
                 SS     21 15.00
HYB   112.07  93 ePKP   04 18.00   1.0
GEC2  112.78  27 PKP    04 17.20  -0.3
       0.8s     0.62nm
                 e      04 20.70
                 e      04 27.40
                 e      04 36.00
                 PP     05 17.50
KHC   113.02  27 ePKP   04 21.00   3.1X
                 e      05 18.50
GRF   113.02  25 ePdiff00 32.70    8.9X
     Z 22s     3.00um           5.8Msz
MOX   114.01  25 ePdiff00 44.00   15.8X
     Z 19s     3.00um           5.9Msz
EEO   114.53 323 ePKP   04 32.00  11.1X
BRG   114.73  26 ePKP   04 36.00  14.9X
       2.0s    44.00nm
TUC   114.91 292 PKP    04 22.08  -0.1
     Z 19s     6.84um           6.3Msz
                 PP     05 16.52
                 SP     14 59.45
                 SS     21 38.02
CLL   114.93  26 e(PKP)04 25.00    3.6X
     Z 21s     3.00um           5.9Msz
                 e      05 20.00
ERE   114.94  53 ePKP   04 27.00   5.0X
                 i      05 42.00
                 i      11 09.00
                 iPS    15 07.00
                 iSS    21 31.00
ALO   115.08 296 ePKP   04 21.72  -0.8
     Z 19s     1.45um           5.6Msz
                 PP     05 24.52
                 PKKP   15 12.00
KSP   115.25  28 ePKP   04 25.20   3.1X
                 e      05 26.00
ANN   116.21  45 ePKP   04 27.00   2.9X
                 e      11 15.00
                 e      15 24.00
KIV   117.42  49 ePKP   04 28.70   2.1X
       1.6s    26.00nm
     Z 17s     4.00um           6.1MszX
                 e      05 52.90
                 iPS    15 24.00
GRO   118.09  52 ePKP   04 34.00   6.3X
                 e      05 54.00
                 iPPP   08 32.00
                 iPS    15 44.00
MAIO  118.25  66 ePKP   04 32.00   3.6X
GLD   118.50 300 PKP    04 40.00  11.1X
     Z 20s     3.85um           6.0Msz
GOL   118.53 300 ePKP   04 28.79  -0.3
     Z 20s     2.43um           5.8Msz
                 PP     05 49.78
ASH   119.07  64 ePKP   04 35.00   5.3X
                 e      05 58.00
                 e      15 55.00
PV08  119.07 297 ePKP   04 30.01  -0.2
PV10  119.08 297 ePKPd  04 29.70  -0.4
PV09  119.22 297 ePKP   04 29.88  -0.6
KHT   119.70 113 ePKP   04 36.50   5.0X
JAO   119.98 328 ePKP   04 29.50  -1.5
GSC   120.23 289 ePKP   04 32.40   0.2
SRU   120.35 296 ePKPc  04 31.62  -0.8
MSU   120.63 294 ePKP   04 32.86  -0.2
ARUT  120.63 293 ePKP   04 33.93   0.9
EMUT  121.05 296 ePKPd  04 33.66  -0.2
TPNV  121.29 290 ePKP   04 35.02   0.8
     Z 19s     8.87um           6.4Msz
ISA   121.32 288 ePKP   04 33.91  -0.3
     Z 20s     7.45um           6.3Msz
                 PP     06 09.49
                 P'P'   23 49.37
RSSD  121.56 304 ePKP   04 33.56  -1.0
     Z 20s     7.45um           6.3Msz
                 PP     06 11.21
BCH   121.72 286 ePKP   04 35.85   0.8
DAU   121.74 296 ePKP   04 35.55   0.4
DUG   122.27 295 ePKPd  04 35.81  -0.2
     Z 19s     6.00um           6.3Msz
                 PP     06 12.77
                 SKKP   18 48.04
                 P'P'   23 16.24
PHAM  122.39 286 (PKP)  04 38.51   2.3X
TNP   122.65 290 ePKPc  04 37.00   0.2
MTUM  122.72 289 ePKP   04 37.17   0.2
BW06  122.87 299 ePKP   04 35.31  -1.8
BONR  123.07 290 ePKP   04 38.70   0.9
MEMM  123.15 289 ePKP   04 39.15   1.7
ULM   123.34 314 ePKPd  04 39.10   1.6
CHTO  123.35 111 ePKP   04 39.20   0.7
       1.3s    31.05nm
HVU   123.52 296 ePKP   04 38.01  -0.4
SAO   123.64 286 PKP    04 44.28   5.7X
                 PP     06 24.64
                 e      17 58.97
NB2   123.68  21 PKP    04 37.40  -0.5
       1.0s    13.60nm
KVN   123.84 291 ePKP   04 39.94   0.8
DMN   123.87  93 PKP    04 38.40  -1.2
GKN   123.95  92 PKP    04 38.60  -1.0
PKI   123.99  93 PKP    04 38.40  -1.6
KKN   124.10  93 PKP    04 39.00  -1.0
CMB   124.13 288 ePKPc  04 43.68   4.1X
     Z 18s     7.00um           6.4Msz
                 ePPc   06 27.68
                 eSKPc  07 59.68
                 ePPPc  09 16.68
                 iSKS   11 57.68
                 ePS    16 38.68
                 eSKKP  18 03.68
                 iPKKS  18 04.68
                 iSS    24 06.68
                 eSSS   28 19.68
                 e      31 43.68
                 eLQ    39 55.68
                 eLR    46 01.68
COE   124.15 286 ePKP   04 40.59   1.0
ARN   124.15 287 ePKP   04 40.17   0.6
PTI   124.20 297 ePKP   04 39.79   0.1
GUN   124.51  93 PKP    04 39.40  -1.6
HHAI  124.54 298 ePKP   04 40.86   0.6
OBN   124.68  38 iPKP   04 45.50   5.6X
       1.5s    70.00nm
     Z 18s     3.60um           6.1Msz
     N 18s     2.40um
     E 18s     3.00um
                 ePS    16 30.00
BKS   124.91 287 ePKPc  04 44.09   3.1X
     Z 18s     5.00um           6.2Msz
                 ePPc   06 31.09
                 eSKPc  08 02.09
                 iSKS   11 57.09
                 eSPc   16 30.09
                 eSKKP  18 10.09
                 ePKKS  18 14.09
                 eSS    24 20.09
                 eLR    46 18.09
AKU   125.13   4 iPKP   04 49.00   8.5X
       1.0s    32.00nm
NTYM  125.52 287 ePKP   04 41.90  -0.2
MOS   125.54  38 ePKP   04 40.00  -1.6
       2.0s   180.00nm
     Z 18s     4.00um           6.1Msz
ORV   125.87 288 ePKP   04 43.48   0.7
NUR   126.01  28 ePKP   04 46.70   4.3X
       0.8s    15.80nm
LCCM  126.30 300 ePKP   04 44.00   0.3
                 e      11 12.10
LMEM  126.66 289 ePKP   04 45.63   1.1
WDC   127.16 288 ePKP   04 45.07  -0.2
     Z 20s     3.64um           6.1Msz
                 PP     06 44.27
                 SKKP   18 10.65
LGPM  127.56 288 (Pdiff01 26.81   -2.0
LGPM  127.56 288 ePKP   04 46.14   0.0
KAF   127.81  28 iPKP   04 45.10  -0.7
       0.9s    43.60nm
OIZ   128.49 122 ePKP   04 51.00   2.6X
     N 20s     3.74um
LSA   128.63  96 ePKP   04 49.40   0.4
     Z 25s     4.58um           6.1MszX
     N 20s     5.19um
                 PP     06 58.00
KSH   128.67  76 ePKP   04 53.00   4.7X
     Z 20s     4.35um           6.1Msz
     N 14s     3.29um
     E 14s     2.02um
                 PP     06 56.00
                 SKS    11 58.00
                 SKKS   13 44.00
HON   129.06 243 PKP    04 49.67   0.3
     Z 19s     8.44um           6.4Msz
                 i      07 15.09
                 SKP    08 23.33
                 SP     17 24.90
                 i      25 34.80
KIP   129.16 243 (PKP)  04 52.64   3.1X
SES   129.44 304 ePKP   04 48.00  -1.3
FCC   129.60 321 ePKP   04 52.00   2.8X
VGB   130.09 294 ePKP   04 52.04   1.3
                 eSKP   08 13.61
GDH   130.13 347 ePKP   04 44.00  -6.0X
                 i      04 54.00
                 e      07 06.00
                 i      08 15.00
                 e      11 12.00
                 i      17 20.00
NEW   130.47 299 ePKP   04 50.96  -0.4
                 eSKP   08 12.03
KMI   130.55 111 PKPc   04 53.00   0.6
```

09d 08h

Z 18s 5.10um 6.3Msz
N 18s 3.50um
E 18s 2.10um
sPKP 05 06.00
PP 07 14.50
FRU 130.57 72 iPKP 04 52.20 0.5
Z 21s 3.60um 6.0Msz
E 22s 5.20um
i 04 57.80
DPW 130.67 298 ePKP 04 51.83 0.1
iSKP 08 13.66
SHW 131.27 293 (PKP) 04 54.55 1.5
LON 131.49 294 ePKP 04 53.38 0.0
iSKP 08 16.12
BMW 131.95 293 ePKP 04 55.04 0.8
iSKP 08 19.15
RMW 132.01 295 ePKP 04 55.93 1.6
eSKP 08 17.25
PRZ 132.16 75 ePKP 04 59.50 4.6X
1.2s 50.00nm
SDF 132.37 24 iPKP 04 52.00 -2.3X
GMW 132.53 294 ePKP 04 55.54 0.3
eSKP 08 19.52
HKC 133.23 125 ePKP 04 58.00 0.7
MCW 133.37 295 ePKP 04 56.79 -0.1
ARU 133.46 50 (PKP) 05 00.00 3.3X
2.5s 640.00nm
e 05 11.00
e 07 45.00
e 19 45.00
GUA 133.47 167 ePdiff01 57.20 1.7
e 02 03.20
GUMO 133.52 167 ePdiff01 57.80 2.1X
Z 23s 3.58um 6.0MszX
e 05 00.20
GYA 133.53 114 PKP 04 58.00 0.1
Z 40s 6.63um 6.0MszX
N 20s 2.11um
E 20s 4.06um
PP 07 25.80
SKKS 14 14.00
GZH 133.57 124 ePKP 04 57.00 -0.9
Z 18s 4.84um 6.3Msz
N 17s 2.21um
E 17s 2.60um
iPP 07 26.00
PGC 133.63 295 ePKP 04 58.50 1.3
SVE 134.54 50 iPKPd 05 02.50 3.8X
3.5s 490.00nm
Z 24s 3.50um 6.0MszX
N 24s 3.00um
E 24s 1.00um
e 19 55.00
CD2 135.88 108 PKP 05 03.10 0.9
Z 23s 3.27um 6.0MszX
N 15s 1.98um
DAG 136.21 2 ePKP 05 01.00 -0.4
0.9s 25.21nm
OZH 137.38 129 ePKP 05 05.00 -0.1
Z 20s 3.24um 6.1Msz
N 18s 2.65um
PP 07 56.00
WMQ 137.76 81 ePKP 05 06.40 1.0
Z 20s 3.21um 6.1Msz
N 14s 1.94um
PKS 08 40.00
SKS 12 10.00
SKKS 14 44.00
YKA 139.31 315 ePKP 05 08.90 1.4
0.8s 46.40nm
LZH 140.10 103 ePKP 05 10.00 0.0
Z 18s 2.45um 6.0Msz
E 15s 1.28um
PKS 08 44.00
WHN 140.50 119 ePKP 05 09.00 -1.6
Z 20s 3.98um 6.2Msz
N 18s 2.08um
E 18s 1.92um
PP 08 12.00
SKKS 14 58.00
GTA 140.65 96 PKP 05 08.00 -2.8X
Z 30s 7.39um 6.3MszX
E 18s 1.36um
SS 26 32.00
XAN 140.93 110 PKP 05 08.50 -2.9X
Z 45s 5.56um 6.0MszX
E 18s 2.03um

SKKS 15 03.00
SS 26 33.00
RES 141.47 336 ePKP 05 05.50 -5.5X
1.0s 15.00nm
ELT 143.39 69 ePKP 05 10.00 -4.9X
1.8s 100.00nm
NJ2 143.75 124 PKPd 05 16.00 -0.2
Z 18s 1.76um 5.9Msz
N 17s 1.94um
E 17s 1.94um
SSE 143.88 127 PKPc 05 14.00 -2.5X
Z 20s 4.00um 6.2Msz
N 17s 2.40um
E 17s 0.90um
sPKP 05 28.00
SIT 144.54 297 PKP 05 30.00 13.2X
Z 20s 3.68um 6.1Msz
TIY 145.57 111 PKPc 05 19.00 -0.3
Z 30s 2.65um 5.8MszX
N 12s 0.88um
UER 146.15 77 iPKP 05 18.50 -1.2
2.5s 260.00nm
e 05 28.00
e 33 28.00
TIA 146.52 118 ePKP 05 20.20 -0.6
Z 22s 4.69um 6.2Msz
N 17s 1.50um
E 17s 1.00um
PP 08 51.00
BTO 146.65 105 PKP 05 22.50 1.5
N 16s 0.87um
E 16s 1.16um
eSKKS 15 29.00
KAGJ 147.51 141 ePKP 05 26.00 3.5X
HHC 147.60 106 iPKPd 05 24.40 1.9
Z 36s 3.63um 5.9MszX
N 19s 2.96um
E 18s 1.87um
PP 08 55.00
SKKS 15 42.00
KUMJ 148.73 140 ePKP 05 31.10 6.6X
BJI 149.19 112 ePKP 05 25.00 0.1
Z 34s 4.27um 6.0MszX
eSKKS 15 52.00
eSS 28 08.00
MOY 149.66 81 ePKPc 05 26.90 1.7
i 05 35.00
BALM 149.68 300 ePKP 05 27.45 2.3X
ZAK 150.03 85 iPKP 05 26.00 0.2
1.6s 333.00nm
e 09 24.00
SHNJ 150.28 139 ePKP 05 31.90 5.2X
DL2 150.75 120 PKP 05 23.00 -4.3X
Z 20s 2.46um 6.0Msz
N 20s 4.83um
E 18s 2.64um
SKKS 16 00.00
TKSJ 151.09 144 ePKP 05 32.70 4.7X
KLU 151.44 300 ePKP 05 28.93 1.2
IRK 151.67 83 ePKP+ 05 25.00 -3.3X
2.0s 58.00nm
i 05 41.00
IRK 151.67 83 ePKP 05 41.00 12.7X
7.0s 1.55nm
e 07 32.00
ePP 09 38.00
e 30 11.00
e 30 15.00
e 30 23.00
e 30 42.00
e 30 54.70
WKYJ 151.76 146 ePKP 05 33.70 4.6X
YONJ 152.02 142 ePKP 05 35.50 6.2X
KDC 152.89 290 (PKP) 05 31.71 2.0
ePKPbc05 37.40
PMR 152.90 299 ePKP 05 30.76 1.1
Z 21s 3.59um 6.2Msz
ePKPbc05 36.85
PP 09 29.94
SLKM 152.98 296 ePKP 05 29.64 -0.3
ePKPbc05 37.21
FBA 153.39 306 ePKP 05 29.76 -0.5
ePKPbc05 37.51
SNY 153.99 119 iPKPc 05 30.00 -1.8
Z 22s 3.12um 6.1Msz
N 19s 2.54um
E 19s 2.22um

PP 09 33.00
SKKS 16 12.00
SS 29 04.00
RSO 154.13 295 ePKP 05 31.85 0.1
CRP 154.14 297 ePKP 05 32.49 0.8
CP2 154.18 297 ePKP 05 32.10 0.3
CHJJ 154.40 150 ePKP 05 42.10 9.5X
MTMJ 154.60 148 ePKP 05 41.70 8.8X
MAJO 154.66 149 (PKP) 05 39.14 6.2X
MAT 154.66 149 ePKP 05 30.00 -2.9X
Z 20s 2.13um 6.0Msz
SVW 155.67 295 (PKP) 05 42.17 8.6X
SDN 155.70 280 ePKP 05 42.00 8.3X
IMA 156.05 308 ePKP 05 32.93 -1.1
ePKPbc05 44.44
CIT 156.23 91 iPKP 05 36.00 1.4
TTA 156.38 299 e(PKP)05 42.80 8.3X
CN2 156.40 119 ePKP 05 36.70 1.7
Z 18s 1.79um 5.9Msz
MDJ 158.84 124 ePKP 05 37.60 -0.3
Z 48s 8.43um 6.2MszX
pPKP 05 49.00
PP 09 57.00
SS 29 54.00
BOD 159.33 77 iPKPc 05 39.00 1.0
1.8s 47.00nm
ASAJ 162.93 150 ePKP 05 47.00 4.9X
TIK 164.22 30 ePKP 05 38.00 -4.6X
2.4s 99.00nm
i 05 54.00
i 06 43.00
i 10 29.00
KUR 165.07 162 iPKP 05 44.00 -0.1
e 10 24.00
ILT 165.59 316 iPKPd 05 40.00 -3.8X
2.4s 136.00nm
i 10 32.00
i 14 28.00
ePPS 24 20.00
YSS 165.63 146 iPKP 05 45.00 0.5
1.5s 70.00nm
e 05 58.80
ePPS 24 18.00
e 31 04.00
(SSS) 37 40.00
SMY 167.02 247 PKP 06 00.00 14.6X
Z 19s 7.15um 6.2Msz
YAK 167.80 68 ePKP 05 43.00 -2.7X
e 06 58.00
e 10 50.00
PET 172.95 202 iPKP+ 05 48.00 -0.5
e 11 10.00
ePPP 15 16.00
MGD 178.17 73 iPKP+ 05 48.00 -1.6
2.5s 250.00nm
e 07 40.00
eSS 33 10.00
S.D. = 1.1 on 162 of 268 obs.

? MAR 09, 1993 07h 52m 11.10± 0.44s
59.609 S ±17.1km 25.705 W ±19.5km
DEPTH = 33.0km (normal)
5.1mb (6 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

PPD 41.71 323 eP 59 57.70 -0.5
SIV 50.62 314 eP 01 12.00 3.3X
SOB1 51.59 341 eP 01 15.90 -0.2
CNCB 52.57 306 iP 01 25.00 0.9
(S) 02 28.00
LPB 52.87 306 P 01 24.20 -2.0
1.2s 56.25nm 5.4mb
S 02 31.00
ZOBO 53.10 306 P 01 26.30 -1.8
0.6s 11.61nm 5.0mb
S 02 35.00
ARE 54.36 302 eP 01 37.00 0.0
BCAO 72.72 47 iPd 03 38.00 0.5
0.9s 32.00nm 5.3mb
id 03 48.00
SDV 77.08 314 iPd 04 02.00 -0.7
TOO 82.90 173 iPd 04 33.40 0.0
0.8s 17.00nm 5.2mb
CMS 88.97 173 eP 05 03.20 -0.3
1.0s 7.00nm 4.9mb
OLP 93.73 171 eP 05 25.00 -0.5
ASPA 95.35 161 iPc 05 32.40 -0.7

```
        1.0s     6.50nm             5.0mb
PV08    119.06 297 ePKP  10 58.22   0.6
PV10    119.08 297 ePKP  10 56.92  -0.6
SSK     119.77 287 (PKP) 11 00.33   1.4
SRU     120.35 296 ePKP  10 58.98  -0.9
MSU     120.63 295 ePKP  11 00.45   0.0
ULM     123.33 314 ePKPd 11 07.00   2.1
HHAI    124.53 298 ePKP  11 08.01   0.3
KAF     127.79  28 iPKP  11 13.00  -0.2
        1.1s     30.50nm
SES     129.43 304 ePdiff08 09.00   4.8X
FCC     129.59 321 ePKP  11 19.50   2.8X
DPW     130.66 298 Pdiff 08 13.85   4.1X
ASR     130.94 294 Pdiff 08 15.71   4.6X
SAW     131.08 297 Pdiff 08 14.99   3.4X
WTV     131.33 296 Pdiff 08 15.48   2.8X
FMW     131.55 294 Pdiff 08 17.39   3.5X
BMW     131.94 293 Pdiff 08 19.42   3.9X
SDF     132.35  24 iPdiff08 32.00  15.4X
JCW     132.60 295 Pdiff 08 20.85   2.6X
STW     133.37 294 Pdiff 08 23.39   1.7
PGC     133.63 295 ePdiff08 25.00   2.2
RES     141.46 337 ePKP  11 35.00  -3.4X
        1.0s     4.00nm
TIY     145.57 111 ePKP  11 47.00   0.3
BTO     146.65 105 ePKP  11 47.60  -0.9
HHC     147.60 106 ePKP  11 53.40   3.4X
BJI     149.19 112 ePKP  11 51.00  -1.3
DL2     150.76 120 ePKP  11 51.00  -3.7X
KLU     151.44 300 ePKP  11 53.50  -1.7
                   ePKPbc12 01.75
FBA     153.39 306 ePKP  11 59.85   2.1
                   ePKPbc12 05.11
     S.D. = 1.2  on  27 of  41 obs.
------------------------------------------
   MAR 09, 1993  08h 10m 21.16± 0.16s
   59.681 S ± 5.9km    25.664 W ± 4.4km
   DEPTH =  33.0km  (normal)
   5.4mb ( 22 obs.)
 SOUTH SANDWICH ISLANDS REGION     (153)

SNA      14.39 147 iPc   13 37.70  -6.5X
        0.6s   228.00nm           5.9mb
AIA      18.45 236 eP    14 37.20   1.6
NVL      18.84 141 eP    14 33.00  -7.2X
        2.0s   600.00nm           5.5mb
                   e     14 57.00
                   e     15 14.00
                   e     18 14.00
SPA      30.49 180 iPc   16 32.00  -1.0
        1.9s   531.25nm           6.0mb
MRA      37.98 298 e(P)  17 36.60  -0.7
TCA      38.40 300 iP    17 40.20  -0.8
BLE      38.71  68 iPd   17 49.00   5.6X
        1.5s   130.00nm           5.5mb
MDZ      39.02 294 eP    17 48.80   2.7
CER      39.45  69 iPc   17 46.50  -3.2X
        1.5s   100.00nm           5.4mb
VAO      39.61 328 eP    17 51.60   0.5
PEL      39.66 292 iP+   17 51.50   0.1
RTCV     39.73 295 eP    17 51.30  -0.7
CFA      39.81 296 e(P)  17 51.90  -0.7
RTPR     40.13 299 ePc   17 54.70  -0.5
RTBS     40.32 294 e(P)d 17 58.10   1.4
CYA      41.42 301 ePc   18 04.30  -1.5
RTRS     41.58 295 ePd   18 08.00   0.9
PPD      41.78 323 eP    18 07.40  -1.4
GRM      43.01  76 eP    18 02.50 -16.4X
        1.0s    80.00nm
SLA      44.54 304 ePc   18 30.50  -1.0
FRS      45.32  72 eP    18 38.70   1.3
        0.7s    22.00nm           5.2mb
BLF      46.27  72 eP    18 47.00   1.9
        0.8s    26.00nm           5.2mb
WIN      47.69  58 iPc   18 58.50   2.0
        0.9s    64.00nm           5.6mb
PRY      48.71  72 eP    19 03.00  -1.3
        1.5s    70.00nm           5.5mb
KSR      49.32  71 iPd   19 09.00   0.0
        1.5s    32.00nm           5.1mb
SLR      50.10  72 iPc   19 14.40  -0.5
        1.5s    80.00nm           5.5mb
SIV      50.68 314 iPc   19 22.80   3.5X
BFT      50.99  74 eP    19 23.00   1.2
        1.0s    40.00nm           5.3mb
SOB1     51.66 341 eP    19 26.10  -0.6
CNCB     52.62 306 iP    19 34.90   0.3
LPB      52.92 306 iPc   19 35.10  -1.6
        1.1s    88.61nm           5.6mb
ZOBO     53.16 306 iPc   19 28.20 -10.4X
        1.1s    76.86nm
ARE      54.41 302 iPc   19 47.50   0.0
BUL      55.02  69 iPd   19 50.70  -1.0
        1.0s    33.50nm           5.3mb
CIR      55.69  72 eP    19 55.30  -1.1
MTD      59.32  70 iPd   20 22.60   0.5
LIC      67.71  22 PKPc  21 17.86   0.7
      Z  20s     0.80um          4.9MszX
KIC      67.90  23 PKPc  21 18.80   0.5
        1.1s    50.50nm           5.5mb
TIC      68.13  22 PKP   21 19.48  -0.3
        1.0s    35.50nm           5.4mb
BCAO     72.75  47 iPc   21 47.60  -0.2
        1.0s   115.00nm           5.8mb
                   ic    21 52.40
SDV      77.15 314 iPc   22 12.30  -0.8
TAU      77.61 175 eP    22 15.00  -0.1
TOO      82.83 173 iPc   22 42.70  -0.4
        0.8s    20.00nm           5.3mb
BFD      83.00 171 eP    22 43.00  -0.9
        0.8s    14.00nm           5.1mb
ADE      84.82 167 eP    22 54.00   0.8
CAN      85.25 176 eP    22 55.20  -0.2
BWA      86.11 175 e(P)  23 00.70   1.0
CMS      88.90 173 eP    23 12.70  -0.5
ASPA     95.28 161 iPc   23 41.70  -1.1
        1.0s    11.60nm           5.3mb
WRA      98.99 161 P     23 59.80   0.2
        0.4s     2.00nm           5.0mb
WB2      99.00 161 eP    23 58.90  -0.7
        1.2s     2.30nm           4.6mb
GBA     108.25  94 Pdiff 24 26.00 -14.8X
TUC     114.95 291 iPKP  28 59.99   0.3
PV08    119.11 297 ePKP  29 07.56  -0.2
PV10    119.13 297 ePKP  29 06.49  -1.2
PV09    119.27 297 ePKP  29 07.92  -0.1
JAO     120.04 328 ePKPc 29 07.50  -1.1
GSC     120.27 289 ePKPc 29 10.27   0.5
SRU     120.40 296 ePKPc 29 09.49  -0.5
                   ePP   30 45.72
MSU     120.67 294 ePKP  29 10.26  -0.4
TPNV    121.33 290 ePKP  29 11.76   0.0
ISA     121.36 288 ePKP  29 12.65   0.9
RSSD    121.61 304 ePKP  29 11.25  -0.9
BCH     121.76 286 ePKP  29 12.92   0.3
DAU     121.78 296 ePKP  29 12.21  -0.6
DUG     122.32 295 ePKP  29 13.91   0.3
BW06    122.91 299 ePKPc 29 13.26  -1.5
BONR    123.11 289 iPKPc 29 16.49   1.1
MEMM    123.19 289 ePKP  29 17.20   2.2X
CHTO    123.31 111 ePKP  29 13.10  -2.8X
HFS     123.35  22 ePKP  29 13.80  -0.9
        0.8s     3.60nm
ULM     123.40 314 ePKPc 29 17.10   2.0
HVU     123.56 296 ePKP  29 15.93   0.0
NB2     123.73  21 PKP   29 15.20  -0.3
        0.9s     9.70nm
DMN     123.84  93 PKP   29 16.80  -0.3
KVN     123.88 290 ePKP  29 17.24   0.5
GKN     123.93  92 PKP   29 16.20  -0.9
PKI     123.96  93 PKP   29 16.60  -0.8
KKN     124.08  93 PKP   29 14.40  -3.1X
CMB     124.17 288 PKP   29 17.73   0.6
COE     124.18 286 ePKP  29 18.21   1.1
ARN     124.19 287 iPKPc 29 18.37   1.2
PTI     124.24 297 ePKP  29 18.10   0.8
GUN     124.48  93 PKP   29 17.20  -1.2
HHAI    124.58 298 ePKP  29 18.60   0.8
OBN     124.71  38 ePKP  29 25.00   7.5X
NTYM    125.56 287 ePKP  29 20.88   1.2
MOS     125.57  38 ePKP  29 30.00  10.8X
                   e     29 35.00
                   e     31 12.00
ORV     125.91 288 ePKP  29 21.14   0.7
NUR     126.05  28 ePKP  29 21.90   1.9
LCCM    126.35 300 ePKPc 29 22.00   0.7
WDC     127.20 288 ePKP  29 22.80   0.0
LGPM    127.60 288 iPKPc 29 24.52   0.8
KAF     127.85  28 iPKP  29 23.10  -0.2
        1.0s    49.80nm
VIPM    129.30 293 PKP   29 27.69   0.8
DBO     129.49 290 PKP   29 28.07   0.9
SES     129.49 304 ePKP  29 26.00  -0.9
FCC     129.66 321 ePKP  29 29.50   2.7X
CROR    129.83 293 PKP   29 28.58   0.8
VGB     130.13 294 (PKP) 29 28.53   0.2
VBEM    130.17 293 PKP   29 29.14   0.6
GDH     130.19 347 iPKPc 29 27.90   0.3
        1.2s    62.50nm
                   i     32 50.00
WAH2    130.50 296 PKP   29 29.97   1.1
KMI     130.51 111 ePKP  29 26.00  -3.9X
                   pP    29 34.00
NEW     130.52 299 ePKP  29 28.51  -0.4
                   eSKP  32 49.58
FRU     130.57  72 ePKP  29 30.00   0.8
DPW     130.71 297 ePKPc 29 28.99  -0.4
ASR     130.99 294 PKP   29 30.50   0.5
SAW     131.13 297 PKP   29 30.48   0.4
WTV     131.38 296 PKP   29 30.61   0.0
KMOR    131.49 292 PKP   29 31.64   0.7
LON     131.53 294 ePKP  29 30.75  -0.2
                   iSKP  32 53.28
FMW     131.60 294 PKP   29 31.77   0.5
BMW     131.99 293 ePKP  29 32.73   0.9
RMW     132.05 295 ePKP  29 32.02   0.1
                   iSKP  32 55.88
JCW     132.65 295 PKP   29 33.04   0.1
MCW     133.41 295 ePKP  29 34.88   0.5
DAG     136.27   2 ePKP  29 38.00  -1.0
        0.9s    13.45nm
      Z  19s     4.86um           6.3Msz
      N  19s     2.36um
      E  18s     2.06um
YKA     139.36 315 ePKP  29 37.90  -7.2X
        0.8s    42.10nm
LZH     140.07 103 ePKP  29 47.00  -0.4
        1.5s    38.00nm
      N  10s     0.56um
RES     141.53 336 ePKP  29 43.50  -5.2X
        1.0s     9.00nm
ELT     143.39  69 ePKP  29 48.40  -4.0X
        2.1s   115.00nm
SSE     143.83 127 PKPc  29 51.00  -2.9X
        2.0s    69.00nm
UER     146.14  77 ePKP  29 54.50  -2.6X
        1.5s   100.00nm
BALM    149.73 300 ePKP  30 00.82  -1.9
                   ePKPbc30 07.63
                   ePKPab30 12.69
ZAK     150.02  85 ePKPc 30 03.00  -0.3
        1.6s   202.00nm
      Z  18s     4.64um           6.3Msz
      N  18s     1.20um
      E  19s     3.33um
SHNJ    150.22 139 PKP   30 03.40  -0.7
TKSJ    151.03 144 ePKP  30 10.80   5.4X
KLU     151.49 300 ePKP  30 03.15  -2.2X
                   iPKPbc30 12.43
                   ePKPab30 25.28
IRK     151.66  83 ePKP  30 11.00   5.2X
        2.0s   116.00nm
                   e     30 15.00
                   e     30 23.00
WKYJ    151.70 146 ePKP  30 13.70   7.2X
YONJ    151.96 142 ePKP  30 12.00   5.3X
KDC     152.93 289 (PKP) 30 06.91  -0.4
                   i     30 15.11
PMR     152.95 299 ePKP  30 06.38  -0.8
                   ePKPbc30 14.94
SLKM    153.03 296 (PKP) 30 07.01  -0.5
FBA     153.44 306 ePKP  30 04.97  -2.9X
                   iPKPbc30 15.46
                   iPKPab30 27.74
RSO     154.17 295 (PKP) 30 08.08  -1.2
CRP     154.19 297 ePKP  30 05.66  -3.6X
                   e     30 17.53
                   ePP   33 50.38
CP2     154.23 297 (PKP) 30 04.52  -4.8X
                   i     30 17.51
MAT     154.60 149 (PKP) 30 04.00  -6.3X
SVW     155.72 295 ePKP  30 19.70   8.6X
SDN     155.73 280 (PKP) 30 08.25  -3.0X
                   e     30 21.15
IMA     156.10 308 ePKP  30 08.19  -3.4X
                   iPKPab30 22.30
TTA     156.43 299 ePKP  30 08.80  -3.3X
                   ePKPab30 22.77
BOD     159.32  77 ePKP  30 14.00  -1.5
        1.3s    12.00nm
TIK     164.26  30 iPKPc 30 16.00  -4.1X
```

2.6s 83.00nm
i 31 16.00
i 35 04.00
YSS 165.57 146 ePKP 30 25.00 3.1X
e 30 36.00
MGD 178.17 75 ePKP 30 26.00 -1.1
e 36 14.00
S.D. = 0.9 on 113 of 148 obs.

---

* MAR 09, 1993 08h 57m 20.64± 1.65s
37.856 N ±15.0km 20.881 E ±15.0km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.5 (ATH).

VLS 0.39 324 ePg 57 28.00 -0.7
VLI 2.00 124 ePn 57 55.50 0.7
KEK 2.04 336 ePg 58 00.00 4.6X
SRN 2.13 341 ePn 58 04.40 7.7X
ATH 2.25 86 ePn 57 57.00 -1.4
eSn 58 30.00
LSK 2.30 355 ePn 58 09.00 9.7X
TPE 2.53 345 ePn 58 02.00 -0.4
KZN 2.54 16 ePn 58 03.50 0.8
OHR 3.25 359 ePn 58 14.70 2.0X
TIR 3.57 348 ePn 58 18.50 1.3
VAY 3.70 20 ePn 58 19.30 0.3
LACI 3.88 347 ePn 58 18.20 -3.4X
SKO 4.13 6 ePn 58 34.00 8.9X
BCI 4.55 352 ePn 58 30.40 -0.7
S.D. = 1.1 on 8 of 14 obs.

---

* MAR 09, 1993 09h 36m 51.51± 0.53s
17.518 N ±20.5km 94.610 W ±10.9km
DEPTH = 158.5 ± 17.2 km
3.2mb (1 obs.)
CHIAPAS, MEXICO (61)

SCX 2.04 112 iP 37 28.95 0.9
iS 37 55.00
IISM 3.01 300 iPc 37 38.25 -1.6
(S) 38 08.12
TPX 3.44 139 (P) 38 06.64 21.3X
PPM 4.12 293 iP 37 55.06 0.4
(S) 38 29.86
IIA 4.17 294 iP 37 55.59 0.7
UNM 4.70 293 iP 38 02.30 0.1
III 4.70 281 iP 38 00.97 -1.2
(S) 38 39.00
BVA 4.76 126 eP 38 03.52 0.6
ACX 5.06 263 iP 38 02.99 -3.7X
(S) 38 42.94
CRX 5.17 292 iP 38 09.00 0.6
IXG 5.20 129 eP 38 08.37 -0.3
MRL 5.32 117 eP 38 09.21 -1.0
MRX 6.61 290 iP 38 28.28 0.9
(S) 39 16.49
MEO 17.56 349 iPc 40 47.60 -0.4
ACO 19.52 349 iPc 41 08.80 -0.1
ULM 32.67 358 eP 43 12.50 2.2
JAQ 39.07 18 ePd 44 03.20 -1.2
YKA 47.06 347 eP 45 08.00 -0.6
0.4s 0.30nm 3.2mb
S.D. = 1.1 on 16 of 18 obs.

MAR 09, 1993 09h 41m 23.35± 0.34s
39.187 N ± 3.6km 28.796 E ± 4.1km
DEPTH = 9.4 ± 2.6 km
TURKEY (366)
MD 3.8 (ISK), 3.8 (ATH).

DST 0.44 343 iPg 41 32.90 0.6
eSg 41 38.90
ALT 1.03 97 iPg 41 42.10 -0.9
KHL 1.03 146 iPg 41 42.20 -0.8
eSg 41 56.70
KCT 1.11 342 iPg 41 45.10 0.8
BNT 1.35 330 iPn 41 48.90 0.7
EDC 1.36 328 iPn 41 49.00 0.6
IZM 1.43 237 iPn 41 48.70 -0.8
GPA 1.60 46 iPn 41 51.80 -0.1
GBZT 1.68 17 ePn 41 53.00 0.1
iPg 41 55.30
iSg 42 19.00
EYL 1.73 37 iPn 41 53.90 0.1
HRT 1.76 22 iPn 41 54.90 0.7
ISK 1.89 6 iPn 41 55.90 0.0
ITU 1.92 5 iPnd 42 00.00 3.5X
iSg 42 26.00
PRK 1.96 273 ePb 41 56.90 -0.1
eSn 42 24.50
CTT 1.98 352 iPn 41 56.90 -0.4
BCK 2.23 140 ePn 42 00.00 -1.0
ELL 2.59 160 iPn 42 06.50 0.3
ALN 2.72 310 eP 42 07.74 -0.1
DMK 2.75 344 iPn 42 07.50 -0.8
KSL 3.13 168 ePn 42 15.90 2.3
RDO 3.17 309 ePn 42 14.60 0.3
eSn 42 53.00
KDZ 3.56 315 iP 42 20.00 0.1
DIM 3.79 320 eP 42 24.00 0.9
OUR 3.88 289 eP 42 23.70 -0.7
RZN 3.99 310 iPd 42 26.00 -0.1
PLD 4.26 314 iP 42 30.00 0.2
SRS 4.43 297 eP 42 32.94 0.7
SOH 4.49 293 eP 42 33.18 0.1
PSN 4.51 354 eP 42 34.00 0.7
MMB 4.55 303 iPd 42 33.00 -1.0
PVL 4.80 328 iPc 42 36.00 -1.4
PGB 4.86 315 iP 42 38.00 -0.3
KKB 5.11 303 iPd 42 40.00 -1.8
VAY 5.22 296 ePn 42 45.00 1.6
i 43 01.40
CSS 5.56 138 eP 42 49.00 0.7
MLR 6.64 342 eP 43 04.00 0.4
VRI 6.85 348 eP 43 05.00 -1.4
S.D. = 0.9 on 36 of 37 obs.

---

* MAR 09, 1993 10h 02m 09.07± 0.33s
59.879 S ±10.0km 25.699 W ± 9.3km
DEPTH = 33.0km (normal)
5.2mb (8 obs.) 4.8Msz (6 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SNA 14.24 147 iPd 05 27.10 -2.9
0.7s 122.00nm 5.6mb
SPA 30.29 180 iPd 08 20.90 1.8
1.1s 28.57nm 5.0mb
TCA 38.48 300 ePd 09 29.10 -0.5
CER 39.54 68 e(P) 09 29.00 -9.3X
PEL 39.72 292 iP+ 09 40.00 0.2
PPD 41.93 323 eP 09 57.30 -0.6
FRS 45.40 72 e(P) 10 37.50 11.6X
1.0s 30.00nm
WIN 47.81 58 e(P) 10 47.00 1.7
PRY 48.79 72 eP 10 50.00 -2.8
SLR 50.18 72 eP 11 02.00 -1.4
SIV 50.81 314 P 11 11.40 3.3X
SOB1 51.84 341 eP 11 15.20 -0.8
CNCB 52.73 306 Pc 11 23.10 -0.2
LPB 53.03 306 eP 11 24.00 -1.3
Z 20s 0.71um 4.7Msz
eLR 31 05.00
ZOBO 53.26 306 Pc 11 26.20 -1.1
0.8s 11.29nm 4.9mb
Z 21s 0.50um 4.5Msz
LR 28 38.00
ARE 54.51 302 eP 11 35.00 -1.1
LIC 67.91 22 Pd 13 07.08 0.8
0.9s 21.00nm 5.2mb
Z 20s 0.24um 4.4Msz
KIC 68.09 23 Pd 13 08.18 0.8
1.0s 22.50nm 5.2mb
TIC 68.32 22 Pd 13 09.48 0.7
1.2s 35.50nm 5.3mb
LKO 71.04 21 P 13 26.04 0.5
BCAO 72.90 47 iPc 13 36.20 -0.4
0.4s 18.00nm 5.4mb
id 13 45.50
ASPA 95.09 161 P 15 30.50 0.7
0.7s 1.90nm 4.6mb
JAO 120.20 328 ePKP 20 56.50 -0.3
MSU 120.74 294 ePKP 20 59.99 1.3
ISA 121.40 288 PKP 21 10.00 10.2X
Z 20s 0.27um 4.9Msz
RSSD 121.71 304 PKP 21 10.00 9.7X
Z 19s 0.30um 5.0Msz
DUG 122.39 295 ePKP 21 02.94 1.3
BW06 123.00 299 ePKP 21 01.09 -1.7
BONR 123.16 289 ePKP 21 02.75 -0.6
HFS 123.54 22 ePKP 21 06.90 3.9X
0.6s 2.20nm
DMN 123.85 93 PKP 21 05.80 0.8
NB2 123.92 21 PKP 21 04.70 0.9
0.9s 4.10nm
GKN 123.94 92 PKP 21 05.80 0.8
PKI 123.97 93 PKP 21 06.00 0.7
KKN 124.09 93 PKP 21 06.00 0.6
CMB 124.22 288 ePKP 21 05.85 0.7
COE 124.22 286 ePKP 21 04.53 -0.6
ARN 124.23 286 ePKP 21 07.08 1.9X
GUN 124.49 93 PKP 21 07.20 0.9
HHAI 124.66 298 (PKP) 21 05.38 -0.5
LCCM 126.44 300 ePKP 21 11.20 1.9
KAF 128.03 28 ePKP 21 11.70 0.1
0.8s 15.30nm
HON 128.95 242 PKP 21 30.00 15.5X
Z 20s 0.24um 4.9Msz
LON 131.60 294 (PKP) 21 17.37 -1.6
YKA 139.49 314 ePKP 21 28.90 -4.3X
0.6s 10.10nm
KLU 151.57 299 ePKP 21 53.50 0.2
ePKPbc22 01.61
SLKM 153.10 296 (PKP) 21 53.18 -2.3X
ePKPbc22 03.58
FBA 153.55 306 ePKP 21 56.00 0.1
ePKPbc22 04.33
CP2 154.30 296 (PKP) 21 58.84 1.5
ePKPbc22 07.40
IMA 156.20 307 (PKP) 21 59.00 -0.7
ANM 160.89 301 (PKP) 22 05.15 0.3
S.D. = 1.2 on 41 of 51 obs.

MAR 09, 1993 11h 08m 38.38± 0.71s
63.542 N ± 6.5km 151.044 W ± 8.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ALASKA (1)
ML 2.9 (PMR).

FBA 1.97 45 ePn 09 13.28 1.2
iPg 09 14.51
eS 09 38.27
PWA 1.97 164 eP 09 11.90 -0.3
PMR 2.15 155 iPd 09 13.86 -0.8
TTA 2.33 257 eP 09 18.89 1.5
eS 09 48.66
CRP 2.34 193 eP 09 16.87 -0.8
(S) 09 48.47
CP2 2.35 194 eP 09 18.17 0.3
PMS 2.41 163 eP 09 19.10 0.6
IMA 2.78 337 eP 09 22.19 -1.6
eS 10 03.57
SLKM 3.07 172 eP 09 27.58 -0.2
eS 10 07.38
KLU 3.14 129 iPd 09 29.07 0.2
eS 10 07.74
SVW 3.24 223 eP 09 35.40 5.1X
S.D. = 1.1 on 10 of 11 obs.

MAR 09, 1993 12h 20m 15.29± 0.79s
42.677 N ± 7.2km 111.422 W ± 7.1km
DEPTH = 5.0km (geophysicist)
EASTERN IDAHO (457)
ML 3.0 (GS).

HHAI 0.94 312 eP 20 34.25 0.5
S 20 48.00
HVU 1.35 229 ePc 20 39.90 -0.8
S 20 58.67
BW06 1.38 85 eP 20 40.70 -0.7
S 20 58.33
DAU 2.27 177 ePn 20 55.90 1.6
S 21 26.35
DUG 2.69 203 ePc 20 59.57 -0.6
S 21 38.68
SRU 3.63 169 (Pn) 21 13.99 0.5
S 22 06.35
MSU 4.20 188 (Pn) 21 21.20 -0.4
ePg 21 36.40
PV09 4.52 157 ePn 21 25.98 -0.3
ePg 21 41.34
S 22 36.12
PV08 4.61 152 ePn 21 27.56 0.0
ePg 21 41.86
S 22 36.54
PV10 4.66 156 ePn 21 28.49 0.2
ePg 21 42.02
S 22 43.58
S.D. = 0.8 on 10 of 10 obs.

MAR 09, 1993 12h 23m 21.19± 0.44s

49.150 N ± 4.0km 6.901 E ± 4.7km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.8 (STR). MD 2.8 (UCC).

LANF 0.62 106 Pg 23 32.84 -0.8
WLF 0.71 317 iPd 23 34.83 -0.3
iS 23 44.45
HOFF 0.73 106 Pg 23 35.64 0.1
Sg 23 47.38
WLS 0.80 158 Pg 23 36.06 -0.6
Sg 23 48.57
ECH 0.95 170 Pg 23 39.21 -0.1
VITF 1.11 213 Pg 23 41.68 -0.4
MOF 1.31 173 Pg 23 46.10 0.6
Sg 24 03.98
BSF 1.32 183 Pg 23 45.77 0.1
TNS 1.47 43 ePnc 23 48.50 0.7
iSn 24 11.30
iSg 24 17.40
FEL 1.47 149 Pg 23 49.17 1.3
ENN 1.74 339 eP 23 52.00 0.4
0.7s 30.50nm
i 23 53.80
eS 24 17.50
DOU 1.77 303 iPc 23 51.80 -0.3
i 23 54.60
iS 24 15.10
GEC2 4.49 91 Pn 24 30.10 -0.7
Pg 24 49.90
Sn 25 22.20
Sg 25 46.00
S.D. = 0.7 on 13 of 13 obs.

MAR 09, 1993 12h 59m 35.64± 0.61s
19.785 N ±11.7km 38.704 E ± 6.1km
DEPTH = 10.0km (geophysicist)
4.7mb (17 obs.) 4.4Msz (1 obs.)
RED SEA (554)

KER 16.31 25 eP 03 32.00 5.5X
MAIO 24.56 44 eP 05 03.00 6.1X
BCAO 24.88 235 iPd 05 00.10 0.0
1.0s 25.00nm 4.8mb
id 05 11.50
SPC 32.86 337 eP 06 13.90 2.0
ZST 33.29 333 e(P) 06 15.80 0.4
GEC2 35.27 331 Pd 06 32.30 -0.3
1.6s 16.92nm 4.7mb
e 06 44.30
GRF 37.02 330 eP 06 46.50 -0.7
CLL 37.39 333 eP 06 49.00 -1.3
1.6s 19.00nm 4.6mb
MOX 37.51 332 eP 06 52.10 0.8
1.5s 20.00nm 4.7mb
HYB 37.78 87 eP 06 43.00 -11.0X
BSF 38.07 325 eP 06 56.20 0.0
SMF 39.08 321 eP 07 04.20 -0.4
LBF 39.18 322 eP 07 05.20 -0.3
1.3s 19.85nm 4.6mb
CAF 39.32 318 eP 07 07.40 0.8
1.1s 12.20nm 4.5mb
LOR 39.40 322 eP 07 07.10 -0.2
1.4s 27.00nm 4.7mb
AVF 39.45 321 eP 07 07.40 -0.2
SSF 39.50 322 eP 07 07.80 -0.2
1.4s 23.10nm 4.7mb
BGF 39.63 321 eP 07 09.50 0.4
1.0s 20.00nm 4.7mb
MAF 39.63 320 eP 07 09.40 0.2
1.2s 10.70nm 4.4mb
RJF 39.84 318 eP 07 11.70 0.8
1.0s 11.60nm 4.5mb
TCF 39.88 320 eP 07 11.60 0.4
LSF 40.27 320 eP 07 15.10 0.6
MFF 41.46 319 eP 07 24.10 -0.1
LDF 42.38 322 eP 07 31.20 -0.5
GKN 42.59 70 P 07 34.40 0.6
LPF 42.66 321 eP 07 33.30 -0.6
FLN 42.67 322 eP 07 33.40 -0.7
1.3s 41.90nm 5.0mb
GRR 42.71 321 eP 07 33.70 -0.7
DMN 43.00 70 P 07 41.40 4.1X
KKN 43.15 70 P 07 39.20 0.6
PKI 43.27 71 P 07 40.00 0.4
GUN 43.68 70 P 07 42.80 -0.2
EKA 47.40 329 P 08 13.00 1.2
2.1s 68.10nm 5.4mb
LZH 58.80 59 eP 09 37.50 0.6
1.5s 40.00nm 5.3mb
Z 18s 0.29um 4.4Msz
pP 09 48.00 35kmX
IRK 59.71 40 eP 09 41.40 -1.3
1.8s 26.00nm 5.1mb
YAK 73.21 30 eP 11 06.90 -1.5
1.2s 20.00nm 5.1mb
YKA 95.32 348 eP 13 00.40 -0.6
1.0s 0.90nm 4.2mb
S.D. = 0.8 on 33 of 37 obs.

---

* MAR 09, 1993 13h 52m 09.23± 2.58s
42.839 N ±15.3km 142.040 E ±14.6km
DEPTH = 118.7 ± 25.1 km
4.1mb (6 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT 6.95 206 eP 53 50.00 0.1
0.7s 10.27nm 4.4mb
eS 55 04.00
YAK 20.56 343 eP 56 35.80 -4.1X
1.3s 25.00nm 4.4mb
e 00 20.10
FBA 44.01 35 e(P) 00 04.60 -1.4
0.7s 0.30nm 3.2mb
GUN 47.32 271 P 00 32.80 -0.3
KKN 47.82 271 P 00 36.80 0.0
PKI 47.85 271 P 00 37.20 0.0
GKN 48.18 272 P 00 39.60 0.1
YKA 58.59 32 eP 01 56.90 1.6
0.5s 0.50nm 3.8mb
WB2 62.87 188 iPd 02 24.00 -0.6
0.4s 1.30nm 4.2mb
WRA 62.87 188 P 02 25.00 0.4
0.4s 0.90nm 4.1mb
S.D. = 1.0 on 9 of 10 obs.

MAR 09, 1993 13h 52m 45.36± 0.95s
37.798 N ± 7.3km 20.789 E ± 8.1km
DEPTH = 17.3 ± 5.6 km
3.8mb (3 obs.)
IONIAN SEA (399)
ML 3.8 (ATH), 3.5 (THE).

VLS 0.41 338 ePg 52 53.50 -0.3
AGG 1.72 44 ePb 53 13.98 -0.8
eSb 53 38.50
IGT 1.77 348 ePn 53 19.34 4.0X
eSn 53 44.70
VLI 2.03 122 ePn 53 20.00 0.9
KEK 2.06 338 ePg 53 24.00 4.3X
SRN 2.17 344 ePn 53 29.90 8.7X
ATH 2.32 85 ePn 53 24.00 0.6
eSn 53 56.50
LSK 2.35 356 ePn 53 27.60 3.7X
TPE 2.57 347 ePn 53 28.50 1.7
KZN 2.62 17 ePn 53 27.00 -0.7
VLO 2.85 340 ePn 52 39.00 -51.8X
FNA 3.02 9 ePn 53 33.78 0.5
PAIG 3.10 46 ePn 53 32.98 -1.4
eSn 54 12.02
OHR 3.31 0 iPn 53 39.50 2.1
i 53 46.00
i 54 17.70
i 54 29.60
Lg 54 49.10
GRG 3.39 21 ePn 53 38.66 0.1
eSn 54 20.70
SOH 3.62 33 ePn 53 41.94 0.1
TIR 3.62 349 ePn 53 42.30 0.5
KNT 3.73 25 ePn 53 42.94 -0.5
eSn 54 29.14
VAY 3.78 21 iPn 53 43.60 -0.4
LACI 3.92 348 ePn 53 46.00 0.0
SRS 3.96 32 ePn 53 45.90 -0.7
SKO 4.20 7 iPn 53 54.10 4.1X
iSn 54 36.50
Lg 55 14.70
SDA 4.36 347 ePn 53 58.50 6.2X
HVAR 6.31 330 e(Pn) 54 18.40 -1.4
VBY 8.74 334 iPn 54 53.20 -0.6
eSn 56 28.40
EKA 23.86 325 P 58 00.00 1.7
1.0s 5.90nm 4.1mb
NB2 24.03 349 P 57 59.40 -0.6
0.6s 1.80nm 3.8mb
BCAO 33.27 184 iPd 59 23.20 -0.8
0.2s 12.00nm 5.5mb X
YKA 73.82 340 eP 04 19.00 -1.2
0.6s 0.30nm 3.5mb
S.D. = 1.1 on 22 of 29 obs.

MAR 09, 1993 14h 17m 05.86± 0.25s
45.616 N ± 2.9km 26.392 E ± 3.3km
DEPTH = 152.1 ± 3.7 km
4.2mb (7 obs.)
ROMANIA (358)
Felt (III) in the Vranceo region and at Bucharest. Also felt (III) at Chisinau, Moldova.

MLR 0.34 249 iPc 17 27.10 0.6
VRI 0.34 42 iPc 17 27.00 0.6
BRO 0.47 102 iPc 17 28.50 0.9
ISR 0.49 167 iPc 17 27.90 0.2
BAC 1.01 20 ePc 17 31.00 -0.2
PPE 1.04 54 iPd 17 32.60 1.1
BUC 1.22 190 iPc 17 33.00 0.0
BUC1 1.30 192 iPc 17 34.00 0.2
CFR 1.31 109 iPc 17 32.00 -1.9
PTT 1.32 360 iPc 17 25.00 -9.0X
TNR 1.49 272 iPc 17 26.00 -9.8X
IAS 1.77 27 iPc 17 39.00 0.2
DRA 1.78 239 iPc 17 40.00 1.1
KIS 2.21 50 iPc+ 17 43.50 -0.5
0.4s 900.00nm
iS 18 10.50
PSN 2.32 146 iPd 17 46.00 0.7
DEV 2.46 277 iPd 17 48.00 1.0
PVL 2.52 198 iPc 17 47.00 -0.7
BZS 3.35 272 iPc 17 59.00 0.7
SSR 3.37 259 iPd 17 58.00 -0.6
CEI 3.41 309 eP 18 23.00 23.9X
PGB 3.46 208 iPc 18 00.00 0.2
DIM 3.62 190 iP 18 01.00 -0.8
PLD 3.72 200 iPd 18 02.00 -1.1
VTS 3.79 218 iPd 18 04.00 -0.3
DMK 3.92 165 iPn 18 05.30 -0.5
KDZ 4.03 190 iP 18 07.00 -0.2
RZN 4.11 198 iPc 18 08.00 -0.5
UZH 4.11 319 iPd 18 08.80 0.5
1.0s 310.00nm
KKB 4.45 214 iPc 18 13.00 0.2
MMB 4.47 207 iPc 18 13.00 0.0
CTT 4.71 161 ePn 18 15.70 -0.5
ALN 4.72 183 eP 18 16.08 -0.3
SRS 4.94 205 eP 18 18.89 -0.4
PSZ 5.02 300 iPn 18 19.60 -0.9
SKO 5.11 226 ePn 18 23.00 1.4
eSn 19 16.50
VAY 5.11 214 iPn 18 21.50 -0.1
KNT 5.13 211 eP 18 21.56 -0.3
SOH 5.28 206 eP 18 23.44 -0.5
HRT 5.36 152 ePn 18 24.70 -0.2
BNT 5.38 167 ePn 18 25.00 -0.1
EDC 5.38 168 ePn 18 24.00 -1.1
GRG 5.49 213 eP 18 26.44 -0.3
SPC 5.49 313 iPd 18 27.60 0.7
UZD 5.52 283 eP 18 27.00 0.0
SRO 5.97 294 iP 18 34.30 1.2
0.4s 27.20nm 4.8mb X
i 20 37.30
PAIG 6.03 200 eP 18 34.56 0.8
OHR 6.07 224 ePn 18 36.80 2.3
OJC 6.39 318 iP 18 36.10 -2.6
i 18 39.40
KAS 6.84 126 iPd 18 43.80 -1.1
ZST 6.87 295 eP 18 43.90 -1.3
PTJ 7.31 276 e(P) 18 48.60 -2.6
VRAC 7.60 303 eP 18 55.10 0.2
1.8s 444.80nm 5.7mb X
VBY 7.82 273 e(P) 18 58.80 0.9
KSP 8.53 311 eP 19 06.20 -1.2
TRI 8.85 275 eP 19 12.00 0.4
KBA 9.14 284 iPd 19 16.70 1.0
1.0s 12.00nm 4.5mb X
GEC2 9.22 295 Pn 19 17.60 1.0
Pg 19 24.80
Sn 19 53.50
NUR 14.96 357 eP 20 32.50 2.0
0.3s 8.60nm 4.6mb
KAF 16.53 360 iP 20 47.50 -2.4

```
         0.3s      1.90nm                3.9mb
APO      16.67 338 eP      20 51.80    0.2
         0.4s      3.20nm                4.0mb
NB2      17.84 335 P       21 03.80   -1.8
         0.7s      8.40nm                4.2mb
TIC      47.40 225 P       25 27.00    0.5
KIC      47.51 224 P       25 27.00   -0.3
         0.4s      3.00nm                4.3mb
LIC      47.76 224 P       25 29.00   -0.3
         0.5s      4.50nm                4.4mb
GKN      48.75  90 P       25 38.60    1.5
DMN      49.32  90 P       25 42.80    1.2
KKN      49.33  90 P       25 42.60    1.0
PKI      49.56  90 P       25 43.20   -0.2
GUN      49.68  89 P       25 45.60    1.2
YKA      67.81 342 eP      27 48.20   -0.6
         0.6s      0.70nm                3.7mb
     S.D. = 1.0  on   67 of   70 obs.
-------------------------------------------
?  MAR  09, 1993  14h 22m 46.26± 4.35s
   7.928 S ±50.4km   128.893 E ±30.5km
   DEPTH = 202.3 ± 50.3 km
 BANDA SEA                          (280)

MTN       5.36 156 eP      24 06.00    0.0
         0.3s    138.00nm                5.6mb X
                   eS      25 09.00
KUG       5.67 247 eP      24 10.00    0.0
                   eS      25 16.00
WB2      13.06 157 iPd     25 45.60    0.0
                   eS      28 06.80
ASPA     16.37 164 iPd     26 30.30    3.9X
                   eS      29 26.80
QLP      23.59 144 eP      27 47.00    6.9X
PIP      27.33 343 eP      28 26.50   12.1X
PKI      54.90 312 P       31 58.00   -0.8
KKN      55.12 312 P       32 00.40    0.2
GKN      55.71 312 P       32 05.00    0.6
     S.D. = 0.7  on    6 of    9 obs.
-------------------------------------------
*  MAR  09, 1993  14h 42m 07.69± 0.75s
   59.724 S ±17.1km    25.409 W ±20.8km
   DEPTH =  33.0km  (normal)
   4.9mb (  4 obs.)  4.4Msz (  2 obs.)
 SOUTH SANDWICH ISLANDS REGION      (153)

SNA      14.29 147 iPc     45 27.40   -1.9
         0.5s     40.00nm                5.3mb
NVL      18.72 141 eP      46 26.00    0.7
         1.2s     62.00nm                4.7mb
                   ePP     47 06.00
                   eS      50 01.00
SPA      30.45 180 iPc     48 20.70    1.6
         0.7s     26.56nm                5.1mb
TCA      38.53 300 eP      49 25.00   -3.6X
RTLL     40.28 295 ePc     49 43.20    0.1
RTCB     40.30 295 ePc     49 44.70    1.4
PPD      41.89 323 eP      50 17.10   20.8X
SIV      50.80 314 P       51 10.60    3.9X
SOB1     51.74 340 (P)     51 14.00    0.1
CNCB     52.76 306 Pc      51 22.20    0.1
LPB      53.05 306 eP      51 22.00   -2.2
      Z  20s       0.35um                4.4Msz
                   eLR     11 10.00
ZOBO     53.29 306 P       51 25.20   -0.9
      Z  20s       0.29um                4.3Msz
                   S       58 58.00
                   LR      10 45.00
TIC      68.12  22 P       53 07.20    1.0
BCAO     72.69  46 ePc     53 38.50    4.6X
         0.8s      7.00nm                4.7mb
                   id      53 42.10
YKA     139.49 314 ePKP    01 28.10   -3.7X
         0.6s      2.70nm
RES     141.62 336 ePKP    01 46.00   10.7X
     S.D. = 1.5  on   10 of   16 obs.
-------------------------------------------
%  MAR  09, 1993  15h 19m 53.87± 0.75s
   39.373 N ±12.2km    28.991 E ±12.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
       MD 2.7 (ISK).

DST       0.36 310 iPg     20 00.60   -0.8
                   iSg     20 06.60
ALT       0.93 110 ePg     20 11.20   -0.4
KCT       1.00 331 iPg     20 13.70    0.8
```

```
KHL       1.13 158 ePg     20 15.40    0.3
                   eSg     20 33.40
BNT       1.28 320 ePn     20 17.70    0.0
EDC       1.30 319 ePn     20 18.00    0.0
     S.D. = 0.7  on    6 of    6 obs.
-------------------------------------------
&  MAR  09, 1993  15h 28m 43.47s
   63.207 N               149.437 W
   DEPTH =  92.1km
   2.9mb (  1 obs.)
 CENTRAL ALASKA                     (  1)
       <AEIC>.

HUR       0.25 202 iPc     28 56.72    1.4
                   eS      29 06.39
RND       0.33  53 iPc     28 57.42   -0.2
                   eS      29 07.76
TRF       0.46 303 iPd     28 58.50    0.0
                   eS      29 08.87
MCK       0.57  23 ePd     28 59.10   -0.2
                   S       29 10.36
NEA       1.39   6 iPd     29 07.50   -0.8
GHO       1.46 170 ePc     29 09.06   -0.2
                   eS      29 29.45
SML       1.49 159 iPc     29 09.44   -0.3
                   S       29 29.13
SKT       1.57 219 iPd     29 09.82   -0.8
                   eS      29 29.81
                   eS      29 30.20
PWA       1.58 188 P       29 10.80    0.1
CCB       1.62  26 iPd     29 10.50   -0.7
PLRM      1.63 175 ePc     29 11.32    0.0
                   S       29 32.35
PMR       1.63 175 eP      29 11.32    0.0
                   eS      29 32.74
HDA       1.63  41 iPd     29 10.89   -0.5
THY       1.68  81 eP      29 13.09    1.0
                   S       29 34.02
SCM       1.69 144 iPc     29 12.29    0.0
PAX       1.82  96 iPc     29 14.65    0.7
                   S       29 37.85
MDM       1.84  16 iPd     29 13.55   -0.6
                   eS      29 35.44
FBA       1.85  22 iPd     29 13.60   -0.6
SUA       1.85 200 ePc     29 14.52    0.1
SDG       1.91 109 eP      29 15.45    0.3
PMS       1.97 182 P       29 16.10    0.2
GLM       2.00  26 iPd     29 15.70   -0.6
TZL       2.19 120 eP      29 19.16    0.3
CRP       2.33 214 eP      29 19.84   -1.0
                   eS      29 48.27
CPAM      2.33 214 ePc     29 20.37   -0.5
CP2       2.35 215 (P)     29 20.70   -0.5
PTE       2.36 175 ePd     29 21.26    0.2
CKN       2.37 214 eP      29 21.08   -0.2
SPU       2.37 212 eP      29 20.82   -0.5
KLU       2.38 135 iPc     29 20.69   -0.7
BGL       2.39 217 ePc     29 21.61    0.0
CKT       2.40 214 ePc     29 21.10   -0.6
CKL       2.43 215 eP      29 21.64   -0.6
DOT       2.46  77 ePd     29 22.04   -0.4
                   eS      29 52.92
VLZ       2.54 144 iPc     29 22.24   -1.3
MPA       2.73 179 eP      29 25.84   -0.3
SLKM      2.73 188 ePd     29 26.33    0.1
TMW       2.91  85 eP      29 28.10   -0.6
RDT       2.99 209 eP      29 30.51    0.7
TTA       3.01 268 iPd     29 28.79   -1.2
DFR       3.04 212 eP      29 30.22   -0.3
SEW       3.11 180 eP      29 31.01   -0.4
NCT       3.13 213 eP      29 31.69    0.0
RDN       3.13 212 eP      29 32.49    0.7
HIN       3.15 152 ePc     29 30.27   -1.6
GLB       3.17 121 iPc     29 31.68   -0.5
RDW       3.17 212 eP      29 32.66    0.3
RS2       3.17 211 eP      29 32.58    0.2
RSO       3.17 211 ePc     29 32.68    0.3
RS1       3.17 211 eP      29 32.73    0.3
CVA       3.19 145 ePc     29 31.22   -1.2
SGAM      3.37 142 eP      29 33.15   -1.9
IMA       3.40 329 ePc     29 34.09   -1.4
BRLK      3.52 192 eP      29 36.31   -0.8
SVW       3.59 237 ePd     29 36.60   -1.3
INE       3.60 210 eP      29 38.23    0.0
INW       3.61 211 eP      29 38.33    0.0
RAGM      3.62 139 eP      29 37.05   -1.4
FYU       3.82  26 eP      29 40.14   -0.9
```

```
CRQM      3.86 127 ePd     29 40.58   -1.2
TGL       3.97 125 iPd     29 41.85   -1.5
BALM      3.98 120 eP      29 42.10   -1.4
KAIM      4.07 142 eP      29 42.38   -2.3
PDB       4.12 216 eP      29 44.71   -0.5
AUL       4.29 208 eP      29 47.25   -0.5
AUH       4.31 208 eP      29 47.41   -0.6
SNH       4.37 131 eP      29 47.63   -1.2
CTGM      4.42 117 eP      29 49.17   -0.5
YAH       4.63 125 eP      29 50.63   -2.0
MCNL      4.68 213 eP      29 52.36   -0.7
CDD       4.75 207 ePd     29 53.14   -0.9
SYI       4.83 199 eP      29 53.68   -1.4
YKA      15.80  77 eP      32 19.50   -2.0
         0.7s      0.60nm                2.9mb
         73 obs. associated
-------------------------------------------
%  MAR  09, 1993  15h 30m 18.52± 0.65s
   39.106 N ± 6.0km    28.803 E ± 6.7km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                             (366)
       MD 3.0 (ISK).

DST       0.52 345 iPg     30 28.60   -0.3
                   eSg     30 36.60
KHL       0.96 144 ePg     30 36.40   -1.0
                   eSg     30 50.40
ALT       1.02  92 iPn     30 38.80    0.5
KCT       1.19 343 ePn     30 41.20    0.0
IZM       1.40 240 iPn     30 45.50    0.8
BNT       1.42 332 ePn     30 44.70   -0.4
EDC       1.44 330 ePn     30 45.00   -0.2
GPA       1.66  44 ePn     30 49.00    0.6
     S.D. = 0.7  on    8 of    8 obs.
-------------------------------------------
&  MAR  09, 1993  16h 35m 45.97s
   62.036 N               149.865 W
   DEPTH =  50.3km
 CENTRAL ALASKA                     (  1)
       <AEIC>. ML 2.5 (AEIC).

PWA       0.39 181 eP      35 55.89   -0.1
                   eS      36 04.62
GHO       0.52 120 iP      35 56.94   -0.7
                   eS      36 06.08
PLRM      0.57 142 eP      35 57.10   -1.0
                   eS      36 06.51
PMR       0.57 142 iPd     35 57.03   -1.1
                   S       36 06.46
SUA       0.71 216 eP      35 59.93   -0.2
                   eS      36 10.72
SML       0.76 107 eP      35 59.66   -1.0
                   eS      36 12.46
SKT       0.79 267 eP      36 00.31   -0.7
                   eS      36 11.90
PMS       0.81 169 eP      36 00.64   -0.7
                   S       36 13.62
HUR       0.95   6 eP      36 02.82   -0.4
                   eS      36 15.94
SCM       1.22  99 eP      36 06.33   -0.7
                   eS      36 22.93
PTE       1.24 161 eP      36 06.87   -0.4
                   S       36 23.91
CRP       1.34 236 eP      36 07.92   -0.9
                   S       36 27.77
CPAM      1.34 235 eP      36 08.35   -0.4
                   S       36 25.86
                   S       36 26.61
SPU       1.35 232 eP      36 08.39   -0.5
                   eS      36 26.63
CKN       1.37 235 eP      36 09.47    0.3
CP2       1.37 237 eP      36 08.91   -0.4
                   S       36 26.84
CKT       1.40 234 eP      36 09.24   -0.3
BGL       1.43 238 eP      36 09.45   -0.6
TRF       1.43 352 eP      36 09.61   -0.5
CKL       1.45 236 eP      36 09.88   -0.4
RND       1.45  18 eP      36 09.61   -0.7
SLKM      1.54 187 eP      36 10.72   -0.8
MPA       1.57 171 eP      36 11.29   -0.6
                   S       36 31.32
VLZ       1.92 117 eP      36 16.27   -0.5
                   eS      36 39.06
SEW       1.95 174 eP      36 17.69    0.5
KLU       1.95 104 eP      36 16.44   -0.9
DFR       1.99 224 eP      36 18.24    0.4
                   eS      36 42.45
```

REF 2.07 223 eP 36 20.05 0.9
SDG 2.08 74 eP 36 19.46 0.4
NCT 2.09 226 eP 36 19.95 0.6
TZL 2.09 88 eP 36 19.32 0.1
RSO 2.11 223 eP 36 20.20 0.5
RS2 2.11 223 eP 36 20.69 1.0
RDW 2.11 224 eP 36 19.92 0.2
RS1 2.11 223 eP 36 21.18 1.5
PAX 2.25 63 eP 36 21.89 0.4
CVA 2.49 125 eP 36 25.04 0.3
HDA 2.72 28 eP 36 25.91 -2.2
SGAM 2.73 122 eP 36 27.05 -1.2
GLB 2.94 99 eP 36 29.95 -1.5
TTA 2.99 290 eP 36 28.38 -3.7
RAGM 3.01 121 eP 36 32.99 0.7
FBA 3.02 17 eP 36 31.19 -1.3
CRQM 3.48 109 eP 36 37.74 -1.4
TGL 3.62 108 eP 36 40.51 -0.5
BALM 3.74 102 eP 36 40.34 -2.3
CTGM 4.23 101 eP 36 47.65 -1.9
47 obs. associated

• MAR 09, 1993 16h 59m 16.18± 1.07s
17.538 N ± 9.9km 61.885 W ±10.0km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.4 (FDF). MD 3.0 (TRN).

CPB 0.12 29 eP 59 22.10 0.1
eS 59 27.58
BPA 0.49 177 ePd 59 26.52 -0.2
S 59 34.30
NEV 0.77 239 ePd 59 30.52 0.0
S 59 41.30
MGH 0.87 201 eP 59 31.91 -0.2
SEG 1.19 162 eP 59 37.44 0.9
SFG 1.44 153 eP 59 40.51 0.4
DEG 1.45 147 eP 59 39.40 -1.0
S 59 58.30
PAG 1.51 172 eP 59 41.30 0.0
S 00 00.90
S.D. = 0.6 on 8 of 8 obs.

% MAR 09, 1993 17h 03m 45.82± 0.73s
45.609 N ± 9.9km 5.300 E ± 5.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (LDG).

SSB 0.63 239 Pg 03 58.50 0.0
Sg 04 08.60
RSL 0.93 85 Pg 04 02.98 -0.8
Sg 04 16.90
LPL 1.01 95 Pg 04 05.30 0.2
Sg 04 20.50
LPG 1.03 96 Pg 04 05.90 0.5
Sg 04 21.40
SMF 1.45 316 Pg 04 11.20 -0.9
Sg 04 30.60
LBF 1.65 327 Pg 04 14.90 -0.1
Sg 04 35.90
LOR 1.94 330 Pg 04 20.20 1.1
Sg 04 43.40
CAF 2.38 255 Pg 04 32.60 7.0X
Sg 05 04.70
S.D. = 0.8 on 7 of 8 obs.

% MAR 09, 1993 17h 05m 41.12± 0.88s
26.441 S ± 6.8km 27.400 E ± 9.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

PRY 0.49 172 eP 05 49.90 -1.1
S 05 56.00
KSR 0.73 322 eP 05 55.00 -0.8
S 06 04.00
SLR 1.06 49 eP 06 02.00 0.3
S 06 13.80
SEK 1.89 174 eP 06 15.00 0.6
S 06 37.90
SWZ 2.00 248 eP 06 16.90 0.9
S 06 42.00
S.D. = 1.2 on 5 of 5 obs.

? MAR 09, 1993 17h 32m 46.92± 5.76s
60.305 N ±17.0km 4.187 E ±37.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

EGD 0.52 93 eP 32 57.69 0.3
eS 33 00.53
ASK 0.53 70 eP 32 57.30 -0.4
eS 32 59.24
ODD1 1.28 107 eP 33 10.80 0.0
eS 33 25.96
HYA 1.31 48 eP 33 11.59 0.5
eS 33 26.59
NRA0 3.66 80 Pn 33 43.91 -0.9
Pg 33 50.01
Lg 34 38.01
S.D. = 0.8 on 5 of 5 obs.

% MAR 09, 1993 17h 34m 26.91± 0.62s
40.678 N ± 5.3km 23.424 E ± 5.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

SOH 0.15 340 ePg 34 30.78 0.3
eSg 34 33.78
THE 0.35 263 ePg 34 33.69 -0.5
eSg 34 38.22
SRS 0.46 16 ePg 34 36.22 0.0
eSg 34 43.90
OUR 0.55 129 ePg 34 37.54 -0.4
eSg 34 44.66
KNT 0.63 321 ePg 34 39.14 -0.4
eSg 34 47.50
PAIG 0.77 165 ePg 34 42.50 0.5
GRG 0.82 290 ePg 34 43.34 0.5
eSg 34 55.58
S.D. = 0.5 on 7 of 7 obs.

& MAR 09, 1993 17h 36m 17.97s
60.023 N 153.261 W
DEPTH = 128.3km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.08 55 eP 36 34.88 0.7
eS 36 48.28
INE 0.11 69 iPc 36 35.00 0.7
eS 36 48.58
RS1 0.51 30 iPc 36 36.56 -0.8
eS 36 50.84
RS2 0.51 29 iPc 36 36.54 -0.9
eS 36 51.55
RSO 0.51 30 iPc 36 36.54 -0.9
eS 36 50.84
RDW 0.51 26 iPc 36 36.53 -0.9
eS 36 51.38
PDB 0.53 244 iPd 36 36.32 -0.9
eS 36 50.75
NCT 0.57 17 iPc 36 36.81 -0.8
eS 36 51.24
DFR 0.64 26 iPc 36 37.04 -1.1
AUL 0.65 188 iPd 36 37.35 -0.7
AUH 0.67 188 iPd 36 37.49 -0.8
AUE 0.67 185 ePd 36 37.25 -0.9
AUI 0.70 187 iPd 36 37.42 -1.0
RDT 0.70 37 eP 36 37.62 -0.9
MCNL 1.00 214 iPd 36 40.00 -1.0
CDD 1.11 190 iPd 36 40.94 -1.2
BRLK 1.23 101 eP 36 43.02 -0.3
eS 37 00.05
CKL 1.26 21 iPc 36 43.16 -0.6
CKT 1.29 23 iPc 36 43.29 -0.8
SPU 1.31 27 iPc 36 43.31 -0.9
BGL 1.32 19 iPc 36 43.91 -0.5
CKN 1.32 23 iPc 36 43.78 -0.5
CP2 1.34 22 eP 36 43.61 -1.2
CPAM 1.35 24 eP 36 44.21 -0.6
CRP 1.36 23 iPc 36 43.99 -0.9
SYI 1.49 162 ePd 36 44.87 -1.2
eS 37 06.18
SLKM 1.59 71 eP 36 45.64 -1.8
SUA 1.90 39 iPc 36 50.24 -1.0
eS 37 16.64
SEW 1.91 86 eP 36 49.47 -1.7
MPA 2.00 75 iPd 36 50.66 -1.6
SKT 2.14 22 eP 36 53.02 -1.0
PMS 2.20 54 P 36 53.20 -1.6
PTE 2.26 66 iPd 36 53.37 -2..2
GHO 2.75 48 eP 36 59.71 -2.3
SML 3.00 51 eP 37 02.59 -2.6
HIN 3.39 81 eP 37 08.24 -2.2
TRF 3.72 21 eP 37 13.89 -1.0
KLU 3.89 65 eP 37 14.21 -2.9
38 obs. associated

& MAR 09, 1993 18h 05m 39.05s
37.676 N 122.533 W
DEPTH = 8.4km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.5 (GM). ML 2.3 (BRK). Felt at Daly City and San Francisco.

JEGM 0.17 161 iPd 05 42.72 -0.1
S 05 45.25
BKS 0.31 50 iPc 05 45.52 0.1
iS 05 50.15
STAN 0.39 134 e(P) 05 46.82 -0.2
eS 05 53.14
NTYM 0.72 352 eP 05 52.59 -0.8
S 06 02.89
HMR 0.75 50 eP 05 54.31 0.4
MHC 0.78 115 ePc 05 53.93 -0.6
eS 06 04.87
COE 0.80 121 ePc 05 54.56 -0.2
S 06 07.32
ARN 0.86 112 iPc 05 55.26 -0.5
S 06 07.28
SAO 1.26 136 e(P) 06 00.48 -2.1
e(S) 06 17.51
9 obs. associated

MAR 09, 1993 18h 44m 53.64± 0.78s
47.456 N ± 9.1km 15.567 E ± 7.3km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 2.4 (VIE), 2.4 (BRA). Felt (IV) at Allerheiligen.

VKA 0.96 32 iPgc 45 11.10 -0.7
iSg 45 25.50
i 45 26.10
ZST 1.27 54 iPnc 45 17.10 -0.2
iSn 45 35.10
Lg 45 36.50
KBA 1.56 257 iPgd 45 20.10 -1.5
i 45 22.20
iSg 45 40.50
i 45 42.10
PTJ 1.58 170 iPn 45 22.60 0.8
iSg 45 42.70
KHC 2.14 322 ePg 45 31.50 1.6
eSg 45 55.50
WTTA 2.68 267 iPgc 45 38.20 0.4
i 46 09.20
i 46 18.00
SQTA 2.97 267 iPgd 45 41.80 0.0
i 45 48.00
i 46 19.20
i 46 27.00
MOTA 3.03 270 iPgc 45 42.30 -0.4
i 46 22.20
i 46 29.00
S.D. = 1.1 on 8 of 8 obs.

? MAR 09, 1993 18h 57m 56.45± 2.55s
10.653 N ±25.9km 69.368 W ±18.0km
DEPTH = 10.0km (geophysicist)
VENEZUELA (101)

TOV 0.96 206 ePn 58 13.70 -1.0
eSn 58 31.00
MORO 1.06 78 eP 58 16.20 -0.2
CEOS 1.91 148 eP 58 29.80 0.4
eS 58 54.90
SDV 2.15 215 ePn 58 33.90 0.8
S.D. = 1.4 on 4 of 4 obs.

• MAR 09, 1993 19h 36m 31.52± 2.29s
39.496 N ±17.4km 23.545 E ±20.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.6 (THE).

09d 19h

```
PAIG     0.44  14 ePg    36 40.78    0.3
                  eSg    36 48.78
OUR      0.90  22 ePg    36 48.90    0.1
                  eSg    37 00.22
AGG      1.06 244 ePg    36 51.50    0.1
SRS      1.62   1 ePb    36 59.50   -0.7
GRG      1.70 329 ePb    37 01.38    0.0
                  eSb    37 23.98
KNT      1.74 344 ePb    37 02.18    0.3
VAY      1.97 338 ePn    37 11.00    5.8X
     S.D. = 0.5  on   6 of   7 obs.
```

```
?  MAR  09, 1993  19h 41m 36.05± 2.14s
   11.478 S ±15.3km  163.066 E ±19.6km
   DEPTH =  78.9 ± 19.5 km
   4.1mb (  4 obs.)
 SOLOMON ISLANDS                   (193)

HNR      3.68 303 eP     42 32.00    0.3
                  eS     43 20.00
DZM     11.02 163 iPc    44 12.80   -0.1
CTA     18.29 240 eP     45 46.00   -0.2
BRS     18.55 210 iP     45 57.50    8.3X
CMS     25.50 216 eP     47 04.60    5.9X
         0.7s      3.00nm          3.9mb
WB2     28.86 249 eP     47 33.40    4.0X
         0.5s      3.00nm          4.2mb
ASPA    30.26 242 iPc    47 45.30    3.4X
         0.8s      5.60nm          4.3mb
GUN     84.24 300 P      54 00.00   -1.0
YKA     96.57  28 eP     54 57.40   -0.4
         0.9s      0.50nm          4.0mb
BCAO   144.21 262 ePKPc  01 07.00    1.5
         0.2s      4.00nm
     S.D. = 1.3  on   6 of  10 obs.
```

```
?  MAR  09, 1993  20h 03m 52.13± 5.28s
   35.084 S ±47.4km   71.162 W ±12.7km
   DEPTH = 100.0km  (geophysicist)
 CENTRAL CHILE                     (136)
      MD 4.0 (SAN).

CACH     1.07  26 iPd    04 13.94    0.2
                  iS     04 28.45
LNV      1.14 350 iPd    04 14.64    0.2
                  iS     04 28.95
CHCH     1.22  20 iPd    04 15.20   -0.2
                  iS     04 30.45
TACH     1.44   7 iPd    04 17.85   -0.2
                  iS     04 34.64
PCH      1.56  20 iP     04 19.50   -0.1
                  iS     04 38.04
LCCH     1.64 348 iP+    04 20.36   -0.2
                  iS     04 39.64
SAN      1.68  14 iP     04 20.91   -0.2
FCH      1.90  23 iP+    04 24.52    0.3
                  iS     04 46.85
PEL      1.98  12 iP+    04 25.26    0.3
                  iS     04 47.14
IHA      2.09 349 eP     04 46.10   19.7X
                  iS     20 53.70
ROCH     2.11   3 iP     04 26.97    0.1
                  iS     04 51.18
JACH     2.44  11 iPd    04 30.88   -0.3
                  iS     04 57.97
RTCB     4.10  30 ePd    04 54.50    0.7
CFA      4.24  36 e(P)   04 55.30   -0.5
RTLL     4.37  32 ePd    04 57.30   -0.2
     S.D. = 0.3  on  14 of  15 obs.
```

```
   MAR  09, 1993  20h 43m 30.92± 0.43s
   19.608 N ± 6.9km   38.662 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 37 obs.)  4.8Msz (  2 obs.)
 RED SEA                           (554)

SAGI    11.17 342 eP     46 12.70   -1.0
MKT     11.73 345 eP     46 21.40    0.1
ZNT     12.99 346 eP     46 38.50    0.2
KER     16.49  25 eP     47 25.00    1.0
GRS     20.90  17 eP     48 17.00    0.9
         2.4s    120.00nm          4.8mb
ERE     21.11  12 iP     48 19.00    0.8
         1.6s     14.00nm          4.1mb
     Z  13s      0.90um            4.3MszX
MTA     22.63  12 eP     48 35.00    1.8
GRO     24.40  12 eP     48 55.00    4.6X
KIV     24.51   7 eP     48 52.30    0.6
KDZ     24.69 336 eP     48 55.00    1.7
MAIO    24.72  43 eP     48 57.00    3.3X
BCAO    24.75 235 iPc    48 56.00    1.9
         0.8s     14.00nm          4.7mb
                  ic     49 06.50
RZN     25.00 335 iPd    48 59.00    2.5
ASH     25.04  39 eP     49 06.00    9.3X
MMB     25.33 333 eP     49 00.00    0.6
PLD     25.36 335 eP     49 02.00    2.4
KKB     25.83 333 eP     49 04.00   -0.1
OHR     26.30 328 eP     49 04.50   -4.0X
VTS     26.37 334 eP     49 10.00    0.7
SKO     26.65 331 eP     49 11.50   -0.2
QUE     27.67  62 eP     49 29.20    7.9X
PTJ     32.21 330 eP     50 01.80    0.4
SRO     32.63 334 iP     50 06.20    1.3
SPC     33.01 338 eP     50 10.00    1.5
ZST     33.43 333 eP     50 11.50   -0.4
GEC2    35.41 331 P      50 28.40   -0.7
         1.6s     18.69nm          4.7mb
                  e      50 39.10
                  e      52 45.50
                  e      52 51.40
                  e      52 57.60
                  e      53 04.30
OBN     35.47 358 iPd    50 29.00   -0.3
         1.7s     70.00nm          5.3mb
KSP     35.84 336 eP     50 33.20    0.7
BRG     36.81 334 eP     50 40.80    0.1
         1.3s     25.00nm          4.8mb
GRF     37.15 330 eP     50 44.10    0.5
CLL     37.53 334 iP     50 46.00   -0.7
         1.7s     30.00nm          4.8mb
GBA     37.57  93 P      50 59.00   11.5X
MOX     37.65 332 eP     50 47.00   -0.7
         1.7s     32.00nm          4.8mb
HYB     37.83  87 eP     50 50.00    0.3
FRU     38.06  44 eP     50 51.70    0.3
                  e      51 06.00
BSF     38.19 325 eP     50 52.00   -0.5
         1.3s     20.95nm          4.7mb
CDF     38.28 326 eP     50 51.40   -1.8
HAU     38.54 325 eP     50 53.40   -1.9
         1.2s     11.30nm          4.5mb
SMF     39.20 322 eP     51 00.00   -0.8
LBF     39.30 322 eP     51 00.90   -0.8
         1.1s     12.95nm          4.5mb
CAF     39.43 318 eP     51 03.10    0.3
         1.4s     25.70nm          4.7mb
LOR     39.52 322 eP     51 02.90   -0.6
         1.4s     31.35nm          4.8mb
AVF     39.56 321 eP     51 03.00   -0.8
         1.4s     19.15nm          4.6mb
SSF     39.61 322 eP     51 03.50   -0.7
         1.5s     21.95nm          4.6mb
MAF     39.74 320 eP     51 05.20   -0.1
         1.3s     21.30nm          4.7mb
BGF     39.74 321 eP     51 05.30    0.0
         1.1s     34.70nm          4.9mb
LPO     39.87 317 eP     51 07.00    0.6
         1.5s     36.55nm          4.8mb
RJF     39.95 318 eP     51 07.40    0.4
         1.4s     25.25nm          4.7mb
TCF     39.99 320 eP     51 07.60    0.2
         1.3s     12.25nm          4.4mb
LFF     40.27 318 eP     51 10.20    0.5
         1.6s     54.75nm          5.0mb
LSF     40.38 320 eP     51 10.70    0.1
         1.4s     38.75nm          4.9mb
PRZ     40.47  47 eP     51 11.00   -0.6
         1.8s     70.00nm          5.1mb
MFF     41.57 319 eP     51 20.00   -0.3
LDF     42.50 322 eP     51 26.60   -1.3
         1.2s     18.45nm          4.7mb
GKN     42.68  70 P      51 30.00    0.1
LPF     42.77 321 eP     51 29.20   -0.9
         1.3s     33.20nm          4.9mb
FLN     42.79 322 eP     51 29.10   -1.2
         1.1s     30.50nm          4.9mb
GRR     42.83 321 eP     51 29.50   -1.1
         1.4s     44.45nm          5.0mb
DMN     43.09  70 P      51 33.60    0.2
KKN     43.25  70 P      51 34.80    0.2
PKI     43.36  70 P      51 35.40   -0.3
GUN     43.78  70 P      51 39.00   -0.1
KIC     44.15 259 P      51 42.20    0.4
         1.1s     12.00nm          4.7mb
TIC     44.31 259 P      51 43.60    0.5
LIC     44.47 259 P      51 44.60    0.2
     Z  20s      0.10um            3.7Msz
NB2     45.69 342 PKP    51 52.50   -1.1
         1.3s     20.90nm          4.9mb
EKA     47.53 329 P      52 07.00   -1.1
         2.0s     73.90nm          5.4mb
ELT     49.56  36 eP     52 23.50   -0.4
         1.3s     40.00nm          5.3mb
NRI     58.06  18 iPc    53 27.00    0.8
         1.4s     29.00nm          5.1mb
LZH     58.93  59 eP     53 33.50    0.4
         1.5s     40.00nm          5.3mb
     Z  20s     10.49um            6.0Msz
                  pP     53 39.00   18kmX
ZAK     59.01  42 eP     53 33.00   -0.1
         1.6s     17.00nm          4.9mb
     Z  16s      0.59um            4.8MszX
     E  18s      0.71um
IRK     59.86  40 ePc    53 37.90   -1.2
                  e      53 44.00
CIT     65.57  41 eP     54 16.50   -0.5
BOD     65.93  35 eP     54 16.70   -2.4
         1.2s     23.00nm          5.2mb
YAK     73.38  29 iPc    55 03.10   -1.5
         2.0s     51.00nm          5.2mb
MGD     83.64  28 eP     56 00.00   -0.7
ILT     88.55  13 eP     56 26.00    1.2
YKA     95.48 348 eP     56 58.00    1.0
         0.9s      0.90nm          4.2mb
     S.D. = 1.0  on  72 of  78 obs.
```

```
?  MAR  09, 1993  21h 20m 15.88± 1.23s
    9.090 N ±52.8km   81.056 W ±12.3km
   DEPTH =  33.0km  (normal)
 PANAMA                            ( 81)
      MD 3.6 (UPA).

ECO      1.37  78 iPd    20 39.30    0.4
                  eS     20 57.55
UPA      1.51  94 iPc    20 40.47   -0.4
                  eS     20 59.16
BRU      1.51 259 iPd    20 40.98   -0.4
                  eS     21 03.87
DVD      1.52 245 iPc    20 41.50    0.4
                  eS     21 01.96
     S.D. = 0.8  on   4 of   4 obs.
```

```
&  MAR  09, 1993  21h 23m 13.28s
   60.281 N           153.501 W
   DEPTH = 164.0km
 SOUTHERN ALASKA                   (  2)
      &lt;AEIC&gt;.

INW      0.28 139 ePc    23 34.83    0.6
                  eS     23 51.91
INE      0.31 135 iPc    23 34.97    0.6
                  eS     23 52.61
RDW      0.40  59 iPc    23 35.24    0.5
NCT      0.40  45 iPc    23 35.27    0.7
                  eS     23 52.53
RS1      0.41  64 iPc    23 35.37    0.6
RS2      0.41  63 iPc    23 35.35    0.6
RSO      0.41  64 iPc    23 35.36    0.6
RDN      0.43  57 ePc    23 35.47    0.7
DFR      0.51  52 iPc    23 35.46   -1.2
PDB      0.60 215 iPd    23 35.87   -1.1
                  eS     23 53.82
AUL      0.90 178 iPd    23 38.10   -0.8
AUH      0.92 178 iPd    23 38.24   -0.9
AUE      0.93 176 ePd    23 38.07   -1.0
AUI      0.95 178 ePd    23 38.22   -1.0
CKL      1.08  31 iPc    23 39.71   -0.8
                  eS     24 00.81
CKT      1.12  34 iPc    23 39.79   -1.0
BGL      1.13  28 eP     23 40.00   -0.9
CKN      1.15  34 iPc    23 40.20   -0.8
SPU      1.15  38 iPc    23 39.78   -1.2
CP2      1.16  32 iPc    23 40.61   -0.7
MCNL     1.18 201 iPd    23 40.01   -1.2
CPAM     1.18  34 iPc    23 40.51   -0.8
CRP      1.19  33 iPc    23 40.13   -1.4
SVW      1.33 309 eP     23 41.39   -1.3
BRLK     1.41 110 eP     23 42.11   -1.3
BRLK     1.41 110 eP     23 42.25   -1.2
                  eS     24 03.71
```

SLKM 1.64 81 ePc 23 43.40 -2.4
eS 24 07.26
SYI 1.77 161 iPd 23 45.22 -1.8
eS 24 10.47
SUA 1.80 47 iPc 23 45.80 -1.7
eS 24 12.41
SKT 1.96 28 iPc 23 48.08 -1.1
eS 24 15.11
eS 24 15.51
SEW 2.03 93 eP 23 48.08 -1.9
MPA 2.07 82 ePc 23 47.93 -2.4
PMS 2.16 62 ePc 23 49.14 -2.4
PWA 2.24 51 P 23 50.70 -1.7
PTE 2.29 73 eP 23 49.99 -2.9
PLRM 2.51 56 eP 23 52.89 -2.7
GHO 2.68 54 iPc 23 54.81 -3.0
eS 24 28.07
SML 2.94 56 ePc 23 57.87 -3.2
SCM 3.38 60 eP 24 03.81 -2.8
HIN 3.48 85 ePc 24 05.35 -2.5
TRF 3.53 24 eP 24 06.99 -1.6
VLZ 3.63 73 ePc 24 06.79 -2.8
RND 3.83 33 eP 24 10.98 -1.4
CVA 3.85 83 ePc 24 10.10 -2.5
KLU 3.90 69 ePc 24 10.24 -3.1
SGAM 4.12 83 eP 24 13.67 -2.4
RAGM 4.39 85 ePc 24 17.06 -2.6
SDG 4.44 56 eP 24 18.41 -1.9
PAX 4.69 51 eP 24 21.41 -2.2
NEA 4.78 24 eP 24 22.01 -2.7
GLB 4.88 72 ePc 24 23.54 -2.6
CCB 5.12 29 eP 24 26.39 -2.8
HDA 5.14 34 eP 24 26.95 -2.6
CRQM 5.14 80 ePc 24 27.79 -1.9
TGL 5.29 80 ePc 24 29.65 -2.0
GLM 5.50 28 eP 24 31.65 -2.7
BALM 5.54 77 ePc 24 33.08 -1.8
CTGM 6.03 78 ePc 24 39.65 -1.8
58 obs. associated

MAR 09, 1993 22h 40m 41.09± 0.30s
59.868 S ± 8.3km 25.996 W ± 7.3km
DEPTH = 33.0km (normal)
5.2mb (13 obs.) 4.8Msz (3 obs.)
SOUTH SANDWICH ISLANDS REGION (153)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 20S, 29C
Centroid Location:
Origin Time 22:40:47.6 0.4
Lat 59.60S 0.07 Lon 27.54W 0.12
Dep 15.0 FIX Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr=-3.69 0.56 Mtt= 1.18 0.82
Mff= 2.50 0.51 Mrt= 5.04 0.86
Mrf= 9.28 0.81 Mtf= 4.20 0.62
Principal Axes:
T Val= 12.72 Plg=33 Azm=305
N -2.08 8 210
P -10.65 56 107
Best Double Couple:Mo=1.2*10**17
NP1:Strike= 64 Dip=15 Slip= -55
NP2: 208 78 -99

SNA 14.33 147 iPd 43 58.00 -5.2X
0.7s 271.00nm 5.9mb
NVL 18.80 141 eP 44 58.00 -1.7
1.2s 107.00nm 4.9mb
Z 12s 2.00um
N 11s 1.80um
E 12s 1.00um
eS 48 14.00
SPA 30.30 180 iPc 46 51.60 0.3
1.1s 97.02nm 5.5mb
MRA 37.92 298 e(P) 47 57.30 0.6
TCA 38.35 301 iP 48 00.50 0.0
PEL 39.58 292 iP+ 48 21.00 10.3X
VAO 39.69 329 eP 48 12.20 0.5
CFA 39.74 296 e(P) 48 12.00 0.0
RTCB 40.09 296 iPd 48 16.00 1.0
CYA 41.37 301 ePc 48 24.30 -1.1
PPD 41.83 323 eP 48 28.90 -0.3
FRS 45.53 72 iPc 49 00.80 1.8
0.7s 11.00nm 4.9mb
BLF 46.48 72 eP 49 00.70 -6.1X
BAO 47.00 330 eP 49 10.30 -0.6
e 49 27.00
e 49 39.50
e 50 07.20
e 54 22.90
WIN 47.93 58 eP 49 20.00 1.7
1.2s 30.00nm 5.2mb
PRY 48.92 72 eP 49 12.00 -13.9X
KSR 49.54 71 e(P) 49 29.00 -1.7
SLR 50.32 72 e(P) 49 17.50 -19.0X
Z 18s 3.44um 5.4Msz
SIV 50.69 314 P 49 43.20 3.9X
BFT 51.21 74 eP 49 48.00 4.6X
SOB1 51.78 341 eP 49 46.30 -1.3
e 49 55.30
CNCB 52.60 306 Pc 49 55.00 0.6
LPB 52.90 306 Pc 49 55.20 -1.2
1.0s 40.00nm 5.3mb
Z 20s 0.71um 4.7Msz
(S) 57 31.00
LR 07 10.00
ZOBO 53.13 306 iPc 49 58.20 -0.2
1.1s 42.05nm 5.3mb
S 57 36.00
LR 06 22.00
ARE 54.37 303 eP 50 08.00 0.9
LIC 67.95 23 P 51 38.72 0.2
1.2s 25.50nm 5.2mb
Z 20s 0.19um 4.3Msz
KIC 68.14 23 P 51 39.88 0.1
1.2s 35.50nm 5.3mb
TIC 68.36 22 P 51 41.22 0.1
1.0s 21.50nm 5.2mb
BCAO 73.00 47 iPc 52 09.00 -0.2
0.7s 15.00nm 5.1mb
ic 52 18.00
id 52 32.20
SDV 77.16 315 iPc 52 32.60 -0.5
TOO 82.66 173 eP 53 02.70 0.6
0.8s 12.00nm 5.0mb
CMS 88.73 173 eP 53 32.60 0.3
1.1s 8.00nm 5.0mb
GEC2 113.06 27 PKP 59 15.60 0.1
1.4s 2.90nm
JAO 120.11 328 ePKP 59 28.00 -0.6
CHTO 123.40 112 ePKP 59 36.40 0.4
ULM 123.40 314 ePKPd 59 37.50 2.5X
HFS 123.58 23 ePKP 59 33.50 -1.6
0.6s 2.70nm
NB2 123.96 21 PKP 59 36.40 0.5
0.9s 9.60nm
DMN 124.00 93 PKP 59 37.00 -0.3
PKI 124.12 93 PKP 59 37.00 -0.6
KKN 124.24 93 PKP 59 37.00 -0.7
GUN 124.64 93 PKP 59 38.40 -0.2
NUR 126.30 28 ePKP 59 43.70 3.3X
1.1s 28.20nm
LCCM 126.30 300 ePKP 59 42.70 1.6
KAF 128.09 28 ePKP 59 43.50 -0.2
1.1s 48.80nm
FCC 129.70 321 ePKP 59 49.50 2.7X
GDH 130.34 348 iPKPd 59 46.30 -1.5
0.9s 30.25nm
KMI 130.60 111 PKPc 00 01.00 11.0X
YKA 139.38 315 ePKP 59 59.00 -6.0X
0.8s 20.00nm
LZH 140.19 104 ePKP 00 09.50 1.9
RES 141.64 336 ePKP 00 04.00 -4.8X
1.0s 6.00nm
IRK 151.85 83 ePKPc 00 31.30 5.3X
1.3s 12.00nm
FBA 153.42 306 ePKP 00 36.70 8.9X
0.6s 14.30nm
MAT 154.53 149 ePKP 00 31.00 0.8
IMA 156.08 307 e(PKP)00 42.00 10.5X
1.0s 7.10nm
S.D. = 1.0 on 39 of 55 obs.

MAR 09, 1993 23h 27m 36.34± 0.83s
24.597 S ± 6.9km 179.965 E ±10.2km
DEPTH = 540.5 ± 10.3 km
5.0mb (11 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN 6.71 348 eP 29 21.70 -0.2
DZM 12.67 279 iPd 30 23.00 0.6
iS 32 39.00
HBZ 13.04 186 eP 30 26.90 1.0
URZ 13.84 189 eP 30 32.30 -1.6
NOZ 14.07 186 eP 30 37.10 0.8
MOZ 14.54 196 eP 30 41.70 0.7
NGZ 15.00 193 eP 30 45.70 0.0
PGZ 16.27 190 eP 30 58.00 0.0
MNG 16.41 192 eP 30 57.80 -1.6
eS 33 41.00
KIW 16.76 193 eP 31 02.40 -0.4
DIW 16.93 196 eP 31 04.00 -0.5
MTW 16.93 192 eP 31 03.80 -0.6
CAW 16.97 193 eP 31 04.80 0.0
BLW 17.14 192 eP 31 06.60 0.1
TCW 17.24 195 eP 31 08.20 0.8
ORZ 17.34 199 eP 31 08.90 0.5
THZ 18.10 197 eP 31 16.10 0.3
DSZ 18.40 200 eP 31 19.50 0.8
KHZ 18.55 195 eP 31 19.60 -0.5
LTZ 19.22 197 eP 31 25.50 -1.0
MQZ 19.98 196 eP 31 32.80 -0.7
BRS 24.58 258 eP 32 16.00 0.5
ARMA 25.76 251 iPc 32 26.40 0.5
0.7s 14.00nm 4.7mb
RMQ 28.19 259 iPd 32 48.10 0.9
CNB 28.48 241 eP 32 50.20 0.5
0.4s 15.00nm 5.0mb
CAN 28.77 241 iPc 32 52.70 0.5
BWA 29.05 243 iPc 32 52.70 -1.9
CMS 30.81 249 iPc 33 09.80 0.1
0.3s 13.00nm 5.0mb
CTA 31.45 271 eP 33 16.00 0.8
i 33 36.00
e 37 45.00
TOO 32.05 238 iPc 33 20.60 0.5
0.4s 31.00nm 5.3mb
QLP 32.22 259 iPc 33 21.70 0.1
TAU 32.44 228 iPc 33 24.30 1.1
BFD 34.26 240 iPc 33 39.10 0.5
0.9s 18.00nm 4.7mb
STK 34.44 249 iPc 33 40.80 0.6
0.4s 21.00nm 5.1mb
ASPA 41.90 261 iPc 34 40.90 -0.1
1.1s 21.40nm 4.6mb
eS 40 17.50
eScS 43 45.50
WB2 42.32 267 iPc 34 43.90 -0.4
0.4s 24.60nm 5.1mb
eS 40 22.20
WRA 42.33 267 P 34 44.30 -0.1
0.4s 2.00nm 4.0mb
FORT 46.04 250 iPc 35 12.40 -0.7
0.6s 66.00nm 5.3mb
KLB 54.69 248 eP 36 15.00 -1.6
RKG 54.88 244 eP 36 17.40 -0.5
BAL 55.75 249 eP 36 23.20 -0.8
MUN 55.93 247 eP 36 25.00 -0.3
MRWA 56.62 250 eP 36 29.00 -1.0
SPA 65.55 180 iPc 37 31.00 2.9
1.0s 84.50nm 5.2mb
BUL 127.51 215 ePKP 45 44.80 2.7X
NB2 142.76 351 PKP 46 08.60 -0.4
0.4s 1.10nm
HFS 143.22 349 ePKP 46 09.80 0.1
0.2s 7.30nm
CLL 151.51 343 iPKPd 46 33.70 10.6X
0.9s 14.00nm
BRG 151.63 341 iPKP 46 34.00 10.7X
BCAO 153.14 225 ePKPd 46 28.50 1.9X
1.0s 15.00nm
id 46 36.40
id 46 50.00
GEC2 153.50 339 PKP 46 37.60 11.5X
1.1s 1.28nm
e 46 52.60
S.D. = 0.9 on 46 of 51 obs.

MAR 09, 1993 23h 55m 57.16± 0.69s
46.382 N ±11.2km 152.841 E ± 8.1km
DEPTH = 33.0km (normal)
4.7mb (19 obs.)
KURIL ISLANDS (221)

KUR 3.66 254 iPnc 56 54.00 1.2
Z 14s 2.70um
E 14s 2.70um
SKR 4.80 26 ePn 57 08.80 -0.2
eS 58 14.80
YSS 6.99 279 ePn 57 40.00 0.2

09d 23h

Z 18s 0.40um
PET 7.63 27 ePn 57 49.00 0.3
eS 59 25.00
MGD 13.80 356 eP 59 12.00 -0.4
0.7s 20.00nm 5.0mb
Z 17s 0.40um
N 16s 0.50um
MAT 14.71 233 eP 59 21.00 -3.5X
0.8s 8.21nm 4.2mb
SEY 16.56 359 eP 59 51.00 2.9
YAK 20.51 328 eP 00 33.40 -1.3
0.9s 20.00nm 4.5mb
i 00 47.00
e 04 22.00
BOD 25.99 310 eP 01 28.10 -0.2
TTA 32.82 41 eP 02 29.40 0.0
SVW 32.87 44 eP 02 30.50 0.8
IMA 34.22 36 eP 02 41.40 -0.1
0.8s 11.90nm 4.9mb
FBA 36.57 38 eP 03 01.70 0.4
1.0s 29.10nm 5.1mb
YKA 51.33 36 eP 04 59.50 -0.4
1.0s 3.70nm 4.3mb
CHTO 51.85 257 eP 05 14.40 10.0X
GUN 54.85 275 P 05 27.00 0.1
KKN 55.33 275 P 05 30.60 0.3
PKI 55.38 275 P 05 30.60 -0.2
DMN 55.57 275 P 05 32.40 0.4
GKN 55.64 276 P 05 32.20 -0.2
HFS 68.74 339 eP 06 57.10 -2.1
0.5s 2.30nm 4.5mb
GBA 70.23 269 P 07 20.00 11.0X
SPC 76.28 330 eP 07 45.40 1.3
CLL 76.72 335 iP 07 45.10 -1.2
1.1s 21.00nm 5.1mb
PRU 77.44 334 P 07 50.50 0.2
MOX 77.71 336 eP 07 51.80 0.0
ZST 78.19 332 e(P) 07 52.20 -2.3
KHC 78.49 334 eP 07 56.40 0.2
1.0s 7.00nm 4.6mb
GRF 78.68 336 eP 07 57.50 0.3
GEC2 78.70 334 Pd 07 56.90 -0.5
0.6s 1.56nm 4.2mb
PcP 08 01.00
e 08 05.30
e 08 09.10
KBA 80.39 333 iPc 08 06.80 0.2
1.1s 14.70nm 4.9mb
WTTA 80.74 334 iPc 08 08.00 -0.5
1.0s 13.30nm 4.9mb
MOTA 80.83 335 iPc 08 08.70 -0.2
1.0s 9.20nm 4.7mb
SQTA 80.91 335 i(P) 08 10.10 0.8
1.0s 7.00nm 4.6mb
LOR 82.86 339 eP 08 19.00 -0.3
0.6s 2.45nm 4.5mb
LBF 83.09 339 eP 08 20.20 -0.4
0.5s 0.65nm 4.0mb
SSF 83.14 339 eP 08 20.50 -0.2
0.6s 1.45nm 4.3mb
AVF 83.43 339 eP 08 22.30 0.1
SMF 83.44 339 eP 08 22.40 0.1
1.0s 7.80nm 4.8mb
LPL 83.74 337 eP 08 24.50 0.4
LPG 83.75 337 eP 08 24.70 0.4
MAF 84.15 340 eP 08 26.30 0.4
0.8s 9.25nm 5.0mb
S.D. = 0.9 on 39 of 42 obs.

---

* MAR 10, 1993 00h 05m 02.03± 0.75s
59.971 S ±18.7km 25.926 W ±16.5km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

NVL 18.69 141 eP 09 19.00 -0.3
1.8s 39.00nm 4.3mb
eLQ 13 11.00
PEL 39.65 292 eP+ 12 33.00 0.8
BAO 47.11 330 eP 13 31.20 -1.5
SIV 50.79 314 P 14 05.00 4.0X
CNCB 52.69 306 P 14 17.00 1.0
LPB 52.99 306 eP 14 17.00 -1.0
ZOBO 53.22 306 Pd 14 20.00 0.0
KIC 68.22 23 P 16 01.50 0.3
BCAO 73.05 47 ePc 16 31.00 0.6
0.8s 5.00nm 4.6mb
YKA 139.47 314 ePKP 24 23.10 -3.0X
0.8s 3.00nm
S.D. = 1.1 on 8 of 10 obs.

MAR 10, 1993 00h 29m 14.30± 0.48s
19.729 N ± 9.2km 38.706 E ± 5.7km
DEPTH = 10.0km (geophysicist)
4.6mb (13 obs.) 4.1Msz (3 obs.)
RED SEA (554)

KER 16.36 25 eP 33 07.00 1.2
NAI 20.95 185 ePd 34 08.00 7.7X
Z 20s 0.46um 3.9Msz
MAIO 24.60 44 iPd 34 39.60 3.6X
BCAO 24.85 235 ePd 34 39.00 0.5
0.6s 14.00nm 4.8mb
ic 34 42.00
SKD 26.57 330 eP 34 50.00 -4.3X
QUE 27.57 62 eP 35 19.70 15.9X
PTJ 32.13 329 eP 35 42.60 -1.5
GEC2 35.32 331 Pc 36 12.10 0.4
1.2s 6.38nm 4.4mb
e 36 17.50
e 38 41.70
e 38 47.20
KHC 35.59 331 eP 36 14.00 0.1
GRF 37.07 330 e(P) 36 23.00 -3.3X
CLL 37.44 333 e(P) 36 34.00 4.7X
GBA 37.54 93 P 36 32.00 1.4
MOX 37.56 332 eP 36 30.10 -0.3
HYB 37.78 87 eP 36 34.00 1.3
BSF 38.12 325 eP 36 35.60 0.3
1.2s 11.30nm 4.5mb
SMF 39.13 321 eP 36 43.70 0.1
1.3s 7.95nm 4.2mb
LBF 39.23 322 eP 36 44.50 0.0
1.2s 10.10nm 4.4mb
LOR 39.45 322 eP 36 46.50 0.2
1.2s 8.35nm 4.3mb
AVF 39.49 321 eP 36 46.70 0.1
SSF 39.54 322 eP 36 47.20 0.1
1.2s 11.30nm 4.4mb
BGF 39.67 321 eP 36 48.90 0.7
1.1s 17.85nm 4.7mb
MAF 39.67 320 eP 36 49.00 0.8
1.5s 27.15nm 4.7mb
LDF 42.43 322 eP 37 10.30 -0.4
1.2s 15.75nm 4.6mb
GKN 42.60 70 P 37 12.60 0.0
LPF 42.70 321 eP 37 12.60 -0.4
1.3s 28.90nm 4.8mb
FLN 42.72 322 eP 37 12.70 -0.4
1.2s 24.70nm 4.8mb
DMN 43.02 70 P 37 16.20 0.1
KKN 43.17 70 P 37 15.40 -2.0
PKI 43.28 70 P 37 16.40 -2.0
GUN 43.70 70 P 37 14.00 -7.8X
KIC 44.22 259 P 37 25.40 -0.3
LIC 44.53 259 P 37 28.00 -0.3
Z 20s 0.21um 4.1Msz
LZH 58.83 59 eP 39 16.00 0.2
1.5s 32.00nm 5.2mb
Z 20s 0.49um 4.6Msz
pP 39 23.00 23kmX
S.D. = 0.9 on 26 of 33 obs.

& MAR 10, 1993 00h 43m 36.20s
60.215 N 153.074 W
DEPTH = 120.5km
2.9mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.15 191 iPc 43 52.38 0.8
eS 44 05.46
INE 0.15 178 iPc 43 52.36 0.7
eS 44 06.14
RS1 0.29 32 ePc 43 52.83 0.8
RS2 0.29 32 ePc 43 52.85 0.8
RSO 0.29 33 ePc 43 52.83 0.8
RDW 0.30 26 ePc 43 52.80 0.7
RDN 0.34 27 ePc 43 53.01 0.9
NCT 0.36 12 iPc 43 53.01 -0.8
eS 44 07.08
DFR 0.42 27 iPc 43 53.06 -1.1
PDB 0.71 233 iPd 43 54.83 -1.1
eS 44 09.66
AUL 0.86 192 ePd 43 56.40 -0.8
AUE 0.87 190 eP 43 56.42 -0.9
AUH 0.87 192 ePd 43 56.62 -0.8
CKL 1.05 20 iPc 43 58.32 -0.9
eS 44 16.21
CKT 1.08 23 iPc 43 58.40 -1.0
eS 44 16.89
SPU 1.09 27 iPc 43 58.45 -1.1
eS 44 16.41
CKN 1.10 23 ePc 43 58.94 -0.7
BGL 1.10 17 ePc 43 59.07 -0.7
CP2 1.13 21 iPc 43 59.30 -0.8
eS 44 18.11
CPAM 1.14 23 iPc 43 59.31 -0.8
S 44 17.60
CRP 1.15 23 iPc 43 59.01 -1.3
eS 44 17.68
BRLK 1.19 111 eP 43 59.50 -1.1
eS 44 17.28
MCNL 1.22 212 iPd 43 59.51 -1.3
eS 44 18.11
SLKM 1.45 77 ePc 44 02.00 -1.5
SVW 1.54 307 (P) 44 02.03 -2.5
SYI 1.65 167 ePd 44 04.09 -1.7
eS 44 26.62
SUA 1.69 41 ePc 44 05.35 -1.1
eS 44 28.71
SEW 1.82 92 eP 44 05.81 -2.0
MPA 1.87 80 eP 44 06.67 -1.8
SKT 1.92 22 eP 44 06.79 -2.4
eS 44 33.10
PMS 2.01 58 P 44 08.30 -2.0
PTE 2.11 70 ePc 44 08.90 -2.5
PMR 2.37 53 (P) 44 23.61 8.8
(S) 44 41.44
KDC 2.49 173 P 44 13.60 -2.8
GHO 2.56 51 eP 44 14.71 -2.7
SML 2.81 53 eP 44 17.57 -3.1
VLZ 3.44 72 eP 44 26.76 -2.3
TRF 3.51 21 eP 44 27.90 -2.2
KLU 3.73 67 ePc 44 29.59 -3.4
MCK 4.03 27 eP 44 36.16 -0.9
BALM 5.35 77 eP 44 52.22 -2.8
eS 45 49.76
YKA 18.40 66 eP 47 40.20 -4.0
0.4s 0.30nm 2.9mb
42 obs. associated

& MAR 10, 1993 01h 01m 13.44s
59.276 N 152.542 W
DEPTH = 69.6km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

AUE 0.43 281 eP 01 25.17 -0.6
S 01 33.55
AUI 0.46 278 eP 01 25.72 -0.3
eS 01 34.62
AUH 0.47 281 eP 01 25.82 -0.4
eS 01 34.51
AUL 0.47 283 iP 01 25.66 -0.5
SYI 0.67 173 iP 01 27.38 -0.8
eS 01 38.69
INE 0.83 342 eP 01 28.86 -1.4
eS 01 41.11
INW 0.85 340 eP 01 29.33 -1.1
S 01 41.85
MCNL 0.93 265 iP 01 30.29 -1.0
BRLK 0.98 59 eP 01 30.67 -1.2
eS 01 44.33
PDB 0.99 302 iP 01 31.06 -0.9
eS 01 44.84
RS1 1.19 355 iP 01 34.07 -0.8
eS 01 49.85
RSO 1.19 355 iP 01 33.99 -0.9
eS 01 49.87
RS2 1.20 355 iP 01 34.03 -0.9
eS 01 49.92
RDW 1.22 354 iP 01 34.22 -1.0
eS 01 50.26
REF 1.22 356 eP 01 34.09 -1.1
eS 01 50.12
NCT 1.30 352 iP 01 35.40 -0.9
eS 01 52.68
DFR 1.32 357 eP 01 35.29 -1.2
eS 01 52.60
SLKM 1.70 42 eP 01 40.28 -1.3

```
SEW     1.77  61 eP      01 42.62   0.1
SPU     1.93   7 iP      01 43.75  -1.0
CKL     1.93   3 eP      01 43.72  -1.1
CKT     1.94   5 eP      01 44.10  -0.8
CKN     1.96   5 eP      01 44.81  -0.4
BGL     2.00   2 eP      01 45.00  -0.7
CPAM    2.00   6 iP      01 45.24  -0.5
CP2     2.00   4 eP      01 45.51  -0.4
CRP     2.01   5 eP      01 45.46  -0.5
MPA     2.01  51 eP      01 46.00   0.2
PTE     2.38  46 eP      01 49.40  -1.4
       29 obs. associated
-----------------------------------------
% MAR 10, 1993 02h 55m 38.67± 1.92s
  44.491 N ± 8.9km     6.872 E ±15.1km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 1.9 (GEN).

PZZ     0.17  85 P       55 42.70   0.2
                 S       55 45.25
STV     0.41 127 P       55 46.76  -0.3
                 S       55 52.30
RRL     0.43 352 P       55 47.67   0.1
                 S       55 53.94
BHB     0.45  38 P       55 47.56  -0.3
                 S       55 53.66
ENR     0.47 124 P       55 48.31   0.0
                 S       55 54.77
ROB     0.74 105 P       55 53.57   0.3
                 S       56 03.23
      S.D. = 0.3  on    6 of   6 obs.
-----------------------------------------
% MAR 10, 1993 03h 06m 01.61± 1.92s
  39.433 N ±21.4km  122.735 E ±23.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHEASTERN CHINA                (658)

DL2     1.01 239 Pgc     06 20.50  -0.2
                 Sg      06 32.80
SNY     2.48  15 ePn     06 43.70   1.1
                 iPgd    06 47.80
                 eSn     07 12.80
                 Sg      07 18.70
CN2     4.82  24 ePn     07 14.80  -1.0
                 ePg     07 33.60
                 eSn     08 09.20
                 eSg     08 32.60
BJI     5.09 279 Pg      07 19.50  -0.3
TIA     5.48 236 ePn     07 25.70   0.4
                 Sg      08 52.30
MDJ     7.27  42 Pg      08 16.60  26.2X
TIY     8.25 261 ePg     08 24.40  20.2X
SSE     8.41 189 ePn     08 50.00  43.6X
      S.D. = 1.1  on    5 of   8 obs.
-----------------------------------------
* MAR 10, 1993 03h 08m 39.99± 1.78s
  10.340 S ± 7.0km  162.214 E ±11.1km
   DEPTH =  54.9 ± 14.2 km
   4.8mb ( 16 obs.)
 SOLOMON ISLANDS                   (193)

HNR     2.41 292 iP      09 19.00   1.3
                 iS      09 50.00
DZM    12.35 161 iPc     11 34.10  -1.4
                 iS      13 48.20
PMG    14.86 272 eP      12 15.00   6.6X
        1.2s   106.25nm           5.0mb
CTA    18.18 236 iPc     12 50.50   0.2
        1.5s    62.50nm           4.6mb
                 e       13 48.00
RMO    20.49 217 iPc     13 17.80   1.9
        1.1s    46.00nm           4.7mb
ARMA   22.28 205 iPd     13 34.50   0.5
        0.7s    11.00nm           4.4mb
QLP    23.44 224 eP      13 46.30   1.1
CMS    25.95 213 iPd     14 09.10   0.0
        0.6s    25.00nm           4.9mb
WB2    28.50 247 iPd     14 30.60  -1.8
        0.7s    16.20nm           4.8mb
STK    28.70 219 iPd     14 33.90  -0.2
        0.4s     6.10nm           4.6mb
ASPA   30.07 240 iPc     14 44.30  -2.2
        0.4s    11.30nm           5.0mb
     Z  23s      0.70um         4.2MszX
BFD    32.07 210 iPd     15 04.00   0.1
        0.8s     8.00nm           4.6mb
```

```
MEEK   44.17 242 eP      16 44.70  -0.7
SSE    56.97 318 Pc      18 21.20  -1.1
        1.0s    11.00nm           4.9mb
MDJ    62.16 334 eP      18 56.80  -1.0
CN2    63.40 331 eP      19 05.40  -0.6
        0.8s    15.00nm           5.1mb
XAN    67.11 314 P       19 29.20  -1.0
        0.7s    13.00nm           5.0mb
                 pP      19 35.30  20kmX
HHC    69.08 321 eP      19 42.80   0.4
        1.2s    20.00nm           4.9mb
BTO    69.90 320 eP      19 47.00  -0.5
LZH    71.73 313 eP      19 58.50  -0.2
        1.5s    43.00nm           5.2mb
GTA    76.09 315 P       20 24.00   0.1
        1.0s    45.00nm           5.4mb
GUN    82.95 300 P       21 00.60  -0.7
PKI    83.26 300 P       21 03.40   0.5
KKN    83.43 300 P       21 04.20   0.6
DMN    83.53 299 P       21 04.80   0.6
GKN    84.04 300 P       21 05.80  -0.8
YKA    95.95  28 eP      22 01.20  -0.7
        0.5s     0.20nm           3.9mb
HFS   125.06 341 ePKP    27 34.70  -0.7
        0.4s     1.10nm
NB2   125.07 343 PKP     27 35.70   0.2
        0.7s     2.20nm
PRU   132.29 332 ePKP    27 50.50   0.9
KHC   133.34 332 ePKP    27 52.50   0.8
GEC2  133.49 332 PKP     27 52.40   0.4
        0.9s     2.55nm
GRF   133.98 334 ePKP    27 55.20   2.4X
CDF   136.62 336 ePKP    27 57.20  -0.8
        0.9s     4.10nm
BSF   137.28 336 ePKP    27 59.60   0.3
        0.8s     5.25nm
CAF   141.53 337 ePKP    28 04.30  -2.7X
        0.7s     1.30nm
LPO   142.07 338 ePKP    28 05.20  -2.7X
        0.8s     4.15nm
BCAO  143.53 263 ePKPd   28 08.00  -3.3X
        0.9s     9.00nm
                 id      28 23.10
EPF   143.80 337 ePKP    28 10.00  -1.0
        0.9s     6.20nm
EGRA  144.77 337 ePKP    28 12.40  -0.1
ECRI  145.19 340 ePKP    28 14.50   1.1
ESEL  145.40 331 ePKP    28 14.90   1.2
EROQ  145.64 335 ePKP    28 15.50   1.4
STS   146.59 348 ePKP    28 19.00   3.4X
ETOR  146.61 338 ePKP    28 17.50   1.7
ECHE  147.25 336 iPKPd   28 20.50   3.7X
GUD   147.50 341 ePKP    28 21.00   3.7X
EVIA  148.67 337 ePKP    28 24.50   5.3X
EHUE  149.42 336 ePKP    28 25.70   5.3X
EBAN  149.58 338 ePKP    28 26.50   6.0X
ECOG  150.27 337 iPKPc   28 27.00   5.3X
EHOR  150.40 340 ePKP    28 28.00   6.3X
EGUA  150.66 336 ePKP    28 28.40   6.3X
EVAL  151.11 342 iPKPd   28 20.00  -2.8X
EPRU  151.17 339 iPKPc   28 31.00   8.1X
EJIF  151.71 339 ePKP    28 28.90   5.2X
      S.D. = 1.0  on   39 of  56 obs.
-----------------------------------------
   MAR 10, 1993 03h 41m 23.80± 0.69s
   39.796 N ± 6.6km   20.663 E ± 8.0km
    DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION      (392)

IGT     0.37 224 ePg     41 31.42   0.1
                 eSg     41 38.50
FNA     1.13  29 ePb     41 44.98   0.0
                 eSb     42 02.70
OHR     1.32   4 ePn     41 48.00  -0.2
AGG     1.50 120 ePb     41 50.62  -0.2
                 eSb     42 12.22
GRG     1.76  48 ePn     41 54.78   0.2
                 eSn     42 18.70
KNT     2.18  51 ePn     42 00.54  -0.1
                 eSn     42 30.22
SOH     2.30  63 ePn     42 02.70   0.3
                 eSn     42 32.14
      S.D. = 0.3  on    7 of   7 obs.
-----------------------------------------
* MAR 10, 1993 03h 54m 31.17± 0.97s
  43.399 N ±10.8km  106.617 W ± 8.0km
   DEPTH =   5.0km  (geophysicist)
```

```
 WYOMING                           (460)
      ML 3.2 (GS).

RSSD    2.00  68 ePnd    55 05.92  -0.3
                 eS      55 33.58
BW06    2.24 255 ePn     55 10.34   0.6
                 i       55 11.34
                 eS      55 39.95
GLD     3.79 164 ePg     55 36.93   5.2X
                 eS      56 20.01
GOL     3.81 165 ePn     55 33.51   1.4
                 eS      56 17.50
HHAI    4.20 271 (P)     55 44.32   6.8X
DAU     4.57 231 ePn     55 43.48   0.6
                 (S)     56 48.41
EMUT    4.77 223 ePn     55 45.38  -0.3
HVU     4.83 253 (P)     55 46.52   0.1
PV08    5.06 198 ePn     55 50.28   0.5
                 ePg     56 00.45
SRU     5.20 216 ePn     55 50.84  -0.8
                 eS      57 05.69
PV09    5.25 202 ePn     55 51.18  -1.4
PV10    5.34 201 ePn     55 53.37  -0.4
                 ePg     56 07.70
MSU     6.44 223 eP      56 13.28   4.0X
      S.D. = 0.9  on   10 of  13 obs.
-----------------------------------------
* MAR 10, 1993 04h 35m 22.15± 0.60s
  36.282 N ±19.7km   71.045 E ±12.9km
   DEPTH =  33.0km  (normal)
   4.2mb (  6 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

MAIO    9.33 274 eP      37 37.00  -0.4
                 eS      39 23.00
GKN    14.16 122 P       38 43.60   1.1
DMN    14.73 122 P       38 50.80   0.7
KKN    14.73 121 P       38 50.80   0.7
PKI    14.96 121 P       38 52.00  -1.2
GUN    15.08 119 P       38 53.40  -1.4
GEC2   43.09 305 P       43 23.50   2.8X
        0.6s     0.43nm           3.4mb
                 e       43 28.70
SLL    43.49 323 eP      43 24.30   0.6
        0.4s     1.90nm           4.2mb
NB2    44.58 323 P       43 33.20   0.7
        0.7s     7.10nm           4.6mb
YKA    81.46   3 eP      47 35.60  -1.3
        0.7s     0.90nm           3.9mb
WRA    81.85 122 P       47 40.50   0.9
        0.6s     2.20nm           4.4mb
WB2    81.85 122 iPc     47 39.20  -0.4
        0.4s     1.90nm           4.5mb
      S.D. = 1.1  on   11 of  12 obs.
-----------------------------------------
* MAR 10, 1993 04h 51m 19.21± 1.52s
  32.225 S ± 9.6km   71.413 W ±11.1km
   DEPTH =  20.4 ±  5.3 km
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 3.9 (SAN).

ROCH    0.82 156 iP+     51 34.94   0.2
                 iS      51 49.63
IHA     0.82 194 eP      51 35.30   0.6
                 eS      51 49.70
JACH    0.83 124 iP      51 34.76  -0.1
                 iS      51 49.21
PEL     1.10 146 iPd     51 39.33  -0.1
                 iS      51 57.38
LCCH    1.25 186 iPd     51 41.27  -0.3
                 iS      52 00.41
SAN     1.38 153 iP      51 43.31  -0.1
                 iS      52 04.96
FCH     1.45 140 iPd     51 44.50  -0.2
                 iS      52 07.57
TACH    1.48 164 iPd     51 44.85   0.0
                 iS      52 07.45
PCH     1.58 152 iP      51 46.01  -0.4
                 iS      52 11.17
LNV     1.73 180 iPd     51 47.42  -0.9
                 iS      52 13.78
CHCH    1.82 160 iP      51 50.21   0.4
                 iS      52 17.61
CACH    2.01 160 eP      51 53.22   0.7
                 iS      52 22.40
MDZ     2.26 108 eP      52 00.00   3.8X
                 e       52 32.70
```

10d 04h

RTCB 2.34 72 ePc 51 56.50 -0.8
S 52 28.50
CFA 2.77 78 e(P) 52 04.40 1.1
TCA 5.88 83 eP 52 43.00 -4.4X
(S) 53 53.50
S.D. = 0.6 on 14 of 16 obs.

---

* MAR 10, 1993 05h 42m 11.85± 0.53s
60.062 S ±14.7km 25.686 W ±15.8km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SNA 14.08 146 e(P) 45 30.30 -0.5
0.7s 25.00nm 5.0mb
NVL 18.55 141 eP 46 25.00 -2.4
e 50 53.00
TCA 38.58 300 ePd 49 34.00 0.8
PEL 39.80 292 iPd 49 36.00 -7.2X
PPD 42.08 323 eP 50 01.20 -0.8
BAO 47.25 330 eP 50 43.10 -0.5
SIV 50.94 314 P 51 16.00 4.1X
SOB1 52.02 341 eP 51 18.80 -1.3
CNCB 52.84 306 P 51 28.00 1.1
LPB 53.14 306 Pc 51 28.20 -0.7
1.0s 10.00nm 4.7mb
ZOBO 53.37 306 eP 51 29.00 -1.9
1.0s 7.50nm 4.6mb
eLR 08 05.00
ARE 54.61 302 eP 51 41.00 1.4
AVY 65.52 85 eP 52 55.60 1.4
LIC 68.07 22 P 53 09.50 -0.6
KIC 68.26 22 P 53 11.20 0.0
TIC 68.48 22 P 53 12.10 -0.5
BCAO 73.02 47 ePd 53 16.40 -23.7X
0.2s 12.00nm
id 53 48.00
STK 87.80 169 eP 55 02.70 4.2X
0.9s 2.30nm 4.5mb
ASPA 94.92 161 eP 55 32.80 1.0
0.9s 4.10nm 4.9mb
ULM 123.65 313 ePKP 01 10.50 4.2X
DMN 123.84 93 PKP 01 09.40 1.7
GKN 123.92 92 PKP 01 08.80 1.0
PKI 123.96 93 PKP 01 10.60 2.5X
KKN 124.07 93 PKP 01 15.60 7.5X
GUN 124.47 93 PKP 01 10.80 1.7
LCCM 126.53 300 ePKP 01 15.60 3.3X
KAF 128.19 28 ePKP 01 15.60 0.9
1.1s 37.90nm
YKA 139.62 314 ePKP 01 29.50 -6.7X
1.1s 2.90nm
RES 141.88 336 ePKP 01 38.00 -1.9
S.D. = 1.4 on 20 of 29 obs.

MAR 10, 1993 06h 26m 30.13± 0.24s
25.800 S ± 3.9km 70.479 W ± 5.7km
DEPTH = 34.2km (22 depth phases)
4.9mb (15 obs.) 4.2Msz (4 obs.)
NEAR COAST OF NORTHERN CHILE (122)

ANT 2.09 2 iP 27 03.70 0.3
iS 27 33.50
FSA 4.03 95 iP 27 36.50 5.4X
RTRS 4.45 169 ePd 27 38.90 2.0
S 28 40.30
SLA 4.64 78 ePd 27 45.80 6.0X
S 28 44.90
CYA 4.94 123 eP 27 46.00 2.0
S 28 50.20
HJA 5.29 62 ePd 27 54.80 5.9X
RTCB 5.85 166 iPd 27 57.20 0.2
ZON 5.94 165 e(P) 27 01.00 -57.1X
CFA 6.11 162 ePc 28 00.80 0.3
S 29 06.20
RTCV 6.27 165 e(P) 28 02.70 -0.1
S 29 19.00
MDZ 7.20 169 eP 28 14.50 -1.3
e 29 46.00
i(S) 30 29.20
IHA 7.27 188 eP 28 26.00 9.3X
eS 29 38.10
PEL 7.32 181 eP 28 13.50 -4.0X
TCA 7.56 138 iPc 28 20.00 -0.9
(S) 29 45.00
MRA 7.80 149 ePc 28 23.40 -0.7
CNCB 9.24 15 iP 28 46.10 1.5

S 31 14.00
ARE 9.34 354 eP 28 44.00 -1.8
eS 30 23.00
LPB 9.48 14 P 28 47.20 -0.7
Z 16s 2.69um
i 29 05.80
S 31 15.00
LR 32 05.00
ZOBO 9.72 13 iP 28 50.90 -0.3
Z 25s 1.67um
i 29 07.20
(S) 31 05.00
LR 32 12.00
SIV 13.13 44 P 29 39.00 2.1
PPD 17.92 82 eP 30 38.70 0.3
e 30 54.60
VAO 21.59 88 eP 31 17.90 -1.2
e 31 24.40 24kmX
e 31 34.50
CAC8 22.11 84 eP 31 23.00 -1.4
e 31 23.80 3kmX
e 31 26.20
e 31 38.20
e 32 53.40
BAO 23.30 69 eP 31 35.50 -0.6
e 31 36.10 2kmX
e 31 50.20
e 32 04.30
e 32 14.10
e 36 03.90
e 39 04.00
e 41 32.80
CDCB 24.33 82 eP 31 46.10 0.1
e 31 59.50 55kmX
SOB1 32.56 65 eP 33 01.20 0.6
CEH 61.89 352 eP 36 47.58 -0.9
0.7s 14.60nm 5.2mb
MIAR 63.89 339 eP 37 00.86 -0.8
0.8s 10.28nm 5.0mb
OLY 64.12 341 eP 37 01.94 -1.3
SPA 64.36 180 iPc 37 03.60 -1.1
1.0s 60.00nm 5.6mb
ELC 65.18 344 eP 37 07.60 -2.4
epP 37 18.31 35km
FVM 66.15 343 eP 37 15.48 -0.8
0.8s 50.33nm 5.7mb
epP 37 25.65 33km
ALQ 69.36 329 eP 37 36.45 -0.2
0.7s 6.22nm 4.8mb
epP 37 47.92 38km
TUC 69.40 324 eP 37 37.37 0.5
1.1s 7.73nm 4.7mb
Z 20s 0.19um 4.3Msz
epP 37 47.55 33km
RSNY 70.10 357 P 37 50.00 9.3X
Z 20s 0.12um 4.1Msz
LIC 70.99 73 P 37 45.96 -0.8
0.5s 8.50nm 5.0mb
Z 20s 0.26um 4.5Msz
TIC 71.21 73 P 37 47.72 -0.4
KIC 71.30 73 P 37 47.78 -0.9
0.6s 28.00nm 5.5mb
LMN 71.49 4 eP 37 52.50 3.3X
EEO 72.52 354 eP 37 57.50 2.3
PV08 73.34 330 eP 38 01.34 0.7
epP 38 11.56 33km
PV10 73.36 329 eP 38 00.63 0.0
epP 38 10.66 32km
PV09 73.50 329 eP 38 01.88 0.3
PEC 74.09 321 eP 38 05.12 0.4
0.6s 7.00nm 4.8mb
SRU 74.64 329 eP 38 07.71 -0.3
epP 38 18.46 35km
GSC 74.92 322 eP 38 10.43 0.8
epP 38 20.11 31km
MSU 74.95 327 eP 38 10.56 0.7
epP 38 20.95 33km
ARUT 75.02 326 eP 38 11.46 1.3
epP 38 21.58 32km
DAU 76.01 329 eP 38 16.50 0.5
epP 38 27.21 35km
RSSD 76.07 336 eP 38 16.25 0.1
0.8s 11.86nm 4.9mb
Z 20s 0.06um 3.9Msz
epP 38 27.22 36km
ISA 76.11 321 eP 38 16.17 -0.2
0.8s 7.79nm 4.8mb

e 38 28.00 40km
DUG 76.57 328 eP 38 19.37 0.4
1.0s 10.43nm 4.8mb
epP 38 30.39 36km
BW06 77.15 332 (P) 38 19.41 -2.8
0.8s 1.85nm 4.2mb
BONR 77.68 323 eP 38 26.41 1.1
HVU 77.80 329 eP 38 25.82 0.2
epP 38 37.02 37km
PTI 78.47 330 eP 38 30.01 0.7
epP 38 40.94 35km
ULM 78.99 344 eP 38 34.00 2.2
pP 38 44.50 34km
JAQ 79.40 357 eP 38 33.00 -0.9
ORV 80.57 322 eP 38 40.67 0.1
epP 38 51.69 36km
LCCM 80.61 332 eP 38 41.80 1.0
SES 83.93 335 ePd 38 57.80 0.0
pP 39 08.00 32km
DPW 84.94 330 eP 39 02.56 -0.3
epP 39 13.62 35km
FCC 86.50 348 eP 39 13.50 3.2X
pP 39 23.50 31km
BCAO 91.02 86 iPd 39 33.00 0.3
1.2s 14.00nm 5.2mb
ic 39 43.20 32km
YKA 94.76 341 eP 39 48.20 -0.6
0.8s 1.70nm 4.5mb
ASPA 125.45 208 ePKP 45 27.20 -2.7X
0.4s 3.90nm
WB2 128.53 210 iPKPc 45 34.60 -1.2
0.4s 5.40nm
WRA 128.53 210 Pdiff 42 01.50 -19.3X
1.2s 0.20nm
WRA 128.53 210 PKP 45 35.20 -0.6
0.9s 3.20nm
LEM 147.52 176 ePKPc 46 13.20 2.6X
GBA 147.54 106 PKP 46 11.00 0.7
0.9s 7.00nm
HYB 150.08 100 ePKP 46 15.00 0.7
1.0s 40.00nm
e 46 19.50
NDI 151.18 77 iPKPc 46 22.00 6.4X
0.7s 41.10nm
GKN 157.71 79 PKP 46 25.20 0.4
DMN 158.12 80 PKP 46 25.80 0.4
KKN 158.28 79 PKP 46 25.60 0.1
PKI 158.39 80 PKP 46 26.00 0.2
GUN 158.81 79 PKP 46 26.60 0.4
S.D. = 1.0 on 65 of 78 obs.

MAR 10, 1993 07h 37m 30.58± 0.37s
32.719 S ± 7.0km 177.514 W ± 8.1km
DEPTH = 45.6km (6 depth phases)
5.1mb (11 obs.) 4.7Msz (5 obs.)
SOUTH OF KERMADEC ISLANDS (179)

PUZ 6.36 212 eP 39 03.70 -0.5
NOZ 6.91 210 eP 39 11.70 -0.1
URZ 7.05 217 eP 39 13.90 0.1
eS 40 37.40
MOZ 8.51 225 eP 39 36.10 2.0
MNG 9.68 214 eP 39 46.70 -3.5X
eS 41 34.80
KIW 10.14 215 eP 39 54.80 -1.7
TCW 10.72 215 eP 40 01.90 -2.4
KHZ 12.00 214 eP 40 20.60 -1.0
eS 42 28.70
DSZ 12.39 220 eP 40 27.90 1.0
LTZ 12.88 216 eP 40 31.90 -1.5
ODZ 15.36 213 eP 41 08.10 2.4
TUZ 16.51 213 eP 41 20.80 0.5
e 41 28.70
DZM 17.74 303 iPd 41 34.80 -1.1
BRS 26.21 274 iPc 43 04.00 1.0
e 43 16.00 47km
ARMA 26.35 267 eP 43 11.80 7.5X
RMQ 29.89 273 iPc 43 37.40 1.1
0.7s 21.00nm 5.0mb
BFD 32.87 251 eP 44 04.50 2.3
1.1s 22.00nm 4.9mb
QLP 33.67 270 iPc 44 09.30 0.0
STK 34.43 260 eP 44 17.00 1.2
0.9s 5.70nm 4.5mb
e 44 21.60 16kmX
CTA 34.64 282 iPd 44 17.00 -0.7
1.1s 31.65nm 5.2mb

ipP 44 30.00 50km
ASPA 43.45 269 iPd 45 30.00 -1.0
1.7s 16.90nm 4.5mb
eS 51 06.90
WB2 44.63 274 iPc 45 39.20 -1.3
0.4s 22.20nm 5.3mb
WRA 44.64 274 P 45 39.30 -1.3
0.5s 3.90nm 4.5mb
CSY 53.30 209 iPc 46 50.60 3.9X
0.8s 41.70nm 5.5mb
SPA 57.45 180 ePc 47 21.60 4.5X
1.0s 40.00nm 5.4mb
NVL 76.59 183 eP 49 21.00 3.6X
ARN 87.08 41 eP 50 12.83 0.2
epP 50 25.41 42km
KMPM 87.91 38 eP 50 16.22 -0.3
CMB 88.21 42 eP 50 17.80 -0.2
0.9s 9.45nm 5.1mb
Z 20s 0.20um 4.5Msz
GSC 88.40 46 eP 50 19.17 0.1
e 50 23.83
epP 50 32.35 44km
ORV 88.68 40 (P) 50 19.44 -0.7
LGPM 88.95 38 eP 50 21.55 0.0
BONR 89.33 43 eP 50 23.67 0.0
TPNV 89.84 45 (P) 50 26.15 0.2
e 50 30.63 14kmX
TUC 90.24 51 eP 50 28.21 0.5
1.5s 18.82nm 5.2mb
e 50 32.69
epP 50 41.86 46km
BMW 92.79 34 eP 50 38.67 -0.4
epP 50 52.30 46km
MSU 93.31 46 eP 50 41.58 -0.3
SRU 94.68 46 eP 50 47.75 -0.4
i 50 52.63 15kmX
GOL 98.21 48 P 51 10.00 5.8X
Z 19s 0.30um 4.8Msz
GLD 98.33 48 P 51 20.00 15.3X
Z 19s 0.50um 5.0Msz
RSSD 101.57 45 Pdiff 51 30.00 10.7X
Z 19s 0.22um 4.7Msz
MIAR 103.31 58 Pdiff 51 40.00 13.0X
Z 19s 0.09um 4.3Msz
YKA 107.35 26 ePKP 55 53.70 0.9
0.8s 0.20nm
RES 119.33 18 ePKP 56 15.00 -0.3
1.0s 2.00nm
KAF 146.86 340 ePKP 57 06.70 0.0
1.3s 57.00nm
OBN 147.28 323 iPKPc 57 09.20 1.7
1.0s 28.00nm
e 57 25.50
BCAO 148.11 211 iPKPc 57 14.10 3.9X
1.0s 20.00nm
ic 57 56.30
NUR 148.62 339 iPKP 57 12.30 2.8X
0.9s 32.20nm
NB2 151.10 351 PKP 57 18.30 4.9X
1.2s 19.50nm
HFS 151.59 348 ePKP 57 17.90 3.8X
0.6s 2.00nm
LIC 152.73 164 PKP 57 23.82 6.7X
KIC 152.92 164 PKP 57 23.74 6.4X
TIC 153.13 163 PKP 57 24.20 6.5X
S.D. = 1.1 on 37 of 53 obs.

% MAR 10, 1993 07h 46m 06.35± 0.90s
46.418 N ± 9.4km 2.504 E ± 9.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.6 (LDG).

MAF 0.20 168 Pg 46 10.50 -0.3
Sg 46 13.10
TCF 0.24 238 Pg 46 11.70 0.2
Sg 46 14.90
BGF 0.27 59 Pg 46 12.10 0.0
AVF 0.69 57 Pg 46 19.50 -0.6
Sg 46 28.80
SSF 0.94 47 Pg 46 24.20 -0.1
Sg 46 36.40
SMF 0.95 76 Pg 46 25.30 0.8
Sg 46 37.00
S.D. = 0.6 on 6 of 6 obs.

• MAR 10, 1993 07h 51m 20.01± 0.97s
4.620 S ±11.3km 144.994 E ±12.2km
DEPTH = 156.3 ± 9.3 km
4.6mb (3 obs.)
NEAR N COAST OF NEW GUINEA, PNG.(200)

MDG 1.00 129 iPd 51 46.10 0.5
YYYY 1.88 149 eP 51 54.50 -0.2
MNDI 2.02 221 eP 51 57.00 0.6
PMG 5.22 156 eP 52 36.00 -1.2
eS 53 34.00
CTA 15.42 176 iPc 54 51.00 0.3
MTN 15.95 238 eP 54 56.00 -1.1
WB2 18.42 213 iPd 55 25.10 -1.1
eS 58 42.90
ASPA 21.75 208 iPc 56 01.00 1.1
0.4s 13.00nm 4.7mb
iS 59 49.80
QLP 21.85 182 eP 56 02.30 1.4
SSE 42.16 329 Pd 58 59.20 0.5
1.0s 23.00nm 4.7mb
LZH 55.87 320 eP 00 33.00 -10.9X
1.2s 25.00nm
YKA 98.88 28 eP 04 42.50 -0.7
1.0s 0.70nm 4.1mb
SIV 147.07 129 PKP 10 51.00 6.4X
KIC 149.83 275 PKP 10 51.10 2.2X
LIC 150.12 274 PKP 10 51.50 2.1X
S.D. = 1.1 on 11 of 15 obs.

% MAR 10, 1993 08h 46m 03.82± 2.02s
31.610 S ±10.8km 69.153 W ±15.5km
DEPTH = 116.6 ± 18.7 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.33 68 iPd 46 20.40 -0.4
RTCV 0.58 116 iPc 46 22.40 0.2
RTLL 0.65 65 iPc 46 22.70 0.0
CFA 0.78 90 iPd 46 24.20 0.4
S 46 39.60
MDZ 1.30 169 iP 46 29.10 0.0
i 46 45.20
iS 46 47.50
RTRS 1.46 350 ePd 46 31.00 0.1
S 46 51.00
TCA 3.91 87 iPc 47 02.90 -0.1
S.D. = 0.4 on 7 of 7 obs.

% MAR 10, 1993 08h 55m 48.61± 1.59s
43.895 N ±15.1km 6.871 E ± 8.2km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.2 (LDG).

FRF 0.37 206 Pg 55 56.50 0.4
Sg 56 01.20
SBF 0.41 94 Pg 55 56.90 0.1
LRG 0.58 220 Pg 56 00.90 0.8
Sg 56 08.90
LMR 0.62 205 Pg 56 00.00 -1.0
Sg 56 07.20
CDR 0.83 255 eP 56 04.90 -0.2
e 56 22.00
S.D. = 1.0 on 5 of 5 obs.

• MAR 10, 1993 09h 42m 20.84± 0.70s
47.811 N ±14.1km 153.033 E ±11.5km
DEPTH = 33.0km (normal)
4.6mb (17 obs.)
KURIL ISLANDS (221)

FBA 35.37 39 iPd 49 16.90 2.0
0.7s 2.20nm 4.2mb
YKA 50.11 37 eP 51 14.30 0.1
1.0s 2.00nm 4.1mb
GUN 54.86 274 P 51 50.60 -0.1
KKN 55.34 275 P 51 55.20 1.2
PKI 55.40 274 P 51 55.20 0.7
DMN 55.58 274 P 51 56.40 0.7
GKN 55.64 275 P 51 56.60 0.6
0.6s 17.00nm 5.3mb
LCCM 60.90 53 eP 52 32.70 0.1
KAF 62.46 335 eP 52 42.30 -0.3
0.3s 0.90nm 4.4mb
NB2 67.21 341 P 53 12.40 -1.0
0.4s 1.40nm 4.4mb
HFS 67.44 339 eP 53 13.10 -1.7
0.3s 4.30nm 5.0mb
WB2 69.50 199 eP 53 26.50 -1.5
0.4s 1.00nm 4.2mb
GBA 70.39 269 P 53 34.00 0.4
CLL 75.48 335 iPc 54 02.00 -1.0
1.3s 21.00nm 5.0mb
MOX 76.46 336 eP 54 08.20 -0.4
GRF 77.43 336 eP 54 14.70 0.7
GEC2 77.48 334 P 54 13.40 -1.0
0.8s 2.01nm 4.2mb
KBA 79.17 333 iPc 54 24.00 0.3
0.8s 8.70nm 4.8mb
WTTA 79.51 334 iPc 54 25.50 -0.1
0.8s 11.00nm 4.9mb
CDF 79.65 338 eP 54 25.70 -0.5
LOR 81.56 339 eP 54 36.00 -0.3
0.8s 4.15nm 4.5mb
SSF 81.84 339 eP 54 37.60 -0.1
0.9s 4.60nm 4.5mb
AVF 82.13 340 iPd 54 39.20 0.0
1.2s 11.60nm 4.8mb
SMF 82.15 339 eP 54 39.30 0.0
0.9s 8.50nm 4.8mb
MAF 82.85 340 iPd 54 43.60 0.6
0.8s 8.35nm 4.9mb
TCF 82.87 340 eP 54 43.50 0.4
0.8s 4.05nm 4.6mb
S.D. = 0.9 on 26 of 26 obs.

& MAR 10, 1993 09h 49m 52.16s
37.636 N 118.918 W
DEPTH = 8.3km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.0 (GM).

MEMM 0.03 331 iPc 49 53.93 0.0
MRCM 0.33 84 ePc 49 58.71 -0.3
MTUM 0.40 135 ePd 49 59.87 -0.4
BONR 0.58 57 iPc 50 03.50 -0.4
CMB 1.23 289 ePc 50 14.51 -0.7
TNP 1.42 71 eP 50 18.71 0.3
KVN 1.55 24 eP 50 21.28 1.0
PKEM 1.84 212 eP 50 25.55 1.3
ISA 2.00 170 eP 50 28.39 1.7
S 50 53.70
ARN 2.10 263 ePn 50 28.39 0.3
S 50 56.47
PHAM 2.15 214 eP 50 29.28 0.4
S 50 59.77
TPNV 2.24 107 ePn 50 30.26 0.1
BCH 2.62 201 eP 50 36.01 0.4
ORV 2.79 314 ePn 50 39.89 2.0
ARUT 4.35 86 (Pn) 51 00.41 0.3
ePg 51 14.47
MSU 5.39 79 ePg 51 31.98 16.9
16 obs. associated

MAR 10, 1993 09h 58m 30.52± 0.95s
37.268 S ± 7.9km 177.460 E ± 6.9km
DEPTH = 22.1 ± 4.6 km
4.3mb (3 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)
ML 4.8 (WEL).

HBZ 0.75 117 Pc 58 43.80 -0.9
PUZ 1.02 142 Pc 58 50.20 0.8
eS 59 06.90
URZ 1.03 196 Pd 58 50.00 0.5
eS 59 04.40
TAZ 1.22 218 eP 58 53.30 1.0
UTU 1.35 228 eP 58 55.60 1.4
NOZ 1.42 161 P 58 57.70 2.6X
PATZ 1.46 220 P 58 56.90 1.1
KUZ 1.49 290 P 58 54.40 -1.6
eS 59 11.80
WLZ 1.60 247 P 58 57.30 -0.4
PAHZ 1.62 191 P 58 58.80 0.7
WHH 1.78 205 P 59 01.20 0.7
MOH 1.88 187 P 59 03.80 2.1X
MAHZ 1.95 170 P 59 04.30 1.6
TTH 2.32 192 P 59 09.70 1.6
NGZ 2.40 217 eP 59 10.30 0.9
MOZ 2.44 239 P 59 09.70 -0.1
CNZ 2.45 217 eP 59 11.40 1.4
WAHZ 2.58 199 eP 59 12.20 0.4
TEHZ 2.76 190 eP 59 13.80 -0.6
BSZ 3.21 217 eP 59 22.70 1.9X
NRZ 3.46 232 eP 59 24.00 -0.3

10d 09h

PGZ 3.47 195 eP 59 22.90 -1.5
MNG 3.68 204 eP 59 26.00 -1.5
KIW 4.10 208 eP 59 32.20 -1.2
BLW 4.37 200 eP 59 35.20 -2.0
DIW 4.48 217 eP 59 38.10 -0.6
MOW 4.49 202 eP 59 37.30 -1.6
MRW 4.50 208 eP 59 36.80 -2.2X
eS 00 29.00
QRZ 5.23 226 eP 59 48.80 -0.6
THZ 5.71 217 eP 59 54.10 -2.0
KHZ 5.96 209 eP 59 56.60 -3.0X
eS 01 02.00
DSZ 6.26 223 P 00 01.20 -2.7X
LTZ 6.80 214 eP 00 07.00 -4.5X
MQZ 7.40 208 eP 00 14.00 -5.9X
eS 01 35.30
ODZ 9.31 211 eP 00 40.50 -5.9X
TUZ 10.47 212 eP 00 57.40 -4.9X
CMS 26.66 273 eP 04 11.30 1.7
0.9s 7.00nm 4.3mb
STK 29.90 270 eP 04 40.40 1.5
0.7s 2.90nm 4.2mb
i 04 47.20
WB2 41.20 283 iPd 06 15.30 0.0
0.8s 4.80nm 4.3mb
e 06 22.20
YKA 113.26 28 ePKP 17 06.60 -0.5
0.7s 0.20nm
LIC 149.02 175 PKP 18 17.40 2.7X
KIC 149.17 176 PKP 18 17.80 2.9X
S.D. = 1.3 on 30 of 42 obs.

• MAR 10, 1993 09h 58m 35.86± 0.90s
40.240 N ±14.8km 25.120 E ± 5.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.8 (THE).

ALN 0.96 47 ePg 58 53.92 -0.2
eSg 59 08.04
PAIG 1.15 255 ePg 58 57.08 -0.2
eSg 59 11.92
SRS 1.46 308 ePb 59 02.00 -0.2
eSb 59 24.56
SOH 1.47 294 ePb 59 02.48 0.1
eSb 59 23.92
KNT 1.92 299 ePb 59 09.37 0.4
EDC 2.10 86 ePn 59 13.00 1.5
BNT 2.14 86 ePn 59 10.90 -1.3
DST 2.77 102 ePn 59 25.80 4.6X
S.D. = 1.0 on 7 of 8 obs.

MAR 10, 1993 10h 08m 09.19± 0.58s
36.456 N ± 6.5km 26.892 E ± 5.6km
DEPTH = 147.5 ± 13.0 km
DODECANESE ISLANDS (369)

NPS 1.58 221 eP 08 40.00 0.2
eS 09 00.50
IZM 1.96 9 iPn 08 43.60 -0.5
KSL 2.20 98 eP 08 47.50 0.6
eS 09 15.50
ELL 2.45 82 iPn 08 50.50 0.4
KHL 2.80 48 iPn 08 54.50 -0.1
PRK 2.83 350 eP 08 54.10 -0.7
BCK 3.13 70 iP 08 59.00 0.3
VLI 3.19 276 eP 08 59.50 0.0
eS 09 37.00
PPCY 4.71 108 eP 09 20.30 0.8
eS 10 11.60
RDO 4.80 348 eP 09 20.00 -0.7
CSS 5.45 104 eP 09 30.50 1.1
eS 10 28.80
HRI 7.94 111 eP 10 02.00 -1.0
YTIR 8.52 124 eP 10 09.80 -1.0
SAGI 8.99 132 eP 10 16.30 -0.7
eS 11 50.30
GEC2 15.70 326 Pn 11 44.80 1.3
S.D. = 0.9 on 15 of 15 obs.

• MAR 10, 1993 10h 43m 03.26± 0.89s
40.540 N ±10.6km 51.408 E ± 6.9km
DEPTH = 68.5 ± 10.3 km
4.5mb (10 obs.)
CASPIAN SEA (338)

BAK 1.16 263 eP 43 26.00 2.0
iS 43 44.00
KAT 3.97 108 eP 44 12.00 9.0X
eS 44 51.00
GRS 4.03 257 eP 44 02.00 -2.1
i 44 43.60
TEH 4.79 180 eP 44 15.00 0.2
GRO 5.11 305 eP 44 29.00 10.0X
MTA 5.12 285 iP 44 17.60 -1.6
0.5s 40.00nm 4.9mb
ASH 5.98 113 eP 44 31.50 0.4
S 45 39.00
PYA 7.11 302 eP 44 59.00 12.2X
iS 46 08.50
KIV 7.31 301 iP 44 50.60 0.8
0.4s 53.00nm 5.6mb X
MAIO 7.63 121 ePn 45 02.00 7.9X
eSn 46 15.00
FRU 17.48 75 eP 47 02.50 -1.3
ZST 25.53 299 eP 48 28.60 1.8
i(Sg) 03 02.10
Lg 03 03.40
KAF 26.37 333 eP 48 37.50 3.0X
0.3s 0.90nm 3.8mb
HFS 30.43 323 eP 49 09.60 -1.3
0.4s 0.70nm 3.7mb
PCP 31.57 292 P 49 35.98 14.8X
FIN 31.85 291 P 49 38.31 14.7X
NB2 31.91 324 P 49 38.10 14.2X
0.5s 1.00nm
IMI 32.13 291 P 49 41.70 15.6X
RSP 32.39 293 P 49 42.20 13.8X
ENR 32.41 291 P 49 44.17 15.6X
LSD 32.42 294 P 49 44.12 15.3X
BHB 32.43 292 P 49 42.52 13.9X
SBF 32.46 291 eP 49 45.60 16.6X
0.8s 20.40nm
STV 32.47 291 P 49 44.12 15.0X
PZZ 32.59 292 P 49 43.99 13.8X
LPG 32.70 294 eP 49 47.40 16.1X
0.5s 4.00nm
LPL 32.71 294 eP 49 46.60 15.3X
0.4s 3.40nm
HAU 32.73 298 eP 49 31.20 0.0
0.7s 8.80nm 4.7mb
RRL 32.75 293 P 49 47.33 15.6X
FRF 33.07 290 eP 49 50.00 15.8X
0.6s 10.30nm
LBF 34.42 297 eP 49 45.80 -0.1
0.7s 3.40nm 4.4mb
LOR 34.47 297 eP 49 46.20 -0.1
0.7s 4.30nm 4.5mb
SMF 34.56 296 eP 49 47.20 0.2
0.7s 4.65nm 4.5mb
AVF 34.87 297 eP 49 50.10 0.4
0.8s 4.55nm 4.5mb
MAF 35.49 296 eP 50 11.10 16.1X
0.7s 7.60nm
TCF 35.73 296 eP 50 13.10 16.1X
0.7s 6.70nm
BOD 42.82 44 iPc 50 56.60 1.0
0.9s 6.00nm 4.4mb
BCAO 46.54 228 iPc 51 25.90 0.1
0.5s 18.00nm 5.3mb
ic 51 43.10
KIC 60.45 252 P 53 08.00 -0.2
LIC 60.75 252 P 53 10.00 -0.2
YKA 76.70 353 eP 54 58.90 10.9X
0.5s 0.30nm
S.D. = 1.2 on 18 of 41 obs.

% MAR 10, 1993 11h 01m 15.26± 0.88s
26.810 S ± 7.8km 26.777 E ± 7.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.0 (PRE).

BFS 0.09 175 eP 01 17.20 -0.2
S 01 18.20
PRY 0.63 101 eP 01 27.50 -0.5
S 01 35.50
KSR 0.95 7 e(P) 01 33.00 -0.9
S 01 45.50
SWZ 1.35 254 eP 01 40.90 0.2
S 01 58.10
SLR 1.72 52 eP 01 47.50 1.3
S 02 09.90
S.D. = 1.2 on 5 of 5 obs.

• MAR 10, 1993 12h 31m 55.87± 1.11s
42.830 N ± 7.7km 24.563 E ±11.5km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 3.0 (THE).

SRS 1.86 203 ePb 32 29.18 1.1
eSb 32 51.46
KNT 2.08 217 ePn 32 30.66 -0.6
eSn 32 55.70
VAY 2.12 225 iPn 32 31.00 -0.7
SOH 2.20 205 ePn 32 33.30 0.3
eSn 32 59.90
ALN 2.23 150 ePn 32 32.98 -0.4
GRG 2.47 221 ePn 32 37.02 0.2
THE 2.50 209 ePn 32 37.10 -0.1
OUR 2.53 190 ePn 32 38.30 0.7
PAIG 2.98 193 ePn 32 43.34 -0.6
BZS 3.50 324 ePc 32 51.50 0.1
S.D. = 0.7 on 10 of 10 obs.

MAR 10, 1993 12h 39m 23.90± 0.16s
59.700 S ± 6.1km 25.719 W ± 4.9km
DEPTH = 33.0km (normal)
5.4mb (25 obs.) 6.4Msz (38 obs.)
SOUTH SANDWICH ISLANDS REGION (153)
Mw 6.5 (HRV). Ms 6.7 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 45S, **C M.W.: 36S, 75C
Centroid Location:
Origin Time 12:39:33.8 0.1
Lat 60.49S 0.01 Lon 24.73W 0.02
Dep 15.0 FIX Half-duration 4.4
Moment Tensor; Scale 10**18 Nm
Mrr= 4.80 0.05 Mtt=-0.64 0.06
Mff=-4.17 0.04 Mrt= 0.23 0.11
Mrf= 2.56 0.11 Mtf=-2.72 0.04
Principal Axes:
T Val= 5.52 Plg=73 Azm=253
N 0.64 11 24
P -6.16 12 117
Best Double Couple:Mo=5.8*10**18
NP1:Strike=221 Dip=34 Slip= 111
NP2: 17 58 77

SNA 14.39 147 e(P) 42 37.20 -9.7X
0.7s 351.00nm 6.0mb
AIA 18.42 236 e(P) 43 42.00 4.1X
NVL 18.84 141 eP 43 37.00 -6.0X
1.2s 269.00nm 5.3mb
Z 11s 47.00um
N 11s 20.50um
E 11s 48.00um
e 43 47.00
e 44 01.00
e 44 17.00
e 44 21.00
e 47 20.00
SPA 30.47 180 iPd 45 34.00 -1.6
1.5s 943.18nm 6.4mb
i 45 36.80
LPA 32.48 305 eP+ 45 54.00 0.9
Z 20s 72.34um 6.4Msz
ePP 46 58.00
eS 50 58.00
MRA 37.97 298 e(P) 46 39.40 -0.5
TCA 38.38 300 ePc 46 43.50 -0.1
BLE 38.74 68 iPc 46 48.00 1.6
1.5s 180.00nm 5.6mb
MDZ 39.00 294 eP 46 50.10 1.4
e 49 01.10
e 56 17.40
S 59 12.00
TUH 39.47 68 iPc 46 53.00 0.5
0.7s 20.00nm 5.0mb
CER 39.49 69 iPc 46 52.00 -0.7
1.3s 120.00nm 5.5mb
VAO 39.62 328 eP 46 55.10 1.2
PEL 39.65 292 eP+ 46 52.00 -2.0
RTCV 39.71 295 e(P) 46 54.80 0.2
CFA 39.79 296 e(P) 46 55.00 -0.2
CACB 40.82 329 eP 47 05.90 2.1
e 47 06.40
e 47 18.10
CYA 41.40 301 ePd 47 06.30 -2.2

```
RTRS   41.56 296 e(P)   47 10.00   0.3
CDCB   41.71 333 (P)    47 05.00  -6.1X
                 e      48 21.40
PPD    41.77 323 eP     47 13.30   1.8
                 e      48 20.80
GRM    43.04  76 iPc    47 08.20 -13.7X
       1.5s  104.00nm
POF    43.12  66 iPc    47 24.50   2.1
       1.0s   40.00nm        5.1mb
FSA    43.55 302 e(P)   47 27.00   1.0
SLA    44.53 304 ePc    47 33.10  -1.0
FRS    45.35  72 iPc    47 40.50   0.1
       1.5s   80.00nm        5.4mb
CRZF   45.74 109 iPd    47 51.00   7.7X
                 ePP    49 45.00
                 iS     54 30.00
                 eSS    57 54.00
HJA    45.83 305 e(P)   47 43.80  -0.4
BLF    46.30  72 eP     47 46.60  -1.5
       1.5s   60.00nm        5.3mb
YJA    46.80 306 ePc    47 52.40  -0.1
BDF    46.88 330 iPc    47 52.50  -0.2
                 e      47 57.10
BAO    46.93 330 eP     47 52.10  -1.0
                 e      47 54.40
                 e      47 57.10
                 e      48 09.20
                 e      48 46.10
                 e      48 58.10
                 e      49 21.10
                 e      53 20.00
ANT    47.55 299 eP     47 57.00  -0.8
WIN    47.73  58 iPc    48 03.50   4.0X
       1.5s   80.00nm        5.5mb
     Z 22s    72.70um        6.6Msz
PRY    48.74  72 iPc    48 05.00  -2.2
       1.5s  100.00nm        5.6mb
KSR    49.36  71 iPc    48 11.00  -1.0
       1.1s  100.00nm        5.8mb
SLR    50.13  72 iPc    48 16.80  -1.1
       1.5s   90.00nm        5.6mb
     Z 18s   138.00um        7.0Msz
CSY    50.20 159 eP     48 16.70  -1.0
       1.2s   28.60nm        5.2mb
SIV    50.67 314 P      48 25.40   3.4X
BFT    51.03  74 iPc    48 25.50   0.7
       1.0s  100.00nm        5.7mb
PAF    51.85 124 iP     48 33.00   2.5
                 ePP    50 24.00
                 iS     56 01.00
                 eSS    59 42.00
CNCB   52.61 306 Pc     48 36.70  -0.6
                 S      56 07.00
LPB    52.91 306 P      48 37.00  -2.3
                 (S)    56 00.00
                 LR     04 50.00
ZOBO   53.15 306 iPc    48 39.30  -2.0
                 i      48 40.00
                 iS     55 58.00
                 LR     05 07.00
DRV    53.50 173 eP     48 45.00   2.5
                 PP     50 53.00
                 S      56 17.00
                 SS     59 54.00
ARE    54.40 302 eP     48 51.00   0.9
BUL    55.05  69 iPd    48 52.10  -2.6
                 iS     56 16.00
CIR    55.72  72 iPd    48 57.90  -1.5
MTD    59.36  70 iPd    49 25.10   0.0
VTY    65.28  86 iPc    50 05.90   1.2
AVY    65.51  86 eP     50 06.90   0.7
LIC    67.74  22 P      50 19.40  -0.7
KIC    67.93  23 P      50 20.60  -0.6
TIC    68.15  22 P      50 22.20  -0.4
PSO    72.72 305 eP     50 56.00   5.2X
BCAO   72.79  47 iPd    50 51.00   0.3
       0.7s   45.00nm        5.6mb
                 id     51 11.80
                 id     52 15.80
BOG    74.52 309 iPc    51 03.00   1.8
                 iS     00 38.00
NAI    75.35  66 ePd    51 14.50   8.7X
                 iPS    00 48.00
                 iPPS   01 47.00
                 iSS    05 52.00
SDV    77.14 314 iPc    51 15.50  -0.3
TAU    77.59 175 eP     51 17.00  -0.7
                 e      01 04.00
                 e      06 08.00
TOO    82.81 173 eP     51 45.00  -0.7
       0.7s   22.00nm        5.4mb
BFD    82.99 171 eP     51 46.30  -0.3
       0.9s   17.00nm        5.1mb
CAN    85.23 176 eP     51 56.80  -1.2
                 e      52 10.70
CNB    85.25 176 eP     51 59.30   1.2
AAE    85.33  63 eP     52 03.50   4.5X
BWA    86.10 175 eP     52 04.90   2.5
RIV    86.78 177 iPd    52 12.00   6.4X
                 iS     02 42.00
                 i      08 31.20
STK    88.16 169 iPc    52 12.20  -0.1
       1.1s    4.50nm        4.7mb
CMS    88.88 173 eP     52 15.10  -0.7
       1.2s   32.00nm        5.5mb
ARO    89.40  66 eP+    52 24.00   5.6X
ARMA   90.19 178 eP     52 22.30   0.2
       1.4s   36.00nm        5.5mb
YBT    90.22  14 eP     52 18.00  -3.7X
TVO    90.30 233 eP     52 33.10  10.4X
       1.5s  526.50nm
RAR    91.09 222 (P)    52 29.30   3.2X
RUV    91.87 235 eP     52 40.70  10.9X
       1.5s  587.10nm
VAH    91.93 235 eP     52 37.90   7.8X
       1.5s  442.90nm        6.7mb X
TPT    92.15 235 eP     52 39.20   8.1X
       1.5s  495.20nm        6.7mb X
BRS    93.23 179 iPKP   52 36.00   0.0
       1.5s    3.00nm        4.5mb
                 i      52 48.00
                 eSKS   03 33.00
OLP    93.64 171 eP     52 37.90   0.0
AVE    93.89  15 eP     52 41.00   2.5
                 i      52 48.50
                 i      53 31.50
RMQ    94.01 175 eP     52 41.00   1.4
IFR    94.42  17 iP     52 32.50  -8.7X
                 i      52 45.50
ASPA   95.27 161 eP     52 44.10  -1.4
       1.9s   18.70nm        5.2mb
     Z 23s    72.50um        7.1MszX
                 eS     03 16.90
MAL    97.68  17 iP-    53 04.00   8.3X
                 iPP    57 28.00
                 iS     04 32.00
WRA    98.99 161 P      53 02.50   0.2
       1.0s    2.10nm        4.6mb
WB2    98.99 161 eP     53 01.00  -1.3
       1.4s    2.40nm        4.5mb
PAB   100.45  17 ePdiff53 15.00    6.5X
                 ePP    57 10.00
                 iS     05 02.00
EBR   102.47  20 ePdiff53 22.00    4.7X
                 eSKS   04 04.00
                 eS     05 12.00
OHR   107.51  35 ePKP   57 52.50   4.5X
HRV   108.60 326 Pdiff+53 47.52    3.0X
     Z 19s    11.53um        6.5Msz
                 PP     58 24.24
MIAR  109.19 306 Pdiff+53 53.10    5.7X
     Z 21s     5.96um        6.1Msz
                 PP     58 23.13
                 SP     07 50.84
TRI   109.92  28 ePdiff54 00.00    9.7X
                 e      58 23.60
                 e      01 12.00
                 e      07 56.00
                 e      08 56.00
                 e      14 28.00
                 eLR    30 52.00
ITU   110.08  41 ePdiff54 08.00   16.9X
HNR   110.95 186 (Pdiff54 10.00   14.4X
KBA   111.11  27 iPKP   58 17.40  22.7X
       0.6s    3.00nm
                 i      58 24.30
RSNY  111.33 325 Pdiff+54 01.44    4.8X
RSNY  111.33 325 PKP    58 00.09   5.1X
     Z 21s     6.60um        6.2Msz
                 PP     58 36.47
SLM   111.41 311 PKP    58 01.65   6.3X
     Z 20s    51.19um        7.1Msz
                 PP     58 38.96
                 SP     08 13.12
                 PKKP   09 19.86
WMOK  111.54 302 Pdiff+54 01.33    3.5X
     Z 20s     5.68um        6.2Msz
                 PP     58 42.01
                 SP     08 20.86
                 SS     14 45.34
CBM   111.78 330 Pdiff  54 03.99   5.4X
     Z 20s     5.29um        6.1Msz
                 PP     58 48.22
                 SP     08 42.20
                 SS     15 15.03
HYB   112.07  93 ePKP   57 58.50   1.3
                 e      58 44.00
GEC2  112.85  27 PKP    58 03.70   5.8X
       0.8s    1.64nm
GRF   113.09  25 ePKP   58 30.00  31.8X
     Z 19s     7.00um        6.3Msz
MOX   114.08  25 ePdiff54 29.00   20.3X
     Z 19s     6.80um        6.3Msz
PRU   114.11  27 ePKP   58 07.00   6.8X
     Z 23s     5.70um        6.1MszX
     N 19s     6.40um
     E 19s     3.50um
                 e      59 07.50
                 e      05 20.00
                 e      06 00.00
                 e      09 00.00
BRG   114.80  26 e(PKP)58 27.80   26.3X
     Z 20s     7.50um        6.3Msz
     N 20s     4.50um
     E 20s     4.50um
                 e      58 37.70
TUC   114.93 292 Pdiff  54 15.94   2.9X
TUC   114.93 292 ePKP   58 01.62  -0.8
     Z 19s    15.18um        6.6Msz
                 PP     59 04.54
                 SP     08 47.34
                 e      15 27.88
CLL   115.00  26 ePKP   58 12.00  10.2X
     Z 18s     6.50um        6.3Msz
ALQ   115.11 296 Pdiff+54 18.37    4.4X
     Z 19s     2.87um        5.9Msz
                 PP     59 07.63
                 SDIF   08 42.61
GRS   115.16  54 iPKP   58 07.00   4.3X
                 e      05 08.00
KSP   115.32  28 ePKP   58 05.00   2.5X
                 e      59 12.60
OJC   115.61  31 ePKP   58 10.10   7.1X
RAB   116.28 178 e(Pdif54 16.00   -3.4X
MTA   116.40  52 ePKP   58 12.00   7.3X
                 e      10 23.00
KIV   117.48  49 ePKP   58 09.40   2.5X
     Z 17s     5.20um        6.2MszX
                 eSKS   05 13.70
                 ePS    09 04.60
PYA   117.68  49 ePKP   58 10.00   2.8X
     Z 17s     5.00um        6.2MszX
     N 17s     6.00um
     E 17s     2.50um
                 i      05 11.00
                 iPPS   10 36.00
GLD   118.54 300 PKP    58 16.49   7.3X
     Z 21s    10.11um        6.4Msz
                 PP     59 33.77
GOL   118.56 300 PKP    58 10.93   1.6
     Z 21s     7.11um        6.3Msz
                 PP     59 32.51
PV08  119.10 297 ePKP   58 10.98   0.5
ASH   119.10  64 ePKP   58 13.00   3.0X
                 e      02 10.00
                 e      05 09.40
                 e      09 32.00
PV10  119.11 297 ePKP   58 09.80  -0.6
PV09  119.25 297 ePKP   58 11.11   0.4
PEC   119.27 288 (PKP)  58 09.60  -1.0
JAQ   120.04 328 ePKP   58 11.00  -0.3
GSC   120.24 289 ePKP   58 13.31   0.9
SRU   120.38 296 ePKP   58 10.58  -2.1X
MSU   120.66 294 ePKPc  58 12.86  -0.5
ARUT  120.66 293 ePKP   58 14.66   1.4
MNK   121.02  34 ePKP   58 21.00   7.9X
EMUT  121.08 296 ePKPc  58 14.44   0.3
NST   121.16 114 ePKP   58 14.50   0.0
TPNV  121.31 290 ePKP   58 15.50   1.0
     Z 20s    12.30um        6.5Msz
ISA   121.34 288 Pdiff+54 45.33    3.8X
```

10d 12h

ISA 121.34 288 ePKP 58 13.50 -1.0
Z 20s 13.39um 6.6Msz
PP 59 29.75
i 17 17.23
RSSD 121.60 304 Pdiff 54 46.74 4.1X
RSSD 121.60 304 ePKPd 58 14.35 -0.6
Z 20s 17.13um 6.7Msz
PP 59 50.62
SS 16 26.74
e 22 37.61
BCH 121.74 286 (PKP) 58 16.62 1.3
DAU 121.77 296 ePKP 58 15.09 -0.4
KONO 122.17 20 (PKP) 58 14.15 -1.0
DUG 122.30 295 Pdiff 54 53.11 7.3X
DUG 122.30 295 ePKP 58 16.45 0.2
Z 19s 11.36um 6.5Msz
PP 00 00.30
TNP 122.67 290 ePKP 58 18.02 0.9
BW06 122.90 299 ePKP 58 16.01 -1.4
BONR 123.09 290 ePKP 58 18.60 0.6
DAV 123.16 145 ePKP 58 22.00 3.6X
MEMM 123.17 289 (PKP) 58 20.86 3.1X
CHTO 123.33 111 ePKP 58 19.00 0.4
ULM 123.39 314 ePKP 58 20.00 2.2X
NAO 123.49 20 PKPd 58 19.50 1.8
HVU 123.55 296 ePKP 58 19.26 0.6
SAO 123.66 286 PKP 58 29.01 10.2X
Z 21s 9.82um 6.4Msz
PP 00 06.10
P'P' 17 14.70
e 18 05.92
NB2 123.76 21 PKP 58 18.90 0.6
0.9s 3.30nm
KVN 123.86 290 (PKP) 58 25.68 6.3X
DMN 123.87 93 PKP 58 19.40 -0.5
UPP 123.92 25 iPKP 58 19.80 1.3
GKN 123.95 92 PKP 58 18.60 -1.3
PKI 123.99 93 PKP 58 19.40 -0.8
KKN 124.11 93 PKP 58 18.20 -2.1X
CMB 124.15 288 ePKP 58 34.68 14.9X
Z 18s 10.00um 6.5Msz
ePPc 00 06.68
iSKPc 01 32.68
iSKS 05 35.68
ePS 10 28.68
ePKKS 11 45.68
iSS 18 02.68
i 22 01.68
e 25 34.68
eLQ 33 55.68
eLR 39 18.68
COE 124.16 286 ePKP 58 21.62 1.8
ARN 124.17 287 ePKP 58 19.90 0.0
PTI 124.23 297 ePKP 58 20.79 0.8
GUN 124.51 93 PKP 58 19.60 -1.6
HHAI 124.57 298 ePKP 58 20.95 0.4
OBN 124.75 38 iPKP 58 23.00 2.7X
2.0s 144.00nm
Z 20s 8.20um 6.4Msz
N 20s 5.50um
E 20s 1.80um
e 58 30.00
ePS 10 12.00
BKS 124.92 286 ePKP 58 33.09 11.9X
Z 20s 6.00um 6.3Msz
ePPc 00 18.09
ePKS 01 47.09
eSKS 05 38.09
e 07 21.09
e(PS) 11 57.09
iSS 18 16.09
e 22 58.09
e 26 11.09
eLQ 33 58.09
eLR 39 42.09
NTYM 125.53 287 (PKP) 58 18.46 -3.9X
MOS 125.60 38 ePKP 58 24.00 2.0X
Z 20s 7.00um 6.3Msz
e 58 35.00
e 00 27.00
ORV 125.89 288 (PKP) 58 25.62 2.5X
LCCM 126.34 300 ePKP 58 25.10 1.1
PUL 126.87 32 (PKP) 58 31.00 6.7X
Z 19s 9.00um 6.5Msz
N 19s 4.70um
E 19s 2.90um
e 58 43.00
e 00 40.00
e 05 35.00
i 10 40.00
e 12 14.00
WDC 127.18 288 Pdiff 55 22.40 15.2X
Z 20s 7.70um 6.4Msz
PP 56 42.40
SP 07 16.67
P'P' 13 32.36
WDC 127.18 288 ePKP 58 32.03 6.5X
Z 18s 5.00um 6.2MszX
ePPc 00 30.03
ePKS 01 52.03
eSKS 05 44.03
eSP 12 20.03
iSS 18 31.03
eLQ 35 20.03
eLR 41 41.03
KAF 127.88 28 ePKP 58 25.70 -0.4
1.0s 44.70nm
QIZ 128.45 122 ePKP 58 27.00 -1.5
N 22s 6.11um
E 19s 3.75um
LSA 128.63 97 PKP 58 29.00 -0.2
Z 32s 14.20um 6.4MszX
N 20s 10.20um
KSH 128.69 76 PKP 58 32.10 3.5X
Z 16s 9.54um 6.6MszX
N 15s 7.45um
E 14s 5.16um
SKKS 07 32.00
HON 129.03 243 PKP 58 46.68 17.2X
Z 19s 9.87um 6.5Msz
PP 00 46.68
SKP 02 00.05
SP 10 57.25
SS 18 50.09
SES 129.48 304 ePKP 58 29.00 -0.6
FCC 129.66 321 ePKP 58 32.50 2.9X
VGB 130.11 294 (PKP) 58 38.60 7.6X
iSKP 01 55.91
GDH 130.20 347 ePKPc 58 28.00 -2.3X
e 00 55.00
i 01 54.00
i 18 21.00
BAG 130.31 136 ePKP- 58 28.00 -4.3X
NEW 130.51 299 ePKP 58 31.06 -0.6
iSKP 01 52.86
KMI 130.53 111 PKPc 58 33.00 0.4
Z 24s 14.30um 6.6MszX
N 17s 5.00um
E 17s 1.90um
sPKP 58 45.00
PKS 02 06.00
SKS 05 42.00
FRU 130.60 72 ePKP 58 34.00 2.0
2.5s 160.00nm
DPW 130.70 297 ePKP 58 32.36 0.3
iSKP 01 55.64
LON 131.51 294 ePKP 58 32.05 -1.6
PP 01 07.22
iSKP 01 57.43
SS 19 07.21
i 24 28.76
BMW 131.97 293 ePKP 58 34.94 0.4
iSKP 02 01.27
PRZ 132.18 75 ePKP 58 36.00 0.8
1.4s 40.00nm
HKC 133.19 125 ePKP 58 45.00 7.6X
GUA 133.40 167 (PKP) 58 42.00 4.0X
Z 21s 12.30um 6.6Msz
GUMO 133.44 167 e(Pdif55 35.00 -0.6
Z 23s 9.77um 6.5MszX
GYA 133.50 114 PKP 58 40.60 2.5X
Z 36s 13.70um 6.4MszX
N 18s 5.54um
E 18s 3.19um
PP 01 05.00
SS 18 50.00
ARU 133.51 50 ePKP 58 42.00 5.0X
2.3s 420.00nm
e 01 09.00
GZH 133.53 124 ePKP 58 40.00 1.9
Z 26s 10.60um 6.4MszX
N 16s 3.75um
E 16s 1.10um
PP 01 04.00
SS 18 50.00
SVE 134.60 50 iPKPd 58 45.00 5.9X
4.0s 560.00nm
Z 24s 7.00um 6.3MszX
N 22s 4.50um
E 17s 3.00um
CD2 135.86 108 ePKP 58 42.80 0.4
Z 24s 9.23um 6.4MszX
E 17s 2.94um
DAG 136.29 2 ePKP 58 41.00 -0.7
0.9s 15.97nm
QZH 137.34 129 PKP 58 44.00 -1.2
Z 26s 8.46um 6.4MszX
N 20s 5.41um
WMQ 137.78 81 PKP 58 46.20 0.5
Z 24s 7.97um 6.4MszX
SKKS 08 16.00
TATO 138.48 132 (PKP) 58 46.29 -1.1
YKA 139.36 315 ePKP 58 51.50 3.7X
0.9s 24.00nm
LZH 140.09 103 ePKP 58 47.50 -2.7X
Z 23s 7.12um 6.4MszX
E 11s 3.59um
KBS 140.17 11 ePKP 58 49.50 0.6
WHN 140.47 120 ePKP 58 52.00 1.2
Z 22s 14.20um 6.7Msz
N 20s 7.69um
E 22s 8.14um
GTA 140.65 96 PKP 58 48.50 -2.6X
Z 24s 12.40um 6.6MszX
E 22s 5.92um
sPKP 58 58.00
PP 01 56.00
SKKS 08 40.00
XAN 140.90 110 ePKP 58 49.50 -2.1
Z 38s 12.00um 6.4MszX
N 17s 3.58um
E 18s 2.57um
RES 141.54 336 ePKP 58 46.00 -5.4X
1.0s 11.00nm
ELT 143.42 69 iPKPd 58 52.00 -3.2X
1.8s 81.00nm
NJ2 143.71 124 PKPc 58 54.00 -2.4X
Z 23s 5.25um 6.2MszX
N 18s 2.75um
E 18s 1.34um
SSE 143.84 127 PKPc 58 54.00 -2.6X
Z 20s 7.30um 6.4Msz
N 18s 5.60um
E 18s 2.20um
sPKP 59 08.00
SIT 144.57 297 PKP+ 58 55.10 -1.9
Z 20s 8.59um 6.5Msz
TIY 145.55 111 PKPc 58 59.00 -0.5
Z 34s 13.40um 6.5MszX
N 26s 11.40um
sPKP 59 08.00
TIA 146.49 118 ePKP 59 01.80 0.8
Z 22s 16.30um 6.8Msz
N 15s 1.07um
E 15s 3.07um
PP 02 22.50
BTO 146.64 105 PKP 59 02.50 1.3
N 17s 2.06um
E 15s 1.77um
PKPab 59 10.00
HHC 147.59 106 PKPc 59 03.50 0.8
Z 20s 7.10um 6.5Msz
N 20s 2.07um
E 20s 3.67um
SKKS 09 18.00
BJI 149.16 112 ePKP 59 05.00 -0.1
Z 32s 14.30um 6.6MszX
MOY 149.67 81 ePKPc 59 04.90 -0.5
i 59 12.40
BALM 149.71 300 ePKP 59 04.74 -0.7
ZAK 150.05 85 ePKP 59 06.00 0.0
1.8s 459.00nm
DL2 150.72 121 PKP 59 06.00 -1.5
DL2 150.72 121 PKP 59 10.00 2.5X
Z 20s 4.92um 6.3Msz
N 20s 7.24um
E 18s 3.35um
SKKS 09 40.00
SHK 151.11 141 ePKP 59 12.10 3.9X
NRI 151.47 43 ePKPd 59 08.00 0.4
2.2s 84.00nm

e 59 20.00
e 22 30.00
KLU 151.48 300 ePKP 59 06.90 -1.1
ePKPbc59 15.73
IRK 151.69 83 iPKP+ 59 08.00 -0.5
1.8s 32.00nm
e 59 22.50
ePPP 06 26.00
IRK 151.69 83 ePKP 59 16.00 7.5X
e 59 22.50
e 59 34.00
e 59 49.00
e 00 00.00
e 00 54.00
e 01 04.00
e 01 35.50
e 02 31.00
ePP 03 16.00
e 04 13.00
e 04 27.00
e 04 55.00
ePPP 06 26.00
eSKKS 09 40.00
e 10 12.00
e 10 57.00
e 12 36.00
e 14 43.00
e 16 44.00
e 18 00.00
e 19 40.00
KDC 152.91 289 (PKP) 59 10.32 0.3
PMR 152.93 299 PKP+ 59 11.00 1.1
Z 21s 8.49um 6.5Msz
PP 03 06.70
SLKM 153.01 296 ePKP 59 17.43 7.2X
FBA 153.43 306 ePKP 59 09.52 -1.1
ePKPbc59 18.64
SNY 153.96 120 PKPc 59 10.00 -2.0
Z 24s 7.88um 6.4MszX
RSO 154.16 295 (PKP) 59 16.55 4.5X
MAJO 154.60 149 ePKP 59 19.18 6.1X
SVW 155.70 295 e(PKP)59 15.30 1.4
IMA 156.09 307 ePKP 59 12.07 -2.3X
e 59 19.25
CIT 156.23 91 ePKP 59 17.00 2.1X
CN2 156.36 119 ePKP 59 15.00 -0.2
Z 20s 9.17um 6.6Msz
N 17s 4.38um
E 17s 3.17um
SKKS 10 10.00
TTA 156.41 299 ePKP 59 13.21 -1.6
VLA 158.48 131 iPKP 59 14.00 -3.8X
2.0s 125.00nm
i 59 50.00
i 06 19.00
MDJ 158.80 124 ePKP 59 17.50 -0.6
Z 42s 17.60um 6.6MszX
SKKS 10 20.00
BOD 159.35 78 ePKP 59 18.30 0.0
1.7s 36.00nm
SAP 161.54 149 ePKP 59 30.00 9.0X
TIK 164.29 30 ePKP+ 59 20.00 -2.8X
2.0s 123.00nm
i 00 21.50
i 04 09.50
YSS 165.57 147 iPKPc+59 26.00 1.4
1.2s 40.00nm
e 04 09.00
e 06 30.00
eSS 24 47.00
ILT 165.64 316 iPKP 59 20.00 -4.1X
2.2s 67.00nm
ePPP 08 17.00
SMY 166.98 246 PKP+ 59 26.65 1.1
Z 19s 11.23um 6.7Msz
YAK 167.83 68 ePKP 59 23.00 -2.9X
2.7s 182.00nm
e 00 34.00
PET 172.88 202 ePKP 59 30.00 1.3
MGD 178.20 76 iPKP 59 30.00 0.2
S.D. = 1.2 on 148 of 251 obs.

? MAR 10, 1993 13h 17m 24.11± 4.47s
42.430 N ±40.4km 24.166 E ±10.4km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 2.8 (THE).

SRS 1.38 198 ePb 17 48.72 -0.7
eSb 18 10.52
KNT 1.58 217 ePb 17 51.84 -0.4
eSb 18 14.28
VAY 1.63 228 iPn 17 53.00 0.1
SOH 1.72 201 ePb 17 54.64 0.4
eSb 18 20.00
THE 2.01 207 ePn 17 58.92 0.5
ALN 2.08 137 ePn 17 59.44 0.0
OUR 2.10 184 ePn 17 59.80 0.1
S.D. = 0.5 on 7 of 7 obs.

MAR 10, 1993 13h 21m 20.81± 0.24s
4.299 S ± 4.1km 135.607 E ± 5.2km
DEPTH = 33.0km (normal)
5.2mb (31 obs.)
IRIAN JAYA REGION, INDONESIA (196)

MNDI 8.23 103 eP 23 20.00 -1.1
MTN 9.58 207 eP 23 38.50 -1.0
eS 25 22.00
MDG 10.18 96 e(P) 23 46.00 -1.8
PMG 12.54 114 eP 24 20.00 0.2
WB2 15.60 184 iPc 24 55.70 -4.3X
0.6s 106.70nm 5.2mb
eS 27 41.60
PLP 18.65 326 ePc 25 38.00 -0.3
CTA 18.81 147 iPd 25 40.00 -0.3
1.2s 97.66nm 4.9mb
epP 25 46.50
e 26 26.00
ASPA 19.32 185 iPd 25 44.10 -2.3
1.0s 316.80nm 5.5mb
eS 29 13.10
KHKI 20.28 258 ePd 25 54.40 -2.2
e 26 19.00
PPR 21.87 310 ePd 26 16.00 3.3X
PGP 22.90 321 ePd 26 25.00 2.0
HNR 24.69 103 eP 26 42.00 1.7
CVP 25.75 328 eP 26 51.00 0.7
NANU 26.59 225 iPc 27 00.00 1.9
0.9s 85.00nm 5.4mb
e 32 04.00
MEEK 27.52 214 eP 27 07.70 1.1
LEM 27.97 264 ePd 27 08.00 -2.9
STK 28.01 169 eP 27 10.20 -0.7
0.8s 11.60nm 4.6mb
BRS 28.21 146 iPc+ 27 06.00 -6.8X
ipP 27 17.50 44kmX
i 27 31.50
CMS 28.70 162 eP 27 16.40 -0.7
0.7s 5.00nm 4.3mb
COOL 29.75 206 eP 27 26.90 0.3
ARMA 30.06 152 eP 27 38.40 8.9X
1.1s 18.00nm 4.8mb
ADE 30.65 175 e(P) 27 35.00 0.5
MRWA 30.98 215 eP 27 38.00 0.5
0.6s 13.00nm 4.9mb
BAL 31.66 212 eP 27 44.00 0.6
KLB 31.91 210 eP 27 46.20 0.6
BWA 32.25 160 eP 27 49.20 0.6
i 27 53.60
MUN 33.00 211 eP 27 56.00 0.9
NWAO 33.26 209 eP 27 59.00 1.7
CAN 33.26 160 eP 27 57.10 -0.3
i 28 01.40
BFD 33.33 170 eP 28 01.10 3.2X
1.0s 38.00nm 5.3mb
CNB 33.38 159 eP 27 58.50 0.0
TOO 34.33 166 eP 27 55.40 -11.2X
0.8s 19.00nm
QIZ 34.36 313 eP 28 05.00 -2.0
DZM 34.71 123 iPc 28 10.50 0.4
RKG 34.71 208 eP 28 11.00 1.1
IPM 35.65 284 ePd 28 19.00 0.8
SSE 37.79 340 Pd 28 36.50 0.7
1.4s 98.00nm 5.5mb
NJ2 39.51 337 eP 28 51.00 0.8
WHN 40.17 331 eP 28 56.50 0.8
NST 40.33 300 eP 28 56.00 -1.2
GYA 41.47 319 iPd 29 06.80 0.2
1.0s 27.00nm 4.9mb
CHTO 42.79 304 eP 29 17.00 -0.4
TIA 43.85 338 eP 29 25.70 -0.1
1.4s 76.00nm 5.3mb
XAN 45.70 329 P 29 39.50 -1.1
1.5s 100.00nm 5.5mb
CD2 46.37 321 eP 29 45.70 -0.3
TIY 47.02 335 eP 29 51.40 0.3
1.2s 70.00nm 5.5mb
BJI 47.60 340 eP 29 55.00 -0.5
1.4s 140.00nm 5.8mb
CN2 48.75 350 eP 30 04.60 0.3
0.8s 11.00nm 4.9mb
epP 30 14.00 31kmX
MDJ 48.99 354 eP 30 06.00 -0.2
1.3s 32.00nm 5.2mb
LZH 49.97 326 eP 30 14.50 0.4
1.5s 150.00nm 5.8mb
pP 30 28.50 52kmX
HHC 50.03 336 eP 30 15.10 0.7
1.2s 120.00nm 5.8mb
BTO 50.46 335 eP 30 18.00 0.3
MNG 50.89 141 P 30 19.90 -0.9
LSA 54.37 311 Pd 30 48.20 0.7
GTA 54.58 326 P 30 48.00 -0.5
1.8s 57.00nm 5.3mb
pP 30 53.00 16kmX
PKI 57.83 306 P 31 11.60 -0.6
KKN 58.03 307 P 31 12.40 -1.1
0.8s 30.00nm 5.4mb
DMN 58.09 306 P 31 13.40 -0.6
0.8s 30.00nm 5.4mb
GKN 58.63 306 P 31 17.20 -0.4
0.8s 39.00nm 5.6mb
HYB 60.29 293 eP 31 28.00 -1.0
GBA 60.40 288 P 31 35.00 5.3X
IRK 62.30 339 eP 31 41.50 -0.5
1.4s 22.00nm 5.1mb
WMQ 64.38 323 P 31 56.20 0.2
1.2s 29.00nm 5.3mb
NDI 64.93 304 eP 32 01.00 1.3
YAK 66.28 357 eP 32 06.30 -1.4
1.5s 33.00nm 5.2mb
e 35 03.00
KSH 69.92 315 P 32 32.50 1.4
1.0s 29.00nm 5.3mb
MAIO 81.40 308 eP 33 35.00 -1.2
SVW 83.67 27 eP 33 51.50 4.1X
TTA 84.15 25 eP 33 53.00 3.2X
IMA 86.19 23 eP 34 00.80 0.8
1.2s 22.30nm 5.3mb
PMR 86.79 28 e(P) 34 06.60 3.8X
0.7s 11.40nm 5.2mb
FBA 88.21 25 e(P) 34 11.50 1.9
0.7s 5.50nm 5.0mb
YKA 102.87 27 ePdiff35 15.90 -0.6
0.8s 0.60nm 4.4mb
LOR 120.45 324 ePdiff36 39.80 4.6X
0.8s 3.75nm
SSF 120.76 324 ePdiff36 41.10 4.5X
0.6s 3.00nm
KIC 140.47 275 PKP 40 45.20 -4.4X
LIC 140.76 275 PKP 40 43.60 -6.5X
ARE 146.19 128 ePKP 41 05.00 5.3X
CNCB 148.64 133 PKP 41 07.80 3.8X
i 41 11.00
LPB 148.73 132 PKP 41 08.00 4.0X
ZOBO 148.86 132 ePKP 41 06.00 1.6
i 41 14.50
LR 20 00.00
VAO 152.75 175 (PKP) 41 26.00 16.6X
PPD 152.97 166 (PKP) 41 19.00 9.4X
S.D. = 1.1 on 64 of 83 obs.

& MAR 10, 1993 13h 22m 31.49s
58.616 N 154.654 W
DEPTH = 0.0km
ALASKA PENINSULA (12)
<AEIC>. ML 2.8 (AEIC).

MCNL 0.59 16 iP 22 43.71 0.4
S 22 53.79
CDD 0.61 59 iP 22 44.21 0.5
S 22 54.72
AUI 0.96 41 eP 22 50.51 -0.1
eS 23 05.84
AUW 0.97 38 eP 22 51.07 0.2
AUH 0.98 39 eP 22 50.36 -0.6
AUL 0.99 39 eP 22 51.42 0.2
SYI 1.18 89 eP 22 53.13 -1.4
PDB 1.20 11 iP 22 53.98 -0.8
eS 23 11.49
KDC 1.44 126 P 22 56.40 -2.4

10d 13h

INW 1.65 28 eP 23 01.25 -0.7
INE 1.66 29 iP 23 00.98 -1.2
RS1 2.09 27 eP 23 05.78 -2.6
RS2 2.09 27 eP 23 07.85 -0.6
RSO 2.09 27 eP 23 08.21 -0.2
RDW 2.10 26 eP 23 07.98 -0.5
NCT 2.14 23 eP 23 08.32 -0.7
DFR 2.22 26 eP 23 09.09 -1.1
SVW 2.55 349 (P) 23 14.59 -0.2
0.5s 13.91nm 4.2mb X
e 23 16.37
iS 23 51.16
CKL 2.84 23 eP 23 18.18 -0.9
SPU 2.89 26 eP 23 19.07 -0.6
BGL 2.89 22 eP 23 19.10 -0.7
CP2 2.92 24 eP 23 23.91 3.6
eS 24 06.33
CRP 2.94 24 ePn 23 23.61 3.1
iPg 23 26.12
SLKM 2.95 48 (P) 23 20.83 0.3
(S) 24 03.04
TTA 4.38 352 eP 23 51.74 10.9
25 obs. associated

? MAR 10, 1993 13h 27m 10.49± 3.38s
40.004 N ±31.7km 25.285 E ±16.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.6 (THE).

OUR 1.05 289 ePg 27 30.26 0.0
eSg 27 43.38
ALN 1.06 33 ePg 27 30.46 0.0
eSg 27 44.70
PAIG 1.24 267 ePb 27 33.58 0.1
eSb 27 49.10
SOH 1.69 300 ePb 27 39.14 -1.0
eSb 28 02.02
SRS 1.70 311 ePb 27 41.02 0.6
eSb 28 02.70
GRG 2.40 294 ePn 27 50.70 0.3
S.D. = 0.7 on 6 of 6 obs.

MAR 10, 1993 13h 33m 12.32± 0.44s
5.940 N ± 3.1km 126.160 E ± 4.6km
DEPTH = 72.7 ± 3.9 km
5.2mb (57 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV 1.28 333 iPd 33 34.40 -0.4
BIP 2.27 2 ePd 33 48.80 0.4
eS 34 16.00
CGP 2.89 330 ePc 33 55.00 -2.0
iS 34 28.00
MAP 4.86 334 iPd 34 24.00 -0.6
iS 35 14.00
PLP 5.32 347 ePd 34 29.50 -1.5
eS 35 27.00
TSM 8.42 259 eP 35 13.00 -0.9
PGP 9.10 326 ePc 35 24.00 0.7
eS 35 39.00
TGY 9.60 328 eP 35 31.00 0.8
CVP 12.44 340 ePd 36 09.20 1.0
0.8s 99.00nm 5.7mb
PIP 13.45 337 eP 36 29.00 7.6X
MTN 19.31 165 eP 37 33.50 -0.9
HKC 19.97 326 iP 37 43.40 2.0
MCO 20.18 324 eP 37 45.10 1.6
QZH 20.24 340 eP 37 48.00 3.8X
QIZ 20.54 311 Pc 37 48.00 0.7
GZH 21.05 325 P 37 52.00 -0.4
LEM 22.43 236 eP 38 09.00 2.6
KGM 23.11 261 eP 38 15.00 2.1
IPM 25.06 268 ePd 38 32.90 1.2
0.7s 47.40nm 5.0mb
SNG 25.41 274 eP 38 36.30 1.5
0.9s 121.01nm 5.4mb
SSE 25.46 350 Pc 38 36.00 0.9
1.0s 25.00nm 4.6mb
LOE 26.46 298 eP 38 44.00 -0.6
NJ2 26.86 346 Pc 38 49.60 1.6
1.0s 13.00nm 4.4mb
WHN 26.88 337 eP 38 49.00 0.8
1.0s 44.00nm 5.0mb
WRA 26.95 163 P 38 49.50 0.5
WB2 26.95 163 iPd 38 47.90 -1.1
0.5s 20.00nm 4.9mb
NST 27.30 293 eP 38 52.00 -0.2
GYA 27.61 320 P 38 58.00 2.9
1.0s 14.00nm 4.5mb
KHT 28.48 290 iPc 39 03.80 1.0
BDT 28.83 295 eP 39 04.20 -1.8
CHTO 29.44 298 eP 39 11.30 -0.3
KMI 29.45 313 Pd 39 12.50 0.7
1.5s 70.00nm 5.1mb
NANU 30.18 200 iPc 39 16.50 -1.4
ASPA 30.38 166 iPc 39 18.60 -1.2
0.8s 26.10nm 5.0mb
TIA 31.25 346 Pd 39 28.20 1.0
1.2s 57.00nm 5.2mb
XAN 32.20 332 P 39 34.00 -1.7
0.9s 170.00nm 5.9mb
CD2 32.55 322 eP 39 37.60 -1.1
CTA 32.55 143 P 39 47.70 8.9X
MEEK 33.20 192 eP 39 42.70 -1.7
TIY 34.01 340 eP 39 51.00 -0.3
1.2s 120.00nm 5.7mb
BJI 35.12 347 eP 40 01.00 0.3
1.0s 120.00nm 5.8mb
SNY 35.81 357 Pc 40 06.20 -0.3
1.3s 170.00nm 5.8mb
MRWA 36.30 195 eP 40 10.00 -0.8
0.4s 8.00nm 5.0mb
LZH 36.33 329 eP 40 10.50 -0.6
1.5s 120.00nm 5.6mb
pP 40 25.00 56kmX
PcP 42 35.00
OLP 36.77 152 eP 40 14.00 -0.8
HNR 36.97 114 P 40 15.00 -1.6
HHC 37.13 342 P 40 18.00 0.2
1.2s 220.00nm 6.0mb
VLA 37.37 7 iPc 40 20.00 0.4
1.2s 32.00nm 5.1mb
i 40 31.00
i 40 35.00
BTO 37.42 340 eP 40 22.00 1.8
BAL 37.45 193 eP 40 19.50 -0.9
CN2 37.71 359 eP 40 22.80 0.3
0.8s 11.00nm 4.8mb
KLB 38.17 192 eP 40 26.00 -0.5
MDJ 38.64 4 eP 40 29.80 -0.5
1.0s 37.00nm 5.3mb
MUN 38.88 194 iPd 40 32.10 -0.3
NWAO 39.57 192 eP 40 39.00 0.9
STK 40.39 160 iPc 40 45.10 0.3
1.1s 22.80nm 5.0mb
LSA 40.58 310 P 40 47.50 0.5
GTA 40.92 328 P 40 49.00 -0.3
1.0s 17.00nm 4.8mb
PcP 42 49.50
RKG 41.21 191 eP 40 52.40 0.9
CMS 41.69 154 eP 40 55.30 -0.2
BRS 41.95 143 iPd 40 58.00 0.2
0.5s 16.00nm 5.1mb
e 46 45.00
YSS 43.33 17 (P) 41 08.00 -0.7
e 42 56.50
ARMA 43.62 147 iPc 41 11.80 0.4
0.7s 29.00nm 5.2mb
PKI 44.25 304 P 41 16.80 -0.1
0.6s 15.00nm 5.0mb
KKN 44.44 304 P 41 18.00 -0.3
0.8s 27.00nm 5.1mb
DMN 44.52 304 P 41 19.00 0.0
0.8s 30.00nm 5.2mb
GKN 45.05 304 P 41 23.00 -0.1
0.4s 8.00nm 4.9mb
BWA 45.32 154 iPc 41 26.70 1.8
BFD 45.54 162 iPc 41 26.90 0.3
0.7s 19.00nm 5.1mb
CAN 46.33 154 iPc 41 33.60 0.7
CNB 46.49 154 iPc 41 35.20 1.0
0.8s 30.00nm 5.3mb
TOO 46.89 159 eP 41 38.20 0.9
0.5s 17.00nm 5.2mb
CIT 47.07 349 eP 41 39.50 0.9
HYB 47.87 288 ePd 41 45.00 -0.3
ZAK 48.26 341 eP 41 46.80 -1.0
0.8s 17.00nm 5.1mb
e 43 14.30
DZM 48.28 127 iPd 41 48.20 -0.3
GBA 48.54 283 Pd 41 49.80 -0.6
0.8s 18.50nm 5.1mb
IRK 49.58 343 eP 42 00.00 2.1
e 42 06.00
MOY 50.14 340 eP 42 02.10 0.0
1.2s 52.00nm 5.4mb
WMQ 50.60 324 P 42 09.50 3.6X
NDI 51.46 302 iPc 42 12.00 -0.6
BOD 52.61 352 eP 42 20.20 -0.6
1.0s 26.00nm 5.2mb
YAK 56.02 2 eP 42 45.00 -0.5
1.0s 101.00nm 5.8mb
i 43 41.00
eS 50 33.00
KSH 56.07 314 P 42 46.00 -0.4
1.0s 29.00nm 5.3mb
MGD 57.18 14 eP 42 53.00 -0.9
1.1s 50.00nm 5.6mb
e 43 04.00
ELT 57.26 333 eP 42 53.00 -1.5
0.9s 42.00nm 5.6mb
TIK 65.64 1 iPc 43 49.40 -1.0
1.5s 140.00nm 5.7mb
e 43 59.00
epP 44 28.00 162kmX
eS 52 32.00
MAIO 67.74 307 eP 44 02.00 -2.6
1.0s 10.00nm 4.7mb
NRI 68.08 346 iPd 44 05.10 -0.9
e 44 19.00
e 44 31.00
GRS 78.40 309 iPc 45 06.00 -1.0
1.1s 40.00nm 5.3mb
SVW 79.13 29 eP 45 11.90 1.5
TTA 79.20 27 eP 45 10.12 -0.7
1.1s 14.68nm 4.8mb
MTA 79.63 311 iP 45 13.00 -0.4
BRW 80.27 19 eP 45 16.32 0.1
KDC 80.39 33 eP 45 17.50 0.4
RSO 80.46 30 eP 45 17.69 0.0
IMA 80.61 24 ePc 45 19.11 0.8
CP2 80.78 29 (P) 45 19.59 0.2
CRP 80.82 29 eP 45 19.86 0.3
KIV 81.21 313 eP 45 19.70 -2.2
1.1s 19.00nm 4.9mb
SLKM 81.72 30 eP 45 23.58 -0.5
PMR 82.29 29 ePd 45 26.72 -0.2
1.0s 63.60nm 5.5mb
FBA 82.98 25 eP 45 30.06 -0.4
0.8s 10.95nm 4.8mb
epP 45 45.80 55kmX
KLU 83.83 29 eP 45 34.36 -0.6
OBN 84.92 325 iPd 45 39.90 -0.5
1.2s 53.00nm 5.5mb
i 45 51.00
BALM 85.57 29 eP 45 44.79 1.0
KAF 89.39 332 iP 46 00.80 -1.2
0.4s 5.30nm 5.1mb
NUR 90.51 331 eP 46 06.00 -1.2
0.8s 20.30nm 5.5mb
UZH 94.65 320 eP 46 27.00 0.5
1.0s 24.00nm 5.6mb
DAG 95.02 352 iPd 46 27.50 -0.2
0.7s 31.51nm 5.9mb
Z 18s 8.93um 6.3Msz
N 18s 6.32um
E 17s 4.76um
RES 95.75 10 eP 46 34.00 2.9X
0.9s 3.00nm 4.8mb
SLL 95.85 333 ePKP 46 29.50 -2.3
0.4s 5.90nm 5.5mb
NB2 96.57 334 P 46 33.20 -1.9
0.9s 7.50nm 5.2mb
YKA 97.73 24 eP 46 39.70 -0.5
0.7s 2.70nm 4.9mb
GEC2 100.01 322 Pdiff 46 49.70 -1.3
1.1s 1.70nm 4.6mb
e 46 55.20
VBY 100.17 318 ePdiff46 52.90 1.3
BCAO 107.00 276 iPKPd 51 32.00 -0.5
0.4s 5.00nm
BGMT 107.32 39 ePKP 51 34.00 1.5
FCC 107.93 21 ePKP 51 36.00 3.2X
PV09 112.37 44 ePKP 51 43.54 1.2
PV10 112.50 44 iPKP 51 43.65 1.1
e 51 53.11
PV08 112.68 44 ePKP 51 43.92 0.9
RSSD 112.79 37 ePKP 51 42.56 -0.3
ULM 113.30 28 ePKP 51 46.00 2.7X
JAQ 117.69 14 ePKP 51 51.00 -0.7

```
WMOK   121.44  43 PKP    52 10.00  10.6X
       Z  20s      2.75um         5.9Msz
EEO    123.06  21 ePKP   52 04.50   2.4X
FVM    124.62  35 iPKPd  52 05.84   0.4
MIAR   124.99  40 PKP    52 20.00  13.8X
       Z  21s      3.21um         6.0Msz
ELC    125.79  35 ePKP   52 07.81   0.1
CBM    125.86  12 PKP    52 20.00  12.4X
       Z  18s      2.01um         5.8Msz
RSNY   126.40  18 (PKP)  52 08.03  -0.7
       Z  20s      1.97um         5.8Msz
LMN    127.52  10 ePKP   52 14.00   3.2X
KIC    129.50 283 PKP    52 14.96  -0.5
       0.8s     27.50nm
TBR    129.56  20 (PKP)  52 15.42   0.6
GPD    129.59  20 ePKP   52 15.09   0.2
TIC    129.70 284 PKP    52 15.16  -0.7
LIC    129.80 283 PKP    52 15.38  -0.7
NAV    130.15  28 iPKP   52 16.04  -0.1
CVL    130.66  26 iPKP   52 17.83   0.9
PRM    131.91  32 ePKP   52 20.38   0.9
CEH    132.11  28 iPKP   52 20.28   0.5
LHS    132.41  30 ePKP   52 20.69   0.3
TCA    152.80 160 iPKP   53 03.80   8.2X
SDV    157.70  49 iPKPd  53 03.80   1.0
CNCB   162.44 129 PKPc   53 11.00   2.9X
ZOBO   162.63 127 PKPc   53 09.70   1.3
       1.1s     11.60nm
PPD    163.82 188 ePKP   53 10.20   1.5
BAO    168.79 210 iPKPc  53 13.10   0.3
                  e      53 16.20
      S.D. = 1.0  on 135 of 149 obs.
-----------------------------------------
? MAR  10, 1993  14h 14m 46.93± 0.75s
   33.283 S ± 8.9km    70.438 W ±12.9km
   DEPTH =  80.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.4 (SAN).

FCH      0.13 110 iPd     14 58.94  -0.3
                  iS      15 12.00
PEL      0.25 304 iPd     14 59.70   0.5
                  iS      15 12.46
PCH      0.34 191 iP+     15 00.49   0.7
                  iS      15 13.22
TACH     0.56 228 iP+     15 01.64   0.2
                  iS      15 16.44
ROCH     0.57 303 iP+     15 02.00   0.2
                  iS      15 16.37
JACH     0.61 348 iP      15 01.49  -0.5
                  iS      15 16.31
CHCH     0.67 195 iP+     15 02.26  -0.3
                  iS      15 17.30
LCCH     0.97 258 iP+     15 05.95   0.1
                  iS      15 23.63
LNV      1.05 230 iP      15 06.14  -0.7
                  iS      15 23.56
     S.D. = 0.6   on    9 of    9 obs.
-----------------------------------------
   MAR  10, 1993  14h 32m 21.63± 0.55s
   39.233 N ±10.3km    76.882 W ±11.4km
   DEPTH =   5.0km  (geophysicist)
 CHESAPEAKE BAY REGION             (493)
      MD 2.5 (BLA). Felt (IV) at
      Columbia, Maryland and (II) at
      Ellicott City and Fulton,
      Maryland. Also felt in the
      Baltimore area, Maryland.

MVL      0.87  28 Pg      32 38.00  -0.8
                  Sg      32 49.50
NED      1.02  62 iPd     32 41.00  -0.4
                  S       32 56.09
CBN      1.10 201 P       32 57.00  14.3X
CNV      1.10 201 eP      32 42.09  -0.6
                  S       32 57.58
BWD      1.16  60 iPd     32 43.50  -0.2
                  S       32 59.50
BVD      1.20  63 iPd     32 45.00   0.6
                  S       33 00.08
NA5      1.39 209 P       32 47.47  -0.2
                  S       33 04.45
NA12     1.47 212 iPc     32 48.72  -0.1
                  eS      33 07.63
GHV      1.73 214 P       32 52.89   0.4
                  S       33 15.01
CVL      1.76 225 eP      32 53.34   0.4
                  eS      33 14.73
GPD      2.57  45 (P)     33 05.12   0.5
                  eS      33 41.65
TBR      2.79  46 (P)     33 08.17   0.4
                  eS      33 47.19
PAL      2.89  51 P       33 13.18   4.1X
                  S       33 43.88
WCC      2.99  52 P       33 14.13   3.6X
                  S       33 46.66
CRNY     3.29  50 (Pn)    33 16.65   1.9X
BLA      3.44 235 (P)     33 23.47   6.4X
NAV      3.62 239 (P)     33 24.77   5.1X
                  eS      34 12.49
CEH      3.77 208 (P)     33 25.71   4.0X
                  eS      34 15.67
     S.D. = 0.5   on   11 of   18 obs.
-----------------------------------------
*  MAR  10, 1993  16h 03m 24.91± 0.77s
   42.493 N ±10.7km    43.775 E ± 9.2km
   DEPTH =  33.0km  (normal)
   4.0mb (  6 obs.)
 NORTHWESTERN CAUCASUS             (362)

MTA      1.10 136 ePn     03 55.00  11.0X
PYA      1.63 341 iPg     03 52.00   0.4
GRO      1.64  58 iPgd    03 53.00   1.2
                  i       04 08.50
KIV      1.66 332 iPgd    03 53.60   1.3
                  iSg     04 16.30
MAK      2.74  78 iPnd-   04 15.00   7.5X
                  iS      04 46.00
SOC      3.17 291 iPnd    04 22.50   8.9X
                  e       04 35.00
                  iS      05 04.50
                  i       05 17.00
SHE      4.09 115 ePn     04 27.00   0.3
                  i       05 33.00
                  i       05 45.00
NUR     21.47 334 eP      08 20.20   8.0X
        0.8s     12.30nm          4.4mb
GEC2    21.86 297 P       08 16.50   0.0
        1.0s      1.25nm          3.3mb
                  e       08 25.00
                  e       08 34.60
KHC     21.97 298 eP      08 27.00   9.5X
                  e       37 30.00
                  e       37 35.00
                  e       37 56.50
                  Sg      38 03.50
KAF     22.22 338 eP      08 28.30   8.5X
FRU     22.62  79 eP      08 26.00   2.0X
CLL     22.66 304 e(P)    08 31.00   6.8X
        1.3s     12.00nm          4.2mb
SLL     25.78 325 eP      08 53.40  -0.7
        0.5s      1.80nm          3.9mb
BCAO    44.05 218 ePd     11 32.10   0.7
        0.7s      3.00nm          4.2mb
BOD     45.47  45 eP      11 40.80  -1.5
TIK     48.82  25 eP      12 08.00  -0.4
YKA     73.93 350 eP      14 56.70  -1.3
        0.8s      0.90nm          3.8mb
     S.D. = 1.1   on   10 of   18 obs.
-----------------------------------------
*  MAR  10, 1993  16h 09m 38.40± 1.26s
   9.024 S ± 7.9km    115.060 E ±11.2km
   DEPTH =  86.4 ± 12.9 km
   4.9mb (  7 obs.)
 SOUTH OF BALI, INDONESIA          (284)

KHKI     0.85  40 iPd     09 58.00   1.6
                  i(S)    10 14.50
                  e       16 50.00
NANU    13.47 178 iPc     12 44.20  -3.0
MTN     16.23 105 eP      13 20.00  -2.6
                  e       13 25.00
MEEK    17.84 170 eP      13 42.00  -0.5
                  eS      16 33.00
CGP     19.84  29 ePd     14 05.00   0.0
        0.5s     10.00nm          4.4mb
MRWA    20.11 178 eP      14 07.50  -0.2
BAL     21.53 176 eP      14 33.00  11.0X
                  eS      18 09.00
WB2     21.58 122 iPc     14 21.80  -0.8
        0.5s     13.90nm          4.6mb
                  eS      18 12.30
                  eScP    21 50.20
COOL    22.48 166 eP      14 41.50  10.1X
        0.3s     10.00nm
                  eS      18 29.00
KLB     22.60 174 eP      14 34.00   1.5
MUN     22.87 177 eP      14 37.00   1.8
ASPA    23.17 131 iPc     14 38.90   0.7
        0.6s     24.10nm          4.8mb
                  eS      18 46.00
NWAO    23.87 175 eP      15 04.00  19.1X
                  eS      19 08.00
CHTO    31.90 330 eP      15 58.10   0.2
STK     33.51 137 iPd     16 12.10   0.3
        0.4s      9.10nm          5.0mb
TOO     39.52 141 eP      17 04.30   1.9
        0.8s     13.00nm          4.9mb
BRS     40.00 122 iPc     17 08.00   1.5
GBA     43.59 301 P       17 35.00  -0.9
HNR     44.28  94 eP      17 41.00  -0.6
PKI     46.35 323 P       17 57.40  -0.7
DMN     46.56 322 P       17 59.40  -0.3
        0.8s     59.00nm          5.5mb
KKN     46.58 323 P       17 59.20  -0.6
        0.8s     31.00nm          5.2mb
GKN     47.13 322 P       18 03.60  -0.5
MAIO    68.94 314 eP      20 37.00   0.5
PRY     83.84 244 eP      22 02.00   1.7
YKA    115.78  23 ePKP    28 11.00  -1.0
        0.6s      0.40nm
PPD    146.37 203 (PKP)   29 13.00   2.7X
SOB1   149.98 234 ePKP    29 21.20   5.0X
                  e       29 23.50
BDF    150.23 215 ePKP    29 23.20   6.6X
BAO    150.30 215 (PKP)   29 23.00   6.3X
     S.D. = 1.4   on   23 of   30 obs.
-----------------------------------------
   MAR  10, 1993  16h 12m 19.88± 0.54s
   26.354 S ± 4.8km    27.398 E ± 6.1km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.8 (PRE). mbLg 2.8 (BUL).

PRY      0.58 173 eP      12 31.00  -0.4
                  S       12 37.30
KSR      0.66 317 eP      12 33.60   0.4
                  S       12 42.00
BFS      0.77 225 eP      12 35.20  -0.2
                  S       12 44.20
SLR      1.01  52 iPd     12 39.00  -0.5
                  S       12 51.70
SEK      1.97 174 eP      12 54.60   0.2
                  S       13 18.30
SWZ      2.03 246 eP      12 55.90   0.6
                  S       13 21.80
BFT      2.47  75 eP      13 03.00   1.3
                  S       13 32.00
BLF      2.95 201 eP      13 08.90   0.5
FRS      3.85 208 eP      13 20.20  -0.8
BUL      6.28  10 iPn     13 54.60  -1.1
                  iSn     15 03.00
                  iSg     15 35.30
     S.D. = 0.8   on   10 of   10 obs.
-----------------------------------------
%  MAR  10, 1993  16h 20m 16.60± 0.68s
   26.374 S ± 5.9km    27.419 E ± 6.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.2 (PRE).

PRY      0.55 175 eP      20 27.00  -0.7
                  S       20 33.00
KSR      0.69 317 eP      20 30.00  -0.4
                  S       20 39.00
SLR      1.00  51 eP      20 36.10  -0.1
                  S       20 47.90
SEK      1.95 175 eP      20 51.20   0.3
                  S       21 15.00
SWZ      2.04 246 eP      20 52.70   0.6
                  S       21 18.00
BFT      2.46  74 eP      20 58.50   0.3
                  S       21 29.50
     S.D. = 0.7   on    6 of    6 obs.
-----------------------------------------
   MAR  10, 1993  16h 22m 54.39± 0.38s
   10.719 S ± 5.7km   164.198 E ± 8.2km
   DEPTH =  38.1km  (  5 depth phases)
   4.7mb ( 16 obs.)  4.7Msz (  1 obs.)
 SANTA CRUZ ISLANDS REGION         (183)
```

```
10d  16h

HNR       4.38 287 eP     24 02.00    1.8
                   eS     24 52.00
BKM       7.94 151 iPd    24 51.00    0.6
DZM      11.49 169 iPc    25 34.00   -5.2X
                   iS     27 36.20
RAB      13.58 298 e(P)   26 12.00    5.1X
PMG      16.83 273 eP     27 00.00   11.1X
CTA      19.63 240 iPd-   27 22.50   -0.4
         1.0s     37.50nm          4.6mb
                   e      27 40.00   93kmX
                   eS     31 06.00
BRS      19.77 211 iP     27 24.00   -0.3
         1.5s     11.00nm          3.9mb
                   i      27 33.00   36km
RMQ      21.42 221 iPd    27 41.40    0.1
         0.5s     30.00nm          4.9mb
ARMA     22.83 209 eP     27 56.70    1.4
         0.9s     22.00nm          4.6mb
QLP      24.57 227 eP     28 12.60    0.4
CMS      26.76 217 iPc    28 31.90   -0.7
         0.7s     29.00nm          5.0mb
STK      29.66 221 eP     28 57.80   -1.0
         0.8s      4.40nm          4.3mb
W82      30.16 249 iPc    29 01.30   -2.2
         1.1s      8.00nm          4.4mb
TOO      31.59 209 eP     29 16.90    1.1
ASPA     31.59 242 eP     29 14.50   -1.5
         1.3s      5.90nm          4.3mb
BFD      32.78 213 eP     29 28.00    1.9
ADE      33.49 220 eP     29 32.00   -0.4
YSS      60.59 343 (P)    32 57.00   -6.5X
      Z  18s      0.50um           4.7Msz
      N  18s      0.50um
                   e      33 06.30   30km
KMI      69.66 302 Pc     34 02.50   -0.3
         1.5s     50.00nm          5.3mb
                   pP     34 15.00   43km
CHTO     70.70 294 eP     34 09.30    0.3
LZH      73.42 313 eP     34 26.00    1.0
         1.4s     29.00nm          5.1mb
                   pP     34 37.00   36km
CIT      76.09 331 eP     34 44.00    4.1X
YAK      77.34 344 eP     34 46.70    0.2
                   e      35 00.00   46km
SVW      78.28  19 eP     34 52.50    0.7
ILT      79.37   7 iPd    34 57.00   -0.5
         1.4s     13.00nm          4.7mb
BOD      79.54 335 eP     34 58.10   -0.6
TTA      79.56  17 eP     34 59.30    0.5
ZAK      80.57 325 eP     35 04.00   -0.3
         1.2s     12.00nm          4.7mb
MOY      82.46 326 eP     35 15.20    1.1
IMA      82.61  16 eP     35 15.20    0.3
         1.1s     10.20nm          4.8mb
FBA      83.49  19 eP     35 18.40   -0.8
PKI      85.15 299 P      35 28.80    0.0
KKN      85.32 299 P      35 29.60    0.1
DMN      85.42 299 P      35 30.20    0.2
TIK      85.47 349 iPd    35 29.00    0.0
         1.5s     23.00nm          5.2mb
      Z  16s      0.50um           5.0MszX
GKN      85.92 299 P      35 32.20   -0.2
ELT      91.39 324 eP     35 57.30   -0.2
         1.6s     21.00nm          5.3mb
YKA      95.38  27 eP     36 15.10   -0.6
         1.0s      0.60nm          4.0mb
BCAO    145.42 262 iPKPd  42 29.50   -1.6
         0.9s     23.00nm
                   ic     42 51.00
SOB1    148.14 128 ePKP   42 38.00    2.5X
PAB     149.54 342 ePKP   42 45.00    8.0X
     S.D. = 0.9  on  34 of  41 obs.
----------------------------------------
*  MAR  10, 1993  16h 39m 38.27± 0.57s
   37.807 N ±10.9km    72.377 E ± 7.9km
   DEPTH =  33.0km  (normal)
   4.4mb ( 15 obs.)
 TAJIKISTAN                        (715)

KSH       3.27  59 Pnc    40 29.00    0.5
                   Pg     40 37.50
NDI       9.96 155 iPd    42 09.00    6.9X
         0.5s     31.69nm          5.8mb X
                   eS     44 00.00
MAIO     10.41 266 iPc    42 07.20   -1.2
                   eS     44 02.00
WMQ      13.06  58 P      42 40.50   -3.6X

         0.7s     3.60nm           4.5mb
                   pP     42 45.50
                   eS     45 05.50
GKN      14.19 130 P      42 58.60   -0.4
KKN      14.73 129 P      43 05.80   -0.5
         0.6s     33.00nm          4.9mb
DMN      14.76 130 P      43 06.60    0.0
         0.4s     11.00nm          4.6mb
PKI      14.97 129 P      43 08.80   -0.7
         0.6s     18.00nm          4.6mb
LSA      17.56 112 P      43 45.60    3.1X
HYB      21.03 163 eP     44 27.50    5.9X
         1.0s    250.00nm          5.6mb X
GTA      21.47  77 eP     44 27.00    0.9
         1.0s      6.00nm          4.0mb
                   pP     44 33.00   22kmX
GBA      24.52 168 P      45 02.00    6.1X
LZH      25.15  84 eP     45 06.00    3.9X
      Z  17s      0.46um           4.1MszX
KAF      37.14 326 eP     46 52.20    4.9X
YAK      42.28  36 eP     47 30.50    0.6
HFS      42.73 321 eP     47 32.10   -1.5
         0.4s      2.10nm          4.2mb
      Z  16s      0.16um           4.0MszX
                   LR     05 24.00
GEC2     43.09 304 P      47 38.30    1.5
         0.5s      0.37nm          3.4mb X
NB2      44.01 322 P      47 42.80   -1.3
         0.7s      2.40nm          4.1mb
BSF      47.81 304 eP     48 19.10    4.7X
         0.6s      2.25nm          4.4mb
SMF      50.05 303 eP     48 38.50    6.9X
         0.8s      5.65nm          4.6mb
AVF      50.33 304 eP     48 39.10    5.4X
         0.8s      5.25nm          4.6mb
TCF      51.23 303 eP     48 46.50    5.9X
         0.8s      4.45nm          4.5mb
BCAO     59.15 250 iPc    49 40.00    1.7
         1.0s     10.00nm          4.9mb
                   ic     49 45.40
KIC      75.95 267 P      51 25.90    2.0
YKA      79.89   3 eP     51 43.00   -1.7
         0.6s      1.30nm          4.1mb
WRA      81.76 123 P      51 58.70    3.5X
         0.8s      1.40nm          4.0mb
W82      81.77 123 iPc    51 57.80    2.5X
         0.9s      3.60nm          4.4mb
     S.D. = 1.3  on  14 of  27 obs.
----------------------------------------
*  MAR  10, 1993  17h 05m 29.00± 0.52s
   60.411 S ±12.9km   26.059 W ±13.0km
   DEPTH =  33.0km  (normal)
   5.0mb (  5 obs.)
 SOUTH SANDWICH ISLANDS REGION     (153)

SNA      13.89 145 iPc    08 45.30   -0.2
         0.7s     66.00nm          5.5mb
NVL      18.40 140 eP     09 42.00   -0.7
         1.2s    135.00nm          5.0mb
                   e      09 52.00
                   e      09 56.00
                   e      10 04.00
                   e      10 15.00
TCA      38.60 301 ePd    12 51.00    0.5
PEL      39.76 293 iPd    13 02.50    2.4X
RTLL     40.29 297 ePd    13 05.40    0.9
RTC8     40.31 296 iPd    13 06.20    1.6
PPD      42.25 324 eP     13 20.40   -0.1
BDF      47.41 331 eP     14 01.30   -0.8
BAO      47.46 331 iPc    14 01.90   -0.6
                   e      14 06.90
                   e      14 32.40
SIV      51.05 315 P      14 34.40    4.5X
SO81     52.29 341 eP     14 38.20   -1.1
CNCB     52.90 307 eP     14 45.00    0.5
LPB      53.20 307 eP     14 44.00   -2.5
         1.1s     32.91nm          5.2mb
ZOBO     53.43 307 iPc    14 48.70    0.2
         1.0s      5.50nm          4.5mb
      Z  22s      0.11um           3.8Msz
                   LR     20 18.00
LIC      68.47  23 P      16 30.30    0.6
KIC      68.65  23 P      16 31.00    0.2
TIC      68.88  22 P      16 32.40    0.2
BCAO     73.40  47 iPd    17 00.10    0.7
         0.6s      6.00nm          4.8mb
                   ic     17 13.00

DMN     124.00  93 PKP    24 28.60    3.4X
GKN     124.09  93 PKP    24 27.20    2.0
PKI     124.12  94 PKP    24 27.80    2.3X
KKN     124.24  93 PKP    24 28.00    2.4X
LCCM    126.54 300 ePKP   24 33.50    4.0X
RES     142.12 336 ePKP   24 56.00   -1.5
IRK     151.94  84 ePKPc  25 24.30   10.3X
         1.5s     15.00nm
                   e      25 33.80
     S.D. = 1.2  on  18 of  25 obs.
----------------------------------------
   MAR  10, 1993  17h 17m 20.93± 0.77s
   34.365 N ± 5.3km    35.902 E ±12.4km
   DEPTH =  10.0km  (geophysicist)
   3.3mb (  1 obs.)
 JORDAN - SYRIA REGION             (374)
     ML 3.3 (CSS).

BHL       0.50 204 Pg     17 32.00    0.8
                   Sg     17 42.00
ADI       1.40 204 iPc    17 46.70    0.2
ATZ       1.63 199 iPc    17 50.20    0.5
                   eS     18 11.10
MML       1.97 192 iP     17 55.10    0.4
CSS       2.20 286 eP     17 58.60    0.5
                   eS     18 26.60
ZNT       2.24 199 eP     17 59.00    0.3
                   eS     18 28.00
JVI       2.47 191 eP     18 01.80   -0.1
MASJ      2.63 183 P      18 03.60   -0.7
PPCY      2.98 281 eP     17 12.50  -56.6X
                   eS     17 49.50
GAZ       3.00  20 iPn    18 10.40    1.1
YTIR      3.08 193 eP     18 10.50    0.0
SHWJ      3.99 185 P      18 22.40   -1.2
AQBJ      4.68 189 P      18 39.40    6.1X
GEC2     21.91 318 P      22 14.30   -1.7
         0.6s      0.74nm          3.3mb
                   e      22 17.80
                   e      22 29.50
                   e      32 39.90
     S.D. = 0.9  on  12 of  14 obs.
----------------------------------------
?  MAR  10, 1993  17h 21m 18.96± 3.72s
   17.264 N ±21.5km  118.338 E ±32.3km
   DEPTH =  33.0km  (normal)
   4.1mb (  1 obs.)
 PHILIPPINE ISLANDS REGION         (248)

SZP       2.04  82 ePd    21 51.00   -0.7
PIP       2.42  64 iPc    22 01.00    4.0X
                   iS     22 32.00
CVP       3.35  82 ePc    22 11.00    0.7
                   eS     22 45.00
TGY       4.02 141 ePc    22 19.50   -0.3
                   eS     23 01.00
PGP       4.51 146 eP     22 27.00    0.2
WB2      40.18 156 iPd    28 54.00    0.0
         0.9s      3.10nm          4.1mb
     S.D. = 0.7  on   5 of   6 obs.
----------------------------------------
*  MAR  10, 1993  17h 23m 24.11± 2.91s
   60.926 N ± 7.8km     4.416 E ±28.7km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                   (535)
     MD 1.9 (BER).

ASK       0.59 139 eP     23 36.63    0.7
                   eS     23 44.01
FOO       0.74  24 eP     23 38.71    0.1
                   eS     23 49.40
EGD       0.77 148 eP     23 39.43    0.4
                   eS     23 48.81
HYA       0.89  74 eP     23 41.29    0.1
                   eS     23 54.69
ODD1      1.50 132 eP     23 49.83   -1.2
                   eS     24 08.99
NRA0      3.49  90 ePn    24 25.91    6.4X
                   ePg    24 29.93
                   eLg    25 12.66
     S.D. = 1.0  on   5 of   6 obs.
----------------------------------------
&  MAR  10, 1993  18h 27m 40.63s
   57.917 N            154.539 W
   DEPTH =  69.0km
 KODIAK ISLAND REGION              ( 13)
     <AEIC>. ML 2.6 (AEIC).
```

KDC 1.11 98 P 27 59.70 -1.0
S 28 14.50
CDD 1.12 25 P 27 59.85 -1.1
eS 28 15.73
MCNL 1.28 5 iP 28 01.96 -1.0
eS 28 18.42
SYI 1.33 58 iP 28 02.63 -1.0
S 28 19.22
AUI 1.54 22 eP 28 05.79 -0.7
AUH 1.56 21 eP 28 05.99 -0.9
AUL 1.58 21 eP 28 06.67 -0.4
PDB 1.89 5 iP 28 09.87 -1.4
eS 28 32.13
INW 2.28 18 eP 28 15.35 -1.4
INE 2.28 19 iP 28 15.61 -1.3
BRLK 2.65 44 eP 28 19.37 -2.6
RS1 2.71 19 iP 28 21.76 -1.2
RSO 2.71 19 eP 28 22.07 -0.9
RS2 2.71 19 eP 28 21.70 -1.3
RDW 2.72 18 eP 28 21.52 -1.6
NCT 2.78 17 iP 28 22.27 -1.5
DFR 2.85 19 iP 28 23.42 -1.3
SLKM 3.42 39 eP 28 29.78 -2.9
SEW 3.43 48 eP 28 30.03 -2.7
CKL 3.48 18 iP 28 31.72 -1.8
CKT 3.50 19 eP 28 31.91 -2.0
SPU 3.51 20 iP 28 31.93 -2.0
CKN 3.53 19 eP 28 32.55 -1.7
BGL 3.53 17 iP 28 32.64 -1.7
CP2 3.56 18 eP 28 32.98 -1.8
SUA 4.04 27 eP 28 38.89 -2.6
PMS 4.19 35 P 28 40.70 -2.8
KLU 5.65 47 eP 29 00.10 -3.8
28 obs. associated

% MAR 10, 1993 19h 25m 44.96± 1.36s
33.147 S ± 5.2km 70.277 W ±10.8km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.6 (SAN).

FCH 0.18 183 iPd 25 49.18 0.0
iS 25 51.86
PEL 0.34 271 iPd 25 52.23 0.2
iS 25 57.06
PCH 0.51 203 iP+ 25 55.45 0.1
iS 26 02.95
JACH 0.53 330 iP+ 25 55.63 -0.2
iS 26 04.83
ROCH 0.64 286 iP+ 25 57.73 -0.2
iS 26 06.43
TACH 0.75 227 iP+ 25 59.58 0.0
iS 26 10.10
CHCH 0.84 202 iP 26 01.08 -0.2
iS 26 12.83
LCCH 1.13 253 iP+ 26 06.13 0.0
iS 26 21.39
LNV 1.24 229 iP+ 26 07.63 -0.4
iS 26 24.22
S.D. = 0.2 on 9 of 9 obs.

? MAR 10, 1993 19h 25m 52.49± 5.82s
43.627 N ±40.4km 8.117 E ±12.4km
DEPTH = 10.0km (geophysicist)
CORSICA (380)
ML 2.2 (GEN).

IMI 0.33 330 P 25 59.40 0.1
S 26 03.29
FIN 0.59 6 P 26 04.43 0.1
S 26 11.35
ROB 0.69 345 P 26 05.99 -0.2
S 26 14.32
ENR 0.78 320 P 26 07.64 -0.2
S 26 17.48
STV 0.84 317 P 26 08.78 0.0
S 26 19.03
PCP 0.96 19 P 26 10.89 0.0
PZZ 1.14 321 P 26 14.14 0.2
BHB 1.36 333 P 26 17.48 0.0
S.D. = 0.1 on 8 of 8 obs.

---

* MAR 10, 1993 19h 26m 56.29± 1.39s
30.079 N ±15.4km 31.654 E ± 8.4km
DEPTH = 10.0km (geophysicist)
4.5mb (1 obs.)
EGYPT (553)
ML 4.3 (CSS).

SAGI 2.61 86 eP 27 39.00 -0.2
MBH 2.82 95 eP 27 41.40 -0.9
AQBJ 2.97 96 P 27 54.00 9.7X
ARVI 3.10 79 eP 27 46.10 0.0
HSHJ 3.32 100 P 27 58.10 8.6X
SHWJ 3.34 84 P 27 49.00 -0.8
ZNT 3.61 53 eP 27 53.80 0.4
eS 28 40.00
MML 3.98 53 eP 27 59.80 1.0
ATZ 4.13 48 eP 28 01.70 1.0
eS 28 52.80
HRI 4.72 47 eP 28 10.10 0.8
CSS 5.07 16 eP 28 13.80 -0.4
eS 29 22.50
BCK 7.42 353 iP 28 44.30 -2.9
KBA 22.11 325 iPc 31 54.00 0.5
1.2s 21.90nm 4.5mb
GRF 24.95 327 eP 32 21.00 0.0
CLL 25.35 332 iPd 32 25.20 0.4
MOX 25.45 329 eP 32 26.80 1.1
S.D. = 1.2 on 14 of 16 obs.

& MAR 10, 1993 19h 42m 13.04s
37.236 N 121.622 W
DEPTH = 4.8km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.9 (GM). ML 2.8
(BRK), 2.8 (GS).

COE 0.05 298 iPd 42 14.77 0.3
MHC 0.11 352 iPc 42 15.60 0.2
iS 42 17.84
ARN 0.13 32 iPd 42 16.03 0.2
GCC 0.36 236 iPd 42 19.99 -0.4
eS 42 26.67
STAN 0.47 291 iPc 42 22.71 0.2
SAO 0.49 163 ePnd 42 23.23 0.3
eS 42 31.34
PCC 0.66 294 iPc 42 25.79 -0.5
eS 42 37.31
JEGM 0.72 293 ePnc 42 26.51 -1.0
eS 42 38.30
BKS 0.80 323 iPc 42 28.89 -0.2
iS 42 40.66
LLA 0.82 138 iPc 42 28.83 -0.7
eS 42 42.56
ZSP 0.87 325 iPc 42 30.27 0.1
eS 42 44.25
PRS 0.92 167 iPd 42 30.70 -0.5
eS 42 44.63
HMR 0.93 351 eP 42 32.05 0.8
CMB 1.27 51 ePc 42 36.24 -0.8
iS 42 53.27
PRI 1.34 145 iPd 42 37.73 -0.5
NTYM 1.42 325 eP 42 37.54 -1.9
FRI 1.55 98 eP 42 39.72 -1.6
eS 42 58.37
MEMM 2.18 78 (P) 42 52.00 1.6
S 43 17.99
ORV 2.32 2 eP 42 51.76 -0.7
BCH 2.39 148 eP 42 51.96 -1.7
MTUM 2.44 86 ePn 42 54.91 0.5
eS 43 26.51
MRCM 2.52 79 ePn 42 55.42 -0.1
BONR 2.73 74 (P) 43 01.10 2.4
ISA 2.98 121 ePn 43 01.00 -1.0
24 obs. associated

? MAR 10, 1993 19h 50m 57.04± 1.08s
46.428 N ±11.7km 2.473 E ± 8.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.3 (LDG).

MAF 0.22 163 Pg 51 01.50 -0.2
Sg 51 04.20
TCF 0.23 233 Pg 51 02.70 0.7
Sg 51 05.90
BGF 0.29 63 Pg 51 03.20 0.1
LSF 0.68 255 Pg 51 09.90 -0.6
Sg 51 19.80
S.D. = 1.0 on 4 of 4 obs.

MAR 10, 1993 20h 11m 09.95± 0.43s
63.252 N ± 3.7km 151.137 W ± 4.3km
DEPTH = 7.3 ± 2.2 km
CENTRAL ALASKA (1)
ML 2.9 (PMR).

TRF 0.43 62 P 11 18.30 -0.4
S 11 24.80
HUR 0.74 111 P 11 23.80 -0.8
S 11 34.60
RND 1.04 80 P 11 28.70 -1.2
S 11 42.90
MCK 1.10 63 P 11 30.10 -0.8
S 11 46.40
SKT 1.29 188 P 11 33.50 -0.6
S 11 50.40
NEA 1.61 33 P 11 38.70 -0.2
PWA 1.71 159 P 11 40.50 0.3
S 12 00.10
SUA 1.80 174 P 11 41.50 -0.3
GHO 1.81 144 P 11 40.90 -0.8
PLRM 1.91 150 P 11 42.50 -0.6
PMR 1.91 150 eP 11 41.99 -1.1
SML 1.95 137 P 11 42.90 -0.8
S 12 09.80
CCB 2.03 45 P 11 43.20 -1.7
CRP 2.05 194 ePd 11 44.51 -0.8
eS 12 12.29
CP2 2.06 195 eP 11 45.04 -0.5
BGL 2.08 197 P 11 45.50 -0.2
CKN 2.09 194 P 11 45.90 0.0
CKT 2.12 194 P 11 45.90 -0.4
SPU 2.12 192 P 11 45.90 -0.4
MDM 2.14 35 P 11 48.00 1.5
S 12 15.20
CKL 2.14 196 P 11 46.70 0.1
PMS 2.15 159 P 11 47.00 0.4
HDA 2.19 56 P 11 47.70 0.5
FBA 2.21 40 (P) 11 48.24 0.7
eS 12 18.29
TTA 2.24 264 eP 11 46.25 -1.8
SCM 2.27 127 P 11 48.50 0.1
GLM 2.40 42 P 11 51.40 1.2
PAX 2.59 94 P 11 53.50 0.5
PTE 2.59 157 P 11 54.20 1.3
SDG 2.66 103 P 11 54.00 0.0
DFR 2.77 196 P 11 53.00 -2.6X
SLKM 2.79 171 P 11 56.00 0.2
NCT 2.83 198 P 11 55.40 -1.1
RDW 2.89 197 P 11 58.00 0.6
RS2 2.90 196 P 11 59.20 1.6
RSO 2.90 196 P 11 59.20 1.6
RS1 2.91 196 P 11 59.70 2.1X
KLU 3.00 124 P 11 59.20 0.3
SVW 3.01 226 (P) 11 58.86 0.0
IMA 3.03 340 eP 11 56.99 -2.3X
S.D. = 0.9 on 37 of 40 obs.

? MAR 10, 1993 20h 26m 38.05± 0.78s
7.755 S ±31.3km 126.371 E ±36.6km
DEPTH = 33.0km (normal)
4.9mb (4 obs.)
BANDA SEA (280)

MTN 6.89 138 eP 28 20.00 0.6
0.4s 173.00nm 6.3mb X
eS 29 36.00
WB2 14.38 148 iPd 29 58.50 -2.8
ASPA 17.39 156 iPd 30 40.30 0.3
0.5s 36.90nm 4.8mb
eS 33 42.40
CTA 22.83 125 iP 31 39.00 -0.5
OLP 25.27 140 eP 32 04.00 1.0
STK 27.88 151 eP 32 28.80 1.9
0.5s 3.50nm 4.3mb
PKI 52.94 313 P 35 53.80 -0.3
0.4s 7.00nm 5.0mb
KKN 53.16 313 P 35 55.40 -0.2
DMN 53.19 313 P 35 55.80 0.0
GKN 53.75 313 P 36 00.00 0.2
0.4s 11.00nm 5.2mb
S.D. = 1.4 on 10 of 10 obs.

MAR 10, 1993 21h 11m 31.18± 0.71s
43.435 N ± 4.4km 5.424 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.5 (STR).

10d 21h

```
GELF     0.05 177 Pg      11 33.08  -0.3
TREF     0.19 351 Pg      11 35.09  -0.3
PUYF     0.22  64 Pg      11 35.48  -0.5
BERF     0.23 122 Pg      11 36.08  -0.1
CDR      0.35  46 ePgd    11 37.30  -1.0
                  iSg     11 41.10
PRAF     0.41 333 Pg      11 40.12   0.5
VILF     0.47  27 Pg      11 40.37  -0.3
TAVF     0.50  68 Pg      11 40.89  -0.4
GANF     0.66  32 Pg      11 44.35  -0.1
CALN     1.11  73 Pg      11 52.93   0.8
TOUF     1.44  66 Pn      11 57.91   0.4
                  Sg      12 18.91
REVF     1.44  77 Pn      11 58.67   1.2
                  Sg      12 18.18
AURF     1.45  71 Pn      11 57.95   0.4
                  Sg      12 18.59
SBF      1.52  73 Pn      11 58.80   0.3
                  Sg      12 20.00
AUTN     1.56  68 Pn      11 59.53   0.4
                  Sg      12 22.37
SAOF     1.64  70 Pn      12 00.44   0.2
PGF      2.77 107 Pn      12 15.29  -1.2
    S.D. = 0.7  on  17 of  17 obs.
-----------------------------------------
*  MAR 10, 1993  21h 24m 04.36± 0.53s
   53.209 S ±11.0km   72.466 E ±13.5km
   DEPTH = 10.0km  (geophysicist)
   5.2mb ( 12 obs.)
 KERGUELEN ISLANDS REGION          (433)

MAW     15.17 194 iPc     27 38.10  -1.8
        0.6s     93.02nm          5.4mb
                  e       30 20.00
CSY     22.76 140 eP      29 08.50   1.1
        0.8s     19.00nm          4.7mb
NVL     31.63 213 eP      30 29.00   0.0
WIN     51.63 284 iPd     33 14.00   0.7
        1.2s     30.00nm          5.1mb
STK     52.97  95 eP      33 23.30   0.3
        0.9s      3.00nm          4.2mb
ASPA    54.37  82 eP      33 30.40  -3.0X
        0.9s     10.10nm          4.9mb
WB2     57.48  80 iPc     33 54.70  -1.2
        1.0s      7.60nm          4.7mb
NAI     59.59 317 iPc     34 14.50   3.7X
ARMA    59.99 102 eP      34 14.20   0.9
        1.0s     15.00nm          5.1mb
GBA     66.68   5 P       34 55.00  -2.2
HYB     70.53   6 eP      35 20.00  -1.1
BCAO    73.04 303 iPc     35 35.30  -1.0
        0.8s     32.00nm          5.5mb
                  ic      35 37.10
CHTO    75.29  26 eP      35 49.20   0.1
PKI     81.22  12 P       36 21.00  -0.9
        1.0s     38.00nm          5.4mb
DMN     81.23  11 P       36 21.20  -0.6
        0.8s     44.00nm          5.6mb
KKN     81.42  11 P       36 22.20  -0.6
        1.0s     62.00nm          5.6mb
GKN     81.56  11 P       36 23.00  -0.4
KMI     82.32  27 Pc      36 30.00   2.5
        1.5s     50.00nm          5.4mb
KIC     87.45 284 P       36 56.14   3.0X
LIC     87.51 284 P       36 56.00   2.6
MAIO    89.85 350 eP      37 06.00   1.8
LMN    151.66 272 ePKP    44 03.00  10.0X
YKA    169.96  19 ePKP    44 11.30  -0.2
        1.0s      0.90nm
    S.D. = 1.4  on  19 of  23 obs.
-----------------------------------------
   MAR 10, 1993  21h 56m 27.87± 0.14s
   48.383 N ± 3.1km  152.987 E ± 2.1km
   DEPTH = 140.9km  ( 25 depth phases)
   5.5mb (152 obs.)
 KURIL ISLANDS                     (221)
      Mw 5.2 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 11S, 14C
      Centroid Location:
      Origin Time        21:56:32.6 1.0
      Lat 48.52N 0.15 Lon 152.46E 0.13
      Dep 162.8 4.2 Half-duration  1.0
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 0.44 0.93  Mtt=-2.49 1.72
        Mff= 2.05 1.04  Mrt= 1.07 1.02
```

```
        Mrf=-6.73 0.55  Mtf=-0.66 1.04
      Principal Axes:
        T  Val=  8.16   Plg=41  Azm= 81
        N       -2.59        1      351
        P       -5.57       49      260
     Best Double Couple:Mo=6.9*10**16
     NP1:Strike=184 Dip= 4 Slip= -76
     NP2:        351     86      -91

SKR      3.06  40 ePn     57 18.90   2.7
                  eS      57 53.50
KUR      4.72 230 iPnc+   57 40.50   2.3
                  eS      58 36.00
PET      5.87  36 ePn     57 53.00  -0.6
                  eS      58 59.50
YSS      7.07 263 iPnc+   58 14.30   4.4X
OKH      8.18 313 ePn     58 28.00   3.1X
MGD     11.81 355 ePn     59 13.00   0.3
     Z  14s       0.40um
SEY     14.56 359 eP      59 50.50   2.6
        1.5s     50.00nm          4.6mb
VLA     15.62 258 eP      00 00.00  -1.3
        1.0s    155.00nm          5.3mb
YAK     18.90 325 iPc     00 38.00  -1.6
        2.0s    189.00nm          5.1mb
SHK     20.49 235 iP      00 57.00   0.8
        1.2s    437.50nm          5.7mb
ILT     24.21  26 iPd     01 32.00  -0.2
        1.2s     52.00nm          4.9mb
                  e       02 16.00
                  iS      05 38.00
BOD     24.82 307 eP      01 37.50  -0.5
        0.9s     31.00nm          4.8mb
CIT     25.26 293 eP      01 42.50   0.3
TIK     25.87 343 iPd     01 45.00  -2.5
        1.8s     64.00nm          4.9mb
                  e       05 09.00
                  eS      06 04.00
                  eSS     07 14.00
                  e       12 25.00
IRK     30.85 296 ePc     02 32.00  -0.3
        1.0s     67.00nm          5.3mb
                  e       03 38.00 348kmX
TTA     31.27  43 iPc     02 35.87  -0.1
        0.8s     17.24nm          4.9mb
                  e       02 49.84
                  epP     03 06.41 143km
SVW     31.40  47 eP      02 37.49   0.5
        0.9s     52.47nm          5.3mb
ZAK     31.94 293 eP      02 41.00  -0.7
        0.9s     48.00nm          5.3mb
                  e       05 28.70
BRW     32.54  27 eP      02 46.95   0.2
IMA     32.55  37 iPc     02 47.00  -0.1
        0.5s      9.20nm          4.8mb
MOY     32.99 296 eP      02 51.00   0.2
        1.1s     60.00nm          5.3mb
KDC     33.21  53 eP      02 51.25  -1.5
        0.7s     18.57nm          4.9mb
                  e       03 03.69  47kmX
PMR     34.50  46 eP      03 03.80   0.1
        0.6s     14.60nm          4.9mb
FBA     34.95  40 iPc     03 07.87   0.4
        0.8s     51.99nm          5.3mb
                  epP     03 38.32 140km
KLU     36.04  46 ePc     03 16.69  -0.2
NRI     37.13 328 iPd     03 23.80  -1.9
        1.0s     77.00nm          5.4mb
                  i       05 44.00
LZH     37.78 270 iPd     03 32.50   0.6
        1.4s    393.00nm          6.0mb
                  pP      04 04.50 145km
                  sP      04 17.50
                  ScS     13 30.00
BALM    37.82  46 eP      03 32.21   0.4
HKC     40.33 244 iP      03 54.60   1.8
ELT     41.05 303 iPd     03 58.00  -0.3
        1.3s    166.00nm          5.5mb
                  e       05 44.00
                  e       13 45.00
PLP     43.86 222 ePc     04 22.00   0.3
        0.8s    112.00nm          5.6mb
KMI     45.48 258 iPd-    04 35.00   0.3
        1.0s    310.00nm          5.9mb
                  pP      04 54.50  80kmX
CGP     46.40 220 ePd     04 41.00  -0.8
        0.5s     10.00nm          4.7mb
```

```
RES     49.32  19 eP      05 04.50   0.8
        1.0s     19.00nm          4.8mb
YKA     49.67  37 eP      05 06.40  -0.1
        0.5s      6.30nm          4.6mb
LOE     51.69 252 eP      05 22.30   0.0
CHTO    52.43 255 iPd     05 28.40   0.5
        0.8s    100.66nm          5.7mb
SVE     52.59 316 iPd     05 27.20  -1.4
        2.0s    100.00nm          5.3mb
                  e       06 02.20 152kmX
FRU     52.86 295 iPd     05 30.50  -0.3
        1.6s    120.00nm          5.5mb
                  e       06 39.00 323kmX
BDT     53.54 254 eP      05 35.00  -1.0
GMW     53.58  57 eP      05 36.11   0.1
JCW     53.69  56 P       05 36.58  -0.3
ARU     53.76 317 iPd     05 35.50  -1.7
        1.0s    120.00nm          5.7mb
                  e       06 18.00 188kmX
                  i       06 40.50
BMW     53.94  58 ePc     05 38.76   0.0
NST     53.99 252 eP      05 39.00  -0.3
RMW     54.18  57 eP      05 40.28  -0.2
                  epP     06 13.04 140km
KMOR    54.28  59 P       05 41.33   0.1
FMW     54.56  57 P       05 43.03  -0.4
LON     54.58  57 eP      05 42.81  -0.7
SHW     54.67  58 eP      05 44.26   0.1
DAG     55.01 358 iPc     05 44.00  -2.1
        0.9s     15.13nm          4.9mb
                  ipP     06 44.90 278kmX
ASR     55.05  58 P       05 46.64  -0.3
WTV     55.06  55 P       05 46.01  -0.9
RNO     55.14  61 P       05 48.10   0.6
KKN     55.27 274 P       05 48.40  -0.4
SSOR    55.32  59 P       05 49.04   0.2
PKI     55.33 274 P       05 49.00  -0.4
SAW     55.36  55 P       05 48.22  -0.8
DMN     55.50 274 P       05 50.40  -0.2
KHT     55.64 252 iPd     05 52.00   0.8
VBEM    55.70  59 P       05 51.56  -0.1
VGB     55.89  58 eP      05 52.68  -0.2
DBO     55.90  62 P       05 53.54   0.5
DPW     55.91  54 ePc     05 52.39  -0.7
CROR    56.09  59 P       05 54.40   0.0
NEW     56.26  53 iPd     05 54.90  -0.6
        1.0s     54.11nm          5.5mb
JBO     56.45  58 P       05 56.59  -0.3
VIPM    56.58  59 P       05 58.05   0.1
KMPM    57.02  65 eP      06 01.78   0.8
                  epP     06 35.68 144km
LNOR    57.07  56 P       06 00.90  -0.3
LGPM    57.49  63 iPc     06 04.47   0.2
                  epP     06 36.96 137km
SES     58.11  49 ePc     06 07.80  -0.6
        0.7s     24.00nm          5.3mb
ORV     59.13  64 iPc     06 14.68  -0.9
                  epP     06 47.22 136km
FCC     59.95  34 eP      06 23.50   2.7
NDI     60.01 280 iPd     06 22.00   0.3
        0.5s     45.77nm          5.7mb
SNG     60.24 245 eP      06 22.80  -0.5
        0.6s     60.00nm          5.7mb
COE     60.49  66 eP      06 23.96  -0.9
                  epP     06 57.75 142km
LCCM    60.58  53 iPc     06 25.60   0.0
CMB     60.77  65 eP      06 26.03  -0.8
        0.9s     14.28nm          4.9mb
                  epP     06 59.47 140km
GDH     61.06  10 iPd     06 27.00  -1.3
        1.2s    103.13nm          5.7mb
                  i       06 40.00  46kmX
KVN     61.48  62 eP      06 31.45  -0.3
                  epP     07 05.32 142km
MEMM    61.88  64 eP      06 34.87   0.7
KAF     61.93 335 iP      06 32.20  -1.9
        0.4s      8.80nm          5.1mb
BONR    62.07  63 eP      06 35.70  -0.1
PTI     62.25  56 iPc     06 37.64   0.8
HVU     62.75  57 eP      06 39.73  -0.3
KGM     62.79 239 eP      06 42.00   1.6
        0.7s     86.30nm          5.8mb
BCH     62.82  67 eP      06 40.16  -0.4
                  epP     07 14.18 142km
NUR     63.70 334 iP      06 43.80  -2.0
        0.3s     15.70nm          5.4mb
DUG     63.78  58 iPc     06 46.97   0.1
```

	0.9s	17.25nm			5.0mb
			epP	07 20.91	141km
BW06	63.85	54	iPc	06 46.42	-1.0
	0.8s	32.21nm			5.3mb
			epP	07 20.67	142km
OBN	63.92	325	iPc	06 45.80	-1.5
			i	07 25.20	166kmX
TPNV	63.96	63	eP	06 47.77	-0.3
	0.6s	24.81nm			5.3mb
			epP	07 22.19	143km
MTN	63.97	204	iPd	06 47.10	-0.9
	0.6s	97.00nm			5.9mb
DAU	64.52	57	eP	06 52.08	0.3
			epP	07 26.63	144km
ARUT	65.05	61	eP	06 54.86	-0.2
			epP	07 28.85	141km
ULM	65.35	41	ePc	06 58.70	2.2
ASH	65.55	300	eP	06 57.50	-0.6
SRU	65.82	58	iPc	06 59.99	0.0
RSSD	65.84	50	iPd	06 59.54	-0.6
	1.0s	38.56nm			5.3mb
			epP	07 33.47	140km
			esP	07 48.61	
MAIO	66.01	298	eP	07 02.00	0.8
UPP	66.17	337	iP	07 00.00	-1.6
			i	18 08.40	
			iSg	18 27.50	
NB2	66.66	341	P	07 03.10	-1.7
	0.5s	8.60nm			4.9mb
HYB	66.89	270	iPd	07 06.60	-0.3
	1.0s	220.00nm			6.0mb
HFS	66.90	339	eP	07 03.60	-2.7
	0.3s	18.00nm			5.3mb
PV09	67.02	58	iPc	07 07.49	-0.3
PV10	67.16	58	iPc	07 08.75	0.1
			epP	07 43.12	142km
PV08	67.24	57	ePc	07 08.88	-0.4
			epP	07 43.88	144km
MNK	68.15	329	eP	07 09.00	-5.1X
GOL	68.26	54	eP	07 15.50	0.1
	1.1s	28.31nm			5.0mb
			epP	07 49.20	138km
GLD	68.30	54	eP	07 16.19	0.6
	1.1s	33.49nm			5.1mb
			(pP)	07 50.95	143km
CTA	68.42	187	iPc	07 15.00	-1.1
GRO	68.58	312	eP	07 17.00	0.0
			e	07 40.00	89kmX
POO	69.23	275	iPd	07 22.30	1.0
PYA	69.37	314	eP	07 21.00	-0.8
			i	07 44.00	89kmX
KIV	69.60	314	eP	07 23.20	-0.2
	1.1s	65.00nm			5.4mb
WB2	70.03	199	iPd	07 25.00	-1.0
	0.8s	46.00nm			5.4mb
JAQ	70.18	28	eP	07 31.50	5.0X
MTA	70.24	311	iPd	07 26.60	-0.4
	0.8s	50.00nm			5.4mb
GBA	70.37	268	Pd	07 29.00	0.8
TUC	70.41	63	P	07 28.57	0.1
	1.1s	8.86nm			4.5mb
BSD	71.03	336	iPc	07 31.00	-0.6
	0.6s	21.00nm			5.1mb
ALQ	71.06	59	ePc	07 32.48	0.1
	1.1s	13.00nm			4.7mb
			epP	08 07.70	144km
			esP	08 21.19	
GRS	71.07	308	eP	07 32.00	-0.4
			e	07 52.00	75kmX
MUD	71.26	340	iPc	07 33.70	0.7
	1.3s	44.00nm			5.1mb
EDR	73.11	346	eP	07 43.60	-0.3
	1.2s	43.00nm			5.1mb
EDU	73.54	346	eP	07 46.00	-0.4
ELO	73.72	347	ePc	07 47.30	-0.2
ACO	73.79	53	iPd	07 47.20	-1.0
EBH	73.91	347	ePc	07 48.60	0.1
	1.0s	68.00nm			5.4mb
ESY	74.08	346	ePc	07 49.50	0.0
EAB	74.09	347	eP	07 49.70	0.1
EDI	74.17	346	eP	07 50.00	0.0
EAU	74.29	346	ePc	07 50.90	0.2
	1.1s	43.00nm			5.1mb
EBL	74.29	346	ePc	07 50.80	0.1
UZH	74.37	329	eP	07 50.70	-0.6
	1.1s	27.00nm			4.9mb
			e	08 08.70	66kmX
KSP	74.40	333	eP	07 59.00	7.5X
	0.8s	36.00nm			5.2mb
PPE	74.43	324	eP	07 52.00	0.3
SPC	74.59	330	eP	07 52.30	-0.5
RMQ	74.62	184	iPc	07 53.10	0.2
EKA	74.73	346	Pd	07 53.00	-0.3
	0.5s	47.70nm			5.5mb
CLL	74.94	335	iPd	07 53.80	-0.7
	1.1s	125.00nm			5.6mb
			i	08 01.20	24kmX
QLP	75.03	188	eP	07 54.80	-0.4
			i	08 32.60	153kmX
VRI	75.06	324	ePc	07 56.00	0.7
BRG	75.07	335	iPc	07 55.20	0.0
	1.0s	40.00nm			5.1mb
			i	08 02.80	24kmX
CVO	75.32	325	ePc	07 58.00	1.2
WMOK	75.46	54	iPc	07 57.63	-0.2
	1.0s	49.11nm			5.2mb
			epP	08 31.84	137km
			esP	08 47.12	
VRAC	75.66	332	iPd	07 59.30	0.7
	0.9s	116.20nm			5.6mb
MLR	75.68	325	iPc	07 59.00	0.0
PRU	75.68	334	iPc	07 59.30	0.6
	1.0s	29.60nm			5.0mb
			e	08 04.80	18kmX
KAS	75.77	317	eP	08 05.00	5.5X
PSZ	75.81	330	ePd	07 59.40	-0.2
WTS	75.91	339	iPd	08 00.40	0.4
	0.8s	136.40nm			5.8mb
MOX	75.92	336	eP	07 59.90	-0.2
	1.2s	74.00nm			5.3mb
WIM	76.11	347	eP	08 01.20	0.1
HOF	76.15	336	iPc	08 01.80	0.4
	1.1s	77.00nm			5.4mb
CMP	76.22	325	ePc	08 03.00	1.1
SRO	76.43	330	iP	08 04.20	1.3
ZST	76.48	331	iP	08 04.10	0.9
			e	08 13.80	31kmX
VKA	76.67	332	eP	08 04.50	0.2
DMU	76.68	348	iPd	08 04.30	0.0
	0.9s	154.00nm			5.8mb
KHC	76.73	334	P	08 04.50	-0.2
			i	08 10.00	18kmX
			e	09 06.00	
BNS	76.78	339	iPd	08 04.90	0.1
WME	76.78	346	eP	08 04.70	-0.1
	1.3s	23.00nm			4.8mb
GRF	76.90	336	ePd	08 06.10	0.6
	0.9s	184.00nm			5.8mb
Z	21s	0.05um			3.8Msz
			e	08 10.50	14kmX
WET	76.92	334	eP	08 06.50	0.8
	1.0s	115.00nm			5.6mb
GEC2	76.95	334	Pd	08 05.40	-0.6
	0.9s	19.18nm			4.8mb
			PcP	08 11.00	
YRC	76.97	346	ePc	08 05.60	-0.2
TNS	77.15	338	ePd	08 07.40	0.5
DLF	77.22	348	iPd	08 07.40	0.2
	0.7s	229.00nm			6.0mb
ENN	77.26	339	iPd	08 08.00	0.5
	0.9s	153.70nm			5.8mb
			e	08 41.50	133km
DCN	77.27	348	iPd	08 07.60	0.1
	0.8s	103.00nm			5.6mb
YRH	77.38	346	ePc	08 08.20	0.1
	1.1s	39.00nm			5.1mb
MEM	77.39	339	iPd	08 08.49	0.4
UCC	77.59	340	iP-	08 09.00	-0.3
HCG	77.71	346	eP	08 10.30	0.3
SSR	77.79	327	ePc	08 11.00	0.5
HAE	77.80	345	eP	08 11.00	0.6
SNF	77.88	340	iPd	08 11.14	0.3
HTR	77.88	345	eP	08 11.30	0.4
DOU	78.20	340	Pd	08 13.00	0.4
	0.8s	96.70nm			5.6mb
HGH	78.23	345	ePc	08 13.20	0.4
WLF	78.23	339	iPc	08 13.63	0.B
FUR	78.27	335	iPd	08 13.70	0.6
	0.8s	141.00nm			5.8mb
MIAR	78.35	51	iPc	08 13.62	-0.1
	0.9s	28.43nm			5.0mb
ELC	78.36	46	ePc	08 13.68	-0.1
			epP	08 48.50	139km
ARMA	78.45	181	eP	08 14.90	0.7
	0.8s	8.00nm			4.5mb
RSNY	78.51	33	P	08 22.25	7.8X
KBA	78.64	333	iPd	08 15.80	0.4
	0.7s	141.00nm			5.8mb
OLY	78.67	49	eP	08 15.32	-0.2
PTJ	78.88	331	iPd	08 16.20	-0.3
WATA	78.93	334	iPd	08 17.30	0.4
ZAG	78.94	331	iPd	08 17.00	0.3
WTTA	78.98	334	iPd	08 17.70	0.5
	0.6s	130.00nm			5.9mb
VAL	79.03	350	iP	08 17.80	0.7
	0.9s	2.20nm			3.9mb X
MOTA	79.06	335	iPd	08 17.70	0.1
	0.9s	173.00nm			5.8mb
CDF	79.11	338	iPd	08 17.90	0.1
	1.0s	149.60nm			5.7mb
SQTA	79.14	335	iPd	08 18.40	0.4
	1.1s	174.00nm			5.7mb
LJU	79.21	332	eP	08 18.00	-0.2
			e	09 37.50	345kmX
SLE	79.39	337	iPd	08 19.40	0.2
VOY	79.41	332	iPd	08 18.50	-0.9
			e	09 35.10	331kmX
VBY	79.46	331	iPd	08 19.50	0.0
RDO	79.49	322	eP	08 20.50	0.7
ALN	79.49	322	eP	08 20.14	0.4
CEY	79.51	332	ePd	08 19.20	-0.7
OGA	79.52	335	iPd	08 21.20	1.1
	0.8s	75.00nm			5.5mb
ZLA	79.68	336	iPd	08 21.20	0.4
HAU	79.73	338	iPd	08 21.00	0.0
	0.9s	90.10nm			5.5mb
TRI	79.74	332	eP	08 20.20	-0.8
CMS	79.76	186	iPc	08 11.60	-9.6X
	0.8s	6.00nm			4.4mb X
BSF	79.77	338	iPd	08 21.10	-0.2
	1.0s	109.20nm			5.6mb
RIY	79.88	332	iP	08 21.30	-0.4
OSS	79.93	335	iPd	08 23.00	0.7
PLE	79.97	328	iPd	08 22.75	0.3
CME	80.04	346	eP	08 23.20	0.6
LLS	80.08	336	iPd	08 23.60	0.5
CPZ	80.12	346	eP	08 23.50	0.5
IVA	80.18	327	iPd	08 23.53	0.0
SRS	80.29	324	eP	08 23.66	-0.4
VDL	80.30	335	ePd	08 25.30	1.0
SKO	80.39	326	iP	08 24.60	0.0
	0.9s	118.00nm			5.6mb
PVY	80.40	327	iPd	08 24.35	-0.4
LMN	80.51	26	ePc	08 28.50	3.4X
VAY	80.52	324	iPd	08 25.50	0.3
	0.8s	164.00nm			5.8mb
KNT	80.53	324	eP	08 25.14	-0.2
STK	80.55	190	iPc	08 25.40	0.1
	0.7s	2.10nm			4.0mb X
FLN	80.55	343	iPd	08 25.40	0.1
	1.0s	102.00nm			5.5mb
NKY	80.56	328	iPd	08 24.94	-0.6
BCI	80.56	327	eP	08 25.10	-0.4
LDF	80.64	342	iPd	08 25.80	0.1
	1.0s	68.00nm			5.4mb
SOH	80.64	324	eP	08 25.70	-0.2
BRY	80.64	328	iPd	08 25.13	-0.9
PRK	80.78	321	eP	08 26.50	-0.1
TTG	80.80	327	iPd	08 26.17	-0.5
TMA	80.82	336	ePd	08 27.10	0.1
GRG	80.90	324	eP	08 26.90	-0.4
THE	80.95	324	eP	08 26.86	-0.6
GRR	80.98	343	iPd	08 28.00	0.5
	1.1s	177.75nm			5.7mb
LOR	81.02	339	iPd	08 28.00	0.2
	0.8s	190.75nm			5.9mb
SDA	81.04	327	iPc	08 28.20	0.3
HCY	81.06	328	iPd	08 27.04	-1.0
VAI	81.06	336	P	08 28.25	0.3
	0.6s	61.50nm			5.5mb
BDV	81.08	327	iPd	08 27.27	-0.9
MMK	81.11	336	iPd	08 29.50	0.9
CSS	81.13	314	eP	08 28.70	0.2
HVAR	81.13	329	iPd	08 27.10	-1.3
ULC	81.21	327	iPd	08 27.92	-0.9
DIX	81.23	337	iPd	08 30.20	0.9
LBF	81.26	339	iPd	08 29.20	0.1
	0.7s	77.40nm			5.6mb
SSF	81.30	339	iPd	08 29.60	0.4
	0.8s	127.90nm			5.7mb
HRI	81.30	311	iPd	08 30.30	0.7

10d 22h

```
HYF    81.30 340 iPd    08 30.00   0.8
LACI   81.33 326 iPc    08 29.50   0.1
LPF    81.36 343 iPd    08 30.00   0.5
       1.0s   118.80nm          5.6mb
EMS    81.37 337 ePd    08 30.60   0.7
OHR    81.38 326 iPd    08 29.50  -0.3
       1.0s   201.00nm          5.8mb
FNA    81.44 325 eP     08 29.94  -0.2
ORX    81.50 336 P      08 30.51   0.1
ORO    81.50 336 P      08 30.87   0.4
       0.6s    46.50nm          5.4mb
TIR    81.52 326 iPc    08 31.00   0.6
AVF    81.59 339 iPd    08 31.20   0.5
       0.8s   164.95nm          5.8mb
SMF    81.61 339 iPd    08 31.30   0.4
       1.0s   236.00nm          5.9mb
PPCY   81.66 314 eP     08 31.00  -0.3
KZN    81.70 324 eP     08 30.50  -1.0
RSM    81.75 332 P      08 32.70   1.1
       1.0s   395.60nm          6.1mb
LSD    81.88 336 Pd     08 33.67   1.1
BOB    81.88 335 P      08 33.22   0.8
       0.9s   135.00nm          5.7mb
BGF    81.92 340 iPd    08 33.00   0.5
       0.6s    50.70nm          5.4mb
LPL    81.94 337 iPd    08 34.00   1.1
       0.7s   195.80nm          6.0mb
SFI    81.94 333 P      08 34.00   1.4
       1.0s   110.10nm          5.6mb
LPG    81.95 337 iPd    08 34.10   1.1
       0.8s   234.25nm          6.0mb
ARV    81.99 332 P      08 33.31   0.4
       0.9s   141.50nm          5.7mb
PGD    82.03 333 P      08 34.56   1.3
       1.0s   226.20nm          5.9mb
MME    82.04 334 P      08 34.65   1.2
       0.8s   223.70nm          6.0mb
RSP    82.14 336 P      08 33.53  -0.2
CRE    82.18 333 P      08 34.81   0.8
       1.1s    76.30nm          5.4mb
BDI    82.19 334 P      08 34.04   0.0
       0.5s     9.10nm          4.8mb
FIR    82.26 333 eP     08 35.00   0.8
LSK    82.29 325 eP     08 34.00  -0.6
MAF    82.31 340 iPd    08 35.60   1.1
       0.8s   275.10nm          6.1mb
TCF    82.32 340 iPd    08 35.30   0.7
       0.9s   150.05nm          5.8mb
PCP    82.35 335 Pd     08 34.77   0.0
BNI    82.38 337 P      08 35.63   0.6
       0.7s    84.20nm          5.6mb
TPE    82.38 326 eP     08 35.70   0.7
BHB    82.42 336 Pd     08 34.27  -0.9
VLO    82.42 326 eP     08 36.50   1.4
ASS    82.46 332 P      08 35.83   0.4
       0.5s    37.90nm          5.4mb
RRL    82.48 337 Pd     08 36.69   1.0
LSF    82.51 340 iPd    08 36.10   0.5
       1.0s   227.20nm          5.9mb
PII    82.53 334 P      08 35.18  -0.4
       0.6s    28.50nm          5.2mb
CKI    82.53 335 P      08 35.65   0.0
       0.7s   112.80nm          5.8mb
MFF    82.54 342 iPd    08 36.30   0.6
       1.0s   107.60nm          5.6mb
AGG    82.59 323 eP     08 34.38  -1.7
DOI    82.74 336 P      08 35.70  -1.2
       0.6s    59.70nm          5.6mb
FIN    82.75 335 Pd     08 36.28  -0.5
SRN    82.75 325 eP     08 37.10   0.3
ROB    82.76 336 Pd     08 36.60  -0.3
PZZ    82.78 336 Pd     08 36.33  -0.8
DSI    82.84 310 iPd    08 38.10   0.6
AQU    82.87 331 P      08 38.29   0.8
       0.8s   180.70nm          6.0mb
BRT    82.90 328 P      08 37.50  -0.1
       0.7s   132.10nm          5.9mb
IGT    82.92 325 eP     08 37.10  -0.7
ATH    82.92 322 eP     08 36.90  -0.9
ENR    82.95 336 Pd     08 36.60  -1.3
STV    82.96 336 Pd     08 36.74  -1.2
KEK    82.97 325 iPd    08 37.40  -0.6
LCI    83.11 327 P      08 38.54  -0.1
       0.7s   238.20nm          6.2mb
IMI    83.11 335 Pd     08 38.84   0.1
DUI    83.15 330 P      08 39.52   0.5
       0.9s    49.40nm          5.4mb
```

```
SBF    83.28 336 iPd    08 39.60   0.0
       0.6s    92.00nm          5.8mb
SDI    83.32 330 P      08 39.72  -0.1
       0.7s    90.60nm          5.7mb
RJF    83.41 340 iPd    08 40.90   0.7
       1.1s   131.85nm          5.7mb
RFI    83.63 330 P      08 41.72   0.5
       1.4s   242.80nm          5.9mb
RDP    83.63 331 P      08 41.50   0.1
       0.8s   158.40nm          5.9mb
CAF    83.64 340 iPd    08 42.60   1.2
       1.0s   143.60nm          5.8mb
FRF    83.77 336 iPd    08 42.20   0.2
       1.2s   113.95nm          5.6mb
SGO    83.84 329 P      08 42.38   0.0
       0.5s    19.50nm          5.2mb
ORI    83.89 328 P      08 43.50   0.9
       1.0s   381.00nm          6.2mb
CDR    83.90 337 iPd    08 43.70   1.0
                 epP    09 15.00 122kmX
LFF    83.93 341 iPd    08 43.20   0.4
       1.2s   198.75nm          5.8mb
LRG    83.95 336 iPd    08 43.60   0.7
       0.7s   182.55nm          6.0mb
VLS    84.00 324 iPd    08 43.00  -0.2
LMR    84.02 336 iPd    08 43.80   0.6
       0.9s   166.40nm          5.9mb
PGF    84.05 334 iPd    08 43.60   0.1
       0.7s    43.20nm          5.4mb
MRWA   84.06 212 eP     08 43.20  -0.2
LPO    84.08 340 iPd    08 43.90   0.4
       1.0s    82.80nm          5.5mb
MGR    84.13 329 P      08 43.25  -0.6
       0.6s   111.80nm          5.9mb
TDS    84.28 328 P      08 45.04   0.4
       0.5s    16.00nm          5.1mb
VLI    84.32 322 eP     08 43.50  -1.3
NPS    84.42 319 iPd    08 44.00  -1.4
MBH    84.54 310 iPd    08 46.80   0.6
GRI    85.00 327 P      08 48.43   0.2
       0.7s   116.50nm          5.8mb
GMB    85.78 327 P      08 50.15  -2.1
       0.9s    51.10nm          5.4mb
SOI    85.79 327 P      08 51.95  -0.2
       0.8s   133.70nm          5.9mb
EPF    85.84 340 iPd    08 53.10   0.7
       0.5s    12.15nm          5.0mb
ATN    85.93 328 P      08 51.13  -1.7
       0.8s    25.90nm          5.1mb
MNO    86.40 328 P      08 55.59   0.1
       0.8s    83.90nm          5.7mb
ERC    87.03 330 P      08 57.52  -0.8
       1.1s   140.10nm          5.8mb
PZI    87.13 328 P      08 59.09   0.3
       0.7s   190.10nm          6.2mb
TIC   121.90 334 PKP    15 06.20  -0.7
KIC   122.08 334 PKP    15 06.60  -0.6
LIC   122.30 334 PKP    15 07.00  -0.6
SLR   131.62 277 e(PKP)15 23.00  -2.4X
       0.7s    16.00nm
PRY   132.96 277 ePKP   15 26.50  -1.4
       0.5s     8.00nm
ZOBO  133.64  61 ePKP   15 33.00   2.9X
                 LR     02 30.00
SEK   133.78 275 ePKP   15 28.00  -1.5
       0.7s    25.00nm
LPB   133.85  61 ePKP   15 34.00   3.8X
BLF   135.25 276 ePKP   15 14.00 -18.2X
FRS   136.24 276 ePKP   15 29.00  -4.8X
WIN   136.62 290 ePKP   15 23.00 -12.1X
SIV   137.33  53 ePKP   15 41.00   4.7X
POF   139.54 281 iPKPc  15 37.00  -3.0X
       0.1s    10.00nm
CER   142.50 276 iPKPc  15 40.00  -5.2X
       0.6s    45.00nm
TUH   142.56 276 iPKPc  15 39.00  -6.2X
       0.6s    14.00nm
BAO   143.07  35 ePKP   15 43.00  -3.7X
                 i      15 44.90
                 e      15 57.30
BDF   143.13  35 (PKP)  15 43.00  -3.8X
BLE   143.26 276 iPKPc  15 45.00  -1.4
       0.7s    55.00nm
TCA   146.91  73 e(PKP)15 53.50   0.8
PPD   147.32  45 ePKP   15 55.30   1.8
CACB  149.03  38 ePKP   16 01.60   5.2X
                 e      16 03.40
```

```
     S.D. = 0.8  on 338 of 360 obs.
-------------------------------------
  MAR 10, 1993  22h 44m 41.26± 0.98s
  37.785 N ± 9.2km   20.930 E ± 5.9km
  DEPTH =  19.6 ±  5.7 km
  4.0mb (  3 obs.)
 IONIAN SEA                     (399)
     ML 3.7 (THE), 3.5 (ATH).

VLS      0.48 326 ePg   44 49.50  -1.4
                  eSg   44 53.50
AGG      1.65  41 ePb   45 10.28   0.8
                  eSb   45 33.80
IGT      1.81 345 ePb   45 12.52   0.9
                  eSb   45 36.32
VLI      1.92 123 ePn   45 20.00   6.7X
KEK      2.12 336 ePg   45 21.00   4.8X
ATH      2.21  84 ePn   45 20.00   2.5
                  eSn   45 53.50
SRN      2.21 341 ePn   45 23.10   5.6X
LSK      2.38 354 ePn   45 22.20   2.3
KZN      2.60  14 ePn   45 26.00   2.8X
TPE      2.61 344 ePn   45 24.60   1.5
VLO      2.90 338 ePn   45 34.00   6.7X
FNA      3.01   6 ePn   45 29.40   0.5
                  eSn   46 06.84
PAIG     3.03  44 ePn   45 28.76  -0.3
                  eSn   46 07.88
THE      3.25  28 ePn   45 32.44   0.2
                  eSn   46 13.84
OHR      3.32 358 iPn   45 33.80   0.5
                  i     45 39.50
                  i     45 49.70
                  i     46 14.60
                  i     46 19.00
                  i     46 30.50
                  Lg    46 48.50
GRG      3.37  19 ePn   45 33.50  -0.4
                  eSn   46 15.20
LCI      3.44 319 P     45 33.58  -1.3
SOH      3.57  31 ePn   45 36.84   0.0
                  eSn   46 20.72
TIR      3.65 347 ePn   45 38.00   0.0
GRI      3.69 288 P     45 41.15   2.5
KNT      3.70  24 ePn   45 38.64   0.0
                  eSn   46 23.40
VAY      3.75  19 iPn   45 39.30  -0.1
SOI      3.87 276 P     45 41.79   0.8
SRS      3.91  31 ePn   45 41.24  -0.4
                  eSn   46 27.36
LACI     3.96 347 ePn   45 44.00   1.8
TDS      4.05 299 P     45 46.99   3.4X
ORI      4.17 304 P     45 47.11   1.8
SKO      4.20   5 iPn   45 44.80  -1.0
                  iSn   46 36.00
BRT      4.23 318 P     45 45.84  -0.3
ATN      4.34 277 P     45 47.58  -0.1
SDA      4.40 346 ePn   45 49.00   0.5
BCI      4.62 352 ePn   45 52.40   0.6
MGR      4.80 301 P     45 54.93   0.6
MEU      4.82 264 P     45 53.56  -1.1
PZI      4.85 263 P     45 53.02  -2.0
MNO      4.94 274 P     45 55.68  -0.7
ALN      5.04  50 ePn   45 56.20  -1.4
SGO      5.17 304 P     46 01.51   2.0
DUI      6.31 310 P     46 17.29   1.6
HVAR     6.38 329 ePn   46 14.50  -2.0
VBY      8.80 333 ePn   46 52.00   1.7
                  eSn   48 25.80
CEY      9.31 331 eP    46 56.00  -1.4
                  eS    48 39.00
VOY      9.76 330 e(P)  47 02.00  -1.7
                  eS    48 46.30
HFS     22.84 351 eP    49 42.80  -1.2
         0.4s     1.90nm       4.0mb
EKA     23.94 325 P     50 01.00   6.4X
         1.6s    18.30nm       4.4mb
NB2     24.07 348 P     49 54.40  -1.6
         0.8s     1.90nm       3.7mb
    S.D. = 1.4  on  39 of  46 obs.
-------------------------------------
  MAR 11, 1993  00h 04m 25.51± 0.42s
  31.532 N ± 9.1km   67.099 E ± 6.3km
  DEPTH =  13.9km  (  2 depth phases)
  4.7mb ( 22 obs.)
 AFGHANISTAN                    (709)
```

MAIO 7.91 309 iPc 06 21.80 -1.1
eS 08 24.00
NDI 9.21 105 iPd 06 40.00 -0.8
0.5s 38.73nm 6.0mb X
eS 08 24.00
ASH 9.63 314 eP 06 45.50 -1.1
FRU 12.77 26 eP 07 28.00 -1.3
1.8s 50.00nm 5.4mb
e 09 59.00
POO 14.31 153 eP 07 51.40 1.7
GKN 15.63 99 P 08 05.20 -1.9
DMN 16.15 99 P 08 13.60 -0.2
0.8s 59.00nm 4.8mb
KKN 16.24 99 P 08 13.20 -1.7
0.6s 32.00nm 4.6mb
PKI 16.41 99 P 08 16.40 -0.9
KER 17.02 285 eP 08 26.00 1.3
HYB 17.48 141 eP 08 28.50 -1.9
eS 11 39.00
GRS 18.65 301 eP 08 47.00 2.0
GBA 20.21 150 P 09 02.00 -0.8
S 12 58.00
GRO 20.63 311 eP 09 06.00 -0.9
i 09 45.00
PYA 22.64 310 iP 09 28.00 0.8
i 10 06.00 203kmX
KIV 22.85 310 eP 09 31.30 1.9
e 10 15.40
LZH 30.75 71 eP 10 44.50 1.8
1.2s 25.00nm 5.0mb
Z 16s 0.29um 4.0MszX
CHTO 31.36 106 eP 10 48.60 0.6
KMI 31.92 92 Pc 10 54.00 0.9
1.0s 40.00nm 5.3mb
pP 11 05.00 41kmX
OBN 31.92 327 iPc 10 52.00 -0.5
1.0s 18.00nm 5.0mb
e 12 05.00 391kmX
ZAK 32.75 44 eP 11 01.60 1.8
1.0s 13.00nm 4.8mb
Z 16s 0.30um 4.1MszX
E 16s 0.29um
MLR 34.70 306 eP 11 18.00 1.0
UZH 37.69 310 eP 11 43.50 1.6
KAF 40.25 332 iP 12 02.50 -0.6
0.6s 6.70nm 4.5mb
ZST 41.06 309 eP 12 05.30 -4.7X
BOD 41.35 36 eP 12 12.40 0.2
1.0s 18.00nm 4.8mb
GEC2 43.36 309 P 12 27.80 -1.2
0.7s 0.86nm 3.6mb X
e 12 36.40 29kmX
e 12 46.90
MOX 44.82 312 e(P) 12 40.40 -0.2
APO 45.14 326 eP 12 41.60 -1.4
0.5s 2.90nm 4.4mb
NB2 46.55 326 P 12 52.40 -1.8
0.8s 3.10nm 4.4mb
SBF 47.83 303 eP 13 07.00 2.4X
0.7s 7.30nm 4.9mb
LPG 48.16 305 eP 13 05.10 -2.3
0.7s 1.75nm 4.2mb
LPL 48.17 305 eP 13 06.20 -1.2
0.9s 4.40nm 4.5mb
YAK 49.90 33 eP 13 20.20 0.0
1.1s 45.00nm 5.4mb
SMF 50.06 307 eP 13 19.60 -2.1
1.1s 9.30nm 4.7mb
TIK 51.57 21 eP 13 34.00 1.3
1.2s 20.00nm 4.9mb
e 13 45.00 38kmX
e 14 50.00
BCAO 52.89 250 ePd 13 39.00 -4.4X
0.5s 5.00nm 4.7mb
id 13 43.80 16km
YSS 58.36 51 eP 14 27.70 5.4X
ILT 69.56 22 eP 15 37.00 1.6
KIC 71.23 266 P 15 46.00 -0.5
FBA 80.10 14 eP 16 38.00 2.0
1.0s 9.00nm 4.7mb
pP 16 41.80 12km
WRA 82.28 119 P 16 49.80 1.7
1.1s 0.60nm 3.6mb X
WB2 82.29 119 eP 16 49.20 1.0
1.0s 3.90nm 4.5mb
ASPA 84.22 122 iPc 16 59.10 1.1
0.8s 4.50nm 4.8mb
YKA 86.30 1 eP 17 08.20 0.5
0.4s 0.30nm 3.8mb
S.D. = 1.4 on 41 of 45 obs.

? MAR 11, 1993 00h 07m 24.06± 1.16s
28.483 S ±12.1km 68.988 W ±14.1km
DEPTH = 187.0 ± 28.6 km
LA RIOJA PROVINCE, ARGENTINA (138)

RTRS 1.73 194 ePd 07 59.00 -0.1
S 08 20.90
CYA 2.81 90 ePd 08 11.40 0.1
S 08 42.20
RTCB 3.00 177 iPd 08 13.70 0.1
TCA 4.76 128 e(P) 08 35.50 -0.3
(S) 09 23.00
MRA 4.83 145 e(P) 08 36.80 0.2
ZOBO 12.18 4 eP 10 13.00 -0.2
Z 19s 0.08um
LR 17 10.00
S.D. = 0.3 on 6 of 6 obs.

---

* MAR 11, 1993 00h 18m 53.60± 1.12s
19.794 N ±14.9km 38.655 E ±16.4km
DEPTH = 10.0km (geophysicist)
4.3mb (10 obs.)
RED SEA (554)

BCAO 24.85 235 iPd 24 17.90 0.1
1.2s 14.00nm 4.5mb
id 24 27.00
id 25 47.20
OHR 26.14 328 eP 24 29.70 0.0
GEC2 35.24 331 Pc 25 50.80 0.5
1.4s 4.70nm 4.2mb
e 26 01.30
BRG 36.64 334 eP 26 03.00 1.1
CLL 37.36 333 e(P) 26 08.00 0.0
SMF 39.05 321 eP 26 20.80 -1.5
1.3s 9.05nm 4.3mb
LBF 39.15 322 eP 26 23.00 -0.1
1.2s 9.80nm 4.4mb
LOR 39.37 322 eP 26 24.20 -0.7
0.9s 4.10nm 4.1mb
SSF 39.46 322 eP 26 24.60 -1.1
1.4s 10.00nm 4.3mb
BGF 39.59 321 eP 26 27.70 0.9
1.0s 11.20nm 4.5mb
MAF 39.59 320 eP 26 27.70 0.9
1.0s 4.00nm 4.0mb
LZH 58.84 59 eP 28 55.00 -0.1
1.6s 30.00nm 5.2mb
pP 29 03.50 28kmX
YKA 95.30 348 eP 32 22.80 3.9X
0.4s 0.10nm 3.6mb
S.D. = 0.9 on 12 of 13 obs.

? MAR 11, 1993 00h 39m 47.65± 1.88s
27.918 S ±25.9km 178.277 W ±30.7km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
KERMADEC ISLANDS REGION (177)

RAO 1.37 167 eP 40 10.50 -0.1
eS 40 34.00
CTA 33.24 276 eP 46 23.00 -1.0
STK 34.88 254 eP 46 42.10 4.1X
ASPA 43.06 264 iPd 47 49.70 3.4X
1.2s 12.60nm 4.5mb
WB2 43.80 270 eP 47 54.30 2.0
0.8s 7.20nm 4.5mb
WRA 43.81 270 P 47 51.50 -0.9
0.7s 0.80nm 3.6mb
NB2 146.27 352 PKP 59 24.70 0.0
0.8s 2.10nm
BCAO 151.69 217 iPKPc 59 40.00 5.5X
0.8s 10.00nm
ic 59 44.20
S.D. = 1.7 on 5 of 8 obs.

& MAR 11, 1993 01h 00m 05.79s
33.900 N 118.474 W
DEPTH = 10.9km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS). Felt.

SSK 0.72 64 ePn 00 19.01 -1.0
PEC 1.09 90 ePn 00 25.14 -1.1
eS 00 40.27
PLM 1.45 112 eP 00 30.10 -2.0
eS 00 50.32
ISA 1.76 0 (P) 00 36.32 -0.1
BCH 1.85 314 eP 00 37.60 -0.2
GSC 1.96 44 ePn 00 39.39 0.0
eS 01 07.19
TPNV 3.54 30 (P) 01 07.33 5.3
7 obs. associated

? MAR 11, 1993 01h 03m 44.78± 0.77s
10.008 S ±11.8km 118.101 E ±18.4km
DEPTH = 33.0km (normal)
4.6mb (1 obs.)
SOUTH OF SUMBAWA, INDONESIA (291)

KHKI 2.95 303 ePd 04 30.50 0.1
e(S) 05 09.00
e 08 58.20
MBL 11.21 172 eP 06 26.70 0.8
0.3s 3.00nm 5.0mb X
eS 08 21.00
MEEK 16.55 178 eP 07 35.30 -0.8
eS 10 20.00
ARMA 37.22 128 eP 10 55.20 -0.1
0.8s 8.00nm 4.6mb
DMN 49.19 320 P 12 32.20 -0.1
KKN 49.21 321 P 12 32.40 0.0
GKN 49.76 320 P 12 36.60 0.0
S.D. = 0.6 on 7 of 7 obs.

& MAR 11, 1993 01h 15m 01.50s
35.210 N 95.930 W
DEPTH = 5.0km (geophysicist)
OKLAHOMA (499)
<TUL-P>. mbLg 2.7 (TUL). Felt (III) at Indianola and (II) in the area near Canadian Shores Sand Point.

SIO 0.62 330 P 15 13.00 -0.9
TUL 0.71 9 P 15 15.80 0.1
FNO 1.20 273 P 15 22.89 -1.5
RLO 1.21 38 P 15 23.39 -1.0
OCO 1.30 284 iPd 15 25.80 -0.2
RRO 2.00 278 P 15 35.40 -1.0
MIAR 2.05 108 eP 15 36.61 -0.4
S 16 02.94
WMOK 2.39 259 eP 15 39.81 -2.1
S 16 12.60
OLY 3.66 84 (P) 16 02.39 2.5
S 16 54.86
9 obs. associated

% MAR 11, 1993 01h 45m 38.33± 0.93s
26.875 S ± 9.5km 26.766 E ± 6.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 1.9 (PRE).

BFS 0.03 144 iPd 45 39.60 0.0
S 45 40.90
PRY 0.63 95 eP 45 51.00 0.0
S 45 57.00
SWZ 1.32 256 eP 46 03.30 0.0
S 46 21.20
SEK 1.63 152 eP 46 08.00 0.0
S 46 28.00
SLR 1.77 51 eP 46 10.00 0.0
S 46 32.50
S.D. = 0.1 on 5 of 5 obs.

MAR 11, 1993 01h 48m 31.08± 0.63s
26.835 S ± 6.1km 26.693 E ± 6.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.4 (PRE). mbLg 3.3 (BUL).

BFS 0.10 128 iPd 48 34.00 0.6
S 48 34.90
PRY 0.70 98 eP 48 44.00 -1.2
S 48 50.00
KSR 0.98 11 iPc 48 51.00 0.7
S 49 03.60
SWZ 1.27 254 iPc 48 56.90 1.7
S 49 15.00

BPI 1.37 62 eP 48 56.60 -0.3
S 49 14.60
SEK 1.70 151 iPd 49 02.50 0.8
S 49 24.00
SLR 1.80 53 iPd 49 04.20 1.1
S 49 29.10
BLF 2.31 191 iPd 49 11.20 0.7
S 49 38.50
FRS 3.15 202 iPd 49 22.50 0.3
S 49 58.00
BFT 3.22 70 eP 49 23.00 -0.5
S 50 02.00
GRM 6.46 181 eP 50 07.00 -2.2
S 51 19.00
BUL 6.89 15 iPn 50 14.00 -1.4
iSn 51 27.40
iSg 52 02.00
CIR 7.32 39 iPn 50 23.00 1.7
iSn 51 38.30
iSg 52 12.00
CER 9.13 223 e(P) 50 53.50 7.0X
S 52 32.50
TUH 9.17 224 e(P) 51 01.50 14.5X
(S) 52 41.00
WIN 9.70 294 eP 50 52.50 -2.1
S 52 36.00
S.D. = 1.4 on 14 of 16 obs.

% MAR 11, 1993 01h 59m 55.31± 0.60s
27.998 S ± 5.4km 26.880 E ± 6.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

SEK 0.73 116 iPc 00 09.50 -0.5
S 00 19.50
BFS 1.10 356 eP 00 15.50 -1.0
S 00 28.40
PRY 1.19 26 eP 00 18.90 0.8
S 00 35.00
BLF 1.26 209 eP 00 19.00 -0.3
S 00 36.60
SWZ 1.60 300 eP 00 24.30 -0.2
S 00 45.60
FRS 2.22 218 e(P) 00 34.00 0.8
SLR 2.58 29 eP 00 39.00 0.5
S 01 08.50
BFT 3.64 52 eP 00 53.70 -0.1
S 01 22.90
S.D. = 0.8 on 8 of 8 obs.

---

* MAR 11, 1993 02h 00m 50.02± 0.75s
28.060 S ± 7.3km 26.791 E ± 9.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.1 (PRE). mbLg 3.0 (BUL).

SEK 0.78 110 eP 01 06.50 0.7
BFS 1.16 360 iPd 01 11.40 -0.8
S 01 25.50
BLF 1.17 207 iPd 01 13.10 0.6
S 01 30.10
PRY 1.28 28 eP 01 14.20 -0.1
S 01 31.30
SWZ 1.57 304 iPc 01 20.60 1.9
S 01 39.00
FRS 2.12 217 eP 01 28.10 1.6
S 01 53.70
SLR 2.67 30 e(P) 01 36.50 1.9
S 02 07.40
BFT 3.74 52 eP 01 50.10 0.2
S 02 31.10
GRM 5.24 182 eP 02 09.40 -1.6
S 03 07.00
BUL 8.05 12 iPn 02 48.20 -2.4
iSn 04 06.00
iSg 04 52.70
TUH 8.40 230 e(P) 02 53.30 -2.0
(S) 04 18.50
S.D. = 1.7 on 11 of 11 obs.

? MAR 11, 1993 02h 27m 08.19± 4.32s
34.098 S ±24.7km 71.510 W ±24.6km
DEPTH = 43.7 ± 25.8 km
NEAR COAST OF CENTRAL CHILE (135)
MD 3.8 (SAN).

LNV 0.16 30 iP+ 27 15.81 0.2
iS 27 20.77
LCCH 0.62 355 iP+ 27 20.24 -0.5
iS 27 30.29
TACH 0.65 47 iPd 27 21.00 -0.1
iS 27 30.16
CHCH 0.73 77 iPd 27 22.04 -0.2
iS 27 31.55
CACH 0.75 92 iPd 27 22.99 0.3
iS 27 33.75
SAN 0.96 48 iPd 27 25.21 -0.2
PCH 0.96 60 iPd 27 25.12 -0.3
iS 27 37.77
PEL 1.17 36 iPd 27 29.17 0.7
iS 27 44.54
ROCH 1.20 20 iP+ 27 29.36 0.4
iS 27 45.49
FCH 1.27 53 iP+ 27 29.83 -0.3
iS 27 46.66
JACH 1.61 29 iP 27 34.75 0.1
iS 27 55.35
RTCB 3.46 42 eP 28 06.00 4.9X
(S) 28 51.00
S.D. = 0.4 on 11 of 12 obs.

MAR 11, 1993 04h 21m 30.58± 0.38s
38.527 N ± 7.2km 69.808 E ± 6.0km
DEPTH = 33.0km (normal)
4.6mb (29 obs.)
TAJIKISTAN (715)

FRU 5.64 39 ePn 22 58.40 4.0X
e 23 14.80
eS 24 07.00
e 24 23.60
MAIO 8.50 258 ePn 23 25.00 -9.5X
eSn 25 02.00
QUE 8.65 197 eP 23 37.00 0.4
eS 25 15.80
ASH 9.04 270 eP 23 53.50 11.8X
eS 25 16.00
NDI 11.59 146 eP 24 20.00 3.2X
0.5s 15.49nm 5.4mb
GKN 16.23 126 P 25 13.00 -4.8X
KKN 16.78 125 P 25 18.80 -6.1X
0.6s 31.00nm 4.6mb
DMN 16.80 126 P 25 21.20 -3.9X
PKI 17.02 125 P 25 25.60 -2.3
GUN 17.09 124 P 25 20.80 -8.1X
GRS 18.26 280 eP 25 42.00 -1.2
1.1s 40.00nm 4.5mb
GRO 18.83 293 eP 25 51.00 1.1
1.5s 240.00nm 5.2mb
ARU 19.37 341 eP 25 56.00 -0.3
POO 20.23 169 eP 26 09.80 4.1X
KIV 21.05 294 ePd 26 14.80 0.7
1.6s 29.00nm 4.4mb
e 26 47.50
eS 30 24.90
HYB 22.38 158 ePc 26 29.50 2.0
MOY 25.41 49 eP 26 58.20 1.8
GBA 25.73 163 P 27 00.00 0.3
ZAK 26.44 52 eP 27 07.00 1.0
2.0s 48.00nm 4.8mb
LZH 27.09 85 eP 27 12.00 -0.4
1.5s 16.00nm 4.4mb
OBN 27.77 318 eP 27 19.50 1.4
1.0s 18.00nm 4.7mb
e 27 25.00
e 28 07.00
VRI 32.43 297 eP 28 00.00 0.4
NRI 32.46 12 ePd 28 01.00 1.5
1.4s 16.00nm 4.7mb
CVO 32.82 297 eP 28 05.00 2.0
MLR 33.00 296 eP 28 07.00 2.3
CIT 33.11 52 eP 28 05.00 -0.5
BOD 34.52 41 iPc 28 16.00 -1.5
0.7s 19.00nm 5.1mb
KAF 35.42 326 eP 28 24.30 -0.8
0.5s 2.50nm 4.4mb
NUR 35.64 323 eP 28 26.50 -0.5
0.6s 4.10nm 4.5mb
OJC 36.95 305 eP 28 38.30 0.2
PRU 40.34 305 eP 29 07.00 0.6
VBY 40.46 298 eP 29 08.20 0.8
BRG 40.64 306 iP 29 09.80 0.9
HFS 40.90 321 eP 29 10.00 -0.8
0.4s 2.90nm 4.4mb
GEC2 41.01 303 P 29 12.60 0.5
0.7s 1.12nm 3.7mb
e 29 15.80
e 29 19.40
KHC 41.05 304 eP 29 13.00 0.6
NB2 42.20 322 P 29 20.60 -1.0
0.7s 5.00nm 4.4mb
GRF 42.51 305 eP 29 26.00 1.7
TIK 44.26 23 iPc 29 38.00 -0.2
0.8s 30.00nm 5.2mb
e 29 49.00
BSF 45.72 303 eP 29 49.20 -1.1
1.0s 5.40nm 4.4mb
SBF 46.26 297 eP 29 52.90 -1.6
0.8s 6.70nm 4.6mb
LPG 46.30 300 eP 29 54.20 -0.9
0.9s 5.55nm 4.5mb
LPL 46.31 300 eP 29 53.60 -1.5
0.7s 2.45nm 4.3mb
FRF 46.89 297 eP 29 56.80 -2.6
0.8s 4.45nm 4.5mb
MAF 48.92 302 eP 30 13.80 -1.4
0.7s 2.75nm 4.4mb
DAG 52.55 343 iPc 30 42.10 -0.3
0.7s 6.85nm 4.7mb
BCAO 57.53 247 ePc 31 17.50 -1.8
0.7s 6.00nm 4.7mb
ic 31 19.00
IMA 70.48 17 eP 32 43.20 -0.3
0.6s 1.72nm 4.3mb
FBA 72.78 16 eP 32 57.27 0.1
0.8s 4.27nm 4.5mb
YKA 79.26 2 eP 33 33.00 -0.6
0.8s 2.40nm 4.2mb
WB2 83.87 121 iPc 33 58.70 0.3
0.6s 7.00nm 5.0mb
ASPA 86.18 124 eP 34 10.70 0.8
0.6s 4.50nm 4.9mb
S.D. = 1.2 on 43 of 52 obs.

% MAR 11, 1993 05h 00m 59.91± 0.89s
39.769 N ± 8.0km 29.357 E ± 7.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

DST 0.59 254 iPg 01 11.00 -0.8
eSg 01 19.00
KCT 0.91 302 ePg 01 17.10 -0.2
eSg 01 31.60
ALT 0.92 140 ePg 01 18.10 0.5
eSg 01 30.60
EYL 1.00 37 ePg 01 18.00 -1.0
HRT 1.08 13 ePn 01 20.10 -0.1
CTT 1.55 333 ePn 01 29.10 1.6
S.D. = 1.2 on 6 of 6 obs.

% MAR 11, 1993 06h 09m 52.52± 0.72s
39.484 N ± 6.2km 28.280 E ± 6.7km
DEPTH = 5.0km (geophysicist)
TURKEY (366)
MD 3.0 (ISK).

DST 0.30 66 iPg 09 58.00 -0.5
iSg 10 02.00
KCT 0.77 4 iPg 10 08.00 0.1
eSg 10 18.50
EDC 0.92 340 iPn 10 10.00 -0.6
IZM 1.34 217 ePn 10 17.80 0.0
ALT 1.48 106 ePn 10 20.00 0.0
CTT 1.67 4 ePn 10 23.00 0.5
EYL 1.80 53 ePn 10 25.00 0.4
S.D. = 0.5 on 7 of 7 obs.

MAR 11, 1993 06h 24m 21.04± 0.26s
21.090 S ± 4.0km 68.876 W ± 6.0km
DEPTH = 104.8km (4 depth phases)
4.8mb (13 obs.)
CHILE-BOLIVIA BORDER REGION (124)

ANT 2.97 208 iP+ 25 07.00 -0.2
iS 25 35.50
YJA 3.32 110 iPc 25 18.30 5.9X
S 25 55.00
HJA 3.85 124 iPc 25 25.20 6.0X
CNCB 4.34 11 iPc 25 29.00 2.5

LPB 4.59 9 iPc 25 30.00 0.1
1.1s 556.96nm
iS 26 13.00
SLA 4.78 140 iPc 25 37.50 5.4X
S 26 11.90
ZOBO 4.83 9 iPc 25 34.50 1.2
LR 27 28.00
ARE 5.23 331 eP 25 36.00 -2.5
iS 26 30.50
CYA 7.84 160 e(P) 26 16.20 2.2
RTRS 9.06 183 ePc 26 30.90 0.4
RTCB 10.35 180 iPc 26 47.00 -1.1
CFA 10.49 177 ePd 26 49.00 -0.8
RTBS 10.54 183 e(P) 26 51.00 0.6
RTCV 10.73 178 e(P) 26 52.30 -0.8
TCA 10.90 160 e(P) 26 56.00 0.6
(S) 28 51.00
MDZ 11.75 180 eP 27 10.00 3.5X
eS 30 34.20
PEL 12.11 187 eP 27 07.00 -4.3X
PPD 16.37 96 eP 28 06.60 0.6
e 28 10.10
e 28 32.40
e 28 44.80
VAO 20.40 99 eP 28 51.10 -0.7
e 28 52.60 6kmX
e 28 55.10
e 29 23.70
e 32 33.30
BAO 20.54 78 eP 28 52.10 -1.3
e 28 53.90 7kmX
e 28 56.10
e 29 06.00
e 29 21.20
e 30 40.90
e 30 50.70
e 31 08.50
e 32 44.90
BDF 20.61 78 eP 28 53.00 -1.1
e 28 54.60 6kmX
e 28 56.90
CACB 20.63 96 eP 28 53.40 -0.8
e 28 54.80 5kmX
e 28 58.80
e 29 31.90
CDCB 22.62 92 ePd 29 14.90 1.0
e 29 16.00 4kmX
SOB1 29.42 71 eP 30 15.80 -1.1
e 30 17.70 7kmX
MIAR 60.11 337 eP 34 18.18 -1.3
0.5s 3.04nm 4.7mb
ELC 61.15 342 eP 34 24.57 -2.0
FVM 62.16 341 eP 34 31.62 -1.7
1.0s 37.16nm 5.3mb
KDS 64.93 64 iP 34 45.00 -6.9X
RSNY 65.52 356 eP 34 53.59 -1.5
TUC 66.53 322 eP 35 02.14 0.2
1.3s 10.96nm 4.6mb
e 35 28.54 105km
LMN 66.72 3 eP 35 04.50 1.8
CBM 67.70 1 (P) 35 08.09 -0.8
LIC 68.24 74 Pc 35 12.60 -0.3
KIC 68.56 74 Pc 35 14.60 -0.3
PV08 70.10 328 eP 35 24.39 0.2
PV10 70.14 327 eP 35 23.94 -0.4
PV09 70.28 327 eP 35 24.80 -0.5
SRU 71.45 327 ePd 35 32.25 0.1
MSU 71.86 326 eP 35 35.21 0.5
ARUT 72.01 324 eP 35 36.64 1.1
epP 36 03.28 104km
EMUT 72.13 327 eP 35 37.00 0.7
GSC 72.18 320 (P) 35 37.40 0.9
RSSD 72.44 334 eP 35 37.43 -0.6
1.0s 5.91nm 4.4mb
DUG 73.43 326 eP 35 44.23 0.5
1.2s 10.62nm 4.5mb
e 35 51.04
epP 36 11.00 104km
BW06 73.78 330 (P) 35 43.59 -2.2
1.1s 4.05nm 4.2mb
HVU 74.58 327 eP 35 50.82 0.4
JAO 74.81 356 eP 35 50.00 -1.2
BONR 74.87 322 eP 35 53.68 1.4
ULM 74.94 342 eP 35 54.00 2.0
MCMT 76.89 330 eP 36 04.50 1.1
ORV 77.80 321 eP 36 09.34 1.1
epP 36 36.64 106km
LGPM 79.45 321 eP 36 17.73 0.3
e 36 40.60 86kmX
SES 80.32 334 eP 36 22.00 0.3
DPW 81.65 329 eP 36 30.03 1.3
FCC 82.24 347 eP 36 34.50 3.0X
BMW 83.25 326 (P) 36 36.58 -0.5
YKA 90.81 341 eP 37 12.40 -0.8
0.8s 2.90nm 4.5mb
LFF 91.19 42 eP 37 15.80 0.5
0.9s 17.95nm 5.3mb
LPO 91.35 42 eP 37 16.50 0.5
1.0s 8.80nm 5.0mb
MFF 91.46 40 eP 37 16.90 0.4
1.4s 22.65nm 5.2mb
CAF 92.01 42 eP 37 18.80 -0.4
0.8s 3.65nm 4.7mb
MAF 92.93 41 eP 37 23.70 0.4
1.0s 5.00nm 4.8mb
SMF 93.91 41 eP 37 28.10 0.3
1.0s 7.60nm 5.1mb
GBA 147.05 98 PKP 43 55.00 3.4X
e 44 25.00
S.D. = 1.1 on 56 of 64 obs.

% MAR 11, 1993 06h 31m 26.63± 1.46s
38.694 S ± 7.5km 175.657 E ± 5.6km
DEPTH = 176.1 ± 14.4 km
NORTH ISLAND, NEW ZEALAND (159)

NGZ 0.48 185 P 31 50.60 -0.5
CNZ 0.51 190 P 31 50.90 -0.3
MOZ 0.69 285 P 31 52.30 0.1
S 32 09.90
WLZ 0.82 357 P 31 53.40 0.4
eS 32 11.00
PAHZ 1.10 99 P 31 54.70 -0.4
WAHZ 1.14 152 P 31 55.50 0.1
URZ 1.22 70 P 31 55.30 -0.7
S 32 13.00
TTH 1.24 133 P 31 56.90 0.7
MOH 1.24 111 P 31 56.30 0.1
TEHZ 1.57 146 P 31 59.50 0.2
MAHZ 1.80 107 P 32 02.10 0.4
NOZ 1.86 88 P 32 02.20 -0.1
MNG 1.93 184 P 32 03.20 0.2
S 32 26.90
PGZ 1.98 166 P 32 03.40 -0.1
KIW 2.24 195 P 32 06.60 0.1
CAW 2.45 190 P 32 09.20 0.2
MTW 2.47 183 P 32 08.90 -0.2
DIW 2.49 212 P 32 09.90 0.4
MRW 2.64 196 P 32 10.90 -0.2
S 32 42.00
TCW 2.73 202 P 32 12.40 0.2
MOW 2.74 186 P 32 12.00 -0.4
KHZ 4.05 203 P 32 28.50 -0.3
S.D. = 0.4 on 22 of 22 obs.

• MAR 11, 1993 06h 37m 04.71± 0.95s
6.322 S ±13.5km 147.298 E ±13.4km
DEPTH = 105.9 ± 8.1 km
4.8mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC 0.63 118 iPc 37 22.00 -0.3
YYYY 1.32 273 eP 37 30.80 1.1
MDG 1.85 305 eP 37 35.50 -0.5
PMG 3.07 183 eP 37 52.00 -0.3
eS 38 28.00
WB2 18.48 222 iPd 41 13.90 -1.5
0.5s 23.90nm 4.7mb
eS 44 37.90
ASPA 21.53 215 iPd 41 47.40 0.7
0.7s 48.80nm 5.0mb
iS 45 41.50
BRS 21.59 167 iPd 41 48.20 0.9
SIV 144.22 129 PKP 56 32.70 2.0
PPD 146.44 148 (PKP) 56 33.00 -1.3
BAO 153.44 145 iPKPc 56 44.50 -0.7
e 56 51.10
S.D. = 1.4 on 10 of 10 obs.

% MAR 11, 1993 06h 44m 32.26± 0.74s
27.977 S ± 7.4km 26.793 E ± 9.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.0 (PRE).

SEK 0.81 115 iPd 44 48.60 0.0
S 44 58.50
PRY 1.21 30 eP 44 55.50 0.2
S 45 12.00
BLF 1.25 205 iPc 44 56.00 0.0
S 45 12.80
FRS 2.19 216 iPc 45 09.80 0.0
S 45 37.00
SLR 2.60 31 eP 45 15.60 -0.2
S 45 46.70
BFT 3.69 53 eP 45 31.40 0.0
S 46 18.00
S.D. = 0.2 on 6 of 6 obs.

• MAR 11, 1993 07h 37m 09.48± 0.88s
24.266 S ±10.1km 67.185 W ±10.8km
DEPTH = 194.9 ± 10.3 km
CHILE-ARGENTINA BORDER REGION (127)

SLA 1.61 107 iPd 37 45.00 0.8
S 38 09.90
HJA 1.94 58 iP 37 47.60 0.3
(S) 38 15.50
YJA 2.60 37 iPd 37 54.50 -0.6
ANT 3.01 280 iP+ 37 59.30 -0.1
iS 38 34.20
TCA 7.41 163 iPd 38 55.00 -1.0
CNCB 7.45 354 P 38 57.80 0.7
S 40 21.00
LPB 7.74 353 eP 39 00.00 -0.8
eS 40 24.00
ZOBO 7.99 353 eP 39 03.00 -1.3
S 40 33.00
SIV 10.03 36 eP 39 32.00 1.8
PPD 14.77 85 eP 40 32.80 2.5
VAO 18.57 90 eP 41 12.70 -1.6
e 41 14.40
CACB 19.01 86 eP 41 17.20 -1.7
i 41 18.30
i 41 20.90
BAO 19.96 68 iPc 41 27.90 -0.7
e 41 30.00
BDF 20.02 68 eP 41 28.50 -0.7
e 41 57.00
WB2 131.31 207 ePKP 56 03.00 2.4
0.2s 1.90nm
S.D. = 1.6 on 15 of 15 obs.

% MAR 11, 1993 07h 47m 20.56± 0.88s
40.641 N ± 6.1km 23.393 E ± 8.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

SOH 0.18 351 ePg 47 24.77 0.1
eSg 47 27.12
THE 0.33 269 ePg 47 27.52 0.2
eSg 47 32.20
SRS 0.50 18 ePg 47 30.84 0.1
KNT 0.64 324 iPg 47 33.04 -0.4
eSg 47 41.48
PAIG 0.75 163 ePg 47 35.08 -0.1
eSg 47 45.44
S.D. = 0.3 on 5 of 5 obs.

MAR 11, 1993 08h 19m 46.14± 0.28s
19.547 N ± 5.0km 38.675 E ± 3.4km
DEPTH = 15.4km (5 depth phases)
5.0mb (62 obs.) 4.9Msz (11 obs.)
RED SEA (554)

MJMA 8.76 43 eP 22 42.00 46.9X
eS 25 49.00
ARO 8.93 153 eP+ 22 10.00 12.5X
AAE 10.46 180 eP 22 19.00 0.2
BHL 14.55 350 P 23 08.00 -5.4X
S 28 00.00
CSS 16.07 344 eP 23 37.20 4.2X
KER 16.54 25 eP 23 40.00 0.9
NAI 20.77 185 iPd 24 34.50 5.1X
Z 18s 0.79um 4.1Msz
iS 28 40.00
GRS 20.95 17 iPc 24 32.00 1.0
1.6s 90.00nm 4.9mb
Z 14s 1.79um 4.6MszX
N 12s 0.95um
E 12s 0.78um

11d 08h

```
                     eS     28 34.00
ERE     21.17  12 iP    24 34.00   0.9
        1.7s     30.00nm            4.4mb
      Z  14s      2.00um            4.7MszX
                     eS     28 38.00
MTA     22.69  12 iP    24 51.40   3.2X
ALN     23.86 336 eP    25 01.32   1.7
SOC     23.98   2 eP    24 56.00  -4.7X
      N  12s      0.70um
      E  11s      0.60um
AGG     24.01 327 eP    25 01.96   0.9
PAIG    24.06 331 iP    25 06.85   5.3X
GRO     24.45  12 eP    25 13.00   7.7X
      Z  13s      2.50um            4.9MszX
      N  12s      2.50um
MAK     24.54  16 eP    25 11.00   4.9X
KIV     24.57   7 eP    25 07.50   0.9
        1.8s     64.00nm            4.9mb
                     eS     29 39.70
PYA     24.69   8 eP    25 10.00   2.3
        2.0s    110.00nm            5.1mb
      Z  14s      1.50um            4.6MszX
BCAO    24.72 235 iPc   25 08.90   0.6
        0.7s     12.00nm            4.6mb
                     id     25 55.00 243kmX
KDZ     24.75 336 eP    25 10.00   1.7
MAIO    24.75  43 eP    25 11.00   2.6
                     eS     29 47.00
KAT     24.79  34 eP    25 12.50   3.9X
      Z  14s      1.60um            4.7MszX
                     iS     29 37.00
SRS     25.06 332 eP    25 08.84  -2.4
RZN     25.06 335 iPc   25 13.00   1.6
ASH     25.08  39 eP    25 15.00   3.5X
                     e      26 05.00 267kmX
MMB     25.39 333 iPc   25 15.00   0.6
KNT     25.40 331 eP    25 13.52  -1.0
PLD     25.42 335 iPc   25 16.00   1.4
IGT     25.43 325 eP    25 15.08   0.4
GRG     25.47 330 eP    25 15.33   0.2
VAY     25.68 331 iP    25 17.50   0.5
KKB     25.89 333 iPc   25 19.00   0.0
OHR     26.36 329 iP    25 23.60   0.2
        1.1s     65.00nm            5.2mb
QUE     27.68  62 eP    25 38.80   3.0
VRI     28.04 342 eP    25 40.00   1.3
CVO     28.16 341 eP    25 51.50  11.7X
UZH     31.89 339 eP    26 13.00   0.2
PTJ     32.27 330 iP    26 17.00   0.7
VBY     32.32 328 eP    26 16.00  -0.7
                     ePP    26 20.40
SRO     32.69 334 iP    26 19.70  -0.1
SPC     33.07 338 iP    26 23.90   0.5
TRI     33.22 327 eP    26 24.60   0.2
ZST     33.49 334 eP    26 26.70  -0.1
                     e      55 16.70
KBA     34.38 329 iPc   26 35.10   0.4
        1.3s     15.80nm            4.8mb
WTTA    35.35 328 iPc   26 43.20   0.2
        1.2s     28.90nm            5.0mb
                     i      26 57.20  54kmX
OGA     35.40 327 iPc   26 44.50   1.0
        1.3s     34.00nm            5.1mb
GEC2    35.47 331 Pd    26 43.30  -0.6
        1.3s     18.95nm            4.8mb
                     e      26 48.30  17km
                     e      26 55.40
                     PcP    29 12.60
GEC2    35.47 331 e(P)  26 49.70   5.8X
        1.5s     25.00nm            4.9mb
OBN     35.53 358 iPd   26 43.00  -1.2
        1.0s     56.00nm            5.4mb
                     i      26 47.00  14km
SBF     35.62 320 P     26 45.39   0.1
KHC     35.73 332 eP    26 45.00  -1.1
        1.5s     22.30nm            4.8mb
OSS     35.75 326 ePc   26 47.50   1.1
KSP     35.90 336 ePc   26 47.40   0.0
LMR     35.91 319 iPd   26 47.20  -0.4
        1.2s     27.35nm            5.0mb
FRF     35.94 319 iPd   26 47.70  -0.2
        1.3s     46.55nm            5.2mb
PRU     35.95 333 eP    26 47.20  -0.6
LRG     36.07 319 iPd   26 48.70  -0.2
        1.2s     33.05nm            5.1mb
TMA     36.07 324 ePc   26 49.40   0.2
MOS     36.14 359 eP    26 49.00  -0.3
```

```
      Z  18s      0.60um            4.4Msz
NDI     36.20  68 eP    26 52.50   2.2
LLS     36.47 325 ePc   26 52.50  -0.1
BRG     36.87 334 iPc   26 55.20  -0.3
        1.4s     48.00nm            5.1mb
DIX     36.88 323 ePc   26 56.20   0.1
LPG     36.93 322 iPd   26 56.50   0.0
        1.3s     19.85nm            4.8mb
LPL     36.95 322 eP    26 55.70  -0.9
EMS     37.15 323 ePc   26 57.60  -0.6
ZLA     37.18 326 Pc    26 57.90  -0.4
GRF     37.21 330 ePd   26 57.70  -0.8
        1.4s     31.00nm            4.9mb
      Z  22s      0.10um            3.6MszX
GBA     37.56  93 P     27 01.00  -0.7
CLL     37.59 334 iPc   27 01.00  -0.6
        1.7s     40.00nm            4.9mb
KSH     37.70  50 eP    27 01.00  -1.8
        1.0s     50.00nm            5.3mb
      Z  20s      2.86um            5.1Msz
      N  12s      1.58um
      E  12s      1.56um
                     pP     27 07.00  20km
                     PP     28 30.00
                     ePcP   29 20.00
                     eS     32 48.00
                     sS     32 58.00
                     ePcS   33 08.00
                     SS     35 20.00
                     eScS   37 11.00
MOX     37.71 332 iPd   27 02.00  -0.6
        1.5s     35.00nm            4.9mb
                     i      27 05.90  13km
                     e      27 29.80
HYB     37.82  87 ePc   27 05.00   1.0
FRU     38.10  44 (P)   27 08.00   1.9
        2.0s     40.00nm            4.9mb
      Z  24s      0.80um            4.4MszX
      N  20s      0.60um
      E  20s      0.80um
BSF     38.25 325 eP    27 07.00  -0.4
        1.3s     42.95nm            5.1mb
CDF     38.34 326 eP    27 07.60  -0.5
        1.3s     15.15nm            4.6mb
HAU     38.59 325 eP    27 09.60  -0.5
SMF     39.25 322 iPd   27 15.00  -0.6
        1.2s     19.05nm            4.7mb
LBF     39.35 322 iPd   27 15.90  -0.6
        1.2s     50.60nm            5.1mb
CAF     39.48 318 iPd   27 18.00   0.4
        1.2s     44.05nm            5.0mb
LOR     39.57 322 iPd   27 17.70  -0.6
        1.2s     43.75nm            5.0mb
AVF     39.62 321 iPd   27 18.00  -0.6
        1.3s     40.05nm            5.0mb
SSF     39.67 322 iPd   27 18.50  -0.6
        1.3s     36.10nm            4.9mb
MAF     39.79 320 iPd   27 20.10   0.0
        1.1s     29.05nm            4.9mb
BGF     39.80 321 iPd   27 20.20   0.1
        1.1s     90.10nm            5.4mb
LPO     39.92 317 iPd   27 21.80   0.6
        1.5s     79.90nm            5.2mb
RJF     40.00 318 iPd   27 22.20   0.4
TCF     40.04 320 iPd   27 22.30   0.1
        1.3s     23.85nm            4.7mb
HYF     40.28 322 eP    27 24.10   0.0
LFF     40.32 318 iPd   27 25.20   0.7
        1.3s     70.40nm            5.2mb
LSF     40.44 320 eP    27 25.70   0.3
        1.3s     70.40nm            5.2mb
SVE     40.64  18 ePc   27 28.00   1.1
        2.0s     70.00nm            5.0mb
      Z  17s      0.60um            4.5MszX
      N  17s      0.50um
      E  17s      0.50um
BUL     40.66 195 iPd   27 29.50   1.9
        0.9s      7.98nm            4.4mb
MFF     41.63 319 iPd   27 34.80  -0.3
        1.1s     24.40nm            4.8mb
PAB     41.93 308 iPc   27 38.00   0.2
        1.0s     25.00nm            4.9mb
LDF     42.55 322 iPd   27 41.80  -0.9
        1.1s     33.20nm            5.0mb
GKN     42.69  70 P     27 44.00  -0.4
LPF     42.82 321 iPd   27 44.00  -0.9
        1.1s     50.80nm            5.2mb
```

```
FLN     42.84 322 iPd   27 44.10  -1.0
        1.1s     70.55nm            5.3mb
GRR     42.88 321 iPd   27 44.40  -1.0
        1.3s     73.30nm            5.3mb
MUD     42.93 336 iPc   27 45.90   0.3
        1.1s     26.00nm            4.9mb
DMN     43.10  70 P     27 47.60  -0.2
KKN     43.26  70 P     27 48.60  -0.4
PKI     43.37  70 P     27 49.60  -0.5
GUN     43.79  70 P     27 53.00  -0.5
KIC     44.15 259 P     27 56.66   0.5
        1.2s     62.00nm            5.3mb
TIC     44.31 259 P     27 57.80   0.4
LIC     44.47 259 P     27 59.30   0.6
      Z  20s      0.22um            4.1Msz
NB2     45.75 342 P     28 06.80  -1.6
        1.3s     21.60nm            4.9mb
WMQ     47.38  48 P     28 21.50  -0.1
        1.2s     29.00nm            5.2mb
      Z  20s      0.96um            4.8Msz
                     pP     28 31.00  32kmX
EKA     47.59 329 Pd    28 21.70  -1.2
        1.4s     24.10nm            5.1mb
GTA     55.74  55 P     29 24.50  -0.2
        1.0s     19.00nm            5.1mb
      Z  20s      0.87um            4.8Msz
      E  12s      0.26um
                     pP     29 35.00  35kmX
MOY     57.78  41 eP    29 39.00   0.2
NRI     58.12  18 iPc   29 41.10   0.1
        1.2s     39.00nm            5.3mb
                     e      30 28.00 206kmX
LZH     58.95  59 eP    29 47.50   0.0
        1.2s     49.00nm            5.5mb
      Z  18s      0.84um            4.9Msz
      E  12s      0.27um
                     pP     29 51.50  13km
ZAK     59.04  42 eP    29 47.00  -0.7
        1.6s     20.00nm            5.0mb
      Z  18s      1.54um            5.2Msz
      E  17s      1.78um
KMI     59.05  72 eP    29 48.00  -0.4
GYA     62.34  70 iPc   30 09.60  -1.1
        1.0s     19.00nm            5.2mb
XAN     63.26  61 P     30 15.20  -1.4
        1.1s      8.50nm            4.8mb
      Z  20s      0.61um            4.8Msz
      N  16s      0.49um
                     sP     30 31.50
BTO     63.56  54 eP    30 18.00  -0.5
HHC     64.71  53 eP    30 26.20   0.1
      Z  20s      1.25um            5.1Msz
CIT     65.60  41 eP    30 30.00  -1.5
TIY     65.68  57 Pc    30 32.60   0.3
      E  17s      0.93um
BOD     65.97  35 iPd   30 31.20  -2.5
        1.0s     35.00nm            5.5mb
BJI     68.30  54 eP    30 48.50  -0.2
      Z  24s      0.96um            4.9MszX
TIA     69.61  58 eP    30 56.30  -0.7
TIK     71.67  20 iPc   31 08.00  -0.8
        1.2s     16.00nm            5.0mb
                     i      31 25.00  62kmX
NJ2     71.81  62 Pc    31 10.00  -0.3
YAK     73.43  29 eP    31 17.40  -1.8
        1.2s     30.00nm            5.2mb
SNY     73.53  51 eP    31 19.80  -0.4
CN2     74.47  49 P     31 25.20  -0.4
        1.0s     10.00nm            4.8mb
      Z  18s      0.89um            5.1Msz
                     esP    31 41.00
RES     81.50 349 eP    32 05.00   1.3
MGD     83.69  28 eP    32 15.00  -0.3
        1.5s     40.00nm            5.4mb
LMN     85.17 317 eP    32 27.50   4.5X
MAT     85.91  53 eP    32 26.00  -0.9
CBM     86.82 319 (P)   32 32.51   1.3
JAQ     87.90 327 eP    32 37.00   0.8
ILT     88.61  13 eP    32 40.00   0.6
FCC     92.86 337 eP    33 02.50   3.2X
YKA     95.54 348 eP    33 09.80  -1.8
        1.0s      2.20nm            4.6mb
    S.D. = 1.0  on 124 of 140 obs.
------------------------------------------
? MAR 11, 1993  08h 49m 23.32± 3.67s
  28.290 S ±34.0km   68.612 W ±23.1km
  DEPTH = 120.0km  (geophysicist)
```

```
LA RIOJA PROVINCE, ARGENTINA    (138)

RTRS    2.01 201 ePd    49 57.20  -0.2
CYA     2.49  94 ePd    50 03.70   0.1
                 S      50 35.80
CFA     3.32 175 ePd    50 15.00   0.4
TCA     4.63 132 iP     50 32.10  -0.3
                 (S)    51 25.50
     S.D. = 0.5  on   4 of   4 obs.
--------------------------------------
? MAR  11, 1993  09h 25m 22.49± 2.32s
   52.566 N ±43.8km  161.941 E ±27.5km
   DEPTH =  33.0km  (normal)
   4.0mb (  4 obs.)
 OFF EAST COAST OF KAMCHATKA     (219)

YKA    42.79  43 eP     33 18.10   0.0
       0.6s     0.60nm           3.5mb
PV08   60.21  65 ePc    35 35.80   6.0X
KAF    60.41 338 iP     35 31.10   0.7
       0.4s     2.70nm           4.7mb
NUR    62.20 338 eP     35 41.70  -0.8
NB2    64.36 345 P      35 56.80   0.0
       0.5s     1.00nm           4.2mb
GEC2   75.42 339 P      37 09.20   4.8X
       0.8s     1.06nm           3.9mb
GBA    76.00 274 P      37 08.00   0.0
     S.D. = 0.8  on   5 of   7 obs.
--------------------------------------
   MAR  11, 1993  09h 29m 09.98± 0.94s
   13.324 N ±20.0km   88.872 W ±16.4km
   DEPTH =  72.6 ±  7.0 km
   4.2mb (  4 obs.)
 EL SALVADOR                     ( 73)
      MD 4.2 (APY). Felt (III) at San
      Salvador.

SJAS    0.45 320 iPc    29 22.80   0.0
LFU     0.48 331 iPc    29 24.10   1.0
TME     0.83 326 eP     29 27.90   1.0
YPE     1.12 315 iPc    29 31.00   0.5
CUSS    1.20 299 iPd    29 29.50  -2.0
PYN     2.03 117 eP     29 41.75  -1.0
PYT     2.85 106 eP     29 53.65  -0.5
TPX     3.64 296 (P)    30 27.00  21.8X
LTX    21.03 322 P      33 50.29   0.4
PRM    21.50  15 (P)    33 57.38   2.9X
MIAR   21.55 349 eP     33 56.30   1.3
       0.7s    11.07nm           4.4mb
LHS    22.29  18 eP     34 05.64   3.3X
MEO    23.10 339 iPc    34 10.10  -0.2
WMOK   23.13 339 eP     34 10.18  -0.4
       0.4s     1.98nm           3.9mb
PV10   30.71 328 eP     35 19.92  -0.6
RSSD   33.33 340 eP     35 43.30   0.0
       0.5s     2.54nm           4.3mb
ULM    37.27 353 eP     36 18.00   1.7
SIV    40.05 136 eP     36 42.00   2.1
JAQ    41.70  12 eP     36 51.50  -1.5
YKA    52.41 345 eP     38 15.10  -1.8
       0.8s     1.30nm           4.0mb
     S.D. = 1.3  on  17 of  20 obs.
--------------------------------------
% MAR  11, 1993  10h 03m 10.50± 0.82s
   61.494 N ± 7.5km    5.676 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                 (535)
      MD 1.8 (BER).

FOO     0.32 289 eP     03 17.46   0.3
                 eS     03 25.61
ASK     1.04 193 eP     03 29.90  -0.2
                 eS     03 43.91
EGD     1.25 190 eP     03 33.41  -0.2
                 eS     03 49.42
MOL     1.39  38 eP     03 35.29  -0.6
                 eS     03 53.90
NRA0    2.95 102 ePn    03 58.92   0.7
                 ePg    03 59.82
                 eLg    04 40.08
     S.D. = 0.8  on   5 of   5 obs.
--------------------------------------
% MAR  11, 1993  10h 36m 34.88± 0.93s
   39.125 N ± 8.2km   27.577 E ±15.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
      MD 2.7 (ISK).

IZM     0.77 199 ePg    36 49.90   0.0
DST     0.95  59 iPn    36 52.80  -0.1
EDC     1.24  10 ePn    36 58.00   0.1
BNT     1.26  12 ePn    36 57.90  -0.3
KCT     1.27  28 iPn    36 58.90   0.4
     S.D. = 0.4  on   5 of   5 obs.
--------------------------------------
? MAR  11, 1993  10h 44m 03.49± 0.84s
   32.363 N ± 9.1km  130.927 E ±15.6km
   DEPTH =  59.3 ±  9.9 km
   3.7mb (  2 obs.)
 KYUSHU, JAPAN                   (235)

KUMJ    0.19 334 iP+    44 12.80  -0.1
                 S      44 24.30
KAGJ    1.17 182 iPd    44 24.40   0.4
                 eS     44 47.20
SHNJ    1.76   5 P      44 31.80  -0.3
                 S      44 58.70
SSE     8.39 264 ePn    46 05.00   0.1
       1.0s    19.00nm         4.9mb X
    Z  12s      0.50um          5.6Msz
    E  14s      0.40um
WB2    52.11 176 eP     53 08.90  -0.9
       0.9s     1.40nm           4.0mb
YKA    72.00  26 eP     55 23.20   0.8
       0.9s     0.50nm           3.4mb
     S.D. = 0.9  on   6 of   6 obs.
--------------------------------------
? MAR  11, 1993  10h 49m 05.41± 1.03s
   39.109 N ±10.8km   27.715 E ±18.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
      MD 2.8 (ISK).

IZM     0.79 207 iPg    49 20.90   0.0
                 iSg    49 34.40
DST     0.86  55 iPn    49 21.80  -0.3
EDC     1.24   5 ePn    49 28.00  -0.5
KCT     1.24  23 iPn    49 29.20   0.7
     S.D. = 0.9  on   4 of   4 obs.
--------------------------------------
& MAR  11, 1993  11h 11m 56.29s
   60.771 N             151.304 W
   DEPTH =  60.5km
 KENAI PENINSULA, ALASKA         ( 14)
      <AEIC>. ML 2.7 (AEIC).

NKA     0.04 131 iPc    12 06.87   3.2
SPU     0.55 319 iPd    12 08.37  -0.6
                 eS     12 18.35
RDT     0.58 250 eP     12 08.57  -0.8
SLKM    0.60 116 iPc    12 09.03  -0.5
                 S      12 19.64
CKT     0.62 315 iPc    12 09.15  -0.6
CKN     0.62 317 iPc    12 09.51  -0.3
CPAM    0.63 320 ePc    12 09.77  -0.2
CGLM    0.64 328 eP     12 09.67  -0.4
                 S      12 20.58
CRP     0.65 321 eP     12 09.85  -0.4
CKL     0.66 311 iPc    12 09.55  -0.8
CP2     0.67 318 eP     12 08.25  -2.3
DFR     0.70 256 ePd    12 10.01  -0.8
BGL     0.72 314 iPc    12 10.38  -0.7
SUA     0.75  21 iPd    12 10.81  -0.6
                 iS     12 22.91
RDN     0.76 251 eP     12 10.78  -0.8
                 eS     12 22.55
RSO     0.78 247 iPd    12 11.22  -0.6
                 eS     12 23.23
RS2     0.78 247 iPd    12 11.24  -0.6
                 S      12 23.43
RS1     0.78 247 iPd    12 11.26  -0.6
                 S      12 23.39
RDW     0.80 249 iPd    12 11.35  -0.7
                 eS     12 23.79
NCT     0.83 256 ePd    12 11.65  -0.7
                 eS     12 24.33
PMS     0.97  60 P      12 13.80  -0.4
MPA     1.00 106 eP     12 13.72  -0.7
                 S      12 28.43
BRLK    1.03 168 eP     12 14.81  -0.1
PTE     1.12  84 ePc    12 15.49  -0.6
PWA     1.12  37 P      12 15.80  -0.3
INE     1.13 232 iPd    12 15.43  -0.9
                 eS     12 31.11
SEW     1.14 125 ePc    12 15.01  -1.3
INW     1.15 233 ePd    12 15.74  -0.9
                 eS     12 31.81
SKT     1.22 355 iPd    12 16.79  -0.7
                 eS     12 33.12
                 eS     12 33.44
CNPM    1.25 178 ePd    12 17.19  -0.7
PLRM    1.34  51 ePd    12 18.05  -1.0
PMR     1.34  51 eP     12 17.64  -1.4
                 S      12 34.30
GHO     1.53  48 ePd    12 20.51  -1.3
                 eS     12 40.21
PDB     1.74 237 iPd    12 23.14  -1.6
                 eS     12 44.48
AUL     1.76 218 eP     12 23.56  -1.3
SML     1.77  53 ePd    12 23.68  -1.5
SCM     2.20  59 eP     12 29.43  -1.6
MCNL    2.20 225 eP     12 29.70  -1.4
SYI     2.24 195 eP     12 30.26  -1.3
HUR     2.35  19 eP     12 32.67  -0.5
HIN     2.40  97 eP     12 30.76  -3.1
VLZ     2.45  79 eP     12 32.28  -2.3
                 eS     13 01.05
KLU     2.71  72 ePc    12 35.97  -2.4
                 eS     13 07.16
TRF     2.73  10 eP     12 38.24  -0.5
RND     2.89  22 eP     12 39.63  -1.2
SDG     3.26  55 eP     12 44.23  -1.9
PAX     3.54  49 eP     12 48.63  -1.4
GLB     3.70  76 eP     12 49.41  -2.9
HDA     4.17  27 eP     12 57.30  -1.5
CCB     4.21  21 eP     12 57.03  -2.3
BALM    4.38  83 eP     12 58.30  -3.6
FBA     4.45  20 (P)    12 57.38  -5.3
IMA     5.42 350 (P)    13 10.91  -5.7
         53 obs. associated
--------------------------------------
% MAR  11, 1993  11h 18m 35.57± 2.36s
   39.262 N ±19.9km   28.684 E ±15.5km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                          (366)
      MD 2.8 (ISK).

DST     0.35 353 iPg    18 41.80  -0.7
                 iSg    18 46.80
KCT     1.02 346 ePn    18 55.30   0.0
ALT     1.13 100 ePn    18 56.90  -0.3
BNT     1.24 332 iPn    18 59.80   0.7
EDC     1.25 330 ePn    18 59.00  -0.3
EYL     1.73  41 ePn    19 07.20   0.7
     S.D. = 0.8  on   6 of   6 obs.
--------------------------------------
   MAR  11, 1993  11h 55m 30.32± 0.72s
   32.153 N ± 4.7km  137.727 E ± 5.0km
   DEPTH = 366.2 ±  7.6 km
   4.5mb ( 26 obs.)
 SOUTH OF HONSHU, JAPAN          (211)

MAT     4.40   5 iPc    56 44.80   0.0
                 eS     57 43.00
SSE    14.14 270 Pd     58 36.50  -0.8
       1.0s    11.00nm           4.2mb
YSS    15.33  13 iPc    58 51.30   1.4
       0.6s    40.00nm           5.0mb
BJI    19.08 300 eP     59 28.00  -0.2
PJG    19.60 159 eP     59 33.50   0.1
GUMO   19.60 159 eP     59 33.80   0.4
BOD    30.31 335 eP     01 09.60  -1.1
       0.9s     6.00nm           3.9mb
YAK    30.32 353 iPc    01 09.50  -1.3
       0.9s    31.00nm           4.6mb
ZAK    31.27 316 iPd    01 19.80   0.7
       1.0s    21.00nm           4.4mb
ELT    42.19 316 iPd    02 49.60  -0.2
       0.8s    21.00nm           4.5mb
GUN    44.74 279 P      03 11.40   0.6
PKI    45.24 278 P      03 15.00   0.2
       0.6s    29.00nm           4.7mb
KKN    45.28 279 P      03 15.40   0.5
DMN    45.48 279 P      03 16.80   0.2
       0.6s    42.00nm           4.9mb
GKN    45.75 279 P      03 19.00   0.5
       0.4s    21.00nm           4.8mb
NDI    51.70 283 iPd    04 03.50   0.2
       0.5s    21.13nm           4.7mb
WB2    51.90 184 iPc    04 03.80  -0.9
       0.5s    11.40nm           4.5mb
CRP    52.91  35 eP     04 11.67  -0.3
```

11d 12h

FBA 54.84 30 eP 04 25.80 0.2
0.9s 9.17nm 4.2mb
HYB 55.07 270 eP 04 28.00 0.0
0.8s 26.90nm 4.7mb
ASPA 55.63 184 iPd 04 30.80 -0.7
0.6s 10.10nm 4.4mb
GBA 57.82 266 P 04 47.20 0.1
MAIO 63.13 298 eP 05 23.00 0.7
CMS 63.76 172 eP 05 26.40 0.3
0.8s 5.00nm 4.2mb
STK 63.79 176 iPc 05 26.10 -0.2
0.6s 5.20nm 4.3mb
YKA 69.54 28 eP 06 00.10 -1.7
0.7s 1.00nm 3.6mb
KAF 71.23 332 eP 06 11.10 -0.7
0.4s 10.20nm 4.9mb
KIV 71.79 311 (P) 06 15.60 0.0
0.9s 26.00nm 4.9mb
NUR 72.80 332 eP 06 20.40 -0.5
0.3s 9.80nm 5.0mb
HFS 77.24 335 eP 06 45.10 -0.7
0.4s 3.90nm 4.5mb
NB2 77.47 336 P 06 46.80 -0.4
0.7s 5.70nm 4.5mb
LCCM 80.09 42 ePc 07 01.90 0.3
KSP 82.58 327 iPd 07 15.10 1.0
DUG 82.88 47 eP 07 16.50 0.5
0.5s 3.41nm 4.4mb
BW06 83.27 43 eP 07 17.13 -0.9
0.9s 2.18nm 4.0mb
BRG 83.63 328 iP 07 20.00 0.7
CLL 83.74 329 iP 07 20.20 0.3
0.9s 14.00nm 4.8mb
eSg 10 02.00
SRU 84.94 47 eP 07 26.88 0.5
KHC 85.03 327 eP 07 26.50 0.1
GEC2 85.18 327 P 07 26.30 -0.9
0.5s 1.17nm 4.0mb
e 07 29.10
e 07 35.20
PV09 86.17 46 eP 07 33.41 0.9
PV10 86.31 46 eP 07 33.95 0.8
ZOBO 151.72 62 PKP 14 44.30 6.7X
LR 24 26.00
S.D. = 0.7 on 42 of 43 obs.

? MAR 11, 1993 12h 14m 01.28± 2.18s
27.744 S ±13.2km 177.432 W ±32.5km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
KERMADEC ISLANDS REGION (177)

RAO 1.56 196 eP 14 27.00 0.0
eS 14 47.80
CMS 32.06 254 eP 20 27.40 0.1
1.0s 8.00nm 4.6mb
CTA 33.97 275 iPc 20 44.50 0.5
STK 35.64 253 eP 20 58.80 0.6
0.8s 2.20nm 4.1mb
ASPA 43.82 264 iPc 22 05.70 -0.4
1.1s 13.10nm 4.6mb
WB2 44.55 269 iPc 22 11.10 -0.9
0.8s 8.10nm 4.6mb
epP 22 15.60 15kmX
MAT 76.36 325 eP 25 49.00 0.1
1.0s 9.00nm 4.7mb
BCAO 152.27 216 ePKPc 33 56.00 7.1X
0.7s 6.00nm
id 34 09.00
S.D. = 0.6 on 7 of 8 obs.

% MAR 11, 1993 12h 37m 18.83± 0.76s
39.252 N ± 6.5km 28.723 E ± 6.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.0 (ISK).

DST 0.36 348 iPg 37 25.80 -0.5
iSg 37 29.00
KCT 1.04 344 iPg 37 39.30 0.9
eSg 37 53.30
ALT 1.10 100 iPg 37 39.00 -0.5
BNT 1.26 331 iPn 37 41.80 -0.5
EDC 1.28 329 iPn 37 42.00 -0.5
IZM 1.42 234 ePn 37 45.00 0.2
GPA 1.60 49 ePn 37 47.70 0.4
EYL 1.71 40 ePn 37 49.10 0.1
DMK 2.67 344 ePn 38 03.00 0.4
S.D. = 0.6 on 9 of 9 obs.

MAR 11, 1993 12h 46m 46.43± 0.21s
8.801 N ± 3.6km 126.918 E ± 4.7km
DEPTH = 37.7km (7 depth phases)
5.3mb (46 obs.) 5.1Msz (11 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 34S, 56C
Centroid Location:
Origin Time 12:46:48.6 0.4
Lat 8.74N 0.05 Lon 127.55E 0.05
Dep 21.1 2.4 Half-duration 1.3
Moment Tensor; Scale 10**16 Nm
Mrr= 9.34 0.34 Mtt=-0.35 0.45
Mff=-9.00 0.47 Mrt= 0.78 0.89
Mrf= 1.33 0.94 Mtf= 1.11 0.37
Principal Axes:
T Val= 9.51 Plg=83 Azm=319
N -0.29 5 174
P -9.22 4 83
Best Double Couple:Mo=9.4*10**16
NP1:Strike=167 Dip=41 Slip= 82
NP2: 358 49 97

BIP 0.87 229 iPc 47 01.50 -0.9
DAV 2.16 218 iPc+ 47 24.40 3.6X
2.5s ********nm
CGP 2.23 261 iPd 47 24.00 2.3
eS 47 53.50
PLP 3.03 321 ePd 47 33.50 0.4
CTB 3.13 240 ePc 47 35.00 0.5
PGP 7.49 309 eP 48 37.00 0.9
TGY 7.88 312 ePc 48 42.00 0.3
QCP 8.14 316 eP 48 54.00 8.8X
BCP 9.76 322 eP 49 20.00 12.4X
eS 52 40.00
BAG 9.77 321 eP- 49 06.00 -1.8
e 50 50.00
CVP 10.14 331 eP 49 16.00 3.2X
HKC 18.17 319 eP 50 56.00 -1.7
eS 54 27.00
GUMO 18.23 73 eP 50 50.90 -7.6X
Z 27s 4.06um
e 51 08.20
eS 54 31.70
MTN 21.91 169 eP 51 37.00 -1.3
KAGJ 22.58 9 P 51 47.30 2.4
SSE 22.82 347 P+ 51 47.00 -0.2
1.4s 466.00nm 5.8mb
Z 20s 4.10um 4.9Msz
N 12s 2.70um
E 10s 2.40um
i 52 08.00 97kmX
S 55 56.00
i 56 40.00
KUMJ 23.89 8 P 51 58.50 0.9
KGM 24.43 255 eP 52 06.00 3.0
LEM 24.72 232 ePd 52 07.50 1.5
eS 56 55.80
eLR 58 10.00
SHNJ 25.50 8 P 52 14.80 1.8
LOE 25.95 292 eP 52 18.50 1.1
IPM 26.05 262 ePd 52 19.40 1.1
1.4s 240.60nm 5.6mb
SHK 26.15 11 eP 52 20.00 0.9
NNT 26.97 280 eP 52 26.00 -0.7
NST 27.03 287 eP 52 28.00 0.7
PMG 27.08 131 eP 52 26.00 -1.7
KMI 28.17 308 Pc 52 36.00 -1.9
1.8s 70.00nm 5.0mb
Z 20s 4.40um 5.0Msz
N 13s 2.60um
E 13s 2.00um
pP 52 42.00 21kmX
eS 57 36.00
S 57 39.00
sS 57 52.00
RAB 28.29 116 e(P) 52 36.00 -2.7
iS 57 30.00
KHT 28.34 285 eP 52 36.70 -2.5
BDT 28.43 290 eP 52 39.00 -1.0
CHTO 28.89 293 ePc 52 43.30 -0.8
1.4s 38.46nm 4.9mb
MAT 29.46 19 (P) 52 48.00 -1.1
2.1s 73.33nm 5.0mb
Z 20s 3.19um 4.9Msz
eS 57 35.00
WB2 29.49 166 eP 52 47.60 -1.9
0.5s 4.90nm 4.5mb
MBL 30.58 193 eP 52 59.00 -0.1
BJI 32.55 345 eP 53 16.00 -0.2
1.5s 348.00nm 6.0mb
Z 16s 2.34um 5.0MszX
N 10s 0.76um
sP 53 30.00
esS 58 44.00
eScP 59 47.00
eSS 03 30.00
ASPA 32.98 168 iPd 53 19.30 -0.9
1.2s 11.00nm 4.6mb
eS 58 33.40
NANU 33.11 200 eP 53 21.00 -0.2
CTA 34.44 147 iPc 53 33.00 0.2
i 53 43.00 35km
VLA 34.46 6 eP 53 32.00 -0.7
2.0s 132.00nm 5.5mb
epP 53 46.00 55kmX
ePPP 55 05.00
eS 59 00.00
e 59 14.00
MEEK 36.14 193 eP 53 46.50 -0.7
OLP 38.99 155 eP 54 09.50 -1.6
MRWA 39.24 195 eP 54 12.50 -0.6
0.7s 13.00nm 4.8mb
BAL 40.39 194 eP 54 23.00 0.4
0.7s 20.00nm 5.0mb
YSS 40.40 17 ePc 54 22.30 -0.2
1.4s 60.00nm 5.2mb
N 19s 1.20um
E 19s 1.00um
e 54 36.30 54kmX
(S) 00 29.00
KUR 40.55 23 (P) 54 38.00 14.2X
Z 16s 2.80um 5.2MszX
N 16s 2.80um
E 16s 2.80um
eS 00 32.00
RMQ 40.99 149 eP 54 28.00 0.4
MUN 41.82 194 eP 54 35.00 0.7
1.0s 20.00nm 4.8mb
NWAO 42.51 192 eP 54 42.00 2.0
0.6s 18.00nm 5.0mb
Z 20s 0.20um 4.0MszX
STK 42.82 162 eP 54 42.00 -0.5
0.8s 9.80nm 4.6mb
GUN 43.07 302 P 54 44.40 -0.7
PKI 43.36 301 P 54 46.40 -1.1
KKN 43.54 301 P 54 48.20 -0.6
DMN 43.63 301 P 54 49.00 -0.6
BRS 43.84 146 iPc 54 50.00 -0.9
eS 01 15.00
CMS 43.96 156 eP 54 51.40 -0.4
GKN 44.14 301 P 54 53.00 -0.6
CIT 44.43 348 eP 54 57.00 1.5
ARMA 45.65 150 eP 55 06.20 0.7
ZAK 45.86 339 iPc 55 06.50 -0.2
2.4s 71.00nm 5.2mb
Z 14s 0.98um 4.9MszX
N 14s 0.48um
E 20s 1.19um
e 57 00.00 660kmX
eS 01 54.00
eSS 05 05.00
IRK 47.11 341 eP+ 55 15.00 -1.6
2.0s 93.00nm 5.4mb
e 56 43.00 453kmX
e 57 09.00
eS 02 09.00
ePS 02 23.00
BWA 47.57 156 iPc 55 22.10 1.6
e 55 33.00 38km
i 55 43.30
MOY 47.75 338 ePc 55 22.00 0.4
2.7s 352.00nm 5.9mb
HYB 47.77 285 ePc 55 22.00 -0.3
BFD 48.02 163 eP 55 24.60 0.6
0.7s 18.00nm 5.2mb
CAN 48.59 156 eP 55 28.90 0.5
e 55 39.90 38km
i 55 49.40

```
GBA     48.71 280 P      55 29.20  -0.4
CNB     48.73 155 iPc    55 30.30   0.8
        1.0s    31.00nm          5.3mb
TOO     49.30 160 iPc    55 34.20   0.4
        0.4s    12.00nm          5.3mb
DZM     49.43 129 iPc    55 34.90  -0.2
BOD     49.91 351 iPc    55 38.20   0.0
        1.7s   135.00nm          5.7mb
UER     50.42 334 eP     55 41.50  -0.7
        1.0s    60.00nm          5.6mb
                  eS     02 54.50
NDI     50.64 300 iPc    55 42.50  -1.7
                  eS     02 56.00
PET     51.02  24 eP     56 00.00  13.3X
        1.0s    80.00nm
    Z  20s      1.35um           5.0Msz
                  e      56 13.00  48km
                  e      03 00.00
                  e      06 32.00
POO     52.30 287 eP     55 57.80   0.8
YAK     53.15   2 iPc    56 01.80  -0.8
        1.8s   130.00nm          5.6mb
    Z  18s      1.70um           5.1Msz
    N  18s      0.80um
    E  16s      0.80um
                  i      57 09.00 315kmX
                  iS     03 28.00
                  i      05 47.00
BOM     53.30 287 eP     56 02.20  -2.1
                  eS     03 25.20
MGD     54.24  14 eP     56 10.00  -0.6
        0.9s    30.00nm          5.3mb
                  e      56 24.00  51kmX
                  eS     03 46.00
                  ePS    04 02.00
                  e      06 00.00
ELT     55.10 331 iPc    56 16.10  -0.9
        1.3s    53.00nm          5.4mb
    Z  17s      1.30um           5.1MszX
                  eS     03 58.00
FRU     56.80 316 (P)    56 28.00  -1.5
        3.0s   150.00nm          5.5mb
    Z  20s      1.90um           5.2Msz
    N  18s      1.50um
    E  20s      2.30um
                  e      57 30.50 284kmX
                  (S)    04 25.00
QUE     59.71 300 eP     56 49.20  -1.1
                  eS     05 18.70
TIK     62.79   1 iPc+   57 09.00  -1.0
        2.0s   123.00nm          5.7mb
    Z  18s      1.50um           5.2Msz
                  e      59 34.00
                  iS     05 35.00
                  ePS    06 05.00
NRI     65.50 346 iPc+   57 26.80  -0.9
        1.8s   168.00nm          5.8mb
    Z  18s      2.30um           5.4Msz
                  e      58 00.00 137kmX
                  e      59 51.00
MAIO    66.66 306 iPc    57 35.80  -0.1
                  eS     06 35.00
ASH     67.75 307 P      57 43.00   0.3
        1.4s   320.00nm          6.2mb
                  e      58 04.00  80kmX
                  e      06 45.00
ILT     68.99  19 iPd    57 51.00   1.2
        1.2s    25.00nm          5.1mb
    Z  19s      0.70um           4.9Msz
                  e      58 19.00 112kmX
                  iS     06 56.00
KAT     69.51 308 iP+    57 53.00  -0.4
                  eS     07 04.00
SVE     69.78 328 iPc    57 55.00   0.2
        1.7s   160.00nm          5.8mb
                  e      58 16.00  80kmX
                  i      07 01.00
ARU     70.77 327 eP     58 00.00  -0.8
        1.7s   200.00nm          5.9mb
                  e      58 19.00  71kmX
                  eS     07 13.00
KER     76.70 303 eP     58 36.00   0.0
GRS     77.21 308 iPc    58 39.00   0.3
        1.5s   100.00nm          5.6mb
                  eS     08 24.00
GRO     77.65 312 eP     58 42.00   1.2
                  eS     08 30.00
```

```
IMA     77.71  24 eP     58 42.10   1.2
        1.4s    22.10nm          5.0mb
MTA     78.33 311 eP     58 47.00   2.4
ERE     78.60 309 iP     58 46.00  -0.3
        1.7s    14.00nm          4.7mb
                  e      08 50.00
PMR     79.44  29 eP     58 49.70  -0.5
        1.0s    37.00nm          5.3mb
PYA     79.54 313 eP     58 51.00  -0.2
        1.3s   150.00nm          5.8mb
                  i      59 01.00  32km
KIV     79.81 313 ePc    58 52.60  -0.2
        1.9s    67.00nm          5.3mb
                  eS     08 57.30
OBN     83.04 325 eP     59 09.00  -0.2
        2.0s   160.00nm          5.8mb
                  e      59 25.00  56kmX
KVT     84.94 311 iP     59 20.00   0.7
DAG     92.30 353 iPd    59 53.80   0.2
        1.1s    55.70nm          5.9mb
RES     92.82  10 eP     59 58.50   2.5
        1.0s     4.00nm          4.8mb
UZH     92.97 320 eP     59 57.00  -0.1
        1.2s    52.00nm          5.8mb
                  i      00 09.50  41km
SPC     94.09 321 eP     00 03.80   1.2
YKA     94.83  24 eP     00 05.80   0.4
        0.9s     3.20nm          4.8mb
VAY     94.85 313 iP     00 05.00  -0.9
SKO     95.48 314 iP     00 07.00  -1.8
KSP     95.92 323 eP     00 11.70   1.0
PRU     97.28 323 eP     00 18.00   1.2
    Z  18s      0.90um           5.3Msz
    N  16s      0.40um
    E  16s      0.60um
                  e      11 00.00
                  Sg     11 25.00
BRG     97.29 324 eP     00 17.60   0.8
        1.4s    24.00nm          5.5mb
                  e      00 47.40 113kmX
KHC     98.20 322 eP     00 21.50   0.5
                  e      03 18.50
                  e      04 31.50
                  e      11 20.50
                  e      11 29.00
                  e      11 48.50
                  eSg    11 58.50
GEC2    98.24 322 P      00 21.80   0.5
        1.3s     6.11nm          5.0mb
                  e      00 32.40  33km
VBY     98.54 319 ePDIF  00 23.40   0.8
GRF     99.37 324 ePKP   00 27.00   0.7
    Z  18s      0.80um           5.3Msz
BCAO   107.40 277 ePKPc  05 26.20  14.4X
        1.0s    15.00nm
                  ic     05 44.00
PV10   109.93  44 ePKP   05 18.15   1.9
ZOBO   163.54 118 iPKP   06 50.00   2.1
                  LR     03 40.00
SIV    169.42 133 PKP    06 59.00   7.4X
     S.D. = 1.2  on 108 of 117 obs.
---------------------------------------
% MAR 11, 1993  13h 49m 34.99± 0.73s
   39.263 N ± 6.4km   28.740 E ± 5.8km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                           (366)
     MD 2.9 (ISK).

DST      0.35 346 iPg    49 41.70  -0.4
                  eSg    49 46.70
KCT      1.03 343 ePg    49 55.20   0.3
ALT      1.09 101 iPn    49 55.50  -0.4
BNT      1.26 330 iPn    49 58.70  -0.2
EDC      1.28 328 ePn    49 59.00  -0.1
IZM      1.44 234 ePn    50 02.00   0.2
GPA      1.59  49 ePn    50 04.00   0.2
EYL      1.70  39 ePn    50 06.00   0.5
     S.D. = 0.4  on   8 of   8 obs.
---------------------------------------
• MAR 11, 1993  14h 21m 14.45± 1.02s
   19.704 N ±15.6km   38.736 E ±11.7km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 11 obs.)  4.4Msz (  1 obs.)
 RED SEA                          (554)

GRS     20.79  17 eP     26 00.00   1.5
        1.6s    60.00nm          4.7mb
```

```
    Z  14s      0.72um           4.2MszX
    N  12s      0.35um
    E  12s      0.17um
                  eS     30 26.00
ERE     21.00  12 iP     26 01.00   0.4
    Z  13s      0.72um           4.2MszX
KIV     24.41   7 eP     26 36.60   2.4
        1.2s    12.00nm          4.4mb
                  e      27 09.50
PYA     24.53   8 eP     26 42.00   6.8X
MAIO    24.60  43 eP     26 39.00   2.9
BCAO    24.86 235 iPc    26 40.00   1.3
        1.0s    15.00nm          4.6mb
VAY     25.57 331 eP     26 46.00   0.8
OHR     26.25 328 eP     26 47.00  -4.6X
SKO     26.61 330 eP     26 55.00   0.2
SPC     32.95 338 eP     27 50.40  -1.1
ZST     33.38 333 eP     27 55.00   0.0
GEC2    35.36 331 P      28 11.40  -0.8
        1.3s     5.01nm          4.2mb
                  e      28 16.00
OBN     35.37 358 eP     28 11.00  -1.0
        1.7s   600.00nm          6.2mb X
BRG     36.75 334 iP     28 23.80   0.1
CLL     37.47 333 eP     28 29.00  -0.8
        1.7s    24.00nm          4.7mb
MOX     37.60 332 eP     28 30.60  -0.3
        2.0s    42.00nm          4.9mb
HYB     37.76  87 eP     28 33.00   0.4
ELT     49.45  36 eP     30 05.10  -1.4
        1.9s    30.00nm          5.0mb
LZH     58.82  59 eP     31 16.00   0.2
        2.0s    34.00nm          5.1mb
    Z  18s      0.25um           4.4Msz
                  sP     31 22.50
ZAK     58.89  42 eP     31 14.50  -1.3
        1.6s    14.00nm          4.8mb
    Z  16s      0.48um           4.7MszX
    E  16s      0.48um
IRK     59.75  40 eP     31 20.00  -1.8
        1.6s    16.00nm          4.9mb
BOD     65.81  35 eP     32 00.00  -1.8
        1.5s    21.00nm          5.1mb
     S.D. = 1.4  on  20 of  22 obs.
---------------------------------------
% MAR 11, 1993  14h 27m 56.87± 0.96s
   31.909 S ±15.0km   67.352 W ± 7.5km
   DEPTH =  33.0km  (normal)
 SAN JUAN PROVINCE, ARGENTINA     (137)

CFA      0.81 292 ePd    28 11.10  -0.8
                  S      28 23.00
RTCV     1.01 272 eP     28 15.00   0.2
                  S      28 30.00
RTLL     1.11 301 ePc    28 15.50  -0.8
                  S      28 30.00
RTCB     1.30 288 ePd    28 20.23   1.2
                  S      28 37.50
MRA      1.48 110 ePd    28 21.30  -0.1
                  S      28 40.00
RTPR     1.76  24 ePc    28 25.70   0.3
RTRS     2.51 313 eP     28 39.40   3.2X
     S.D. = 1.0  on   6 of   7 obs.
---------------------------------------
• MAR 11, 1993  14h 34m 07.78± 0.48s
   5.269 N ± 6.2km  126.226 E ±15.6km
   DEPTH =  33.0km  (normal)
   4.6mb (  5 obs.)
 MINDANAO, PHILIPPINE ISLANDS     (259)

BIP      2.94   0 ePd    34 53.00  -0.2
                  eS     35 23.00
CGP      3.51 334 eP     35 02.50   1.1
                  iS     35 45.50
PLP      5.99 348 ePd    35 36.00  -0.5
        0.8s    31.00nm          5.0mb
WB2     26.30 163 iPd    39 42.40   0.0
        0.8s     6.00nm          4.3mb
ASPA    29.72 166 iPc    40 13.20  -0.2
        0.5s     8.20nm          4.8mb
MRWA    35.67 195 eP     41 05.00   0.0
        0.6s     4.00nm          4.5mb
MUN     38.25 194 eP     41 27.00   0.3
STK     39.74 159 eP     41 39.50   0.4
        0.5s     4.90nm          4.5mb
BRS     41.38 143 iPc    41 52.50  -0.2
GBA     48.76 283 P      42 51.00  -0.8
```

S.D. = 0.6 on 10 of 10 obs.

% MAR 11, 1993 14h 56m 28.46± 0.86s
39.336 N ± 7.9km 28.809 E ± 7.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.9 (ISK).

DST 0.30 333 iPg 56 33.70 -1.1
iSg 56 39.70
KCT 0.98 339 ePn 56 48.20 1.2
ALT 1.05 105 ePn 56 48.10 -0.2
BNT 1.23 326 Pn 56 51.70 0.4
EDC 1.24 325 ePn 56 51.00 -0.6
IZM 1.53 233 ePn 56 56.00 0.1
EYL 1.61 40 ePn 56 57.20 0.1
S.D. = 0.9 on 7 of 7 obs.

? MAR 11, 1993 15h 06m 14.75± 2.40s
40.756 N ±30.1km 28.662 E ±10.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

KCT 0.56 205 ePn 06 26.10 0.0
eSg 06 40.10
BNT 0.69 235 ePn 06 28.60 0.1
EDC 0.73 236 ePn 06 29.00 -0.1
EYL 1.15 99 ePn 06 36.40 0.0
S.D. = 0.2 on 4 of 4 obs.

---

* MAR 11, 1993 15h 08m 02.02± 1.40s
39.660 N ±12.4km 23.467 E ±13.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.31 32 ePg 08 08.68 0.2
eSg 08 14.08
OUR 0.78 30 ePg 08 17.08 -0.1
iSg 08 28.08
AGG 1.09 234 ePg 08 22.48 0.0
eSg 08 37.44
SOH 1.16 356 ePg 08 23.68 -0.1
eSg 08 40.52
GRG 1.53 328 ePb 08 29.52 0.1
S.D. = 0.2 on 5 of 5 obs.

% MAR 11, 1993 15h 15m 38.62± 0.74s
26.454 S ± 5.9km 27.417 E ± 8.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY 0.48 174 eP 15 48.00 -0.2
S 15 55.00
KSR 0.75 321 eP 15 54.00 0.2
S 16 03.50
SLR 1.06 48 eP 15 59.00 -0.1
S 16 14.50
SEK 1.87 174 eP 16 13.00 1.3
S 16 37.50
BFT 2.48 73 eP 16 21.00 0.4
S 16 48.90
BLF 2.86 202 eP 16 25.50 -0.4
S.D. = 0.8 on 6 of 6 obs.

MAR 11, 1993 15h 19m 57.54± 0.47s
43.067 N ± 5.7km 18.272 E ± 4.6km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.3 (LJU), 2.8 (TTG).

BRY 0.26 130 iPgc 20 03.44 0.3
iSg 20 07.95
NKY 0.59 115 iPgd 20 08.64 -0.9
iSg 20 18.25
HCY 0.64 165 iPgd 20 09.61 -0.8
iSg 20 19.78
PLE 0.86 72 iPgc 20 13.69 -0.5
iSg 20 26.90
BDV 0.88 152 iPgc 20 14.15 -0.4
iSg 20 27.83
TTG 0.97 131 iPgc 20 15.75 -0.2
iSg 20 30.60
IVA 1.21 99 iPgc 20 20.24 0.1
iSg 20 38.55
ULC 1.32 146 iPgc 20 22.13 0.2
iSg 20 42.08
PVY 1.34 110 iPgd 20 22.50 0.2
iSg 20 42.81
HVAR 1.34 275 iPnc 20 21.90 -0.3
iSn 20 40.10
SDA 1.36 138 ePg 20 24.30 1.8
BCI 1.50 117 ePn 20 24.50 0.0
iSn 20 45.00
LACI 1.78 143 ePn 20 32.50 3.9X
TIR 2.09 145 ePn 20 46.20 13.2X
SKO 2.58 114 ePn 20 40.00 -0.1
VBY 3.26 319 ePn 20 50.30 0.6
CEY 3.84 315 e(Pn) 21 04.40 6.5X
e(Sn) 21 57.50
e 22 45.00
VOY 4.31 315 ePn 21 04.50 -0.2
eSn 21 55.80
e 23 10.00
S.D. = 0.7 on 15 of 18 obs.

? MAR 11, 1993 15h 25m 02.78± 5.03s
41.676 N ±35.1km 22.806 E ±12.6km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.5 (THE).

VAY 0.40 207 iPg 25 11.20 0.3
iSg 25 17.70
KNT 0.52 172 ePg 25 13.06 -0.2
eSg 25 20.38
GRG 0.78 203 ePg 25 17.50 -0.5
eSg 25 29.62
SRS 0.81 133 ePg 25 17.78 -0.8
eSg 25 30.02
SOH 0.95 154 ePg 25 21.42 0.5
eSg 25 34.18
OUR 1.61 146 ePb 25 31.94 0.7
S.D. = 0.8 on 6 of 6 obs.

? MAR 11, 1993 15h 45m 39.43± 1.00s
40.643 N ± 8.0km 23.403 E ± 7.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

SOH 0.18 348 iPg 45 44.10 0.6
eSg 45 47.02
THE 0.33 268 ePg 45 46.14 -0.2
eSg 45 51.34
SRS 0.49 17 ePg 45 48.98 -0.5
eSg 45 56.18
OUR 0.54 125 ePg 45 50.42 0.1
eSg 45 57.94
S.D. = 0.8 on 4 of 4 obs.

---

* MAR 11, 1993 15h 48m 18.18± 0.82s
22.992 S ± 8.1km 69.158 W ±10.3km
DEPTH = 124.9 ± 12.2 km
4.3mb (1 obs.)
NORTHERN CHILE (123)

ANT 1.36 238 iP 48 45.20 0.6
iS 49 04.50
HJA 3.46 94 ePc 49 12.50 1.1
YJA 3.48 77 ePc 49 12.30 0.2
SLA 3.77 118 iPc 49 17.50 1.7
CNCB 6.25 10 iPd 49 49.20 -0.7
LPB 6.50 9 eP 49 52.00 -1.2
(S) 50 24.00
ZOBO 6.74 8 eP 49 52.00 -4.6X
Z 20s 0.09um
LR 52 30.00
CFA 8.62 175 ePc 50 20.70 -0.8
TCA 9.25 155 eP 50 28.20 -1.8
SIV 10.32 49 eP 50 44.00 -0.3
PPD 16.52 90 eP 51 55.40 -8.5X
VAO 20.43 94 (P) 52 47.00 -0.6
CACB 20.78 91 iPd 52 50.70 -0.5
e 52 56.00
BAO 21.26 74 (P) 52 47.00 -9.0X
YKA 92.51 341 eP 01 17.90 2.2
0.8s 1.40nm 4.3mb
GBA 147.01 101 PKP 07 51.00 4.8X
S.D. = 1.4 on 12 of 16 obs.

& MAR 11, 1993 15h 50m 51.87s
36.678 N 122.513 W
DEPTH = 15.1km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.8 (GM).

JEGM 0.84 3 eP 51 07.49 0.0
SAO 0.86 84 eP 51 07.94 -0.1
S 51 19.91
COE 0.89 49 ePd 51 08.60 0.2
ARN 1.03 49 eP 51 10.34 -0.6
NTYM 1.71 356 (P) 51 21.23 0.0
PHAM 1.90 116 eP 51 22.29 -1.8
6 obs. associated

% MAR 11, 1993 16h 01m 15.45± 1.82s
43.765 N ±16.2km 18.253 E ± 8.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.6 (TTG).

BRY 0.89 166 iPgd 01 31.62 -1.0
iSg 01 45.20
PLE 0.94 117 iPgc 01 32.40 -1.0
iSg 01 46.41
NKY 1.10 150 iPgc 01 35.29 -0.8
iSg 01 52.10
HCY 1.33 172 iPgc 01 39.91 -0.1
iSg 01 59.90
HVAR 1.44 247 i(Pn) 01 41.20 -0.4
iSn 02 36.30
IVA 1.50 126 iPgd 01 42.46 0.0
iSg 02 04.94
TTG 1.52 151 iPgd 01 43.12 0.4
iSg 02 06.27
BDV 1.54 164 iPgd 01 43.69 0.7
iSg 02 06.66
PVY 1.72 132 ePn 01 46.54 0.9
iSn 02 10.79
ULC 1.94 158 iPnc 01 50.07 1.2
iSn 02 16.64
S.D. = 0.9 on 10 of 10 obs.

---

* MAR 11, 1993 16h 24m 15.40± 0.77s
10.335 N ± 9.0km 126.363 E ±15.8km
DEPTH = 33.0km (normal)
4.4mb (8 obs.)
PHILIPPINE ISLANDS REGION (248)

PLP 1.59 301 ePc 24 47.00 5.4X
iS 24 59.50
BIP 2.10 183 eP 24 51.00 2.1
eS 25 11.00
CGP 2.49 222 iPd 24 55.00 0.5
iS 25 21.50
SSE 21.21 348 Pc 29 05.00 4.4X
1.0s 11.00nm 4.2mb
i 32 18.50
CHTO 27.81 291 eP 30 03.30 -0.5
WRA 31.10 165 P 30 32.20 -0.9
0.5s 1.10nm 3.9mb
W82 31.10 165 eP 30 31.60 -1.6
0.6s 2.00nm 4.1mb
LZH 32.78 325 eP 30 49.50 1.6
1.2s 18.00nm 4.8mb
ASPA 34.59 168 eP 31 03.00 -0.5
0.5s 2.80nm 4.4mb
GUN 41.81 300 P 32 03.80 -0.5
PKI 42.12 300 P 32 05.60 -1.2
KKN 42.29 300 P 32 08.00 0.0
GKN 42.89 300 P 32 12.20 -0.7
GBA 47.91 279 P 32 52.30 -0.6
KAF 85.61 332 eP 36 52.40 0.8
0.5s 1.80nm 4.5mb
NUR 86.79 331 eP 36 58.30 0.9
0.3s 3.10nm 5.0mb
HFS 92.03 332 eP 37 20.00 -2.1X
0.1s 0.20nm
GEC2 96.70 322 P 37 44.70 0.8
0.6s 0.56nm 4.3mb
S.D. = 1.1 on 15 of 18 obs.

MAR 11, 1993 16h 27m 29.61± 0.43s
43.093 N ± 8.1km 144.087 E ± 7.0km
DEPTH = 94.4km (4 depth phases)
4.7mb (33 obs.)
HOKKAIDO, JAPAN REGION (224)

KUR 3.46 51 ePn 28 23.50 1.2

YSS 4.04 347 iPnc 28 31.20 0.9
eS 29 16.60
MAT 7.95 217 eP 29 23.00 -1.3
0.9s 12.60nm 4.6mb
eS 30 49.00
SKR 11.17 43 ePn 30 05.70 -1.9
MGD 17.52 11 eP 31 26.00 -2.9
0.7s 40.00nm 4.8mb
SEY 20.43 11 iPd 31 59.00 -2.0
1.0s 40.00nm 4.7mb
YAK 20.78 341 eP 32 00.00 -4.6X
0.8s 30.00nm 4.7mb
e 32 28.00
e 35 45.00
ZAK 28.61 299 iPc 33 19.40 0.8
1.2s 20.00nm 4.6mb
ILT 31.69 26 eP 33 42.00 -3.7X
1.0s 16.00nm 4.7mb
KMI 38.19 256 eP 34 42.50 0.6
1.4s 30.00nm 5.0mb
pP 34 47.00 15kmX
ELT 38.87 306 iPc 34 47.00 0.1
0.9s 26.00nm 5.1mb
TTA 39.34 39 eP 34 51.40 0.6
0.7s 2.98nm 4.3mb
SVW 39.52 42 eP 34 53.40 1.1
IMA 40.47 34 eP 34 59.88 -0.2
0.4s 8.90nm 5.0mb
RSO 40.96 42 eP 35 06.89 2.6
CRP 41.19 41 eP 35 06.99 0.9
SLKM 42.20 42 eP 35 14.59 0.3
PMS 42.44 41 eP 35 15.70 -0.5
FBA 42.93 36 iPc 35 20.48 0.4
0.6s 21.32nm 5.2mb
epP 35 42.27 92km
KLU 44.15 40 eP 35 29.83 -0.3
BALM 45.93 41 eP 35 44.26 0.0
SIT 50.54 44 e(P) 36 21.30 1.5
RES 56.22 16 eP 37 02.50 0.9
0.6s 10.00nm 5.0mb
YKA 57.57 33 eP 37 09.60 -1.6
0.4s 1.80nm 4.5mb
KEV 58.53 339 eP 37 16.00 -1.8
1.0s 26.00nm 5.3mb
DAG 59.92 356 eP 37 26.00 -1.3
0.9s 20.17nm 5.3mb
SDF 60.23 337 iP 37 28.50 -1.1
WB2 63.36 190 iPc 37 49.30 -1.6
0.7s 5.70nm 4.6mb
GBA 63.81 264 P 37 54.00 0.0
KAF 63.88 332 iP 37 52.30 -1.6
0.4s 13.70nm 5.2mb
OBN 64.50 323 eP 37 56.00 -2.0
1.0s 18.00nm 5.0mb
NUR 65.58 332 iP 38 03.80 -1.0
0.3s 30.50nm 5.7mb
SES 66.25 43 eP 38 09.00 -0.4
ASPA 67.09 190 eP 38 14.60 -0.2
0.7s 6.40nm 4.7mb
KIV 68.51 310 eP 38 25.10 1.3
NB2 69.38 338 P 38 27.90 -0.8
0.4s 5.20nm 4.7mb
HFS 69.41 336 eP 38 27.80 -1.0
0.4s 15.90nm 5.2mb
BW06 72.02 48 iPc 38 44.64 -0.5
0.5s 2.57nm 4.3mb
epP 39 09.25 95km
SRU 73.95 51 eP 38 56.44 0.0
RSSD 74.00 44 eP 38 55.97 -0.7
0.5s 2.17nm 4.3mb
PV10 75.30 51 eP 39 04.58 0.3
epP 39 29.15 94km
PV08 75.39 51 eP 39 04.54 -0.3
epP 39 29.78 97km
CLL 76.83 331 eP 39 12.00 -0.3
0.7s 9.00nm 4.7mb
PRU 77.36 329 P 39 16.00 0.8
e 07 07.50
Sg 07 24.30
EKA 78.07 342 P 39 19.00 0.0
0.5s 3.90nm 4.5mb
KHC 78.42 329 eP 39 22.00 0.9
e 39 25.00
e 05 44.50
e 06 04.00
e 06 33.40
eSg 07 05.50
GEC2 78.61 329 Pc 39 22.40 0.2
0.5s 1.14nm 4.0mb
e 39 25.10
GRF 78.81 331 ePc 39 24.10 0.9
DMU 80.24 343 eP 39 34.00 3.3X
DLF 80.72 343 eP 39 33.00 -0.3
VBY 80.74 326 eP 39 34.80 1.3
DCN 80.83 343 eP 39 35.00 1.1
CDF 81.27 333 eP 39 36.60 0.2
0.8s 4.55nm 4.4mb
LBF 83.61 334 eP 39 49.00 0.6
GRR 83.82 337 eP 39 50.40 1.0
0.8s 7.95nm 4.7mb
LPL 83.96 331 eP 39 52.10 1.6
0.6s 1.55nm 4.1mb
LPG 83.97 331 eP 39 52.20 1.6
0.6s 2.00nm 4.2mb
AVF 83.98 334 eP 39 50.80 0.6
0.8s 4.45nm 4.5mb
MAF 84.74 334 eP 39 55.00 0.9
0.8s 7.00nm 4.7mb
SIV 145.49 46 PKP 47 03.60 5.2X
S.D. = 1.2 on 56 of 60 obs.

MAR 11, 1993 17h 04m 37.73± 0.40s
49.168 N ± 3.3km 6.955 E ± 4.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.7 (STR).

RUP 0.54 7 ePg 04 48.15 -0.5
LANF 0.59 108 Pg 04 49.86 0.2
SRBF 0.64 113 Pg 04 50.10 -0.5
HOFF 0.70 108 Pg 04 51.64 0.1
WLF 0.72 314 iPd 04 51.31 -0.6
iS 05 00.58
CDF 0.79 164 Pg 04 52.84 -0.3
Sg 05 03.75
WLS 0.80 161 Pg 04 53.14 -0.2
ABH 0.81 28 ePg 04 52.91 -0.6
ECH 0.96 172 Pg 04 56.23 0.2
Sg 05 08.70
VITF 1.15 214 Pg 04 58.75 -0.5
Sg 05 14.42
TOD 1.29 69 ePg 05 00.91 -0.7
MOF 1.32 175 Pg 05 03.05 0.8
Sg 05 20.99
TNS 1.43 42 ePnc 05 04.70 0.9
iSn 05 23.60
iSg 05 27.50
FEL 1.47 151 ePg 05 03.95 -0.5
ENN 1.73 338 eP 05 10.00 2.0
0.5s 47.20nm
eS 05 29.50
DOU 1.79 302 iP 05 08.40 -0.5
i 05 11.00
GRF 2.83 78 ePn 05 28.80 4.9X
ePg 05 31.60
e(Sg) 06 10.90
MOX 3.36 62 (Pg) 05 46.80 15.5X
(Sg) 06 24.10
WTTA 3.66 120 iPc 05 51.50 15.7X
CLL 4.43 59 e(P) 05 30.00 -16.5X
GEC2 4.45 92 Pn 05 46.40 -0.5
Pg 06 01.80
Sg 07 02.90
KBA 4.76 114 iPc 05 52.60 1.2
0.4s 4.30nm
i 06 13.50
BRG 4.82 67 e(P) 05 35.70 -16.3X
S.D. = 0.8 on 18 of 23 obs.

& MAR 11, 1993 18h 53m 09.59s
61.674 N 151.582 W
DEPTH = 79.0km
3.2mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>. Felt (IV) at Skwentna.

SKT 0.31 5 iPd 53 21.26 -0.8
eS 53 30.68
eS 53 30.82
CGLM 0.42 209 iPd 53 22.20 -0.7
eS 53 32.22
SUA 0.45 117 iPd 53 23.03 -0.1
eS 53 33.59
CRP 0.49 214 iPd 53 22.61 -1.0
CPAM 0.50 213 iPd 53 22.99 -0.6
CP2 0.52 218 iPd 53 23.22 -0.6
CKN 0.54 213 iPd 53 23.34 -0.5
SPU 0.54 205 iPd 53 23.11 -0.8
eS 53 33.93
CKT 0.56 213 iPd 53 23.32 -0.8
BGL 0.57 224 iPd 53 23.63 -0.5
CKL 0.60 217 iPd 53 23.77 -0.7
PWA 0.81 91 P 53 26.30 -0.3
NKA 0.95 170 iPd 53 29.39 1.2
PMS 1.06 113 P 53 29.10 -0.6
PLRM 1.17 93 iPc 53 29.81 -1.2
eS 53 47.67
PMR 1.17 93 eP 53 29.54 -1.4
S 53 43.29
DFR 1.21 207 iPd 53 30.96 -0.6
GHO 1.27 84 iPc 53 31.28 -1.0
eS 53 49.21
NCT 1.29 211 iPd 53 32.20 -0.5
eS 53 50.27
RDN 1.30 207 iPd 53 32.09 -0.7
eS 53 50.14
RDW 1.34 207 iPd 53 32.84 -0.5
RS2 1.34 206 ePd 53 32.88 -0.5
RSO 1.34 206 iPd 53 32.86 -0.5
SLKM 1.34 150 ePc 53 31.95 -1.3
RS1 1.35 206 iPd 53 32.88 -0.6
PTE 1.48 122 iPc 53 33.69 -1.3
SML 1.55 84 iPc 53 34.52 -1.5
HUR 1.59 34 iPc 53 35.70 -0.8
eS 53 56.52
MPA 1.61 137 eP 53 35.73 -0.9
INE 1.77 205 eP 53 38.02 -1.1
INW 1.78 206 eP 53 38.33 -0.8
TRF 1.88 18 iPd 53 39.65 -0.9
eS 54 03.29
SEW 1.89 146 eP 53 39.87 -0.6
BRLK 1.95 170 eP 53 40.94 -0.4
SVW 2.03 255 (P) 53 41.04 -1.4
SCM 2.03 84 eP 53 40.77 -1.7
RND 2.15 35 eP 53 42.56 -1.6
CNPM 2.16 175 eP 53 43.20 -1.1
PDB 2.29 215 iPd 53 45.19 -0.7
MCK 2.40 29 eP 53 46.71 -0.8
TTA 2.42 303 eP 53 45.62 -2.3
S 54 09.87
AUL 2.48 203 eP 53 48.30 -0.2
AUE 2.49 202 eP 53 48.06 -0.6
AUI 2.52 202 P 53 50.20 1.1
VLZ 2.58 100 eP 53 47.01 -3.0
eS 54 18.03
KLU 2.71 91 iPc 53 49.17 -2.7
HIN 2.78 115 ePc 53 49.23 -3.6
MCNL 2.85 210 eP 53 52.60 -1.1
TZL 2.94 80 eP 53 53.34 -1.6
SDG 2.97 71 eP 53 54.51 -0.8
CVA 3.05 109 eP 53 53.43 -3.0
SYI 3.10 188 eP 53 56.94 -0.2
NEA 3.13 20 eP 53 55.13 -2.4
PAX 3.14 63 eP 53 56.23 -1.5
SGAM 3.31 108 ePc 53 56.07 -4.1
CCB 3.44 28 iPd 53 59.40 -2.5
HDA 3.46 36 ePc 54 00.08 -2.1
RAGM 3.60 108 eP 54 03.65 -0.5
MDM 3.63 23 eP 54 02.15 -2.4
FBA 3.66 26 ePn 54 00.98 -4.0
GLB 3.73 90 eP 54 03.08 -2.9
GLM 3.83 28 eP 54 04.91 -2.4
KAIM 3.92 113 eP 54 06.87 -1.8
KDC 3.97 187 eP 54 07.88 -1.3
CRQM 4.19 99 eP 54 09.62 -2.9
TGL 4.33 98 eP 54 11.25 -3.3
BALM 4.49 94 eP 54 13.01 -3.8
IMA 4.51 349 eP 54 14.49 -2.5
S 54 58.65
SNH 4.52 105 eP 54 14.91 -2.2
YAH 4.96 101 eP 54 19.99 -3.4
CTGM 4.99 94 eP 54 21.12 -2.6
FYU 5.64 27 eP 54 30.66 -1.9
YKA 17.18 71 eP 57 02.50 -3.1
0.6s 0.90nm 3.2mb
73 obs. associated

? MAR 11, 1993 19h 03m 10.59± 4.03s
34.295 S ±38.7km 179.663 W ±30.2km
DEPTH = 216.5 ± 34.8 km
4.4mb (2 obs.)

11d 19h

SOUTH OF KERMADEC ISLANDS (179)

HBZ 3.69 206 eP 04 08.80 -0.8
PUZ 4.13 203 eP 04 15.00 -0.1
KUZ 4.49 236 eP 04 20.10 0.6
NOZ 4.70 203 eP 04 23.90 1.8
URZ 4.74 212 eP 04 21.40 -1.2
eS 05 32.80
MNG 7.40 210 P 04 57.30 0.5
eS 06 32.00
KHZ 9.70 211 eP 05 25.90 -0.7
CTA 33.28 286 iPc 09 28.00 -1.6
ASPA 41.67 272 iPd 10 41.00 1.5
0.7s 5.00nm 4.1mb
WB2 43.00 277 eP 10 49.30 -1.0
0.6s 18.40nm 4.7mb
e 11 07.90
CVP 75.96 303 eP 14 46.00 10.7X
SZP 76.81 302 iPd 14 42.00 2.0
PIP 77.22 303 iPc 14 55.50 13.3X
BCAO 145.82 214 iPKPd 22 29.00 3.6X
0.5s 3.00nm
KAF 147.67 337 iPKP 22 25.30 -1.5
0.5s 3.20nm
NUR 149.40 336 ePKP 22 30.10 0.5
0.3s 1.40nm
KIC 151.81 169 PKP 22 46.80 12.2X
NB2 152.33 349 PKP 22 37.20 3.2X
0.8s 2.30nm
SLL 152.48 346 ePKP 22 37.30 3.1X
0.4s 0.90nm
S.D. = 1.5 on 13 of 19 obs.

% MAR 11, 1993 19h 40m 55.62± 0.87s
26.283 S ± 7.3km 27.748 E ± 9.2km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

PRY 0.69 201 eP 41 08.50 -0.9
S 41 17.30
SLR 0.73 41 eP 41 10.00 -0.2
S 41 25.10
KSR 0.87 298 eP 41 12.90 -0.1
S 41 22.00
SEK 2.03 183 eP 41 31.90 0.8
S 41 55.90
BFT 2.15 74 eP 41 37.00 4.2X
S 42 04.50
SWZ 2.34 247 eP 41 35.90 0.3
S 42 03.90
S.D. = 0.9 on 5 of 6 obs.

---

* MAR 11, 1993 20h 05m 53.08± 1.06s
28.815 S ± 7.7km 18.844 E ± 9.9km
DEPTH = 10.0km (geophysicist)
NAMIBIA (578)
mbLg 4.3 (BUL).

POF 1.12 121 iPd 06 14.00 -0.1
S 06 28.00
BLE 5.07 182 iPc 07 11.00 0.1
S 07 59.00
FRS 5.73 101 eP 07 20.50 0.2
S 08 21.50
SWZ 5.96 76 eP 07 26.50 2.9X
S 08 34.00
WIN 6.42 345 eP 07 29.90 -0.3
BLF 6.44 94 eP 07 35.50 5.0X
S 08 39.00
SEK 7.74 88 eP 07 49.00 0.4
S 09 12.00
KSR 7.74 70 eP 07 48.50 -0.2
S 09 15.50
PRY 7.87 78 eP 07 48.00 -2.4
S 09 18.00
SLR 8.94 72 iPd 08 06.50 1.2
S 09 44.10
BFT 10.44 75 eP 08 26.50 0.4
S 10 22.50
BUL 12.39 48 iPn 08 52.60 0.1
iSn 11 10.90
iLg 12 27.80
STD 16.76 47 iPn 09 50.20 0.6
iSn 12 51.00
iLg 14 49.60
S.D. = 1.0 on 11 of 13 obs.

% MAR 11, 1993 20h 33m 16.19± 0.73s
31.584 S ±13.3km 67.741 W ± 5.5km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.43 267 ePc 33 25.10 0.2
S 33 32.00
RTLL 0.67 292 ePd 33 28.50 -1.1
(S) 33 40.00
RTCV 0.73 248 ePc 33 30.70 0.1
RTCB 0.91 276 ePd 33 33.50 -0.2
S 33 45.00
MRA 1.91 116 ePc 33 49.50 0.4
S 34 15.00
RTRS 2.04 313 ePd 33 52.10 1.1
TCA 2.70 86 iPc 34 00.00 -0.6
(S) 34 36.00
S.D. = 0.9 on 7 of 7 obs.

? MAR 11, 1993 20h 43m 07.18± 4.91s
30.528 S ±20.5km 71.994 W ±39.6km
DEPTH = 153.0 ± 33.7 km
NEAR COAST OF CENTRAL CHILE (135)

RTRS 2.22 81 ePc 43 44.70 -0.7
S 44 09.00
PEL 2.84 157 iP+ 43 53.00 -0.2
iS 44 28.70
RTCB 2.90 110 iPd 43 54.20 0.1
S 44 27.30
RTLL 3.13 106 iPc 43 56.50 -0.4
S 44 32.20
RTCV 3.25 115 e(P) 43 59.50 1.1
CFA 3.40 109 ePc 44 00.80 0.5
S 44 38.00
MRA 5.69 111 eP 44 30.40 -0.2
CYA 5.79 71 eP 44 32.80 0.8
(S) 45 30.30
TCA 6.41 99 iPc 44 39.50 -1.0
(S) 44 47.00
S.D. = 0.9 on 9 of 9 obs.

MAR 11, 1993 20h 43m 56.21± 0.26s
18.288 N ± 4.4km 101.816 W ± 3.7km
DEPTH = 70.9km (15 depth phases)
5.4mb (73 obs.)
GUERRERO, MEXICO (59)
Felt in Michoacan. Also felt at
Mexico City.

MRX 1.53 23 iP 44 23.00 1.0
III 2.23 87 iP 44 31.95 0.1
CRX 2.31 61 iP 44 34.80 1.8
ACX 2.34 127 (P) 44 33.50 0.3
IIJ 2.44 54 iP 44 35.80 0.8
UNM 2.70 67 iP 44 39.00 0.5
iS 45 12.00
IIC 2.83 58 iP 44 41.00 0.6
IIA 3.11 74 (P) 44 44.50 0.5
PPM 3.12 75 iP 44 45.62 1.0
IIT 3.40 77 (P) 44 49.00 0.7
AGX 3.60 353 iP 44 52.87 2.1
IISM 4.27 80 iP 45 02.13 2.0
MZX 6.52 319 (P) 45 25.00 -6.6X
TPX 9.76 109 (P) 46 17.20 1.0
WMOK 16.61 9 eP 47 44.34 -1.6
0.9s 72.40nm 4.9mb
MEO 16.68 9 iPd 47 47.10 0.3
ALQ 17.09 347 eP 47 53.90 1.7
1.1s 40.77nm 4.6mb
OCO 17.59 12 iPc 48 00.40 2.2
MIAR 17.78 23 eP 47 58.92 -1.5
0.7s 41.47nm 4.8mb
ACO 18.49 7 iPc 48 08.10 -1.0
GLA 18.78 324 eP 48 12.61 0.0
OLY 19.45 26 ePd 48 17.36 -2.5
e 48 35.77 91kmX
PLM 20.17 321 eP 48 27.09 -0.6
e 48 41.74 70km
PEC 20.73 322 eP 48 33.65 0.5
1.0s 67.80nm 4.9mb
PV10 20.98 344 eP 48 34.33 -1.7
e 48 51.70 81km
PV08 21.07 345 eP 48 36.21 -0.8
PV09 21.12 344 eP 48 36.82 -0.6
SSK 21.27 321 eP 48 39.61 0.8
GSC 21.54 325 eP 48 41.89 0.5
GLD 21.59 353 eP 48 41.75 -0.2
0.4s 87.90nm 5.5mb
ELC 21.92 28 eP 48 43.03 -2.0
ARUT 21.93 335 eP 48 46.67 1.3
FVM 22.01 25 eP 48 43.59 -2.3
1.0s 111.49nm 5.2mb
e 49 01.07 79km
MSU 22.08 338 iPc 48 48.31 1.4
SRU 22.09 342 eP 48 46.80 -0.1
TPNV 22.51 329 eP 48 52.62 1.5
0.8s 32.25nm 4.8mb
ISA 22.74 323 ePd 48 54.31 1.1
1.3s 92.81nm 5.1mb
GBTN 23.30 39 eP 48 55.93 -2.6
PRM 23.43 44 eP 48 57.27 -2.6
DAU 23.50 342 eP 49 01.27 0.4
e 49 15.16 58kmX
TKL 23.55 39 eP 48 58.84 -2.1
DUG 23.81 339 iPd 49 04.23 0.6
0.8s 8.50nm 4.2mb X
TNP 23.88 329 eP 49 04.37 0.0
0.6s 11.92nm 4.5mb
e 49 17.14 52kmX
PHAM 24.00 320 eP 49 07.13 1.8
e 49 19.27 48kmX
SGS 24.19 48 eP 49 05.62 -1.6
JSC 24.28 45 eP 49 06.26 -1.8
BONR 24.33 327 eP 49 10.06 1.2
MEMM 24.45 326 eP 49 11.59 2.0
LHS 24.70 45 eP 49 10.13 -2.0
KVN 25.06 329 eP 49 16.76 1.0
i 49 29.98 54kmX
HVU 25.22 341 eP 49 16.61 -0.5
BW06 25.28 347 iPd 49 16.77 -1.0
1.1s 56.99nm 5.0mb
CMB 25.50 324 eP 49 19.82 0.2
1.2s 23.68nm 4.6mb
e 49 32.50 51kmX
ARN 25.69 322 eP 49 22.22 0.9
e 49 34.45 49kmX
RSSD 25.82 356 eP 49 22.06 -0.7
1.2s 14.52nm 4.4mb X
BLA 26.61 41 eP 49 27.50 -2.3
0.8s 26.75nm 4.8mb
e 49 40.05 50kmX
e 49 45.96
ORV 27.20 325 eP 49 36.21 1.1
e 49 49.02 51kmX
LBFM 28.70 327 eP 49 48.29 -0.6
e 50 01.59 53kmX
LCCM 28.71 345 ePd 49 48.60 -0.3
SDV 31.67 103 eP 50 15.80 0.4
TOV 32.15 101 ePc 50 20.00 0.5
ULM 32.24 7 ePd 50 19.50 -0.3
pP 50 33.00 53kmX
ULM 32.24 7 eP 50 38.50 18.7X
NEW 32.39 341 eP 50 19.91 -1.3
0.8s 21.88nm 5.0mb
ePcP 53 06.52
e 53 21.57
LON 32.82 334 eP 50 23.97 -1.0
ePcP 53 08.21
i 53 22.90
SES 32.87 349 ePd 50 24.30 -1.1
pP 50 40.00 64km
EEO 33.92 29 eP 50 35.50 1.0
JAQ 40.78 24 ePd 51 29.20 -2.6
FCC 40.81 6 eP 51 33.50 1.5
YKA 45.05 352 eP 52 04.60 -1.8
0.8s 13.50nm 4.8mb
ZOBO 47.75 134 iPd 52 28.00 -1.0
1.0s 16.25nm 4.9mb
Z 22s 0.11um 3.8Msz
LR 04 00.00
LPB 47.95 134 Pd 52 28.00 -2.3
1.0s 54.00nm 5.4mb
SIV 52.63 128 iP 53 09.40 3.9X
KDC 54.12 329 e(P) 53 15.80 0.0
PMR 54.41 334 eP 53 17.30 -0.7
PMS 54.41 334 eP 53 17.50 -0.6
1.2s 65.50nm 5.5mb
e 53 30.90 49kmX
FBA 55.69 338 eP 53 25.30 -1.9
RES 56.54 2 eP 53 31.50 -1.7
0.6s 3.00nm 4.5mb
pP 54 30.00 264kmX

SVW	56.97	332	eP	53 35.00	-1.5
			e	53 48.80	50kmX
TTA	57.88	334	eP	53 41.30	-1.6
IMA	58.39	338	eP	53 44.30	-2.2
	1.2s		14.10nm		5.0mb
TCA	60.93	144	iPd	54 03.30	-0.9
BAO	62.82	119	iPc	54 16.70	-0.5
			e	54 30.80	51kmX
			e	54 48.90	
BDF	62.91	119	iPc	54 16.90	-0.9
			e	54 31.00	50kmX
PPD	63.62	127	eP	54 20.50	-1.7
SOB1	66.03	109	eP	54 37.40	-0.6
			e	54 51.50	50kmX
CACB	66.97	124	eP	54 43.40	-0.6
			e	54 57.10	48kmX
VAO	67.49	125	(P)	54 47.00	-0.2
ILT	68.27	337	iPd	54 51.20	0.0
	1.1s		78.00nm		5.6mb
			i	55 18.00	106kmX
AKU	70.91	26	iP	55 08.00	0.6
	0.9s		30.25nm		5.2mb
DCN	78.20	38	eP	55 49.50	0.1
DMU	78.27	37	eP	55 50.10	0.3
DLF	78.64	38	eP	55 52.00	0.2
EKA	79.97	35	Pd	55 59.00	0.0
	1.2s		27.40nm		5.1mb
HCG	80.59	38	ePc	56 03.00	0.6
HTR	80.89	38	eP	56 04.40	0.5
HGH	81.30	39	eP	56 06.90	0.8
HAE	81.33	38	ePc	56 07.00	0.8
MGD	82.66	331	eP	56 14.00	1.0
	0.9s		40.00nm		5.4mb
GRR	83.56	41	eP	56 18.70	0.9
	1.2s		138.65nm		5.8mb
LPF	83.57	42	eP	56 18.60	0.7
	1.3s		130.70nm		5.8mb
FLN	83.67	41	eP	56 19.40	1.0
	1.1s		206.10nm		6.0mb
Z	26s		0.25um		4.5MszX
LDF	83.95	41	eP	56 20.00	0.2
	1.1s		146.50nm		5.9mb
TIK	83.98	346	iPd	56 19.00	-0.5
	1.3s		110.00nm		5.7mb
			e	56 32.00	44kmX
			e	56 33.00	
			e	59 34.00	
			e	01 28.00	
PAB	84.13	50	iPc	56 22.20	1.2
	1.8s		136.36nm		5.7mb
MFF	84.64	43	eP	56 24.10	0.8
	1.5s		221.45nm		6.0mb
NAO	84.69	27	P	56 24.79	1.5
NB2	84.75	27	P	56 24.50	0.9
	1.0s		30.00nm		5.3mb
MAL	84.99	53	iPc	56 26.50	1.3
			i	56 43.00	58kmX
KEV	85.12	16	eP	56 24.00	-1.3
	0.8s		14.70nm		5.1mb
LFF	85.82	44	eP	56 30.00	0.8
	1.2s		155.90nm		5.9mb
LSF	85.85	43	iPd	56 29.00	-0.4
	1.0s		74.40nm		5.7mb
SNF	85.88	38	Pc	56 30.80	1.4
HYF	86.17	41	eP	56 31.00	0.1
RJF	86.20	43	eP	56 31.10	0.0
	1.0s		91.60nm		5.8mb
Z	27s		0.17um		4.3MszX
LPO	86.21	44	eP	56 31.50	0.3
	1.6s		127.50nm		5.8mb
DOU	86.23	38	P	56 31.90	0.8
	1.0s		30.50nm		5.3mb
EPF	86.25	46	eP	56 32.00	0.5
	1.5s		124.85nm		5.8mb
HFS	86.26	27	eP	56 30.40	-0.7
	1.0s		26.40nm		5.3mb
TCF	86.27	42	iPd	56 31.20	-0.3
	0.8s		55.60nm		5.7mb
WIT	86.27	35	eP	56 33.50	2.3
			e	56 54.00	75km
SDF	86.52	18	iP	56 31.40	-0.9
MAF	86.53	42	eP	56 32.50	-0.2
	1.1s		77.40nm		5.7mb
BGF	86.57	42	eP	56 32.60	-0.3
	0.9s		46.85nm		5.6mb
CAF	86.70	44	eP	56 33.40	-0.2
	1.1s		24.40nm		5.2mb
WTS	86.70	36	eP	56 34.00	0.6
	0.9s		31.10nm		5.4mb
			e	56 54.00	73km
ENN	86.73	37	eP	56 34.00	0.5
	1.0s		38.00nm		5.5mb
			e	56 49.00	52kmX
			e	56 53.50	
SSF	86.79	41	iPd	56 33.60	-0.4
	1.0s		52.20nm		5.6mb
AVF	86.80	42	eP	56 33.40	-0.6
	1.0s		27.60nm		5.3mb
LOR	86.93	41	eP	56 34.50	-0.1
	1.1s		74.70nm		5.7mb
Z	27s		0.30um		4.6MszX
LBF	87.12	41	iPd	56 35.10	-0.5
	1.1s		47.60nm		5.6mb
SMF	87.17	42	eP	56 35.00	-0.8
	1.1s		24.40nm		5.3mb
EBR	87.17	48	eP	56 37.00	1.1
WLF	87.33	38	P	56 37.00	0.6
			e	56 58.00	77km
UPP	88.08	26	iP	56 39.00	-0.8
HAU	88.16	40	iPd	56 40.20	-0.3
	1.0s		24.40nm		5.3mb
Z	25s		0.15um		4.3MszX
BSF	88.50	40	eP	56 40.80	-1.5
	1.1s		16.85nm		5.2mb
CDF	88.54	39	eP	56 41.90	-0.5
	1.2s		17.55nm		5.1mb
EMS	89.35	41	ePc	56 47.10	0.6
LPL	89.47	42	eP	56 47.20	0.1
	1.3s		23.10nm		5.3mb
LPG	89.49	42	eP	56 47.60	0.3
	1.4s		34.00nm		5.4mb
SLE	89.56	39	ePd	56 47.00	-0.2
ZLA	89.62	40	ePc	56 47.90	0.4
CDR	89.64	44	ePd	56 47.90	0.3
DIX	89.65	41	ePc	56 48.90	0.9
MOX	90.00	36	ePd	56 49.70	0.5
	1.6s		19.00nm		5.1mb
MMK	90.01	41	ePd	56 50.50	0.9
KAF	90.03	22	iP	56 47.80	-1.3
	1.0s		35.00nm		5.6mb
LRG	90.12	44	eP	56 49.70	-0.1
	1.2s		29.75nm		5.4mb
YAK	90.22	338	iPd	56 49.50	-0.4
	1.0s		100.00nm		6.0mb
			i	57 05.00	53kmX
GRF	90.25	37	iPd	56 51.50	1.2
	1.4s		49.00nm		5.6mb
Z	28s		0.20um		4.4MszX
			ipPc	57 11.20	71km
			e(sP)	57 17.50	
FRF	90.26	44	eP	56 50.10	-0.4
LMR	90.27	44	eP	56 50.20	-0.3
	0.9s		18.20nm		5.3mb
LLS	90.27	40	ePd	56 51.30	0.5
CLL	90.43	35	iPd	56 51.20	0.1
	1.7s		32.00nm		5.3mb
			i	57 10.90	71km
NUR	90.48	23	eP	56 49.90	-1.3
	1.2s		41.30nm		5.6mb
TMA	90.55	41	ePc	56 52.60	0.6
SBF	90.64	43	eP	56 51.80	-0.5
	1.2s		38.40nm		5.6mb
VDL	90.74	40	ePd	56 54.50	1.6
OSS	91.05	40	ePc	56 55.20	0.9
BRG	91.17	35	iP	56 55.30	0.8
	1.4s		36.00nm		5.5mb
			i	57 14.20	67km
WTTA	91.67	39	iPc	56 57.90	0.7
KHC	91.86	36	eP	56 58.60	0.8
			e	57 18.00	69km
PRU	91.95	35	Pc	56 59.00	0.9
	1.0s		11.00nm		5.2mb
			e	57 18.30	69km
GEC2	92.08	37	e(P)	56 59.10	0.2
	0.8s		6.70nm		5.1mb
PGF	92.26	44	eP	56 59.20	-0.7
	1.0s		15.60nm		5.4mb
KSP	92.44	34	ePc	57 01.00	0.6
KBA	92.77	38	iPd	57 02.50	0.3
	0.9s		9.30nm		5.2mb
YSS	92.99	322	(P)	57 03.00	0.1
			e	57 17.40	49kmX
VOY	93.64	39	iPd	57 06.20	0.1
			e	57 25.70	70km
LJU	94.01	39	e(P)	57 08.00	0.3
CEY	94.11	39	e(P)	57 08.80	0.6
RIY	94.29	39	e(P)	57 08.70	-0.3
ZST	94.34	36	eP	57 10.20	1.0
			e	57 29.20	68km
TIC	94.35	82	P	57 09.22	-0.6
LIC	94.48	82	P	57 10.00	-0.4
	0.9s		14.50nm		5.4mb
Z	20s		0.06um		4.1Msz
KIC	94.70	82	P	57 11.14	-0.3
	0.9s		14.50nm		5.4mb
VBY	94.72	39	iPc	57 12.00	1.0
PTJ	94.93	38	iP	57 13.00	0.9
SRO	95.22	36	iP	57 15.00	1.8
SPC	95.48	34	eP	57 16.10	1.4
PSZ	96.04	35	ePd	57 18.30	1.2
UZH	96.90	34	ePd	57 21.20	0.4
	1.2s		45.00nm		5.9mb
			e	57 39.00	63km
BOD	98.48	341	eP	57 27.00	-0.8
OBN	98.81	23	iPc	57 28.50	-0.8
	1.5s		70.00nm		6.0mb
Z	24s		1.10um		5.3MszX
N	24s		0.80um		
OHR	100.53	40	e(Pdif	57 36.80	-0.6
STK	121.72	243	ePKP	02 43.80	-0.1
	0.9s		3.00nm		
			e	02 58.40	
WB2	127.11	259	ePKP	02 54.10	-0.6
	0.7s		14.40nm		
WB2	127.11	259	ePKP	03 08.60	13.9X
ASPA	127.97	254	ePKP	02 55.50	-0.8
	1.0s		5.80nm		
ASPA	127.97	254	iPKP	03 10.50	14.2X
KMI	130.67	330	ePKP	03 02.00	0.4
GKN	133.56	352	PKP	03 07.00	0.0
KKN	133.68	351	PKP	03 07.20	-0.1
DMN	133.89	351	PKP	03 07.80	0.1
HYB	144.52	359	iPKPd	03 25.00	-1.9
	1.0s		100.00nm		
			e	03 39.50	
IPM	148.01	313	ePKPd	03 36.10	3.3X
KGM	148.07	307	ePKPc	03 37.00	4.1X
GBA	148.30	1	PKP	03 34.00	0.9
VTY	150.97	96	iPKPc	03 44.30	6.9X
AVY	151.15	96	iPKPc	03 44.80	7.1X

S.D. = 1.1 on 192 of 201 obs.

---

* MAR 11, 1993 21h 04m 16.10± 1.13s
6.122 S ± 9.6km 147.730 E ±15.3km
DEPTH = 73.2 ± 8.8 km
4.6mb (6 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC	0.51	166	iPc	04 29.00	-0.4
YYYY	1.76	266	eP	04 49.40	4.2X
MDG	2.12	294	eP	04 51.30	1.2
PMG	3.31	190	iPd	05 06.50	-0.1
			eS	05 43.00	
CTA	13.96	186	iP	07 32.50	0.6
WB2	18.91	222	iPd	08 32.10	-1.9
	0.5s		29.70nm		4.8mb
			eS	11 57.00	
RMQ	20.28	177	iPc	08 48.40	0.1
	0.9s		35.00nm		4.7mb
OLP	20.62	189	iPd	08 51.80	0.0
BRS	21.69	168	iPc	09 01.70	-0.9
ASPA	21.94	216	iPd	09 05.30	0.2
	0.5s		27.20nm		4.9mb
			eS	13 06.30	
ARMA	24.45	172	eP	09 30.40	0.8
	0.5s		5.00nm		4.2mb
STK	26.26	192	eP	09 46.50	0.2
	0.5s		5.50nm		4.3mb
MAT	43.37	349	iPd	12 11.10	-1.8
	1.0s		12.00nm		4.7mb
SIV	144.00	128	PKP	23 47.60	1.7
BAO	153.36	144	ePKP	24 00.80	0.2
			e	24 07.30	

S.D. = 1.2 on 14 of 15 obs.

? MAR 11, 1993 21h 56m 18.36± 6.82s
44.655 N ±27.1km 129.313 W ±47.6km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)

NLO	4.37	69	P	57 26.40	0.0

11d 21h

BMW 4.64 65 P 57 29.82 -0.4
OSR 4.69 51 P 57 30.59 -0.3
OOW 4.71 47 P 57 31.31 0.2
OTR 4.86 43 P 57 33.36 0.1
RVW 4.86 70 P 57 33.00 -0.3
OSP 4.88 40 P 57 33.71 0.2
CPW 4.90 60 P 57 33.57 -0.3
SMW 4.94 55 P 57 33.99 -0.5
OBC 4.96 45 P 57 34.52 -0.1
OSD 5.02 49 P 57 35.49 -0.2
FL2 5.14 70 P 57 37.04 -0.3
ERK 5.17 69 P 57 38.16 0.4
MTMW 5.19 72 P 57 37.42 -0.6
SHW 5.21 70 P 57 38.36 0.0
STW 5.24 46 P 57 38.40 -0.2
YEL 5.25 70 P 57 38.87 -0.1
ESD 5.27 70 P 57 40.16 0.9
HDW 5.28 53 P 57 39.36 0.1
SOSW 5.29 70 P 57 39.92 0.4
MEW 5.30 59 P 57 40.40 0.9
LMW 5.32 65 P 57 39.91 0.1
CDFW 5.32 72 P 57 39.77 -0.1
GMW 5.38 55 P 57 40.46 -0.2
GHW 5.47 62 P 57 41.90 0.1
VLL 5.47 79 P 57 42.17 0.2
VBEM 5.51 83 P 57 42.36 -0.2
GULW 5.59 74 P 57 43.77 0.1
VFP 5.61 80 P 57 43.96 0.0
RVC 5.62 63 P 57 44.47 0.4
LON 5.66 66 P 57 44.26 -0.3
REMR 5.66 65 P 57 44.71 0.0
GLK 5.73 68 P 57 45.39 -0.3
RCS 5.75 65 P 57 46.73 0.6
FMW 5.81 64 P 57 46.52 -0.3
WPW 5.81 67 P 57 46.70 -0.1
GSM 5.83 61 P 57 46.84 -0.2
RMW 5.93 59 P 57 48.59 0.2
MCW 6.01 46 P 57 49.16 -0.3
HTW 6.11 56 P 57 50.66 -0.2
JCW 6.21 53 P 57 52.45 0.2
CMW 6.23 50 P 57 52.93 0.3
MBW 6.56 48 P 57 57.57 0.2
TBM 6.58 64 P 57 57.60 0.0
RPW 6.58 52 P 57 57.71 0.1
ETW 6.90 62 P 58 02.31 0.1
NLW 7.09 58 P 58 04.60 -0.2
S.D. = 0.3 on 47 of 47 obs.

MAR 11, 1993 21h 58m 22.12± 0.64s
19.706 N ±12.0km 38.690 E ± 6.4km
DEPTH = 10.0km (geophysicist)
4.5mb (18 obs.)
RED SEA (554)

MAIO 24.63 44 eP 03 47.00 2.9
BCAO 24.83 235 iPd 03 46.90 0.8
0.9s 9.00nm 4.4mb
VAY 25.55 331 eP 03 53.50 0.9
OHR 26.23 328 eP 04 00.20 1.2
SKO 26.58 330 eP 03 53.00 -9.2X
GEC2 35.34 331 P 05 19.80 0.2
1.1s 4.25nm 4.2mb
e 07 48.80
OBN 35.37 358 eP 05 19.50 -0.2
1.2s 22.00nm 4.9mb
KHC 35.60 331 eP 05 22.40 0.6
BRG 36.73 334 e(P) 05 31.10 -0.1
GRF 37.08 330 eP 05 33.00 -1.2
CLL 37.45 333 eP 05 37.00 -0.3
1.6s 16.00nm 4.5mb
MOX 37.57 332 eP 05 38.50 0.2
1.5s 12.00nm 4.4mb
HYB 37.80 87 eP 05 40.00 -0.7
LBF 39.24 322 eP 05 52.00 -0.4
1.2s 14.90nm 4.5mb
CAF 39.37 318 eP 05 53.90 0.4
1.3s 14.80nm 4.5mb
LOR 39.45 322 eP 05 53.70 -0.5
1.3s 14.10nm 4.5mb
AVF 39.50 321 eP 05 54.10 -0.4
1.5s 16.20nm 4.5mb
SSF 39.55 322 eP 05 54.60 -0.3
1.3s 10.10nm 4.3mb
BGF 39.68 321 eP 05 56.30 0.3
1.1s 21.75nm 4.7mb
MAF 39.68 320 eP 05 56.20 0.1
1.3s 10.85nm 4.4mb
LPO 39.82 317 eP 05 57.90 0.7
1.5s 23.50nm 4.6mb
RJF 39.89 318 eP 05 58.30 0.5
1.0s 7.80nm 4.3mb
GKN 42.62 70 P 06 20.60 0.0
LPF 42.71 321 eP 06 20.10 -0.7
1.1s 18.80nm 4.7mb
FLN 42.72 322 eP 06 20.20 -0.8
1.1s 12.95nm 4.6mb
DMN 43.04 70 P 06 24.20 0.1
KKN 43.19 70 P 06 25.20 -0.2
GUN 43.72 70 P 06 28.80 -1.0
NB2 45.60 342 P 06 42.20 -1.9
1.3s 7.70nm 4.5mb
LZH 58.85 59 eP 08 23.50 -0.3
1.5s 30.00nm 5.2mb
pP 08 27.50 13kmX
sP 08 30.00
BJI 68.19 54 eP 09 25.00 0.0
S.D. = 0.9 on 30 of 31 obs.

MAR 11, 1993 22h 07m 27.33± 0.24s
16.710 S ± 8.5km 172.712 W ± 5.3km
DEPTH = 33.0km (normal)
5.4mb (43 obs.) 5.4Msz (37 obs.)
SAMOA ISLANDS REGION (169)
Mw 5.7 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 35S, 72C
Centroid Location:
Origin Time 22:07:30.8 0.3
Lat 16.79S 0.03 Lon 172.26W 0.03
Dep 15.0 BDY Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr= 2.14 0.06 Mtt= 0.28 0.09
Mff=-2.42 0.08 Mrt= 1.05 0.17
Mrf= 3.15 0.23 Mtf=-0.67 0.06
Principal Axes:
T Val= 3.87 Plg=62 Azm=293
N 0.42 3 197
P -4.29 27 105
Best Double Couple:Mo=4.1*10**17
NP1:Strike=187 Dip=18 Slip= 79
NP2: 18 72 93

MBU 8.21 267 eP 09 30.70 3.5X
RAR 13.03 112 P 10 32.00 -0.8
S 13 12.00
DZM 20.36 252 iP 12 02.00 -2.0
AFR 21.93 96 iPc 12 21.50 1.7
1.5s 383.40nm 5.6mb
PAE 22.12 96 iPc 12 22.60 0.9
1.5s 614.20nm 5.8mb
PPT 22.13 96 iPc 12 23.20 1.4
1.4s 512.30nm 5.8mb
PPN 22.26 96 iPc 12 24.00 0.9
1.8s 1084.10nm 6.0mb
TVO 22.43 96 iPc 12 25.90 1.0
1.5s 754.20nm 5.9mb
PMO 23.93 89 iPc 12 37.10 -2.3
1.5s 915.10nm 6.1mb
VAH 24.15 90 iPc 12 38.80 -2.8
1.4s 346.80nm 5.7mb
TPT 24.20 89 iPc 12 39.60 -2.4
1.9s 1272.30nm 6.1mb
RUV 24.40 90 iPc 12 41.20 -2.8
1.6s 626.90nm 5.9mb
HNR 27.57 282 eP 13 10.00 -3.6X
eS 18 06.00
BRS 33.60 246 iPc- 14 12.50 5.5X
eS 19 39.00
ARMA 35.26 241 eP 14 22.10 0.8
0.9s 20.00nm 5.0mb
RMQ 37.00 248 eP 14 35.00 -0.9
CNB 38.50 234 iPd 14 49.70 1.3
1.0s 72.00nm 5.4mb
CAN 38.78 234 eP 14 50.70 0.0
i 14 52.70
BWA 38.96 236 eP 14 51.00 -1.3
CTA 39.01 259 iP+ 14 50.00 -2.8
iS 20 30.00
HON 40.46 21 P 15 00.00 -4.6X
Z 19s 1.90um 5.0Msz
QLP 41.04 249 eP 15 07.00 -2.4
TOO 42.17 232 iPd 15 18.00 -0.6
0.6s 38.00nm 5.3mb
TAU 42.82 224 eP 15 25.00 1.2
STK 43.98 241 eP 15 32.00 -1.4
0.5s 7.10nm 4.7mb
BFD 44.31 234 iPd 15 36.20 0.2
1.0s 20.00nm 4.9mb
WB2 50.19 258 iPc 16 19.10 -3.2X
0.5s 7.70nm 5.0mb
WRA 50.20 258 P 16 19.60 -2.8
0.6s 0.60nm 3.8mb X
ASPA 50.35 253 iPc 16 20.30 -3.2X
1.0s 51.60nm 5.5mb
Z 18s 6.90um 5.7Msz
eS 23 31.80
GUMO 51.60 303 e(P) 16 34.00 1.0
Z 29s 1.85um 4.9MszX
KLB 64.22 243 eP 18 00.00 -1.6
0.7s 7.00nm 4.9mb
DAV 65.44 286 eP- 18 08.00 -1.6
MUN 65.50 242 eP 18 08.00 -1.9
1.0s 30.00nm 5.3mb
CTB 66.75 286 ePd 18 21.00 3.0X
CGP 66.76 287 eP 18 19.50 1.5
SMY 70.09 352 P 18 50.00 12.0X
Z 19s 4.60um 5.7Msz
MAT 70.36 320 iP 18 40.00 0.0
2.0s 82.35nm 5.5mb
Z 20s 0.71um 4.9Msz
eS 27 52.00
KUR 71.28 332 eP 18 46.00 0.6
Z 16s 2.80um 5.6MszX
N 16s 2.80um
SAO 71.87 41 P 18 42.68 -6.5X
Z 19s 4.45um 5.8Msz
e 26 33.08
SP 28 19.88
ISA 73.13 44 P 18 53.89 -2.8
Z 20s 1.60um 5.3Msz
SKS 28 31.02
CMB 73.31 41 P 19 00.00 2.3
Z 20s 1.39um 5.2Msz
SPA 73.39 180 iPd 18 59.20 1.3
1.0s 75.00nm 5.6mb
BAG 73.53 293 eP+ 18 56.80 -2.7
eS 28 36.00
WDC 73.60 38 P 19 03.47 4.3X
Z 19s 3.53um 5.7Msz
SKS 28 39.57
YSS 75.01 330 ePd 19 07.50 0.4
0.9s 30.00nm 5.3mb
TPNV 75.34 44 P 19 20.00 10.4X
Z 18s 2.10um 5.5Msz
VBEM 77.02 34 P 19 18.42 -0.4
ONR 77.06 32 P 19 19.45 0.7
BMW 77.07 33 P 19 19.12 0.2
VIPM 77.19 35 P 19 19.29 -0.5
STW 77.97 31 P 19 23.85 0.1
FMW 78.18 33 P 19 25.05 -0.2
LEM 78.21 266 ePd 19 25.00 -1.0
JBO 78.23 35 P 19 24.88 -0.4
VLA 78.24 322 iPc- 19 25.00 -0.3
2.0s 90.00nm 5.4mb
e 22 27.00
ePPP 24 14.00
eS 29 20.00
PGC 78.41 31 eP 19 26.50 0.4
0.7s 22.00nm 5.3mb
SVW 78.75 8 eP 19 30.60 2.7X
JCW 78.87 32 P 19 28.62 -0.1
SSE 79.27 307 P+ 19 30.00 -1.2
1.0s 11.00nm 4.8mb
Z 20s 0.90um 5.1Msz
N 13s 0.30um
E 12s 0.30um
S 29 36.00
sS 29 50.00
LNOR 79.33 35 P 19 30.76 -0.6
DUG 79.37 42 eP 19 30.74 -1.1
1.2s 15.82nm 4.9mb
Z 20s 1.87um 5.4Msz
WTV 79.57 33 P 19 32.12 -0.5
SIT 79.82 20 P 19 40.00 6.4X
Z 20s 1.84um 5.4Msz
SAW 79.86 33 P 19 33.71 -0.5
PMS 79.87 11 eP 19 32.80 -1.1
1.1s 54.90nm 5.5mb
HVU 80.25 41 eP 19 36.27 -0.3
PMR 80.27 11 eP 19 34.70 -1.2

Z 20s 1.50um 5.3Msz
PMR 80.27 11 P 19 39.30 3.4X
Z 18s 1.12um 5.2Msz
SRU 80.31 44 ePd 19 36.93 0.0
TTA 80.45 8 eP 19 36.90 -0.1
DPW 80.60 34 eP 19 37.43 -0.7
KLU 80.81 13 eP 19 38.36 -0.6
ALO 81.14 50 eP 19 41.58 0.2
1.3s 27.18nm 5.1mb
Z 20s 1.55um 5.4Msz
S 29 51.56
HKC 81.38 296 P 19 45.00 2.4
S 30 05.00
NEW 81.42 34 eP 19 40.12 -2.2
0.8s 13.39nm 5.0mb
MGD 82.03 342 eP 19 43.00 -2.2
1.3s 50.00nm 5.4mb
Z 18s 0.90um 5.2Msz
N 18s 0.70um
E 18s 0.50um
eS 29 54.00
ePS 30 48.00
eSSS 38 28.00
BW06 82.81 41 eP 19 48.41 -1.6
1.0s 18.67nm 5.1mb
LCCM 82.98 38 eP 19 50.70 0.0
FBA 83.55 10 eP 19 51.80 -1.2
IMA 83.76 8 eP 19 54.16 0.0
1.1s 14.14nm 5.0mb
GOL 84.09 46 eP 19 56.56 0.0
1.0s 26.88nm 5.4mb
Z 18s 1.99um 5.5Msz
GLD 84.21 46 P 20 10.00 12.9X
Z 19s 1.89um 5.5Msz
ILT 84.48 358 iPd 19 57.00 -0.5
2.0s 69.00nm 5.5mb
Z 16s 0.70um 5.1MszX
N 16s 0.40um
ePS 31 36.00
SES 85.90 34 ePd 20 04.80 -0.3
1.0s 81.00nm 5.9mb
WMOK 86.77 52 eP 20 08.84 -0.9
1.3s 14.25nm 5.0mb
Z 18s 1.54um 5.4Msz
S 30 45.42
BJI 86.84 313 eP 20 11.00 1.1
2.0s 248.00nm 6.1mb
Z 18s 0.59um 5.0Msz
eSKS 30 36.00
eS 30 56.00
MEO 86.94 52 iPd 20 10.20 -0.3
RSSD 86.98 42 P 20 17.97 7.2X
S 30 39.04
PKKP 38 04.78
IPM 87.73 275 ePd 20 17.20 2.4
YAK 90.55 337 eP 20 25.30 -1.7
MIAR 90.70 54 P 20 29.84 1.6
Z 18s 0.92um 5.3Msz
S 31 05.03
LOE 90.81 288 eP 20 32.50 3.4X
YKA 91.03 23 eP 20 28.20 -1.0
1.1s 12.20nm 5.2mb
NST 91.77 286 eP 20 37.00 3.5X
KMI 92.18 295 Pc+ 20 37.00 1.4
2.0s 150.00nm 6.1mb
Z 20s 1.60um 5.5Msz
N 15s 0.70um
E 15s 0.90um
pP 20 46.00 28kmX
sP 20 50.00
S 31 16.00
sS 31 45.00
BDT 93.25 287 eP 20 40.50 0.2
0.8s 26.00nm 5.7mb
CHTO 93.75 288 ePc 20 43.80 1.2
1.3s 32.68nm 5.6mb
FVM 94.21 52 P 21 00.00 15.6X
Z 18s 2.69um 5.7Msz
LZH 94.53 306 eP 20 47.00 0.9
2.0s 44.00nm 5.5mb
Z 18s 0.78um 5.2Msz
N 14s 0.36um
SKS 31 23.00
PS 33 18.00
eSS 38 32.00
ULM 94.53 39 eP 20 46.00 0.5
BOD 95.31 329 eP 20 49.50 0.6

1.0s 7.00nm 5.1mb
TIK 96.43 344 iP 20 57.00 3.2X
Z 18s 0.60um 5.1Msz
FCC 98.36 31 eP 21 05.50 2.9X
LPB 98.69 110 (P) 21 09.00 3.3X
Z 16s 2.02um 5.7MszX
LR 53 20.00
CNCB 98.70 110 P 21 12.00 6.1X
ZOBO 98.75 110 P 21 07.00 0.8
Z 25s 0.63um 5.0MszX
SKS 31 54.00
LR 53 40.00
IRK 98.83 322 eP 21 12.70 7.7X
2.0s 17.00nm 5.2mb
e 25 07.00
e 31 35.00
ZAK 98.94 320 eP 21 12.00 6.5X
Z 18s 0.52um 5.1Msz
E 18s 1.01um
e 31 42.00
ePS 34 07.00
e 43 00.00
MCWV 102.63 52 Pdiff 21 30.00 7.5X
Z 19s 1.83um 5.6Msz
RSNY 107.29 48 Pdiff 21 50.00 6.9X
Z 19s 0.78um 5.3Msz
CBM 111.93 46 PKP 26 20.00 19.3X
Z 18s 1.89um 5.7Msz
SVE 123.59 328 iPKP 26 29.00 6.3X
28 02.00
e 33 24.00
e 45 03.00
OUE 124.20 295 ePKP 26 23.70 -1.3
MAIO 130.00 304 ePKP 26 37.00 1.1
ASH 130.63 306 ePKP 26 38.00 1.2
OBN 135.57 336 ePKP 26 44.00 -1.6
1.5s 35.00nm
MTA 139.34 316 ePKP 27 05.00 11.9X
KIV 139.62 320 ePKP 26 46.90 -6.8X
e 29 47.30
ERE 140.21 314 ePKP 26 49.00 -5.9X
WTS 144.79 1 ePKP 27 01.00 -1.3
0.8s 9.10nm
KIS 144.90 334 iPKP 27 00.00 -2.6
Z 20s 0.50um 5.3Msz
ePS 42 46.00
OJC 145.08 346 iPKP 27 03.30 0.4
i 27 10.00
i 27 14.10
ARO 145.17 266 ePKP+ 27 05.00 0.8
CLL 145.18 354 ePKP 27 01.00 -2.0
KSP 145.19 350 ePKP 27 02.00 -1.1
e 27 06.10
BRG 145.50 353 iPKPd 27 02.20 -1.4
i 27 19.60
BNS 145.83 0 ePKPd 27 04.50 0.4
NAI 145.83 241 iPKPd 27 10.30 4.7X
1.0s 1794.00nm
Z 20s 0.43um 5.2Msz
ePKS 30 38.00
UZH 145.88 342 ePKPd 27 04.20 -0.1
Z 18s 0.90um 5.6Msz
E 18s 0.90um
i 27 14.00
i 27 18.50
eSS 49 17.00
UCC 145.91 3 PKP+ 27 03.00 -1.2
SPC 145.93 345 ePKP 27 05.10 0.5
MOX 145.97 355 iPKPd 27 04.80 0.4
2.1s 104.00nm
ENN 146.01 2 ePKP 27 05.50 1.1
1.0s 30.00nm
PPE 146.06 334 ePKP 27 07.00 2.3
SNF 146.19 3 iPKPc 27 06.66 1.9
PRU 146.29 352 iPKPd 27 05.90 1.0
2.2s 125.70nm
Z 18s 0.80um 5.5Msz
N 18s 0.50um
E 18s 0.50um
i 27 34.00
e 40 05.00
eSg 40 33.50
KAS 146.49 323 ePKP 27 07.50 1.9
TNS 146.56 359 ePKP 27 12.50 7.1X
DOU 146.63 3 PKP+ 27 06.90 1.5
CFR 146.65 333 ePKP 27 06.00 0.4
GAZ 146.65 314 ePKP 27 07.30 1.4

VRI 146.70 335 ePKPd 27 08.50 2.8X
GRF 146.95 355 ePKP 27 07.30 1.3
Z 20s 0.60um 5.4Msz
WLF 147.12 1 iPKPd 27 09.16 3.0X
i 27 18.34
PSZ 147.19 344 ePKPc 27 08.20 1.7
KHC 147.26 352 ePKP 27 08.00 1.4
1.0s 16.10nm
i 27 14.50
e 27 29.50
e 28 28.00
MLR 147.33 335 ePKPd 27 08.50 1.6
ISR 147.37 334 ePKP 27 11.00 4.1X
FLN 147.41 10 ePKP 27 07.20 0.5
1.4s 91.05nm
Z 19s 0.60um 5.4Msz
GEC2 147.52 352 e(PKP)27 08.80 1.7
0.6s 1.80nm
GEC2 147.52 352 PKP 27 09.00 1.9
0.6s 1.69nm
e 27 12.80
e 27 15.90
GEC2 147.52 352 e(PKP)27 15.90 8.8X
0.9s 7.80nm
ZST 147.58 348 ePKP 27 07.60 0.6
LDF 147.63 9 ePKP 27 07.60 0.5
1.3s 53.45nm
VKA 147.67 349 e(PKP)27 09.00 1.8
5.0s 1194.00nm
i 27 44.70
SRO 147.68 346 ePKP 27 11.10 3.9X
GRR 147.71 10 ePKP 27 08.20 1.0
1.3s 90.60nm
HOFF 147.85 359 PKP 27 11.41 4.0X
CMP 147.87 336 ePKPc 27 10.00 2.3
LPF 148.02 11 ePKP 27 09.30 1.6
1.4s 105.45nm
BUC 148.15 334 ePKPd 27 20.00 12.0X
SOP 148.18 348 ePKP 27 10.70 2.7X
CDF 148.38 0 PKP 27 12.37 3.9X
WLS 148.38 360 PKP 27 12.01 3.6X
FUR 148.46 355 ePKPc 27 11.70 3.2X
i 27 15.80
VITF 148.56 2 PKP 27 12.30 3.6X
ECH 148.58 0 PKP 27 12.27 3.6X
LIBD 148.64 360 PKP 27 13.11 4.4X
UZD 148.76 345 e(PKP)27 11.00 2.0
HAU 148.78 1 ePKP 27 11.70 2.7X
1.5s 87.25nm
Z 20s 0.45um 5.3Msz
TIM 148.80 341 iPKPd 27 16.00 7.0X
FEL 148.91 359 PKP 27 13.22 3.8X
MOF 148.94 0 PKP 27 13.79 4.4X
BSF 148.96 1 ePKP 27 11.70 2.3
1.6s 60.30nm
SLE 149.01 358 ePKPd 27 13.70 4.3X
EYL 149.07 325 ePKP 27 04.00 -5.8X
WATA 149.26 354 iPKPd 27 14.50 4.6X
MOTA 149.29 355 iPKPd 27 14.50 4.5X
i 27 27.50
ZLA 149.30 359 ePKPd 27 14.70 4.8X
KBA 149.31 352 iPKPd 27 14.10 4.0X
2.2s 88.10nm
WTTA 149.32 354 iPKPd 27 14.80 4.7X
LOR 149.40 5 ePKP 27 13.00 3.0X
1.1s 30.50nm
Z 19s 1.15um 5.7Msz
SOTA 149.40 355 iPKPd 27 14.90 4.8X
MFF 149.56 10 ePKP 27 13.10 2.9X
1.3s 55.60nm
SSF 149.57 5 ePKP 27 13.00 2.8X
1.6s 110.70nm
LBF 149.69 4 ePKP 27 13.60 3.1X
1.4s 55.75nm
AVF 149.83 5 ePKP 27 14.00 3.4X
1.4s 48.80nm
LLS 149.89 358 ePKPd 27 16.30 5.3X
PTJ 150.01 348 iPKP 27 16.70 5.7X
BGF 150.01 6 ePKP 27 14.50 3.6X
1.2s 50.30nm
SMF 150.01 5 ePKP 27 16.40 5.5X
1.6s 95.75nm
OSS 150.02 356 ePKPd 27 16.50 5.4X
ZAG 150.08 348 ePKP 27 14.50 3.5X
LJU 150.13 350 ePKP 27 12.50 1.4
e 27 15.00
LSF 150.16 8 ePKP 27 14.30 3.2X

11d 22h

```
       1.0s     46.60nm
TCF    150.21    7 ePKP   27 14.60    3.4X
       1.9s    100.65nm
VOY    150.25  351 ePKP   27 14.70    3.3X
                   e      27 29.30
                   e      27 34.00
MAF    150.31    7 ePKP   27 15.10    3.7X
       1.1s     45.40nm
CEY    150.45  350 ePKP   27 16.00    4.4X
CSS    150.48  313 ePKP   27 18.50    6.5X
VBY    150.53  349 ePKP   27 13.00    1.3
                   iPKPbc27 18.50
                   i(pP'b27 30.40
TRI    150.58  351 ePKP   27 16.70    5.0X
                   e      41 32.00
EMON   150.60   22 ePKP   27 25.00   13.1X
STS    150.62   24 ePKP   27 23.00   11.1X
TMA    150.66  358 ePKPd  27 17.60    5.5X
DIX    150.72  360 ePKPd  27 19.50    7.2X
EMS    150.73    1 ePKPd  27 19.30    7.1X
MMK    150.74  359 ePKPd  27 18.20    5.9X
RIY    150.84  350 e(PKP)27 17.20     5.1X
RJF    151.08    8 ePKP   27 18.90    6.3X
       1.3s     31.75nm
LPL    151.28    1 ePKP   27 20.40    7.3X
       1.3s     35.00nm
LPG    151.30    1 ePKP   27 20.70    7.4X
       1.1s     17.60nm
LFF    151.32   10 ePKP   27 17.40    4.5X
CAF    151.53    8 ePKP   27 20.20    6.9X
       1.4s     27.00nm
SKO    152.04  337 ePKP   27 19.00    4.9X
                   i      30 18.50
                   i      31 07.00
                   i      31 27.00
VAY    152.16  335 ePKP   27 17.50    3.3X
FIR    152.81  354 e(PKP)27 23.00     8.0X
OHR    153.03  337 ePKP   27 04.30  -11.3X
                   i      27 24.00
CDR    153.09    2 ePKPc  27 27.20   11.7X
EPLA   153.99   24 ePKP   27 35.00   18.1X
ETOR   154.65   17 ePKP   27 30.00   12.2X
EVIA   156.53   20 ePKP   27 35.00   14.5X
EJIF   157.31   27 ePKP   27 39.00   17.6X
LIC    164.07  129 PKP    27 33.00    3.9X
     Z  22s      0.50um
                   e      28 23.10
TIC    164.35  128 PKP    27 34.20    4.8X
                   e      28 24.00
KIC    164.37  130 PKP    27 34.30    4.9X
                   e      28 24.10
     S.D. = 1.4  on 124 of 226 obs.
-----------------------------------------
    MAR  11, 1993  22h 21m 10.43± 0.48s
    41.874 N ± 4.7km   20.076 E ± 4.4km
      DEPTH =  10.0km  (geophysicist)
  ALBANIA                          (391)
      ML 2.6 (TIR), 2.6 (TTG), 1.9
      (SKO).

SDA       0.47 293 iPgc   21 20.60    0.7
                   iSg    21 28.40
BCI       0.49 359 ePg    21 24.20    3.8X
TIR       0.55 197 ePg    21 21.50    0.0
                   iSg    21 30.50
ULC       0.62 278 iPgc   21 22.49   -0.5
                   iSg    21 33.05
PVY       0.72 354 iPgc   21 23.69   -1.1
                   iSg    21 35.22
TTG       0.82 313 iPgc   21 25.90   -0.4
                   iSg    21 39.23
OHR       0.94 144 iPg    21 27.20   -1.1
                   iSg    21 40.50
IVA       1.01 353 iPgd   21 28.68   -0.8
                   iSg    21 44.34
BDV       1.02 294 iPgc   21 29.84    0.2
                   iSg    21 46.22
SKO       1.02  84 iPg    21 30.10    0.3
      0.3s      18.00nm
                   iSg    21 42.10
NKY       1.23 320 iPgc   21 33.22   -0.2
                   iSg    21 52.72
HCY       1.31 297 iPgc   21 34.57    0.0
                   iSg    21 55.97
BRY       1.53 313 iPgd   21 38.79    0.9
                   iSg    22 02.79
PLE       1.54 341 iPgc   21 39.00    1.0
```

```
                       iSg     22 02.47
VAY       1.95 106 ePn     21 45.00    1.1
      S.D. = 0.8  on  14 of  15 obs.
-----------------------------------------
   MAR  11, 1993  22h 35m 36.61± 0.79s
   44.308 N ± 7.7km   11.973 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
     MD 3.2 (LJU), 3.1 (TRI), 2.8
     (FIR). ML 3.1 (VIE), 3.0 (LDG).

FIR       0.74 225 ePg     35 52.00    0.9
                   iSg     36 04.00
TRI       1.89  42 e(Pn)   36 08.20   -1.0
                   e       36 30.40
                   e(Sg)   36 37.50
RIY       2.01  58 e(Pn)   36 08.70   -2.2
                   iSn     36 33.10
VOY       2.19  38 ePn     36 12.10   -1.6
                   ePb     36 14.20
                   eSn     36 39.00
                   e       36 49.50
                   e       37 07.00
                   e       38 35.00
CEY       2.25  50 e(Pn)   36 16.50    2.0
                   e       36 18.50
                   eSn     36 39.60
                   e       38 30.00
LJU       2.51  45 eP      36 24.40    6.3X
                   e       36 25.90
                   eSn     36 46.60
                   e       37 55.00
VBY       2.62  62 ePn     36 25.50    5.8X
                   e       36 48.30
PGF       2.79 232 Pn      36 22.30    0.1
                   Sn      36 56.20
KBA       2.93  19 iPnd    36 24.20   -0.1
                   iPg     36 33.00
                   i       36 36.60
                   iSn     36 59.40
                   i       37 17.70
SOTA      2.96 350 iPnc    36 26.00    1.4
                   iSn     37 03.30
                   i       37 13.80
WTTA      2.97 356 iPnc    36 26.40    1.7
                   iPg     36 36.30
                   iSn     37 02.50
                   i       37 15.40
                   iSg     37 18.60
WATA      3.04 355 iPnc    36 27.60    1.8
MOTA      3.10 349 iPnc    36 28.40    1.8
                   i       37 02.00
PTJ       3.24  59 ePn     36 36.10    7.5X
                   iSn     37 15.80
SBF       3.30 264 Pn      36 30.20    0.8
LPG       3.90 290 Pn      36 36.90   -1.2
LPL       3.91 290 Pg      36 37.60   -0.7
FRF       3.92 261 Pn      36 38.30    0.2
                   Sn      37 23.90
LMR       4.07 258 Pn      36 40.70    0.5
                   Sn      37 26.30
LRG       4.15 260 Pn      36 42.00    0.7
                   Sn      37 31.00
KHC       4.95  12 ePg     37 09.00   16.2X
                   eSg     37 45.00
                   e       38 06.00
BSF       5.04 316 Pn      36 53.60   -0.5
                   Sn      37 48.20
CDF       5.24 323 Pn      36 56.10   -0.8
                   Sn      37 53.80
HAU       5.38 315 Pn      36 58.00   -0.9
                   Sn      37 57.30
SMF       6.18 295 Pn      37 08.90   -1.2
                   Sn      38 17.10
LBF       6.21 298 Pn      37 10.00   -0.6
                   Sn      38 18.30
LOR       6.40 300 Pn      37 12.00   -1.2
                   Sn      38 23.00
     S.D. = 1.3  on  23 of  27 obs.
-----------------------------------------
   MAR  11, 1993  22h 38m 09.20± 0.46s
   44.288 N ± 3.9km   12.047 E ± 4.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
     MD 3.3 (TRI), 3.0 (FIR), 3.0
     (ROM). ML 3.3 (VIE), 3.2 (LDG).
```

```
SFI       0.39 201 P       38 17.67    0.4
RSM       0.46 141 P       38 18.79    0.2
PGD       0.47 210 P       38 19.01    0.1
CRE       0.66 186 P       38 22.09   -0.4
FIR       0.76 228 ePg     38 24.50    0.4
                   iSg     38 37.00
MME       0.97 265 P       38 31.75    3.9X
BDI       1.07 258 P       38 31.96    2.6
CTI       1.78 351 P       38 40.66    0.3
TRI       1.87  40 e(Pn)   38 40.50   -1.0
                   e(Sg)   39 09.90
BOB       1.92 285 P       38 45.11    2.8
RIY       1.97  57 ePn     38 41.50   -1.5
                   iSn     39 06.00
VOY       2.18  36 ePn     38 45.00   -1.1
                   ePg     38 49.70
                   eSn     39 11.20
                   e       41 10.00
CEY       2.23  48 ePn     38 47.40    0.7
                   e       38 51.50
                   eSn     39 12.50
                   e       41 30.00
FVI       2.36  12 P       38 49.27    0.7
RBL       2.41  26 P       38 49.74    0.4
LJU       2.48  44 e(Pn)   38 50.00   -0.3
                   e       38 57.00
                   eSn     39 20.00
                   e       40 45.00
PCP       2.52 277 P       38 51.77    0.9
VBY       2.59  61 ePn     38 58.50    6.7X
                   i       39 21.20
OGA       2.68 345 ePn     38 57.80    4.5X
CKI       2.71 274 P       38 56.34    2.8
OSS       2.75 332 ePc     38 56.70    2.4
FIN       2.76 270 P       38 54.56    0.2
SCE       2.76 355 iPnc    38 55.60    1.1
PGF       2.82 233 Pn      38 55.20    0.0
                   Sn      39 28.80
VDL       2.85 321 ePd     38 57.00    1.2
TMA       2.89 310 ePc     38 56.50    0.3
KBA       2.94  18 iPnc    38 57.00    0.1
                   iPg     39 05.70
                   i       39 09.80
                   iSn     39 32.70
                   i       39 51.40
WTTA      2.99 355 iPnc    38 59.50    1.8
                   iPg     39 09.20
                   iSn     39 35.80
                   i       39 48.40
                   iSg     39 51.60
SOTA      2.99 349 iPnc    38 59.30    1.7
                   iSn     39 35.90
ROB       3.00 272 P       38 57.90    0.2
IMI       3.02 264 P       38 58.81    0.8
WATA      3.07 354 iPnd    39 00.20    1.5
                   iSn     39 35.80
MOTA      3.13 348 iPnc    39 01.50    1.9
                   i       39 35.10
                   i       39 41.20
ZAG       3.18  60 e(Pn)   39 09.70    9.5X
                   iSg     40 02.70
ORX       3.18 296 P       38 59.50   -0.9
PTJ       3.20  58 ePn     39 09.00    8.3X
                   iSn     39 48.20
ENR       3.32 271 P       39 02.57    0.2
SBF       3.35 264 Pn      39 03.00    0.3
LLS       3.35 321 ePd     39 04.30    1.4
STV       3.39 271 P       39 03.16   -0.2
BHB       3.46 281 P       39 03.16   -1.1
PZZ       3.55 275 P       39 04.58   -1.0
LSD       3.67 290 P       39 05.27   -2.2
DIX       3.74 300 ePc     39 08.40    0.0
LPG       3.95 290 Pn      39 10.10   -1.4
FRF       3.97 261 Pn      39 11.40    0.0
                   Sn      39 57.80
LPL       3.97 290 Pn      39 10.70   -0.9
EMS       4.03 298 ePd     39 14.40    1.9
LMR       4.12 259 Pn      39 13.20   -0.3
LRG       4.20 261 Pn      39 14.60    0.0
                   Sn      40 03.80
FEL       4.56 323 ePn     39 19.14   -0.7
GEC2      4.70  13 Pn      39 19.90   -2.0
                   Pg      39 38.50
                   Sn      40 08.10
                   Sg      40 15.00
KHC       4.96  12 ePn     39 33.00    7.5X
                   ePg     39 41.60
```

eSn 40 04.50
eSg 40 18.00
e 40 39.00
8SF 5.09 316 Pn 39 26.70 -0.7
Sn 40 22.30
CDF 5.28 323 Pn 39 29.10 -1.0
Sn 40 25.70
HAU 5.43 315 Pn 39 30.90 -1.3
Sn 40 29.80
SMF 6.23 295 Pn 39 41.60 -1.8
Sn 40 49.50
L8F 6.27 298 Pn 39 42.30 -1.7
Sn 40 51.30
MOX 6.37 358 (Pn) 39 45.00 -0.4
(Sn) 40 51.50
(Sg) 41 39.00
LOR 6.45 300 Pn 39 44.80 -1.8
Sn 40 56.00
SSF 6.59 298 Pn 39 46.40 -2.2
AVF 6.60 295 Pn 39 47.20 -1.4
BGF 6.86 293 Pn 39 50.20 -2.1
S.D. = 1.3 on 57 of 63 obs.

% MAR 11, 1993 22h 42m 01.06± 0.88s
40.674 N ± 7.1km 23.414 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.7 (THE).

SOH 0.15 343 iPg 42 05.06 0.4
iSg 42 07.18
THE 0.34 263 ePg 42 08.10 0.0
eSg 42 12.34
SRS 0.46 17 ePg 42 10.26 -0.2
eSg 42 17.38
OUR 0.55 128 ePg 42 12.26 0.0
eSg 42 19.30
KNT 0.62 321 ePg 42 13.46 -0.2
eSg 42 21.90
S.D. = 0.3 on 5 of 5 obs.

• MAR 11, 1993 22h 58m 06.78± 0.89s
19.826 N ±14.5km 38.750 E ±11.4km
DEPTH = 10.0km (geophysicist)
4.5mb (13 obs.) 4.6Msz (2 obs.)
RED SEA (554)

MAIO 24.50 44 eP 03 30.00 2.5
8CAO 24.94 235 iPc 03 33.90 2.1
1.0s 10.00nm 4.5mb
OHR 26.16 328 eP 03 43.30 0.3
SKO 26.51 330 eP 03 47.00 0.8
OBN 35.25 358 eP 05 03.00 -0.3
1.5s 35.00nm 5.0mb
Z 18s 1.20um 4.7Msz
N 18s 1.10um
e 05 12.00
e 12 56.00
e 15 12.00
LR 25 44.00
GEC2 35.26 331 P 05 03.40 -0.2
1.4s 5.59nm 4.3mb
e 05 12.90
e 05 16.80
e 07 32.00
8RG 36.65 334 e(P) 05 14.80 -0.4
CLL 37.37 333 eP 05 21.00 -0.3
MOX 37.49 332 eP 05 22.00 -0.3
2.0s 33.00nm 4.8mb
Z 18s 0.60um 4.4Msz
HYB 37.74 87 eP 05 24.00 -0.8
8SF 38.06 325 eP 05 27.00 -0.3
1.1s 9.30nm 4.5mb
SMF 39.08 321 eP 05 38.30 2.6
1.4s 12.20nm 4.4mb
LOR 39.40 322 eP 05 37.80 -0.5
1.0s 7.80nm 4.3mb
AVF 39.44 321 eP 05 38.00 -0.7
1.0s 6.80nm 4.3mb
BGF 39.62 321 eP 05 40.20 0.0
1.2s 26.20nm 4.8mb
MAF 39.63 320 eP 05 40.10 -0.2
1.0s 5.60nm 4.2mb
KIC 44.28 258 P 06 17.00 -1.7
LZH 58.74 59 eP 08 07.00 -0.7
2.0s 37.00nm 5.1mb
Z 17s 0.74um 4.9MszX
RES 81.24 349 eP 10 30.00 6.1X
0.3s 6.00nm 5.1mb
YKA 95.28 348 eP 11 30.20 -1.8
1.0s 0.50nm 3.9mb
S.D. = 1.3 on 19 of 20 obs.

MAR 11, 1993 23h 02m 10.87± 1.08s
51.488 N ± 6.8km 7.030 E ±10.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.6 (LDG), 2.1 (BNS).

WTS 0.53 345 ePg 02 22.00 0.5
0.5s 38.90nm
BNS 0.53 170 iPgd 02 23.24 1.6
0.6s 100.00nm
iSg 02 31.33
ENN 1.00 224 eP 02 32.00 2.1
0.5s 10.00nm
iS 02 47.10
MEM 1.09 217 iPd 02 33.37 2.0
iS 02 49.97
SNF 1.99 242 iP 02 46.80 1.9
DOU 2.08 229 iP 02 52.30 6.1X
iS 03 18.20
CDF 3.08 177 Pn 03 00.90 0.3
Sn 03 35.20
Sg 03 48.40
HAU 3.51 187 Pn 03 07.10 0.4
BSF 3.66 183 Pn 03 08.90 0.0
LOR 4.70 207 Pn 03 22.80 -0.8
L8F 4.93 205 Pn 03 26.30 -0.5
SSF 4.99 209 Pn 03 26.80 -0.8
SMF 5.28 205 Pn 03 30.30 -1.4
AVF 5.28 209 Pn 03 30.60 -1.1
LDF 5.44 241 Pn 03 33.70 -0.3
FLN 5.55 243 Pn 03 35.40 0.0
8GF 5.65 211 Pn 03 35.60 -1.3
GRR 5.96 242 Pn 03 40.20 -1.0
Sn 04 46.50
LPL 5.98 182 Pn 03 41.10 -0.6
LPG 6.00 182 Pn 03 42.00 -0.1
LPF 6.27 240 Pn 03 44.50 -1.1
S.D. = 1.2 on 20 of 21 obs.

MAR 11, 1993 23h 42m 07.42± 0.49s
44.273 N ± 4.4km 12.117 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 3.0 (LJU), 2.8 (TRI), ML 2.7
(VIE).

SFI 0.40 209 P 42 15.00 -0.6
eSg 42 21.60
RSM 0.42 145 P 42 16.40 0.4
eSg 42 23.50
PGD 0.49 216 P 42 16.40 -1.0
eSg 42 23.50
CRE 0.66 191 P 42 19.50 -1.1
eSg 42 30.60
ARV 0.98 142 P 42 26.00 0.0
eSg 42 42.20
MME 1.02 266 P 42 28.60 1.7
eSg 42 40.70
BDI 1.11 260 P 42 29.30 0.9
eSg 42 45.80
ASS 1.27 162 P 42 31.80 0.8
eSg 42 50.70
PII 1.28 245 P 42 30.90 -0.2
eSg 42 47.90
CTI 1.81 350 P 42 38.00 -0.9
eSg 42 59.00
TRI 1.85 39 e(Pn) 42 40.20 0.8
e(Pb) 42 42.70
e(Sn) 43 04.40
e(Sg) 43 09.30
RIY 1.94 56 e(Pn) 42 43.20 2.5X
iSn 43 02.80
VOY 2.16 35 ePn 42 42.60 -1.5
e 42 45.10
e 42 48.10
eSn 43 09.30
e 43 21.80
e 44 10.00
CEY 2.20 47 eP 42 46.50 2.0
eSn 43 21.00
e 44 00.00
FVI 2.37 11 P 42 46.60 -0.3
eSg 43 12.30
RBL 2.40 25 P 42 51.40 4.0X
LJU 2.46 43 eP 42 54.00 5.8X
eSn 43 17.00
VBY 2.55 60 eP 42 58.20 8.7X
e 43 18.80
KBA 2.93 17 ePn 42 54.00 -1.1
iPg 43 03.90
eSn 43 29.50
S.D. = 1.1 on 15 of 19 obs.

• MAR 12, 1993 00h 03m 11.75± 0.63s
20.301 S ±10.5km 168.932 E ±13.6km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)
LOYALTY ISLANDS (188)

PVC 2.61 347 iP 03 53.40 0.8
BKM 2.70 346 iP 03 52.60 -1.2
iS 04 20.00
DZM 2.91 232 iPc 03 55.90 -1.0
iS 04 41.30
RMQ 19.51 248 iPc 07 40.50 1.2
CTA 21.29 267 iP 07 59.00 1.2
i 08 10.00
STK 27.05 239 eP 08 53.90 0.8
1.1s 2.30nm 3.7mb X
WB2 32.44 265 eP 09 32.00 -9.2X
0.5s 1.70nm 4.2mb
i 09 39.50
ASPA 32.61 258 iPd 09 41.00 -1.7
0.7s 30.50nm 5.3mb
Z 23s 0.30um 3.9MszX
i 09 51.10
eS 14 52.20
YKA 101.74 27 ePdiff17 03.10 0.8
0.6s 0.20nm 3.9mb
CLL 143.75 334 ePKP 22 43.00 -1.9
EKA 144.52 352 PKP 22 46.00 -0.1
1.1s 7.70nm
VAY 144.63 314 ePKP 22 45.60 -1.1
MOX 144.82 335 ePKPc 22 45.90 -0.9
1.3s 16.00nm
SKO 145.09 316 iPKP 22 48.20 0.7
1.2s 35.00nm
i 23 00.00
i 24 57.00
KHC 145.13 331 PKP 22 47.50 0.1
e 22 56.50
e 23 54.00
GEC2 145.28 331 PKP 22 47.60 -0.2
0.8s 2.12nm
e 22 57.60
e 23 04.80
WTS 145.43 340 ePKP 22 48.50 0.8
0.7s 7.50nm
GRF 145.72 334 ePKPc 22 49.70 1.3
e 22 55.00
e 23 02.30
OHR 145.92 315 iPKP 22 49.80 0.8
KBA 146.71 329 ePKP 22 50.00 -0.3
ENN 146.77 340 ePKP 22 53.00 3.0X
0.8s 7.10nm
VBY 146.81 325 e(PKP)22 52.90 2.7X
e 25 48.60
DCN 146.89 356 ePKP 22 52.50 2.4X
0.8s 55.00nm
DCN 146.89 356 ePKP 23 01.60 11.5X
CEY 147.09 326 e(PKP)22 53.50 2.8X
BCAO 147.16 245 iPKPd 22 54.20 2.4X
0.7s 15.00nm
ic 23 14.00
HCG 147.52 352 ePKP 22 53.90 2.7X
HAE 147.63 350 ePKP 22 54.70 3.4X
WLF 147.64 339 iPKPc 22 55.44 4.1X
HTR 147.70 351 ePKP 22 54.60 3.1X
DOU 147.77 341 PKPd 22 55.70 4.1X
0.9s 50.00nm
CDF 148.30 336 ePKP 22 56.70 4.0X
1.2s 20.85nm
SLE 148.35 335 ePKPd 22 56.80 4.1X
OSS 148.49 332 ePKPd 22 57.90 4.8X
LLS 148.85 333 ePKPd 22 58.60 4.8X
VDL 148.94 332 ePKPd 22 58.90 5.0X
BSF 148.96 336 ePKP 22 58.30 4.5X
1.1s 10.75nm

12d 00h

BSF 148.96 336 ePKP 23 04.30 10.5X
HAU 148.98 337 ePKP 22 58.30 4.6X
0.9s 10.15nm
TMA 149.50 332 ePKPd 23 00.00 5.3X
MMK 149.94 333 ePKPd 23 01.90 6.4X
DIX 150.15 334 ePKPd 23 02.30 6.5X
EMS 150.35 334 ePKPd 23 02.40 6.4X
FLN 150.36 346 ePKP 23 01.40 5.7X
1.1s 18.30nm
LDF 150.43 345 ePKP 23 01.60 5.8X
1.0s 14.60nm
LOR 150.48 339 ePKP 23 02.10 6.1X
1.3s 20.95nm
LBF 150.69 339 ePKP 23 02.60 6.3X
1.1s 8.05nm
SSF 150.78 339 ePKP 23 02.90 6.5X
1.1s 16.10nm
GRR 150.79 346 ePKP 23 02.80 6.5X
1.1s 24.40nm
HYF 150.88 341 ePKP 23 03.50 7.0X
LPL 150.88 334 ePKP 23 03.60 6.7X
1.2s 9.20nm
LPG 150.89 334 ePKP 23 03.80 6.8X
1.3s 10.10nm
SMF 151.03 339 ePKP 23 03.10 6.3X
AVF 151.07 339 ePKP 23 03.30 6.5X
1.0s 4.60nm
LPF 151.17 346 ePKP 23 03.60 6.7X
1.3s 39.35nm
MAF 151.83 340 ePKP 23 05.50 7.5X
SBF 151.88 331 ePKP 23 05.10 6.9X
TCF 151.89 340 ePKP 23 05.40 7.3X
1.1s 10.00nm
PGF 152.11 327 ePKP 23 05.80 7.1X
LSF 152.13 341 ePKP 23 05.40 7.0X
MFF 152.29 344 ePKP 23 06.10 7.5X
0.9s 9.15nm
LMR 152.72 331 ePKP 23 06.90 7.6X
RJF 152.98 340 ePKP 23 07.80 8.2X
CAF 153.14 339 ePKP 23 08.40 8.5X
LFF 153.55 341 ePKP 23 09.10 8.7X
0.9s 9.15nm
LPO 153.64 340 ePKP 23 09.40 8.8X
EPF 155.39 340 ePKP 23 12.90 9.9X
S.D. = 1.1 on 19 of 67 obs.

MAR 12, 1993 00h 19m 17.29± 0.42s
19.678 N ± 7.6km 38.700 E ± 4.4km
DEPTH = 10.0km (geophysicist)
4.6mb (30 obs.)
RED SEA (554)

GRS 20.82 17 eP 24 03.00 1.3
1.3s 40.00nm 4.6mb
Z 15s 0.65um 4.1MszX
N 14s 0.35um
E 14s 0.35um
ERE 21.04 12 iP 24 05.00 1.2
Z 13s 0.50um 4.1MszX
MAIO 24.64 43 eP 24 42.00 2.6
BCAO 24.82 235 iPd 24 42.00 0.8
0.9s 14.00nm 4.6mb
SRO 32.58 334 eP 25 47.30 -3.6X
SPC 32.96 338 eP 25 54.90 0.5
ZST 33.39 333 eP 25 57.80 -0.1
GEC2 35.37 331 P 26 14.50 -0.6
1.1s 4.53nm 4.3mb
e 26 19.60
OBN 35.40 358 eP 26 15.00 -0.1
e 26 19.00
KHC 35.63 331 eP 26 16.50 -0.7
e 26 20.50
KSP 35.79 336 eP 26 19.00 0.5
FRF 35.86 319 eP 26 19.00 -0.2
1.1s 8.80nm 4.5mb
BRG 36.76 334 eP 26 26.40 -0.3
1.3s 16.00nm 4.7mb
LPL 36.86 322 eP 26 29.10 1.2
CLL 37.48 333 eP 26 33.00 0.3
2.0s 26.00nm 4.7mb
MOX 37.60 332 eP 26 34.10 0.4
1.8s 25.00nm 4.7mb
HYB 37.79 87 eP 26 36.00 0.2
BSF 38.16 325 eP 26 38.30 -0.3
1.4s 20.50nm 4.7mb
HAU 38.50 325 eP 26 41.00 -0.4
1.3s 16.95nm 4.6mb
LBF 39.26 322 eP 26 47.30 -0.5
1.1s 12.70nm 4.5mb
CAF 39.40 318 eP 26 49.40 0.5
1.1s 11.50nm 4.5mb
LOR 39.48 322 eP 26 49.10 -0.5
1.3s 20.20nm 4.6mb
AVF 39.53 321 eP 26 49.30 -0.6
1.1s 11.00nm 4.4mb
SSF 39.58 322 eP 26 49.80 -0.5
1.2s 10.70nm 4.4mb
BGF 39.71 321 eP 26 51.60 0.2
1.2s 39.85nm 5.0mb
MAF 39.71 320 eP 26 51.50 0.0
1.2s 13.10nm 4.5mb
LPO 39.84 317 eP 26 53.30 0.7
RJF 39.92 318 eP 26 53.60 0.4
1.2s 13.10nm 4.5mb
TCF 39.96 320 eP 26 53.70 0.2
1.1s 6.60nm 4.2mb
LFF 40.24 317 eP 26 56.50 0.7
1.2s 20.85nm 4.7mb
LSF 40.35 320 eP 26 57.20 0.5
1.2s 17.55nm 4.6mb
MFF 41.54 319 eP 27 06.00 -0.5
1.2s 12.50nm 4.5mb
LDF 42.46 322 eP 27 12.80 -1.2
1.2s 18.15nm 4.7mb
GKN 42.63 70 P 27 15.40 -0.4
LPF 42.74 321 eP 27 15.40 -0.8
1.0s 15.60nm 4.7mb
FLN 42.75 322 eP 27 15.40 -1.0
1.2s 28.85nm 4.9mb
GRR 42.79 321 eP 27 15.70 -1.0
1.1s 16.35nm 4.7mb
DMN 43.04 70 P 27 19.20 -0.1
KKN 43.19 70 P 27 20.20 -0.3
PKI 43.31 70 P 27 21.00 -0.6
GUN 43.72 70 P 27 24.40 -0.6
KIC 44.20 259 P 27 29.00 0.4
TIC 44.36 259 P 27 30.40 0.5
LIC 44.52 259 P 27 31.60 0.5
Z 20s 0.04um 3.3Msz
ELT 49.49 36 eP 28 09.70 0.1
NRI 57.99 18 iPc 29 13.00 0.9
1.4s 18.00nm 4.9mb
LZH 58.86 59 eP 29 18.50 -0.5
1.2s 25.00nm 5.2mb
Z 18s 0.25um 4.4Msz
pP 29 22.50 13kmX
sP 29 25.50
ZAK 58.93 42 eP 29 18.00 -0.9
1.3s 11.00nm 4.8mb
CIT 65.49 41 eP 30 04.00 1.1
BOD 65.85 35 eP 30 02.70 -2.2
1.0s 24.00nm 5.3mb
YKA 95.42 348 eP 32 42.20 -0.9
0.8s 0.60nm 4.1mb
S.D. = 0.8 on 50 of 51 obs.

MAR 12, 1993 00h 40m 31.88± 0.33s
44.537 N ± 4.9km 114.769 W ± 2.9km
DEPTH = 5.0km (geophysicist)
WESTERN IDAHO (33)
ML 3.1 (GS), 3.5 (BUT).

MCMT 1.40 77 iPc 40 58.79 0.5
LTMT 1.90 89 ePn 41 06.92 1.4
HBMT 1.98 50 iPnc 41 06.92 0.3
BGMT 2.06 69 ePn 41 07.80 0.0
LRM 2.08 51 ePn 41 08.20 0.1
HHAI 2.13 125 ePc 41 08.24 -0.4
BUT 2.15 46 iPg 41 13.30 4.3X
iSg 41 41.70
PTI 2.41 133 eP 41 10.93 -1.8
eS 41 43.07
LCCM 2.42 57 ePn 41 12.75 -0.2
EBI 2.49 338 Pn 41 14.12 0.3
NCM 2.65 3 ePn 41 16.70 0.6
MEMT 2.90 67 ePn 41 19.57 -0.1
HRY 3.00 42 ePn 41 20.60 -0.4
HVU 3.12 151 ePn 41 23.45 0.7
eS 42 03.49
PRW 3.85 298 P 41 32.74 -0.3
RSW 3.86 300 P 41 33.31 -0.1
GBL 3.89 304 P 41 34.75 1.2
WAH2 4.03 305 P 41 41.93 6.4X
NEW 4.07 337 P 41 41.74 5.6X
MDW 4.07 302 P 41 36.56 0.4
DPW 4.10 326 ePn 41 37.09 0.5
S 42 40.66
BW06 4.17 113 (P) 41 35.79 -2.0
BVW 4.24 304 P 41 39.66 1.0
MXC 4.38 300 P 41 40.94 0.3
GL2 4.51 291 P 41 41.26 -1.2
DUG 4.57 161 ePn 41 45.86 2.4
EBG 4.70 302 P 41 45.36 0.1
NAC 4.78 299 P 41 46.93 0.6
TBM 4.85 305 P 41 47.19 -0.2
ETW 4.94 310 P 41 47.76 -0.9
GLK 5.21 295 P 41 51.78 -0.7
WPW 5.22 297 P 41 52.44 -0.2
FMW 5.39 299 P 41 54.86 -0.3
LON 5.41 297 P 41 54.73 -0.5
RVC 5.59 298 P 41 58.00 0.2
RMW 5.71 303 P 41 58.61 -0.8
S.D. = 0.9 on 33 of 36 obs.

& MAR 12, 1993 00h 54m 21.00s
39.200 N 76.900 W
DEPTH = 5.0km (geophysicist)
CHESAPEAKE BAY REGION (493)
<MACRO>. mbLg 2.0 (GS). Felt
(III) at Columbia, Maryland.

NED 1.05 61 iPc 54 41.00 -0.3
iS 54 56.50
BWD 1.19 59 iPc 54 43.00 -0.6
S 54 59.09
CVL 1.73 226 eP 54 52.67 0.9
eS 55 15.79
3 obs. associated

MAR 12, 1993 01h 03m 55.30± 0.74s
38.917 N ± 8.2km 26.034 E ± 3.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.5 (ISK). ML 2.9 (THE).

IZM 1.09 118 iPn 04 14.90 -1.0
ALN 1.98 0 ePn 04 29.32 0.2
eSn 04 57.56
EDC 2.01 44 iPn 04 29.00 -0.6
PAIG 2.08 300 iPn 04 30.28 -0.4
OUR 2.13 312 ePn 04 31.40 0.1
DST 2.13 70 ePn 04 33.20 1.8
KCT 2.23 53 ePn 04 32.70 -0.2
KDZ 2.77 350 eP 04 40.00 -0.5
SOH 2.81 314 ePn 04 41.28 0.2
CTT 2.89 39 ePn 04 42.20 0.0
SRS 2.89 320 ePn 04 42.08 -0.1
RZN 2.95 340 iPd 04 43.00 -0.2
DMK 3.19 24 ePn 04 45.30 -1.1
MMB 3.20 327 eP 04 46.00 -0.6
KNT 3.29 314 ePn 04 47.96 0.1
GRG 3.46 307 ePn 04 50.68 0.4
EYL 3.58 61 ePn 04 53.00 0.9
VAY 3.58 313 ePn 04 52.70 0.7
KKB 3.71 324 eP 04 54.00 0.1
VTS 4.25 331 eP 05 02.00 0.3
S.D. = 0.7 on 20 of 20 obs.

MAR 12, 1993 01h 08m 36.59± 0.42s
13.590 N ± 6.4km 90.897 W ± 4.8km
DEPTH = 63.4km (30 depth phases)
4.9mb (15 obs.)
NEAR COAST OF GUATEMALA (71)
MD 4.2 (GCG). Felt throughout
Guatemala. Also felt (III) at
San Salvador, El Salvador.

IXG 0.72 36 iPd 08 51.86 0.2
TER 0.74 16 eP 08 51.58 -0.2
PCG 0.85 19 iPd 08 53.44 0.1
GCG 1.05 20 ePd 08 56.91 1.0
iS 09 10.31
BVA 1.10 13 iPc 08 57.45 0.8
YUP 1.22 60 ePd 08 59.93 1.7
YPE 1.29 66 iPc 09 01.20 2.1
TME 1.56 74 iPc 09 04.60 2.0
SJAS 1.68 87 eP 09 06.60 2.2
LFU 1.74 85 iPc 09 07.50 2.3
TPX 1.86 315 iPd 09 06.60 -0.2
iS 09 12.50
MRL 1.88 38 iPc 09 08.65 1.5

SCX	3.55	332	iP	09 32.50	2.1
			iS	09 56.00	
IISM	8.22	312	iP	10 34.75	-0.9
PPM	9.20	307	iP	10 51.93	2.2
ACX	9.24	292	(P)	10 50.50	0.7
IIA	9.27	308	iP	10 52.97	2.8
III	9.52	301	iP	10 55.18	1.5
			(S)	12 37.00	
UNM	9.78	307	(P)	11 07.00	9.6X
CRX	10.22	306	(P)	11 07.50	4.1X
MRX	11.59	303	iP	11 23.39	1.9
LTX	19.64	325	P	12 54.40	-8.6X
MIAR	21.00	354	eP	13 11.76	-5.2X
	1.5s	55.78nm			4.7mb
HBF	21.52	25	eP	13 21.28	-0.8
SGS	21.69	24	eP	13 24.99	1.2
			e	13 39.02	61km
PRM	21.82	19	ePc	13 25.11	-0.1
			e	13 35.91	42kmX
OLY	21.82	359	(P)	13 26.82	1.6
MEO	22.22	343	iPd	13 26.50	-2.6
WMOK	22.23	343	eP	13 27.06	-2.2
			S	17 21.89	
JSC	22.38	21	(P)	13 27.38	-3.2X
GRT	22.62	3	eP	13 23.12	-9.8X
OCO	22.63	346	iPc	13 33.30	0.2
LHS	22.72	22	ePc	13 33.31	-0.6
			i	13 50.82	78kmX
GBTN	22.79	14	ePc	13 34.27	-0.4
			e	13 50.76	73km
TKL	22.89	15	ePc	13 35.46	-0.2
			e	13 49.44	59km
ELC	23.64	3	eP	13 40.90	-2.0
ACO	24.17	344	iPc	13 47.60	-0.5
FVM	24.30	1	(P)	13 42.30	-7.0X
	0.5s	16.55nm			4.8mb
CEH	24.61	24	eP	13 51.26	-1.1
	0.9s	79.19nm			5.2mb
			e	14 05.46	59km
NAV	25.29	19	eP	13 57.30	-1.5
BLA	25.32	20	eP	13 57.90	-1.1
	1.3s	107.35nm			5.2mb
TUC	26.04	319	eP	14 02.67	-3.2X
	1.0s	22.84nm			4.7mb
			epP	14 21.63	84kmX
CVL	26.69	22	(P)	14 05.27	-6.3X
CBN	27.30	24	eP	14 15.00	-2.1
GLA	29.17	316	eP	14 33.99	-0.2
			ipP	14 50.12	67km
PLM	30.74	314	eP	14 47.59	-0.7
			epP	15 03.27	65km
MSU	31.17	327	eP	14 50.72	-1.3
			epP	15 07.90	72km
PEC	31.25	315	eP	14 53.39	0.8
	1.2s	35.73nm			5.0mb
			epP	15 07.23	55km
ARUT	31.35	324	eP	14 55.22	1.6
			e	15 10.09	60km
EMUT	31.45	330	eP	14 54.13	-0.4
			e	15 09.81	65km
GSC	31.82	317	eP	14 57.27	-0.3
			e	15 13.58	68km
DAU	32.13	330	eP	15 00.37	-0.1
			e	15 16.10	65km
TPNV	32.47	320	eP	15 06.21	2.9
			e	15 19.38	51kmX
ISA	33.14	316	eP	15 08.75	-0.3
			e	15 24.47	64km
BW06	33.25	335	eP	15 07.41	-2.7
	0.5s	0.94nm			3.9mb
TNP	33.78	321	(P)	15 15.64	0.9
			e	15 30.56	60km
HVU	33.92	330	eP	15 15.69	-0.1
			e	15 31.50	64km
BONR	34.37	320	eP	15 20.03	0.1
			ipP	15 36.10	65km
			PcP	18 10.75	
EEO	34.41	14	eP	15 20.00	0.2
			pP	15 34.50	57km
PHAM	34.54	315	(P)	15 21.97	0.9
			epP	15 37.20	61km
MEMM	34.60	319	(P)	15 21.89	0.4
HHAI	34.90	332	(P)	15 22.98	-1.2
			e	15 41.34	77kmX
KVN	34.93	322	(P)	15 25.25	0.7
			e	15 41.09	64km
			e	15 41.18	
CMB	35.75	318	(P)	15 24.48	-6.9X
	1.3s	21.13nm			4.9mb
			i	15 46.74	94kmX
LCCM	36.71	335	eP	15 40.20	0.7
ULM	36.78	355	eP	15 39.50	-0.3
			pP	15 55.00	61km
ZOBO	37.25	142	Pd	15 45.50	0.7
	Z 21s	0.44um			4.2Msz
			i	16 03.70	74kmX
			LR	27 52.00	
ORV	37.33	320	eP	15 45.20	0.6
			epP	16 01.10	63km
LPB	37.46	142	P	15 48.00	1.7
LGPM	38.95	320	P	15 58.06	-0.2
LMN	38.98	29	eP	16 16.50	18.2X
KMPM	39.48	319	(P)	15 59.51	-3.1X
			e	16 19.60	84kmX
FHC	39.61	319	eP	16 04.34	0.7
	1.0s	77.49nm			5.5mb
			ipP	16 20.82	66km
NEW	40.84	333	eP	16 11.90	-1.7
	0.5s	8.57nm			4.8mb
DPW	41.03	332	eP	16 12.96	-2.3
			epP	16 29.44	66km
SIV	41.63	134	iPd	16 27.00	6.5X
JAO	41.87	13	eP	16 18.50	-3.5X
			pP	16 34.50	63km
LON	42.00	328	eP	16 11.79	-11.4X
			ipP	16 23.58	43kmX
			e	16 37.42	
BMW	42.56	327	eP	16 15.32	-12.5X
			epP	16 27.95	47kmX
			e	16 43.68	
GMW	43.03	328	eP	16 29.29	-2.2
			ipP	16 46.11	67km
MCW	43.80	330	(P)	16 37.42	-0.4
FCC	45.15	358	eP	16 50.00	1.6
TCA	51.32	151	iPc	17 36.60	-0.1
BAO	51.41	123	eP	17 36.90	-0.8
			e	17 53.10	63km
			e	18 04.00	
			e	18 52.80	
			e	19 10.00	
BDF	51.50	123	eP	17 38.10	-0.3
			e	17 54.50	63km
YKA	51.67	346	eP	17 37.50	-1.4
	0.4s	1.30nm			4.3mb
PPD	52.54	132	eP	17 45.30	-0.7
			e	18 02.90	69km
SOB1	54.55	112	eP	17 59.20	-1.8
			e	18 16.10	65km
VAO	56.32	130	eP	18 13.30	-0.3
			e	18 28.00	54km
RES	61.13	359	eP	18 43.50	-2.6
	0.6s	2.00nm			4.4mb
KLU	61.82	334	P	18 51.41	0.3
KDC	63.57	328	(P)	19 02.15	-0.4
	1.7s	84.72nm			5.5mb
RSO	64.53	331	eP	18 57.57	-11.6X
			i	19 08.48	36kmX
DAG	72.79	13	eP	19 54.80	-4.9X
ADK	76.85	321	(P)	20 16.96	-6.4X
	0.6s	17.24nm			5.2mb
TIC	84.47	85	P	21 01.50	-2.9
LIC	84.56	85	P	21 03.00	-1.8
	Z 22s	0.10um			4.2Msz
KIC	84.81	85	P	21 04.00	-2.0
APO	85.41	29	eP	21 08.00	-0.2
	0.4s	0.60nm			4.1mb
BCAO	107.73	81	iPKPd	26 46.50	-12.8X
	0.5s	5.00nm			
			id	28 21.10	
STK	128.79	240	ePKP	27 39.40	0.4
	0.9s	1.30nm			
WB2	136.32	255	iPKPc	27 54.30	0.7
	0.6s	5.30nm			
			i	28 10.20	
CHTO	146.37	343	ePKP	28 11.80	0.4
HYB	147.48	19	ePKP	28 15.00	1.8
GBA	150.61	24	PKP	28 23.30	5.2X

S.D. = 1.4 on 84 of 105 abs.

& MAR 12, 1993 01h 17m 24.66s

63.485 N 150.708 W

DEPTH = 14.9km

CENTRAL ALASKA (1)

<AEIC>. ML 2.5 (AEIC), 2.7 (PMR).

TRF	0.19	100	iP	17 29.25	-0.3
			eS	17 34.13	
HUR	0.70	136	iP	17 38.22	0.1
			eS	17 49.43	
MCK	0.83	72	eP	17 40.38	0.1
RND	0.84	95	iP	17 40.48	0.0
			eS	17 53.11	
NEA	1.31	32	iP	17 47.90	-0.4
			S	18 05.61	
SKT	1.56	194	iP	17 51.50	-0.3
CCB	1.73	46	eP	17 54.85	0.6
			eS	18 18.38	
MDM	1.83	35	eP	17 56.47	0.6
			eS	18 20.41	
PWA	1.88	168	P	17 57.20	0.7
HDA	1.90	59	eP	17 58.16	1.4
GHO	1.91	154	eP	17 57.35	0.4
FBA	1.91	41	eP	17 56.66	-0.3
			eS	18 23.38	
SML	2.01	146	iP	17 58.75	0.3
SUA	2.03	180	eP	17 58.29	-0.5
PMR	2.04	158	eP	17 59.08	0.3
GLM	2.09	42	eP	18 00.81	1.2
SCM	2.28	135	eP	18 03.24	0.9
PMS	2.31	166	P	18 03.50	0.7
CRP	2.33	198	eP	18 02.51	-0.6
CPAM	2.34	197	eP	18 02.57	-0.6
CP2	2.34	198	(P)	18 02.89	-0.5
BGL	2.36	200	eP	18 03.68	0.1
CKN	2.37	198	eP	18 04.32	0.7
SPU	2.40	196	eP	18 03.63	-0.3
CKT	2.40	198	eP	18 04.30	0.3
CKL	2.42	199	eP	18 04.58	0.2
PAX	2.43	100	eP	18 05.69	1.2
TTA	2.47	259	eP	18 05.20	0.2
SDG	2.54	110	eP	18 07.17	1.1
PTE	2.75	163	eP	18 10.23	1.3
IMA	2.89	335	eP	18 10.66	-0.4
KLU	2.99	130	eP	18 13.83	1.4
SLKM	3.00	175	eP	18 13.44	1.0
DFR	3.05	199	eP	18 14.43	1.2

34 abs. associated

? MAR 12, 1993 01h 24m 30.99± 1.76s

46.225 N ±16.3km 2.959 E ± 8.7km

DEPTH = 10.0km (geophysicist)

FRANCE (538)

ML 1.4 (LDG).

MAF	0.27	269	Pg	24 37.00	0.3
			Sg	24 41.20	
BGF	0.34	347	Pg	24 38.10	0.1
			Sg	24 42.70	
TCF	0.52	277	Pg	24 41.30	-0.3
			Sg	24 48.80	
SMF	0.74	55	Pg	24 45.50	0.0
			Sg	24 55.90	

S.D. = 0.4 on 4 of 4 abs.

& MAR 12, 1993 03h 26m 42.00s

63.000 N 149.468 W

DEPTH = 84.6km

CENTRAL ALASKA (1)

<AEIC>.

HUR	0.08	254	iPc	26 53.90	1.5
			eS	27 02.48	
RND	0.49	34	iPd	26 56.10	-0.3
			eS	27 06.77	
TRF	0.59	321	iPd	26 57.33	0.0
			eS	27 08.84	
MCK	0.77	18	iPd	26 58.94	-0.1
			eS	27 11.55	
GHO	1.26	168	iPc	27 04.67	-0.2
			eS	27 22.41	
SML	1.31	156	iPc	27 05.12	-0.3
			eS	27 23.64	
PWA	1.37	188	P	27 06.40	0.3
			S	27 26.20	
SKT	1.40	224	iPd	27 06.25	-0.4
			eS	27 24.89	
PLRM	1.42	173	eP	27 06.90	0.1
PMR	1.42	173	eP	27 06.98	0.1
SCM	1.54	139	ePd	27 08.50	0.0
NEA	1.59	6	iPd	27 08.28	-0.8

12d 03h

eS 27 27.72
SUA 1.65 202 ePd 27 10.30 0.3
eS 27 34.28
THY 1.73 74 eP 27 12.36 1.3
PMS 1.76 181 P 27 11.30 -0.1
HDA 1.80 37 iPd 27 11.17 -0.7
eS 27 33.25
CCB 1.81 23 iPd 27 11.15 -0.8
PAX 1.83 89 ePc 27 12.48 0.2
eS 27 35.02
SDG 1.87 103 ePd 27 13.04 0.2
MDM 2.04 15 iPd 27 14.39 -0.8
FBA 2.05 20 iPd 27 14.52 -0.7
CRP 2.15 217 eP 27 16.51 -0.2
PTE 2.15 174 eP 27 16.78 0.2
CPAM 2.16 217 eP 27 17.05 0.3
CP2 2.18 218 eP 27 17.17 0.0
CKN 2.19 217 eP 27 17.87 0.7
SPU 2.19 215 ePd 27 16.94 -0.3
GLM 2.20 24 iPd 27 16.43 -0.8
CKT 2.22 217 eP 27 17.65 0.0
BGL 2.22 220 eP 27 17.97 0.3
KLU 2.25 131 eP 27 17.15 -0.8
CKL 2.26 218 eP 27 17.83 -0.4
VLZ 2.39 140 eP 27 18.52 -1.3
NKA 2.42 201 P 27 24.00 3.8
MPA 2.52 179 eP 27 22.08 0.4
DOT 2.52 73 eP 27 21.65 -0.1
SLKM 2.53 188 iPc 27 22.32 0.5
DFR 2.86 214 eP 27 27.24 0.8
SEW 2.91 180 eP 27 26.88 -0.1
NCT 2.95 215 eP 27 28.86 1.2
HIN 2.97 150 eP 27 26.33 -1.5
RDW 2.98 214 eP 27 29.42 1.2
RSO 2.99 213 eP 27 29.38 1.1
RS2 2.99 213 eP 27 29.39 1.1
TTA 2.99 272 eP 27 27.41 -0.8
RS1 2.99 213 eP 27 29.66 1.3
CVA 3.03 143 eP 27 27.72 -0.9
GLB 3.08 118 ePc 27 28.57 -0.8
SGAM 3.22 139 eP 27 33.03 1.7
INE 3.41 212 eP 27 35.79 1.6
INW 3.43 212 eP 27 36.70 2.4
SVW 3.46 240 eP 27 34.04 -0.7
IMA 3.58 331 eP 27 35.86 -0.5
CNPM 3.59 195 iPd 27 35.90 -0.5
CRQM 3.75 124 eP 27 37.67 -1.1
TGL 3.87 123 eP 27 38.90 -1.5
BALM 3.89 117 eP 27 39.19 -1.5
PDB 3.94 217 eP 27 41.30 0.0
FYU 4.01 25 eP 27 42.37 0.1
59 obs. associated

---

* MAR 12, 1993 03h 35m 13.96± 1.67s
31.631 S ±10.4km 70.657 W ±12.4km
DEPTH = 113.9 ± 23.3 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).

JACH 1.05 177 iP+ 35 35.77 -0.6
iS 35 52.34
ROCH 1.37 193 iP 35 39.05 -1.0
iS 35 59.55
PEL 1.51 181 iPd 35 41.29 -0.3
iS 36 02.23
RTCB 1.59 85 iPd 35 42.50 -0.1
S 36 03.50
FCH 1.72 170 iP+ 35 45.03 0.6
iS 36 08.25
RTRS 1.78 36 ePc 35 45.50 0.7
RTCV 1.82 98 ePc 35 46.20 0.8
RTLL 1.89 81 eP 35 46.00 -0.3
S 36 09.00
PCH 1.99 177 iP 35 47.80 0.3
iS 36 15.27
LCCH 1.99 203 iP 35 47.18 -0.3
TACH 2.03 187 iP 35 48.30 0.3
iS 36 13.90
CFA 2.06 90 e(P) 35 54.00 5.5X
S 36 15.10
CHCH 2.30 180 eP 35 51.67 0.2
iS 36 21.62
LNV 2.40 195 iP+ 35 52.72 -0.1
(S) 36 26.91
CACH 2.48 179 iP 35 55.07 1.1
iS 36 27.80
TCA 5.19 88 eP 36 29.50 -1.2

(S) 37 26.00
S.D. = 0.7 on 15 of 16 obs.

? MAR 12, 1993 03h 36m 40.31± 1.18s
19.568 N ±12.7km 64.335 W ±13.9km
DEPTH = 33.0km (normal)
3.9mb (1 obs.)
VIRGIN ISLANDS (91)

LPR 1.92 229 P 37 11.50 0.2
CPD 2.13 225 P 37 15.00 0.6
SJG 2.25 230 iP 37 16.00 0.0
APR 2.52 244 P 37 20.00 0.1
PORP 2.65 236 P 37 21.60 -0.1
MGP 3.04 240 (P) 37 26.30 -0.9
SIV 35.48 175 P 43 35.80 -0.2
YKA 54.92 334 eP 46 10.10 0.1
0.5s 0.60nm 3.9mb
S.D. = 0.5 on 8 of 8 obs.

? MAR 12, 1993 03h 47m 16.34± 1.08s
19.742 N ±17.7km 38.746 E ±17.9km
DEPTH = 10.0km (geophysicist)
4.3mb (3 obs.)
RED SEA (554)

BCAO 24.89 235 ePc 52 41.10 0.2
0.5s 3.00nm 4.2mb
GEC2 35.33 331 P 54 13.80 0.0
1.0s 2.11nm 3.9mb
BRG 36.72 334 e(P) 54 25.50 0.1
KIC 44.26 259 P 55 27.80 -0.3
LZH 58.79 59 eP 57 17.50 0.0
1.5s 16.00nm 4.9mb
S.D. = 0.3 on 5 of 5 obs.

% MAR 12, 1993 03h 49m 45.89± 0.60s
46.274 N ± 5.8km 2.993 E ± 5.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

MAF 0.30 260 Pg 49 51.50 -0.7
Sg 49 55.70
BGF 0.30 340 Pg 49 52.50 0.3
Sg 49 57.40
TCF 0.54 272 Pg 49 56.20 -0.7
Sg 50 03.50
AVF 0.57 26 Pg 49 57.20 -0.3
Sg 50 05.40
Sn 50 09.40
SMF 0.69 57 Pg 49 58.90 -0.7
Sg 50 09.30
Sn 50 11.20
SSF 0.86 24 Pg 50 02.60 0.1
Sg 50 14.40
LBF 0.98 43 Pg 50 04.40 -0.2
Sg 50 17.70
LSF 1.02 269 Pg 50 05.10 0.0
Sg 50 18.00
HYF 1.02 346 Pg 50 06.30 1.0
Sg 50 21.10
LOR 1.16 31 Pg 50 07.90 0.3
Sg 50 23.40
RJF 1.42 227 Pg 50 11.40 -0.3
Sg 50 29.10
CAF 1.50 206 Pg 50 12.60 -0.2
Sg 50 31.20
LPO 2.04 219 Pg 50 23.60 3.0X
Sg 50 49.00
LFF 2.07 231 Pg 50 23.30 2.2
Sg 50 48.60
MFF 2.20 280 Pn 50 22.10 -0.8
Pg 50 27.40
Sg 50 53.90
S.D. = 0.9 on 14 of 15 obs.

MAR 12, 1993 04h 24m 19.32± 0.26s
19.576 N ± 4.3km 38.743 E ± 3.4km
DEPTH = 10.0km (geophysicist)
5.1mb (81 obs.) 5.2Msz (14 obs.)
RED SEA (554)
Mw 5.3 (HRV). MD 4.9 (RYD).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 32S, 50C
Centroid Location:

Origin Time 04:24:21.4 0.6
Lat 19.39N 0.08 Lon 38.34E 0.06
Dep 15.0 FIX Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr=-8.15 0.34 Mtt= 2.63 0.41
Mff= 5.52 0.45 Mrt= 3.13 1.60
Mrf=-3.19 1.67 Mtf=-4.60 0.40
Principal Axes:
T Val= 9.98 Plg=14 Azm= 53
N -0.70 4 322
P -9.28 76 217
Best Double Couple:Mo=9.6*10**16
NP1:Strike=148 Dip=31 Slip= -83
NP2: 320 59 -94

ABHA 4.02 109 ePd 25 19.30 -3.2
eS 25 59.18
KMTA 4.15 109 ePd 25 22.60 -1.7
eS 26 10.30
DHJN 4.89 112 ePd 25 33.58 -1.3
eS 26 21.30
WAJH 6.87 343 eP 25 53.60 -8.9X
eS 29 00.90
ARO 8.92 153 ePd 26 38.00 6.7X
BADA 9.54 340 eP 26 37.66 -2.0
AYN 9.58 345 eP 26 38.00 -2.3
eS 39 17.00
AAE 10.49 180 P 26 52.50 -0.6
AQBJ 10.65 342 P 26 54.40 -0.6
MBH 10.74 342 eP 26 55.40 -0.9
SHWJ 11.15 345 P 27 01.40 -0.7
MKT 11.78 345 eP 27 10.60 0.2
HRI 13.90 349 eP 27 40.30 1.6
BHL 14.53 350 P 27 46.00 -1.0
S 32 30.00
CSS 16.06 344 eP 28 11.00 4.2X
KER 16.49 25 eP 28 13.00 0.6
GAZ 17.58 356 iP 28 31.90 5.9X
NAI 20.81 185 eP+ 29 10.00 6.2X
Z 20s 3.44um 4.7Msz
eS 33 14.00
GRS 20.91 17 eP 29 05.00 0.4
1.5s 100.00nm 5.0mb
Z 12s 3.42um 4.9MszX
N 12s 2.51um
E 12s 1.04um
eS 33 06.00
ERE 21.13 12 iP 29 08.00 1.3
1.5s 23.00nm 4.3mb
Z 14s 4.30um 5.0MszX
iS 33 10.00
DST 21.78 339 eP 29 14.10 0.8
KAS 22.14 350 eP 29 18.50 1.7
SHE 22.63 20 iPc 29 27.50 5.9X
1.2s 60.00nm 5.0mb
Z 12s 2.50um 4.9MszX
N 13s 9.00um
E 12s 5.00um
iS 33 38.00
MTA 22.65 12 iP 29 24.40 2.6X
0.8s 80.00nm 5.3mb
Z 12s 1.50um 4.6MszX
N 12s 3.00um
E 12s 1.50um
e 30 00.00
iS 33 34.40
iPS 33 39.00
eSS 34 27.00
BAK 22.84 22 eP 29 32.00 8.3X
Z 15s 15.20um 5.6MszX
N 18s 24.72um
eS 33 44.00
CTT 23.23 340 eP 29 29.10 1.5
GRO 24.41 12 iP- 29 40.00 1.1
Z 14s 4.50um 5.1MszX
N 14s 5.00um
i 30 24.00
MAK 24.49 16 eP 29 44.00 4.3X
Z 12s 6.40um 5.3MszX
N 12s 3.50um
E 12s 7.00um
e 33 16.00
iS 34 08.50
eSS 35 18.00
KIV 24.53 7 (P) 29 41.80 1.5
1.7s 102.00nm 5.2mb
PYA 24.65 7 eP 29 41.00 -0.3

```
        1.5s    130.00nm            5.4mb
     Z  14s       3.00um            4.9MszX
                  i      34 10.00
MAIO    24.69  43 eP     29 42.00    0.2
                  eS     34 12.00
KAT     24.73  34 eP     29 43.00    1.0
     Z  14s       2.40um            4.8MszX
     N  14s       4.00um
     E  14s       2.00um
                  eS     34 09.00
KDZ     24.75 336 iP     29 45.00    2.7X
BCAO    24.79 235 iPc    29 44.10    1.2
        1.0s     90.00nm            5.4mb
                  id     29 52.90
ASH     25.02  39 eP     29 52.00    7.1X
                  e      34 20.00
                  i      40 40.00
DIM     25.05 336 eP     29 49.00    3.9X
RZN     25.06 335 iP     29 47.00    1.5
MMB     25.39 333 iP     29 49.00    0.6
PLD     25.42 335 iP     29 50.00    1.4
VAY     25.69 331 iP     29 52.40    1.3
SRN     25.87 325 eP     29 53.80    1.0
KKB     25.90 333 iP     29 53.00   -0.1
PGB     26.01 335 eP     29 55.00    0.8
TPE     26.16 326 eP     29 57.40    1.8X
OHR     26.37 328 iP     29 58.10    0.6
        1.2s     80.00nm            5.3mb
VTS     26.43 334 iP     29 59.00    0.8
VLO     26.56 326 eP     30 02.80    3.6X
TIR     27.01 328 eP     30 05.00    1.7
LACI    27.30 328 eP     30 06.50    0.5
ISR     27.43 341 eP     30 10.00    2.8X
OUE     27.61  62 eP     30 11.00    1.8
                  eS     35 06.00
BCI     27.67 329 eP     30 09.30   -0.1
SDA     27.72 328 eP     30 11.50    1.8X
MLR     27.93 341 eP     30 14.00    2.1X
VRI     28.04 342 eP     30 13.00    0.4
KIS     28.54 346 eP     30 18.00    0.9
     Z  14s       0.40um            4.2MszX
                  e      30 23.00
                  e      35 14.00
UZH     31.88 339 eP     30 45.40   -1.4
PSZ     32.15 336 ePc    30 49.40    0.2
VBY     32.33 328 eP     30 49.50   -1.3
                  ePP    30 51.80
RIY     32.66 327 eP     30 53.60    0.0
SRO     32.69 334 iP     30 55.30    1.5
CEY     32.91 328 eP     30 56.50    0.6
SPC     33.07 338 eP     30 57.30   -0.1
LJU     33.07 328 e(P)   30 58.00    0.8
TRI     33.23 327 eP     30 58.00   -0.5
VOY     33.38 328 e(P)   31 00.20    0.2
                  e      31 49.30
                  e(PP)  32 24.50
ZST     33.49 333 eP     31 01.50    0.6
PGF     33.97 319 eP     31 03.80   -1.4
        1.3s     23.10nm            4.9mb
OJC     34.09 338 iP     31 06.20    0.2
                  i      31 09.40
                  i      31 13.00
KBA     34.38 329 iPd    31 09.00    0.2
                  i      31 16.60
VRAC    34.57 334 eP     31 10.70    0.6
        2.6s    553.10nm            6.0mb
MNK     35.32 349 eP     31 20.00    3.5X
WTTA    35.36 328 iPd    31 17.90    0.7
        1.4s     41.10nm            5.1mb
                  i      31 24.60
OGA     35.41 327 iPc    31 18.90    1.3
        1.3s     34.00nm            5.1mb
WATA    35.44 328 iPd    31 18.40    0.6
GEC2    35.47 331 P      31 16.90   -1.1
        1.3s     12.42nm            4.6mb
                  e      31 25.90
                  e      33 46.10
                  e      33 49.90
                  e      33 52.90
OBN     35.50 358 iPc    31 18.00    0.0
        1.0s     52.00nm            5.4mb
                  i      31 20.50
                  ePPP   32 48.00
SOTA    35.55 327 iPc    31 18.90    0.2
SBF     35.64 320 eP     31 18.30   -1.1
        1.1s     24.90nm            5.0mb
MOTA    35.68 327 iPd    31 19.20   -0.7
        1.3s     18.20nm            4.8mb
                  i      31 29.00
KHC     35.74 331 P      31 20.00   -0.2
        1.5s     23.20nm            4.8mb
                  e      31 26.80
OSS     35.76 326 ePd    31 22.20    1.7
KSP     35.90 336 eP     31 21.70    0.2
LMR     35.93 318 eP     31 20.60   -1.2
        1.2s     21.70nm            4.9mb
PRU     35.95 333 P      31 20.50   -1.4
        1.8s     35.90nm            4.9mb
FRF     35.96 319 eP     31 21.00   -1.1
        1.3s     37.55nm            5.1mb
WET     36.07 331 eP     31 23.00    0.1
LRG     36.09 319 eP     31 22.10   -1.0
        1.3s     40.05nm            5.1mb
     Z  20s       0.32um            4.1Msz
TMA     36.09 324 ePd    31 24.10    0.8
MOS     36.11 359 eP     31 24.00    0.9
FUR     36.15 328 eP     31 23.30   -0.3
SURF    36.35 320 P      31 27.20    1.6
LLS     36.49 325 ePd    31 27.10    0.4
MTD     36.81 191 iPd    31 32.30    2.8X
BRG     36.87 334 iPc    31 29.20   -0.4
        1.5s     38.00nm            5.0mb
DIX     36.89 323 ePd    31 31.10    0.9
LPG     36.94 322 eP     31 29.10   -1.6
        1.5s     36.55nm            4.9mb
EMS     37.16 323 ePd    31 32.60    0.2
GRF     37.22 330 eP     31 31.70   -0.9
     Z  24s       0.30um            4.0MszX
                  e      31 35.20
SLE     37.31 326 ePd    31 33.70    0.3
GBA     37.50  93 P      31 36.00    0.8
CLL     37.59 333 iPd    31 35.70    0.1
        1.6s     46.00nm            5.0mb
KSH     37.63  50 P      31 38.50    2.2X
        0.7s     30.00nm            5.2mb
     Z  18s       6.70um            5.5Msz
     N  12s       3.32um
     E  14s       4.15um
                  S      37 26.00
MOX     37.71 332 ePc    31 36.50   -0.2
        1.9s     53.00nm            5.0mb
                  e      32 04.00
HYB     37.76  87 ePd    31 39.00    1.5
        1.2s     50.00nm            5.2mb
FRU     38.03  44 eP     31 42.00    2.4X
BSF     38.26 325 eP     31 40.30   -1.2
        1.4s     53.60nm            5.1mb
CDF     38.35 326 eP     31 41.00   -1.2
        1.2s     14.00nm            4.6mb
HAU     38.61 325 eP     31 43.00   -1.3
        1.3s     18.75nm            4.6mb
     Z  20s       0.15um            3.8MszX
SMF     39.27 321 eP     31 48.30   -1.5
        1.2s     19.05nm            4.6mb
LBF     39.37 322 eP     31 49.20   -1.5
        1.1s     32.50nm            4.9mb
ECHE    39.47 309 eP     31 53.00    1.3
CAF     39.50 318 eP     31 51.40   -0.4
        1.3s     53.45nm            5.1mb
LOR     39.59 322 eP     31 51.10   -1.4
        1.4s     52.30nm            5.0mb
     Z  21s       0.25um            4.0MszX
AVF     39.63 321 eP     31 51.40   -1.4
        1.4s     40.10nm            4.9mb
ARU     39.65  17 eP     31 54.00    1.1
        2.0s    300.00nm            5.6mb
     Z  16s       2.00um            5.1MszX
     N  16s       1.50um
     E  16s       1.00um
SSF     39.68 322 eP     31 51.90   -1.3
        1.4s     42.25nm            4.9mb
WLF     39.70 327 P      31 54.00    0.7
EPF     39.80 315 eP     31 53.10   -1.2
        1.2s     14.00nm            4.5mb
BGF     39.81 321 eP     31 53.60   -0.7
        1.2s     94.00nm            5.3mb
MAF     39.81 320 eP     31 55.30    1.0
        1.2s     24.90nm            4.8mb
EGRA    39.92 313 iPc    31 52.00   -3.2
LPO     39.95 317 eP     31 55.30   -0.2
        1.2s     39.55nm            5.0mb
RJF     40.02 318 eP     31 55.60   -0.5
        1.4s     54.45nm            5.0mb
TCF     40.06 320 eP     31 55.70   -0.7
        1.2s     16.35nm            4.6mb
HYF     40.30 322 eP     31 57.40   -0.9
LFF     40.35 318 eP     31 58.50   -0.2
        1.3s     62.10nm            5.1mb
LSF     40.46 320 eP     31 59.10   -0.5
        1.2s     45.50nm            5.0mb
ENN     40.49 328 eP     32 01.00    1.2
        1.2s     12.10nm            4.5mb
SVE     40.59  18 ePd    32 02.00    1.4
        2.1s    100.00nm            5.2mb
     Z  23s       1.50um            4.8MszX
     N  23s       1.00um
     E  23s       0.80um
                  e      34 03.00
                  eS     38 16.00
                  eSSS   42 11.00
ETOR    40.66 310 eP     32 02.50    1.0
BUL     40.70 195 eP     32 04.30    2.3X
DOU     40.77 326 P      32 02.70    0.6
ECOG    40.79 305 eP     32 03.90    1.3
SNF     41.17 327 P      32 05.90    0.5
UCC     41.30 327 P      32 07.00    0.6
IFR     41.33 299 iP     32 10.00    2.8X
ECRI    41.58 313 eP     32 10.00    1.0
MFF     41.65 319 eP     32 08.20   -1.2
        1.1s     22.20nm            4.8mb
PAB     41.96 308 iPd    32 13.50    1.4
EPRU    42.02 304 eP     32 14.00    1.4
EJIF    42.10 303 iPd    32 14.60    1.3
GUD     42.12 309 iPc    32 14.50    1.0
LDF     42.57 322 eP     32 15.00   -1.9
        1.0s     29.40nm            5.0mb
GKN     42.62  70 P      32 18.80    1.0
LPF     42.84 321 eP     32 17.40   -1.7
        1.1s     47.60nm            5.1mb
TIO     42.85 295 iP     32 20.50    0.9
FLN     42.86 322 eP     32 17.50   -1.8
        1.1s     54.95nm            5.2mb
     Z  21s       0.20um            4.0MszX
GRR     42.90 321 eP     32 17.80   -1.8
        1.3s     56.30nm            5.1mb
MUD     42.92 336 iP     32 20.80    1.1
        1.2s     33.00nm            4.9mb
DMN     43.03  70 P      32 22.20    0.9
        1.0s     93.00nm            5.5mb
KKN     43.19  70 P      32 23.40    0.9
        1.0s     62.00nm            5.3mb
AVE     43.20 298 eP     32 24.00    1.7
PKI     43.30  70 P      32 24.40    0.8
        1.0s     60.00nm            5.3mb
EPLA    43.38 308 eP     32 24.00    0.3
GUN     43.72  70 P      32 27.80    0.8
KIC     44.22 259 P      32 30.62   -0.2
TIC     44.38 259 P      32 32.14    0.1
LIC     44.54 259 P      32 33.60    0.3
     Z  20s       0.65um            4.5Msz
APO     44.55 343 eP     32 30.60   -2.3
        0.6s      0.90nm            3.8mb X
NB2     45.74 342 P      32 41.70   -0.7
        1.3s     21.60nm            5.0mb
BFT     45.78 191 eP     32 47.50    4.3X
SLR     46.17 193 eP     32 48.50    2.2X
        1.1s     30.00nm            5.2mb
     Z  20s       6.66um            5.6Msz
KSR     46.61 195 e(P)   32 51.00    1.2
WMQ     47.31  48 P      32 55.50    0.4
        1.8s     51.00nm            5.3mb
     Z  18s       1.89um            5.1Msz
     N  14s       1.32um
                  PcP    34 26.00
                  S      39 52.00
EKA     47.60 329 P      32 55.00   -2.0
        1.3s     21.90nm            5.1mb
LSA     48.34  67 P      33 05.20    1.4
     Z  24s       3.06um            5.2MszX
SEK     48.82 193 eP     33 08.00    1.0
        1.0s     20.00nm            5.1mb
SEK     48.82 193 eP     33 00.00   -7.0X
        1.0s     40.00nm            5.4mb
ELT     49.55  36 eP     33 10.30   -1.8
        2.0s    111.00nm            5.5mb
     Z  12s       2.00um            5.3MszX
BLF     49.89 194 eP     33 15.50    0.2
FRS     50.72 195 eP     33 23.50    2.2X
UER     53.49  40 eP     33 41.00   -0.9
        2.0s     43.00nm            5.1mb
     Z  16s       1.16um            5.0MszX
```

12d 04h

N 16s 0.91um
E 18s 0.83um
GTA 55.67 55 eP 33 57.50 -0.8
1.2s 42.00nm 5.3mb
Z 18s 2.80um 5.4Msz
E 15s 0.82um
pP 34 04.00 21kmX
sP 34 09.00
MOY 57.72 41 eP 34 11.90 -0.6
NRI 58.07 18 ePc 34 14.00 -0.7
1.4s 54.00nm 5.4mb
e 35 00.00
e 36 21.00
LZH 58.88 59 Pd 34 22.00 0.9
1.9s 160.00nm 5.8mb
Z 19s 2.23um 5.3Msz
E 15s 1.02um
eS 42 23.00
KMI 58.98 72 Pd 34 21.50 -0.5
2.0s 70.00nm 5.4mb
Z 20s 1.50um 5.1Msz
sP 34 29.00
eS 42 36.00
ZAK 58.98 42 eP 34 20.00 -1.3
2.0s 44.00nm 5.2mb
Z 17s 4.10um 5.6MszX
E 17s 4.55um
eS 42 25.00
CD2 59.17 65 eP 34 25.40 2.4X
Z 20s 1.41um 5.1Msz
S 42 32.00
IRK 59.84 40 ePc 34 26.80 -0.5
1.9s 51.00nm 5.3mb
Z 16s 1.10um 5.1MszX
N 15s 0.62um
E 15s 0.92um
e 35 09.00
GYA 62.27 70 P 34 42.60 -1.7
1.2s 33.00nm 5.4mb
Z 26s 1.07um 4.9MszX
XAN 63.19 61 P 34 49.70 -0.5
1.2s 11.00nm 4.9mb
Z 16s 1.79um 5.3MszX
N 16s 1.17um
pP 34 59.60 32kmX
eSS 47 22.00
BTO 63.49 54 eP 34 52.00 -0.2
N 15s 1.03um
E 19s 2.77um
HHC 64.64 53 eP 35 01.00 1.3
1.6s 83.00nm 5.7mb
Z 24s 2.70um 5.4MszX
N 16s 0.72um
E 15s 0.99um
CIT 65.54 41 eP 35 10.00 4.8X
TIY 65.61 57 eP 35 07.00 1.0
Z 16s 2.62um 5.5MszX
E 15s 1.11um
S 43 48.00
BOD 65.91 35 eP 35 04.60 -2.8
1.0s 50.00nm 5.7mb
BJI 68.23 54 eP 35 22.00 -0.4
2.0s 120.00nm 5.7mb
Z 22s 2.16um 5.3Msz
eS 44 16.00
eSS 48 40.00
TIA 69.54 58 Pc 35 31.80 1.2
Z 42s 1.81um 5.0MszX
N 16s 1.36um
TIK 71.62 20 eP 35 42.00 -0.6
2.0s 53.00nm 5.3mb
epP 36 06.00 92kmX
e 38 27.00
ePPP 40 05.00
DL2 72.58 54 eP 35 48.50 -0.3
LEM 72.65 104 ePc 35 38.80 -11.0X
YAK 73.37 29 eP 35 49.50 -3.5X
2.0s 85.00nm 5.5mb
Z 18s 0.90um 5.1Msz
E 18s 0.70um
e 37 05.00
e 38 12.00
e 57 13.00
CN2 74.40 49 eP 36 00.00 0.7
1.2s 16.00nm 4.9mb
Z 20s 1.89um 5.4Msz
N 14s 0.63um

E 14s 0.64um
epP 36 08.80 28kmX
eS 45 38.00
MDJ 77.11 47 eP 36 14.70 0.0
MGD 83.64 28 eP 36 48.00 -1.1
2.0s 130.00nm 5.8mb
MAT 85.84 53 eP 37 02.00 1.3
1.8s 81.82nm 5.6mb
Z 20s 0.71um 5.1Msz
eS 47 38.00
YKA 95.53 348 eP 37 44.20 -1.4
0.9s 1.70nm 4.5mb
S.D. = 1.1 on 168 of 199 obs.

---

* MAR 12, 1993 04h 58m 43.41± 1.85s
6.646 S ±11.3km 128.307 E ±12.8km
DEPTH = 273.3 ± 19.7 km
4.7mb (13 obs.)
BANDA SEA (280)

MTN 6.76 156 iPc 00 23.20 1.2
eS 01 24.00
WB2 14.46 157 iPd 01 56.80 -0.9
0.3s 298.90nm 6.1mb X
eS 04 30.70
MBL 16.60 209 iPc 02 20.90 -1.2
0.3s 22.00nm 5.1mb
NANU 20.05 217 iPd 02 57.20 -0.2
MEEK 21.92 204 iPd 03 15.40 -0.2
0.3s 19.00nm 5.0mb
CTA 21.95 129 iPc 03 17.00 1.0
1.0s 15.00nm 4.4mb
OLP 24.96 144 eP 03 43.10 -1.0
RMQ 27.73 138 iPd 04 08.20 -0.9
0.8s 14.00nm 4.6mb
CMS 29.65 149 iPc 04 25.10 -0.9
0.6s 7.00nm 4.4mb
ARMA 32.23 140 iPd 04 48.60 0.0
0.6s 11.00nm 4.6mb
BFD 33.04 159 iPd 04 55.10 -0.3
0.3s 9.00nm 4.8mb
BWA 33.30 149 iPc 04 58.90 1.2
CAN 34.30 149 iPc 05 06.50 0.4
TOO 34.52 156 iPc 05 08.80 0.8
0.4s 13.00nm 4.8mb
BJI 47.78 347 eP 06 53.00 -2.3
1.0s 33.00nm 4.6mb
LZH 48.32 333 iPd 06 58.50 -1.2
1.0s 60.00nm 4.9mb
GUN 53.46 312 P 07 39.40 0.8
0.6s 32.00nm 5.0mb
PKI 53.63 311 P 07 40.40 0.6
0.4s 9.00nm 4.6mb
KKN 53.84 312 P 07 42.00 0.8
0.6s 14.00nm 4.6mb
DMN 53.87 311 P 07 42.40 1.0
GKN 54.43 311 P 07 46.40 1.1
YKA 108.17 26 ePKP 16 37.00 -3.0X
0.5s 0.40nm
GEC2 111.07 320 PKP 16 44.10 -2.0
0.7s 0.71nm
CNCB 151.67 146 ePKP 18 04.00 2.3
LPB 151.82 145 ePKP 18 06.00 4.3X
ZOBO 152.00 145 ePKP 18 07.00 4.7X
S.D. = 1.2 on 23 of 26 obs.

? MAR 12, 1993 05h 02m 10.58± 4.25s
44.077 S ± 9.3km 167.402 E ±37.5km
DEPTH = 10.0km (geophysicist)
SOUTH ISLAND, NEW ZEALAND (162)
ML 3.7 (WEL).

MSZ 0.70 148 Pd 02 25.00 0.6
eS 02 30.20
LMZ 1.40 76 P 02 36.70 0.6
TLC 1.63 134 P 02 38.90 -0.7
MHZ 1.66 127 Pd 02 39.60 -0.4
SBCZ 1.70 127 Pd 02 40.20 -0.3
LRCZ 1.71 126 Pd 02 40.30 -0.4
CMCZ 1.71 129 P 02 40.40 -0.3
eS 02 56.10
LSCZ 1.75 127 Pd 02 41.10 -0.1
MSCZ 1.76 126 P 02 41.20 -0.1
BWZ 1.84 105 P 02 42.80 0.4
TUZ 2.46 141 P 02 52.00 0.7
ODZ 2.51 114 eP 02 52.20 0.1
DSZ 3.98 56 eP 03 12.70 -0.3

S.D. = 0.5 on 13 of 13 obs.

MAR 12, 1993 05h 12m 02.67± 0.48s
19.516 N ± 8.6km 38.711 E ± 5.3km
DEPTH = 15.1km (2 depth phases)
4.6mb (22 obs.) 4.3Msz (2 obs.)
RED SEA (554)

GRS 20.97 17 eP 16 53.00 5.2X
1.5s 30.00nm 4.5mb
ERE 21.19 12 eP 16 52.00 2.1
eS 21 03.00
MTA 22.71 12 eP 17 09.00 4.0X
N 12s 1.00um
E 12s 0.50um
KIV 24.60 7 eP 17 26.30 2.9
BCAO 24.73 235 iPc 17 26.10 1.2
1.0s 40.00nm 5.0mb
id 17 36.30 38kmX
OHR 26.40 328 eP 17 40.20 -0.2
SPC 33.11 338 eP 18 41.50 1.2
ZST 33.53 334 eP 18 42.20 -1.5
GEC2 35.51 331 P 19 00.80 0.0
0.8s 1.54nm 4.0mb
e 19 05.80 17km
e 19 22.20
e 21 29.20
e 21 39.30
OBN 35.56 358 eP 18 57.00 -4.0X
e 19 01.00 14km
KHC 35.78 331 eP 19 07.00 4.0X
KSP 35.94 336 eP 19 04.50 0.2
BRG 36.91 334 eP 19 11.60 -0.9
LPL 36.99 322 eP 19 12.90 -0.6
GBA 37.52 93 P 19 23.00 5.0X
CLL 37.63 334 eP 19 18.00 -0.5
1.9s 22.00nm 4.6mb
MOX 37.75 332 eP 19 19.70 0.2
HYB 37.79 87 eP 19 21.00 0.7
BSF 38.29 325 eP 19 23.20 -1.1
SMF 39.30 322 eP 19 32.00 -0.6
LBF 39.40 322 eP 19 33.10 -0.3
0.9s 12.80nm 4.6mb
CAF 39.53 318 eP 19 35.00 0.5
1.0s 7.60nm 4.3mb
LOR 39.62 322 eP 19 34.80 -0.4
0.7s 5.20nm 4.3mb
AVF 39.66 321 eP 19 35.00 -0.6
0.8s 3.75nm 4.1mb
SSF 39.71 322 eP 19 35.50 -0.5
1.1s 10.00nm 4.4mb
ARU 39.72 17 eP 19 37.00 1.1
EPF 39.82 315 eP 19 38.40 1.4
MAF 39.84 320 eP 19 37.20 0.1
1.3s 13.70nm 4.5mb
BGF 39.84 321 eP 19 37.30 0.2
1.2s 31.55nm 4.9mb
LPO 39.97 317 eP 19 38.90 0.7
RJF 40.05 318 eP 19 39.30 0.5
LFF 40.37 318 eP 19 42.20 0.8
0.8s 9.25nm 4.5mb
LSF 40.48 320 eP 19 42.90 0.5
0.8s 60.50nm 5.4mb
DOU 40.80 326 Pc 19 49.20 4.3X
MFF 41.67 319 eP 19 51.80 -0.3
LDF 42.60 322 eP 19 58.80 -0.8
0.6s 6.20nm 4.5mb
GKN 42.67 70 P 20 00.60 -0.1
LPF 42.87 321 eP 20 01.20 -0.7
FLN 42.89 322 eP 20 01.20 -0.8
0.6s 8.05nm 4.6mb
DMN 43.08 70 P 20 04.20 0.0
KKN 43.24 70 P 20 05.20 -0.2
PKI 43.35 70 P 20 06.20 -0.3
GUN 43.77 70 P 20 09.60 -0.3
KIC 44.18 259 P 20 13.42 0.5
TIC 44.34 259 P 20 14.08 -0.2
LIC 44.50 259 P 20 15.86 0.4
Z 20s 0.13um 3.8Msz
APO 44.60 343 eP 20 15.50 -0.3
0.4s 0.40nm 3.7mb
NB2 45.79 342 P 20 24.40 -0.9
1.3s 7.30nm 4.5mb
NRI 58.14 18 eP 21 58.00 0.4
1.4s 16.00nm 4.9mb
LZH 58.93 59 eP 22 04.20 0.2
2.0s 34.00nm 5.1mb

```
     Z  15s      0.39um             4.7MszX
     E  12s      0.16um
ZAK     59.04  42 eP      22 05.50    1.3
        2.0s     22.00nm            4.9mb
     Z  16s      0.99um             5.0MszX
     E  17s      0.99um
BOD     65.98  35 iPd     22 48.10   -2.2
        1.2s     16.00nm            5.1mb
BJI     68.29  54 eP      23 03.00   -2.2
     Z  20s      0.60um             4.8Msz
YKA     95.58 348 eP      25 27.90   -0.4
        1.0s      0.90nm            4.2mb
     S.D. = 1.0  on  48 of  54 obs.
-----------------------------------------
   MAR  12, 1993  05h 17m 32.14± 1.77s
   18.291 S ± 7.0km  174.675 W ±10.9km
   DEPTH = 218.4 ± 17.4 km
   4.6mb ( 15 obs.)
 TONGA ISLANDS                      (173)

MBU      6.43 281 eP      19 05.20   -0.8
VUN      6.53 271 iPc     19 07.00   -0.2
BKM     16.26 270 iPd     21 13.20    2.8
DZM     18.12 255 iPd     21 31.00    0.4
HBZ     20.20 196 eP      21 52.60    1.1
KUZ     20.24 203 eP      21 53.60    1.6
URZ     21.15 198 eP      21 59.10   -1.8
        0.3s    109.00nm           5.9mb X
NOZ     21.23 196 eP      22 01.90    0.2
        0.4s     94.00nm            5.7mb
WLZ     21.29 202 eP      22 03.70    1.4
PATZ    21.53 200 eP      22 05.70    1.0
MOZ     22.13 202 eP      22 11.40    0.9
PGZ     23.58 197 eP      22 24.60    0.3
MNG     23.81 199 eP      22 24.90   -1.7
        0.3s     50.00nm            5.6mb
                  eS      26 35.10
QRZ     25.01 203 eP      22 38.40    0.7
THZ     25.69 202 eP      22 44.00    0.0
KHZ     26.06 200 eP      22 46.50   -0.7
DSZ     26.08 203 eP      22 47.50    0.0
LTZ     26.81 202 eP      22 52.20   -1.9
        0.6s    291.00nm           6.1mb X
BWZ     29.19 203 eP      23 13.60   -1.6
ODZ     29.36 201 eP      23 19.30    2.6
MSZ     30.07 205 eP      23 20.00   -2.9
BRS     31.26 247 iPc     23 33.50   -0.1
ARMA    32.86 242 iPd     23 47.70    0.1
        0.6s     12.00nm            4.7mb
RMQ     34.69 250 iPc     24 03.10    0.0
        0.3s     18.00nm            5.2mb
CTA     36.89 261 iPc     24 20.50   -1.1
        1.0s     15.00nm            4.5mb
CMS     37.96 242 iPd     24 30.20   -0.2
        0.7s     10.00nm            4.5mb
TOO     39.73 233 iPd     24 45.30    0.3
        0.6s     17.00nm            4.7mb
STK     41.58 242 eP      24 59.70   -0.5
        0.4s      4.20nm            4.3mb
ASPA    48.11 254 iPc     25 51.30   -0.8
        0.9s    158.90nm            5.4mb
                  eS      32 34.30
MTN     52.34 268 eP      26 23.00   -1.0
MBL     61.33 255 iPd     27 26.30   -0.9
        0.4s      6.00nm            4.7mb
ARN     74.59  41 eP      28 48.05   -0.9
KMPM    74.96  38 ePc     28 51.36    0.3
ISA     75.56  44 iPc     28 54.46   -0.1
        1.1s     14.31nm            4.6mb
CMB     75.73  41 eP      28 54.74   -0.6
        0.9s      8.79nm            4.5mb
ORV     75.97  40 ePd     28 56.07   -0.6
LGPM    76.03  38 ePd     28 57.05   -0.1
GSC     76.48  45 eP      28 59.34   -0.3
LBFM    76.86  38 (P)     29 01.78    0.0
BONR    77.00  42 eP      29 02.28   -0.5
SRU     82.74  45 ePc     29 33.51    0.4
BW06    85.23  42 (P)     29 45.05   -0.4
        0.9s      3.31nm            4.1mb
LCCM    85.38  39 eP      29 47.90    1.8
FBA     85.45  11 eP      29 44.34   -1.5
        0.8s     10.14nm            4.7mb
UYO     92.32  55 iPd     30 19.20    0.4
YKA     93.22  24 eP      30 21.30   -1.0
        0.7s      1.00nm            4.0mb
KSP    146.37 347 iPKPd   36 49.60    2.7
CLL    146.50 351 iPKP    36 49.90    2.9
```

```
BRG    146.77 350 iPKP    36 51.00    3.5X
GRF    148.32 353 e(PKP)36 55.00      5.0X
GEC2   148.77 349 PKP     36 56.00    5.1X
        0.5s      1.40nm
                  e       36 59.80
                  e       37 03.00
FLN    149.24   8 ePKP    36 56.60    5.1X
        0.7s      7.70nm
GRR    149.56   8 ePKP    36 57.70    5.8X
        0.7s      5.75nm
LPF    149.88   9 ePKP    36 58.40    6.0X
        0.4s      2.70nm
HAU    150.35 359 ePKP    36 59.80    6.6X
        0.6s      3.80nm
BSF    150.51 358 ePKP    37 00.00    6.4X
LOR    151.07   2 ePKP    37 01.40    7.1X
SSF    151.27   3 ePKP    37 02.00    7.4X
        0.8s      5.50nm
LBF    151.36   2 ePKP    37 02.00    7.2X
        0.6s      3.05nm
AVF    151.53   3 ePKP    37 02.20    7.2X
        0.5s      1.40nm
BGF    151.74   4 ePKP    37 03.00    7.7X
        0.5s      5.70nm
LSF    151.94   6 ePKP    37 02.90    7.3X
        0.5s      3.65nm
TCF    151.96   5 ePKP    37 03.30    7.6X
        0.5s      2.25nm
MAF    152.05   4 ePKP    37 03.80    8.0X
        0.5s      2.85nm
LPL    152.83 358 ePKP    37 06.40    9.2X
        0.4s      0.95nm
LPG    152.85 358 ePKP    37 06.50    9.2X
RJF    152.88   6 ePKP    37 05.10    8.1X
     S.D. = 1.3  on  48 of  67 obs.
-----------------------------------------
? MAR  12, 1993  05h 37m 26.02± 7.92s
  39.716 N ±30.7km   19.739 E ±62.7km
  DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION       (392)

IGT      0.49 112 ePg     37 35.24   -0.8
                  eSg     37 43.64
OHR      1.61  30 iPn     37 52.00   -2.6
FNA      1.65  49 ePb     37 55.20    0.1
AGG      2.12 108 ePn     38 02.72    0.7
                  eSn     38 32.16
GRG      2.38  58 ePn     38 06.20    0.4
SKO      2.60  29 ePn     38 10.50    1.8
KNT      2.81  58 ePn     38 12.36    0.5
SOH      2.98  67 ePn     38 10.80   -3.4X
OUR      3.32  78 iPn     38 21.85    2.9X
     S.D. = 1.7  on   7 of   9 obs.
-----------------------------------------
  MAR  12, 1993  06h 20m 35.67± 0.50s
  40.569 N ± 4.4km   23.153 E ± 4.8km
  DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)
     ML 2.5 (THE), 2.0 (SKO).

THE      0.16 294 ePg     20 39.72    0.4
                  eSg     20 41.40
SOH      0.30  31 iPg     20 42.22    0.4
                  eSg     20 46.52
KNT      0.62 342 iPg     20 47.76   -0.4
                  eSg     20 55.40
SRS      0.64  31 ePg     20 48.40   -0.1
                  eSg     20 57.44
OUR      0.67 110 ePg     20 49.04    0.0
                  eSg     20 59.36
GRG      0.69 304 ePg     20 49.00   -0.3
                  eSg     20 59.08
PAIG     0.76 148 ePg     20 50.32   -0.1
                  eSg     21 01.36
VAY      0.87 330 iPg     20 52.50    0.1
                  iSg     21 03.70
AGG      1.67 203 ePb     21 05.16    0.0
     S.D. = 0.3  on   9 of   9 obs.
-----------------------------------------
% MAR  12, 1993  06h 46m 14.79± 0.52s
  46.230 N ± 5.9km    2.755 E ± 4.9km
  DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
     ML 2.1 (LDG).

MAF      0.13 266 Pg      46 17.70   -0.3
                  Sg      46 19.80
```

```
BGF      0.33  11 Pg      46 21.70    0.0
                  Sg      46 26.60
TCF      0.38 279 Pg      46 23.20    0.5
                  Sg      46 27.50
AVF      0.70  36 Pg      46 28.30   -0.2
                  Sg      46 37.20
LSF      0.85 272 Pg      46 31.10   -0.1
                  Sg      46 42.20
SMF      0.86  61 Pg      46 31.90    0.6
                  Sg      46 42.10
SSF      0.98  32 Pg      46 33.30   -0.1
                  Sg      46 46.00
LBF      1.13  48 Pg      46 35.70   -0.3
                  Sg      46 50.60
RJF      1.27 224 Pg      46 38.00   -0.4
                  Sg      46 54.80
CAF      1.39 201 Pg      46 40.50    0.2
                  Sg      46 58.30
     S.D. = 0.4  on  10 of  10 obs.
-----------------------------------------
• MAR  12, 1993  07h 16m 47.36± 1.35s
  27.281 N ±10.0km  100.858 E ± 7.9km
  DEPTH =  24.9 ± 12.5 km
  4.0mb (  5 obs.)
 YUNNAN, CHINA                      (318)

KMI      2.73 141 Pgd     17 32.00    1.2
                  Sg      18 07.50
CD2      4.42  34 ePn     17 57.60    3.1X
                  Pg      18 08.20
                  Sg      19 00.60
GYA      5.25  98 Pn      18 06.40    0.0
                  Pg      18 18.00
                  Sn      19 05.60
CHTO     8.61 192 eP      19 33.60   40.2X
LSA      8.88 288 P       19 03.40    5.9X
LZH      9.14  15 eP      19 08.00    7.2X
     Z  10s      0.48um
XAN      9.67  44 P       19 05.40   -2.7
        1.0s     92.00nm           6.0mb X
     Z  16s      0.36um            4.1Msz
     N  10s      0.70um
     E  10s      0.56um
                  sP      19 13.00
GTA     12.13 356 eP      19 43.00    1.4
     Z  10s      0.38um
     E  10s      0.44um
WHN     12.26  71 Pc      19 43.00   -0.3
     Z  10s      1.14um
     N  10s      0.45um
                  pP      19 51.50
GUN     13.30 276 P       19 57.20   -0.3
PKI     13.73 275 P       20 03.80    0.7
KKN     13.83 276 P       20 02.60   -1.8
BTO     15.29  27 eP      20 22.50   -0.8
HHC     16.16  30 eP      20 37.40    2.9
        1.2s      8.10nm            3.7mb
TIA     16.44  53 Pc      20 36.70   -1.2
GBA     25.76 243 P       22 30.00   12.1X
CN2     25.78  44 eP      22 22.00    4.1X
WRA     57.06 142 P       26 33.80   -0.1
        0.6s      0.50nm            3.7mb
WB2     57.07 142 eP      26 32.90   -1.1
        0.4s      4.20nm            4.8mb
ASPA    59.86 145 eP      26 54.00    0.6
        0.8s      3.00nm            4.5mb
YKA     86.15  16 eP      29 28.70    1.4
        0.8s      0.30nm            3.6mb
     S.D. = 1.6  on  15 of  21 obs.
-----------------------------------------
• MAR  12, 1993  07h 24m 12.67± 1.55s
  39.781 N ±14.5km   19.141 E ± 9.5km
  DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION       (392)
     MD 3.5 (ATH). ML 3.0 (TIR).

KEK      0.51  97 iPbd    24 22.50   -0.5
SRN      0.67  81 ePg     24 24.80   -1.2
                  iSg     24 32.80
VLO      0.74  21 ePg     24 30.20    3.1X
                  iSg     24 42.70
TPE      0.84  52 ePg     24 28.50   -0.4
                  iSg     24 40.50
IGT      0.95 105 ePg     24 30.02   -0.8
                  eSg     24 44.38
LSK      1.18  71 ePg     24 38.00    3.2X
TIR      1.66  19 iPmc    24 44.70    2.8
```

12d 07h

iSn 25 07.70
OHR 1.83 43 iPn 24 45.60 1.1
0.6s 84.00nm
i 24 47.50
i 25 09.70
i 25 12.00
Lg 25 15.20
LACI 1.90 13 ePn 24 48.50 3.1X
iSn 25 15.50
FNA 1.98 59 ePb 24 47.02 0.4
eSb 25 14.22
KZN 2.09 75 ePb 24 52.20 4.0X
eSg 25 20.00
AGG 2.58 106 ePn 24 57.02 1.7
iSn 25 28.74
BCI 2.68 15 ePn 24 54.00 -2.6
GRG 2.75 64 iPn 24 57.82 0.1
SKO 2.80 38 ePn 25 04.50 6.2X
1.1s 146.00nm
iSg 25 40.50
Lg 25 46.00
VAY 3.03 58 ePn 25 13.60 12.0X
KNT 3.18 63 ePn 25 03.78 0.1
HVAR 3.95 330 e(Pn) 25 15.10 0.5
VBY 6.40 335 iPn 25 49.80 0.6
iSn 27 01.50
CEY 6.89 331 eP 25 56.00 -0.2
eS 27 11.50
VOY 7.34 330 ePn 26 01.80 -0.7
e 26 06.80
eSn 27 17.70
e 27 21.10
e 27 23.00
GEC2 9.86 339 Pn 26 36.50 -1.0
Pg 26 49.10
Sn 28 21.40
S.D. = 1.3 on 16 of 22 obs.

% MAR 12, 1993 10h 13m 31.29± 2.10s
33.592 S ± 7.6km 71.343 W ±11.1km
DEPTH = 55.8 ± 23.8 km
NEAR COAST OF CENTRAL CHILE (135)
MD 3.4 (SAN).

LCCH 0.22 301 iP+ 13 40.51 0.0
iS 13 47.24
TACH 0.34 100 iPd 13 41.42 0.0
iS 13 48.09
LNV 0.37 189 iP+ 13 41.60 0.0
iS 13 49.67
SAN 0.59 77 iP 13 44.06 0.0
iS 13 52.82
CHCH 0.67 121 iPd 13 45.12 0.0
iS 13 54.88
ROCH 0.68 24 iPd 13 45.18 -0.2
iS 13 54.94
PCH 0.69 93 iPd 13 45.24 -0.2
iS 13 54.63
PEL 0.71 51 iP+ 13 45.78 0.2
iS 13 55.72
CACH 0.81 130 (P) 13 51.12 4.2X
iS 14 00.17
FCH 0.92 74 iP+ 13 48.61 0.1
iS 14 01.03
JACH 1.10 35 iP 13 50.87 0.0
iS 14 05.28
S.D. = 0.1 on 10 of 11 obs.

? MAR 12, 1993 10h 19m 38.30± 1.15s
39.133 N ±10.1km 27.512 E ±19.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.76 195 iPg 19 53.20 0.0
iSg 20 06.70
DST 0.99 61 iPg 19 56.80 -0.2
iSg 20 10.80
EDC 1.24 12 ePn 20 01.00 -0.4
KCT 1.29 30 ePn 20 02.80 0.6
S.D. = 0.7 on 4 of 4 obs.

? MAR 12, 1993 10h 26m 29.74± 1.07s
39.136 N ±10.5km 27.631 E ±18.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.79 201 iPg 26 45.20 0.0
iSg 26 57.70
DST 0.90 58 iPg 26 46.80 -0.3
eSg 27 01.00
EDC 1.22 8 ePn 26 52.00 -0.5
KCT 1.24 26 iPn 26 53.60 0.7
S.D. = 0.9 on 4 of 4 obs.

? MAR 12, 1993 10h 30m 17.97± 1.38s
44.390 N ± 6.6km 7.409 E ±17.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

STV 0.16 202 P 30 21.74 0.1
S 30 23.89
ENR 0.16 177 P 30 21.74 -0.1
S 30 24.48
PZZ 0.25 298 P 30 23.29 0.0
S 30 27.28
BHB 0.46 347 P 30 27.41 0.0
S 30 34.09
S.D. = 0.1 on 4 of 4 obs.

& MAR 12, 1993 11h 23m 53.64s
60.225 N 152.947 W
DEPTH = 112.0km
2.9mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.17 199 iPd 24 08.72 0.7
eS 24 21.42
INW 0.18 211 iPd 24 08.75 0.7
eS 24 21.19
RS1 0.25 22 iPc 24 09.23 0.9
eS 24 22.07
RS2 0.26 21 iPc 24 09.24 0.9
RSO 0.26 22 iPc 24 09.21 0.9
RDW 0.27 15 iPc 24 09.20 0.8
eS 24 22.44
NCT 0.34 1 iPc 24 09.42 -0.7
eS 24 22.18
DFR 0.39 19 iPc 24 09.41 -1.0
eS 24 22.74
RDT 0.44 37 eP 24 10.07 -0.6
OPT 0.59 194 iPd 24 10.90 -0.7
PDB 0.76 236 iPd 24 11.89 -1.1
eS 24 26.72
AUL 0.88 196 iPd 24 13.23 -0.9
AUE 0.90 194 eP 24 13.37 -0.8
AUW 0.90 197 iPd 24 13.37 -0.9
AUH 0.90 196 eP 24 13.98 -0.4
AUI 0.93 195 eP 24 13.50 -1.0
eS 24 30.02
NKA 0.99 58 eP 24 16.06 0.9
CKL 1.02 17 iPc 24 14.79 -0.8
eS 24 31.97
CKT 1.04 20 iPc 24 14.87 -1.0
SPU 1.06 24 iPc 24 14.93 -1.0
CKN 1.07 20 eP 24 15.36 -0.7
BGL 1.08 14 iPc 24 15.56 -0.7
CP2 1.10 18 iPc 24 16.47 -0.1
CPAM 1.11 21 ePc 24 15.76 -0.8
CNPM 1.11 128 ePd 24 15.61 -0.9
eS 24 33.02
CRP 1.12 20 eP 24 16.04 -0.7
eS 24 33.65
BRLK 1.13 113 eP 24 16.48 -0.3
eS 24 32.68
MCNL 1.26 215 iPd 24 16.70 -1.4
CDD 1.35 196 iPd 24 17.61 -1.5
SLKM 1.38 77 iPc 24 18.50 -1.1
eS 24 37.94
SVW 1.59 305 iPc 24 20.84 -1.2
SYI 1.64 170 eP 24 20.88 -1.8
SUA 1.65 40 iPc 24 22.27 -0.6
eS 24 44.86
SEW 1.75 92 eP 24 22.71 -1.3
MPA 1.80 80 iPc 24 23.12 -1.5
SKT 1.89 21 eP 24 24.31 -1.5
PMS 1.95 57 P 24 25.00 -1.6
PTE 2.04 70 iPc 24 25.49 -2.2
PWA 2.07 45 P 24 27.70 -0.4
PLRM 2.31 52 eP 24 28.58 -2.7
PMR 2.31 52 (P) 24 31.01 -0.2
GHO 2.50 50 ePc 24 31.47 -2.3
SML 2.75 53 ePc 24 34.41 -2.7
HIN 3.21 84 eP 24 41.10 -2.2
TRF 3.47 20 eP 24 44.95 -2.0
KLU 3.66 67 eP 24 46.24 -3.2
YKA 18.34 66 eP 27 58.30 -3.3
0.4s 0.30nm 2.9mb
47 obs. associated

MAR 12, 1993 12h 06m 15.38± 0.28s
59.406 S ± 5.3km 149.430 E ± 7.6km
DEPTH = 10.0km (geophysicist)
5.2mb (24 obs.) 5.4Msz (8 obs.)
WEST OF MACQUARIE ISLAND (701)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 37S, 84C
Centroid Location:
Origin Time 12:06:22.2 0.2
Lat 59.12S 0.03 Lon 149.42E 0.05
Dep 15.0 FIX Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr=-0.04 0.06 Mtt= 1.50 0.07
Mff=-1.46 0.07 Mrt=-0.36 0.19
Mrf= 0.51 0.20 Mtf=-2.89 0.06
Principal Axes:
T Val= 3.36 Plg= 9 Azm=212
N -0.12 79 6
P -3.24 5 121
Best Double Couple:Mo=3.3*10**17
NP1:Strike=256 Dip=80 Slip= 176
NP2: 347 87 10

MCQ 7.16 51 eP 07 59.50 -3.1
DRV 8.44 206 eP 08 18.00 -2.5
TAU 16.57 355 eP 10 08.00 -1.1
TUZ 18.10 51 eP 10 28.70 0.6
TLC 18.52 48 eP 10 34.30 0.8
LRCZ 18.73 49 eP 10 36.50 0.4
CSY 18.76 232 eP 10 35.50 -0.7
0.7s 85.40nm 5.1mb
SBA 19.40 169 iPd 10 44.00 0.1
TOO 22.00 352 iPc 11 12.00 0.9
0.9s 170.00nm 5.5mb
BFD 22.69 346 iPd 11 19.50 1.6
0.7s 36.00nm 5.0mb
THZ 22.90 50 eP 11 20.40 0.3
CAN 24.10 359 eP 11 31.10 -0.6
epP 11 41.50 39kmX
i 11 55.80
CN8 24.10 360 iPc 11 32.90 1.1
1.0s 101.00nm 5.4mb
BWA 25.00 358 eP 11 40.70 0.2
epP 11 50.10 34kmX
e 12 02.70
ADE 25.45 339 eP 11 46.00 1.3
CMS 28.03 353 eP 12 08.20 -0.1
1.1s 22.00nm 4.9mb
STK 28.03 346 eP 12 07.70 -0.6
1.6s 6.10nm 4.1mb X
eS 17 05.10
ARMA 29.02 4 eP 12 18.00 0.6
0.9s 15.00nm 4.8mb
SPA 30.76 180 iPc 12 33.20 0.5
1.1s 199.40nm 5.9mb
Z 20s 9.91um 5.5Msz
i 23 40.70
RMQ 32.90 359 iPd 12 51.30 -0.3
0.6s 32.00nm 5.4mb
QLP 33.01 351 eP 12 53.90 1.5
NWAO 34.01 307 eP 13 03.00 1.8
0.7s 19.00nm 5.1mb
Z 20s 8.50um 5.5Msz
MUN 35.26 306 eP 13 09.00 -2.9
Z 20s 7.40um 5.4Msz
N 20s 4.40um
E 20s 2.90um
BAL 36.26 308 eP 13 19.00 -1.4
MAW 36.35 220 eP 13 22.50 1.9
0.7s 22.22nm 5.1mb
ASPA 37.36 336 iPd 13 27.70 -2.0
0.7s 37.60nm 5.3mb
eS 18 18.30
e 25 58.20
DZM 39.22 25 iPc 13 44.70 -0.7
CTA 39.34 355 iPd 13 46.50 0.2
1.0s 25.00nm 4.8mb

```
                    eS     19 56.00
WB2     40.89 338 eP     13 55.70  -3.3X
        1.3s   36.80nm          4.9mb
MBL     43.66 318 eP     14 20.00  -1.6
        0.4s   12.00nm          5.0mb
NANU    43.93 312 eP     14 23.00  -0.7
SNA     49.02 192 e(P)   15 05.70   2.2
        0.9s   50.00nm          5.5mb
LEM     61.31 311 ePd    16 34.00   0.6
GRM     76.27 226 eP     17 52.50 -13.1X
        0.9s    1.00nm
CER     78.79 221 iPc    18 19.50   0.0
        1.5s  120.00nm          5.7mb
TUH     78.90 221 iPc    18 19.00  -1.0
        0.5s    8.00nm          5.0mb
FRS     79.93 227 eP     18 18.10  -7.6X
BLF     80.18 228 eP     18 20.50  -6.7X
SEK     80.33 229 iPc    18 29.00   0.9
        1.0s   50.00nm          5.5mb
PRY     81.64 230 eP     18 31.50  -3.5X
        0.9s   15.38nm          5.1mb
BFT     81.72 233 eP     18 37.00   1.5
        0.8s   20.00nm          5.2mb
POF     82.21 223 iPc    18 39.00   1.4
        0.4s    7.00nm          5.1mb
SLR     82.39 231 eP     18 36.60  -2.2
        1.4s   50.00nm          5.5mb
     Z  18s     6.10um          6.0Msz
KHT     84.57 311 eP     18 52.00   2.3
TCA     85.30 151 eP     18 54.50   1.0
BUL     87.25 234 iPd    19 04.00   0.7
        1.5s   27.78nm          5.3mb
CHTO    88.12 313 eP     19 07.60   0.5
        1.1s   12.37nm          5.1mb
DHH     91.22  48 (P)    19 18.80  -2.7
GBA     92.70 292 P      19 30.00   1.5
HYB     95.49 295 eP     19 41.00  -0.3
CNCB    98.17 144 P      19 52.00  -2.4
LPB     98.40 144 (P)    19 49.00  -6.2X
     Z  21s     0.72um          5.1Msz
                  LR     53 25.00
ZOBO    98.62 144 eP     19 55.00  -1.5
     Z  24s     0.73um          5.1MszX
                  SKS    31 22.00
                  LR     53 02.00
MAIO   120.40 291 ePKP   25 13.00   5.2X
LIC    123.46 211 PKP    25 13.32  -0.8
     Z  20s     0.70um          5.3Msz
KIC    123.52 211 PKP    25 13.76  -0.5
MSU    126.26  74 ePKP   25 19.77   0.5
LKO    126.79 211 PKP    25 20.34  -0.3
DUG    127.25  72 ePKP   25 22.46   1.5
SRU    127.54  75 ePKP   25 21.65   0.0
ILT    129.13  15 iPKPc  25 24.00   0.6
        1.4s   12.00nm
WMOK   130.07  88 ePKP   25 26.63   0.3
ACO    131.41  86 iPKPc  25 31.10   2.3
TIK    131.54 351 ePKP   25 28.00   0.1
        2.0s   21.00nm
UYO    131.84  92 iPKPc  25 32.20   2.5X
LCCM   131.95  68 ePKP   25 31.80   2.0
RSSD   134.50  75 ePKP   25 34.89   0.1
SVE    135.37 308 ePKPc  25 47.00  11.3X
                  e      28 14.50
SES    135.60  64 ePKP   25 43.00   6.6X
NRI    135.79 334 ePKPd  25 42.00   5.9X
        1.4s   17.00nm
YKA    141.79  48 ePKP   25 40.50  -6.8X
        1.2s    2.80nm
ULM    142.75  75 ePKP   25 53.00   3.6X
OHR    143.53 263 ePKP   25 49.00  -2.1
SKO    143.83 265 iPKP   25 49.20  -2.3
VRI    143.89 274 ePKPc  25 50.00  -1.4
MLR    144.02 273 ePKPc  25 50.50  -1.4
CVO    144.13 274 ePKPc  25 51.00  -0.9
MNO    144.16 254 PKP    26 01.91   9.5X
CMP    144.33 272 ePKPc  25 52.00  -0.3
TDS    144.68 257 PKP    25 52.97   0.0
MOS    144.70 295 ePKP   25 55.00   2.5X
OBN    144.81 293 iPKPd  25 52.20  -0.5
        1.1s   57.00nm
BRT    145.17 259 PKP    25 53.97   0.2
MGR    145.44 257 PKP    25 53.65  -0.6
SGO    145.88 257 PKP    25 55.86   0.9
ANTZ   145.97 214 iPKP   25 56.50   1.0
                  i      26 00.00
DUI    147.13 258 PKP    26 03.23   6.1X
```

```
TIO    147.47 219 iPKP   26 04.00   6.0X
SDI    147.48 257 PKP    26 00.42   2.8X
UZH    147.97 274 ePKPc  26 01.70   3.6X
AQU    148.17 257 PKP    26 13.30  14.6X
FCC    148.46  63 ePKP   26 04.50   6.0X
MNK    148.48 286 ePKP   26 07.00   8.3X
UZD    148.54 268 e(PKP)26 04.00   4.9X
EEO    148.90  92 ePKP   26 02.50   2.8X
BUD    148.90 270 e(PKP)26 13.00  13.4X
ASS    149.07 258 PKP    26 13.77  13.7X
ARV    149.24 258 PKP    26 05.94   5.6X
SPC    149.37 273 ePKP   26 05.50   4.9X
                  e      26 15.60
PTJ    149.41 265 ePKP   26 03.70   3.1X
VBY    149.49 264 ePKP   26 05.00   4.4X
VBY    149.49 264 ePKP   26 14.10  13.5X
AVE    149.70 221 iPKP   26 12.50  11.2X
                  i      26 16.00
RSM    149.80 258 PKP    26 07.51   6.5X
RIY    149.82 262 ePKP   26 06.20   5.2X
CRE    149.83 258 PKP    26 14.56  13.3X
CEY    150.07 263 ePKP   26 07.00   5.5X
SFI    150.09 258 PKP    26 02.95   1.5
PUL    150.12 297 PKP    26 15.00  14.0X
PGD    150.12 258 PKP    26 06.94   5.1X
LJU    150.23 264 e(PKP)26 07.00   5.3X
OJC    150.24 275 ePKP   26 07.60   6.0X
        0.8s   57.00nm
                  i      26 17.20
                  i      26 28.70
FIR    150.28 257 ePKP   26 03.00   1.2
SOP    150.29 268 e(PKP)26 07.00   5.3X
ZST    150.35 269 ePKP   26 15.80  14.0X
TRI    150.39 262 ePKP   26 08.50   6.6X
PGF    150.49 253 ePKP   26 07.70   5.4X
        1.0s   26.20nm
VOY    150.55 263 ePKP   26 08.10   5.8X
                  e      26 13.20
VOY    150.55 263 ePKP   26 17.30  15.0X
                  e      27 06.80
                  e      27 12.70
MME    150.86 257 PKP    26 10.77   7.8X
RBL    150.99 263 PKP    26 09.60   6.7X
VRAC   151.32 271 ePKP   26 19.40  16.3X
        1.8s  157.00nm
FVI    151.49 263 PKP    26 11.63   8.1X
KBA    151.53 264 iPKPd  26 10.00   6.1X
        1.0s   23.80nm
                  i      26 15.00
                  i      26 28.80
CTI    151.69 261 PKP    26 11.22   7.2X
BOB    151.90 257 PKP    26 11.51   7.2X
CKI    152.23 255 PKP    26 20.59  15.9X
LMR    152.29 251 ePKP   26 11.90   7.1X
        1.1s   13.45nm
FRF    152.40 252 ePKP   26 11.30   6.3X
        1.0s   16.60nm
KSP    152.40 273 ePKP   26 12.50   7.7X
LRG    152.46 251 ePKP   26 11.40   6.4X
GEC2   152.50 267 PKP    26 03.30  -1.8
        1.4s    1.95nm
                  e      26 11.00
                  e      26 14.70
                  e      26 21.50
                  e      26 23.60
                  e      26 34.60
                  e      26 38.60
GEC2   152.50 267 e(PKP)26 21.70  16.6X
        0.9s   11.00nm
GEC2   152.50 267 e(PKP)26 11.00   5.9X
        0.7s    2.30nm
GEC2   152.50 267 e(PKP)26 23.60  18.5X
        0.8s    6.60nm
WTTA   152.53 263 iPKPd  26 11.60   6.3X
        1.1s   44.90nm
                  i      26 22.40
                  i      26 32.90
RES    152.53  31 ePKP   26 12.50   8.3X
        1.0s    5.00nm
KHC    152.75 268 ePKP   26 21.50  16.2X
        1.2s   14.00nm
     Z  20s     0.80um          5.5Msz
     N  20s     0.50um
     E  20s     0.60um
                  e      26 33.00
                  e      26 44.00
PRU    152.79 270 ePKP   26 16.50  11.2X
```

```
                  e      26 39.50
                  e      28 07.20
KAF    152.85 300 ePKP   26 06.20   1.2
LPG    153.76 255 ePKP   26 15.40   8.2X
        0.9s    7.70nm
LPL    153.78 255 ePKP   26 15.30   8.1X
        1.1s   14.90nm
PAB    154.12 232 ePKP   26 29.00  21.4X
GRF    154.30 266 ePKP   26 07.30  -0.1
     Z  21s     0.50um          5.3Msz
                  e      26 15.70
                  e      26 25.80
CLL    154.36 271 e(PKP)26 13.00   5.6X
                  e      26 46.00
MOX    154.68 269 e(PKP)26 30.40  22.5X
JAQ    154.93  83 ePKP   26 17.00   8.9X
SSF    156.46 254 ePKP   26 11.80   1.4
        1.0s   49.60nm
    S.D. = 1.3  on  77 of 148 obs.
```

```
  MAR 12, 1993  12h 10m 18.66± 0.31s
  47.371 N ± 2.9km    6.901 E ± 3.2km
  DEPTH = 10.0km  (geophysicist)
 FRANCE                              (538)
     ML 2.9 (LDG), 2.5 (STR).

LOMF    0.05 248 Pg     10 20.43  -0.5
                 Sg     10 22.93
BBS     0.42  77 Pg     10 26.36  -1.0
BSF     0.47 351 Pg     10 28.20   0.0
                 Sg     10 34.80
MOF     0.51  18 Pg     10 28.85  -0.1
HAU     0.74 330 Pg     10 33.40   0.3
                 Sg     10 44.80
HAU     0.74 330 Pn     10 34.00   0.9
ECH     0.86  12 Pg     10 35.40   0.1
                 Sg     10 47.10
FEL     0.91  56 ePg    10 35.43  -0.7
LIBD    0.91  31 Pg     10 36.91   0.8
ZLA     1.02  83 ePd    10 37.70  -0.2
VITF    1.05 324 Pg     10 39.82   1.4
                 Sg     10 53.99
CDF     1.07  13 Pg     10 38.98   0.1
                 Sg     10 54.50
WLS     1.09  16 Pg     10 39.41   0.3
SLE     1.15  69 iPc    10 39.40  -0.8
EMS     1.30 179 eP     10 42.70  -0.2
DIX     1.34 165 eP     10 43.40  -0.1
MMK     1.51 151 eP     10 46.60   0.6
LLS     1.52 109 eP     10 45.60  -0.5
RSL     1.69 187 Pn     10 47.94  -0.6
                 Pg     10 50.25
                 Sg     11 12.20
LPL     1.86 184 Pg     10 53.10   2.1
                 Sg     11 18.00
LPG     1.88 183 Pg     10 53.40   2.0
                 Sg     11 18.70
LBF     2.03 260 Pg     10 57.20   3.8X
                 Sg     11 23.40
LOR     2.07 268 Pn     10 52.50  -1.4
                 Pg     10 58.10
                 Sg     11 24.30
SMF     2.22 252 Pn     10 56.10   0.1
                 Pg     11 01.00
                 Sg     11 28.90
OSS     2.32 106 eP     10 57.80   0.1
SSF     2.33 264 Pn     10 57.00  -0.7
                 Pg     11 02.70
                 Sg     11 33.30
AVF     2.49 258 Pn     10 59.70  -0.2
                 Pg     11 06.70
                 Sg     11 37.10
HYF     2.90 270 Pg     11 14.50   8.8X
MAF     3.19 250 Pg     11 19.20   9.4X
                 Sg     11 59.20
TCF     3.40 253 Pn     11 11.10  -1.7
                 Pg     11 20.40
LSF     3.85 255 Pg     11 30.20  10.9X
                 Sg     12 17.80
RJF     4.26 243 Pn     11 03.70 -21.4X
                 Pg     11 22.00
                 Sg     12 34.40
GEC2    4.79  70 Pg     11 49.90  17.3X
                 Sn     12 28.50
                 Sg     12 51.90
    S.D. = 0.9  on  27 of 33 obs.
```

```
*  MAR 12, 1993  12h 37m 35.78± 0.77s
   31.030 N ± 8.4km  141.886 E ±19.4km
   DEPTH = 33.0km (normal)
   3.9mb ( 2 obs.)
 SOUTH OF HONSHU, JAPAN            (211)

KAKJ    5.36 345 P       38 54.50  -0.9
                 eS      39 51.70
CHJJ    5.56 335 P       38 58.70   0.4
                 eS      39 59.00
MAT     6.29 332 eP      39 09.00   0.3
        0.6s     22.00nm          5.1mb X
                 (S)     40 16.00
MTMJ    6.50 330 P       39 12.90   1.2
NIIJ    6.64 340 eP      39 12.80  -0.7
BJI    22.71 300 eP      42 35.00  -0.7
WB2    51.19 189 iPc     46 37.90  -0.2
        0.3s      3.80nm          4.8mb X
ASPA   54.92 189 eP      47 05.90   0.2
        0.6s      3.60nm          4.6mb X
YKA    68.83  29 eP      48 38.70   0.1
        0.4s      0.30nm          3.7mb
NB2    79.88 338 P       49 42.80   0.4
        0.9s      2.10nm          4.1mb
     S.D. = 0.8  on  10 of  10 obs.
-----------------------------------------
?  MAR 12, 1993  12h 44m 16.84± 8.40s
   43.262 N ±35.2km  127.973 W ±58.0km
   DEPTH = 10.0km (geophysicist)
 OFF COAST OF OREGON               ( 30)

MPOR    3.43  67 P       45 10.18  -1.4
HSO     3.57  84 P       45 13.23  -0.2
TKO     3.87  55 P       45 17.18  -0.6
KMOR    3.99  52 P       45 18.87  -0.6
HBO     4.15  80 P       45 22.42   0.6
SSOR    4.28  66 P       45 23.68   0.1
NLO     4.29  47 P       45 23.78   0.1
GT2     4.52  63 P       45 27.26   0.4
BMW     4.66  45 P       45 28.32  -0.6
LVP     4.86  53 P       45 32.25   0.4
TDH     4.88  63 P       45 32.75   0.6
VBEM    4.93  66 P       45 33.16   0.2
MTMW    4.95  54 P       45 33.37   0.3
CZM     5.02  49 P       45 34.90   1.0
JLK     5.05  53 P       45 34.81   0.3
CDFW    5.10  54 P       45 35.25   0.1
TDL     5.13  51 P       45 35.71   0.1
LON     5.59  49 eP      45 40.79  -1.3
GLK     5.60  52 P       45 42.68   0.4
REMR    5.61  49 P       45 42.66   0.1
RVC     5.62  47 P       45 43.04   0.5
WPW     5.71  51 P       45 44.02   0.2
GL2     5.77  60 P       45 44.46  -0.2
JBO     6.23  67 P       45 50.91  -0.2
HTW     6.29  42 P       45 52.18   0.2
MXC     6.38  56 P       45 52.89  -0.3
EBG     6.38  53 P       45 53.70   0.4
JCW     6.50  39 P       45 54.80   0.0
TBM     6.51  51 P       45 55.29   0.2
RSW     6.73  59 P       45 57.78  -0.5
RPW     6.87  39 P       45 59.74  -0.4
ETW     6.91  48 P       46 00.74   0.0
     S.D. = 0.5  on  32 of  32 obs.
-----------------------------------------
   MAR 12, 1993  12h 51m 33.78± 0.67s
   40.565 N ± 6.0km   23.105 E ± 5.7km
   DEPTH = 10.0km (geophysicist)
 GREECE                            (364)
     ML 2.5 (THE).

THE     0.13 302 iPg     51 37.38   0.5
                 eSg     51 39.14
SOH     0.32  36 ePg     51 40.66   0.2
                 eSg     51 44.58
KNT     0.62 345 ePg     51 45.86  -0.4
                 eSg     51 54.18
GRG     0.66 306 iPg     51 46.66  -0.3
                 eSg     51 56.06
SRS     0.66  34 ePg     51 46.82  -0.2
                 eSg     51 55.54
OUR     0.71 109 iPg     51 47.90   0.2
PAIG    0.77 145 iPg     51 48.62  -0.2
                 eSg     51 59.46
VAY     0.86 332 iPn     51 50.40   0.1
     S.D. = 0.4  on  8 of  8 obs.
-----------------------------------------
```

```
?  MAR 12, 1993  13h 00m 57.58± 1.20s
   40.109 N ± 8.8km   19.891 E ±10.3km
   DEPTH = 10.0km (geophysicist)
 ALBANIA                           (391)
     ML 2.3 (TIR).

TPE     0.21  26 iPgd    01 01.00  -1.1
                 iSg     01 05.00
SRN     0.24 160 ePg     01 02.30  -0.5
                 iSg     01 08.50
VLO     0.47 320 ePg     01 07.70   0.6
LSK     0.55  85 ePg     01 09.60   1.0
     S.D. = 1.6  on  4 of  4 obs.
-----------------------------------------
%  MAR 12, 1993  13h 44m 22.80± 1.06s
   26.908 S ± 7.4km   26.785 E ±11.1km
   DEPTH = 5.0km (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
     ML 2.3 (PRE).

BFS     0.01 360 iPd     44 23.30  -0.6
                 S       44 23.70
PRY     0.61  92 eP      44 34.50  -0.6
                 S       44 43.50
SEK     1.59 152 eP      44 52.50   0.6
                 S       45 12.50
SLR     1.78  49 eP      44 55.50   0.9
                 S       45 19.00
BLF     2.26 193 eP      45 01.00  -0.5
     S.D. = 1.0  on  5 of  5 obs.
-----------------------------------------
   MAR 12, 1993  14h 01m 35.40± 0.12s
   14.385 S ± 4.0km  178.252 W ± 3.1km
   DEPTH = 9.6km (geophysicist)
   6.0mb ( 82 obs.) 6.4Msz ( 66 obs.)
 FIJI ISLANDS REGION               (181)
     Mw 6.4 (GS), 6.4 (HRV). Ms 6.5
     (BRK). Mo=4.0*10**18 Nm (PPT).
     Five people killed, more than 20
     seriously injured and damage on
     Futuna Island. Depth from
     broadband displacement
     seismograms.
     RADIATED ENERGY
      No. of sta:  25   Focal mech.  M
      Energy        1.0±0.2*10**14 Nm
     MOMENT TENSOR SOLUTION
     Dep   5              No. of sta: 27
     Moment Tensor;    Scale 10**18 Nm
       Mrr= 3.48          Mtt=-1.47
       Mff=-2.00          Mrt=-2.09
       Mrf=-0.23          Mtf= 2.73
      Principal axes:
       T   Val=  4.48   Plg=63   Azm=154
       N         0.20       25       311
       P        -4.68        9        45
     Best Double Couple:Mo=4.6*10**18
      NP1:Strike=162 Dip=42 Slip= 129
      NP2:       294     59        60
     CENTROID, MOMENT TENSOR       (HRV)
     Data Used: GDSN
     L.P.B.: 42S, **C  M.W.: 26S, 49C
     Centroid Location:
     Origin Time          14:01:42.2 0.1
     Lat 14.30S 0.01 Lon 178.09W 0.01
     Dep  15.0 BDY Half-duration  3.4
     Moment Tensor;    Scale 10**18 Nm
       Mrr= 3.24 0.02  Mtt=-2.08 0.03
       Mff=-1.16 0.03  Mrt=-1.62 0.10
       Mrf= 0.28 0.09  Mtf= 2.35 0.02
      Principal Axes:
       T   Val=  3.73   Plg=72   Azm=163
       N         0.56       15       305
       P        -4.29       11        38
     Best Double Couple:Mo=4.0*10**18
      NP1:Strike=145 Dip=36 Slip= 115
      NP2:       295     57        73

MBU     3.89 228 eP      02 37.00   0.4
                 eS      03 45.00
VUN     4.79 221 iPd     02 48.70  -0.7
PVC    13.34 254 iPd     04 52.70   5.3X
BKM    13.39 254 iPd     04 55.40   7.3X
DZM    16.42 240 iPd     05 31.90   4.2X
RAR    18.85 114 ePc     05 55.60  -2.4
                 eS      09 25.46
HNR    21.89 281 iP      06 33.00   2.4
```

```
                 eS      10 42.00
KUZ    22.91 193 eP      06 36.60  -4.0X
AFR    27.54 100 iPd     07 26.00   1.4
        1.2s    142.20nm          5.6mb
PAE    27.74 101 iPd     07 27.90   1.6
        1.6s    462.70nm          6.0mb
PPT    27.74 100 iPd     07 27.80   1.4
        1.2s    445.10nm          6.1mb
PPN    27.87 100 iPd     07 29.20   1.6
        1.8s    366.00nm          5.9mb
TVO    28.06 101 iPd     07 31.00   1.7
        1.1s    235.40nm          5.9mb
PMO    29.36  95 iPd     07 42.70   1.7
        1.3s    361.00nm          6.0mb
LTZ    29.45 194 eP      07 40.90  -0.7
VAH    29.61  96 iPd     07 44.70   1.5
        1.3s    350.90nm          6.0mb
TPT    29.63  95 iPd     07 45.00   1.6
        1.5s    374.00nm          6.0mb
RUV    29.85  96 iPd     07 46.60   1.3
        1.2s    292.80nm          6.0mb
BRS    29.92 240 iPd-    07 47.00   1.0
        1.0s     29.00nm          5.1mb
                 i       08 04.50
                 ic      08 48.00
                 i       11 51.00
                 eS      12 43.00
RAB    30.86 286 iP+     07 54.00  -0.4
                 iS      12 40.00
ARMA   31.96 235 iPc     08 05.60   1.6
        1.3s    190.00nm          5.9mb
MHZ    32.35 197 eP      08 04.00  -3.3X
SBCZ   32.37 197 eP      08 03.70  -3.7X
LSCZ   32.38 196 eP      08 04.60  -2.8
CMCZ   32.44 197 eP      08 05.10  -2.9
RMQ    33.08 243 eP      08 13.30  -0.4
        1.0s    420.00nm          6.3mb
                 i       08 14.60
TUZ    33.09 196 eP      08 11.80  -1.6
RIV    33.78 230 eP+     08 21.70   2.1
   Z   20s        0.50um          4.2MszX
                 ePP     09 36.00
                 eS      13 42.00
PMG    34.18 274 eP      08 25.00   1.7
CTA    34.32 255 P       08 27.00   2.4
CTAO   34.32 255 iPc     08 24.50  -0.1
                 ePP     09 39.98
CNB    35.78 229 eP      08 36.20  -0.7
        1.1s    151.00nm          5.8mb
CAN    36.04 229 eP      08 38.50  -0.6
                 i       10 11.40
BWA    36.08 230 eP      08 37.50  -1.9
                 e       09 02.50
MDG    36.54 281 e(P)    08 45.00   1.6
CMS    36.99 236 eP      08 45.90  -1.1
        1.1s    269.00nm          5.9mb
OLP    37.04 245 eP      08 46.50  -1.0
TOO    39.58 228 iPd     09 08.30  -0.4
        0.8s    110.00nm          5.6mb
STK    40.55 238 eP      09 16.00  -0.7
        1.1s     32.50nm          4.9mb X
                 eS      15 22.10
HON    40.68  30 P-      09 22.78   5.0X
   Z   21s       70.70um          6.5Msz
                 S       15 37.43
DHH    40.72  30 eP      09 17.58  -0.6
KIP    40.75  30 eP      09 18.86   0.4
TAU    41.00 219 eP      09 20.00  -0.2
                 ePP     11 02.00
                 eS      15 36.00
SFD    41.55 230 eP      09 23.10  -1.8
        1.0s     80.00nm          5.4mb
ADE    43.74 234 eP      09 43.00   0.2
WB2    45.51 256 iPd     09 55.50  -1.7
        1.1s     16.50nm          4.9mb X
                 iPP     11 51.10
WRA    45.52 256 P       09 56.00  -1.3
        0.6s      6.40nm          4.8mb X
GUA    45.82 306 eP      10 00.00   0.3
GUMO   45.89 306 ePc     10 00.43   0.3
                 epPd    10 03.41  10kmX
PJG    45.89 306 eP      10 00.00  -0.2
ASPA   45.99 251 iPd     09 59.50  -1.5
        1.8s    225.60nm          5.9mb
   Z   23s       37.80um          6.3MszX
                 iPP     11 47.50
                 eS      16 34.20
```

DRV 59.04 198 iP 11 39.60 2.0
PP 13 47.00
S 19 44.00
SS 23 18.00
MBL 59.04 254 eP 11 36.00 -2.4
1.0s 246.00nm 6.3mb
DAV 59.66 287 eP- 11 43.00 0.3
MEEK 59.86 247 eP 11 43.00 -1.1
KLB 60.57 242 iPd 11 47.30 -1.5
1.0s 68.00nm 5.7mb
CGP 60.97 288 iPd 11 52.50 0.9
CTB 60.97 287 ePd 11 56.00 4.3X
NWAO 61.04 240 ePc 11 51.09 -0.8
1.1s 75.00nm 5.7mb
ePP 13 32.14
eS 20 11.01
BAL 61.47 243 eP 11 52.00 -2.9
PLP 61.73 291 ePd 11 57.00 0.2
MUN 61.89 241 eP 11 57.00 -0.8
1.0s 80.00nm 5.9mb
Z 20s 105.90um 7.0Msz
N 20s 20.60um
E 20s 61.80um
MRWA 62.11 244 eP 11 58.00 -1.3
0.9s 21.00nm 5.3mb
NANU 62.91 252 iPc 12 05.30 0.7
1.0s 313.00nm 6.5mb
KAKJ 63.82 323 P 12 10.10 -0.2
SBA 63.93 183 iPc 12 12.00 1.6
CHJJ 64.40 322 eP 12 13.80 -0.3
KHKI 64.94 267 ePc 12 11.00 -7.0X
e 19 17.10
OFUJ 65.03 326 eP 12 17.20 -0.9
MAJO 65.20 322 iPc 12 17.82 -1.5
ec 12 19.15
MAT 65.20 322 eP 12 18.00 -1.3
1.5s 216.67nm 6.1mb
Z 20s 7.45um 5.9Msz
eS 21 03.00
YAMJ 65.28 325 P 12 19.40 -0.3
WKYJ 65.29 319 P 12 19.50 -0.5
MTMJ 65.47 322 eP 12 20.60 -0.5
TSRJ 65.89 320 eP 12 23.60 -0.1
ADK 66.00 1 eP 12 21.81 -2.2
1.4s 268.47nm 6.2mb
TKSJ 66.13 318 P 12 26.30 1.0
PGP 66.26 292 eP 12 27.00 0.6
ERM 66.43 330 ePc 12 26.67 -0.3
TGY 66.50 293 ePc 12 30.00 2.0
KUSJ 66.51 331 eP 12 26.40 -1.1
KAGJ 66.61 314 eP 12 29.20 0.8
QVP 66.64 293 iPc 12 30.00 1.2
HOOJ 66.65 330 eP 12 28.10 -0.3
KUR 66.81 335 iPc+ 12 28.00 -1.4
2.0s 1.00nm 3.7mb X
Z 18s 11.80um 6.1Msz
N 18s 10.30um
e 12 56.00
e 14 54.00
CVP 67.15 296 eP 12 33.70 1.6
SMY 67.16 355 P 12 33.74 2.3
Z 21s 14.56um 6.2Msz
S 22 01.38
YONJ 67.26 318 P 12 31.40 -1.1
KUMJ 67.42 315 eP 12 32.80 -0.8
BAG 67.72 295 ePc+ 12 36.00 0.1
2.0s 470.59nm 6.3mb
eS 21 43.00
MRRJ 67.78 329 eP 12 35.20 -0.3
SAP 68.11 329 eP 12 39.00 1.4
SHNJ 68.16 316 P 12 38.60 0.5
ASAJ 68.26 331 eP 12 39.30 0.7
CSY 69.39 204 eP 12 45.10 -0.1
1.0s 29.90nm 5.4mb
PET 70.01 345 eP 12 47.00 -2.1
3.0s 6000.00nm 7.2mb X
Z 18s 8.20um 6.0Msz
eS 22 02.00
ePS 22 28.00
eSS 26 24.00
YSS 70.42 333 iPc 12 51.65 -0.1
1.2s 210.00nm 6.1mb
Z 18s 4.90um 5.8Msz
E 16s 4.10um
ec 12 52.64
ed 12 54.05
e 15 28.00
ePPP 17 10.00
eS 22 07.00
e 22 34.00
e 22 54.00
TATO 70.57 303 (P) 12 52.65 -0.5
ec 12 53.73
eS 22 11.35
SDN 71.06 11 eP 12 52.71 -2.7
1.2s 342.71nm 6.4mb
QZH 72.92 302 iPc 13 08.00 0.8
Z 23s 4.49um 5.7MszX
N 14s 2.10um
LEM 73.01 267 ePd 13 09.30 1.2
1.5s 888.89nm 6.6mb
Z 20s 3.55um 5.6Msz
eS 22 28.00
eLR 33 20.00
VLA 73.18 324 iPd+ 13 08.00 -0.3
4.2s 4950.00nm 6.9mb X
e 13 20.00
e 15 54.00
ePPP 17 35.00
i 23 26.00
eSS 27 16.00
PCC 73.57 43 eP 13 10.83 0.1
GCC 73.58 44 eP 13 11.07 0.3
PRS 73.63 45 eP 13 11.69 0.6
SSE 73.64 309 iPc 13 10.71 -0.5
i 13 19.00
ePP 15 37.78
S 22 35.37
SKS 22 46.00
PS 23 40.00
SS 27 40.00
STAN 73.66 44 ePc 13 09.71 -1.5
Z 21s 39.00um 6.7Msz
eS 22 42.71
eLQ 32 30.71
eLR 34 46.71
SBC 73.80 47 ePc 13 12.25 0.2
ec 13 13.41
eS 22 49.69
esS 22 58.30
SAO 73.81 44 eP 13 10.98 -1.1
1.0s 49.65nm 5.5mb
Z 22s 28.67um 6.5Msz
S 22 48.21
BKS 73.88 43 ePc 13 12.09 -0.4
Z 21s 45.00um 6.7Msz
ePP 15 24.09
eS 22 47.09
eScS 23 09.09
eSS 26 57.09
eLQ 32 45.09
eLR 34 35.09
NTYM 73.88 42 eP 13 11.43 -1.0
BCH 73.92 46 eP 13 13.22 0.3
COE 73.92 44 eP 13 13.64 0.9
MHC 73.98 44 ePc 13 11.07 -2.2
Z 21s 41.00um 6.7Msz
ePP 15 46.07
eS 22 50.07
eScS 23 18.07
eSS 27 15.07
eLR 34 45.07
PRI 74.01 45 eP 13 13.60 0.1
PHAM 74.03 46 eP 13 13.98 0.5
ARN 74.06 44 eP 13 13.49 -0.1
LLA 74.07 45 eP 13 14.94 1.3
KMPM 74.09 40 eP 13 14.19 0.4
FOX 74.23 40 eP 13 15.20 0.7
HMR 74.32 43 eP 13 15.98 1.0
ABL 74.35 47 (P) 13 14.34 -1.3
ARC 74.39 40 eP 13 10.90 -4.5X
Z 21s 42.00um 6.7Msz
ePP 15 50.90
eS 22 55.90
eScS 23 14.90
eSS 27 39.89
eLR 35 05.89
FHC 74.40 40 eP 13 16.21 0.7
PAS 74.76 48 ePc 13 16.94 -0.8
ec 13 18.35
KDC 74.95 14 eP 13 17.52 -0.8
1.2s 90.11nm 5.7mb
SSK 75.13 48 eP 13 19.30 -0.8
WDC 75.18 41 iPc 13 19.92 -0.1
Z 21s 51.52um 6.8Msz
ec 13 21.08
ec 13 21.24
ePP 16 07.92
eHPP 16 08.42
S 23 06.87
LGPM 75.18 40 eP 13 19.72 -0.4
CMB 75.19 44 ePc 13 19.68 -0.5
Z 21s 33.00um 6.6Msz
ec 13 20.92
epPd 13 23.40 12kmX
ePP 16 07.77
eHPP 16 08.10
eS 23 00.68
eScS 23 35.68
eSS 27 36.68
ePKKP 32 30.68
eLQ 32 38.68
eLR 35 16.68
ORV 75.28 42 eP 13 19.44 -1.1
ISA 75.29 47 ePc+ 13 20.16 -0.7
1.4s 119.96nm 5.8mb
Z 21s 26.51um 6.5Msz
ePP 16 12.43
S 23 06.40
PLM 75.33 49 ePc 13 20.67 -0.6
PEC 75.37 49 ePc 13 20.40 -0.9
2.2s 754.64nm 6.4mb
MDJ 75.42 324 iPc 13 21.55 0.3
ec 13 22.87
iS 23 06.58
HKC 75.57 298 iP 13 24.60 2.0
S 23 12.00
MIN 75.64 41 eP 13 21.99 -0.8
SPA 75.71 180 iPc 13 22.60 -0.2
1.1s 257.14nm 6.2mb
Z 20s 7.30um 6.0Msz
i 37 31.50
PFO 75.75 49 ePc 13 22.84 -0.7
iS 23 11.86
iPS 23 41.49
LMEM 75.77 41 eP 13 23.12 -0.5
NJ2 75.84 309 Pc 13 25.00 1.1
1.2s 40.00nm 5.4mb
Z 20s 1.18um 5.2MszX
N 14s 2.33um
E 14s 2.10um
S 23 05.00
MMPM 75.89 45 eP 13 24.51 0.0
MEMM 75.98 45 eP 13 24.84 0.3
LBFM 76.01 40 eP 13 24.25 -0.8
MTUM 76.08 45 eP 13 25.04 -0.4
DBO 76.19 38 P 13 27.47 1.7
MRCM 76.28 45 ePc 13 26.21 -0.4
GSC 76.30 48 ePc 13 26.12 -0.5
BONR 76.56 45 ePc 13 27.97 -0.3
GLA 76.70 51 eP 13 29.68 0.9
COR 77.00 37 iPc 13 30.53 0.4
ec 13 31.52
ePP 16 23.99
ePS 23 58.83
DL2 77.16 316 Pc 13 32.00 0.9
1.5s 580.00nm 6.4mb
Z 24s 3.72um 5.6MszX
N 18s 7.94um
E 16s 1.89um
PP 16 24.00
S 23 22.00
KVN 77.25 44 eP 13 32.26 0.3
CN2 77.35 322 Pc 13 32.00 -0.1
1.1s 54.00nm 5.6mb
Z 20s 5.50um 5.9Msz
N 14s 2.20um
E 14s 3.20um
esP 13 52.00
eS 23 26.00
SKS 23 33.00
RSO 77.35 13 eP 13 30.92 -1.1
TNP 77.37 45 eP 13 32.12 -0.5
2.1s 398.11nm 6.1mb
SVW 77.37 11 eP 13 31.08 -0.9
0.9s 70.77nm 5.8mb
SNY 77.41 319 iPc 13 33.00 0.5
Z 30s 6.46um 5.8MszX
N 24s 12.60um
sP 13 52.00
TPNV 77.49 46 ePc 13 32.95 -0.3

12d 14h

1.0s 52.15nm 5.6mb
KMOR 77.50 36 P 13 33.33 0.3
SSOR 77.65 37 P 13 33.77 -0.1
SLKM 77.95 14 eP 13 33.72 -1.4
ONR 78.08 35 P 13 37.43 1.4
BMW 78.14 35 eP 13 36.35 -0.2
CP2 78.18 13 eP 13 35.74 -0.9
QIZ 78.19 293 iPc 13 38.76 1.6
ePP 16 35.29
eS 23 42.93
CRP 78.21 13 eP 13 34.68 -2.0
VBEM 78.27 37 P 13 37.03 -0.3
MGD 78.30 345 iPc+ 13 36.00 -1.0
3.0s 2160.00nm 6.7mb
Z 18s 4.00um 5.8Msz
N 18s 4.40um
E 18s 4.30um
e 13 43.00
i 16 32.00
iS 23 35.00
iPS 24 10.00
eSS 28 36.00
VIPM 78.54 38 P 13 38.87 0.0
CROR 78.58 38 P 13 38.72 -0.3
WHN 78.67 306 Pd 13 40.00 0.4
1.0s 44.00nm 5.5mb
Z 20s 3.73um 5.7Msz
E 14s 2.27um
SKS 23 46.00
ASR 78.88 36 P 13 40.84 0.2
STW 78.89 34 P 13 42.41 1.9
TTA 79.00 10 eP 13 40.45 -0.4
1.1s 147.59nm 5.9mb
ePP 16 50.60
VGB 79.00 37 eP 13 40.74 -0.5
TIA 79.01 312 Pc 13 41.70 0.3
E 13s 2.04um
GMW 79.01 35 eP 13 41.05 -0.2
LON 79.10 36 ePc 13 40.68 -1.1
ePP 16 46.31
S 23 43.22
PMR 79.16 14 ePd+ 13 40.52 -1.1
1.1s 163.10nm 6.0mb
Z 18s 11.52um 6.3Msz
S 23 42.36
PGC 79.30 33 ePd 13 43.00 0.3
0.9s 40.00nm 5.4mb
KGM 79.30 275 ePd 13 45.00 1.5
1.4s 385.00nm 6.2mb
TUC 79.45 53 iPc 13 44.61 0.6
1.3s 133.36nm 5.8mb
Z 19s 27.67um 6.6Msz
ec 13 46.27
S 23 57.64
RMW 79.51 35 eP 13 44.14 0.2
JBO 79.52 38 P 13 43.30 -0.8
MZX 79.55 63 (P) 13 43.50 -1.1
SIT 79.58 22 P 13 47.32 3.3X
Z 18s 19.87um 6.5Msz
S 23 43.73
MCW 79.65 34 eP 13 44.03 -0.6
KLU 79.85 15 eP 13 44.65 -0.9
ARUT 79.86 47 ePc 13 46.02 -0.2
JCW 79.86 34 P 13 45.77 0.0
WAH2 80.39 37 P 13 48.71 0.1
BALM 80.42 17 eP 13 48.04 -0.6
LNOR 80.66 38 P 13 50.06 -0.1
WTV 80.68 36 P 13 50.13 -0.1
SAW 80.99 36 P 13 51.81 0.0
MSU 81.07 47 eP 13 52.85 0.1
DUG 81.38 45 eP 13 53.69 -0.5
1.8s 153.32nm 5.8mb
BJI 81.40 315 iPc 13 54.66 0.6
1.5s 319.00nm 6.2mb
Z 26s 6.61um 5.9MszX
N 13s 2.45um
ec 13 55.82
eSKS 24 12.00
eS 24 36.00
eSS 25 10.00
DPW 81.77 36 ePc 13 55.13 -0.8
ILT 82.06 360 iPc+ 13 56.20 -0.6
2.4s 1290.00nm 6.6mb
iS 24 13.40
iPS 25 00.00
iSS 29 24.00
HVU 82.13 43 ePc 13 57.77 -0.3
IPM 82.17 277 ePc 13 59.90 1.3
1.2s 392.10nm 6.4mb
IMA 82.29 10 eP 13 58.60 0.3
1.4s 86.91nm 5.7mb
COL 82.36 13 eP 13 58.97 0.5
FBA 82.36 13 eP 13 56.43 -2.1
1.0s 102.69nm 5.9mb
SRU 82.49 47 ePc 13 59.86 -0.2
DAU 82.55 45 eP 14 00.18 -0.3
EMUT 82.59 46 ePc 14 00.49 -0.1
NEW 82.59 36 eP 13 58.76 -1.4
1.2s 57.63nm 5.6mb
AGX 82.70 65 (P) 14 05.00 3.8X
PTI 82.89 43 eP 14 02.37 0.4
MRX 83.01 68 (P) 14 05.00 2.2
TIY 83.04 312 Pc 14 03.50 0.7
1.2s 120.00nm 6.0mb
Z 23s 6.98um 6.0MszX
N 15s 3.91um
HHAI 83.08 42 eP 14 03.94 1.0
SNG 83.25 279 eP 14 07.00 2.9X
1.2s 225.00nm 6.2mb
eS 24 36.00
ACX 83.37 71 (P) 14 07.50 2.8X
GYA 83.44 299 iPc 14 06.00 0.9
1.0s 77.00nm 5.9mb
Z 26s 3.00um 5.6MszX
N 20s 4.53um
E 20s 2.32um
PP 17 20.00
HIA 83.60 324 iPc 14 05.69 0.4
epPd 14 08.76 10kmX
ePP 17 14.89
ANMO 83.80 52 iPc 14 08.25 1.4
ec 14 09.57
epPd 14 11.31 10kmX
ePP 17 19.84
eSKS 24 36.20
ePS 25 23.21
III 84.17 69 (P) 14 10.50 1.5
XAN 84.26 307 iPc 14 09.91 0.9
ec 14 11.06
eHPP 17 19.34
ePP 17 20.00
CRX 84.28 68 (P) 14 12.50 2.8X
LCCM 84.55 40 eP 14 10.00 -0.3
UNM 84.70 69 (P) 14 13.50 1.8
BW06 84.71 44 eP 14 10.07 -1.2
1.3s 87.11nm 5.8mb
HHC 84.93 314 Pc 14 13.20 0.9
1.6s 200.00nm 6.1mb
Z 26s 8.75um 6.0MszX
N 15s 1.88um
E 20s 5.13um
LOE 85.01 289 eP 14 14.20 1.3
IIA 85.13 69 (P) 14 16.50 3.0X
PPM 85.13 69 (P) 14 15.50 1.3
NNT 85.53 284 eP 14 16.60 1.0
BTO 85.91 314 iPd 14 18.50 1.3
1.2s 95.00nm 5.8mb
N 14s 2.36um
E 14s 3.01um
eSKS 24 32.00
S 24 46.00
NST 85.99 287 iPc 14 21.20 3.4X
IISM 86.24 69 (P) 14 21.00 2.0
YAK 86.36 338 iPd 14 17.20 -1.5
3.0s 250.00nm 5.9mb
Z 18s 3.40um 5.8Msz
E 18s 3.20um
ePcP 14 24.00
iPP 17 40.00
ePPP 19 44.00
eSKS 24 44.00
iS 24 48.00
eSS 30 26.00
eSSS 34 16.00
e 40 24.00
KMI 86.37 297 iPc 14 21.80 1.9
6.0s 1.20nm 3.3mb X
Z 20s 4.10um 5.8Msz
S 24 58.00
GLD 86.51 48 ePc+ 14 20.63 0.4
1.7s 239.52nm 6.1mb
Z 18s 16.03um 6.5Msz
AIA 86.67 157 eP 14 22.30 2.0
BRW 86.73 7 eP 14 21.13 0.8
SES 87.10 36 eP 14 22.00 -0.7
1.1s 164.00nm 6.2mb
pP 14 30.00 25kmX
KHT 87.18 286 eP 14 25.30 1.6
MAW 87.21 200 iPd 14 19.20 -3.7X
1.0s 183.33nm 6.3mb
Z 16s 14.58um 6.5MszX
MAW 87.21 200 P 14 24.50 1.6
CD2 87.30 303 eP 14 25.40 1.3
Z 20s 3.84um 5.8Msz
N 14s 3.59um
pP 14 36.00 33kmX
S 25 01.00
BDT 87.47 288 eP 14 25.00 0.0
1.0s 158.70nm 6.2mb
CHTO 87.95 290 iPc 14 29.06 1.7
1.2s 75.69nm 5.9mb
ec 14 30.46
CIT 88.34 325 eP 14 29.50 0.9
eS 25 03.00
LZH 88.87 308 iPc 14 33.17 1.5
2.0s 590.00nm 6.5mb
Z 24s 4.67um 5.8MszX
N 14s 1.98um
ec 14 34.50
epPd 14 35.90 9kmX
SP 14 59.00
PP 17 59.50
S 25 02.00
sS 25 28.00
RSSD 88.94 44 eP+ 14 30.61 -1.3
1.0s 88.97nm 6.0mb
Z 19s 14.19um 6.4Msz
SKS 25 03.38
SS 32 07.86
WMOK 89.67 54 ePc 14 34.31 -1.0
1.3s 22.96nm 5.3mb
Z 20s 32.72um 6.8Msz
ec 14 35.22
ePP 18 06.51
eHPP 18 07.01
SS 31 23.31
TPX 89.86 75 (P) 14 29.00 -7.5X
ACO 89.98 52 iPc 14 36.60 -0.1
BOD 90.62 330 eP 14 38.80 -0.3
2.9s 710.00nm 6.5mb
YKA 91.08 25 eP 14 39.60 -1.5
1.1s 12.60nm 5.2mb
PAF 92.63 218 iP 15 00.00 11.4X
iPP 18 30.00
eS 26 03.00
iSP 27 23.00
eSS 32 15.00
TIK 92.79 345 iPc+ 14 48.00 -0.9
3.0s 940.00nm 6.7mb
i 14 55.00
i 18 29.00
ePPP 20 33.00
e 25 52.00
iPS 27 07.00
GTA 92.91 310 P 14 50.00 -0.3
1.2s 130.00nm 6.2mb
Z 20s 6.92um 6.1Msz
E 18s 2.17um
UYO 92.93 56 iPd 14 49.90 -0.4
MIAR 93.73 55 ePc 14 53.85 -0.1
1.0s 24.78nm 5.5mb
Z 22s 23.76um 6.6Msz
ec 14 55.17
epPd 14 57.32 11kmX
eHPP 18 34.57
ePP 18 35.40
S 26 17.91
SP 27 16.62
IRK 93.74 323 eP+ 14 51.00 -2.6
3.0s 495.00nm 6.4mb
e 18 38.20
e 26 04.00
ePS 27 14.00
ZAK 93.76 321 iPc+ 14 53.50 -0.2
4.0s 1348.00nm 6.7mb X
Z 18s 5.15um 6.0Msz
N 14s 2.18um
E 20s 8.10um
e 18 37.00
ePS 27 21.00
TLY 93.95 322 iPc 14 54.76 0.2

ec 14 55.83
eSKS 25 32.18
iS 26 11.03
ePS 27 16.75
NVL 94.78 183 eP 14 56.00 -2.2
1.8s 161.00nm 6.1mb
Z 18s 10.40um 6.3Msz
N 18s 9.80um
E 18s 3.50um
SNA 95.47 179 iPc 14 59.00 -2.3
0.9s 246.00nm 6.7mb
MOY 95.53 322 eP 15 02.60 0.8
3.7s 1040.00nm 6.7mb X
OLY 95.64 55 eP 15 02.07 -0.7
ULM 96.13 40 eP 15 06.50 1.9
CCM 96.41 52 ePc 15 05.34 -0.8
1.1s 30.34nm 5.7mb
ec 15 06.83
epPd 15 09.32 12kmX
ePP 18 58.40
eS 26 30.05
iPS 27 40.95
FVM 97.02 53 eP 15 08.59 -0.3
1.3s 79.03nm 6.1mb
Z 18s 41.51um 7.0Msz
SP 27 55.88
SLM 97.31 52 P 15 07.78 -2.4
Z 19s 50.78um 7.0Msz
PP 19 05.09
SLM 97.31 52 P 15 20.00 9.8X
Z 19s 11.48um 6.4Msz
LSA 97.50 299 iPc 15 13.59 1.7
ec 15 14.75
ed 15 16.90
ePP 19 10.04
eS 26 43.04
ePS 27 54.38
ELC 97.80 54 (P) 15 14.00 1.6
NNA 97.85 104 (P) 15 14.29 1.1
Z 18s 17.08um 6.6Msz
eHPP 19 10.41
ePP 19 11.23
iS 26 54.18
ePS 28 04.86
FCC 99.17 32 eP 15 21.00 3.0X
UER 99.68 321 iP 15 21.00 0.4
3.0s 110.00nm 5.9mb
PPP 19 24.00
GUN 101.69 296 Pdiff 15 34.00 3.3X
RES 102.02 16 ePdiff15 32.00 1.4
PKI 102.04 296 Pdiff 15 33.80 1.5
KKN 102.19 296 Pdiff 15 34.20 1.4
DMN 102.31 296 Pdiff 15 35.20 1.8
WMQ 102.70 312 Pdiff 15 36.00 1.5
Z 24s 5.13um 6.0MszX
N 12s 1.72um
SKS 26 14.00
eS 27 21.00
sS 27 36.00
GKN 102.79 296 Pdiff 15 36.60 1.2
LPB 104.50 112 Pdiff 15 47.00 3.5X
Z 24s 3.88um 5.9MszX
PP 20 05.00
LR 49 55.00
CNCB 104.51 112 Pdiff 15 47.00 3.3X
ZOBO 104.56 111 ePdiff15 46.00 2.0
Z 25s 3.50um 5.8MszX
LR 50 44.00
CRZF 104.57 213 ePdiff15 54.00 11.4X
ePP 19 57.00
ePPP 22 21.00
iSP 29 15.00
iSS 34 36.00
eSSS 38 06.00
NRI 104.64 339 iPdiff15 43.00 0.6
3.0s 181.00nm 6.4mb
Z 19s 5.80um 6.1Msz
E 19s 7.50um
ePPP 22 20.00
iS 27 10.00
ELT 104.65 322 ePdiff15 42.20 -0.6
4.5s 333.00nm 6.5mb X
e 26 25.00
e 29 20.00
LPA 105.16 133 ePdiff15 48.00 2.5
Z 20s 2.84um 5.8Msz
ePP 20 06.00
HYB 106.54 284 ePdiff15 54.00 1.9
ALE 107.48 7 (Pdiff15 54.45 -0.4
eSKS 26 31.90
PRZ 109.37 310 iPdiff16 08.00 3.7X
RSNY 109.69 48 PKP 20 05.26 -3.2X
Z 20s 13.52um 6.5Msz
PP 20 57.20
SP 30 05.80
SS 36 24.30
AAA 110.45 311 ePKP 20 26.50 16.5X
i 20 42.00
e 30 15.00
SIV 110.99 114 PKP 20 17.40 5.7X
FRU 112.16 311 ePKP 20 13.00 -0.2
4.0s 1440.00nm
i 20 54.00
LMN 116.49 46 ePKP 20 24.00 2.6
SVE 118.79 328 iPKPd 20 25.00 -0.4
3.0s 150.00nm
e 21 40.00
e 27 27.00
eSS 38 00.00
ARU 119.99 327 ePKP 20 27.50 -0.1
1.5s 140.00nm
Z 22s 8.00um 6.3Msz
N 22s 4.00um
E 22s 7.00um
e 21 49.50
e 33 10.00
KEV 122.44 350 ePKP 20 31.00 -0.9
CDCB 122.81 126 (PKP) 20 33.60 -0.6
MAIO 124.28 304 iPKPd 20 37.00 0.3
e 22 20.00
ASH 124.95 306 ePKP 20 38.00 0.2
1.3s 280.00nm
N 20s 3.86um
E 20s 4.40um
e 22 28.00
e 27 40.00
KAT 126.33 308 iPKP- 20 42.00 1.6
e 22 36.00
GRM 126.98 206 ePKP 20 27.00 -15.0X
1.0s 100.00nm
AKU 127.02 10 ePKP 20 41.60 0.7
1.0s 32.00nm
KAF 129.22 345 iPKP 20 44.90 -0.3
1.0s 33.60nm
CER 129.66 199 ePKP 20 45.00 -2.0
1.0s 60.00nm
PUL 130.06 342 iPKPd 20 48.00 1.2
Z 20s 4.60um 6.2Msz
N 20s 2.80um
E 20s 1.10um
e 22 57.00
ePPP 25 54.00
e 33 02.00
eSS 40 23.00
MOS 130.37 334 ePdiff17 50.00 12.9X
Z 20s 11.00um 6.6Msz
N 20s 8.60um
E 20s 6.80um
e 20 48.00
e 22 59.00
e 27 58.00
FRS 130.58 207 ePKP 20 47.00 -1.8
SEK 130.70 211 ePKP 20 50.00 0.7
0.7s 22.00nm
BLF 130.73 209 ePKP 20 50.00 0.6
NUR 131.01 345 iPKP 20 48.80 0.2
0.9s 31.40nm
OBN 131.23 334 iPKPc 20 49.00 -0.2
1.4s 90.00nm
Z 22s 7.30um 6.3Msz
N 22s 6.80um
E 22s 2.60um
i 23 04.00
e 28 00.00
iPS 33 16.00
ePPS 35 00.00
eSS 40 40.00
BFT 131.57 215 ePKP 20 53.00 1.9
SHE 131.62 312 iPKP 20 52.00 1.6
3.0s 150.00nm
MAK 131.63 315 ePKP 20 51.00 0.6
ePS 33 22.00
SOB1 131.65 116 ePKP 20 50.70 -0.6
PRY 131.93 211 ePKP 20 52.00 0.3
1.0s 60.00nm
SLR 132.48 213 ePKP 20 49.20 -3.6X
0.9s 25.00nm
Z 20s 42.60um 7.2Msz
GRO 132.68 316 iPKP+ 20 53.00 0.6
Z 13s 1.00um 5.7MszX
N 12s 1.00um
i 23 22.00
i 27 50.00
NB2 132.91 354 PKP 20 51.30 -1.0
1.1s 27.30nm
UPP 133.12 349 iPKP 20 51.30 -1.3
GRS 133.66 311 ePKP 20 50.00 -4.6X
i 23 26.00
ePS 33 39.00
ePPS 35 28.00
MTA 133.94 315 iPKP 20 57.80 3.0X
0.8s 80.00nm
PYA 134.11 318 iPKP+ 20 56.00 0.9
Z 22s 8.00um 6.4Msz
N 22s 4.50um
E 22s 5.50um
i 23 22.00
ePS 33 32.00
ePPS 35 20.00
CIR 134.22 220 ePKP 20 57.20 1.2
KIV 134.38 319 iPKPc 20 55.30 -0.5
4.5s 1832.00nm
KONO 134.44 354 ePKP 20 54.44 -0.8
KER 134.59 304 ePKP 20 56.00 -0.5
ERE 134.73 313 iPKP+ 20 56.00 -0.5
i 23 30.00
MNK 135.66 338 iPKP 20 56.00 -1.7
eSSS 46 28.00
SOC 136.45 320 iPKP 21 02.00 2.5
Z 22s 5.00um 6.2Msz
N 22s 2.00um
E 22s 0.50um
e 23 40.00
BUL 136.70 218 ePKP 20 51.00 -9.9X
BUL 136.70 218 ePKP 20 59.00 -1.9
i 23 41.20
ANN 137.23 323 iPKP 21 02.50 1.6
Z 20s 2.70um 6.0Msz
N 21s 5.00um
E 21s 3.50um
e 23 44.00
ePPS 35 44.00
MTD 137.26 225 iPKPc 21 06.00 4.0X
COP 137.97 351 iPKP+ 21 03.00 1.0
Z 22s 5.93um 6.3Msz
i 23 48.00
i 24 41.00
ESK 138.98 4 ePKP 21 00.71 -3.1X
SIM 139.03 325 ePKP 21 04.00 -0.3
Z 24s 6.60um 6.3MszX
N 22s 4.50um
E 22s 3.00um
ePS 34 20.00
ePPS 36 12.00
WAR 139.21 342 PKP+ 21 05.00 0.6
Z 22s 15.00um 6.7Msz
N 22s 10.50um
E 22s 7.70um
e 24 00.00
e 24 42.00
LVV 140.26 337 iPKP- 21 08.00 1.6
e 24 07.00
eSS 43 00.00
KIS 140.37 331 ePKP 21 05.00 -1.6
4.0s 1000.00nm
Z 22s 11.50um 6.6Msz
N 22s 10.70um
E 20s 2.20um
i 24 03.00
BRN 140.97 349 ePKP 21 10.00 2.5
KAS 141.35 320 ePKP 21 08.00 -0.7
OJC 141.36 341 ePKP 21 04.00 -4.3X
e 21 11.50
e 24 07.00
WIT 141.47 355 ePKP 21 09.00 0.6
KSP 141.78 345 ePKP 21 03.80 -5.3X
1.0s 49.00nm
ic 21 11.40
e 23 05.20
UZH 141.87 338 iPKPc 21 04.80 -4.5X
4.0s 2600.00nm

12d 14h

Z 20s 8.50um 6.5Msz
N 20s 5.20um
E 20s 5.40um
i 24 16.00
NAI 141.96 249 PKP 21 06.00 -4.8X
CLL 142.07 349 iPKP 21 05.80 -3.7X
1.1s 36.00nm
Z 22s 4.50um 6.2Msz
SPC 142.11 340 ePKP 21 07.30 -2.7
WTS 142.26 355 ePKP 21 11.00 1.2
1.1s 69.00nm
DBN 142.28 357 ePKP- 21 06.00 -3.8X
Z 20s 3.50um 6.1Msz
ePP 24 14.00
eSS 43 20.00
e 47 30.00
BRG 142.29 347 iPKP 21 04.80 -5.2X
3.0s 680.00nm
Z 18s 5.50um 6.4Msz
N 18s 3.00um
E 28s 3.50um
i 21 10.20
BRD 142.33 331 ePKP 21 09.00 -1.2
CVO 142.51 332 ePKP 21 04.00 -6.6X
ANTO 142.81 319 PKP 21 22.32 11.0X
ISR 142.85 331 ePKP 21 11.00 -0.2
MLR 142.87 331 ePKPc 21 08.50 -2.8
MOX 142.96 350 ePKP 21 07.50 -3.6X
Z 22s 5.60um 6.3Msz
PRU 142.99 346 ePKP 21 07.60 -3.6X
4.5s 1746.80nm
Z 20s 8.10um 6.5Msz
N 22s 2.60um
E 20s 2.90um
e 21 09.50
VRAC 143.10 344 ePKPd 21 08.10 -3.2X
5.3s ********nm
BNS 143.25 354 ePKPd 21 08.80 -2.8
Z 21s 12.50um 6.7Msz
AAE 143.39 266 ePKP 21 09.00 -4.3X
CMP 143.45 332 ePKPc 21 13.00 0.8
TNR 143.50 333 ePKPd 21 12.00 -0.2
ENN 143.56 356 ePKP 21 09.00 -3.1X
1.0s 36.00nm
BUC 143.60 330 ePKPd 21 10.50 -1.8
UCC 143.62 357 PKP 21 10.00 -2.2
e 35 51.00
BUC1 143.68 330 ePKPc 21 12.00 -0.5
TNS 143.84 353 ePKPd 21 12.00 -0.7
HRI 143.89 307 ePKP 21 10.80 -2.6
DEV 143.90 335 ePKPc 21 11.00 -1.8
SNF 143.91 357 iPKPd 21 10.27 -2.4
SRO 143.94 341 ePKP 21 10.30 -2.5
e 23 24.20
GRF 143.95 350 ePKP 21 10.10 -2.7
Z 22s 7.00um 6.4Msz
GRFO 143.95 350 ePKPc 21 07.74 -5.1X
ZST 143.97 342 ePKP 21 09.80 -3.1X
BUD 144.00 340 ePKP 21 09.80 -3.2X
KHC 144.01 347 PKP 21 11.40 -1.6
1.3s 69.40nm
Z 18s 6.30um 6.4Msz
N 18s 2.50um
E 18s 4.50um
e 21 33.50
e 21 43.30
EYL 144.02 322 ePKP 21 08.00 -5.4X
GPA 144.10 321 ePKP 21 10.50 -2.9
VKA 144.13 343 iPKPc 21 11.10 -2.1
5.3s 4549.00nm
Z 19s 4.25um 6.2Msz
i 22 12.00
HRT 144.15 323 ePKP 21 11.60 -1.9
GEC2 144.25 346 PKP 21 11.00 -2.5
0.9s 21.30nm
GEC2 144.25 346 e(PKP)21 20.80 7.3X
1.0s 18.90nm
GBZT 144.30 323 ePKP 21 11.50 -2.2
DOU 144.31 357 PKP- 21 11.90 -1.5
e 22 34.00
e 35 48.00
ITU 144.35 324 iPKPc 21 15.00 1.3
ISK 144.35 323 ePKP 21 12.60 -1.2
SALJ 144.41 305 PKPc 21 13.00 -1.3
FAM 144.47 311 ePKP 21 13.00 -1.1
MASJ 144.49 305 PKPc 21 12.60 -1.8
DMK 144.58 326 iPKP 21 12.60 -1.6
SOP 144.59 343 iPKP 21 12.70 -1.3
WLF 144.63 355 iPKPc 21 12.45 -1.5
i 21 13.37
CTT 144.66 324 iPKP 21 12.60 -1.7
TIM 144.69 336 ePKPd 21 16.00 1.8
ZNT 144.84 306 ePKP 21 13.30 -1.6
KMR 144.89 346 iPKP+ 21 13.20 -1.3
iPP 24 33.60
UZD 144.93 340 ePKP 21 12.80 -1.8
ALT 144.97 320 iPKP 21 13.70 -1.3
CSS 144.97 311 ePKP 21 13.80 -1.2
DHLJ 145.06 304 PKPc 21 14.90 -0.4
SHWJ 145.13 303 PKPc 21 14.30 -1.4
LANF 145.14 353 PKP 21 14.43 -0.5
HOFF 145.16 353 PKP 21 14.43 -0.4
SSR 145.20 335 ePKPd 21 15.00 -0.1
KCT 145.29 323 ePKP 21 14.60 -0.8
FUR 145.40 349 iPKPc 21 15.30 -0.1
EDC 145.51 324 iPKP 21 17.00 1.2
HSHJ 145.53 301 PKPd 21 16.70 0.4
DST 145.54 322 iPKP 21 15.70 -0.2
DIM 145.61 328 iPKP 21 17.00 1.1
FLN 145.67 3 ePKP 21 13.80 -2.0
1.2s 497.45nm
Z 21s 12.88um 6.7Msz
AOBJ 145.72 302 PKPd 21 17.60 1.2
PPCY 145.72 312 ePKP 21 16.80 0.5
WLS 145.76 353 PKP 21 15.45 -0.6
CDF 145.76 353 PKP 21 15.79 -0.3
KHL 145.77 319 iPKP 21 16.10 -0.3
MBH 145.84 302 ePKP 21 16.70 -0.1
LDF 145.86 2 ePKP 21 14.40 -1.7
1.4s 463.55nm
ECH 145.97 354 PKP 21 16.29 -0.1
LIBD 145.99 353 PKP 21 16.29 0.0
PLD 145.99 329 iPKP 21 18.00 1.5
KBA 146.00 346 iPKPc 21 16.30 -0.3
1.9s 694.00nm
i 21 19.00
GRR 146.03 3 ePKP 21 15.20 -1.2
1.3s 437.55nm
VITF 146.08 355 PKP 21 16.90 0.4
WATA 146.14 348 iPKPc 21 17.10 0.3
WTTA 146.20 348 iPKPc 21 16.00 -1.0
1.5s 687.00nm
i 21 16.90
FEL 146.20 352 PKP 21 17.40 0.5
MOTA 146.23 349 ePKP 21 16.00 -1.0
1.5s 746.00nm
i 21 16.80
RDO 146.25 327 ePKP 21 20.50 3.5X
HAU 146.26 354 ePKP 21 16.30 -0.5
1.5s 656.05nm
Z 20s 8.13um 6.5Msz
RZN 146.29 328 iPKPd 21 17.00 -0.3
SOTA 146.32 348 ePKP 21 16.00 -1.1
1.5s 553.00nm
i 21 17.20
MOF 146.33 353 PKP 21 17.57 0.5
VTS 146.35 331 iPKP 21 18.00 0.7
LPF 146.37 3 ePKP 21 16.40 -0.5
1.4s 533.25nm
PTJ 146.38 342 ePKP 21 16.50 -0.7
BSF 146.39 354 PKP 21 17.79 0.6
ELL 146.44 317 iPKP 21 20.00 2.4
ZAG 146.45 342 ePKP 21 17.00 -0.1
LJU 146.65 344 ePKP 21 17.00 -0.5
MMB 146.86 329 iPKPd 21 18.00 0.0
LOMF 146.86 354 PKP 21 19.02 1.1
VBY 146.94 342 iPKP 21 17.90 0.0
CEY 146.96 344 ePKPc 21 17.50 -0.5
KSL 147.00 316 ePKP 21 20.00 1.7
PRK 147.16 324 ePKP 21 20.90 2.4
LOR 147.17 357 ePKP 21 18.80 0.5
1.3s 199.30nm
Z 21s 12.23um 6.7Msz
TRI 147.17 344 ePKP 21 18.00 -0.3
ePKKP 21 23.00
ePP 24 56.00
eSKP 25 03.00
ePPP 28 28.00
eSS 43 56.00
eSSS 49 12.00
eLR 11 16.00
RIY 147.34 343 ePKP 21 18.60 0.1
SSF 147.39 358 ePKP 21 19.70 1.1
1.2s 332.05nm
PLE 147.42 336 iPKPc 21 21.17 2.2
LBF 147.45 357 ePKP 21 19.60 0.8
1.5s 356.20nm
IVA 147.60 335 iPKPc 21 21.64 2.4
VAY 147.63 330 ePKP 21 16.40 -2.8
1.2s 241.00nm
i 21 21.70
i 21 25.00
AVF 147.67 358 ePKP 21 20.00 1.0
1.2s 184.45nm
SMF 147.79 357 ePKP 21 20.50 1.2
1.2s 196.95nm
PVY 147.79 334 iPKPc 21 21.98 2.4
MFF 147.84 2 ePKP 21 20.50 1.2
1.3s 246.20nm
BGF 147.91 359 ePKP 21 20.90 1.4
1.3s 307.60nm
BCI 147.94 334 ePKP 21 17.50 -2.2
NKY 148.01 336 iPKPc 21 21.02 1.1
BRY 148.12 336 iPKPc 21 20.44 0.3
TCF 148.19 359 ePKP 21 21.50 1.5
1.3s 200.75nm
LSF 148.23 0 ePKP 21 21.40 1.4
1.3s 267.15nm
MAF 148.26 359 ePKP 21 21.90 1.8
1.3s 348.00nm
AGO 148.41 358 PKP 21 21.59 1.3
PLDF 148.48 358 PKP 21 20.31 -0.2
HCY 148.52 336 iPKPc 21 21.02 0.4
BDV 148.53 335 iPKPc 21 21.17 0.6
RSL 148.53 353 PKP 21 20.27 -0.4
ULC 148.62 334 iPKPc 21 21.55 0.8
OHR 148.63 332 iPKP 21 20.00 -0.9
1.2s 404.00nm
i 21 24.50
i 21 27.70
HVAR 148.65 339 iPKP 21 22.70 1.9
HLW 148.68 304 ePKP 21 22.00 0.8
LPL 148.68 353 ePKP 21 24.00 2.9X
1.2s 284.45nm
LSD 148.69 353 PKP 21 22.11 1.0
LACI 148.69 334 ePKP 21 23.60 2.8X
LPG 148.70 353 ePKP 21 24.30 3.1X
1.3s 356.70nm
PYM 148.72 358 PKP 21 21.36 0.5
KZN 148.80 330 ePKP 21 24.50 3.3X
TIR 148.86 333 ePKP 21 22.00 0.9
COLF 148.92 357 PKP 21 21.23 0.0
RSP 148.98 352 PKP 21 22.33 0.9
GRN 149.06 355 PKP 21 22.65 1.2
RJF 149.18 0 ePKP 21 24.20 2.7X
1.8s 393.60nm
Z 19s 16.00um 6.8Msz
RRL 149.27 353 PKP 21 22.75 0.8
BHB 149.28 352 PKP 21 21.79 0.1
PCP 149.39 350 PKP 21 21.97 0.0
ATH 149.49 324 ePKP 21 24.00 1.8
LFF 149.53 1 ePKP 21 25.20 3.2X
1.4s 304.10nm
CAF 149.56 360 ePKP 21 25.50 3.3X
1.6s 277.35nm
FIR 149.60 346 ePKP 21 24.00 1.9
PZZ 149.64 352 PKP 21 22.38 0.0
TPE 149.64 332 ePKP 21 24.00 1.6
ROB 149.74 351 PKP 21 22.43 0.0
VLO 149.74 333 iPKPd 21 24.70 2.2
FIN 149.77 351 PKP 21 22.11 -0.4
LPO 149.80 1 ePKP 21 25.80 3.3X
1.6s 317.15nm
STV 149.86 352 PKP 21 23.16 0.5
ENR 149.87 352 PKP 21 22.11 -0.6
SRN 149.98 331 ePKP 21 24.70 1.9
SAOF 150.08 352 PKP 21 22.33 -0.6
AUTN 150.09 352 PKP 21 22.33 -0.9
TOUF 150.10 352 PKP 21 22.44 -0.8
NPS 150.12 318 ePKP 21 28.00 4.7X
KEK 150.20 331 ePKP 21 24.50 1.3
REVF 150.35 352 PKP 21 22.44 -1.0
CALN 150.40 352 PKP 21 21.35 -2.3
CDR 150.61 354 ePKPd 21 25.90 2.2
FRF 150.62 353 ePKP 21 27.70 4.0X
1.3s 317.70nm
LRG 150.76 353 ePKP 21 28.40 4.5X
1.1s 231.50nm
Z 20s 16.67um 6.8Msz
VLI 150.80 323 ePKP 21 28.00 3.8X
LMR 150.86 353 ePKP 21 28.20 4.1X

1.2s 236.25nm
PGF 151.25 349 PKP 21 23.78 -1.1
EPF 151.43 2 ePKP 21 28.70 3.7X
1.4s 78.40nm
EBR 153.64 2 ePKP 21 28.00 -0.2
PAB 154.37 11 ePKPc 21 30.31 1.0
ePKPbc21 39.58
ePKPab21 53.49
iPKKP 21 53.50
iPP 25 21.00
MAL 157.08 13 iPKPd 21 31.50 -1.4
iPP 25 44.00
AVE 159.41 22 iPKPd 21 37.50 1.8
IFR 159.96 17 iPKP 21 38.00 1.5
BCAO 160.73 241 iPKPd 21 37.10 -0.5
1.6s 22.00nm
ic 22 20.00
id 26 02.20
YBT 161.44 32 ePKP 21 40.00 2.2
TIO 161.57 25 iPKPc 21 39.20 1.0
i 26 07.50
MBO 161.88 88 iPKPc 21 41.40 2.8X
ANTZ 162.32 36 iPKPc 21 40.00 1.2
i 25 41.00
LIC 169.51 140 PKP 21 44.96 0.0
1.2s 41.00nm
Z 20s 7.00um
KIC 169.79 141 PKP 21 44.74 -0.4
1.1s 38.50nm
TIC 169.83 138 PKP 21 45.10 -0.1
1.2s 41.00nm
LKO 171.36 123 PKP 21 45.20 -0.7
1.5s 5.00nm
S.D. = 1.2 on 463 of 536 obs.

MAR 12, 1993 14h 42m 43.06± 0.70s
43.401 N ± 4.6km 5.434 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.6 (STR).

GELF 0.02 196 Pg 42 44.58 -0.4
BERF 0.21 115 Pg 42 47.81 0.2
TREF 0.23 351 Pg 42 47.66 -0.3
PUYF 0.23 56 Pg 42 47.36 -0.7
CDR 0.37 41 ePgd 42 49.50 -1.1
PRAF 0.45 335 Pg 42 52.47 0.3
VILF 0.50 24 Pg 42 52.85 -0.3
TAVF 0.50 64 Pg 42 52.99 -0.3
GANF 0.69 30 Pg 42 56.45 -0.3
CALN 1.11 71 Pg 43 04.94 0.9
TOUF 1.45 64 Pn 43 09.97 0.5
Sg 43 31.26
AURF 1.46 70 Pn 43 09.85 0.3
Sg 43 29.89
SURF 1.47 42 Pg 43 11.43 1.7
AUTN 1.56 67 Pn 43 11.65 0.5
Sg 43 33.97
SAOF 1.65 68 Pn 43 11.84 -0.3
Sg 43 36.08
PGF 2.75 107 Pn 43 27.21 -0.9
S.D. = 0.8 on 16 of 16 obs.

? MAR 12, 1993 14h 43m 39.32± 1.82s
19.906 N ±26.6km 38.202 E ±23.8km
DEPTH = 10.0km (geophysicist)
4.3mb (4 obs.)
RED SEA (554)

BCAO 24.57 234 iPc 49 06.00 5.2X
0.5s 5.00nm 4.4mb
MAIO 24.80 44 eP 49 04.00 1.0
OHR 25.82 329 e(P) 49 14.00 1.6
GEC2 34.94 331 P 50 32.50 -1.0
1.4s 4.33nm 4.1mb
e 50 38.50
e 50 41.90
e 50 47.40
KHC 35.21 332 eP 50 27.40 -8.3X
e 50 35.00
BRG 36.35 334 eP 50 46.40 1.2
CLL 37.07 334 e(P) 50 50.00 -1.3
KIC 43.79 258 P 51 48.00 0.8
TIC 43.94 259 P 51 48.50 0.0
LZH 59.15 59 eP 53 38.00 -5.0X
1.4s 24.00nm 5.1mb
Z 20s 4.31um 5.6Msz
E 15s 1.37um
sP 53 44.00
YKA 95.10 348 eP 57 01.40 -2.3
1.2s 0.50nm 3.8mb
S.D. = 1.6 on 8 of 11 obs.

& MAR 12, 1993 14h 44m 10.77s
58.334 N 151.398 W
DEPTH = 2.8km
2.9mb (1 obs.)
KODIAK ISLAND REGION (13)
<AEIC>. ML 3.4 (AEIC), 3.6
(PMR).

SYI 0.59 298 iP 44 22.74 0.2
KDC 0.83 225 iPc 44 27.12 -0.1
eS 44 38.09
XLV 1.14 352 iP 44 31.60 -1.1
S 44 46.99
CNPM 1.20 4 iP 44 32.25 -1.5
eS 44 48.98
CDD 1.32 298 iP 44 33.70 -2.1
eS 44 52.12
AUE 1.45 316 eP 44 36.93 -1.0
S 44 56.85
AUI 1.46 314 iP 44 36.05 -2.0
eS 44 56.70
BRLK 1.46 10 iP 44 35.65 -2.4
AUH 1.48 315 eP 44 37.06 -1.4
eS 44 57.09
AUL 1.49 316 eP 44 36.98 -1.5
AUW 1.50 315 eP 44 37.68 -0.9
OPT 1.63 325 eP 44 38.47 -2.0
eS 45 01.00
MCNL 1.75 300 eP 44 39.86 -2.4
INE 1.93 334 iP 44 42.47 -2.6
INW 1.95 334 iP 44 42.86 -2.4
SEW 2.04 29 iP 44 42.79 -3.6
PDB 2.05 316 iP 44 43.81 -2.8
eS 45 12.42
RS1 2.24 343 iP 44 46.50 -3.1
RSO 2.24 343 iP 44 46.46 -3.1
RS2 2.25 343 iP 44 46.52 -3.1
SLKM 2.26 15 iP 44 46.19 -3.5
RDW 2.27 342 iP 44 46.82 -3.2
RDN 2.30 343 eP 44 47.09 -3.2
RDT 2.31 348 iP 44 46.82 -3.5
DFR 2.36 344 iP 44 47.66 -3.5
NCT 2.37 341 iP 44 48.11 -3.2
MPA 2.40 25 eP 44 47.60 -4.0
NKA 2.42 2 iP 44 50.02 -1.8
PTE 2.81 24 iP 44 53.68 -3.8
MID 2.85 65 P 44 57.20 -0.8
SPU 2.88 354 iP 44 54.57 -3.9
CKT 2.91 352 iP 44 55.18 -3.7
CKL 2.91 351 iP 44 55.22 -3.8
CKN 2.93 353 iP 44 55.70 -3.4
CPAM 2.95 353 iP 44 56.18 -3.4
CRP 2.97 353 ePd 44 56.40 -3.4
CP2 2.97 352 eP 44 56.84 -3.1
BGL 2.98 351 iP 44 56.60 -3.4
PMS 3.06 17 P 44 57.20 -3.9
SUA 3.16 6 iP 44 58.52 -3.9
HIN 3.25 48 eP 44 59.60 -4.1
PWA 3.41 12 P 45 02.70 -3.3
PLRM 3.46 18 iP 45 02.41 -4.2
PMR 3.46 18 eP 45 02.70 -4.0
SVW 3.51 324 eP 45 03.83 -3.6
eS 45 57.62
CVA 3.64 50 eP 45 04.59 -4.6
SKT 3.66 359 iP 45 05.60 -3.9
GHO 3.67 19 eP 45 05.52 -4.1
VLZ 3.80 40 iP 45 07.68 -3.8
SML 3.81 22 eP 45 07.38 -4.3
SGAM 3.84 53 iP 45 07.71 -4.4
RAGM 4.01 56 iP 45 09.62 -4.9
SCM 4.06 28 eP 45 11.50 -3.7
KLU 4.20 39 iP 45 13.20 -4.0
SNH 4.77 64 eP 45 21.07 -4.2
CRQM 4.85 56 eP 45 21.81 -4.8
GLB 4.93 48 iP 45 23.02 -4.6
TGL 4.99 57 eP 45 23.47 -5.0
TTA 5.14 336 eP 45 26.09 -4.5
TRF 5.16 6 iP 45 26.92 -4.1
BALM 5.33 56 eP 45 28.11 -5.2
YAH 5.34 64 iP 45 29.25 -4.3
CTGM 5.74 58 iP 45 34.90 -4.3
FBA 6.81 13 eP 45 48.48 -5.5
IMA 7.84 353 eP 46 03.70 -4.8
YKA 18.46 61 eP 48 27.30 -1.6
0.8s 0.80nm 2.9mb
66 obs. associated

MAR 12, 1993 15h 50m 28.72± 0.25s
10.979 S ± 5.5km 167.126 E ± 6.3km
DEPTH = 22.4km (7 depth phases)
5.3mb (36 obs.) 5.3Msz (12 obs.)
SANTA CRUZ ISLANDS (184)

DZM 11.05 183 iPc 53 09.30 0.6
PMG 19.71 273 eP 55 00.00 0.1
BRS 21.18 218 iPc 55 15.50 0.4
0.8s 18.00nm 4.5mb
ipP 55 29.00 58kmX
i 55 55.50
eS 59 21.00
MDG 21.88 283 e(P) 55 23.00 0.9
CTA 22.03 243 iPc 55 24.00 0.4
RMQ 23.20 226 iPc 55 36.60 1.5
0.8s 115.00nm 5.5mb
QLP 26.58 231 iPc 56 07.40 0.1
CMS 28.36 221 iPc 56 22.50 -0.9
0.9s 113.00nm 5.6mb
BWA 28.92 213 iPc 56 26.80 -1.6
CNB 29.11 211 iPc 56 30.40 0.2
CAN 29.30 211 iPc 56 31.40 -0.5
epP 56 38.00 23km
STK 31.44 225 iPc 56 49.90 -0.8
0.7s 26.60nm 5.2mb
WB2 32.77 250 iPc 57 01.50 -1.0
0.9s 31.90nm 5.2mb
WRA 32.78 250 P 57 02.00 -0.6
TOO 32.85 213 iPc 57 03.00 0.0
0.7s 47.00nm 5.5mb
ASPA 34.04 244 iPc 57 12.00 -1.6
0.9s 96.10nm 5.7mb
Z 23s 3.00um 5.0MszX
i 57 25.80 54kmX
BFD 34.20 216 iPc 57 14.50 -0.2
0.7s 18.00nm 5.1mb
ADE 35.19 223 iPc 57 24.00 0.7
TAU 36.18 205 eP 57 30.00 -1.6
MBL 46.41 251 iPc 58 56.40 0.7
0.7s 121.00nm 6.0mb
HON 46.94 47 P 59 10.00 10.1X
Z 21s 1.23um 4.8Msz
MEEK 48.19 244 eP 59 10.00 0.2
0.7s 70.00nm 5.8mb
KLB 49.88 238 eP 59 22.00 -0.7
0.9s 35.00nm 5.4mb
NANU 50.50 250 iPc 59 17.80 -9.7X
0.8s 99.00nm 5.8mb
NWAO 50.62 236 iPd 59 28.90 0.6
1.1s 75.00nm 5.6mb
Z 20s 2.00um 5.1Msz
MRWA 50.91 241 eP 59 30.00 -0.5
1.0s 43.00nm 5.3mb
MUN 51.26 238 iPd 59 32.80 -0.3
1.0s 80.00nm 5.6mb
MAT 54.55 331 eP 59 56.00 -1.5
1.0s 17.00nm 5.0mb
eS 07 42.00
LEM 58.86 269 iPc 00 28.20 -0.6
SSE 60.75 315 P 00 40.50 -0.8
1.5s 27.00nm 5.2mb
i 00 46.20 19km
YSS 61.72 341 eP- 00 46.40 -1.1
1.2s 60.00nm 5.6mb
e 00 58.00 40kmX
BJI 69.29 320 eP 01 36.00 -0.3
1.5s 22.00nm 5.1mb
e 01 43.00 22km
MGD 72.04 351 eP 01 50.50 -2.1
e 02 03.00 43kmX
CHTO 73.44 293 eP 02 06.10 4.4X
LZH 75.72 312 Pc 02 16.50 1.7
1.4s 34.00nm 5.2mb
Z 20s 1.04um 5.1Msz
E 16s 0.61um
sP 02 23.50
CIT 77.75 329 eP 02 26.00 0.4
YAK 78.40 343 iPd 02 28.50 -0.4
1.2s 80.00nm 5.6mb
TTA 78.98 16 eP 02 32.08 -0.1

12d 16h

1.3s 17.05nm 4.9mb
e 02 39.17 23km
SPA 79.09 180 iPc 02 32.70 -0.2
1.0s 27.50nm 5.2mb
ILT 79.33 5 iPd 02 33.00 -0.8
1.1s 30.00nm 5.2mb
i 02 50.70 64kmX
PMR 80.03 20 P 02 50.00 12.3X
Z 21s 1.93um 5.4Msz
BOD 81.00 334 iPd 02 43.20 0.3
1.5s 25.00nm 5.0mb
KMPM 81.40 46 (P) 02 49.68 4.1X
SAO 82.05 50 P 03 00.00 11.1X
Z 20s 2.92um 5.6Msz
IMA 82.09 15 eP 02 46.42 -2.2
1.6s 13.54nm 4.7mb
ZAK 82.43 325 iPd 02 51.30 0.8
1.3s 24.00nm 5.1mb
LGPM 82.50 46 eP 02 52.12 0.8
SIT 82.56 28 P 03 00.00 9.0X
Z 20s 1.23um 5.3Msz
WDC 82.58 46 eP 02 52.18 0.6
1.3s 17.68nm 5.0mb
Z 19s 1.46um 5.4Msz
IRK 82.74 327 ePc 02 52.50 0.4
1.4s 18.00nm 5.0mb
e 02 59.90 23km
FBA 82.84 18 eP 02 50.99 -1.4
1.0s 13.44nm 5.0mb
e 02 58.56 24km
ORV 82.97 48 eP 02 54.01 0.4
CMB 83.27 49 P 03 10.00 14.8X
Z 20s 2.13um 5.5Msz
LBFM 83.32 46 eP 02 56.08 0.5
ISA 83.96 52 eP 02 59.42 0.6
1.5s 31.64nm 5.3mb
Z 19s 1.28um 5.3Msz
MOY 84.31 325 eP 03 01.10 1.1
BONR 84.80 50 eP 03 03.88 0.6
TIK 86.27 349 iPd 03 09.00 -0.5
1.4s 38.00nm 5.4mb
i 03 20.00 35kmX
e 06 27.00
GUN 87.47 299 PKP 03 18.40 1.7
PKI 87.80 298 PKP 03 18.80 0.6
KKN 87.96 299 PKP 03 19.60 0.7
DMN 88.07 298 PKP 03 20.20 0.8
ARUT 88.44 51 (P) 03 21.70 0.8
GKN 88.56 299 PKP 03 21.60 -0.1
TUC 89.21 57 P 03 30.00 5.4X
Z 21s 0.23um 4.6Msz
DUG 89.53 49 eP 03 27.34 1.3
1.8s 25.03nm 5.2mb
MSU 89.59 51 eP 03 26.98 0.5
HVU 89.96 47 eP 03 28.22 0.2
HHAI 90.62 46 eP 03 32.27 1.3
e 03 39.71 23km
DAU 90.74 49 eP 03 30.06 -1.8
SRU 90.98 50 (P) 03 31.33 -1.5
LCCM 91.60 44 eP 03 35.70 0.3
HYB 91.89 287 eP 03 38.00 0.9
GBA 92.24 283 P 03 40.00 1.3
BW06 92.52 47 eP 03 38.91 -0.9
1.7s 17.50nm 5.2mb
SES 93.22 39 eP 03 43.00 0.4
ELT 93.30 324 eP 03 42.50 -0.3
1.5s 21.00nm 5.3mb
YKA 94.29 27 eP 03 45.30 -1.9
1.0s 1.40nm 4.3mb
GLD 95.14 51 P 04 00.00 8.1X
Z 19s 2.69um 5.7Msz
RSNY 117.75 45 PKP 09 20.00 4.9X
Z 20s 0.46um 5.1Msz
NB2 126.98 346 PKP 09 38.20 5.8X
0.9s 2.20nm
BRG 134.56 336 e(PKP)09 59.00 12.0X
KHC 136.07 335 ePKP 09 55.00 5.0X
e 10 04.50
GEC2 136.24 335 ePKP 09 46.30 -4.1X
0.8s 0.51nm
e 09 55.20
e 09 58.50
SKO 136.96 322 ePKP 09 58.20 6.3X
SOB1 145.66 125 ePKP 10 08.30 0.2
e 10 14.50
BCAO 148.22 261 iPKPc 10 15.00 2.8
0.7s 57.00nm
ic 10 21.00
id 10 57.10
PAB 150.56 347 ePKP 10 21.00 5.8X
S.D. = 1.0 on 71 of 88 obs.

& MAR 12, 1993 16h 45m 42.59s
62.083 N 147.909 W
DEPTH = 35.6km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC).

SML 0.34 216 iPd 45 50.57 -0.5
eS 45 57.32
SCM 0.37 132 iPd 45 50.85 -0.7
eS 45 58.49
GHO 0.57 237 iPd 45 53.20 -1.1
eS 46 02.31
PLRM 0.76 230 eP 45 55.71 -1.1
eS 46 06.92
PMR 0.76 230 eP 45 55.53 -1.3
S 46 07.15
PWA 1.03 246 P 46 00.20 -0.5
S 46 14.30
KLU 1.12 121 iPd 46 00.83 -1.2
eS 46 16.41
PMS 1.15 224 P 46 02.00 -0.5
TZL 1.17 91 ePd 46 02.38 -0.4
SDG 1.19 67 ePc 46 01.88 -1.2
HUR 1.20 319 eP 46 01.63 -1.6
eS 46 17.23
VLZ 1.22 141 iPd 46 01.62 -1.7
PTE 1.33 204 ePd 46 04.57 -0.5
eS 46 23.14
RND 1.40 342 eP 46 04.59 -1.5
eS 46 21.71
PAX 1.44 51 eP 46 05.35 -1.4
eS 46 24.23
SUA 1.48 246 eP 46 07.04 -0.4
THY 1.67 36 ePd 46 09.51 -0.5
SKT 1.71 268 ePc 46 09.55 -1.0
eS 46 32.97
MCK 1.72 345 eP 46 09.68 -1.1
MPA 1.75 204 eP 46 10.52 -0.5
eS 46 33.01
TRF 1.76 323 ePc 46 09.63 -1.7
HIN 1.82 157 eP 46 11.35 -0.9
CVA 1.86 145 eP 46 12.00 -0.7
SLKM 1.93 216 eP 46 13.11 -0.7
GLB 2.05 106 iPc 46 14.48 -1.0
eS 46 39.93
SGAM 2.05 139 eP 46 13.95 -1.5
eS 46 38.55
NKA 2.09 231 P 46 18.60 2.7
SEW 2.12 201 ePc 46 16.44 0.1
eS 46 43.88
SPU 2.18 247 ePc 46 16.40 -0.8
CPAM 2.18 249 eP 46 17.11 -0.2
CRP 2.18 250 eP 46 17.47 0.1
CKN 2.21 249 eP 46 18.05 0.3
CP2 2.22 250 eP 46 17.57 -0.4
CKT 2.23 249 eP 46 17.42 -0.6
BGL 2.29 251 eP 46 18.66 -0.2
CKL 2.29 249 ePc 46 18.08 -0.8
RAGM 2.31 136 iPd 46 17.90 -1.2
DOT 2.36 47 eP 46 18.75 -1.0
HDA 2.37 10 eP 46 18.93 -1.0
NEA 2.56 349 eP 46 20.85 -1.7
CCB 2.57 1 iPd 46 21.11 -1.7
eS 46 51.80
CRQM 2.65 118 eP 46 22.83 -1.3
DFR 2.75 239 eP 46 24.43 -0.9
TGL 2.78 116 ePc 46 24.21 -1.6
FBA 2.83 1 eP 46 24.61 -1.8
S 46 58.31
RSO 2.85 237 P 46 27.70 0.8
RS2 2.85 237 P 46 28.60 1.7
RDW 2.86 238 P 46 25.70 -1.3
BALM 2.86 109 eP 46 25.11 -1.9
NCT 2.86 240 eP 46 25.72 -1.3
MDM 2.89 357 eP 46 25.73 -1.6
GLM 2.93 4 iPd 46 26.07 -1.8
CNPM 3.04 214 eP 46 28.56 -0.9
SNH 3.11 126 eP 46 29.73 -0.8
CTGM 3.34 107 eP 46 34.08 0.2
IMA 4.73 330 eP 46 50.48 -3.1
56 obs. associated

% MAR 12, 1993 16h 59m 03.49± 1.72s
38.154 N ±16.7km 28.056 E ± 7.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.0 (ISK).

IZM 0.67 292 iPg 59 16.90 0.1
iSg 59 25.40
KHL 1.17 81 ePn 59 25.20 -0.2
DST 1.52 17 iPn 59 29.60 -1.1
ALT 1.84 60 ePn 59 35.80 0.3
KCT 2.10 6 iPn 59 40.30 1.1
EDC 2.19 356 ePn 59 40.00 -0.5
YLV 2.62 23 ePn 59 47.00 0.4
S.D. = 0.9 on 7 of 7 obs.

% MAR 12, 1993 17h 04m 33.59± 1.23s
30.088 S ± 8.1km 116.154 E ±17.8km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

BAL 0.70 137 iPd 04 53.30 5.8X
eS 05 08.40
MRWA 0.88 351 eP 04 50.30 -0.2
eS 05 02.00
MUN 1.89 179 iPc 05 05.40 -0.7
eS 05 30.20
KLB 2.04 138 eP 05 10.30 1.9
eS 05 39.70
NWAO 2.98 162 eP 05 21.70 0.0
eS 05 57.20
MEEK 4.06 33 eP 05 37.80 0.6
eS 06 24.00
COOL 4.38 102 eP 05 40.00 -1.7
eS 06 35.30
MBL 9.49 21 eP 06 47.00 -6.3X
0.3s 2.00nm 5.1mb
eS 08 26.00
S.D. = 1.6 on 6 of 8 obs.

? MAR 12, 1993 17h 30m 30.55± 1.20s
10.838 S ±15.4km 164.044 E ±17.7km
DEPTH = 33.0km (normal)
4.0mb (2 obs.)
SANTA CRUZ ISLANDS REGION (183)

DZM 11.40 169 iPc 33 14.10 -0.2
CMS 26.58 217 eP 36 09.00 1.4
STK 29.47 221 eP 36 33.00 -0.8
1.0s 0.90nm 3.5mb X
WB2 29.98 249 eP 36 38.20 -0.3
0.6s 3.20nm 4.3mb
WRA 29.99 249 P 36 38.50 -0.1
0.5s 0.70nm 3.7mb
YKA 95.56 27 eP 43 53.40 0.1
0.6s 0.20nm 3.7mb X
BCAO 145.25 262 ePKPc 50 12.10 4.5X
0.9s 5.00nm
S.D. = 1.0 on 6 of 7 obs.

? MAR 12, 1993 17h 37m 01.65± 0.89s
37.142 N ± 7.5km 3.421 W ± 8.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.7 (MDD).

ECOG 0.18 319 ePg 37 05.80 0.1
eSg 37 09.00
EGUA 0.33 201 iPgc 37 08.40 -0.1
eSg 37 14.00
EHUE 0.94 44 ePg 37 19.50 -0.2
eSg 37 30.50
ENIJ 0.99 100 ePg 37 20.50 0.1
eSg 37 33.50
S.D. = 0.2 on 4 of 4 obs.

& MAR 12, 1993 17h 41m 20.97s
60.946 N 147.464 W
DEPTH = 20.0km
3.0mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>. ML 3.1 (AEIC).

VLZ 0.58 71 iPd 41 30.80 -1.5
eS 41 39.15
HIN 0.73 139 iPc 41 34.08 -0.8
eS 41 44.47

PTE 0.77 265 iPd 41 33.38 -2.1
eS 41 43.75
SCM 0.89 4 iPc 41 36.63 -1.1
eS 41 48.21
KLU 0.93 53 iPd 41 36.69 -1.6
eS 41 49.57
CVA 0.93 115 iPc 41 37.47 -0.8
eS 41 51.70
SML 0.96 335 iPc 41 37.68 -1.2
eS 41 50.71
PLRM 1.03 310 iPc 41 38.72 -1.3
eS 41 52.23
PMR 1.03 310 eP 41 38.87 -1.2
MPA 1.04 245 iPd 41 38.39 -1.7
iS 41 51.59
PMS 1.06 287 P 41 38.70 -1.9
GHO 1.09 320 iPc 41 39.99 -1.0
eS 41 54.91
SGAM 1.20 111 iPc 41 42.05 -0.5
SEW 1.30 230 ePd 41 42.85 -1.1
eS 41 59.10
PWA 1.36 302 P 41 45.20 0.3
S 42 02.80
SLKM 1.42 253 eP 41 45.26 -0.6
eS 42 03.38
TZL 1.47 41 eP 41 47.32 0.8
RAGM 1.48 111 eP 41 47.48 0.8
MID 1.62 159 P 41 50.70 2.1
SUA 1.67 290 eP 41 49.35 -0.1
eS 42 13.06
KAIM 1.82 123 P 41 52.50 0.9
SDG 1.83 29 eP 41 52.29 0.6
GLB 1.84 73 ePc 41 52.14 0.3
eS 42 15.50
NKA 1.86 265 eP 41 53.84 1.8
BRLK 2.07 237 eP 41 53.96 -1.3
CRQM 2.13 93 eP 41 57.19 1.0
SKT 2.21 300 iPc 41 57.70 0.5
PAX 2.24 24 eP 41 58.81 1.1
SPU 2.24 278 ePc 41 57.62 -0.1
eS 42 27.04
TGL 2.28 93 eP 41 59.15 0.9
CPAM 2.29 280 eP 41 58.81 0.4
eS 42 28.35
CRP 2.30 280 eP 41 57.82 -0.8
CKN 2.31 279 eP 41 58.79 0.2
CKT 2.32 278 eP 41 58.67 -0.1
CP2 2.34 280 eP 41 57.38 -1.8
S 42 25.58
CNPM 2.36 235 eP 41 58.36 -0.9
CKL 2.38 278 eP 41 59.06 -0.6
SNH 2.41 107 eP 42 01.39 1.4
BGL 2.41 280 eP 42 00.10 0.0
BALM 2.50 86 eP 42 02.20 0.9
RND 2.55 346 eP 42 03.50 1.4
DFR 2.59 264 eP 42 02.03 -0.6
XLV 2.60 237 P 42 07.40 4.7
RSO 2.65 262 eP 42 02.16 -1.4
RS2 2.65 262 eP 42 03.77 0.2
RS1 2.65 262 eP 42 03.64 0.0
RDW 2.67 262 eP 42 04.12 0.2
NCT 2.71 264 eP 42 03.95 -0.4
TRF 2.84 333 ePc 42 07.57 1.3
YAH 2.88 99 eP 42 08.03 1.2
MCK 2.88 347 P 42 10.10 3.4
INE 2.91 255 eP 42 06.90 -0.3
INW 2.94 255 eP 42 06.67 -0.9
CTGM 2.99 87 eP 42 09.72 1.4
HDA 3.48 4 eP 42 16.74 1.5
PDB 3.54 254 eP 42 15.37 -0.6
CDD 3.71 240 eP 42 17.78 -0.7
CCB 3.72 358 eP 42 20.09 1.5
MCNL 3.87 246 eP 42 21.19 0.5
FBA 3.97 358 eP 42 21.26 -0.9
SVW 3.97 276 eP 42 21.05 -1.1
Lg 43 20.00
TTA 4.50 300 eP 42 27.10 -2.7
IMA 5.84 334 eP 42 48.87 0.1
YKA 15.56 70 eP 45 05.70 5.3
0.6s 0.60nm 3.0mb
64 obs. associated

? MAR 12, 1993 18h 19m 07.72± 1.37s
47.738 N ±14.6km 16.023 E ±10.0km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 2.4 (VIE), 2.2 (BRA).

VKA 0.56 20 iPgc 19 19.40 0.2
iSg 19 30.10
ZST 0.86 57 ePn 19 24.20 0.0
i 19 25.70
iSn 19 39.60
Lg 19 40.50
VRAC 1.62 13 Pn 19 36.10 -0.2
eSg 19 58.60
KBA 1.94 251 iPgc 19 41.20 0.1
iSg 20 05.50
KHC 2.14 311 eP 19 44.00 0.0
eSg 20 11.40
e 20 23.00
S.D. = 0.2 on 5 of 5 obs.

MAR 12, 1993 18h 19m 24.88± 0.50s
49.998 N ±10.7km 28.943 W ± 5.9km
DEPTH = 10.0km (geophysicist)
4.2mb (28 obs.)
NORTHERN MID-ATLANTIC RIDGE (403)

EKA 16.48 61 Pd 23 25.50 8.1X
1.1s 13.40nm 4.0mb
LDF 18.80 83 eP 23 46.90 0.5
MFF 19.40 89 eP 23 52.20 -1.5
0.7s 4.30nm 3.8mb
LSF 20.61 89 eP 24 04.80 -1.8
RJF 20.97 91 eP 24 09.10 -1.2
0.8s 7.40nm 4.1mb
TCF 21.04 88 eP 24 09.60 -1.4
1.0s 13.40nm 4.3mb
MAF 21.29 88 eP 24 12.40 -1.2
1.2s 18.15nm 4.3mb
DOU 21.44 77 Pc 24 15.00 0.0
0.8s 33.30nm 4.8mb
CAF 21.48 92 eP 24 14.20 -1.3
0.9s 6.70nm 4.0mb
AVF 21.59 86 eP 24 16.40 -0.2
0.8s 11.80nm 4.3mb
SSF 21.60 85 eP 24 16.50 -0.1
0.9s 13.25nm 4.3mb
LOR 21.75 85 eP 24 18.10 -0.1
0.9s 10.80nm 4.3mb
LBF 21.93 85 eP 24 19.10 -0.9
1.1s 14.40nm 4.3mb
ENN 22.13 75 eP 24 22.00 0.1
1.0s 10.00nm 4.2mb
WTS 22.45 71 eP 24 25.50 0.4
1.0s 7.70nm 4.1mb
WLF 22.52 77 P 24 28.00 2.2
HAU 23.11 81 eP 24 31.90 0.2
0.8s 19.90nm 4.7mb
BSF 23.45 81 eP 24 35.50 0.5
0.8s 17.05nm 4.7mb
LPL 24.25 87 eP 24 42.90 0.0
0.7s 3.30nm 4.1mb
LPG 24.27 87 eP 24 43.20 0.0
0.9s 4.10nm 4.0mb
NB2 24.86 48 P 24 48.60 0.1
0.9s 3.60nm 4.0mb
MOX 25.68 73 eP 24 59.20 2.9X
GRF 25.69 75 eP 24 56.80 0.4
HFS 25.98 51 eP 24 59.00 0.0
0.5s 1.00nm 3.8mb
Z 17s 0.19um 3.7MszX
LR 32 21.00
CLL 26.37 71 i(P) 25 02.70 0.0
1.1s 12.00nm 4.5mb
KHC 27.33 75 eP 25 12.00 0.5
e 56 56.50
e 57 43.00
eSg 57 53.50
GEC2 27.49 76 P 25 13.30 0.2
1.1s 2.95nm 3.9mb
e 25 19.80
e 35 04.30
KSP 28.50 71 eP 25 22.40 0.4
RES 36.27 336 eP 26 36.50 7.0X
FCC 37.50 309 eP 27 03.50 23.4X
OBN 38.86 56 eP 26 51.00 -0.5
YKA 45.64 320 eP 27 45.60 -1.1
0.8s 1.00nm 3.8mb
TIC 47.64 147 P 28 03.80 0.8
KIC 48.00 147 P 28 06.40 0.5
SVE 50.17 46 eP 28 22.10 0.0
BW06 53.53 295 eP 28 46.63 -1.3
0.8s 3.28nm 4.4mb

IMA 56.81 336 (P) 29 10.48 -0.8
0.6s 1.46nm 4.2mb
MSU 57.77 293 (P) 29 17.97 -0.6
ILT 60.26 347 iPc 29 34.00 -1.1
0.8s 8.00nm 4.9mb
BCAO 60.43 122 iPc 29 35.40 -1.5
0.7s 9.00nm 5.0mb
ic 29 41.00
MAIO 62.32 66 eP 29 51.00 1.4
GSC 62.67 293 eP 29 52.45 0.5
e 29 57.61
ELT 63.55 37 eP 29 57.10 -0.2
1.5s 21.00nm 5.1mb
Z 22s 5.00um 5.6Msz
BOD 68.32 20 eP 30 26.00 -1.8
1.4s 9.00nm 4.8mb
GKN 82.62 55 P 31 51.00 1.3
KKN 83.13 54 P 31 53.80 1.3
DMN 83.18 55 P 31 54.40 1.6
GUN 83.34 54 P 31 55.20 1.5
PKI 83.37 55 P 31 54.80 0.9
BJI 85.24 26 eP 32 03.00 0.4
WB2 147.20 30 ePKP 39 09.90 2.4
0.7s 2.20nm
ASPA 150.49 33 ePKP 39 17.80 5.2X
0.6s 4.40nm
S.D. = 1.0 on 47 of 52 obs.

& MAR 12, 1993 18h 39m 54.70s
39.904 N 123.585 W
DEPTH = 3.7km
NEAR COAST OF NORTHERN CALIF. (35)
<GM-P>. MD 2.9 (GM).

KMPM 0.66 322 eP 40 07.85 0.0
S 40 19.58
WDC 1.05 50 eP 40 13.43 -1.6
S 40 33.19
LGPM 1.16 30 eP 40 17.15 0.1
S 40 34.70
ORV 1.65 102 (P) 40 19.66 -4.9
S 40 45.25
LMEM 1.67 67 eP 40 25.53 0.5
LBFM 1.93 41 eP 40 28.75 -0.2
6 obs. associated

? MAR 12, 1993 19h 22m 01.34± 0.85s
19.864 N ±16.9km 38.754 E ±11.7km
DEPTH = 10.0km (geophysicist)
4.3mb (4 obs.) 4.5Msz (2 obs.)
RED SEA (554)
MD 3.8 (RYD).

ABHA 4.11 112 eP 23 04.00 -1.8
eS 23 43.00
KMTA 4.24 113 eP 23 08.00 0.3
DHJN 4.99 115 eP 23 20.00 1.6
eS 24 12.00
MAIO 24.47 44 eP 27 26.00 4.2X
BCAO 24.97 235 iPc 27 26.50 -0.1
1.1s 17.00nm 4.6mb
GEC2 35.23 331 P 28 58.50 0.6
0.9s 0.98nm 3.7mb
LZH 58.72 59 eP 32 03.00 0.9
1.6s 25.00nm 5.1mb
Z 18s 0.30um 4.5Msz
pP 32 07.00 13kmX
BJI 68.05 54 eP 33 02.00 -1.3
Z 20s 0.36um 4.6Msz
YKA 95.25 348 eP 35 26.10 -0.3
0.9s 0.40nm 3.9mb
S.D. = 1.3 on 8 of 9 obs.

? MAR 12, 1993 20h 00m 50.99± 1.15s
26.382 S ±10.1km 27.464 E ±12.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

PRY 0.54 179 eP 01 01.20 -0.7
S 01 07.00
SLR 0.98 49 eP 01 10.00 -0.1
S 01 21.70
SEK 1.94 176 eP 01 26.00 0.9
S 01 50.50
SWZ 2.07 247 eP 01 26.90 -0.1
S 01 52.00
S.D. = 1.2 on 4 of 4 obs.

? MAR 12, 1993 20h 28m 08.93± 1.58s
45.117 N ±27.9km 147.639 E ±36.5km
DEPTH = 33.0km (normal)
3.9mb (3 obs.)
KURIL ISLANDS (221)

KUSJ 2.92 227 P 28 53.50 -0.6
eS 29 22.90
ASAJ 3.71 256 eP 29 12.50 7.3X
HOOJ 4.17 231 eP 29 12.40 0.6
eS 29 55.90
YKA 54.47 34 eP 37 35.10 0.1
1.0s 0.70nm 3.6mb
NB2 68.46 339 P 39 09.40 0.1
0.5s 0.60nm 3.9mb
HFS 68.57 337 eP 39 09.80 -0.2
0.4s 0.70nm 4.1mb
S.D. = 0.6 on 5 of 6 obs.

MAR 12, 1993 21h 02m 14.13± 0.39s
42.827 N ± 4.2km 18.695 E ± 4.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.6 (LJU), 2.9 (TTG).

BRY 0.13 304 iPgd 02 18.45 1.0
iSg 02 21.80
NKY 0.22 93 iPgc 02 19.17 0.2
iSg 02 23.72
HCY 0.41 201 iPgd 02 21.91 -0.5
iSg 02 28.87
BDV 0.55 170 iPgd 02 24.35 -1.0
iSg 02 33.32
PLE 0.72 45 iPgc 02 27.65 -0.7
iSg 02 38.53
IVA 0.89 87 iPgd 02 30.57 -0.6
iSg 02 43.83
ULC 0.96 154 iPgc 02 31.39 -0.9
iSg 02 46.17
PVY 0.97 103 iPgc 02 32.03 -0.6
iSg 02 46.66
SDA 0.98 142 ePg 02 33.20 0.5
iSg 02 48.30
BCI 1.11 114 ePg 02 31.90 -3.1X
iSg 02 48.30
LACI 1.41 147 ePn 02 40.00 0.2
iSn 03 03.00
HVAR 1.69 283 iPnc 02 43.00 -0.8
iSg 03 06.90
TIR 1.72 149 ePn 02 45.50 1.3
iSn 03 12.20
SKO 2.20 112 ePn 02 52.20 0.9
0.8s 51.00nm
iSg 03 20.40
Lg 03 28.60
OHR 2.32 137 ePn 02 54.00 0.9
VAY 3.25 116 ePn 03 14.00 7.8X
VBY 3.65 318 ePn 03 12.90 1.1
iSn 03 55.00
CEY 4.23 315 e(Pn) 03 20.50 0.5
e(Sn) 04 11.00
e 06 00.00
VOY 4.70 315 ePn 03 26.00 -0.9
eSn 04 20.40
GEC2 6.95 332 Pn 03 57.80 -0.8
Sn 05 12.70
S.D. = 0.9 on 18 of 20 obs.

MAR 12, 1993 21h 53m 45.85± 0.24s
14.293 S ± 8.5km 178.190 W ± 7.2km
DEPTH = 33.0km (normal)
5.6mb (28 obs.) 5.3Msz (35 obs.)
FIJI ISLANDS REGION (181)
Mw 5.5 (HRV). Ms 5.5 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 38S, 59C
Centroid Location:
Origin Time 21:53:48.9 0.3
Lat 14.14S 0.05 Lon 178.06W 0.04
Dep 15.0 FIX Half-duration 1.2
Moment Tensor; Scale 10**17 Nm
Mrr= 1.41 0.04 Mtt=-0.78 0.05
Mff=-0.63 0.05 Mrt= 1.10 0.17
Mrf=-0.67 0.16 Mtf= 0.64 0.04
Principal Axes:
T Val= 1.93 Plg=68 Azm= 25
N -0.08 5 127
P -1.85 21 219
Best Double Couple:Mo=1.9*10**17
NP1:Strike=318 Dip=24 Slip= 102
NP2: 125 67 85

MBU 3.99 228 eP 54 44.00 -2.4
BKM 13.47 254 iPc 57 03.00 5.8X
DZM 16.51 240 iPd 57 39.10 2.3
RAR 18.83 114 P 58 06.36 0.8
SNZO 27.62 192 P 59 34.02 1.8
BRS 30.01 240 iPd 59 56.00 1.9
eS 04 57.00
RMQ 33.17 243 eP 00 21.00 -0.7
CTAO 34.41 255 P 00 32.97 0.5
CNB 35.88 228 eP 00 36.00 -8.9X
CAN 36.15 229 eP 00 37.80 -9.4X
BWA 36.18 230 eP 00 44.80 -2.7
CMS 37.09 236 eP 00 53.30 -1.7
0.9s 14.00nm 4.8mb
QLP 37.13 245 eP 00 53.50 -2.0
TOO 39.68 227 eP 01 18.10 1.4
1.0s 30.00nm 5.0mb
HON 40.57 30 P 01 30.00 6.0X
Z 21s 3.93um 5.2Msz
STK 40.65 237 eP 01 23.60 -1.1
1.0s 9.60nm 4.5mb X
eS 07 21.20
WB2 45.59 256 eP 02 02.60 -2.3
1.1s 7.00nm 4.5mb X
WRA 45.60 256 P 02 03.80 -1.2
0.9s 0.50nm 3.4mb X
GUMO 45.88 306 eP 02 06.99 -0.3
GUMO 45.88 306 eP 01 59.00 -8.2X
ASPA 46.07 251 P 02 08.00 -0.8
CTB 61.00 287 ePd 04 03.00 4.1X
SMY 67.08 355 P 04 50.00 12.1X
Z 19s 1.04um 5.1Msz
YSS 70.37 333 eP 04 58.00 -0.4
Z 17s 0.40um 4.7MszX
E 17s 0.30um
e 05 22.00
eS 14 14.00
SAO 73.70 44 eP 05 18.23 -0.2
Z 20s 1.62um 5.3Msz
BKS 73.77 43 ePd 05 28.09 9.3X
Z 21s 2.30um 5.4Msz
eS 15 07.09
iScS 15 41.09
eLQ 25 11.09
eLR 27 23.09
BCH 73.81 46 eP 05 17.75 -1.5
WDC 75.07 41 eP 05 26.26 0.0
2.1s 155.43nm 5.6mb
Z 22s 2.85um 5.5Msz
WDC 75.07 41 ePd 05 33.02 6.8X
Z 21s 2.70um 5.5Msz
eS 15 21.02
iSS 15 59.02
eLR 27 52.02
CMB 75.09 44 eP 05 25.68 -0.8
Z 22s 1.79um 5.3Msz
CMB 75.09 44 ePd 05 32.68 6.2X
Z 21s 1.70um 5.3Msz
iScS 06 06.68
ePPc 08 34.68
eS 15 19.68
iScS 15 59.68
iSS 20 15.68
eLQ 25 13.68
eLR 27 40.68
ISA 75.18 47 eP 05 27.02 -0.1
2.2s 191.41nm 5.7mb
SPA 75.80 180 iPc 05 29.70 -0.5
2.3s 209.79nm 5.7mb
LBFM 75.90 40 eP 05 31.38 0.1
GSC 76.19 48 eP 05 32.65 -0.3
CN2 77.31 322 eP 05 35.20 -3.6X
1.8s 78.00nm 5.4mb
Z 24s 0.39um 4.6MszX
esP 05 50.00
TPNV 77.38 46 P 05 50.00 10.4X
Z 21s 2.75um 5.5Msz
SNY 77.38 319 eP 05 40.00 0.8
CP2 78.08 12 eP 05 41.95 -1.0
CRP 78.10 13 eP 05 41.13 -1.9
MGD 78.23 345 eP 05 42.50 -1.0
1.6s 70.00nm 5.4mb
e 06 00.00
PMS 78.65 14 eP 05 45.50 -0.4
2.0s 209.20nm 5.8mb
VGB 78.89 37 eP 05 47.32 -0.2
TTA 78.90 10 eP 05 47.28 0.0
1.6s 39.50nm 5.2mb
GMW 78.90 35 eP 05 45.92 -1.6
LON 78.99 36 eP 05 46.48 -1.6
PMR 79.06 14 P 06 00.00 12.0X
Z 18s 0.80um 5.1Msz
TUC 79.34 53 eP 05 50.65 0.3
2.2s 203.01nm 5.7mb
Z 20s 1.68um 5.4Msz
SIT 79.47 22 P 06 00.00 9.7X
Z 18s 1.17um 5.3Msz
MSU 80.97 47 eP 05 59.87 0.8
DUG 81.27 45 eP 06 00.04 -0.5
2.2s 102.80nm 5.4mb
BJI 81.38 315 eP 06 01.00 0.2
Z 20s 0.60um 4.9Msz
ILT 81.97 360 iPc 06 02.70 -0.5
2.1s 140.00nm 5.6mb
e 09 18.00
HVU 82.02 43 eP 06 03.90 -0.5
IMA 82.19 10 eP 06 04.05 -0.6
2.5s 159.59nm 5.6mb
FBA 82.25 13 eP 06 03.58 -1.3
1.1s 12.19nm 4.9mb
SRU 82.39 47 eP 06 06.15 -0.2
DAU 82.44 45 eP 06 06.70 -0.1
EMUT 82.48 46 eP 06 07.36 0.4
TIY 83.03 312 eP 06 10.60 1.0
Z 28s 0.89um 5.0MszX
SNG 83.29 279 eP 06 07.00 -4.2X
ALQ 83.70 52 eP 06 12.97 -0.2
2.5s 264.57nm 5.9mb
XAN 84.25 307 eP 06 17.60 1.8
2.0s 34.00nm 5.2mb
Z 24s 0.38um 4.7MszX
eS 16 38.00
BW06 84.60 44 ePc 06 16.95 -0.7
2.5s 187.02nm 5.8mb
HHC 84.91 314 P 06 21.20 2.2
2.0s 95.00nm 5.6mb
Z 24s 0.67um 4.9MszX
8TO 85.89 314 eP 06 24.60 0.7
N 13s 0.30um
E 13s 0.40um
eSKS 16 47.00
GOL 86.28 48 eP 06 26.55 0.5
1.9s 97.50nm 5.7mb
Z 18s 1.07um 5.3Msz
YAK 86.29 338 eP 06 25.90 0.6
2.5s 134.00nm 5.7mb
Z 24s 0.60um 4.9MszX
KMI 86.38 297 Pc 06 28.00 1.2
2.0s 130.00nm 5.8mb
GLD 86.41 48 P 06 40.00 13.4X
Z 19s 1.05um 5.2Msz
SES 86.99 36 eP 06 29.00 0.0
CD2 87.30 303 eP 06 32.20 1.3
CHTO 87.97 290 eP 06 35.80 1.5
CIT 88.30 325 eP 06 36.00 0.7
RSSD 88.83 44 eP 06 37.50 -0.7
1.9s 82.08nm 5.7mb
Z 18s 1.09um 5.3Msz
S 17 19.90
e 18 32.91
LZH 88.86 308 eP 06 39.50 1.0
2.0s 54.00nm 5.5mb
Z 24s 0.37um 4.7MszX
WMOK 89.57 54 P 06 50.00 8.4X
Z 21s 2.17um 5.6Msz
BOD 90.57 330 eP 06 45.70 0.0
2.5s 85.00nm 5.6mb
YKA 90.98 25 eP 06 46.90 -0.6
1.4s 3.00nm 4.5mb X
TIK 92.72 345 iPd 06 54.60 -0.8
2.0s 62.00nm 5.7mb
i 07 06.00
e 12 36.00
GTA 92.90 310 eP 06 56.50 -0.5
1.8s 25.00nm 5.3mb
Z 20s 0.58um 5.0Msz
MIAR 93.63 55 P 07 10.00 9.7X

Z 19s 1.16um 5.4Msz
IRK 93.70 323 eP 07 01.30 1.0
2.0s 29.00nm 5.4mb
ZAK 93.73 321 eP 07 00.50 0.1
2.7s 60.00nm 5.5mb
Z 18s 0.51um 5.0Msz
E 20s 0.66um
e 10 53.00
FVM 96.92 53 P 07 30.00 14.7X
Z 19s 3.07um 5.8Msz
SLM 97.21 52 P 07 30.00 13.5X
Z 19s 0.91um 5.3Msz
CEH 105.52 56 PKP 12 20.00 12.5X
Z 19s 1.58um 5.6Msz
RSNY 109.58 48 PKP 12 20.00 5.0X
Z 19s 0.82um 5.3Msz
CBM 113.99 45 PKP 12 30.00 6.7X
Z 21s 1.31um 5.5Msz
SVE 118.74 328 ePKPd 12 34.00 2.0
MAIO 124.28 304 ePKP 12 45.00 1.6
OBN 131.17 334 ePKP 12 54.00 -1.9
Z 20s 0.40um 5.1Msz
N 20s 0.30um
KIV 134.35 319 (PKP) 12 54.80 -7.7X
KSP 141.70 345 ePKP 13 12.00 -3.7X
UZH 141.81 338 ePKP 13 15.30 -0.6
2.4s 295.00nm
Z 18s 0.50um 5.3Msz
E 18s 0.50um
CLL 141.99 349 ePKP 13 12.00 -4.1X
e 15 39.00
SPC 142.05 340 ePKP 13 14.10 -2.5
BRG 142.21 347 ePKP 13 18.20 1.6
MLR 142.81 332 ePKP 13 16.50 -1.4
MOX 142.88 350 ePKP 13 20.40 2.7X
2.4s 65.00nm
Z 22s 0.40um 5.1Msz
PRU 142.91 346 ePKP 13 10.50 -7.3X
Z 20s 0.60um 5.4Msz
CMP 143.40 332 ePKPd 13 33.00 14.2X
UCC 143.53 357 PKP 13 19.00 0.2
SNF 143.82 357 PKPc 13 22.30 3.0X
GRF 143.87 350 ePKP 13 17.20 -2.2
Z 22s 0.50um 5.2Msz
SRO 143.87 341 iPKP 13 18.30 -1.1
HRI 143.88 307 ePKP 13 17.70 -2.4
ZST 143.90 343 ePKP 13 16.30 -3.2X
KHC 143.94 347 ePKP 13 18.30 -1.3
2.3s 2.50nm
Z 18s 0.80um 5.5Msz
N 18s 0.60um
E 18s 0.70um
e 23 40.00
VKA 144.06 343 e(PKP)13 18.00 -1.8
2.8s 418.00nm
GEC2 144.18 347 PKP 13 17.20 -2.9
1.7s 4.64nm
DOU 144.22 357 PKP 13 20.20 0.2
ADI 144.36 307 ePKP 13 21.00 0.2
SALJ 144.41 306 PKP 13 21.00 0.0
MASJ 144.49 305 PKP 13 19.00 -2.1
SOP 144.52 343 ePKP 13 19.00 -1.6
WLF 144.55 355 PKP 13 20.00 -0.5
DSI 144.81 305 ePKP 13 20.30 -1.3
KMR 144.82 346 iPKP+ 13 18.60 -2.5
UZD 144.86 340 e(PKP)13 19.00 -2.2
CSS 144.95 312 ePKP 13 23.00 1.2
LANF 145.06 353 PKP 13 21.63 0.1
HOFF 145.08 353 PKP 13 20.43 -1.0
SHWJ 145.13 303 PKP 13 22.00 -0.4
FUR 145.33 349 ePKP 13 21.30 -0.7
STR 145.46 353 PKP 13 21.69 -0.4
FLN 145.58 3 ePKP 13 21.00 -1.3
2.1s 257.85nm
Z 21s 0.75um 5.4Msz
WLS 145.67 353 PKP 13 21.75 -0.9
CDF 145.68 354 PKP 13 22.01 -0.7
LDF 145.76 2 ePKP 13 21.80 -0.9
2.3s 334.45nm
RMN 145.80 304 ePKP 13 23.40 0.0
ECH 145.89 354 PKP 13 23.02 0.1
LIBD 145.90 353 PKP 13 22.59 -0.3
KBA 145.92 346 e(PKP)13 19.50 -3.7X
2.2s 160.00nm
i 13 24.10
GRR 145.93 3 ePKP 13 22.50 -0.4
2.3s 378.25nm
VITF 146.00 355 PKP 13 23.28 0.2
WTTA 146.12 348 iPKP 13 23.70 0.1
2.6s 330.00nm
FEL 146.12 353 PKP 13 23.38 -0.1
HAU 146.18 355 ePKP 13 23.80 0.4
2.2s 289.10nm
Z 19s 0.63um 5.4Msz
MOF 146.25 354 PKP 13 23.65 0.0
LPF 146.28 3 ePKP 13 23.80 0.3
2.1s 265.90nm
BSF 146.30 354 ePKP 13 24.20 0.5
2.3s 208.40nm
PTJ 146.31 342 e(PKP)13 22.60 -1.2
ZAG 146.38 342 e(PKP)13 25.00 1.3
LJU 146.58 344 ePKP 13 23.80 -0.3
BBS 146.59 353 PKP 13 24.60 0.5
VOY 146.76 345 ePKP 13 23.40 -1.1
LOMF 146.78 354 PKP 13 24.77 0.3
VBY 146.87 343 ePKP 13 25.00 0.4
iPKPbc13 26.10
CEY 146.89 344 ePKP 13 24.00 -0.6
LOR 147.08 357 ePKP 13 26.60 1.7
2.1s 108.80nm
Z 22s 0.70um 5.4Msz
TRI 147.10 345 ePKP 13 25.40 0.5
RIY 147.27 344 ePKP 13 26.20 1.0
SSF 147.30 358 ePKP 13 26.90 1.7
2.2s 179.90nm
LBF 147.36 357 ePKP 13 26.90 1.5
2.5s 199.15nm
AVF 147.58 358 ePKP 13 27.10 1.5
2.3s 166.35nm
VAY 147.58 330 ePKP 13 18.40 -7.4X
i 13 31.30
SKO 147.60 332 iPKP 13 25.60 -0.3
2.3s 329.00nm
Z 20s 0.76um 5.5Msz
i 13 30.00
SMF 147.70 357 ePKP 13 27.90 2.0
2.3s 169.85nm
MFF 147.75 3 ePKP 13 27.10 1.2
2.3s 142.35nm
BGF 147.82 359 ePKP 13 28.10 2.0
2.0s 145.75nm
TCF 148.10 359 ePKP 13 29.00 2.4
2.5s 380.45nm
LSF 148.14 0 ePKP 13 28.50 1.9
2.0s 177.25nm
MAF 148.17 359 ePKP 13 29.40 2.8X
2.1s 239.05nm
ORX 148.33 352 PKP 13 29.20 2.1
RSL 148.44 354 PKP 13 28.82 1.5
OHR 148.58 332 iPKP 13 30.00 2.5X
2.0s 361.00nm
LPL 148.60 353 ePKP 13 31.50 3.8X
2.1s 173.25nm
LSD 148.61 353 PKP 13 30.53 2.8X
LPG 148.62 353 ePKP 13 31.60 3.8X
2.1s 173.25nm
RSP 148.90 353 PKP 13 29.93 1.9
SSB 149.03 356 PKP 13 31.55 3.5X
RJF 149.09 0 ePKP 13 31.70 3.6X
2.2s 192.20nm
RRL 149.18 353 PKP 13 30.07 1.5
BHB 149.20 352 PKP 13 30.89 2.6X
PCP 149.31 351 PKP 13 29.98 1.4
LFF 149.44 1 ePKP 13 32.40 3.8X
2.3s 267.95nm
CAF 149.47 360 ePKP 13 32.60 3.8X
2.3s 164.60nm
FIR 149.52 346 ePKP 13 33.00 4.2X
PZZ 149.55 353 PKP 13 32.72 3.7X
ROB 149.65 351 PKP 13 30.30 1.2
FIN 149.69 351 PKP 13 29.29 0.2
LPO 149.71 1 ePKP 13 33.10 4.0X
2.5s 259.60nm
STV 149.78 352 PKP 13 31.17 1.9
ENR 149.78 352 PKP 13 30.89 1.6
SAOF 150.00 352 PKP 13 32.05 2.5X
AUTN 150.01 352 PKP 13 32.75 2.9X
TOUF 150.02 352 PKP 13 33.25 3.4X
IMI 150.03 351 PKP 13 31.12 1.5
SBF 150.14 352 ePKP 13 36.10 6.3X
2.2s 249.10nm
SBF 150.14 352 PKP 13 32.29 2.5X
REVF 150.27 352 PKP 13 32.05 2.0
CALN 150.32 353 PKP 13 33.25 3.0X
CDR 150.52 354 ePKPd 13 35.70 5.4X
FRF 150.54 353 ePKP 13 34.80 4.5X
2.2s 206.05nm
LRG 150.68 353 ePKP 13 35.70 5.2X
2.1s 228.30nm
LMR 150.78 353 ePKP 13 35.60 4.9X
2.3s 169.85nm
PGF 151.17 349 ePKP 13 36.20 4.7X
2.4s 275.80nm
BCAO 160.83 241 iPKPc 13 46.00 1.6
1.6s 39.00nm
S.D. = 1.3 on 142 of 199 obs.

% MAR 12, 1993 22h 11m 17.17± 0.68s
40.647 N ± 8.3km 34.860 E ± 6.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KVT 1.00 64 iPg 11 35.70 -0.4
KAS 1.10 312 iPgd 11 38.80 0.9
iSg 11 55.00
BNN 1.96 156 iPn 11 51.40 0.5
GPA 3.49 266 ePn 12 11.70 -0.9
EYL 3.58 270 ePn 12 13.60 -0.4
GAZ 3.92 151 ePn 12 18.80 0.1
ALT 3.99 248 ePn 12 20.00 0.3
BCK 4.60 228 eP 12 22.00 -6.5X
S.D. = 0.8 on 7 of 8 obs.

MAR 12, 1993 22h 40m 34.17± 0.76s
39.832 N ±10.6km 25.371 E ± 5.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (THE).

OUR 1.18 296 ePg 40 56.70 0.6
ALN 1.18 26 ePg 40 55.18 -1.0
eSg 41 10.94
PAIG 1.31 275 ePb 40 58.22 -0.1
eSb 41 16.06
SOH 1.83 303 ePb 41 06.22 0.2
eSb 41 30.14
SRS 1.87 314 ePb 41 06.34 -0.1
eSb 41 30.82
EDC 1.98 74 iPn 41 09.00 0.9
IZM 2.05 134 ePn 41 07.20 -2.0
KNT 2.31 306 ePn 41 13.06 0.2
KCT 2.33 79 ePn 41 14.30 1.1
DST 2.52 94 ePn 41 16.30 0.4
VAY 2.60 306 ePn 41 24.20 7.2X
CTT 2.68 60 ePn 41 18.30 0.2
DMK 2.69 42 ePn 41 16.00 -2.2
EYL 3.74 77 eP 41 35.00 1.7
S.D. = 1.3 on 13 of 14 obs.

• MAR 12, 1993 22h 59m 21.54± 1.68s
41.346 N ±15.4km 22.803 E ± 6.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (THE).

VAY 0.18 262 iPg 59 25.80 0.3
iSg 59 28.60
KNT 0.20 159 iPg 59 26.24 0.3
eSg 59 28.56
GRG 0.49 218 ePg 59 31.08 -0.5
eSg 59 37.56
SRS 0.64 111 ePg 59 33.96 -0.4
SOH 0.67 141 ePg 59 35.16 0.3
eSg 59 43.64
S.D. = 0.6 on 5 of 5 obs.

MAR 12, 1993 23h 32m 46.49± 0.44s
19.633 N ± 7.2km 38.647 E ± 5.1km
DEPTH = 10.0km (geophysicist)
4.7mb (34 obs.) 4.7Msz (3 obs.)
RED SEA (554)
Mw 5.0 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 16C
Centroid Location:
Origin Time 23:32:51.8 0.5
Lat 19.76N FIX;Lon 38.68E FIX
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-3.94 0.67 Mtt= 1.49 0.64

12d 23h

Mff= 2.46 0.53 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-2.22 0.72
Principal Axes:
T Val= 4.25 Plg= 0 Azm=231
N -0.31 0 141
P -3.94 90 180
Best Double Couple:Mo=4.1*10**16
NP1:Strike=321 Dip=45 Slip= -90
NP2: 141 45 -90

SHWJ 11.08 346 P 35 27.40 -0.8
KER 16.47 25 eP 36 42.00 2.6
NAI 20.86 185 iP 37 40.00 8.6X
Z 16s 1.85um 4.6MszX
S 44 08.00
GRS 20.88 17 eP 37 32.00 0.6
1.6s 60.00nm 4.7mb
Z 11s 1.34um 4.6MszX
N 11s 0.31um
E 11s 0.39um
eS 41 30.00
ERE 21.09 13 iP 37 34.00 0.5
Z 14s 2.00um 4.7MszX
iS 41 40.00
MTA 22.61 12 eP 37 49.00 0.4
Z 12s 1.00um 4.5MszX
N 12s 1.50um
E 12s 1.50um
e 37 54.00
GRO 24.38 13 eP 38 10.00 4.2X
Z 14s 2.50um 4.9MszX
N 14s 2.50um
E 14s 1.00um
KIV 24.49 7 eP 38 08.90 1.9
MAIO 24.71 43 eP 38 11.00 1.8
KAT 24.73 34 eP 38 11.00 1.8
Z 12s 1.10um 4.6MszX
N 12s 1.60um
i 38 16.00
eS 42 38.00
BCAO 24.75 235 iPc 38 10.90 1.2
0.8s 11.00nm 4.6mb
id 39 12.10
ASH 25.03 39 eP 38 17.50 5.3X
OHR 26.27 328 eP 38 24.50 0.7
QUE 27.67 62 eP 38 48.80 11.9X
TRI 33.13 327 eP 39 25.00 0.2
ZST 33.40 333 eP 39 27.70 0.5
OJC 34.00 338 eP 39 32.30 -0.1
GEC2 35.38 331 eP 39 44.10 -0.3
1.5s 11.92nm 4.6mb
OBN 35.44 358 iPc 39 44.50 -0.1
1.2s 26.00nm 5.0mb
Z 16s 0.60um 4.4MszX
N 18s 0.50um
i 39 49.00
e 41 08.00
eS 45 24.00
KHC 35.64 331 eP 39 46.60 0.1
e 40 21.50
KSP 35.81 336 eP 39 48.00 0.1
MOS 36.06 359 eP 39 52.00 2.2
BRG 36.78 334 iP 39 56.00 0.0
2.0s 44.00nm 4.9mb
LPG 36.84 322 eP 39 57.20 0.2
1.0s 8.40nm 4.5mb
LPL 36.87 322 eP 39 57.20 0.1
0.9s 3.30nm 4.1mb
GRF 37.13 330 eP 39 58.40 -0.6
CLL 37.50 333 eP 40 02.00 0.0
GBA 37.59 93 P 40 05.00 1.8
MOX 37.62 332 eP 40 03.30 0.2
1.4s 17.00nm 4.6mb
HYB 37.85 87 eP 40 05.00 -0.4
FRU 38.06 45 eP 40 06.00 -0.9
2.0s 40.00nm 4.8mb
BSF 38.16 325 eP 40 07.40 -0.4
0.9s 10.00nm 4.6mb
LBF 39.27 322 eP 40 16.40 -0.6
0.9s 8.50nm 4.4mb
CAF 39.40 318 eP 40 18.60 0.5
1.3s 24.20nm 4.7mb
LOR 39.49 322 eP 40 18.30 -0.5
1.3s 26.00nm 4.7mb
AVF 39.53 321 eP 40 18.50 -0.6
1.1s 16.10nm 4.6mb
SSF 39.58 322 eP 40 19.00 -0.6

1.3s 20.20nm 4.6mb
ARU 39.63 17 eP 40 21.00 1.2
2.2s 130.00nm 5.2mb
Z 15s 1.00um 4.8MszX
N 15s 0.50um
E 15s 0.50um
BGF 39.71 321 eP 40 20.80 0.1
1.2s 38.10nm 4.9mb
LPO 39.84 317 eP 40 22.30 0.5
0.9s 6.90nm 4.3mb
RJF 39.92 318 eP 40 22.60 0.2
1.3s 19.15nm 4.6mb
LFF 40.24 318 eP 40 25.70 0.7
1.3s 33.95nm 4.9mb
LSF 40.35 320 eP 40 26.20 0.2
1.4s 28.75nm 4.8mb
PRZ 40.47 47 eP 40 28.00 0.9
1.2s 20.00nm 4.7mb
Z 19s 1.30um 4.8Msz
E 19s 2.70um
SVE 40.57 18 ePd 40 30.00 2.5
2.1s 40.00nm 4.8mb
Z 16s 0.60um 4.5MszX
N 15s 0.50um
E 15s 0.20um
BUL 40.73 195 eP 40 31.50 2.0
LDF 42.47 322 eP 40 42.20 -1.0
0.8s 9.80nm 4.6mb
GKN 42.69 70 P 40 45.20 -0.3
LPF 42.74 321 eP 40 44.50 -1.0
1.4s 53.15nm 5.1mb
FLN 42.76 322 eP 40 43.80 -1.8
1.0s 27.60nm 4.9mb
GRR 42.80 321 eP 40 44.90 -1.1
1.4s 39.65nm 5.0mb
DMN 43.10 70 P 40 48.20 -0.8
KKN 43.25 70 P 40 49.20 -1.0
PKI 43.37 70 P 40 49.60 -1.7
GUN 43.79 70 P 40 53.40 -1.3
KIC 44.14 259 P 40 57.68 0.4
TIC 44.30 259 P 40 58.28 -0.3
LIC 44.46 259 P 41 00.40 0.5
Z 20s 0.31um 4.2Msz
NB2 45.66 342 P 41 08.30 -0.6
1.2s 8.30nm 4.6mb
EKA 47.50 329 P 41 23.00 -0.5
0.8s 3.70nm 4.5mb
ELT 49.55 36 eP 41 37.30 -2.0
1.1s 34.00nm 5.3mb
NRI 58.05 18 iPd 42 41.50 -0.2
1.3s 24.00nm 5.1mb
Z 16s 1.60um 5.2MszX
N 16s 0.80um
LZH 58.93 59 iPc 42 34.00 -14.6X
1.0s 67.00nm
Z 20s 0.99um 4.9Msz
E 14s 0.43um
pP 42 58.00 96kmX
PP 44 11.00
ZAK 59.00 42 eP 42 47.00 -1.6
1.3s 11.00nm 4.8mb
BOD 65.91 35 eP 43 32.00 -2.6
1.2s 25.00nm 5.3mb
BJI 68.27 54 eP 43 50.00 0.2
TIK 71.60 20 eP 44 08.00 -1.6
1.0s 6.00nm 4.7mb
MGD 83.63 28 eP 45 15.00 -1.2
S.D. = 1.1 on 63 of 68 obs.

? MAR 12, 1993 23h 46m 25.58± 1.35s
15.449 S ±34.3km 179.007 W ±22.7km
DEPTH = 198.7 ± 15.8 km
4.8mb (9 obs.)
FIJI ISLANDS REGION (181)

MBU 2.66 235 eP 47 11.80 0.2
RMQ 31.96 245 eP 52 34.50 -0.4
OLP 35.94 246 eP 53 08.60 -0.2
BCH 75.17 47 (P) 57 45.52 -2.5
KDC 76.16 14 eP 57 53.80 1.0
WDC 76.45 41 eP 57 52.67 -2.2
1.6s 25.49nm 4.7mb
Z 21s 1.39um 5.2Msz
LGPM 76.46 40 (P) 57 54.88 -0.2
CMB 76.46 44 (P) 57 55.87 0.8
1.1s 8.02nm 4.4mb
Z 20s 0.76um 5.0Msz

ISA 76.55 47 eP 57 54.66 -1.0
1.3s 12.74nm 4.5mb
Z 18s 0.83um 5.1Msz
LBFM 77.29 40 eP 57 59.33 -0.5
TNP 78.63 45 eP 58 05.89 -1.3
1.6s 37.94nm 4.9mb
PMS 79.96 14 eP 58 04.90 -8.7X
TTA 80.17 10 eP 58 15.28 0.6
GMW 80.30 35 eP 58 14.70 -0.9
TUC 80.67 53 eP 58 18.30 0.3
1.8s 69.55nm 5.1mb
RMW 80.79 35 (P) 58 17.96 -0.3
KLU 81.06 15 (P) 58 19.25 -0.2
ARUT 81.11 47 eP 58 20.91 0.6
BJI 81.64 315 eP 58 29.00 6.3X
Z 22s 1.23um 5.2Msz
MSU 82.33 47 eP 58 27.22 0.5
HVU 83.40 44 (P) 58 32.76 0.8
SRU 83.75 47 ePd 58 33.93 0.1
DAU 83.81 45 eP 58 34.73 0.5
PV09 84.48 48 eP 58 38.15 0.5
PV10 84.49 48 eP 58 37.93 0.3
PV08 84.86 48 eP 58 40.15 0.6
ALQ 85.03 52 eP 58 40.68 0.4
1.1s 17.85nm 4.7mb
LCCM 85.83 40 eP 58 44.10 0.1
BW06 85.98 44 eP 58 44.93 0.0
1.7s 40.00nm 5.0mb
GOL 87.64 48 (P) 58 53.65 0.7
1.2s 10.06nm 4.5mb
Z 18s 0.71um 5.1Msz
SES 88.39 36 eP 59 00.00 4.0X
RSSD 90.20 44 eP 59 06.60 1.7
1.8s 48.66nm 5.2mb
Z 19s 0.53um 5.0Msz
RSNY 110.94 48 PKP 04 50.00 13.3X
Z 21s 0.37um 4.9Msz
SPC 142.85 339 ePKP 05 50.00 12.9X
BRG 143.15 346 e(PKP)05 46.00 8.7X
HRI 143.94 306 ePKP 05 52.00 12.7X
ZST 144.75 341 e(PKP)05 47.60 7.5X
DSI 144.80 303 ePKP 05 54.50 13.8X
GRF 144.85 348 e(PKP)05 51.00 10.8X
Z 23s 0.30um 5.0MszX
KHC 144.87 346 ePKP 05 49.50 9.2X
e 06 19.00
e 06 31.00
CSS 145.11 310 ePKP 05 50.60 9.4X
ARVI 145.26 302 ePKP 05 56.50 15.0X
SOP 145.37 341 ePKP 05 47.50 6.3X
WLF 145.62 354 PKP 05 51.00 9.5X
UZD 145.65 338 e(PKP)05 48.00 6.3X
FUR 146.29 348 ePKP 05 48.60 5.9X
STR 146.50 352 PKP 05 54.62 11.7X
WLS 146.71 352 PKP 05 49.38 6.0X
CDF 146.72 352 PKP 05 51.14 7.6X
ECH 146.93 352 PKP 05 51.22 7.5X
LIBD 146.94 352 PKP 05 51.55 7.9X
VITF 147.07 354 PKP 05 50.34 6.4X
FEL 147.15 351 PKP 05 49.38 5.1X
ZAG 147.21 340 e(PKP)05 51.50 7.3X
HAU 147.24 353 ePKP 05 51.30 7.1X
1.8s 89.75nm
Z 19s 0.40um 5.2Msz
MOF 147.29 352 PKP 05 51.14 6.7X
BSF 147.36 353 ePKP 05 51.60 7.1X
LJU 147.45 342 ePKP 05 52.00 7.4X
i 06 00.00
VOY 147.65 343 ePKP 05 54.30 9.2X
i 06 02.00
VBY 147.72 341 ePKP 05 52.50 7.5X
iPKPbc05 54.00
i 05 59.50
CEY 147.76 342 e(PKP)05 53.50 8.3X
i 06 00.50
TRI 147.98 343 ePKP 05 57.10 11.7X
VAY 148.17 328 iPKP 06 01.70 15.8X
LOR 148.19 356 ePKP 05 53.70 7.9X
1.6s 32.95nm
Z 21s 0.40um 5.2Msz
SKO 148.23 330 iPKP 05 56.00 10.0X
Z 20s 0.56um 5.3Msz
i 05 59.20
SSF 148.41 357 ePKP 05 54.40 8.3X
1.6s 64.05nm
LBF 148.46 356 ePKP 05 54.40 8.2X
1.8s 38.85nm

MFF 148.93 2 ePKP 05 55.50 8.6X
1.6s 45.40nm
BGF 148.95 358 ePKP 05 55.60 8.6X
1.3s 30.35nm
OHR 149.20 330 iPKP 05 57.80 10.2X
1.6s 138.00nm
TCF 149.24 358 ePKP 05 56.40 8.9X
1.4s 25.25nm
LSF 149.29 359 ePKP 05 58.20 10.7X
MAF 149.29 358 ePKP 05 56.70 9.2X
1.8s 88.05nm
LPL 149.64 352 ePKP 05 58.80 10.4X
1.3s 18.05nm
LPG 149.66 352 ePKP 05 59.10 10.6X
1.7s 0.75nm
RJF 150.24 359 ePKP 05 59.20 10.2X
1.5s 61.10nm
Z 21s 0.55um 5.3Msz
FIR 150.44 345 ePKP 06 03.00 13.8X
SURF 150.64 351 PKP 06 02.23 12.4X
LPO 150.86 360 ePKP 05 58.60 8.7X
1.6s 54.75nm
SAOF 151.01 350 PKP 06 02.07 11.9X
AUTN 151.02 350 PKP 06 02.92 12.4X
AURF 151.15 350 PKP 06 02.92 12.4X
REVF 151.28 350 PKP 06 02.07 11.4X
FRF 151.57 351 ePKP 06 02.40 11.4X
1.5s 34.45nm
LMR 151.81 351 ePKP 06 03.10 11.8X
1.2s 22.30nm
PGF 152.13 347 ePKP 06 03.90 11.9X
1.6s 62.20nm
BCAO 159.57 239 iPKPc 06 19.20 17.0X
0.8s 11.00nm
S.D. = 1.0 on 29 of 87 obs.

? MAR 12, 1993 23h 46m 26.28± 1.12s
27.787 S ±17.3km 177.612 W ±17.9km
DEPTH = 33.0km (normal)
4.8mb (8 obs.)
KERMADEC ISLANDS REGION (177)

RAO 1.48 190 eP 46 50.10 -0.8
S 47 14.00
DZM 15.54 288 iPc 50 12.90 8.2X
BRS 26.22 264 iP 52 02.00 1.9
ARMA 26.97 257 eP 52 10.40 3.5X
1.2s 27.00nm 4.8mb
CAN 29.33 247 eP 52 30.60 2.4
BWA 29.73 249 eP 52 31.20 -0.6
CMS 31.90 254 iPc 52 51.70 0.8
1.0s 18.00nm 4.9mb
TOO 32.38 243 eP 52 56.50 1.5
0.9s 22.00nm 5.1mb
CTA 33.81 275 eP 53 05.00 -2.6
STK 35.48 253 eP 53 21.70 -0.1
0.9s 4.30nm 4.4mb
i 53 53.20
ASPA 43.66 264 iPc 54 29.70 -0.1
1.5s 24.40nm 4.8mb
Z 23s 1.10um 4.7MszX
ePP 56 29.60
WB2 44.39 269 eP 54 31.20 -4.6X
0.9s 12.80nm 4.8mb
WRA 44.40 269 P 54 33.20 -2.6
0.7s 2.50nm 4.2mb
SPA 62.37 180 iPd 56 47.60 -0.3
0.9s 10.45nm 5.0mb
RMW 90.16 34 ePc 59 25.74 1.4
NB2 146.22 352 PKP 06 03.20 0.0
0.9s 5.60nm
UPP 146.28 346 iPKP 06 02.40 -0.8
KAS 151.00 306 ePKP 06 17.50 6.2X
S.D. = 1.7 on 14 of 18 obs.

MAR 12, 1993 23h 50m 41.46± 1.30s
44.353 N ± 9.2km 149.181 E ± 6.4km
DEPTH = 49.0 ± 9.8 km
4.8mb (41 obs.)
KURIL ISLANDS (221)

KUR 1.28 314 iPnd- 51 06.00 2.7
i 51 18.00
YSS 5.25 303 iPnd 52 00.00 0.6
e 52 55.00
SKR 7.86 34 ePn 52 34.50 -1.3
eS 53 58.40
MAT 11.43 231 eP 53 24.00 -0.7
0.6s 10.67nm 5.1mb
MGD 15.80 3 eP 54 20.50 -1.5
0.7s 40.00nm 4.7mb
YAK 21.04 334 eP 55 20.30 -2.7
1.2s 50.00nm 4.7mb
e(S) 59 07.00
BJI 24.73 272 eP 56 01.00 1.6
BOD 25.45 314 eP 56 03.70 -2.4
TIK 29.07 347 eP 56 35.00 -3.8X
0.8s 9.00nm 4.5mb
ZAK 31.26 298 eP 56 58.50 0.1
0.9s 8.00nm 4.5mb
TTA 36.04 39 eP 57 39.93 0.3
0.9s 4.02nm 4.3mb
SVW 36.11 43 eP 57 40.50 0.2
IMA 37.36 34 eP 57 51.10 0.4
0.6s 9.80nm 4.9mb
FBA 39.74 36 eP 58 10.47 0.0
0.3s 1.94nm 4.4mb
GUN 52.44 274 P 59 51.40 -0.3
0.4s 15.00nm 5.4mb
KKN 52.94 274 P 59 55.20 -0.1
0.6s 16.00nm 5.2mb
PKI 52.97 274 P 59 55.00 -0.7
DMN 53.17 274 P 59 57.00 0.0
0.6s 22.00nm 5.4mb
GKN 53.27 275 P 59 57.60 0.0
0.4s 10.00nm 5.2mb
RES 53.96 17 eP 00 02.50 0.6
0.6s 6.00nm 4.8mb
YKA 54.48 35 eP 00 04.70 -1.2
1.0s 3.20nm 4.3mb
HYB 64.25 270 eP 01 11.00 -2.9
KAF 64.42 334 eP 01 12.30 -2.0
FCC 64.76 31 eP 01 19.00 2.5
LCCM 65.15 50 eP 01 19.30 -0.3
WB2 65.41 195 eP 01 21.00 -0.1
0.7s 3.10nm 4.5mb
i 01 42.00
OBN 65.68 324 iPd 01 21.50 -1.0
NUR 66.16 334 iP 01 23.60 -1.9
0.6s 8.50nm 5.0mb
TNP 66.90 59 eP 01 30.53 -0.4
0.7s 3.91nm 4.6mb
GBA 67.58 267 P 01 34.00 -1.2
BW06 68.39 51 eP 01 39.58 -0.6
0.7s 2.41nm 4.3mb
UPP 68.82 336 iP 01 40.70 -1.5
NB2 69.56 340 P 01 45.40 -1.4
0.7s 8.40nm 4.8mb
HFS 69.69 338 eP 01 45.60 -1.9
0.3s 4.20nm 4.8mb
ULM 70.13 38 eP 01 52.50 2.1
SRU 70.25 54 eP 01 51.41 -0.1
KIV 70.44 313 eP 01 53.70 1.2
1.5s 46.00nm 5.2mb
RSSD 70.48 47 eP 01 52.16 -0.8
0.6s 2.83nm 4.4mb
PV09 71.47 54 (P) 01 59.16 0.1
PV10 71.60 54 ePd 01 59.97 0.1
ALQ 75.46 55 eP 02 21.64 -0.6
0.8s 1.63nm 4.0mb
SPC 76.71 328 e(P) 02 24.30 -4.7X
KSP 76.75 331 eP 02 28.70 -0.3
CLL 77.44 334 iP 02 32.20 -0.5
0.7s 15.00nm 5.1mb
PRU 78.07 332 eP 02 36.50 0.3
e 02 58.00
MOX 78.46 334 eP 02 38.90 0.5
ZST 78.69 330 e(P) 02 41.80 2.1
KHC 79.13 332 P 02 42.50 0.4
e 02 50.00
GEC2 79.33 332 P 02 50.40 7.1X
e 05 46.10
e 05 53.80
e 06 00.90
e 15 19.70
e 15 24.40
e 15 30.20
e 15 32.30
GRF 79.41 334 eP 02 44.20 0.6
e 02 46.00
KBA 80.98 331 iPd 02 52.80 0.6
0.9s 11.10nm 4.8mb
WTTA 81.40 332 iPc 02 54.70 0.3
VBY 81.65 329 eP 02 55.40 0.0
CDF 81.76 335 eP 02 57.70 1.6
SKO 82.14 323 iP 02 58.50 0.4
VAY 82.18 322 eP 02 58.70 0.4
HAU 82.40 336 eP 03 00.40 1.0
0.9s 9.65nm 4.8mb
OHR 83.12 323 eP 03 04.50 1.2
FLN 83.53 340 eP 03 05.30 0.2
0.7s 5.75nm 4.7mb
LOR 83.78 337 eP 03 06.80 0.3
0.7s 2.75nm 4.4mb
GRR 83.97 340 eP 03 08.20 0.8
0.5s 7.05nm 5.0mb
LBF 84.01 337 eP 03 08.00 0.3
1.1s 10.75nm 4.8mb
SSF 84.07 337 eP 03 08.50 0.6
0.8s 5.90nm 4.7mb
LPF 84.35 340 eP 03 09.60 0.3
0.9s 10.50nm 4.9mb
SMF 84.35 337 eP 03 10.00 0.6
0.8s 13.85nm 5.1mb
AVF 84.36 337 eP 03 09.90 0.6
0.7s 5.85nm 4.8mb
LPG 84.53 334 eP 03 10.60 0.0
0.8s 5.10nm 4.7mb
MAF 85.10 337 eP 03 13.10 0.0
1.2s 23.80nm 5.2mb
TCF 85.13 338 eP 03 13.80 0.5
0.7s 5.20nm 4.8mb
LSF 85.35 338 eP 03 15.30 0.9
0.9s 15.40nm 5.2mb
RJF 86.23 338 eP 03 19.20 0.5
FRF 86.30 334 eP 03 19.30 0.2
CAF 86.43 337 eP 03 20.50 0.7
0.9s 10.95nm 5.1mb
LRG 86.49 334 eP 03 20.50 0.5
0.9s 13.25nm 5.2mb
LMR 86.55 334 eP 03 20.00 -0.3
1.1s 16.35nm 5.2mb
PPD 152.05 44 (PKP) 10 33.00 7.0X
S.D. = 1.1 on 72 of 76 obs.

• MAR 13, 1993 00h 14m 26.65± 1.46s
30.716 S ±15.0km 69.853 W ±12.9km
DEPTH = 130.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 4.1 (SAN).

RTRS 0.64 32 ePd 14 45.80 -1.0
S 15 02.40
RTCB 1.19 131 iPd 14 53.60 1.8
ZON 1.30 130 iPd 14 55.00 2.0
eS 15 09.00
RTCV 1.60 136 iPd 14 56.10 -0.2
CFA 1.64 123 ePd 14 56.00 -0.8
S 15 14.20
JACH 2.06 198 iPd 15 03.52 1.6
iS 15 25.88
MDZ 2.32 159 eP 15 03.10 -2.1
i 15 22.10
iS 15 24.10
ROCH 2.46 203 iPd 15 08.39 1.3
iS 15 33.55
PEL 2.52 196 iP+ 15 08.21 0.5
iS 15 33.32
FCH 2.63 188 iP+ 15 09.33 -0.1
PCH 2.95 191 iPd 15 12.76 -0.6
TACH 3.07 197 iPd 15 14.29 -0.5
LCCH 3.11 207 iPd 15 16.47 1.1
CHCH 3.28 192 iPd 15 16.63 -1.0
CACH 3.45 190 iP 15 19.09 -0.9
LNV 3.49 202 iPd 15 19.25 -1.1
S.D. = 1.3 on 16 of 16 obs.

? MAR 13, 1993 02h 01m 46.80± 2.55s
48.953 N ±32.8km 6.816 E ±17.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (UCC).

WLF 0.83 329 iPd 02 01.89 -1.0
DOU 1.85 309 P 02 19.00 0.3
iS 02 43.60
ENN 1.91 343 eP 02 20.50 0.9
0.4s 22.90nm
eS 02 44.00
GEC2 4.54 89 Pn 02 57.00 -0.2
Pg 03 12.90

13d 02h

Sn 03 48.90
Sg 04 11.80
SPC 8.82 83 e(P) 03 57.50 0.1
S.D. = 1.0 on 5 of 5 obs.

? MAR 13, 1993 02h 11m 05.67± 2.21s
38.476 S ±13.8km 175.335 E ±11.0km
DEPTH = 304.5 ± 21.1 km
NORTH ISLAND, NEW ZEALAND (159)

BSZ 1.36 193 P 11 48.90 0.2
PAHZ 1.40 106 P 11 49.40 0.4
URZ 1.41 82 P 11 48.50 -0.5
S 12 16.00
WAHZ 1.46 147 Pc 11 49.30 -0.1
MOH 1.56 115 P 11 50.70 0.7
TTH 1.58 133 P 11 49.40 -0.6
TEHZ 1.90 143 P 11 52.60 0.2
MNG 2.14 177 Pc 11 54.10 -0.2
S 12 27.30
PGZ 2.26 162 P 11 55.30 0.1
KIW 2.41 188 Pc 11 56.40 -0.2
DIW 2.57 205 P 11 58.20 0.2
CAW 2.64 184 P 11 58.50 -0.1
MTW 2.68 177 P 11 58.80 -0.3
MRW 2.80 190 Pc 12 00.00 -0.1
S 12 38.50
TCW 2.85 196 P 12 00.90 0.3
BLW 2.89 178 P 12 01.00 0.0
MOW 2.94 181 Pc 12 01.40 -0.2
ORZ 3.20 222 P 12 03.80 -0.2
S 12 46.50
THZ 3.78 209 P 12 10.40 0.2
S 12 57.50
KHZ 4.17 199 P 12 14.90 0.5
S 13 05.20
DSZ 4.24 219 Pd 12 15.10 -0.2
LTZ 4.89 207 P 12 22.90 0.2
S 13 19.80
MOZ 5.61 200 P 12 30.60 -0.3
S 13 33.70
S.D. = 0.3 on 23 of 23 obs.

MAR 13, 1993 03h 03m 05.72± 0.12s
18.218 S ± 3.7km 178.430 W ± 4.4km
DEPTH = 630.7km (39 depth phases)
5.1mb (49 obs.)
FIJI ISLANDS REGION (181)
Mw 5.5 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 38S, 67C
Centroid Location:
Origin Time 03:03:12.8 0.4
Lat 17.66S 0.04 Lon 178.31W 0.03
Dep 649.5 2.0 Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr=-2.16 0.05 Mtt= 1.46 0.08
Mff= 0.71 0.08 Mrt= 0.64 0.08
Mrf=-0.62 0.09 Mtf= 0.83 0.08
Principal Axes:
T Val= 2.00 Plg= 3 Azm=329
N 0.46 18 60
P -2.46 71 229
Best Double Couple:Mo=2.2*10**17
NP1:Strike= 40 Dip=45 Slip=-116
NP2: 255 51 -66

VUN 2.96 274 eP 04 28.50 1.0
MBU 2.99 294 iP 04 28.50 0.8
BKM 12.70 270 iPc 05 51.80 0.7
iS 08 14.50
DZM 14.71 252 iPc 06 11.80 1.2
iS 08 46.00
KUZ 19.17 194 P 06 54.50 2.4
HBZ 19.52 188 P 06 54.90 -0.5
WLZ 20.27 194 P 07 04.60 2.4
URZ 20.35 190 eP 07 00.40 -2.5
NOZ 20.56 188 eP 07 04.50 -0.3
PGZ 22.79 190 eP 07 23.50 -1.3
MNG 22.93 192 eP 07 23.80 -2.4
S 10 47.40
DIW 23.45 195 P 07 29.90 -0.8
MTW 23.45 192 P 07 29.20 -1.5
CAW 23.49 192 P 07 29.80 -1.3
BLW 23.66 191 eP 07 31.30 -1.3
MRW 23.68 193 P 07 31.70 -1.0
MOW 23.75 192 eP 07 32.20 -1.2
TCW 23.76 194 eP 07 32.90 -0.5
ORZ 23.84 197 P 07 34.90 0.8
THZ 24.61 196 eP 07 39.90 -1.1
S 11 18.80
DSZ 24.89 198 P 07 43.90 0.4
KHZ 25.07 194 P 07 44.00 -0.9
S 11 25.90
LTZ 25.73 196 P 07 49.90 -0.9
MQZ 26.50 195 eP 07 57.30 -0.1
AFR 27.27 93 iPc 08 04.00 -0.3
0.7s 98.30nm 5.5mb
PAE 27.44 93 iPc 08 05.60 -0.2
0.7s 54.70nm 5.3mb
PPT 27.46 93 iPc 08 05.90 0.0
0.6s 70.20nm 5.5mb
PPN 27.60 93 iPc 08 07.70 0.6
0.9s 65.20nm 5.3mb
TVO 27.74 94 eP 08 09.80 1.3
0.7s 95.70nm 5.5mb
BWZ 28.01 198 eP 08 09.30 -1.1
BRS 28.01 246 iPc 08 11.50 0.8
1.0s 14.00nm 4.5mb
i 12 36.00
ODZ 28.26 196 eP 08 12.20 -0.4
LRCZ 28.65 198 P 08 15.70 -0.4
MSCZ 28.66 198 P 08 16.10 0.0
MHZ 28.67 198 P 08 15.80 -0.4
SBCZ 28.69 198 P 08 15.90 -0.4
LSCZ 28.69 198 eP 08 15.40 -1.0
MSZ 28.75 200 eP 08 16.70 0.0
CMCZ 28.75 198 P 08 16.60 -0.3
TLC 28.85 198 P 08 17.90 0.1
TUZ 29.38 197 P 08 23.30 1.2
0.7s 109.00nm 5.6mb
ARMA 29.77 240 iPd 08 27.00 1.2
0.7s 84.00nm 5.5mb
RUV 29.87 89 eP 08 26.30 -0.2
0.8s 95.10nm 5.5mb
SIZ 30.65 198 eP 08 34.20 1.4
RMQ 31.38 249 iPd 08 39.90 0.7
0.5s 65.00nm 5.5mb
CNB 33.22 233 iPc 08 56.20 1.5
0.3s 151.00nm 6.1mb
e 11 19.70
CTA 33.38 261 iPc 08 56.00 0.0
1.0s 65.00nm 5.2mb
CAN 33.50 233 iPd 08 58.50 1.5
ipP 09 06.70 28kmX
BWA 33.62 235 iPd 08 57.30 -0.7
PMG 34.49 280 eP 09 06.00 0.8
OLP 35.41 250 iPd 09 13.00 0.4
TOO 36.96 231 eP 09 26.50 1.2
0.8s 172.00nm 5.7mb
e 11 28.00
eS 14 30.60
TAU 38.00 222 eP 09 35.00 1.4
STK 38.47 241 iPd 09 38.80 1.2
0.5s 50.00nm 5.3mb
eS 14 51.60
BFD 39.04 233 iPc 09 43.40 1.3
0.8s 29.00nm 4.9mb
ADE 41.45 238 e(P) 10 02.50 1.1
DHH 44.14 28 iPc 10 20.51 -1.8
WB2 44.54 260 iPc 10 24.50 -1.1
0.5s 132.00nm 5.7mb
eS 16 15.30
GUA 47.99 309 eP 10 48.80 -2.9
0.8s 202.99nm 5.6mb
PJG 48.05 309 eP 10 49.50 -2.7
MTN 48.77 269 eP 10 55.50 -2.0
COOL 55.80 245 eP 11 46.00 -1.5
0.4s 20.00nm 4.7mb
MBL 57.89 256 iPd 12 00.40 -1.4
0.4s 43.00nm 5.0mb
MEEK 58.31 250 eP 12 03.00 -1.5
KLB 58.67 244 iPd 12 05.80 -1.1
0.8s 61.00nm 4.9mb
NWAO 59.05 242 eP 12 10.00 0.7
0.6s 32.00nm 4.7mb
RKG 59.17 240 eP 12 10.00 -0.1
BAL 59.63 245 eP 12 12.00 -1.2
0.4s 14.00nm 4.5mb
MUN 59.97 243 iPc 12 15.20 -0.2
0.8s 42.00nm 4.7mb
MRWA 60.36 246 iPc 12 17.20 -0.9
0.6s 13.00nm 4.3mb
NANU 61.62 254 iPd 12 25.90 -0.3
0.8s 526.00nm 5.9mb
MAT 68.14 323 (P) 13 05.00 -1.5
SPA 71.89 180 iPd 13 29.60 1.4
0.6s 105.28nm 5.5mb
SAO 76.66 44 eP 13 54.91 0.0
1.3s 102.47nm 5.2mb
BCH 76.68 46 eP 13 55.35 0.2
epP 16 06.60 638km
COE 76.80 43 eP 13 56.22 0.6
NTYM 76.82 42 eP 13 55.57 -0.1
ARN 76.94 43 ePc 13 56.60 0.2
e 14 10.22
epP 16 06.20 626km
KMPM 77.13 39 ePd 13 58.01 0.6
epP 16 09.35 637km
HMR 77.23 42 eP 13 58.68 0.8
FHC 77.45 39 eP 13 59.91 0.9
1.3s 104.28nm 5.2mb
epP 16 11.86 640km
PLM 77.95 49 ePc 14 02.35 0.3
epP 16 11.86 623km
PEC 78.02 48 eP 14 01.95 -0.3
0.6s 16.81nm 4.7mb
CMB 78.08 43 ePc 14 02.31 -0.2
1.3s 63.57nm 5.0mb
epP 16 12.08 624km
WDC 78.19 40 eP 14 02.67 -0.3
1.7s 119.31nm 5.1mb
epP 16 13.12 628km
LGPM 78.21 40 eP 14 03.32 0.1
epP 16 14.13 630km
ORV 78.24 41 ePc 14 02.98 -0.2
epP 16 14.63 636km
MMPM 78.73 44 ePc 14 06.16 -0.1
epP 16 17.98 636km
MEMM 78.82 44 eP 14 07.37 1.1
epP 16 17.95 627km
MTUM 78.90 45 iPc 14 07.22 0.3
epP 16 17.37 624km
GSC 79.01 47 eP 14 07.22 -0.2
epP 16 17.11 622km
LBFM 79.04 40 ePc 14 07.59 0.0
epP 16 17.68 624km
MRCM 79.11 44 eP 14 08.25 0.2
GLA 79.27 50 ePd 14 09.42 0.6
BONR 79.40 44 eP 14 09.46 -0.2
(pP) 16 20.40 628km
RNO 79.50 37 P 14 09.95 0.2
KVN 80.13 43 ePd 14 13.64 0.3
TNP 80.19 45 ePc 14 13.46 -0.2
1.1s 43.39nm 4.9mb
epP 16 24.70 628km
TPNV 80.25 46 eP 14 14.25 0.3
0.7s 13.79nm 4.6mb
KMOR 80.70 36 P 14 15.99 0.1
SSOR 80.80 37 P 14 16.15 -0.4
RSO 81.11 13 eP 14 14.54 -3.3X
SVW 81.15 11 eP 14 16.50 -1.3
BMW 81.36 35 eP 14 19.18 0.0
epP 16 32.34 637km
VBEM 81.42 37 P 14 19.29 -0.4
VIPM 81.65 38 P 14 20.88 0.0
SLKM 81.69 14 eP 14 18.94 -1.6
CROR 81.71 37 P 14 20.74 -0.3
SHW 81.73 36 eP 14 21.82 0.6
epP 16 34.01 630km
TUC 81.90 52 eP 14 23.30 1.0
1.4s 109.60nm 5.2mb
epP 16 33.71 618kmX
ASR 82.06 36 P 14 22.97 0.1
VGB 82.15 37 eP 14 22.81 -0.4
epP 16 34.74 627km
STW 82.15 34 P 14 23.31 0.2
GMW 82.25 34 eP 14 22.97 -0.6
epP 16 36.60 638km
LON 82.30 35 eP 14 23.20 -0.7
epP 16 36.02 633km
FMW 82.48 35 P 14 24.85 -0.2
ARUT 82.60 46 eP 14 26.15 0.4
epP 16 38.15 627km
JBO 82.65 37 P 14 25.49 -0.2
RMW 82.73 35 eP 14 25.66 -0.4
epP 16 39.05 635km
TTA 82.78 10 eP 14 25.05 -1.0
1.1s 15.06nm 4.5mb
epP 16 38.08 633km

PMR	82.91	14	eP	14 24.81	-1.7
	0.4s	19.48nm			5.0mb
MCW	82.92	33	P	14 27.04	0.1
JCW	83.10	34	P	14 27.78	-0.1
WAH2	83.56	36	P	14 30.33	0.3
LNOR	83.78	38	P	14 31.03	-0.3
MSU	83.83	46	eP	14 32.01	0.1
			epP	16 44.66	628km
WTV	83.88	35	P	14 31.17	-0.6
BJI	83.99	315	eP	14 32.50	0.2
BALM	84.12	17	eP	14 31.30	-1.4
SAW	84.19	36	P	14 32.75	-0.5
DUG	84.21	45	eP	14 33.54	-0.1
	1.5s	50.98nm			4.9mb
			epP	16 46.34	628km
DPW	84.95	36	ePc	14 36.35	-0.6
			epP	16 50.60	636km
			e	16 55.35	
HVU	85.02	43	eP	14 37.69	0.1
SRU	85.24	46	eP	14 38.68	0.0
			epP	16 51.57	626km
DAU	85.36	45	ePd	14 39.84	0.4
			ePP	18 07.15	
NEW	85.77	36	ePd	14 40.09	-0.8
	0.8s	27.90nm			5.0mb
			epP	16 54.37	634km
ILT	85.87	360	iPd	14 39.50	-1.2
	1.1s	10.00nm			4.4mb
PV09	85.93	47	eP	14 42.09	-0.1
			epP	16 56.80	636km
PV10	85.94	48	eP	14 41.71	-0.4
			(pP)	16 55.27	629km
HHAI	86.02	42	iPd	14 43.21	0.9
			(pP)	16 57.22	632km
IMA	86.08	10	eP	14 40.90	-1.2
	0.6s	2.90nm			4.2mb
FBA	86.11	13	iPc	14 40.14	-1.9
	0.4s	14.41nm			5.1mb
			epP	16 54.34	633km
PV08	86.30	47	eP	14 43.88	-0.1
			epP	16 57.50	629km
ALQ	86.30	52	eP	14 43.90	0.0
	1.2s	35.21nm			5.0mb
			epP	16 57.44	628km
LCCM	87.58	40	eP	14 49.30	-0.3
			e	17 04.00	632km
			e	18 24.20	
BW06	87.60	43	iPc	14 49.36	-0.5
	1.1s	42.30nm			5.1mb
			epP	17 03.01	626km
			ePP	18 23.52	
GOL	89.08	48	ePc	14 57.40	0.6
	1.3s	63.63nm			5.3mb
CHTO	89.09	290	eP	14 57.70	0.9
	1.1s	16.49nm			4.8mb
GLD	89.21	48	ePd	14 58.30	1.0
	1.3s	69.61nm			5.4mb
			epP	17 13.57	633km
SES	90.28	36	eP	15 01.00	-0.7
	1.1s	83.00nm			5.6mb
RSSD	91.80	44	eP	15 08.09	-1.0
	0.9s	16.81nm			5.1mb
			epP	17 24.72	638km
ACO	92.46	52	iPd	15 12.80	0.7
YKA	94.62	25	eP	15 19.50	-1.8
	1.0s	6.60nm			4.8mb
LMN	119.24	47	ePKP	20 48.50	2.5X
ARU	123.08	326	ePKP	20 52.00	-1.1
KAF	132.86	344	ePKP	21 09.60	-1.9
	0.5s	7.90nm			
OBN	134.56	332	iPKPc	21 15.20	0.2
	1.2s	22.00nm			
NUR	134.64	344	ePKP	21 13.40	-1.6
NB2	136.68	353	PKP	21 18.60	-0.3
	0.8s	7.70nm			
HFS	137.23	351	ePKP	21 06.10	-13.8X
	0.3s	1.40nm			
EKA	142.78	4	PKP	21 27.00	-2.9
	1.1s	12.10nm			
GAZ	143.51	308	iPKP	21 21.40	-10.3X
KIS	143.57	328	iPKPd-	21 30.00	-1.5
	1.0s	400.00nm			
DMU	143.79	8	ePKP	21 29.00	-2.6
WIM	143.82	6	ePKP	21 30.00	-1.7
KAS	144.09	317	ePKP	21 32.50	-0.2
DCN	144.27	9	ePKP	21 31.00	-1.5
DLF	144.43	8	ePKP	21 32.00	-0.7
BRNL	144.63	348	ePKP	21 31.00	-2.1
			ic	21 33.50	
BRN	144.67	348	ePKP	21 33.50	0.3
YRC	144.71	6	ePKP	21 32.30	-0.9
PPE	144.74	328	ePKP	21 35.00	1.5
OJC	144.89	340	ePKP	21 33.30	-0.4
			i	21 34.80	
YRH	145.12	7	ePKP	21 33.20	-0.7
	1.3s	22.00nm			
WIT	145.25	355	ePKP	21 35.50	1.4
UZH	145.31	336	iPKPd	21 34.70	0.3
	0.7s	36.00nm			
KSP	145.40	344	iPKP	21 35.50	1.0
	1.0s	107.00nm			
			i	21 37.00	
			e	24 01.20	
VRI	145.43	328	ePKP	21 35.00	0.3
BRD	145.51	328	ePKP	21 37.00	2.2
SPC	145.62	338	iPKP	21 37.20	2.1
			e	24 05.00	
CVO	145.74	329	ePKPc	21 38.00	2.8X
CLL	145.76	347	iPKPc	21 35.60	0.6
	1.1s	145.00nm			
			e	24 03.00	
HRI	145.95	303	ePKP	21 37.60	1.5
BRG	145.96	346	iPKP	21 36.00	0.6
	1.3s	95.00nm			
			i	21 38.10	
ISR	146.03	328	ePKP	21 39.00	3.2X
WTS	146.04	354	ePKP	21 36.00	0.6
	0.8s	94.70nm			
MLR	146.09	329	ePKPd	21 36.50	0.6
PSN	146.14	324	iPKP	21 38.00	2.1
PRU	146.64	345	ePKP	21 37.00	0.5
	0.7s	26.90nm			
			i	21 40.00	
			e	21 42.50	
			pP	24 02.20	
MOX	146.67	348	iPKPc	21 37.30	0.8
	1.5s	68.00nm			
CMP	146.69	329	ePKPd	21 42.00	5.2X
VRAC	146.70	342	ePKP	21 40.10	3.6X
	1.5s	235.70nm			
DSI	146.72	300	ePKP	21 39.40	2.2
PSZ	146.81	337	iPKPd	21 40.40	3.5X
EYL	146.84	318	ePKP	21 36.00	-1.3
BNS	147.02	353	ePKP	21 39.20	2.2
CSS	147.25	307	ePKP	21 40.00	2.0
ENN	147.34	355	ePKP	21 38.50	1.0
	0.8s	36.30nm			
UCC	147.42	357	PKP	21 41.00	3.3X
			e	24 07.00	
SRO	147.46	339	ePKP	21 41.70	3.9X
BUD	147.50	338	ePKP	21 35.60	-2.3
ZST	147.53	341	ePKP	21 40.80	2.8X
			i	21 42.80	
			e	24 03.60	
RMN	147.62	298	ePKP	21 41.80	3.0X
GRF	147.65	348	ePKP	21 39.00	0.8
			e	21 43.00	
			e(pPKP	24 05.10	
KHC	147.67	345	PKPc	21 39.00	0.8
	0.9s	27.50nm			
			e	21 43.00	
			e	21 47.00	
			e	22 38.00	
			e	24 04.00	
SNF	147.71	357	iPKPc	21 42.68	4.5X
			e	24 05.10	
VKA	147.71	341	ePKP	21 39.00	0.7
			i	21 43.20	
GEC2	147.90	345	PKP	21 39.00	0.3
	0.9s	2.48nm			
			e	21 41.90	
			e	21 43.30	
			e	21 47.50	
			e	23 49.40	
			e	24 04.00	
DOU	148.11	356	iPKPc	21 42.40	3.6X
SOP	148.15	341	e(PKP)	21 39.50	0.5
UZD	148.41	337	ePKP	21 44.00	4.6X
WLF	148.41	354	iPKPc	21 43.78	4.5X
			e	24 09.00	
DIM	148.68	324	iPKP	21 44.00	4.1X
KDZ	149.01	324	iPKP	21 44.00	3.5X
PGB	149.07	326	iPKP	21 45.00	4.4X
RZN	149.37	325	iPKP	21 46.00	4.7X
FLN	149.49	3	ePKP	21 41.50	0.6
	0.8s	12.65nm			
VTS	149.54	328	iPKP	21 46.00	4.6X
KBA	149.63	344	iPKPc	21 40.10	-1.4
	0.7s	26.90nm			
			i	21 46.80	
			i	24 10.40	
LDF	149.67	2	ePKP	21 41.90	0.7
	0.8s	11.95nm			
WTTA	149.87	346	iPKPc	21 40.20	-1.6
	0.9s	95.80nm			
			i	21 42.10	
			i	21 46.90	
			i	24 11.70	
MOTA	149.91	347	(PKP)	21 41.90	0.0
	0.9s	50.90nm			
			i	21 47.90	
PTJ	149.92	340	ePKP	21 43.60	1.8
MMB	149.98	326	iPKP	21 46.00	4.0X
ZAG	149.99	340	iPKP	21 48.50	6.7X
SQTA	150.01	347	iPKPc	21 40.90	-1.1
	0.7s	42.50nm			
			i	21 42.20	
			i	21 47.00	
HAU	150.03	354	ePKP	21 43.70	1.9
	0.7s	3.10nm			
KKB	150.12	327	iPKP	21 47.00	4.8X
BSF	150.16	353	ePKP	21 44.00	1.9
	0.7s	3.75nm			
LPF	150.19	4	ePKP	21 42.70	0.7
	1.2s	39.85nm			
LJU	150.24	342	ePKP	21 42.50	0.3
			ePKPbc	21 48.50	
			e	24 09.00	
VOY	150.44	342	iPKP	21 42.90	0.3
			e	21 45.20	
			iPKPbc	21 47.60	
			e	22 11.70	
			e	24 12.20	
VBY	150.50	340	ePKP	21 43.40	0.8
			iPKPbc	21 48.50	
			iPKPab	21 57.50	
CEY	150.55	342	ePKP	21 43.10	0.4
			ePKPbc	21 49.00	
			e	24 09.50	
TRI	150.77	342	ePKP	21 43.50	0.5
			e	21 49.50	
PLE	150.78	333	iPKPd	21 48.95	5.7X
VAY	150.78	326	ePKP	21 40.70	-2.4
			i	21 48.70	
SKO	150.88	329	iPKP	21 43.40	0.1
	1.0s	70.00nm			
			i	21 50.40	
			i	24 14.00	
IVA	150.92	332	iPKPd	21 48.88	5.5X
LOR	150.97	357	ePKP	21 44.10	0.8
	0.9s	7.85nm			
PVY	151.11	331	iPKPd	21 49.32	5.6X
SSF	151.19	357	ePKP	21 44.60	1.0
	1.3s	20.95nm			
LBF	151.24	357	ePKP	21 44.40	0.7
	1.4s	19.15nm			
NKY	151.37	333	iPKPd	21 49.74	5.6X
BRY	151.50	333	iPKPd	21 49.80	5.5X
MFF	151.66	2	ePKP	21 45.20	1.0
	0.7s	11.90nm			
BDV	151.87	332	iPKPd	21 50.63	5.9X
HCY	151.88	333	iPKPd	21 50.30	5.6X
ULC	151.93	331	iPKPd	21 50.88	6.1X
TCF	152.00	359	ePKP	21 45.70	0.9
	0.8s	7.00nm			
HVAR	152.11	336	ePKP	21 50.00	5.0X
ORX	152.15	350	PKP	21 45.80	0.7
LPL	152.44	352	ePKP	21 47.00	1.3
	1.1s	10.75nm			
LSD	152.44	351	PKP	21 47.45	1.7
LPG	152.46	352	ePKP	21 47.40	1.6
	0.8s	3.75nm			
RSP	152.73	351	PKP	21 46.94	1.0
RJF	152.99	0	ePKP	21 47.30	1.1
	0.9s	15.90nm			
RRL	153.02	352	PKP	21 47.49	1.0
BHB	153.03	351	PKP	21 47.49	1.2
PCP	153.11	349	PKP	21 46.35	-0.1
FIR	153.24	344	ePKP	21 47.00	0.5
CAF	153.37	359	ePKP	21 48.00	1.3
	1.2s	19.95nm			

```
13d  03h

PZZ    153.38 351 PKP    21 48.50   1.6
ROB    153.47 350 PKP    21 46.81  -0.1
FIN    153.49 349 PKP    21 46.21  -0.7
STV    153.61 351 PKP    21 47.17   0.0
ENR    153.61 351 PKP    21 47.13   0.0
IMI    153.84 350 PKP    21 45.98  -1.4
BCAO   158.48 232 ePKPc  21 37.10 -17.0X
        0.8s     21.00nm
                  ic     21 54.00
                  id     22 33.80
                  ic     24 21.70
LIC    166.45 151 PKP    22 01.78   0.2
        0.8s     12.00nm
KIC    166.70 152 PKP    22 02.04   0.2
        0.9s     18.00nm
                  PKPab  23 11.60
TIC    166.82 150 PKP    22 02.16   0.2
     S.D. = 1.1  on 237 of 272 obs.
----------------------------------------
?  MAR 13, 1993  04h 00m 51.68± 1.04s
   6.718 S ±22.6km  103.372 E ±17.4km
   DEPTH =  33.0km  (normal)
   4.7mb (  2 obs.)
 SOUTHWEST OF SUMATERA, INDONESIA(273)

LEM      4.22  92 ePd    01 55.50   0.1
                  eS     02 36.00
WB2     32.81 117 eP     07 23.90  -0.6
        0.6s     10.70nm          4.9mb
ASPA    33.82 123 iPd    07 33.70   0.5
        1.1s      6.90nm          4.5mb
PKI     38.26 334 P      08 10.80  -0.3
GUN     38.35 335 P      08 12.00   0.1
DMN     38.43 333 P      08 12.80   0.4
KKN     38.50 334 P      08 12.80  -0.2
GKN     38.97 333 P      08 17.00   0.1
     S.D. = 0.4  on   8 of   8 obs.
----------------------------------------
   MAR 13, 1993  04h 59m 55.24± 0.51s
   21.584 S ± 6.8km   66.668 W ± 9.9km
   DEPTH = 237.0 ±  7.6 km
   4.3mb (  2 obs.)
 SOUTHERN BOLIVIA                 (125)

YJA      1.23 119 iPd    00 30.30  -0.9
HJA      2.00 144 iPd    00 37.30   0.4
                  (S)    01 08.20
SLA      3.31 161 iPd    00 52.00   1.0
ANT      4.05 238 iP+    00 58.00  -1.6
FSA      4.52 172 i(P)d  01 07.00   1.8
CNCB     4.91 345 iP     01 10.30  -0.3
                  iS     02 08.00
LPB      5.20 345 iP     01 14.00  -0.2
                  iS     02 13.50
ZOBO     5.45 345 iP     01 15.70  -1.7
                  S      02 18.00
CYA      6.88 174 ePc    01 35.40   0.5
SIV      7.68  45 iPc    01 47.40   2.2
TCA      9.89 170 iPc    02 12.20  -1.4
NNA     13.63 313 eP     03 02.50   1.9
        0.8s     14.93nm          4.4mb
VAO     18.29  98 (P)    03 53.00  -1.1
CACB    18.54  94 eP     03 55.40  -1.4
                  e      03 58.20
PV08    71.63 326 eP     10 53.13   0.0
SRU     73.00 326 eP     11 01.30   0.4
YKA     91.97 340 eP     12 37.40  -0.1
        0.6s      1.40nm          4.2mb
WB2    133.89 208 ePKP   18 46.80   0.5
        0.2s      4.40nm
     S.D. = 1.3  on  18 of  18 obs.
----------------------------------------
?  MAR 13, 1993  05h 01m 56.00± 1.19s
   18.242 S ±22.1km  167.402 E ±30.9km
   DEPTH =  86.5 ± 14.1 km
 VANUATU ISLANDS                  (186)

BKM      0.98  55 iP     02 16.20   0.7
                  iS     02 33.30
PVC      1.00  60 iP     02 15.00  -0.7
                  iS     02 29.30
DZM      3.91 193 iPc    02 55.10   0.0
                  iS     03 40.90
ASPA    31.70 254 eP     08 13.60  -0.1
                  i      08 19.00
                  eS     11 07.60
CDF    145.84 336 ePKP   21 24.30  -1.9
        0.7s      3.30nm
FLN    148.01 345 ePKP   21 29.10  -0.4
        0.5s      3.80nm
LOR    148.05 339 ePKP   21 29.90   0.2
        0.6s      2.45nm
SSF    148.35 339 ePKP   21 30.80   0.6
        0.7s      3.00nm
LPG    148.41 334 ePKP   21 31.70   1.0
        0.7s      2.45nm
LPF    148.83 345 ePKP   21 31.50   0.6
        0.6s      4.05nm
PGF    149.61 327 ePKP   21 34.40   2.0X
        0.8s      9.80nm
     S.D. = 1.1  on  10 of  11 obs.
----------------------------------------
*  MAR 13, 1993  05h 18m 38.50± 0.67s
   16.747 N ±12.4km   94.633 W ±10.4km
   DEPTH =  47.9km  (  3 depth phases)
   4.2mb (  6 obs.)
 OAXACA, MEXICO                    ( 60)

SCX      1.91  90 iP     19 15.00   5.8X
                  iS     19 42.50
TPX      2.93 128 iP     19 24.50   0.8
                  (S)    19 45.50
IISM     3.43 311 iP     19 31.00   0.1
BVA      4.37 118 eP     19 45.06   0.7
PPM      4.45 302 iP     19 47.00   1.3
                  (S)    20 41.00
IIA      4.52 303 eP     19 47.00   0.9
TER      4.52 122 eP     19 46.33   0.1
IXG      4.77 122 eP     19 50.74   0.9
III      4.89 290 iP     19 50.00  -1.6
ACX      5.01 272 iP     19 47.00  -6.1X
UNM      5.03 301 (P)    19 48.50  -5.3X
YUP      5.30 118 eP     19 51.67  -5.7X
CRX      5.48 300 (P)    20 15.00  14.9X
MRX      6.89 296 iP     20 19.00  -0.5
UYO     17.35   0 iPd    22 39.70   0.9
MEO     18.31 350 iPc    22 50.80   0.1
OCO     18.87 353 iPc    22 59.20   1.6
ACO     20.27 349 iPd    23 12.30  -0.5
ALQ     20.98 332 eP     23 22.98   2.7
        1.0s      3.12nm          3.6mb
                  pP     23 33.94  44km
GOL     24.71 340 (P)    23 59.99   3.1X
        0.9s     10.85nm          4.4mb
                  pP     24 12.35  50km
PV08    24.98 333 (P)    24 00.45   0.9
                  sP     24 15.62
PV09    25.13 332 eP     24 06.00   5.1X
EMUT    26.95 332 (P)    24 20.50   2.8X
                  e      24 33.18  50km
SIV     46.41 133 P      27 02.40  -0.1
YKA     47.80 348 eP     27 10.00  -2.8
        0.8s      0.80nm          3.8mb
PPD     57.32 131 (P)    28 19.00  -5.2X
EKA     77.24  36 P      30 27.00  -2.1
        0.9s      5.20nm          4.6mb
NB2     82.95  28 P      30 58.40  -1.1
        0.9s      3.20nm          4.4mb
APO     84.37  28 eP     31 04.20  -2.5
        0.6s      1.40nm          4.2mb
     S.D. = 1.5  on  20 of  29 obs.
----------------------------------------
   MAR 13, 1993  05h 28m 26.11± 0.49s
   43.162 N ± 4.4km   13.530 E ± 4.4km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                    (381)
      MD 3.5 (ROM), 3.3 (FIR), 3.3
      (TRI). ML 3.5 (LDG), 2.9 (VIE).

ARV      0.55 308 P      28 38.27   1.1
AQU      0.81 187 P      28 41.22  -0.7
RSM      1.10 315 P      28 49.97   3.3X
SFI      1.44 302 P      28 54.70   2.5
SDI      1.47 172 P      28 53.93   1.2
RMP      1.48 205 P      28 53.45   0.6
PGD      1.50 299 P      28 55.43   2.3
RDP      1.53 204 P      28 54.06   0.6
FIR      1.77 291 ePn    28 52.00  -4.9X
                  iSn    29 22.00
HVAR     2.13  89 ePn    29 02.90   0.6
PII      2.26 285 P      29 04.98   0.9
RIY      2.27  15 iPn    29 04.90   0.8
MME      2.30 298 P      29 06.59   1.7
BDI      2.31 294 P      29 05.69   0.8
TRI      2.55   4 e(Pn)  29 08.10  -0.1
                  e(PgPg29 18.20
                  e(Sn)  29 37.00
VBY      2.65  27 ePn    29 10.70   1.1
                  iSn    29 43.50
CEY      2.66  14 ePn    29 10.50   0.8
                  e      29 17.00
                  eSn    29 43.00
                  e      32 00.00
VOY      2.88   5 ePn    29 12.80  -0.2
                  eSn    29 47.00
                  e      30 06.40
                  e      31 55.00
LJU      2.97  14 ePn    29 15.00   0.9
                  e      29 23.50
                  eSn    29 50.00
                  e      31 40.00
CTI      3.18 336 P      29 17.64   0.4
ZAG      3.18  33 eP     29 32.40  15.3X
PTJ      3.24  32 e(Pg)  29 31.50  13.4X
                  eSn    29 59.00
RBL      3.28   0 P      29 19.37   0.8
BOB      3.36 300 P      29 21.37   1.7
PGF      3.39 261 Pn     29 20.00  -0.2
PCP      3.86 293 P      29 27.07   0.2
KBA      3.92 358 iPnc   29 27.90   0.1
                  iPg    29 45.70
                  iSn    30 14.70
                  i      30 36.50
FIN      4.00 287 P      29 28.40  -0.4
CKI      4.01 290 P      29 29.80   1.0
ROB      4.26 287 P      29 32.10  -0.4
OSS      4.27 327 P      29 34.40   1.7
WTTA     4.31 343 iPnc   29 34.40   1.0
                  iSn    30 22.80
VAI      4.35 310 P      29 33.15  -0.5
VDL      4.40 320 eP     29 35.00   0.3
TMA      4.44 313 eP     29 34.30  -0.9
SBF      4.49 281 Pn     29 36.50   0.7
                  Sn     30 27.20
ENR      4.56 286 P      29 37.64   0.9
STV      4.63 286 P      29 38.56   0.8
ORX      4.68 304 P      29 36.45  -2.1
PZZ      4.84 288 P      29 40.80  -0.1
LLS      4.91 321 P      29 42.80   1.0
MMK      4.91 308 P      29 40.20  -1.8
FRF      5.03 277 Pn     29 42.90  -0.5
                  Sn     30 40.30
LSD      5.12 299 P      29 41.49  -3.4X
LMR      5.13 274 Pn     29 44.10  -0.7
                  Sn     30 42.80
LRG      5.24 276 Pn     29 46.00  -0.3
DIX      5.25 306 P      29 45.40  -1.4
LPG      5.39 298 Pn     29 46.20  -2.6
LPL      5.41 298 Pn     29 46.50  -2.6
EMS      5.54 304 P      29 50.60  -0.1
GEC2     5.69   1 Pn     29 51.30  -1.4
                  Pg     30 06.80
                  Sn     30 55.60
OHR      5.78 108 ePn    29 51.50  -2.5
KHC      5.97   0 ePn    29 55.60  -1.0
                  ePg    30 12.40
                  e      30 25.00
                  e      30 42.00
                  eSg    31 02.30
BSF      6.65 317 Pn     30 04.80  -1.5
                  Sn     31 14.20
CDF      6.83 322 Pn     30 06.90  -1.9
                  Sn     31 20.10
HAU      6.99 316 Pn     30 08.60  -2.4
                  Sn     31 23.10
SMF      7.71 300 Pn     30 17.80  -3.3X
                  Sn     31 38.40
LBF      7.77 303 Pn     30 18.60  -3.3X
                  Sn     31 40.90
LOR      7.97 304 Pn     30 21.50  -3.2X
                  Sn     31 45.20
AVF      8.08 300 Pn     30 22.90  -3.3X
SSF      8.09 302 Pn     30 22.90  -3.5X
                  Sn     31 46.50
BGF      8.31 298 Pn     30 26.30  -3.3X
     S.D. = 1.3  on  51 of  62 obs.
----------------------------------------
*  MAR 13, 1993  05h 40m 44.32± 0.73s
   19.619 N ±11.8km   38.709 E ± 8.0km
   DEPTH =  10.0km  (geophysicist)
   4.7mb ( 24 obs.)  4.5Msz (  6 obs.)
```

```
RED SEA                                  (554)
GRS     20.88  17 eP     45 33.00    3.8X
         1.5s    40.00nm           4.6mb
      Z  15s     0.86um            4.2MszX
      N  11s     0.39um
      E  11s     0.39um
                   eS    49 34.00
ERE     21.09  12 iP     45 35.00    3.6X
         2.0s    21.00nm           4.2mb
                   eS    49 36.00
MTA     22.61  12 eP     45 49.00    2.6
                   e     45 51.00
KIV     24.49   7 eP     46 11.20    6.3X
         1.7s    23.00nm           4.5mb
                   e     46 49.70
                   eS    50 44.50
PYA     24.61   8 eP     46 10.00    4.1X
      Z  14s     1.00um            4.5MszX
MAIO    24.68  43 eP     46 08.00    1.3
                   eS    50 25.00
BCAO    24.79 235 iPd    46 09.10    1.2
         1.0s     5.00nm           4.1mb
                   id    54 11.20
OHR     26.31 328 eP     46 22.70    0.7
SKO     26.67 330 eP     46 20.50   -4.7X
VBY     32.28 328 eP     47 16.10    0.8
SRO     32.64 334 eP     47 21.20    2.8X
SPC     33.02 338 eP     47 20.20   -1.7
TRI     33.17 327 eP     47 24.00    1.0
ZST     33.44 333 eP     47 25.00   -0.4
GEC2    35.42 331 P      47 42.30   -0.3
         1.2s     4.35nm           4.2mb
OBN     35.46 358 eP     47 42.30   -0.3
         1.8s    60.00nm           5.2mb
      Z  16s     0.20um            4.0MszX
      N  16s     0.10um
KHC     35.68 331 eP     47 45.00    0.3
KSP     35.85 336 eP     47 44.00   -2.0
MOS     36.07 359 eP     47 48.00    0.2
BRG     36.82 334 eP     47 54.50    0.3
         1.7s    30.00nm           4.8mb
GRF     37.17 330 e(P)   47 59.00    1.9
CLL     37.54 333 eP     48 00.00   -0.2
         1.7s    24.00nm           4.7mb
MOX     37.66 332 eP     48 01.40    0.2
HYB     37.79  87 eP     48 02.50   -0.3
FRU     38.02  44 eP     48 06.00    1.5
         2.0s    40.00nm           4.8mb
                   e     50 11.00
BSF     38.21 325 eP     48 03.90   -2.2
         1.5s    18.80nm           4.6mb
SMF     39.22 321 eP     48 13.70   -0.7
         1.6s    24.25nm           4.6mb
LBF     39.32 322 eP     48 14.70   -0.5
         1.2s    16.65nm           4.6mb
CAF     39.45 318 eP     48 16.90    0.5
         1.2s    15.75nm           4.6mb
ARU     39.62  17 eP     48 17.00   -0.6
      Z  18s     0.50um            4.4Msz
      N  18s     0.50um
      E  18s     0.50um
SSF     39.63 322 eP     48 17.40   -0.4
         1.2s     8.35nm           4.3mb
BGF     39.76 321 eP     48 19.00    0.1
         1.2s    38.10nm           4.9mb
MAF     39.76 320 eP     48 18.90    0.0
         1.4s    22.65nm           4.6mb
TCF     40.01 320 eP     48 21.10    0.1
         1.4s    20.50nm           4.6mb
SVE     40.56  18 ePd    48 28.00    2.7
      Z  20s     0.50um            4.4Msz
      N  20s     0.40um
      E  20s     0.50um
KIC     44.20 259 P      48 55.80    0.2
LIC     44.51 259 P      48 58.50    0.4
      Z  20s     0.09um            3.7Msz
ELT     49.53  36 eP     49 36.20   -0.8
         1.4s    21.00nm           4.9mb
NRI     58.04  18 ePc    50 40.00    0.5
         1.7s    30.00nm           5.1mb
      Z  20s     1.30um            5.0Msz
      E  20s     0.60um
LZH     58.88  59 eP     50 45.50   -0.7
         1.4s    50.00nm           5.4mb
      Z  18s     0.35um            4.5Msz
ZAK     58.97  42 eP     50 46.00   -0.2
         2.0s    22.00nm           4.9mb
      Z  16s     0.59um            4.8MszX
      E  16s     0.78um
CIT     65.53  41 eP     51 25.80   -4.3X
BOD     65.89  35 eP     51 29.30   -2.9
         1.1s    18.00nm           5.2mb
BJI     68.23  54 eP     51 44.00   -3.4X
      Z  22s     0.62um            4.8Msz
TIK     71.60  20 ePc    52 06.00   -1.4
         1.6s    13.00nm           4.8mb
                   e     52 25.00
PIP     76.68  75 iPd    52 47.20    9.4X
CVP     77.96  75 eP     52 55.00   10.2X
YKA     95.48 348 eP     54 09.60   -0.8
         0.8s     0.60nm           4.1mb
     S.D. = 1.2  on  38 of  48 obs.
-----------------------------------------------
& MAR 13, 1993  05h 53m 14.58s
  59.694 N               153.191 W
  DEPTH = 109.4km
  3.4mb ( 1 obs.)
 SOUTHERN ALASKA                         (  2)
         &lt;AEIC&gt;.

OPT      0.05 205 iPc    53 29.17    0.9
                  eS     53 40.84
AUL      0.34 202 iPc    53 30.11   -0.5
                  eS     53 42.15
AUE      0.35 195 iPc    53 29.94   -0.7
                  eS     53 41.02
AUH      0.36 201 iPc    53 30.17   -0.7
AUW      0.35 204 ePc    53 30.10   -0.6
INE      0.37  10 eP     53 30.26   -0.8
                  eS     53 42.73
INW      0.38   4 ePc    53 30.24   -0.8
                  eS     53 42.57
AUI      0.38 199 iPc    53 30.09   -0.8
                  eS     53 41.93
                  eS     53 42.10
PDB      0.52 281 iPc    53 30.75   -0.9
MCNL     0.78 229 iPd    53 32.85   -1.0
                  eS     53 46.62
XLV      0.79 107 ePc    53 33.19   -0.7
RS1      0.80  16 iPd    53 33.44   -0.8
CDD      0.80 197 iPd    53 33.13   -0.9
                  eS     53 47.28
RSO      0.80  16 iPd    53 33.43   -0.9
                  eS     53 47.59
RS2      0.80  16 iPd    53 33.46   -0.8
RDW      0.81  13 iPd    53 33.47   -0.9
RDN      0.85  14 ePd    53 33.50   -0.8
                  eS     53 48.58
NCT      0.88   8 iPd    53 33.97   -0.9
                  eS     53 48.96
DFR      0.94  15 iPd    53 34.54   -0.9
CNPM     1.01  99 iPc    53 34.98   -1.1
                  eS     53 51.19
SYI      1.16 159 iPd    53 36.77   -1.0
BRLK     1.17  86 eP     53 37.68   -0.2
                  eS     53 54.49
BRLK     1.17  86 eP     53 36.50   -1.4
                  eS     53 53.65
NKA      1.43  42 ePd    53 41.60    0.7
CKL      1.57  15 iPd    53 41.73   -0.9
CKT      1.59  17 iPd    53 41.82   -1.1
SPU      1.60  20 iPd    53 41.80   -1.2
CKN      1.61  18 iPd    53 42.35   -0.8
BGL      1.62  14 iPd    53 42.65   -0.7
CP2      1.64  16 eP     53 42.87   -0.9
CPAM     1.65  18 iPd    53 42.80   -0.9
CRP      1.66  18 eP     53 42.46   -1.4
                  S      54 05.56
SLKM     1.70  60 ePc    53 42.57   -1.6
CGLM     1.72  19 eP     53 43.63   -0.9
SVW      1.86 321 ePd    53 44.68   -1.6
                  S      54 07.97
SEW      1.93  76 ePc    53 45.60   -1.5
KDC      1.99 169 eP     53 43.80   -4.0
MPA      2.08  66 iPc    53 47.65   -1.4
SUA      2.15  33 iPd    53 49.13   -0.9
                  eS     54 15.63
PMS      2.38  48 P      53 51.50   -1.5
PTE      2.39  59 eP     53 51.30   -1.7
SKT      2.43  19 ePd    53 52.41   -1.3
PWA      2.55  38 P      53 53.70   -1.5
                  S      54 24.60
PLRM     2.76  45 eP     53 55.70   -2.3
PMR      2.76  45 eP     53 55.45   -2.6
                  S      54 23.06
GHO      2.96  43 ePd    53 58.39   -2.4
                  eS     54 32.15
SML      3.19  46 iPd    54 01.44   -2.5
HIN      3.43  75 eP     54 04.35   -2.8
TTA      3.52 338 iPd    54 06.15   -2.3
SCM      3.59  51 ePd    54 06.84   -2.5
VLZ      3.69  64 eP     54 08.03   -2.6
HUR      3.71  26 eP     54 09.34   -1.6
CVA      3.82  74 eP     54 09.40   -3.0
KLU      4.01  60 iPd    54 12.43   -2.7
TRF      4.02  19 eP     54 12.86   -2.4
RND      4.26  27 eP     54 16.40   -2.1
TZL      4.47  55 eP     54 19.15   -2.1
MCK      4.53  25 eP     54 20.22   -1.9
SDG      4.67  49 eP     54 21.51   -2.6
GLB      4.95  65 ePc    54 25.09   -2.8
PAX      4.96  45 eP     54 25.92   -2.2
CRQM     5.12  74 eP     54 28.08   -2.4
NEA      5.27  20 ePd    54 29.24   -3.0
TGL      5.27  74 eP     54 30.19   -2.3
BALM     5.55  71 eP     54 33.61   -2.6
HDA      5.56  29 eP     54 33.28   -3.0
CCB      5.57  25 eP     54 32.94   -3.5
MDM      5.77  21 eP     54 35.86   -3.3
YAH      5.78  78 eP     54 37.46   -2.0
FBA      5.80  23 eP     54 34.86   -4.7
GLM      5.96  24 eP     54 38.50   -3.3
CTGM     6.03  73 eP     54 40.98   -1.9
IMA      6.40 358 eP     54 44.66   -3.3
         0.7s    13.15nm           4.4mb X
YKA     18.67  65 eP     57 23.10   -3.3
         0.4s     0.90nm           3.4mb
         74 obs. associated
-----------------------------------------------
% MAR 13, 1993  06h 23m 49.23± 0.93s
  26.330 S ± 7.6km   27.713 E ±10.0km
  DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA                (584)
     ML 2.1 (PRE).

PRY      0.63 200 eP     24 01.00   -0.9
                  S      24 05.00
SLR      0.78  41 eP     24 05.00    0.0
                  S      24 16.00
KSR      0.87 302 eP     24 06.00   -0.5
                  S      24 15.50
SEK      1.99 182 eP     24 24.50    0.5
                  S      24 50.50
SWZ      2.30 248 eP     24 29.50    1.0
                  S      24 42.70
     S.D. = 1.1  on   5 of   5 obs.
-----------------------------------------------
  MAR 13, 1993  06h 35m 45.25± 0.47s
  47.254 N ± 8.2km  154.086 E ± 6.9km
  DEPTH =  33.0km  (normal)
  4.9mb ( 46 obs.)  4.6Msz (  3 obs.)
 KURIL ISLANDS                           (221)

SKR      3.66  20 ePn    36 39.40   -1.5
      Z  12s     2.10um
      N  12s     2.10um
      E  12s     2.60um
                  iS     37 20.00
KUR      4.76 247 ePn    36 57.00    0.5
      Z  12s     2.10um
      N  12s     2.10um
      E  12s     3.20um
                  eS     37 53.50
PET      6.47  25 ePn    37 18.50   -2.1
      Z  16s     1.00um
YSS      7.76 272 ePn    37 41.20    2.6
      Z  15s     1.90um
      E  15s     1.40um
                  eS     39 10.00
KUSJ     7.82 241 eP     37 36.50   -3.0
                  eS     38 59.40
ASAJ     8.60 253 eP     37 49.30   -1.1
HOOJ     9.09 242 eP     37 52.60   -4.4X
                  eS     39 32.60
MRRJ    10.42 247 eP     38 11.40   -4.0X
MGD     13.01 353 ePn    38 50.00   -0.3
      Z  14s     1.00um
      N  14s     1.00um
                  eS     41 24.00
SEY     15.71 357 eP     39 29.00    3.6X
```

13d 06h

```
MAT     15.91 233 eP     39 18.00 -10.3X
        1.6s    36.67nm
YAK     20.25 326 eP     40 16.90  -3.1X
        1.1s    30.00nm           4.6mb
      Z  14s     0.40um           3.9MszX
      E  14s     0.40um
ILT     24.92  24 iPd    41 05.50  -0.7
        1.0s    40.00nm           5.0mb
                  i      41 22.50
BOD     26.09 309 eP     41 15.60  -1.7
        1.3s    11.00nm           4.3mb
CIT     26.40 295 eP     41 20.00  -0.3
BJI     28.15 269 eP     41 37.50   1.3
        1.5s    29.00nm           4.8mb
      Z  16s     0.88um           4.4MszX
                  eS     46 40.00
TTA     31.60  42 eP     42 06.34  -0.5
        0.9s     3.01nm           4.2mb
IMA     33.01  36 eP     42 18.89  -0.2
        0.8s     2.24nm           4.1mb
ZAK     33.07 295 eP     42 18.00  -1.6
        1.4s    12.00nm           4.6mb
      Z  16s     0.89um           4.6MszX
      N  12s     0.38um
      E  16s     0.87um
FBA     35.35  39 eP     42 38.86  -0.3
        0.8s     9.39nm           4.8mb
NRI     38.48 329 iPd    43 03.50  -1.8
                  e      43 11.00
LZH     38.54 272 iPc    43 07.40   1.0
        1.0s   102.00nm           5.6mb
      Z  15s     0.39um           4.3MszX
ELT     42.29 304 iPd    43 35.60  -1.3
        1.1s    24.00nm           4.8mb
      N  16s     0.70um
      E  15s     1.10um
YKA     50.12  37 eP     44 37.70  -1.1
        0.8s     2.70nm           4.3mb
RES     50.15  19 eP     44 40.50   1.7
        1.0s     4.00nm           4.4mb
CHTO    52.88 257 ePc    45 00.30   0.1
        1.4s    26.92nm           5.0mb
FRU     54.02 297 eP     45 07.50  -0.8
        1.0s    30.00nm           5.3mb
      Z  16s     0.60um           4.8MszX
ARU     55.09 318 eP     45 14.00  -1.9
      Z  18s     0.50um           4.6Msz
      N  18s     0.50um
FCC     60.48  34 eP     45 56.00   2.3
NDI     60.95 282 iP     45 57.00  -0.4
KAF     63.26 335 iP     46 11.40  -0.9
DUG     63.74  59 eP     46 16.62   0.6
        1.0s     2.78nm           4.3mb
NUR     65.03 335 eP     46 22.90  -1.0
RSSD    65.99  50 (P)    46 29.03  -1.5
        0.9s     5.88nm           4.7mb
UPP     67.49 338 iP     46 38.60  -0.9
HYB     67.65 272 eP     46 40.00  -1.2
NB2     67.96 342 P      46 41.40  -1.2
        0.8s    29.40nm           5.4mb
HFS     68.21 340 eP     46 42.90  -1.2
        0.8s    53.10nm           5.7mb
      Z  17s     0.11um           4.2MszX
                  LR     14 16.00
NAO     68.24 342 P      46 42.30  -1.9
WB2     69.21 200 eP     46 49.30  -1.3
        0.9s     2.60nm           4.3mb
MNK     69.50 329 eP     46 48.00  -4.0X
KIV     70.92 315 eP     47 02.20   1.2
        1.1s    23.00nm           5.2mb
                  (S)    56 50.60
GBA     71.09 270 P      47 02.00  -0.3
BSD     72.36 337 iPd    47 09.60   0.3
        0.9s    34.00nm           5.3mb
COP     72.50 338 iPd    47 10.30   0.3
        0.9s    23.53nm           5.2mb
ASPA    72.90 199 iPd    47 12.10  -0.7
        0.8s     6.80nm           4.7mb
KIS     74.63 325 iPc    47 22.00  -0.6
      Z  20s     0.40um           4.7Msz
                  e      47 40.00
OJC     75.20 332 iP     47 26.70   0.9
UZH     75.72 329 eP     47 28.00  -0.8
SPC     75.94 331 eP     47 30.30   0.0
EKA     76.00 347 P      47 31.00   0.7
        0.6s     3.90nm           4.6mb
CLL     76.28 336 iP     47 31.40  -0.5
```

```
        1.1s    37.00nm           5.3mb
BRG     76.40 335 iP     47 32.80   0.2
        0.8s    20.00nm           5.2mb
                  iSg    49 57.40
VRI     76.41 325 eP     47 34.00   1.2
VRAC    77.01 333 eP     47 37.40   1.4
        3.0s   569.00nm           6.1mb X
PRU     77.02 335 eP     47 36.40   0.3
MLR     77.03 325 ePd    47 37.50   1.1
ISR     77.09 325 eP     47 39.00   2.3
MOX     77.26 337 eP     47 37.90   0.5
        1.2s    12.00nm           4.8mb
SRO     77.77 331 eP     47 41.20   1.0
ZST     77.83 332 iP     47 41.40   0.9
KHC     78.07 335 P      47 42.50   0.6
        1.0s     8.50nm           4.7mb
                  e      47 50.50
GRF     78.23 336 eP     47 43.50   0.7
        1.0s    36.00nm           5.3mb
      Z  22s     0.10um           4.1Msz
GEC2    78.29 335 Pd     47 43.40   0.2
        0.8s     4.40nm           4.5mb
                  e      47 47.50
                  e      47 49.10
                  e      47 51.90
                  e      47 53.50
KBA     79.98 334 iPc    47 53.30   0.7
        0.9s    16.90nm           5.0mb
PTJ     80.23 332 eP     47 53.70   0.0
WTTA    80.32 335 iPc    47 55.00   0.7
        0.8s    17.70nm           5.1mb
CDF     80.44 338 eP     47 54.80  -0.1
        1.0s     8.40nm           4.7mb
VBY     80.80 332 eP     47 56.50  -0.2
HAU     81.05 339 eP     47 57.70  -0.3
        0.6s     3.45nm           4.5mb
      Z  23s     0.10um           4.1MszX
SKO     81.74 326 eP     47 57.60  -4.1X
                  i      48 03.60
VAY     81.87 325 eP     48 02.60   0.3
OHR     82.73 326 eP     48 06.30  -0.6
AVF     82.90 340 eP     48 07.90   0.3
        1.0s    16.00nm           5.1mb
SMF     82.93 340 eP     48 08.10   0.3
        1.1s    27.35nm           5.3mb
MMR     82.99 312 eP     48 09.30   0.9
LPL     83.26 338 eP     48 10.60   0.8
        0.8s     8.35nm           4.9mb
LPG     83.28 338 eP     48 10.80   0.8
        0.9s    10.80nm           5.0mb
MAF     83.62 341 eP     48 12.00   0.7
        1.0s    19.60nm           5.2mb
TCF     83.64 341 eP     48 12.50   1.1
        1.0s    10.40nm           4.9mb
LSF     83.82 341 eP     48 14.40   2.0
        1.0s    12.20nm           5.0mb
MZDA    84.38 311 eP     48 15.60   0.3
RJF     84.72 341 eP     48 18.00   1.1
        1.2s    16.65nm           5.1mb
LRG     85.28 337 eP     48 20.00   0.3
        0.9s    17.05nm           5.3mb
LMR     85.35 337 eP     48 20.30   0.3
        0.9s    11.30nm           5.1mb
LPO     85.39 341 eP     48 21.30   1.1
        0.8s     6.30nm           4.9mb
PGF     85.39 335 eP     48 20.10  -0.3
        1.3s    16.25nm           5.1mb
SAGI    85.59 311 eP     48 21.80   0.3
CNCB   134.01  63 PKP    55 02.60   1.0
PPD    147.57  48 (PKP)  55 24.00  -0.9
     S.D. = 1.1  on  83 of  90 obs.
-----------------------------------------
• MAR 13, 1993 06h 47m 10.51± 2.36s
  26.652 S ±17.8km  177.305 W ±10.0km
  DEPTH =  82.4 ± 22.7 km
  4.8mb ( 12 obs.)
 SOUTH OF FIJI ISLANDS              (171)
     Mw 5.2 (HRV).
     CENTROID, MOMENT TENSOR        (HRV)
     Data Used: GDSN
     L.P.B.: 29S, 42C
     Centroid Location:
     Origin Time       06:47: 8.7 0.6
     Lat 26.42S 0.07 Lon 177.65W 0.07
     Dep  20.0 6.5 Half-duration  1.0
     Moment Tensor;   Scale 10**16 Nm
       Mrr=-2.09 0.30  Mtt=-5.47 0.41
```

```
       Mff= 7.55 0.36  Mrt=-2.06 0.92
       Mrf= 0.08 0.89  Mtf= 0.06 0.34
     Principal Axes:
       T  Val=  7.55   Plg= 0  Azm= 90
       N       -1.12       65      180
       P       -6.44       25        0
     Best Double Couple:Mo=7.0*10**16
     NP1:Strike=138 Dip=72 Slip=-162
     NP2:        42     72      -18

RAO      2.65 192 eP     47 50.50  -1.4
                  eS     48 28.00
DZM     15.49 284 iPc    50 47.10   1.4
BRS     26.64 262 iPc    52 44.20   0.9
                  eS     57 15.00
RMQ     30.31 263 iPd    53 17.00   0.8
        0.5s    15.00nm           5.0mb
CTA     34.00 273 iPd    53 48.00  -0.5
        1.3s    24.04nm           4.9mb
                  eS     59 15.00
STK     36.08 252 eP     54 06.90   0.8
        0.6s     1.40nm           4.1mb
ASPA    44.06 263 P      55 13.39   1.3
WB2     44.69 268 eP     55 15.90  -1.3
        0.6s     7.80nm           4.7mb
WRA     44.70 268 P      55 16.10  -1.2
SPA     63.50 180 iPc    57 36.30   2.3
        1.8s    98.15nm           5.5mb
PEC     82.94  47 (P)    59 27.98   0.3
        0.6s     7.24nm           4.8mb
KMPM    83.03  38 eP     59 28.29   0.2
ISA     83.21  45 eP     59 29.02  -0.1
        1.2s    17.51nm           4.9mb
WDC     84.02  39 ePd    59 33.17   0.2
        1.3s     9.60nm           4.6mb
GSC     84.04  46 eP     59 33.85   0.5
LGPM    84.09  38 eP     59 33.92   0.5
LBFM    84.90  38 eP     59 37.79   0.1
TUC     86.29  51 eP     59 45.30   0.7
        1.2s    16.24nm           5.0mb
BMW     87.68  34 eP     59 52.04   1.1
MSU     88.93  45 eP     59 57.84   0.5
CP2     89.93  12 eP     59 59.41  -2.1
CRP     89.95  12 eP     59 59.38  -2.1
ALQ     90.75  51 eP     00 06.23   0.4
        1.2s     7.86nm           4.9mb
TTA     90.87  10 eP     00 06.00   0.4
        1.2s     4.56nm           4.6mb
LCCM    93.37  40 eP     00 19.20   1.6
RSSD    97.12  44 eP     00 35.89   1.1
        1.1s     4.05nm           4.9mb
NB2    145.14 353 PKP    06 37.00  -2.4
        1.1s    21.20nm
UPP    145.24 347 iPKP   06 37.60  -1.9
HFS    145.68 350 ePKP   06 38.10  -2.2
        1.1s    24.10nm
HRI    150.70 291 ePKP   06 56.90   7.7X
MBH    151.52 284 ePKP   06 58.40   7.9X
KSP    153.71 340 ePKP   07 02.20   9.4X
CLL    154.16 345 ePKP   06 57.00   3.6X
BRG    154.33 343 ePKP   06 58.40   4.8X
     S.D. = 1.4  on  29 of  34 obs.
-----------------------------------------
• MAR 13, 1993 07h 46m 17.25± 0.57s
  13.306 S ±19.2km  174.668 E ±21.7km
  DEPTH =  33.0km  (normal)
  4.9mb (  6 obs.)
 FIJI ISLANDS REGION                (181)

DZM     11.72 221 iPc    49 04.50  -0.8
BRS     24.80 232 iPd    51 40.00   2.2
CMS     32.07 231 eP     52 42.90  -0.6
        1.1s     8.00nm           4.5mb
TOO     35.49 222 eP     53 12.10  -0.9
        0.9s    22.00nm           5.1mb
STK     35.49 233 eP     53 12.60  -0.4
        4.0s     1.70nm           3.3mb X
BJI     75.87 318 eP     58 02.50   0.3
LZH     82.82 310 eP     58 41.00   0.9
        1.5s    60.00nm           5.5mb
YAK     82.92 340 eP     58 39.00  -0.7
        1.8s    40.00nm           5.2mb
FBA     82.97  15 ePc    58 38.19  -1.8
        1.2s    11.71nm           4.9mb
ARUT    84.25  49 (P)    58 48.24   0.9
MSU     85.44  49 iPc    58 54.63   1.3
LCCM    88.26  42 eP     59 06.70  -0.1
```

SES 90.40 38 eP 59 16.00 -0.6
YKA 93.06 26 eP 59 27.70 -0.8
1.0s 1.20nm 4.3mb
LOR 145.28 349 iPKPd 05 52.60 -0.7
1.3s 14.80nm
LBF 145.53 349 iPKPd 05 52.30 -1.5
1.6s 43.55nm
SSF 145.54 349 iPKPd 05 53.70 -0.1
1.3s 27.80nm
SMF 145.88 349 iPKPd 05 54.50 0.1
1.5s 28.75nm
LPL 146.30 345 ePKP 05 58.30 2.9X
1.4s 20.90nm
LPG 146.31 345 ePKP 05 56.90 1.4
MAF 146.52 350 iPKPd 05 57.10 1.7
1.0s 6.20nm
S.D. = 1.2 on 20 of 21 obs.

% MAR 13, 1993 07h 46m 52.04± 0.68s
40.640 N ± 5.5km 23.353 E ± 6.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH 0.18 0 iPg 46 56.64 0.5
eSg 46 59.12
THE 0.30 269 iPg 46 58.12 -0.1
iSg 47 03.80
SRS 0.51 21 ePg 47 01.80 -0.6
eSg 47 07.84
OUR 0.57 122 iPg 47 03.84 0.3
KNT 0.62 327 ePg 47 04.68 0.1
eSg 47 12.80
PAIG 0.75 161 ePg 47 06.60 -0.2
S.D. = 0.5 on 6 of 6 obs.

? MAR 13, 1993 08h 09m 59.31± 0.90s
20.061 N ±18.3km 38.960 E ±13.8km
DEPTH = 10.0km (geophysicist)
4.4mb (2 obs.)
RED SEA (554)

ABHA 4.01 116 eP 11 01.00 -1.4
eS 11 43.30
KMTA 4.15 116 eP 11 06.00 1.7X
eS 11 50.00
DHJN 4.91 118 eP 11 16.60 1.4
eS 12 05.00
BCAO 25.24 235 iPd 15 27.10 -0.1
1.0s 15.00nm 4.6mb
OHR 26.06 328 eP 15 35.00 0.3
GEC2 35.15 331 P 16 55.00 -0.2
1.5s 5.75nm 4.2mb
e 17 03.00
S.D. = 1.4 on 5 of 6 obs.

% MAR 13, 1993 08h 31m 08.25± 1.29s
44.790 S ± 5.2km 167.406 E ±11.2km
DEPTH = 10.0km (geophysicist)
SOUTH ISLAND, NEW ZEALAND (162)
ML 4.3 (WEL).

MSZ 0.38 72 Pd 31 16.70 0.6
S 31 20.90
TLC 1.25 109 Pd 31 30.80 -0.7
BCZ 1.25 166 Pc 31 31.50 0.0
S 31 46.70
MHZ 1.36 102 P 31 33.10 -0.2
CMCZ 1.37 106 Pd 31 33.10 -0.4
SBCZ 1.39 103 P 31 33.50 -0.2
LRCZ 1.41 102 P 31 34.00 0.0
LSCZ 1.43 104 P 31 34.20 -0.1
MSCZ 1.46 103 P 31 34.90 0.3
LMZ 1.72 52 P 31 39.70 1.4
BWZ 1.79 83 P 31 40.40 1.1
TUZ 1.95 127 P 31 41.90 0.2
SIZ 2.15 167 P 31 44.90 0.4
ODZ 2.31 97 P 31 47.10 0.1
EWZ 2.79 64 P 31 54.70 1.0
MOZ 3.92 76 P 32 08.50 -1.3
LTZ 4.05 62 P 32 11.70 0.0
DSZ 4.42 48 P 32 16.30 -0.6
THZ 5.03 55 P 32 25.20 -0.3
ORZ 5.47 45 P 32 3[illegible].50 -1.2
S.D. = 0.7 on 20 of 20 obs.

MAR 13, 1993 08h 48m 09.31± 0.44s
28.726 N ± 7.8km 128.394 E ± 5.2km
DEPTH = 32.8km (5 depth phases)
4.8mb (19 obs.)
RYUKYU ISLANDS (238)

SSE 6.69 292 Pn 49 45.50 -2.3
Z 12s 4.10um
N 10s 3.00um
E 10s 2.10um
Sn 51 02.50
Sg 51 37.00
NJ2 8.88 294 Pc 50 16.00 -2.3
0.8s 80.00nm 5.9mb X
Z 12s 2.22um
N 10s 3.98um
E 11s 4.39um
MAT 11.36 44 eP 50 52.00 -0.4
TIA 12.09 311 Pc 51 02.50 0.3
Z 12s 2.72um
N 13s 2.40um
E 13s 2.68um
SNY 13.65 345 Pd 51 24.00 1.2
N 11s 1.91um
E 10s 2.30um
VLA 14.64 10 eP 51 40.00 4.2X
3.0s 361.00nm 5.3mb
BJI 15.12 321 eP 51 41.50 -0.6
Z 18s 0.88um
N 12s 1.22um
pP 51 48.00
CN2 15.23 352 eP 51 50.00 6.5X
1.0s 12.00nm 4.1mb
Z 16s 1.35um 5.0Msz
N 12s 2.13um
E 12s 2.68um
epP 51 58.00
MDJ 15.89 3 Pd 51 57.70 5.7X
1.3s 48.00nm 4.5mb
Z 15s 2.00um 5.1Msz
N 10s 0.99um
E 12s 1.34um
TIY 16.07 308 eP 51 57.00 2.6
Z 12s 5.54um
E 11s 2.95um
XAN 17.44 293 P 52 11.30 -0.4
0.8s 37.00nm 4.6mb
N 10s 1.30um
E 10s 0.87um
HHC 18.33 316 Pd 52 24.80 2.1
1.4s 81.00nm 4.7mb
Z 16s 1.07um 3.9MszX
N 11s 1.09um
E 11s 1.11um
S 55 45.00
BTO 19.16 313 P 52 33.00 0.2
1.2s 40.00nm 4.5mb
N 12s 0.93um
E 12s 1.68um
epP 52 40.50 28km
GYA 19.39 268 iPd 52 36.20 0.6
1.2s 68.00nm 4.8mb
Z 14s 2.22um 3.8Msz
N 12s 2.63um
E 12s 0.98um
CD2 21.48 282 iPc 52 57.00 -0.2
0.8s 78.00nm 5.2mb
N 11s 2.32um
pP 53 07.00 38km
sP 53 12.00
LZH 21.95 296 eP 53 02.20 0.1
1.2s 35.00nm 4.7mb
Z 11s 0.95um 4.5MszX
N 10s 0.84um
KMI 23.14 267 Pc 53 15.50 1.6
1.2s 70.00nm 5.0mb
Z 10s 1.80um 4.8MszX
N 11s 1.20um
E 11s 1.00um
CIT 25.74 339 eP 53 39.00 0.6
GTA 25.86 302 P 53 39.50 -0.3
1.0s 58.00nm 5.1mb
Z 15s 1.44um 4.6MszX
E 12s 0.52um
pP 53 47.00 27km
sP 53 52.00
ZAK 28.78 326 eP 54 05.00 -1.0
BOD 30.76 345 eP 54 21.90 -1.7
1.1s 6.00nm 4.3mb
WMQ 35.72 306 eP 55 07.00 0.1
Z 16s 0.67um 4.5MszX
N 10s 0.62um
GUN 37.29 279 P 55 20.20 -0.4
PKI 37.77 279 P 55 24.20 -0.4
KKN 37.84 279 P 55 25.00 0.0
DMN 38.02 279 P 55 27.00 0.4
GKN 38.35 280 P 55 29.00 -0.3
MTN 41.41 176 eP 55 53.70 -0.6
TIK 42.96 0 eP 56 05.00 -1.4
1.2s 60.00nm 5.2mb
Z 14s 0.70um 4.7MszX
e 57 46.00 564kmX
NDI 44.60 283 eP 56 21.00 0.7
FRU 45.12 303 eP 56 25.50 1.1
e 56 35.00 32km
NRI 46.82 342 ePd 56 37.70 0.3
1.7s 14.00nm 4.7mb
e 56 49.00 40km
WB2 48.72 173 iPc 56 52.00 -0.8
0.9s 13.80nm 5.0mb
ILT 49.98 23 iPd 56 59.20 -2.7
OUE 52.93 288 eP 57 24.50 -0.5
MAIO 57.50 297 eP 57 58.00 0.2
CRP 60.24 33 eP 58 15.92 -0.7
KLU 63.18 32 eP 58 35.43 -0.8
YKA 76.21 25 eP 59 53.90 -1.8
0.9s 3.70nm 4.4mb
DPW 83.19 38 eP 00 33.95 0.4
GEC2 83.31 323 P 00 33.90 -0.3
0.7s 0.39nm 3.6mb X
NEW 83.54 38 eP 00 36.00 0.7
0.9s 8.33nm 4.9mb
LGPM 84.40 46 eP 00 40.74 0.8
LBFM 84.75 45 eP 00 42.97 1.2
COE 87.17 49 eP 00 53.88 0.3
LCCM 87.86 37 eP 00 57.50 0.6
DUG 90.96 42 eP 01 12.50 0.9
1.0s 4.68nm 4.8mb
MSU 92.41 43 eP 01 19.87 1.5
RSSD 93.10 35 eP 01 21.68 0.2
1.2s 5.76nm 4.9mb
PV10 94.36 42 eP 01 28.54 1.1
S.D. = 1.1 on 47 of 50 obs.

MAR 13, 1993 09h 05m 29.34± 0.20s
11.326 N ± 3.8km 141.824 E ± 4.4km
DEPTH = 44.9km (4 depth phases)
5.1mb (48 obs.) 4.9Msz (21 obs.)
WESTERN CAROLINE ISLANDS (209)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 37S, 63C
Centroid Location:
Origin Time 09:05:33.7 0.3
Lat 11.39N 0.04 Lon 141.97E 0.03
Dep 58.8 2.6 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 8.76 0.26 Mtt=-0.74 0.42
Mff=-8.03 0.43 Mrt= 3.33 0.57
Mrf= 2.57 0.50 Mtf=-1.86 0.37
Principal Axes:
T Val= 10.02 Plg=73 Azm=339
N -0.92 13 200
P -9.10 11 107
Best Double Couple:Mo=9.6*10**16
NP1:Strike=181 Dip=36 Slip= 67
NP2: 28 57 106

GUMO 3.73 53 eP 06 28.70 2.9
0.7s 1536.70nm
eS 07 10.60
PJG 3.73 53 eP 06 48.60 22.8X
i 07 30.40
GUA 3.73 54 eP 06 28.70 2.8
0.7s 1342.47nm
eS 07 10.30
NMCC 5.37 44 eP 06 55.00 6.0X
eS 07 53.00
BIP 15.65 260 eP 09 09.00 0.4
PLP 16.52 271 ePd 09 21.30 1.7
CGP 17.11 262 eP 09 31.00 4.0X
MAP 17.56 268 eP 09 36.00 3.5X
CVP 20.37 290 ePd 10 08.70 3.7X
TGY 20.56 280 eP 10 05.00 -2.1
BCP 21.20 286 eP 10 16.00 2.3

13d 09h

PMG 21.27 165 eP 10 14.00 -0.2
KAGJ 22.21 335 P 10 24.60 1.2
PPR 22.75 268 eP 10 33.00 4.1X
KUMJ 23.41 336 P 10 36.40 1.2
WKYJ 23.49 347 eP 10 37.10 1.1
TKSJ 23.65 344 P 10 38.70 1.2
TSRJ 24.68 349 eP 10 47.10 -0.3
SHNJ 24.72 338 P 10 48.90 1.1
CHJJ 24.75 355 P 10 47.90 -0.2
KAKJ 24.81 357 P 10 48.50 -0.2
YONJ 24.94 344 P 10 50.10 0.1
MAT 25.32 353 eP 10 52.00 -1.5
0.8s 17.91nm 4.7mb
MTMJ 25.41 352 eP 10 53.20 -1.3
NIIJ 25.93 355 P 10 59.10 0.0
YAMJ 26.78 357 eP 11 10.80 3.8X
SSE 27.42 319 Pd 11 13.00 0.1
1.2s 45.00nm 5.0mb
Z 20s 1.40um 4.5Msz
N 10s 0.50um
E 10s 0.30um
sP 11 35.00
S 15 22.00
sS 15 46.00
CTA 31.52 172 iPc 11 46.00 -3.6X
2.0s 73.53nm 5.1mb
QIZ 31.76 288 eP 11 51.80 0.1
SNY 34.33 335 eP 12 13.30 -0.5
Z 26s 1.21um 4.5MszX
CN2 35.32 339 eP 12 22.40 0.2
1.0s 6.90nm 4.5mb
Z 22s 0.76um 4.4Msz
epP 12 32.00 32kmX
GYA 36.36 299 P 12 33.00 1.6
sP 12 50.60
BJI 36.51 326 eP 12 32.50 0.3
1.0s 44.00nm 5.3mb
Z 26s 0.99um 4.5MszX
TIY 37.20 320 Pc 12 38.50 0.3
2.1s 160.00nm 5.6mb
Z 20s 1.25um 4.7Msz
N 13s 0.33um
S 18 23.00
XAN 37.58 312 P 12 40.90 -0.6
0.9s 15.00nm 4.9mb
pP 12 49.20 28kmX
QLP 37.75 176 eP 12 41.90 -0.9
LEM 38.52 244 ePc 12 50.50 0.8
HHC 39.67 323 P 12 59.60 0.7
1.2s 20.00nm 4.8mb
BRS 39.92 165 iPc 13 02.50 1.5
i 13 11.50 30kmX
CD2 40.23 305 iPc 13 04.00 0.4
1.0s 66.00nm 5.4mb
BTO 40.43 322 P 13 05.50 0.3
SNG 40.85 268 eP 13 10.20 1.4
IPM 40.92 264 ePd 13 09.90 0.5
DZM 41.05 144 iPc 13 22.60 12.2X
NNT 41.17 276 eP 13 13.40 2.0
BDT 41.85 283 eP 13 16.00 -0.9
CHTO 41.99 286 ePc 13 19.30 1.2
1.1s 13.25nm 4.6mb
LZH 42.22 312 eP 13 21.00 1.0
1.2s 32.00nm 4.9mb
Z 24s 1.07um 4.6MszX
NANU 42.41 217 iPc 13 20.90 -0.5
CMS 42.74 175 eP 13 23.90 -0.1
STK 42.96 180 eP 13 25.40 -0.4
0.6s 3.10nm 4.2mb
ADE 46.13 184 eP 13 52.00 0.8
GTA 46.53 314 P 13 55.00 0.4
1.0s 43.00nm 5.3mb
Z 28s 1.29um 4.7MszX
pP 14 03.50 28kmX
sP 14 08.00
PcP 15 29.00
CIT 46.56 336 eP 13 55.00 0.5
CNB 46.93 172 eP 14 00.00 2.4
MRWA 47.39 211 eP 14 00.00 -1.3
0.6s 15.00nm 5.1mb
BAL 48.18 209 eP 14 07.00 -0.4
0.8s 56.00nm 5.6mb
TOO 48.76 176 iPc 14 12.20 0.5
0.3s 26.00nm 5.7mb
SMY 48.76 26 eP 14 08.80 -2.8X
Z 19s 2.04um 5.1Msz
MGD 49.14 6 eP 14 12.00 -2.4

MUN 49.55 209 eP 14 18.00 0.1
NWAO 49.87 207 eP 14 22.00 1.6
0.8s 21.00nm 5.2mb
ZAK 50.13 329 iPc 14 23.00 0.9
1.2s 50.00nm 5.4mb
e 15 41.00 383kmX
e 17 23.00
LSA 50.43 299 Pc 14 26.40 1.1
1.4s 28.00nm 5.1mb
IRK 50.80 331 ePc 14 38.00 10.8X
1.3s 168.00nm
Z 16s 0.42um 4.6MszX
N 14s 0.17um
E 16s 0.21um
e 15 38.00 280kmX
BOD 50.99 341 ePc 14 27.20 -1.3
0.7s 10.00nm 4.9mb
YAK 51.36 353 iPc 14 30.20 -1.1
0.8s 130.00nm 6.0mb
eS 21 44.00
MOY 52.07 329 eP 14 37.70 0.9
GUN 54.77 296 P 14 57.20 -0.4
PKI 55.15 296 P 14 59.40 -0.9
KKN 55.28 296 P 15 00.20 -1.0
DMN 55.42 296 P 15 01.60 -0.6
GKN 55.87 296 P 15 04.20 -1.1
WMQ 56.59 315 P 15 10.00 -0.2
1.2s 23.00nm 5.1mb
Z 24s 0.86um 4.8MszX
pP 15 19.00 29kmX
sP 15 24.00
HON 58.31 72 P 15 30.00 7.6X
Z 20s 0.24um 4.3Msz
TCW 60.24 152 eP 15 34.10 -1.3
MNG 60.34 151 eP 15 34.80 -1.3
0.5s 43.00nm 5.8mb
MRW 60.45 152 eP 15 34.60 -2.2
CAW 60.52 152 eP 15 36.10 -1.2
LTZ 60.63 155 eP 15 36.70 -1.4
0.6s 18.00nm 5.4mb
ELT 60.71 325 eP 15 37.50 -0.9
1.5s 22.00nm 5.1mb
MTW 60.77 151 P 15 37.20 -1.8
TIK 60.79 355 iPc 15 37.00 -1.7
1.0s 18.00nm 5.2mb
e 16 23.00 199kmX
HYB 61.37 284 iPc 15 43.50 -0.1
1.0s 90.00nm 5.9mb
ILT 62.15 16 iPc 15 46.40 -1.6
1.1s 28.00nm 5.3mb
NDI 62.44 296 iP 15 40.70 -9.9X
SDN 62.63 33 eP 15 49.59 -1.7
1.0s 99.70nm 5.9mb
GBA 62.75 280 P 15 52.40 -0.4
KSH 64.26 308 eP 16 03.50 0.9
FRU 65.69 312 eP 16 11.00 -0.6
1.8s 30.00nm 5.0mb
Z 20s 0.50um 4.7Msz
SVW 67.04 28 eP 16 20.00 0.1
NRI 67.18 342 iPd 16 19.50 -1.0
1.5s 22.00nm 5.0mb
e 16 46.00 105kmX
TTA 67.48 26 eP 16 22.05 -0.6
1.5s 20.35nm 5.0mb
RSO 68.18 29 eP 16 25.96 -1.3
CRP 68.69 28 eP 16 29.33 -1.0
SLKM 69.41 29 eP 16 33.61 -0.9
IMA 69.49 23 eP 16 34.66 -0.4
1.2s 14.69nm 4.8mb
PMS 69.90 29 eP 16 36.40 -1.1
0.9s 18.60nm 5.1mb
PMR 70.18 28 P 16 50.00 10.9X
Z 19s 0.74um 4.9Msz
BRW 70.37 17 eP 16 40.51 0.3
QUE 71.39 298 eP 16 27.70 -19.7X
FBA 71.52 25 eP 16 46.34 -0.9
0.6s 3.31nm 4.5mb
pP 16 58.17 40km
SVE 75.78 326 ePc 17 12.00 -0.2
1.1s 40.00nm 5.3mb
e 17 30.00 66kmX
SIT 76.70 34 P 17 30.00 12.7X
Z 21s 1.28um 5.2Msz
ARU 76.91 325 eP 17 17.50 -1.0
e 17 28.00 34kmX
MAIO 77.25 305 iPc 17 21.80 0.9
0.7s 8.89nm 4.9mb

ASH 78.02 307 eP 17 23.00 -2.0
BMW 85.26 44 eP 18 03.96 1.2
pP 18 17.53 46km
GMW 85.35 43 eP 18 03.87 0.7
SHW 85.99 44 eP 18 07.86 1.3
YKA 86.22 27 eP 18 06.50 -0.6
0.9s 7.70nm 4.9mb
LGPM 86.67 49 eP 18 10.76 0.8
WDC 86.96 49 P 18 20.00 8.8X
Z 20s 0.87um 5.2Msz
GRS 87.08 310 iPc 18 11.00 -1.0
1.3s 60.00nm 5.7mb
VGB 87.14 44 eP 18 12.59 0.6
pP 18 25.62 43km
LBFM 87.27 49 eP 18 14.15 1.2
KEV 87.73 342 eP 18 13.00 -1.3
DPW 88.29 42 eP 18 17.90 0.4
ERE 88.30 311 iP 18 18.00 0.2
e 28 44.00
ARN 88.43 52 eP 18 05.65 -12.7X
MOS 88.58 327 eP 18 08.00 -10.6X
KIV 88.71 315 eP 18 16.90 -2.8X
1.1s 11.00nm 5.1mb
e 18 49.20 124kmX
NEW 88.88 41 eP 18 21.17 0.8
0.4s 10.28nm 5.5mb
pP 18 36.04 51km
CMB 89.16 51 P 18 30.00 8.1X
Z 22s 0.46um 4.9Msz
OBN 89.33 326 iPc 18 21.00 -1.2
1.6s 80.00nm 5.8mb
Z 20s 0.60um 5.0Msz
E 18s 0.50um
BCH 90.07 54 eP 18 27.89 1.6
BONR 90.77 51 eP 18 33.06 3.4X
ISA 91.22 53 P 18 40.00 8.5X
Z 19s 0.45um 4.9Msz
KAF 91.52 335 iP 18 30.80 -1.4
0.6s 20.50nm 5.7mb
SES 92.01 38 eP 18 35.00 0.2
TPNV 92.61 52 P 18 50.00 12.0X
Z 21s 2.71um 5.7Msz
GSC 92.63 53 eP 18 39.09 1.1
PEC 92.73 55 eP 18 38.58 0.2
0.8s 7.34nm 5.2mb
NUR 92.98 334 iP 18 37.30 -1.7
0.6s 14.80nm 5.6mb
LCCM 93.03 42 eP 18 40.50 0.7
DUG 94.22 48 P 19 00.00 14.7X
Z 20s 0.53um 5.0Msz
HFS 97.71 337 ePKP 18 57.90 -2.7X
0.6s 1.10nm 4.6mb
Z 18s 0.34um 4.9Msz
LR 02 37.00
NB2 98.06 338 P 19 00.80 -1.5
0.7s 0.80nm 4.4mb
RSSD 98.83 42 P 19 20.00 13.7X
Z 21s 0.20um 4.6Msz
GOL 99.74 46 P 19 20.00 9.4X
Z 21s 0.68um 5.1Msz
GLD 99.82 46 P 19 20.00 9.1X
Z 19s 1.08um 5.4Msz
ALQ 100.77 51 Pdiff 19 30.00 14.8X
Z 21s 0.32um 4.8Msz
KSP 102.15 328 ePdiff19 20.70 0.0
GEC2 104.69 328 Pdiff 19 31.70 -0.4
0.9s 1.71nm 5.0mb
e 19 33.00
e 19 37.90
e 19 47.10
VBY 105.80 324 e(Pdif19 35.40 -1.6
RSNY 115.36 28 PKP 24 20.00 12.0X
Z 21s 0.23um 4.8Msz
CBM 116.12 22 PKP 24 30.00 20.6X
Z 21s 0.70um 5.2Msz
BCAO 121.45 282 iPKPd 24 21.00 0.5
0.6s 8.00nm
KIC 142.38 296 PKP 24 55.20 -4.8X
TIC 142.49 297 PKP 24 55.60 -4.6X
LIC 142.69 296 PKP 24 56.30 -4.2X
MDZ 144.61 132 ePKP 25 03.30 0.0
RTCB 145.33 130 iPKPd 25 05.50 0.9
RTLL 145.65 130 iPKPd 25 05.30 0.2
TCA 148.49 133 iPKPd 25 13.50 3.8X
ZOBO 150.51 103 PKP 25 14.70 0.8
i 25 19.50
LR 07 00.00

LPB 150.52 104 ePKP 25 15.00 1.4
i 25 20.20
CNCB 150.60 104 PKP 25 16.70 2.8
i 25 21.00
S.D. = 1.2 on 122 of 158 obs.

---

* MAR 13, 1993 09h 08m 31.79± 0.89s
23.329 S ±11.0km 66.819 W ±10.9km
DEPTH = 224.1 ± 10.7 km
JUJUY PROVINCE, ARGENTINA (128)

HJA 1.30 85 iPd 09 06.30 -0.1
S 09 32.30
YJA 1.68 47 iPd 09 09.00 -1.0
S 09 37.50
SLA 1.85 139 ePd 09 12.20 1.0
S 09 42.00
ANT 3.32 263 iP+ 09 26.30 -0.6
iS 10 06.00
CNCB 6.57 350 P 10 09.60 1.6
S 11 25.00
LPB 6.87 350 eP 10 12.00 0.4
ZOBO 7.11 350 eP 10 14.00 -1.0
VAO 18.26 93 (P) 12 31.00 -0.3
CACB 18.63 89 eP 12 35.10 -0.1
S.D. = 1.1 on 9 of 9 obs.

? MAR 13, 1993 09h 17m 36.10± 1.10s
39.079 N ±11.7km 27.691 E ±19.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

IZM 0.76 206 ePg 17 51.00 0.0
eSg 18 02.50
DST 0.90 54 ePn 17 52.90 -0.4
EDC 1.27 6 ePn 17 59.00 -0.7
KCT 1.28 24 ePn 18 00.90 1.1
S.D. = 1.4 on 4 of 4 obs.

MAR 13, 1993 09h 26m 39.49± 0.20s
71.281 N ± 4.3km 71.972 W ± 3.5km
DEPTH = 10.0km (geophysicist)
4.7mb (54 obs.) 4.4Msz (14 obs.)
BAFFIN ISLAND REGION, CANADA (682)

GDH 6.56 99 eP 28 06.00 -12.2X
i 28 12.00
i 28 56.00
RES 7.50 308 eP 28 29.50 -1.9
0.3s 14.00nm 5.6mb X
DAG 15.08 45 iPc 30 05.10 -8.7X
0.7s 25.34nm 4.8mb
FCC 15.50 227 P 30 15.50 -3.8X
0.6s 117.00nm 5.4mb
YKA 18.46 263 eP 30 53.50 -3.1
0.5s 15.90nm 4.4mb
ULM 23.77 220 P 31 54.00 1.6
CBM 24.49 174 eP 31 57.67 -1.8
0.6s 12.43nm 4.7mb
Z 20s 1.32um 4.4Msz
EEO 24.95 192 P 32 05.00 1.1
BRW 25.13 311 ePd 32 07.11 1.8
LMN 25.74 168 P 32 15.00 3.7X
MIM 26.15 175 eP 32 15.19 0.1
EMM 26.71 173 eP 32 21.26 1.1
BNH 26.77 179 (P) 32 20.54 -0.3
RSNY 26.84 184 eP 32 19.18 -2.3
0.7s 37.22nm 5.2mb
Z 19s 0.37um 4.0Msz
FBA 27.16 295 (P) 32 24.80 0.6
0.5s 1.25nm 3.9mb
SES 27.42 241 P 32 27.00 0.2
1.6s 41.00nm 4.9mb
WLVO 27.61 190 P 32 30.23 1.7
IMA 27.98 301 eP 32 31.63 -0.2
1.3s 8.81nm 4.4mb
ACTO 28.03 193 P 32 33.75 1.4
STCO 28.37 191 P 32 36.32 1.0
TYNO 28.53 192 P 32 38.96 2.2
ELF 28.54 194 P 32 38.05 1.2
LDN 28.68 194 P 32 39.80 1.6
KLU 29.16 289 (P) 32 42.63 0.2
CRNY 30.05 182 (P) 32 48.02 -2.4
PMR 30.06 291 P 33 00.00 9.7X
Z 19s 0.74um 4.3Msz
TBR 30.23 183 eP 32 53.01 0.9
PAL 30.37 183 eP 32 54.36 1.2
HRY 30.99 239 eP 33 00.20 1.4
TTA 31.03 298 eP 32 58.74 -0.2
0.7s 3.33nm 4.3mb
NEW 31.10 247 eP 32 58.93 -0.7
0.8s 9.00nm 4.7mb
RSSD 31.39 227 eP 33 01.68 -0.8
0.8s 16.29nm 5.0mb
Z 19s 0.32um 4.0Msz
MEMT 31.77 237 eP 33 04.90 -0.9
DPW 31.77 247 eP 33 05.18 -0.5
LCCM 31.80 238 eP 33 04.90 -1.2
RSO 32.04 293 (P) 33 07.04 -1.0
HBMT 32.04 239 eP 33 07.60 -0.7
NB2 32.28 65 P 33 06.60 -3.4X
0.7s 5.00nm 4.6mb
BGMT 32.40 238 eP 33 10.90 -0.5
EKA 32.50 83 Pc 33 08.20 -3.6X
0.6s 4.80nm 4.6mb
ILT 32.76 318 eP 33 14.00 0.0
0.9s 14.00nm 4.9mb
TPMT 32.77 237 eP 33 17.00 2.4X
MCMT 33.00 239 eP 33 19.00 2.4X
GMW 33.45 252 eP 33 20.03 -0.1
CVL 33.54 189 (P) 33 19.58 -1.4
HFS 33.74 64 eP 33 20.50 -2.0
0.5s 3.00nm 4.5mb
BW06 34.02 233 eP 33 24.79 -0.7
0.5s 10.77nm 5.0mb
NAV 34.34 193 (P) 33 28.55 0.5
SHW 34.49 251 eP 33 31.69 2.3X
BMW 34.54 252 eP 33 32.54 2.8X
VGB 34.66 248 eP 33 30.55 -0.2
FVM 34.71 206 eP 33 31.08 0.0
0.6s 13.18nm 5.0mb
ELC 35.23 204 eP 33 36.67 1.1
HVU 35.80 237 eP 33 44.16 3.5X
GOL 35.89 226 eP 33 43.87 2.4X
0.6s 5.81nm 4.6mb
GBTN 36.26 197 (P) 33 46.35 2.0
DAU 36.68 234 (P) 33 47.70 -0.5
TIK 36.68 349 eP 33 49.00 1.6
1.4s 15.00nm 4.6mb
EMUT 37.13 233 eP 33 52.31 0.4
DUG 37.30 236 eP 33 53.07 -0.1
0.6s 8.07nm 4.7mb
Z 20s 0.53um 4.3Msz
e 33 57.41
OLY 37.30 207 eP 33 52.73 -0.3
ACO 37.44 217 iPc 33 52.00 -2.2
SRU 37.72 232 eP 33 55.89 -0.8
e 33 59.84
PV08 37.75 230 eP 33 55.78 -1.4
e 33 59.54
PV10 38.04 230 eP 33 59.75 0.2
e 34 02.84
OCO 38.26 215 iPc 34 04.20 3.1X
BSD 38.31 68 eP 34 02.00 0.8
0.7s 10.00nm 4.7mb
HBF 38.67 191 (P) 34 07.07 2.5X
MSU 38.71 234 (P) 34 05.36 0.3
e 34 08.90
LBFM 38.80 247 eP 34 06.32 0.5
NRI 38.94 11 iPd 34 10.20 3.8X
1.3s 23.00nm 4.7mb
FLN 38.97 86 eP 34 06.60 -0.3
0.6s 5.95nm 4.4mb
GRR 39.18 87 eP 34 08.70 0.1
0.7s 11.90nm 4.7mb
MEO 39.19 216 iPc 34 06.50 -2.4
LDF 39.24 86 eP 34 08.80 -0.3
0.9s 9.65nm 4.5mb
LPF 39.43 87 eP 34 11.00 0.3
0.7s 5.85nm 4.4mb
LGPM 39.47 248 (P) 34 14.17 2.8X
e 34 21.07
WDC 39.69 247 eP 34 12.37 -0.6
0.6s 15.10nm 4.8mb
Z 20s 0.87um 4.6Msz
e 34 15.64
ARUT 39.72 235 (P) 34 14.57 1.1
FHC 39.92 249 (P) 34 16.17 1.2
1.1s 53.41nm 5.1mb
KMPM 40.32 249 eP 34 19.31 1.1
TNP 40.47 240 eP 34 19.49 -0.2
2.0s 23.86nm 4.5mb
ALQ 40.69 226 eP 34 21.11 -0.4
Z 21s 0.06um 3.4Msz
BONR 40.90 241 eP 34 21.77 -1.5
CLL 41.02 72 eP 34 24.00 0.3
1.1s 15.00nm 4.6mb
MOX 41.17 74 eP 34 23.00 -2.0
1.2s 22.00nm 4.8mb
i 34 26.90
TPNV 41.27 238 (P) 34 30.12 4.0X
0.5s 3.45nm 4.3mb
Z 21s 2.71um 5.1Msz
CMB 41.42 243 eP 34 26.32 -0.9
0.8s 7.92nm 4.5mb
e 34 29.86
LOR 41.68 83 eP 34 29.60 0.3
0.7s 5.20nm 4.4mb
Z 22s 0.13um 3.7Msz
BRG 41.69 72 e(P) 34 29.70 0.5
SSF 41.75 84 eP 34 30.00 0.2
0.8s 11.15nm 4.6mb
NTYM 41.75 246 (P) 34 32.10 2.2
CDF 41.76 79 eP 34 30.00 0.0
0.8s 7.80nm 4.5mb
HAU 41.83 80 eP 34 30.80 0.3
Z 23s 0.25um 4.0MszX
LSF 41.83 86 eP 34 29.90 -0.6
0.8s 9.40nm 4.6mb
GRF 41.88 75 eP 34 32.20 1.3
1.1s 35.00nm 5.0mb
Z 21s 0.40um 4.3Msz
AVF 41.94 84 eP 34 31.40 0.0
0.7s 3.40nm 4.2mb
LBF 41.97 83 eP 34 31.30 -0.4
0.8s 17.85nm 4.8mb
BGF 41.98 85 eP 34 30.90 -0.8
0.8s 10.75nm 4.6mb
TCF 42.02 85 eP 34 31.40 -0.7
0.8s 9.80nm 4.6mb
BSF 42.12 80 eP 34 32.70 -0.3
0.7s 7.95nm 4.6mb
MAF 42.19 85 eP 34 32.70 -0.8
0.8s 4.15nm 4.2mb
SMF 42.23 84 eP 34 33.10 -0.6
0.8s 9.25nm 4.6mb
ARN 42.39 244 eP 34 40.13 4.9X
KSP 42.43 70 eP 34 34.00 -1.3
i 34 37.50
PRU 42.65 72 eP 34 37.50 0.4
GSC 42.97 238 eP 34 43.40 3.4X
ISA 43.09 240 eP 34 41.72 0.7
1.1s 21.68nm 4.8mb
Z 19s 0.45um 4.4Msz
KHC 43.11 73 eP 34 43.00 2.1
1.0s 5.40nm 4.2mb
e 35 12.00
e 36 18.50
GEC2 43.40 73 P 34 41.30 -2.1
0.9s 0.62nm 3.4mb X
e 34 44.00
TUC 44.24 230 P 35 00.00 9.7X
Z 19s 0.61um 4.5Msz
OBN 44.32 51 ePd 34 51.00 0.4
1.0s 17.00nm 4.9mb
PSZ 46.11 69 eP 35 03.50 -1.6
YAK 46.13 346 eP 35 06.00 1.1
Z 16s 0.40um 4.5MszX
UZH 46.19 66 eP 35 04.00 -1.6
VBY 46.86 74 eP 35 10.70 -0.2
SMY 47.80 311 P 35 30.00 11.7X
Z 19s 2.04um 5.1Msz
SVE 47.92 33 ePd 35 19.00 -0.1
ARU 47.94 35 eP 35 20.00 0.7
2.0s 100.00nm 5.6mb
VRI 49.99 64 eP 35 38.00 2.8X
MLR 50.10 65 eP 35 39.00 2.7X
BOD 51.09 356 eP 35 42.90 -0.5
1.1s 12.00nm 4.7mb
SKO 51.96 71 eP 35 47.00 -3.2X
OHR 52.55 72 iP 35 39.00 -15.8X
VAY 52.90 70 eP 35 54.40 -2.9
ELT 54.81 16 eP 36 11.20 0.0
2.0s 33.00nm 5.0mb
MOY 57.24 5 eP 36 31.80 3.2X
ZAK 58.60 4 eP 36 40.00 1.8
1.4s 9.00nm 4.7mb
OLLA 61.30 174 iP 36 56.80 -0.4
FRU 63.71 27 eP 37 15.00 2.0
2.0s 70.00nm 5.5mb

13d 09h

e 37 19.50
HON 68.71 273 P 38 00.00 15.0X
Z 20s 0.24um 4.4Msz
TIC 76.45 110 P 38 32.80 2.1
KIC 76.80 110 P 38 35.00 2.3X
LIC 76.84 110 P 38 33.40 0.5
GKN 79.63 21 P 38 49.20 0.9
GUN 79.86 20 P 38 50.60 0.9
KKN 79.91 20 P 38 51.00 1.1
DMN 80.07 21 P 38 53.60 2.8X
PKI 80.14 20 P 38 51.80 0.6
BCAO 86.00 88 iPd 39 22.00 1.0
0.6s 6.00nm 4.9mb
S.D. = 1.2 on 110 of 140 obs.

% MAR 13, 1993 09h 37m 07.33± 0.51s
38.423 N ± 6.7km 140.401 E ± 9.8km
DEPTH = 10.0km (geophysicist)
EASTERN HONSHU, JAPAN (227)

YAMJ 0.38 229 iP+ 37 14.40 -0.7
S 37 19.90
OFUJ 1.19 56 iP+ 37 28.50 -1.0
iS 37 44.40
NIIJ 1.62 224 iP+ 37 35.80 -0.2
S 37 58.60
AOMJ 2.13 359 eP 37 43.10 -0.3
S 38 09.40
KAKJ 2.22 185 P 37 45.50 0.8
MAT 2.56 224 iPc 37 49.40 -0.2
eS 38 26.00
CHJJ 2.62 206 P 37 50.80 0.3
MTMJ 2.76 229 P 37 52.60 0.1
eS 38 32.40
MRRJ 4.03 7 eP 38 11.80 1.5
eS 39 03.40
HOOJ 4.53 28 eP 38 17.70 0.3
eS 39 14.70
KUSJ 5.70 34 eP 38 30.30 -3.7X
eS 39 39.50
ASAJ 5.93 16 eP 38 36.80 -0.5
S.D. = 0.8 on 11 of 12 obs.

? MAR 13, 1993 09h 37m 54.32± 1.00s
39.067 N ±10.9km 27.770 E ±17.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.78 211 iPg 38 09.50 0.0
iSg 38 21.00
DST 0.86 51 iPn 38 10.80 0.0
KCT 1.26 21 iPn 38 17.90 0.1
EDC 1.28 3 ePn 38 18.00 -0.1
S.D. = 0.1 on 4 of 4 obs.

& MAR 13, 1993 09h 38m 40.88s
60.068 N 152.814 W
DEPTH = 107.1km
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.12 267 eP 38 55.36 0.8
eS 39 07.03
INW 0.16 270 eP 38 55.25 0.7
eS 39 07.17
RS1 0.39 4 eP 38 56.52 -0.7
eS 39 08.29
RS2 0.40 4 eP 38 56.48 -0.8
RSO 0.40 4 eP 38 56.44 -0.8
eS 39 08.33
RDW 0.42 0 eP 38 56.43 -0.9
eS 39 08.85
RDN 0.45 3 eP 38 56.79 -0.7
OPT 0.47 207 eP 38 56.67 -0.8
eS 39 09.38
NCT 0.50 353 eP 38 56.93 -0.8
eS 39 09.50
DFR 0.53 7 iP 38 57.05 -0.9
iS 39 09.90
PDB 0.75 249 eP 38 58.82 -0.8
eS 39 12.67
AUL 0.76 205 eP 38 58.86 -0.9
AUE 0.77 202 eP 38 58.71 -1.1
AUH 0.78 205 eP 38 59.17 -0.8
AUW 0.78 206 eP 38 59.01 -0.9
AUI 0.80 203 eP 38 59.02 -1.1
XLV 0.83 138 eP 38 59.23 -1.1
CNPM 0.97 124 eP 39 00.81 -1.0
eS 39 16.44
BRLK 1.02 107 eP 39 01.39 -1.0
eS 39 17.36
NKA 1.03 48 eP 39 03.45 1.0
CKL 1.16 12 iP 39 03.25 -0.7
CKT 1.18 15 eP 39 03.33 -0.8
MCNL 1.18 222 eP 39 02.85 -1.2
SPU 1.18 18 eP 39 03.33 -0.8
CKN 1.20 15 eP 39 03.79 -0.6
BGL 1.22 10 eP 39 04.09 -0.6
CDD 1.22 201 eP 39 03.15 -1.4
CP2 1.23 13 ePd 39 04.36 -0.6
CPAM 1.24 15 eP 39 04.24 -0.6
CRP 1.25 15 ePd 39 04.10 -0.9
eS 39 21.99
SLKM 1.36 70 eP 39 04.75 -1.6
SYI 1.48 171 eP 39 06.34 -1.3
eS 39 26.20
SEW 1.69 87 eP 39 08.07 -2.1
SUA 1.73 35 eP 39 10.39 -0.5
SVW 1.73 308 iPd 39 09.59 -1.3
MPA 1.77 75 eP 39 09.78 -1.5
PMS 1.99 52 P 39 13.00 -1.1
SKT 2.02 17 eP 39 13.48 -1.0
PTE 2.04 65 eP 39 12.71 -2.0
PLRM 2.36 48 eP 39 16.82 -2.2
PMR 2.36 48 eP 39 17.01 -2.0
GHO 2.56 46 eP 39 19.59 -2.1
SML 2.80 49 eP 39 22.56 -2.3
HIN 3.17 81 eP 39 27.11 -2.7
VLZ 3.37 69 eP 39 29.23 -3.3
CVA 3.55 79 eP 39 31.51 -3.4
TRF 3.60 18 eP 39 35.65 -0.2
KLU 3.67 64 eP 39 33.73 -3.0
48 obs. associated

? MAR 13, 1993 09h 45m 08.31± 1.13s
14.910 N ±25.2km 90.727 W ±13.4km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
GUATEMALA (70)

TPX 1.48 270 iP 45 31.50 -1.4
iS 45 47.00
SCX 2.58 315 eP 45 57.25 8.6X
iS 46 30.50
IISM 7.55 303 eP 46 58.00 -0.8
PPM 8.61 300 iP 47 16.50 2.3
IIA 8.68 300 (P) 47 02.50 -12.1X
III 9.06 294 iP 47 19.00 -1.1
UNM 9.20 300 (P) 47 26.50 4.4X
MRX 11.07 297 iP 47 49.00 1.5
SIV 42.44 135 Pc 53 03.00 1.0
i 53 20.50
NB2 82.76 29 P 57 29.20 -1.0
0.8s 1.10nm 4.0mb
HFS 84.21 29 eP 57 37.00 -0.5
0.5s 1.40nm 4.4mb
S.D. = 1.7 on 8 of 11 obs.

? MAR 13, 1993 10h 02m 33.00± 1.35s
8.684 S ±18.2km 118.523 E ±12.2km
DEPTH = 112.1 ± 28.8 km
3.8mb (1 obs.)
SUMBAWA REGION, INDONESIA (285)

KHKI 2.90 276 ePd 03 18.50 0.1
eS 03 49.60
e 07 10.50
MBL 12.47 174 eP 05 27.70 0.0
0.3s 9.00nm 4.9mb X
eS 07 35.00
MTN 13.06 110 eP 05 35.00 -0.4
eS 07 53.00
NANU 14.10 191 eP 05 49.00 0.2
MEEK 17.86 180 eP 06 36.00 0.1
eS 09 41.00
MRWA 20.56 186 eP 07 04.00 -0.8
0.4s 2.00nm 3.8mb
eS 10 43.00
ASPA 20.95 137 eP 07 09.50 0.8
eS 10 56.30
MUN 23.28 185 eP 07 51.00 19.5X
eS 11 48.00
S.D. = 0.7 on 7 of 8 obs.

• MAR 13, 1993 10h 09m 52.15± 0.69s
18.989 N ±11.0km 119.615 E ±12.0km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)
PHILIPPINE ISLANDS REGION (248)

PIP 1.16 125 iPc 10 11.80 -0.3
iS 10 26.00
SZP 1.64 151 iPd 10 18.00 -1.0
CVP 2.45 121 ePd 10 33.00 2.2
iS 11 02.20
BBP 2.64 56 ePc 10 32.50 -0.9
eS 11 04.50
BCP 2.73 159 eP 10 38.00 3.3X
eS 11 09.00
WRA 41.30 159 P 17 35.50 -0.8
0.4s 0.80nm 3.8mb
NB2 82.12 332 P 22 10.00 -0.7
0.7s 1.60nm 4.2mb
GEC2 85.90 320 P 22 30.60 0.4
0.8s 0.73nm 4.0mb
e 22 39.50
YKA 88.31 22 eP 22 41.20 -0.2
0.7s 1.60nm 4.4mb
LPG 91.64 320 eP 22 58.40 0.6
1.0s 12.20nm 5.3mb
LPL 91.65 320 eP 22 58.30 0.6
0.6s 2.80nm 4.8mb
S.D. = 1.1 on 10 of 11 obs.

% MAR 13, 1993 10h 17m 58.89± 2.89s
43.280 N ±22.0km 0.573 W ± 8.0km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.2 (STR).

OGE 0.13 147 Pg 18 01.94 -0.2
ESCF 0.20 180 Pg 18 03.00 -0.3
ATE 0.21 206 Pg 18 03.89 0.3
Sg 18 08.67
MADF 0.22 234 Pg 18 03.15 -0.6
Sg 18 07.96
JAU 0.28 148 Pg 18 05.19 0.3
ELYF 0.33 250 Pg 18 05.68 0.0
BOH 0.37 241 Pg 18 06.88 0.4
S.D. = 0.5 on 7 of 7 obs.

MAR 13, 1993 10h 20m 10.73± 0.74s
18.263 S ± 7.8km 178.329 W ±10.0km
DEPTH = 628.8 ± 9.7 km
4.7mb (19 obs.)
FIJI ISLANDS REGION (181)

MBU 3.09 294 iPc 21 33.50 0.3
NOZ 20.53 188 P 24 11.20 1.6
0.5s 33.00nm 5.1mb
PGZ 22.76 191 P 24 28.00 -1.7
MNG 22.91 192 P 24 29.00 -2.0
QRZ 23.82 197 P 24 39.80 0.7
THZ 24.59 196 P 24 46.70 0.8
0.2s 4.00nm 4.7mb
DSZ 24.88 198 P 24 47.60 -0.8
KHZ 25.05 194 P 24 49.10 -0.7
0.3s 8.00nm 4.8mb
LTZ 25.71 196 P 24 55.10 -0.6
0.5s 19.00nm 5.0mb
BWZ 27.99 198 P 25 14.40 -1.0
ARMA 29.83 240 iPc 25 32.20 0.8
0.9s 17.00nm 4.7mb
CNB 33.27 233 iPc 26 01.50 1.3
CAN 33.55 233 iPd 26 03.30 0.8
BWA 33.68 235 eP 26 02.00 -1.5
CMS 34.92 241 iPd 26 14.30 0.6
0.7s 11.00nm 4.5mb
OLP 35.48 250 iPd 26 18.30 -0.1
TOO 37.01 231 iPc 26 32.10 1.3
0.5s 21.00nm 5.0mb
HON 44.09 28 P 27 40.00 12.9X
Z 19s 0.24um 4.1Msz
MBL 57.97 256 eP 29 06.00 -1.4
SMY 71.00 355 P 30 30.00 2.0
Z 19s 1.53um 5.3Msz
SPA 71.85 180 iPd 30 34.80 1.7
0.7s 26.56nm 4.9mb
ARN 76.91 43 eP 31 02.08 0.7
PLM 77.91 49 eP 31 07.62 0.6

CMB 78.05 43 eP 31 07.39 -0.1
0.9s 11.78nm 4.4mb
LGPM 78.19 40 eP 31 09.01 0.8
ORV 78.21 41 eP 31 08.33 0.1
LBFM 79.02 40 eP 31 12.87 0.2
GLA 79.22 50 eP 31 14.37 0.7
KVN 80.10 43 eP 31 18.66 0.3
TPNV 80.21 46 P 31 30.00 11.1X
Z 22s 2.97um 5.6Msz
KMOR 80.68 36 P 31 21.25 0.3
BMW 81.34 35 eP 31 24.00 -0.3
VBEM 81.40 37 P 31 24.82 0.1
VIPM 81.63 38 P 31 26.17 0.2
CROR 81.69 37 P 31 26.28 0.1
SHW 81.71 36 eP 31 26.81 0.6
SLKM 81.72 14 eP 31 24.31 -1.5
TUC 81.86 52 eP 31 28.00 0.8
1.0s 12.22nm 4.4mb
Z 19s 0.11um 4.2Msz
CP2 81.97 12 P 31 25.76 -1.6
CRP 81.99 12 eP 31 24.64 -2.7
ASR 82.04 36 P 31 28.06 0.2
STW 82.14 33 P 31 28.89 0.7
GMW 82.24 34 eP 31 28.55 -0.1
FMW 82.47 35 P 31 30.30 0.2
ARUT 82.56 46 eP 31 31.42 0.7
JBO 82.63 37 P 31 30.90 0.1
TTA 82.81 10 eP 31 30.51 -0.8
1.0s 8.13nm 4.3mb
MCW 82.91 33 eP 31 32.48 0.4
JCW 83.09 34 P 31 33.24 0.3
SIT 83.18 22 P 31 40.00 6.9X
Z 19s 1.20um 5.3Msz
WAH2 83.54 36 P 31 35.43 0.3
LNOR 83.76 38 P 31 35.99 -0.4
MSU 83.79 46 eP 31 35.13 -1.8
WTV 83.86 35 P 31 36.77 -0.1
SAW 84.17 36 P 31 38.27 0.0
DPW 84.93 36 eP 31 42.01 0.0
SRU 85.21 46 eP 31 43.40 -0.3
NEW 85.75 36 eP 31 45.45 -0.5
0.7s 9.93nm 4.6mb
Z 22s 5.88um 5.9MszX
PV09 85.89 47 eP 31 47.47 0.3
PV10 85.90 47 eP 31 46.57 -0.6
FBA 86.14 13 eP 31 45.52 -1.8
0.6s 6.58nm 4.5mb
ALQ 86.26 51 eP 31 48.72 -0.1
1.0s 8.03nm 4.4mb
PV08 86.26 47 eP 31 49.14 0.2
LCCM 87.55 40 eP 31 55.00 0.4
BW06 87.56 43 eP 31 54.10 -0.8
0.6s 6.04nm 4.5mb
GOL 89.04 48 P 32 10.00 8.2X
Z 21s 0.18um 4.5Msz
GLD 89.17 48 eP 32 03.30 1.1
1.2s 20.69nm 4.9mb
Z 21s 0.67um 5.0Msz
SES 90.26 36 eP 32 07.00 0.2
RSSD 91.77 44 eP 32 13.87 -0.3
0.9s 8.27nm 4.7mb
Z 20s 0.12um 4.3Msz
YKA 94.62 25 eP 32 25.10 -1.3
0.6s 1.40nm 4.3mb
MIAR 95.97 56 eP 32 39.62 6.5X
0.6s 6.74nm 5.1mb
Z 20s 0.16um 4.5Msz
JFWS 100.83 48 Pdiff 33 00.00 5.1X
Z 20s 0.01um 3.2MszX
MCWV 107.83 53 PKP 37 40.00 10.3X
Z 20s 2.25um 5.7Msz
RSNY 112.32 49 PKP 37 40.00 2.0
Z 21s 0.08um 4.3Msz
NUR 134.71 344 ePKP 38 19.00 -1.3
NB2 136.74 353 PKP 38 24.80 0.6
0.7s 1.70nm
HFS 137.29 351 ePKP 38 12.50 -12.7X
0.3s 1.00nm
DMU 143.82 9 ePKP 38 34.70 -2.2
DCN 144.30 9 ePKP 38 36.40 -1.3
DLF 144.46 8 ePKP 38 37.30 -0.7
WIT 145.30 355 ePKP 38 41.00 1.6
KSP 145.47 344 ePKP 38 39.80 0.0
0.9s 41.00nm
ic 38 41.40
VRI 145.52 328 ePKP 38 41.50 1.5
SPC 145.69 338 ePKP 38 41.30 0.9
CLL 145.82 347 iPKPc 38 41.90 1.6
1.2s 58.00nm
BRG 146.03 346 ePKP 38 41.20 0.5
1.0s 26.00nm
i 38 42.60
WTS 146.10 354 ePKP 38 42.50 1.8
1.0s 44.90nm
MLR 146.17 329 ePKPc 38 43.00 1.7
PRU 146.71 345 ePKP 38 43.80 2.0
0.9s 9.00nm
e 38 47.00
e 39 16.50
MOX 146.73 348 ePKP 38 42.10 0.3
1.7s 33.00nm
ENN 147.39 355 ePKP 38 46.00 3.2X
0.8s 8.90nm
SRO 147.54 339 iPKP 38 47.30 4.1X
ZST 147.60 341 ePKP 38 46.80 3.5X
GRF 147.72 348 iPKPd 38 47.40 4.0X
KHC 147.74 345 ePKP 38 43.40 -0.1
e 38 47.00
SNF 147.76 357 PKPc 38 46.90 3.5X
GEC2 147.97 345 PKP 38 47.50 3.5X
0.7s 10.00nm
GEC2 147.97 345 PKP 38 42.80 -1.2
1.3s 1.97nm
DOU 148.16 356 PKP 38 47.80 3.7X
WLF 148.47 354 iPKPd 38 48.94 4.4X
DIM 148.77 324 ePKP 38 50.00 4.7X
KDZ 149.10 324 ePKP 38 50.00 4.2X
FUR 149.16 347 iPKPc 38 50.80 5.1X
PGB 149.16 327 ePKP 38 50.00 4.1X
PLD 149.19 325 ePKP 38 50.00 4.1X
RZN 149.47 325 iPKPc 38 51.00 4.4X
FLN 149.53 3 ePKP 38 50.50 4.3X
1.0s 45.00nm
CDF 149.58 353 ePKP 38 51.10 4.7X
0.5s 7.60nm
VTS 149.63 328 iPKPc 38 52.00 5.2X
KBA 149.70 344 iPKPc 38 51.00 4.2X
0.8s 11.60nm
i 38 55.40
LDF 149.71 2 ePKP 38 50.90 4.4X
0.5s 8.55nm
GRR 149.88 3 ePKP 38 51.60 4.9X
0.5s 11.60nm
WTTA 149.94 346 iPKPc 38 52.30 5.2X
0.7s 24.30nm
MMB 150.07 326 iPKP 38 52.00 4.7X
SOTA 150.08 347 iPKPc 38 52.30 5.1X
1.0s 30.60nm
HAU 150.09 354 ePKP 38 52.10 5.0X
0.6s 11.10nm
BSF 150.21 353 ePKP 38 52.40 5.0X
0.6s 8.20nm
BSF 150.21 353 ePKP 38 56.00 8.6X
KKB 150.21 327 iPKP 38 53.00 5.5X
LPF 150.23 4 ePKP 38 52.40 5.2X
0.8s 31.45nm
LJU 150.32 342 ePKP 38 45.50 -2.0
e 38 53.00
VOY 150.51 343 ePKP 38 47.30 -0.6
i 38 52.90
e 39 02.10
VBY 150.58 340 ePKP 38 48.50 0.6
i 38 53.70
CEY 150.62 342 ePKP 38 46.50 -1.5
e 38 53.00
TRI 150.84 342 ePKP 38 47.50 -0.8
e 38 53.50
SKO 150.97 329 iPKP 38 54.80 6.2X
LOR 151.02 357 ePKP 38 54.30 5.8X
0.6s 13.25nm
SSF 151.24 357 ePKP 38 54.90 6.1X
0.5s 3.45nm
AVF 151.52 358 ePKP 38 55.10 5.9X
0.9s 8.50nm
OHR 151.93 328 ePKP 38 56.70 6.6X
TCF 152.05 359 ePKP 38 56.60 6.6X
0.7s 7.95nm
LSF 152.09 0 ePKP 38 56.30 6.2X
0.8s 12.75nm
MAF 152.11 359 ePKP 38 56.90 6.8X
0.8s 9.00nm
LPL 152.50 352 ePKP 38 58.50 7.5X
LPG 152.52 352 ePKP 38 57.60 6.5X
BCAO 158.53 232 iPKPc 38 58.10 -1.2
1.0s 13.00nm
id 39 30.00
S.D. = 1.1 on 90 of 136 obs.

MAR 13, 1993 10h 47m 45.13± 1.20s
40.462 N ±11.4km 21.832 E ± 6.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.47 313 ePg 47 54.60 -0.2
eSg 48 01.40
GRG 0.66 41 ePg 47 57.08 -1.2
iSg 48 06.80
OHR 1.02 310 ePn 48 04.50 0.1
VAY 1.02 33 ePn 48 06.00 1.5
KNT 1.07 49 ePg 48 04.72 -0.6
iSg 48 19.80
SOH 1.21 72 iPb 48 07.76 0.0
eSb 48 24.32
PAIG 1.51 110 ePb 48 11.92 -0.3
OUR 1.65 94 ePb 48 14.80 0.6
S.D. = 0.9 on 8 of 8 obs.

? MAR 13, 1993 11h 16m 59.29± 6.82s
43.304 N ±20.7km 0.462 W ±65.4km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 2.7 (LDG).

BTH 0.26 134 iPgc 17 04.80 0.0
iSg 17 11.60
EPF 0.65 115 Pg 17 12.30 0.0
Sg 17 23.30
LPO 1.82 40 Pg 17 30.90 0.0
Sn 17 50.70
Sg 17 55.40
LFF 1.85 27 Pg 17 31.30 0.0
Sg 17 56.40
CAF 2.44 47 Pg 17 45.00 5.2X
Sn 18 05.20
Sg 18 14.80
RJF 2.45 35 Pg 17 44.70 4.7X
Sn 18 04.60
Sg 18 14.20
S.D. = 0.0 on 4 of 6 obs.

MAR 13, 1993 11h 36m 12.66± 0.40s
47.475 N ± 3.4km 2.493 W ± 3.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 4.6 (LDG), 4.0 (STR), mbLg
4.2 (UCC).

LPF 1.13 60 Pg 36 36.80 3.0
Sg 36 50.00
GRR 1.43 50 Pn 36 41.20 2.6
Pg 36 42.70
Sg 37 00.00
MFF 1.83 118 Pn 36 46.80 2.5
Pg 36 48.30
Sg 37 09.80
FLN 1.86 46 Pn 36 47.10 2.2
Pg 36 50.30
Sn 37 07.90
Sg 37 13.30
LDF 1.95 54 Pn 36 48.20 2.1
Pg 36 51.30
Sn 37 09.60
Sg 37 15.70
LSF 3.02 112 Pn 37 02.10 0.7
Pg 37 10.80
Sg 37 47.10
LFF 3.39 137 Pn 37 07.40 0.8
Pg 37 16.50
Sg 38 00.10
TCF 3.44 108 Pn 37 07.80 0.5
Pg 37 18.60
Sg 38 00.20
HYF 3.49 92 Pn 37 09.10 1.0
Sg 38 04.80
RJF 3.52 127 Pn 37 08.80 0.3
Pg 37 18.90
Sg 38 01.10
MAF 3.69 108 Pn 37 11.00 0.0
Pg 37 23.60
Sg 38 07.30
BGF 3.77 102 Pn 37 12.20 0.2

13d 11h

Pg 37 25.10
Sn 37 53.60
Sg 38 10.70
LPO 3.79 136 Pn 37 12.90 0.6
Pg 37 23.40
Sg 38 10.20
AVF 4.05 98 Pn 37 15.70 -0.2
Pg 37 30.30
Sg 38 18.80
CAF 4.06 127 Pn 37 16.20 0.0
Pg 37 31.20
Sn 38 02.90
Sg 38 21.30
SSF 4.11 94 Pn 37 16.60 -0.2
Pg 37 30.90
Sg 38 20.60
AGO 4.12 108 Pn 37 17.14 0.2
PYM 4.16 112 Pn 37 17.31 -0.4
Pg 37 32.08
LOR 4.32 90 Pn 37 19.50 -0.4
Pg 37 34.70
Sg 38 29.80
ELIZ 4.36 171 ePn 37 22.00 1.5
eSn 38 07.80
SMF 4.41 99 Pn 37 20.60 -0.5
Pg 37 36.30
Sg 38 27.90
LBF 4.44 94 Pn 37 21.70 0.2
Pg 37 37.20
Sg 38 32.10
PLDF 4.47 107 Pn 37 21.29 -0.7
Pg 37 39.04
COLF 4.70 112 Pn 37 24.86 -0.5
Sg 38 41.66
ECRI 4.87 180 ePn 37 29.00 1.3
eSn 38 18.50
EPF 4.87 155 Pn 37 26.10 -1.7
Pg 37 44.20
Sn 38 19.90
Sg 38 48.80
DOMF 4.97 55 Pn 37 29.25 0.3
MLS 5.18 149 Pn 37 33.50 1.4
LESF 5.18 148 Pn 37 33.68 1.6
EMON 5.28 222 ePn 37 32.90 -0.6
eSn 38 27.50
ECP 5.34 333 eP 37 34.80 0.6
eS 39 04.00
SSB 5.34 112 Pn 37 33.58 -0.8
DOU 5.37 58 iPc 37 34.90 0.2
iS 38 31.70
SALF 5.39 150 Pn 37 33.86 -1.2
SNF 5.40 53 iPd 37 34.92 -0.2
GRBF 5.44 147 Pn 37 36.81 1.0
EGRA 5.50 163 ePn 37 40.80 4.2X
eSn 38 40.00
UCC 5.59 51 iP 37 37.80 -0.1
i 38 25.00
ETA 5.75 337 eP 37 40.90 0.9
VITF 5.76 79 Pn 37 38.40 -1.8
Pg 38 03.06
HAU 5.99 82 Pn 37 41.10 -2.3X
Pg 38 06.90
Sn 38 47.10
Sg 39 21.90
ERUA 6.06 215 ePn 37 44.20 -0.2
eSn 38 45.20
WLF 6.14 66 iPc 37 44.90 -0.6
PERF 6.27 141 Pn 37 48.53 1.0
STS 6.27 225 ePn 37 45.80 -1.7
eSn 38 50.00
BSF 6.28 83 Pn 37 45.20 -2.5X
Pg 38 12.50
Sn 38 51.20
Sg 39 30.10
DLF 6.37 338 eP 37 49.70 0.9
ETER 6.42 142 iPnd 37 54.50 5.0X
eSn 39 02.60
ENN 6.43 56 iPnc 37 49.10 -0.6
0.5s 25.60nm 5.4mb
iSn 38 57.40
MOF 6.51 83 Pn 37 48.35 -2.6X
Pg 38 17.03
ECH 6.54 80 Pn 37 49.94 -1.3
Pg 38 18.04
DCN 6.62 334 eP 37 52.50 0.1
CDF 6.63 78 Pn 37 50.30 -2.3X
Pg 38 21.62
ETOR 6.66 177 ePn 37 53.80 0.7
eSn 39 01.60
LPL 6.66 104 Pn 37 53.10 -0.1
Sg 39 43.80
LPG 6.68 104 Pn 37 53.70 0.2
Sg 39 43.00
WLS 6.68 78 Pn 37 20.90 -32.4X
Pg 38 22.97
RUP 6.72 67 ePn 37 52.36 -1.4
EZAM 6.91 222 ePn 37 54.70 -1.8
eSn 39 06.60
CDR 6.93 120 ePnd 37 58.70 2.0
e 37 59.40
e 39 21.70
e 39 36.00
e 39 52.50
i 39 54.50
GUD 6.93 191 ePn 37 56.50 -0.4
eSn 39 08.00
EROQ 6.97 162 ePn 37 58.30 1.0
eSn 39 11.50
DMU 7.02 338 eP 37 58.20 0.3
LANF 7.04 74 Pn 37 55.65 -2.6X
FEL 7.11 83 Pn 37 57.36 -1.9
WTS 7.53 50 ePn 38 03.50 -1.6
0.8s 9.80nm 5.1mb
TNS 7.72 65 ePnc 38 10.00 2.1
eSn 39 29.90
eSg 40 18.70
EPLA 7.85 201 ePn 38 08.00 -1.6
eSn 39 29.50
FUR 9.29 81 iPd 38 30.40 0.8
SQTA 9.31 87 iPd 38 29.30 -0.6
GRF 9.36 71 ePn 38 28.40 -2.1
e(Pg) 39 16.20
e(Sn) 40 08.80
eSg 41 17.80
WTTA 9.59 86 iPd 38 33.20 -0.7
0.9s 27.00nm 5.7mb
iS 40 17.80
i 41 21.30
i 41 46.20
SCE 9.67 87 iPd 38 34.60 -0.4
MOX 9.79 66 ePn 38 35.10 -1.4
eSn 40 16.00
eSg 41 33.00
WET 10.38 75 eP 38 42.60 -2.0
KBA 10.77 86 iPc 38 48.40 -1.7
i 38 49.50
i 40 46.80
iS 40 48.90
KHC 10.84 75 Pn 38 49.00 -1.8
e 38 56.50
e 39 12.50
e 39 19.50
e 39 41.50
eSn 40 00.00
e 40 25.60
eSg 40 42.50
e 41 16.00
e 41 26.00
eSg 42 01.50
e 42 18.50
e 42 34.50
GEC2 10.91 77 Pn 38 49.90 -2.0
Sn 40 42.80
Sg 42 12.20
BRG 11.28 66 ePn 38 55.00 -1.9
e 41 19.00
e 42 11.00
PRU 11.53 71 eP 39 02.00 1.8
eSg 40 27.00
e 41 31.00
e 42 26.10
eSg 42 36.80
S.D. = 1.3 on 72 of 80 obs.

% MAR 13, 1993 12h 11m 13.78± 1.18s
26.807 S ±11.1km 26.787 E ± 9.1km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

BFS 0.09 181 iPc 11 16.20 0.3
S 11 16.80
PRY 0.62 101 eP 11 25.00 -1.3
S 11 34.00
SWZ 1.36 254 eP 11 38.70 -0.7
S 11 54.60
SEK 1.68 154 eP 11 45.00 0.8
S 12 06.00
SLR 1.71 52 eP 11 45.50 0.9
S 12 08.00
S.D. = 1.4 on 5 of 5 obs.

% MAR 13, 1993 13h 02m 03.00± 0.78s
26.194 S ± 7.4km 28.135 E ± 8.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 1.9 (PRE).

SLR 0.48 16 eP 02 12.50 -0.1
S 02 18.50
PRY 0.94 219 eP 02 20.90 -0.6
S 02 33.00
KSR 1.16 286 eP 02 25.50 0.2
S 02 42.00
BFT 1.79 74 eP 02 34.90 -0.1
S 02 56.60
SEK 2.17 192 eP 02 41.00 0.6
S 03 07.80
S.D. = 0.6 on 5 of 5 obs.

MAR 13, 1993 13h 12m 48.88± 0.84s
25.482 N ± 5.3km 123.403 E ± 7.2km
DEPTH = 205.2 ± 8.4 km
4.6mb (28 obs.)
NORTHEAST OF TAIWAN (245)

QZH 4.39 264 iPc 13 55.50 -0.8
BBP 5.19 195 ePd 14 05.00 -1.4
eS 15 04.50
SSE 5.92 341 P 14 15.00 -0.9
NJ2 7.67 330 eP 14 39.80 1.1
Z 20s 0.59um
CVP 7.88 191 eP 14 43.00 1.4
GZH 9.48 258 P 15 01.80 -0.4
QIZ 14.09 246 eP 16 02.80 1.9
GYA 15.09 277 P 16 14.60 1.3
1.6s 76.00nm 4.9mb
XAN 15.18 308 P 16 15.60 1.3
TIY 15.35 325 Pd 16 18.60 2.3
HHC 18.22 330 Pd 16 49.20 0.0
1.2s 24.00nm 4.5mb
CN2 18.35 5 eP 16 49.00 -1.4
0.8s 7.70nm 4.2mb
GTA 24.18 311 eP 17 47.00 -1.0
ZAK 29.31 333 eP 18 33.00 -1.0
0.9s 6.00nm 4.3mb
GUN 33.53 283 P 19 13.00 1.5
KKN 34.07 282 P 19 15.80 -0.1
GKN 34.62 283 P 19 20.60 0.1
YAK 36.77 5 eP 19 36.20 -1.8
1.0s 50.00nm 5.1mb
MTN 38.83 168 iPc 19 54.00 -1.6
0.4s 35.00nm 5.3mb
MGD 39.44 21 eP 20 00.00 -0.1
e 22 02.00
TIK 46.29 2 iPc 20 53.00 -2.2
1.0s 18.00nm 4.4mb
WRA 46.39 166 P 20 56.20 -0.4
0.7s 8.30nm 4.3mb
WB2 46.39 166 iPc 20 55.80 -0.8
0.4s 4.90nm 4.3mb
ePP 22 26.40
eS 27 26.80
NRI 48.61 344 ePc 21 11.50 -1.6
1.0s 20.00nm 4.5mb
e 22 35.00
SVE 54.21 323 eP 21 52.80 -2.4
COOL 56.09 182 iPc 22 07.60 -1.3
0.4s 12.00nm 5.0mb
SDN 61.63 39 eP 22 44.02 -2.6
0.4s 19.50nm 5.2mb
ARMA 61.81 152 eP 22 48.00 -0.3
IMA 64.14 27 eP 23 03.70 0.5
0.9s 1.67nm 3.9mb
TOO 66.07 161 iPd 23 15.60 -0.1
0.3s 16.00nm 5.2mb
KIV 66.34 309 eP 23 17.50 -0.1
1.1s 30.00nm 4.9mb
SLKM 66.42 33 eP 23 16.17 -1.5
KLU 68.27 31 eP 23 28.54 -0.7
BALM 70.05 31 eP 23 39.69 -0.5

KAF 71.03 330 iP 23 44.80 -1.0
0.4s 6.10nm 4.7mb
NUR 72.32 329 eP 23 52.20 -1.2
0.6s 9.80nm 4.7mb
UPP 75.80 330 iP 24 12.80 -0.6
RES 77.06 10 eP 24 20.50 0.3
1.0s 3.00nm 4.0mb
HFS 77.42 331 eP 24 21.20 -1.2
0.8s 17.20nm 4.9mb
NB2 78.02 333 P 24 24.60 -1.1
0.5s 4.40nm 4.4mb
YKA 80.99 23 eP 24 41.20 -0.3
0.6s 10.20nm 4.7mb
VAY 81.17 312 eP 24 42.70 -0.1
SKO 81.64 312 iP 24 45.80 0.5
CLL 82.22 324 eP 24 48.00 -0.1
GEC2 83.11 321 P 24 52.60 -0.2
1.1s 5.47nm 4.2mb
VBY 83.90 318 eP 24 57.40 0.7
GRF 84.04 323 iPc 24 58.20 0.8
GMW 86.13 38 eP 25 09.03 1.2
JCW 86.24 38 P 25 09.57 1.2
BMW 86.48 39 eP 25 10.77 1.2
CDF 86.91 323 eP 25 11.50 -0.2
0.9s 6.70nm 4.5mb
FMW 87.10 38 P 25 13.62 0.9
ASR 87.59 39 P 25 15.97 0.9
WTV 87.61 37 P 25 15.59 0.6
SSOR 87.83 41 P 25 17.73 1.6
SAW 87.91 37 P 25 17.09 0.7
VBEM 88.22 40 P 25 19.01 0.9
WAH2 88.38 38 P 25 19.77 1.2
DPW 88.45 36 iPd 25 20.11 1.1
CROR 88.61 40 P 25 21.09 1.2
NEW 88.79 36 iPc 25 21.35 0.8
0.7s 33.86nm 5.4mb
LPG 88.91 321 eP 25 21.60 0.1
0.7s 11.90nm 4.9mb
LPL 88.91 321 eP 25 21.50 0.0
0.7s 11.25nm 4.9mb
VIPM 89.10 40 P 25 23.33 1.0
LNOR 89.62 38 P 25 25.66 1.1
SMF 89.83 323 eP 25 24.50 -0.9
0.7s 3.00nm 4.3mb
AVF 90.01 324 eP 25 25.80 -0.4
0.5s 2.40nm 4.4mb
FCC 90.49 18 eP 25 31.00 2.8
LCCM 93.09 35 eP 25 41.70 1.0
KIC 120.52 295 PKP 31 17.50 -0.7
S.D. = 1.2 on 70 of 70 obs.

% MAR 13, 1993 13h 38m 04.24± 0.62s
41.151 N ± 6.2km 28.473 E ± 4.3km
DEPTH = 5.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

CTT 0.03 263 iPg 38 05.20 -0.3
ISK 0.45 101 iPg 38 13.20 -0.1
iSg 38 20.20
DMK 0.86 321 iPg 38 21.30 0.1
iSg 38 35.30
BNT 0.90 208 ePg 38 21.70 -0.2
KCT 0.91 186 ePg 38 21.70 -0.4
EDC 0.93 210 ePg 38 23.00 0.6
HRT 0.96 110 iPn 38 23.10 0.0
EYL 1.41 114 ePn 38 30.70 0.1
S.D. = 0.4 on 8 of 8 obs.

MAR 13, 1993 13h 59m 59.16± 0.37s
19.400 N ± 6.2km 38.778 E ± 4.1km
DEPTH = 10.0km (geophysicist)
4.9mb (51 obs.) 5.1Msz (11 obs.)
RED SEA (554)
MD 4.7 (RYD).

ABHA 3.93 106 eP 00 58.00 -3.1
eS 01 40.60
KMTA 4.06 107 eP 01 03.00 0.1
DHJN 4.79 110 eP 01 13.30 -0.1
MBH 10.91 342 eP 02 38.00 -0.5
SDOM 12.03 346 eP 02 54.20 0.7
HMDT 13.14 348 eP 03 08.40 0.0
BHL 14.71 350 P 03 28.00 -1.2
S 06 32.00
KER 16.63 25 eP 03 54.00 -0.1
NAI 20.64 186 iPc 04 50.00 8.2X
Z 16s 2.42um 4.7MszX
S 11 20.00
GRS 21.07 16 eP 04 48.00 2.0
1.6s 90.00nm 4.9mb
Z 11s 2.12um 4.8MszX
eS 08 50.00
ERE 21.29 12 iP+ 04 50.00 1.8
E 14s 2.60um
iS 08 52.00
SHE 22.79 20 eP 05 08.00 5.0X
1.0s 40.00nm 4.9mb
Z 12s 2.50um 4.9MszX
N 12s 6.00um
E 12s 3.00um
iS 09 22.00
MTA 22.81 12 eP 05 06.00 2.8X
Z 13s 2.20um 4.8MszX
N 13s 2.20um
E 13s 1.50um
eS 09 21.00
BAK 22.99 22 iPd 05 20.00 15.0X
Z 13s 4.70um 5.1MszX
N 14s 7.60um
E 15s 7.17um
iS 09 28.00
SOC 24.12 2 eP 05 16.00 0.0
2.5s 280.00nm 5.4mb
Z 13s 1.20um 4.6MszX
N 11s 1.40um
E 13s 1.00um
e 05 54.00
ePPP 06 12.00
eS 09 44.00
GRO 24.57 12 iP+ 05 24.00 3.6X
Z 16s 2.50um 4.8MszX
N 14s 3.00um
E 12s 1.00um
i 06 06.00
eS 09 52.00
MAK 24.65 15 eP 05 25.00 3.9X
Z 13s 2.60um 4.9MszX
N 13s 2.20um
E 13s 3.60um
e 06 07.00
eS 09 52.00
KIV 24.70 7 ePc 05 23.40 1.6
3.0s 133.00nm 5.1mb
e 06 01.80
BCAO 24.72 236 iPc 05 24.00 1.9
0.7s 18.00nm 4.8mb
id 05 27.50
id 06 15.90
MAIO 24.79 43 eP 05 24.00 1.3
eS 10 00.00
PYA 24.82 7 iP+ 05 24.00 1.2
Z 14s 2.00um 4.8MszX
N 14s 2.00um
E 14s 1.00um
i 06 08.00
KAT 24.85 34 iP+ 05 24.00 0.9
Z 12s 1.00um 4.5MszX
N 12s 3.00um
E 12s 1.00um
eS 09 50.00
KDZ 24.92 336 eP 05 26.00 2.2
ASH 25.14 39 eP 05 28.50 2.7X
e 05 29.00
e 10 04.00
RZN 25.23 335 eP 05 29.00 2.1
ANN 25.44 358 eP 05 27.00 -1.6
eS 09 56.00
MMB 25.56 333 eP 05 32.00 2.2
PLD 25.59 335 eP 05 32.00 1.9
SIM 25.77 352 eP 05 32.00 0.3
Z 20s 0.50um 4.0Msz
e 10 08.00
VAY 25.85 331 eP 05 32.40 -0.1
KKB 26.07 333 eP 05 35.00 0.5
OHR 26.53 329 iP 05 39.00 0.1
VTS 26.61 334 eP 05 40.00 0.3
SKO 26.89 331 iP 05 42.70 0.6
QUE 27.67 62 eP 05 52.60 3.1X
eS 10 35.60
PTJ 32.45 330 iP 06 32.20 0.5
VBY 32.50 329 eP 06 31.50 -0.6
SRO 32.86 334 eP 06 35.80 0.6
CEY 33.08 328 e(P) 06 37.00 -0.1
SPC 33.24 338 eP 06 40.10 1.4
TRI 33.39 327 eP 06 40.20 0.4
VOY 33.55 328 eP 06 41.40 0.1
e 07 04.30
ZST 33.67 334 eP 06 41.30 -0.9
OJC 34.26 338 eP 06 46.00 -1.4
GEC2 35.64 331 Pc 06 59.20 -0.1
1.5s 9.77nm 4.4mb
e 07 03.70
e 07 07.60
e 09 26.70
e 09 31.70
e 09 39.70
OBN 35.68 358 eP 06 57.00 -2.3
1.5s 70.00nm 5.3mb
Z 16s 0.60um 4.5MszX
N 16s 0.60um
E 16s 0.60um
eS 12 40.00
KHC 35.91 332 eP 07 00.50 -0.9
1.5s 12.50nm 4.6mb
e 07 19.50
e 08 33.50
KSP 36.07 336 ePc 07 03.00 0.2
PRU 36.12 333 eP 07 03.50 0.3
e 07 20.50
NDI 36.17 68 eP 07 06.00 2.1
MOS 36.29 359 eP 07 04.00 -0.5
e 07 06.00
MTD 36.64 192 eP 07 10.80 2.8X
ipP 07 16.30 18kmX
BRG 37.04 334 eP 07 10.60 -0.3
1.0s 20.00nm 4.8mb
i 07 28.60
LPG 37.10 322 eP 07 11.10 -0.7
0.8s 6.05nm 4.4mb
LPL 37.12 322 eP 07 11.20 -0.7
0.8s 7.80nm 4.5mb
GRF 37.39 330 eP 07 12.80 -1.0
Z 24s 0.20um 3.8MszX
GBA 37.45 93 P 07 16.00 1.3
KSH 37.71 50 P 07 19.50 2.6X
0.9s 30.00nm 5.1mb
Z 17s 4.22um 5.3MszX
N 12s 2.07um
E 16s 3.38um
sP 07 28.20
PP 08 50.00
PcP 09 33.00
S 13 10.00
HYB 37.74 86 eP 07 28.50 11.3X
CLL 37.76 334 eP 07 14.00 -2.9
1.8s 32.00nm 4.8mb
MOX 37.88 332 eP 07 17.80 -0.2
2.3s 66.00nm 5.0mb
BSF 38.43 325 eP 07 22.30 -0.4
1.3s 21.30nm 4.7mb
SMF 39.43 322 eP 07 30.30 -0.7
0.8s 7.95nm 4.4mb
LBF 39.53 322 eP 07 31.30 -0.5
0.8s 18.65nm 4.8mb
CAF 39.65 318 eP 07 33.30 0.4
1.0s 16.00nm 4.6mb
LOR 39.75 322 eP 07 33.10 -0.5
0.9s 14.60nm 4.7mb
Z 21s 0.20um 3.9MszX
AVF 39.79 322 eP 07 33.40 -0.5
1.5s 41.80nm 4.9mb
SSF 39.84 322 eP 07 33.80 -0.6
1.1s 18.80nm 4.7mb
EPF 39.95 315 eP 07 35.00 -0.4
MAF 39.97 320 eP 07 35.50 0.0
1.0s 19.00nm 4.7mb
BGF 39.97 321 eP 07 35.50 0.0
0.9s 29.50nm 5.0mb
LPO 40.10 317 eP 07 37.20 0.7
1.1s 24.90nm 4.8mb
RJF 40.17 319 eP 07 37.50 0.3
1.0s 23.20nm 4.8mb
Z 20s 0.22um 4.0Msz
LFF 40.50 318 eP 07 40.30 0.5
0.9s 17.05nm 4.7mb
PRZ 40.53 47 eP 07 42.00 1.6
1.0s 30.00nm 4.9mb
Z 16s 2.20um 5.1MszX
E 16s 2.80um
LSF 40.61 320 eP 07 41.10 0.4

13d 14h

```
          1.0s    18.20nm                4.7mb
SVE      40.75  18 ePd    07 42.50   0.8
          2.9s   100.00nm                5.0mb
       Z  15s      1.10um               4.8MszX
       N  15s      0.70um
       E  15s      0.40um
                      e     14 07.00
ETOR     40.80 311 iPc    07 43.60   1.1
MFF      41.80 319 eP     07 50.10  -0.4
          1.0s    14.60nm                4.7mb
EJIF     42.23 303 eP     08 05.40  11.3X
GKN      42.65  69 P      07 58.20   0.3
LDF      42.73 322 eP     07 57.10  -0.9
          0.9s    14.40nm                4.7mb
LPF      43.00 321 eP     07 59.40  -0.8
          0.8s    14.50nm                4.8mb
FLN      43.02 322 eP     07 59.50  -0.9
          0.9s    27.20nm                5.0mb
DMN      43.06  70 P      08 01.80   0.4
KKN      43.22  70 P      08 03.00   0.4
PKI      43.33  70 P      08 03.80   0.1
KAF      43.55 352 eP     08 03.80  -0.7
GUN      43.75  70 P      08 06.40  -0.7
KIC      44.22 259 P      08 11.40   0.8
TIC      44.38 259 P      08 12.44   0.5
LIC      44.54 259 P      08 14.16   1.0
          0.7s    11.50nm                4.9mb
       Z  20s      0.44um                4.4Msz
APO      44.73 343 eP     08 12.50  -1.6
          0.4s     0.70nm                3.9mb
NB2      45.92 342 P      08 21.30  -2.3
          0.9s     4.80nm                4.5mb
WMQ      47.41  48 P      08 36.50   0.8
          1.5s    18.00nm                4.9mb
       Z  20s      1.39um                4.9Msz
       N  10s      0.50um
                     PP     10 30.00
LSA      48.38  67 P      08 46.00   2.0
ELT      49.67  36 iPd    08 52.00  -0.9
          1.2s    45.00nm                5.3mb
       Z  12s      1.70um               5.3MszX
       N  13s      0.90um
       E  14s      0.90um
                     eS     16 03.00
MBO      53.38 274 eP     09 20.50  -0.9
GTA      55.74  55 P      09 38.00  -0.7
          1.0s    12.00nm                4.9mb
       Z  18s      1.49um                5.1Msz
       E  14s      0.49um
                     pP     09 43.00  16kmX
KHT      57.12  85 eP     09 48.30  -0.4
NRI      58.23  18 iPd    09 55.50  -0.1
          1.0s    42.00nm                5.4mb
       Z  20s      1.90um                5.2Msz
       E  20s      1.60um
                      e     12 14.00
LZH      58.94  59 eP     10 02.00   0.6
          1.4s    80.00nm                5.7mb
       Z  18s      1.24um                5.1Msz
       E  15s      0.77um
                     sP     10 06.00
KMI      59.00  72 Pc     10 01.50  -0.5
          1.5s    50.00nm                5.4mb
                     pP     10 12.50  37kmX
ZAK      59.09  42 eP     10 01.80  -0.1
          1.0s    10.00nm                4.9mb
       Z  17s      2.83um               5.5MszX
       E  17s      3.46um
IRK      59.95  40 ePc    10 06.50  -1.4
          1.4s    18.00nm                5.0mb
       Z  16s      0.76um               4.9MszX
       N  14s      0.41um
       E  16s      0.71um
GYA      62.30  70 P      10 23.40  -1.0
XAN      63.24  61 P      10 29.50  -0.9
          1.2s    10.00nm                4.9mb
                     pP     10 41.70  42kmX
BTO      63.57  54 eP     10 33.00   0.5
       N  14s      0.37um
       E  18s      1.77um
                     eS     19 08.00
HHC      64.72  53 P      10 41.60   1.5
          1.6s    65.00nm                5.6mb
       Z  22s      2.07um                5.3Msz
CIT      65.65  41 eP     10 45.20  -0.6
TIY      65.68  57 eP     10 47.00   0.7
       Z  18s      1.82um                5.3Msz

       E  18s      1.10um
BOD      66.03  34 iPd    10 45.20  -2.8
          1.0s    40.00nm                5.6mb
BJI      68.30  54 eP     11 03.00   0.3
       Z  22s      1.54um                5.2Msz
                     eS     20 08.00
TIK      71.78  19 eP     11 21.50  -1.8
          2.4s    15.00nm                4.7mb
                      e     11 35.00
YAK      73.51  29 eP     11 32.40  -1.2
          0.8s    37.00nm                5.5mb
       Z  16s      0.80um               5.1MszX
       E  16s      0.80um
CN2      74.49  49 eP     11 39.80   0.1
          1.0s    15.00nm                5.0mb
       Z  20s      1.28um                5.2Msz
       N  14s      0.38um
       E  14s      0.32um
                    epP     11 49.00  30kmX
                     eS     21 10.00
MGD      83.78  28 eP     12 29.00  -0.7
YSS      85.11  42 eP     12 37.90   1.3
MAT      85.92  53 ePKP   12 40.00  -0.9
ILT      88.73  13 eP     13 03.00   9.1X
WRA     101.42 107 Pdiff  13 57.80   4.9X
          0.4s     0.70nm                4.6mb
      S.D. = 1.1   on 107 of 121 obs.
-----------------------------------------------
 *  MAR 13, 1993  15h 12m 03.56± 0.50s
    6.094 S ±16.5km  105.004 E ±19.9km
    DEPTH =  33.0km  (normal)
    4.9mb (  4 obs.)
  SUNDA STRAIT                         (276)

NANU     19.27 149 eP     16 28.00  -0.4
                     eS     19 47.00
WB2      31.66 119 iPd    18 26.40   0.1
          0.6s    12.30nm                4.9mb
GBA      33.65 306 P      18 44.00   0.4
PKI      38.46 331 P      19 24.20  -0.5
GUN      38.52 332 P      19 25.00  -0.2
DMN      38.63 331 P      19 25.80  -0.3
KKN      38.70 331 P      19 26.20  -0.4
GKN      39.19 331 P      19 30.60   0.0
STK      42.72 132 eP     19 59.40   0.0
          0.4s     4.70nm                4.6mb
YAK      70.54  12 iPc    23 17.10   0.1
          1.0s    35.00nm                5.4mb
KAF      90.08 333 iP     25 02.00   0.8
          0.6s     4.50nm                4.9mb
YKA     116.69  19 ePKP   30 44.90  -0.8
          0.5s     0.30nm
RSSD    134.37  29 (PKP)  31 21.51   1.1
      S.D. = 0.6   on  13 of  13 obs.
-----------------------------------------------
 ?  MAR 13, 1993  15h 22m 21.90± 0.81s
    36.911 N ±13.2km   31.310 E ±12.7km
    DEPTH =  10.0km  (geophysicist)
  TURKEY                               (366)
        MD 3.4 (ISK). ML 3.2 (CSS).

BCK       0.80 314 iPg    22 39.80   2.4
                     iSg    22 52.50
ELL       1.14 262 iPn    22 43.70   0.4
KHL       2.00 315 iPn    22 54.50  -1.7
PPCY      2.19 157 eP     23 20.56  21.7X
                     eS     23 36.60
ALT       2.34 336 ePn    23 01.00  -0.1
CSS       2.54 139 eP     23 05.60   1.7
                     eS     23 38.80
DST       3.42 323 ePn    23 44.00  27.6X
IZM       3.54 296 ePn    23 16.80  -1.2
HRI       5.14 134 eP     23 40.80   0.0
MML       5.60 142 eP     23 46.80  -0.5
DSI       6.30 147 eP     23 56.10  -1.1
      S.D. = 1.6   on   9 of  11 obs.
-----------------------------------------------
    MAR 13, 1993  17h 12m 26.20± 0.15s
    19.626 N ± 2.5km   38.799 E ± 2.2km
    DEPTH =  10.0km  (geophysicist)
    5.7mb (153 obs.)  5.4Msz ( 43 obs.)
  RED SEA                              (554)
      Mw 5.7 (HRV). MD 5.6 (RYD), 5.4
      (ARO).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 38S, 81C

      Centroid Location:
      Origin Time         17:12:27.8 0.4
      Lat 19.42N 0.03 Lon  38.55E 0.03
      Dep  15.0 FIX Half-duration  1.7
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-3.52 0.07  Mtt= 1.42 0.09
        Mff= 2.10 0.09  Mrt= 0.59 0.30
        Mrf=-0.37 0.30  Mtf=-2.01 0.08
       Principal Axes:
        T  Val=  3.85  Plg= 5  Azm= 50
        N       -0.26       4      319
        P       -3.59      84      194
      Best Double Couple:Mo=3.7*10**17
       NP1:Strike=144 Dip=40 Slip= -84
       NP2:       316     50       -95

ABHA      3.98 109 ePc    13 24.67  -4.2X
KMTA      4.11 110 ePc    13 29.00  -1.7
DHJN      4.86 113 eP     13 40.00  -1.4
QASM      7.77  33 ePd    14 24.70   2.5X
MJMA      8.62  43 eP     14 33.00  -1.0
RYD       8.84  54 ePc    14 36.50  -0.5
ARO       8.94 154 ePd    14 44.00   5.5X
BADA      9.51 339 eP     14 47.33   1.2
AYN       9.55 345 ePc    14 45.27  -1.4
AAE      10.53 180 eP     15 00.50  -0.2
AQBJ     10.62 342 P      15 01.00  -0.4
MBH      10.71 341 eP     15 01.70  -1.0
SHWJ     11.12 345 P      15 08.40  -0.1
MKT      11.75 344 eP     15 16.70  -0.1
                     eS     18 20.60
HLW      12.23 328 iP+    15 23.00  -0.3
                     eS     17 48.00
MASJ     12.37 348 P      15 25.00  -0.3
DHR      12.38  55 eP     15 29.50   4.1X
ZNT      13.01 346 eP     15 33.90   0.2
                     eS     18 46.40
SHMJ     13.33 349 P      15 37.80  -0.2
ATZ      13.52 347 eP     15 40.00  -0.5
                     eS     19 03.00
HRI      13.86 349 eP     15 45.00  -0.1
BHL      14.49 349 P      15 53.00  -0.4
                      S     18 53.00
CSS      16.03 344 eP     16 13.30   0.0
PPCY     16.24 341 eP     16 19.00   3.0X
KER      16.42  25 ePc    16 20.00   1.6
GAZ      17.54 356 iP     16 33.50   1.2
ADAT     17.63 351 eP     16 34.90   1.4
KSL      18.32 336 eP     16 40.00  -2.1
ELL      18.75 337 eP     16 47.50   0.0
BCK      19.16 340 eP     16 49.60  -2.9
BNN      19.32 353 eP     16 55.00   0.5
TAB      19.51  18 eP     16 58.00   1.3
TEH      19.51  32 eP     16 58.50   1.7
ALT      20.77 341 eP     17 09.60  -0.4
GRS      20.85  17 iPc+   17 12.00   1.2
          2.5s  1860.00nm                6.0mb
       Z  11s     17.60um               5.7MszX
       N  11s     13.90um
       E  11s      6.53um
                     eS     21 09.00
NAI      20.86 186 iPc    17 16.00   4.8X
                      S     23 40.00
ERE      21.07  12 iP+    17 15.50   2.5X
       Z  13s     23.00um               5.7MszX
                     iS     21 17.50
DST      21.76 338 iP     17 19.50  -0.4
GPA      21.85 342 eP     17 21.00   0.2
VLI      21.98 324 eP     17 22.00  -0.1
KAS      22.10 350 iPd    17 23.80   0.5
EYL      22.15 342 eP     17 24.50   0.6
PRK      22.35 334 eP     17 29.00   3.3X
YLV      22.38 341 eP     17 26.50   0.4
KCT      22.42 339 eP     17 27.50   1.0
ATH      22.50 327 eP     17 28.56   1.3
HRT      22.52 342 iP     17 29.00   1.5
SHE      22.57  20 iPc    17 30.00   2.1
          2.0s   250.00nm                5.4mb
       Z  13s     16.00um               5.6MszX
       N  13s     50.00um
       E  13s     26.00um
                     iS     21 43.00
MTA      22.59  12 iPc+   17 33.40   5.3X
       Z  13s      8.00um               5.3MszX
       N  13s     18.50um
       E  13s      8.50um
                      i     17 59.60
```

ePPP 18 07.00
eS 21 43.00
iSS 22 27.60
BNT 22.67 338 iP 17 29.50 0.6
EDC 22.68 338 iP 17 30.00 1.0
BAK 22.77 22 iPd 17 37.00 7.1X
Z 15s 30.40um 5.9MszX
E 14s 38.32um
ISK 22.93 341 iP 17 33.00 1.5
ITU 22.98 341 iPd 17 33.00 1.0
CTT 23.21 340 iP 17 35.50 1.3
SOC 23.90 2 iPc- 17 42.50 1.7
2.8s 2300.00nm 6.3mb
Z 11s 8.50um 5.5MszX
N 12s 9.20um
e 18 26.00
eS 22 02.00
eSSS 23 11.00
RDO 24.25 335 eP 17 47.50 3.2X
GRO 24.35 12 iP+ 17 50.00 4.8X
3.0s 5930.00nm 6.7mb
Z 14s 51.00um 6.2MszX
N 14s 32.00um
eS 22 14.00
MAK 24.43 15 iPc 17 49.20 3.2X
3.0s 6504.00nm 6.7mb X
Z 14s 24.00um 5.8MszX
N 14s 20.50um
E 14s 21.00um
i 18 31.20
iS 22 14.00
eSS 23 22.00
KIV 24.48 7 ePc 17 48.80 2.2
iS 22 13.50
PYA 24.60 7 iPc+ 17 50.00 2.3
3.0s 3000.00nm 6.4mb
Z 14s 17.50um 5.7MszX
N 14s 15.50um
E 14s 7.00um
iPPP 18 40.00
iS 22 19.00
MAIO 24.62 43 iPc+ 17 50.00 2.0
eS 22 17.00
KAT 24.66 34 iP+ 17 49.00 0.8
iS 22 14.00
KDZ 24.73 336 iPc 17 51.00 2.1
BCAO 24.86 235 iPc 17 49.10 -1.4
0.9s 27.00nm 4.9mb
ic 18 09.70
ASH 24.95 39 eP 17 52.50 1.4
2.5s 780.00nm 5.9mb
i 18 32.00
eS 22 11.00
eSS 23 19.00
e 23 34.00
i 28 50.00
DIM 25.03 336 iP 17 56.00 4.2X
KZN 25.26 328 eP 17 53.50 -0.6
MMB 25.37 333 iPc 17 56.00 0.9
PLD 25.40 335 iP 17 57.00 1.7
SIM 25.55 352 eP 17 57.00 0.3
Z 20s 3.00um 4.8Msz
eS 22 28.00
PSN 25.59 342 iP 18 00.00 3.0X
VAY 25.67 331 iP 17 58.00 0.2
1.8s 255.00nm 5.6mb
LSK 25.74 327 eP 18 00.50 1.9
KEK 25.85 325 eP 18 00.50 1.0
SRN 25.86 325 eP 18 00.50 0.9
KKB 25.88 332 iPc 18 00.00 0.2
PGB 25.99 335 iP 18 03.00 2.1
PVL 26.11 337 iP 18 03.00 1.1
TPE 26.15 326 eP 18 04.00 1.7
OHR 26.35 328 iPd 18 04.00 -0.2
1.2s 257.00nm 5.8mb
VTS 26.41 334 iPc 18 06.00 1.1
VLO 26.55 326 eP 18 09.00 3.0X
SKO 26.70 330 iP 18 08.00 0.6
1.6s 271.00nm 5.7mb
Z 17s 2.05um 4.7MszX
i 18 12.30
LR 31 44.00
BUC1 26.86 339 eP 18 12.00 3.3X
BUC 26.89 340 ePd 18 10.50 1.4
SOI 26.98 318 P 18 11.10 1.1
1.7s 237.90nm 5.6mb
TIR 27.00 327 eP 18 09.70 -0.4

PZI 27.13 315 P 18 12.70 1.2
1.2s 119.60nm 5.5mb
GMB 27.16 318 P 18 14.50 2.7X
2.5s 506.60nm 5.8mb
LACI 27.29 328 eP 18 12.00 -0.7
LCI 27.30 324 P 18 12.10 -0.7
1.3s 284.10nm 5.8mb
ISR 27.40 341 ePd 18 17.50 3.7X
ATN 27.41 317 P 18 13.70 -0.3
2.0s 385.50nm 5.8mb
QUE 27.54 62 eP 18 16.90 1.4
eS 22 59.50
BRD 27.59 342 eP 18 20.00 4.5X
BCI 27.66 329 eP 18 14.50 -1.6
ULC 27.76 328 iPd 18 17.37 0.3
MNO 27.78 316 P 18 19.10 1.6
1.5s 217.70nm 5.7mb
TDS 27.79 321 P 18 18.50 1.2
1.9s 171.00nm 5.5mb
PVY 27.88 329 iPd 18 17.89 -0.4
MLR 27.90 340 ePd 18 20.00 1.5
ORI 27.98 322 P 18 19.80 0.7
1.3s 238.90nm 5.8mb
CMP 28.00 339 ePc 18 22.00 2.8X
VRI 28.01 342 ePc 18 21.00 1.8
BRT 28.08 324 P 18 20.40 0.4
1.9s 448.10nm 5.9mb
IVA 28.12 330 iPd 18 19.84 -0.6
BDV 28.21 328 iPd 18 21.30 0.2
HCY 28.50 327 iPd 18 23.74 0.1
KIS 28.50 346 iPc+ 18 23.00 -0.7
2.0s 500.00nm 6.0mb
Z 20s 2.20um 4.8Msz
i 19 18.00
iPPP 19 32.00
iS 23 14.00
eSS 24 56.00
e 29 12.00
NKY 28.51 329 iPd 18 23.50 -0.5
MGR 28.55 321 P 18 24.20 0.0
1.7s 352.30nm 5.9mb
TNR 28.60 338 ePc 18 25.00 0.4
PLE 28.71 330 iPd 18 24.77 -1.0
BRY 28.80 328 iPd 18 26.07 -0.5
SGO 28.97 321 P 18 28.30 0.4
2.5s 375.40nm 5.7mb
DEV 29.29 337 ePd 18 33.00 2.2
TIM 29.81 335 iPc 18 37.00 1.5
HVAR 30.07 326 eP 18 38.00 0.1
DUI 30.16 322 P 18 39.10 0.3
2.4s 377.90nm 5.8mb
RFI 30.21 321 P 18 39.80 0.7
1.8s 458.90nm 6.0mb
SDI 30.56 322 P 18 42.20 -0.1
1.0s 50.50nm 5.3mb
AQU 31.21 322 P 18 48.80 0.9
1.5s 569.10nm 6.2mb
RDP 31.25 321 P 18 49.00 0.7
1.7s 713.60nm 6.3mb
RMP 31.29 321 P 18 49.60 1.0
1.8s 625.60nm 6.2mb
UZD 31.59 333 eP 18 51.70 0.5
UZH 31.85 339 iPd 18 52.00 -1.4
2.6s 690.00nm 6.1mb
Z 14s 1.70um 4.9MszX
N 14s 1.70um
E 14s 1.50um
e 19 56.50
i 20 09.20
i 21 46.00
eS 24 05.00
eSS 26 00.00
ASS 32.08 323 P 18 55.00 -0.6
1.7s 68.10nm 5.3mb
BUD 32.12 334 eP 18 54.30 -1.4
PSZ 32.12 336 iPd 18 55.70 -0.2
ZAG 32.19 329 iPd 18 57.20 0.8
ARV 32.19 323 P 18 56.20 -0.3
2.9s 704.40nm 6.1mb
PTJ 32.26 329 iP 18 57.10 -0.1
VBY 32.32 328 iPd 18 57.60 0.1
SRO 32.67 334 eP 19 00.80 0.3
RSM 32.74 324 P 19 01.90 0.7
2.1s 840.80nm 6.3mb
CRE 32.83 323 P 19 01.20 -1.0
1.6s 58.70nm 5.3mb
CEY 32.90 328 eP 19 02.00 -0.6

SPC 33.04 337 eP 19 03.60 -0.4
LJU 33.06 328 eP 19 03.50 -0.5
iPcP 21 49.50
eS 24 20.00
SFI 33.07 323 P 19 04.20 0.1
2.6s 558.30nm 6.0mb
PGD 33.12 323 P 19 04.70 0.0
2.7s 311.90nm 5.8mb
TRI 33.21 327 e(P) 19 05.00 -0.3
e(S) 24 24.00
e 27 16.00
eLR 28 44.00
SOP 33.31 332 iP 19 06.00 -0.2
VOY 33.37 328 iPd 19 06.70 -0.1
ePcP 21 53.00
eS 24 35.00
ePcS 25 50.00
ZST 33.47 333 eP 19 07.10 -0.5
PII 33.71 322 P 19 11.50 1.8
2.0s 122.50nm 5.5mb
RBL 33.82 328 P 19 11.00 0.3
2.4s 300.00nm 5.8mb
VKA 33.86 333 iPd 19 10.60 -0.4
3.0s 963.00nm 6.2mb
PGF 33.96 319 P 19 11.60 -0.4
OJC 34.06 338 eP 19 12.20 -0.5
i 19 23.00
i 19 32.90
VVI 34.09 326 P 19 14.20 1.2
2.3s 362.30nm 5.9mb
FVI 34.32 328 P 19 15.40 0.6
2.1s 785.30nm 6.3mb
KBA 34.37 329 iPc 19 15.00 -0.5
1.5s 153.00nm 5.7mb
CTI 34.54 326 P 19 17.50 0.6
2.6s 529.30nm 6.0mb
VRAC 34.55 334 iPd 19 16.80 0.0
2.4s 2608.20nm 6.7mb
i 19 17.70
e 20 36.10
KMR 34.69 331 iP- 19 18.70 0.6
BOB 34.96 322 P 19 21.30 0.8
2.6s 428.00nm 5.9mb
MNK 35.29 348 eP 19 25.00 2.0
Z 20s 3.90um 5.2Msz
e 20 55.00
ePPP 21 14.00
eS 25 04.00
WTTA 35.35 327 iPd 19 23.60 -0.3
2.0s 293.00nm 5.8mb
PCP 35.35 321 P 19 24.69 0.9
FIN 35.36 321 P 19 24.37 0.5
IMI 35.39 320 P 19 23.78 -0.4
MDI 35.42 324 P 19 25.00 0.7
2.3s 787.70nm 6.2mb
WATA 35.43 328 iPd 19 24.10 -0.5
CKI 35.44 321 P 19 25.10 0.6
2.5s 417.10nm 5.9mb
OBN 35.45 358 iPc+ 19 23.00 -1.5
2.5s 408.00nm 5.9mb
Z 16s 5.20um 5.4MszX
N 16s 3.80um
E 16s 3.20um
i 20 53.00
e 21 49.00
iS 25 02.00
eSS 27 15.00
GEC2 35.46 331 P 19 23.40 -1.3
1.7s 125.28nm 5.5mb
e 19 31.70
e 19 34.20
PcP 21 53.20
SQTA 35.54 327 iPd 19 25.10 -0.4
1.6s 140.00nm 5.6mb
ROB 35.61 321 P 19 25.79 -0.3
REVF 35.61 320 P 19 25.14 -0.9
SAOF 35.63 320 P 19 25.64 -0.6
SBF 35.64 320 P 19 25.88 -0.4
MOTA 35.67 327 iPd 19 26.00 -0.7
1.8s 162.00nm 5.6mb
AUTN 35.71 320 P 19 27.03 -0.1
AURF 35.71 320 P 19 26.42 -0.6
KHC 35.72 331 P 19 26.00 -0.9
1.6s 119.00nm 5.5mb
Z 20s 3.70um 5.1Msz
N 20s 1.20um
E 20s 1.10um

13d 17h

e 19 41.00
e 20 35.00
e 21 53.50
S 25 00.00
OSS 35.75 326 eP 19 27.60 0.3
TOUF 35.83 320 P 19 28.11 0.0
ENR 35.84 320 P 19 28.58 0.5
KSP 35.87 336 eP 19 27.30 -0.8
2.2s 527.00nm 6.0mb
i 19 29.40
STV 35.91 320 P 19 29.27 0.6
PRU 35.93 333 eP 19 26.50 -2.1
2.8s 587.50nm 6.0mb
Z 18s 1.10um 4.7Msz
N 18s 1.00um
E 19s 0.60um
i 19 28.30
e 20 56.00
eS 25 02.00
e 25 12.00
eSS 27 34.00
e 28 44.00
VAI 35.99 323 P 19 29.10 0.0
2.1s 664.80nm 6.1mb
WET 36.05 331 eP 19 28.90 -0.8
2.0s 395.00nm 5.9mb
MOS 36.07 359 iPd 19 29.00 -0.6
2.5s 1500.00nm 6.4mb
Z 14s 2.60um 5.2MszX
N 13s 2.70um
eS 25 12.00
NDI 36.07 68 iPc 19 31.00 1.0
1.4s 93.02nm 5.5mb
ePP 21 06.00
eS 25 18.00
TMA 36.08 324 eP 19 30.10 0.0
LRG 36.08 318 eP 19 29.00 -1.0
1.4s 169.45nm 5.7mb
FUR 36.13 328 eP 19 29.60 -0.8
PZZ 36.19 320 P 19 31.56 0.5
BHB 36.27 321 P 19 31.74 0.1
ORX 36.30 323 P 19 31.83 -0.1
RSP 36.45 321 P 19 32.79 -0.4
MMK 36.56 323 ePc 19 34.30 0.1
CDR 36.57 318 ePd 19 33.50 -0.6
RRL 36.60 321 P 19 35.45 0.8
LSD 36.68 322 P 19 35.49 0.2
ESEL 36.75 311 eP 19 36.46 0.8
BRG 36.85 334 iPd 19 35.50 -0.8
1.8s 340.00nm 5.8mb
iPcP 21 57.00
eS 25 20.00
MTD 36.87 192 iPc 19 38.00 1.1
DIX 36.89 323 eP 19 36.50 -0.5
LPG 36.94 322 eP 19 36.90 -0.6
1.7s 372.00nm 5.9mb
LPL 36.96 322 eP 19 36.80 -0.8
1.7s 175.70nm 5.6mb
EMS 37.16 323 eP 19 38.00 -1.2
GRF 37.20 330 eP 19 37.80 -1.5
2.0s 354.00nm 5.8mb
Z 19s 1.00um 4.6Msz
e 19 42.70
SLE 37.30 326 iPc 19 39.80 -0.4
HOF 37.34 331 P 19 48.30 7.8X
GRN 37.40 321 P 19 40.30 -0.8
GBA 37.45 93 P 19 42.00 0.3
KSH 37.56 50 Pc 19 44.20 1.6
1.0s 120.00nm 5.6mb
Z 16s 28.00um 6.2MszX
N 14s 17.50um
sP 19 54.00
PcP 22 03.00
S 25 33.00
sS 25 41.00
PcS 25 49.20
SS 28 06.40
ScS 29 54.00
CLL 37.57 333 iPd 19 41.40 -0.9
2.1s 380.00nm 5.8mb
FEL 37.62 326 P 19 42.24 -0.8
BBS 37.64 325 P 19 42.42 -0.7
MOX 37.69 332 eP 19 43.00 -0.4
2.2s 487.00nm 5.9mb
Z 19s 0.60um 4.4Msz
eS 25 42.00
HYB 37.70 87 ePd 19 44.50 0.6
eS 25 36.00
ETER 37.81 315 eP 19 44.16 -0.4
LOMF 37.95 324 P 19 45.35 -0.4
FRU 37.96 44 iPd 19 47.50 1.7
3.0s 1350.00nm 6.2mb
Z 13s 8.00um 5.7MszX
N 20s 11.50um
i 21 18.00
LIBD 38.01 326 P 19 45.32 -0.8
MOF 38.08 325 P 19 46.10 -0.7
SSB 38.14 320 P 19 46.53 -0.8
STR 38.19 326 P 19 47.79 0.2
BSF 38.25 325 P 19 47.74 -0.6
ECH 38.29 326 P 19 47.79 -0.7
WLS 38.30 326 P 19 47.96 -0.7
BRN 38.32 335 eP 19 49.00 0.4
CDF 38.34 326 P 19 48.20 -0.8
LANF 38.42 327 P 19 48.65 -0.9
TRGS 38.49 315 P 19 50.64 0.2
HAU 38.60 325 eP 19 49.80 -1.3
1.6s 150.50nm 5.5mb
Z 21s 0.75um 4.5Msz
ACU 38.74 308 eP 19 53.22 0.8
COLF 38.77 320 P 19 51.94 -0.7
PAND 38.78 314 P 19 53.50 0.5
TNS 38.89 329 ePd 19 52.20 -1.3
EROQ 38.91 311 eP 19 54.37 0.6
VITF 38.92 325 P 19 52.78 -1.0
GRBF 38.92 315 P 19 55.42 1.5
PLDF 39.05 320 P 19 54.40 -0.6
SALF 39.12 315 P 19 57.16 1.5
LESF 39.17 315 P 19 55.85 -0.1
SMF 39.26 321 eP 19 55.30 -1.4
1.5s 134.75nm 5.4mb
AVY 39.30 167 eP 19 59.60 2.2
EALH 39.31 306 iPc 19 58.65 1.5
PYM 39.31 320 P 19 56.92 -0.2
LBF 39.36 322 eP 19 56.20 -1.3
1.3s 179.05nm 5.6mb
AGO 39.38 320 P 19 57.29 -0.4
VTY 39.40 167 eP 20 00.60 2.4
ECHE 39.48 309 iPc 20 00.29 1.6
CAF 39.50 318 eP 19 58.30 -0.4
1.7s 414.65nm 5.8mb
LOR 39.58 322 eP 19 58.20 -1.1
1.6s 329.60nm 5.8mb
Z 21s 1.20um 4.7Msz
ARU 39.59 17 eP 20 00.00 0.8
2.8s 3100.00nm 6.5mb
Z 15s 10.00um 5.8MszX
N 15s 6.00um
E 15s 4.50um
e 21 36.00
ePPP 22 06.00
eS 26 07.00
eSS 28 58.00
AVF 39.63 321 eP 19 58.30 -1.3
1.4s 144.20nm 5.5mb
SSF 39.68 322 eP 19 58.80 -1.3
1.6s 254.95nm 5.6mb
WLF 39.69 327 iPc 20 00.26 0.2
3.5s 133.50nm 5.0mb X
e 21 37.00
AAA 39.69 45 eP 20 01.50 1.2
Z 16s 10.00um 5.7MszX
N 16s 10.00um
E 16s 6.00um
e 21 38.00
BSD 39.78 339 iPd 20 01.80 1.0
1.5s 177.00nm 5.5mb
e 22 06.70
EPF 39.80 315 eP 20 00.00 -1.2
0.9s 35.85nm 5.0mb
BGF 39.81 321 eP 20 00.60 -0.6
1.2s 340.35nm 5.9mb
MAF 39.81 320 eP 20 00.50 -0.7
1.3s 154.50nm 5.5mb
EGRA 39.92 313 iPc 19 58.95 -3.2X
LPO 39.95 317 eP 20 02.30 0.0
1.7s 385.25nm 5.8mb
RJF 40.02 318 eP 20 02.50 -0.4
1.5s 296.65nm 5.7mb
Z 21s 0.95um 4.6Msz
TCF 40.06 320 eP 20 02.70 -0.6
1.5s 157.20nm 5.5mb
EHUE 40.19 306 iPc 20 05.45 0.9
EVIA 40.34 307 eP 20 06.37 0.6
LFF 40.34 317 eP 20 05.30 -0.3
1.1s 187.05nm 5.7mb
PRZ 40.37 47 iPd 20 08.00 2.0
2.0s 350.00nm 5.7mb
Z 18s 14.80um 5.9Msz
N 18s 7.40um
E 18s 17.70um
e 21 48.00
ePPP 22 12.00
LSF 40.45 320 eP 20 06.10 -0.4
1.4s 243.10nm 5.7mb
ENN 40.48 328 eP 20 07.00 0.4
1.8s 317.60nm 5.7mb
e 21 41.00
SVE 40.53 18 ePd 20 08.00 1.1
2.6s 720.00nm 5.9mb
Z 16s 7.50um 5.6MszX
N 16s 4.50um
E 16s 2.00um
e 21 46.00
eS 26 19.00
eSSS 30 19.00
PUL 40.56 353 ePd 20 06.50 -0.6
1.5s 250.00nm 5.7mb
Z 18s 1.60um 4.9Msz
N 18s 1.40um
E 18s 0.30um
e 20 11.00
e 21 44.00
eS 26 17.00
e 29 13.00
ETOR 40.67 310 iPd 20 08.87 0.4
EGUA 40.70 304 eP 20 09.56 0.9
DOU 40.76 326 Pc 20 08.70 -0.2
BUL 40.76 195 iPc 20 10.00 0.6
1.0s 27.50nm 4.9mb
iPP 22 12.50
iS 32 08.00
ECOG 40.81 305 iPc 20 09.61 0.0
WTS 40.82 330 eP 20 10.00 0.6
1.3s 42.90nm 5.0mb
COP 41.11 338 iPc 20 12.20 0.6
1.6s 280.00nm 5.7mb
e 26 16.00
i 26 34.00
ELIZ 41.12 314 iPc 20 12.17 0.2
SNF 41.16 327 iPd 20 12.01 -0.2
UCC 41.29 327 P+ 20 13.00 -0.2
MAL 41.34 304 iPc 20 15.20 1.3
iPP 22 08.00
eS 26 36.00
IFR 41.35 299 iPd 20 21.00 6.8X
ELUQ 41.42 305 eP 20 14.01 -0.6
WIT 41.42 331 eP 20 15.00 0.8
ECRI 41.59 313 iPd 20 16.03 0.1
MFF 41.64 319 eP 20 15.00 -1.2
1.0s 74.00nm 5.4mb
DBN 41.67 329 eP 20 17.00 0.7
Z 20s 0.60um 4.5Msz
e 22 05.00
eS 26 38.00
EPRU 42.04 304 eP 20 19.60 0.0
NUR 42.06 350 eP 20 17.00 -2.4
ePP 22 02.00
eS 26 32.00
eSS 30 04.00
EJIF 42.12 303 iPd 20 20.45 0.2
GUD 42.13 309 eP 20 20.19 -0.3
LIJA 42.16 304 eP 20 15.00 -5.8X
ALJ 42.27 303 iP 20 15.00 -6.7X
GKN 42.56 70 P 20 23.60 -0.6
LDF 42.56 322 eP 20 22.00 -1.7
0.9s 85.85nm 5.5mb
CNIL 42.57 303 eP 20 19.00 -4.9X
GIBL 42.58 303 iP 20 18.00 -6.0X
LPF 42.84 321 eP 20 24.30 -1.7
1.4s 328.50nm 5.9mb
FLN 42.85 322 eP 20 24.30 -1.8
0.9s 130.70nm 5.7mb
Z 21s 1.00um 4.7Msz
TIO 42.88 295 iP 20 27.00 0.3
GRR 42.89 321 eP 20 24.70 -1.7
1.3s 158.85nm 5.6mb
MUD 42.90 336 iPd 20 26.20 -0.1
1.4s 218.00nm 5.7mb
UPP 42.96 344 iP 20 25.90 -0.9
1.5s 200.00nm 5.6mb

```
                 iPP   22 16.50
                 iS    26 50.00
DMN    42.97  70 P     20 27.40  -0.3
KKN    43.12  70 P     20 28.40  -0.5
AVE    43.22 298 iP    20 31.00   1.7
                 i     20 56.00
PKI    43.24  70 P     20 29.20  -0.7
KAF    43.33 351 iP    20 28.50  -1.3
       0.9s   28.40nm          5.0mb
EVAL   43.35 304 eP    20 29.38  -0.9
EPLA   43.39 308 iPc   20 31.09   0.4
GUN    43.65  70 P     20 32.80  -0.5
HFS    44.25 342 eP    20 36.00  -1.3
       0.6s    2.70nm        4.3mb X
    Z  17s     1.44um        5.0MszX
                 LR    38 16.00
KIC    44.28 259 Pc    20 37.32  -0.8
       0.9s  128.00nm          5.8mb
TIC    44.44 259 P     20 38.42  -1.0
LIC    44.60 259 Pc    20 39.56  -1.1
       0.9s  140.00nm          5.9mb
    Z  20s     0.80um          4.6Msz
ERUA   44.78 311 iPc   20 42.16   0.3
KONO   45.13 340 iPc   20 44.90   0.5
EMON   45.20 312 iPc   20 45.55   0.3
NB2    45.71 342 P     20 47.00  -2.0
       0.8s   11.30nm          4.9mb
STS    45.91 311 eP    20 51.24   0.4
SLR    46.23 193 iPc   20 55.20   1.6
       1.0s   80.00nm          5.7mb
    Z  20s    63.30um        6.6MszX
CPZ    46.45 322 ePc   20 54.60  -0.3
       1.3s   69.00nm          5.5mb
KSR    46.67 195 iPc   20 56.50  -0.7
       1.0s   50.00nm          5.5mb
WIN    46.99 208 iPc   21 01.00   1.3
       1.5s  110.00nm          5.7mb
WMQ    47.24  48 P     21 01.80   0.4
       2.0s  160.00nm          5.8mb
    Z  16s     8.71um        5.8MszX
    N  12s     3.45um
                 PP    22 56.00
                 ScP   26 19.00
PRY    47.56 194 iPd   21 04.60   0.5
       1.0s   80.00nm          5.8mb
ESY    47.63 330 eP    21 03.60  -0.6
       1.2s   91.00nm          5.7mb
EBL    47.76 329 eP    21 04.70  -0.5
EDI    47.91 330 eP    21 06.10  -0.2
EAU    47.99 329 eP    21 09.00   2.0
EDU    48.16 330 eP    21 05.10  -3.2X
       1.2s   37.00nm          5.3mb
EBH    48.23 330 eP    21 08.30  -0.6
       1.4s   47.00nm          5.4mb
LSA    48.28  67 Pc    21 10.80   0.6
    Z  20s     8.74um          5.7Msz
    N  14s     3.01um
    E  22s     3.96um
                 pP    21 18.00  24kmX
                 S     28 10.00
DLF    48.33 325 eP    21 08.80  -0.9
       1.3s  390.00nm          6.3mb
ELO    48.44 330 ePc   21 09.60  -0.9
       1.2s   34.00nm          5.3mb
DCN    48.76 325 eP    21 10.50  -2.4
       1.0s  180.00nm          6.1mb
DMU    48.80 326 eP    21 14.00   0.7
SEK    48.88 193 iPd   21 15.00   0.7
       1.0s   70.00nm          5.7mb
ELT    49.48  36 iPc   21 17.70  -0.7
       2.8s  786.00nm          6.2mb
                 e     23 20.00
                 e     24 04.00
                 iS    28 27.00
BLF    49.95 194 iPc   21 23.20   0.6
       0.9s   50.00nm          5.5mb
KEV    50.64 355 iP    21 28.50   1.4
       0.7s   20.00nm          5.2mb
                 eS    28 48.00
FRS    50.78 195 iPd   21 29.10   0.5
       1.0s   40.00nm          5.3mb
POF    52.00 201 iPc   21 39.00   1.1
       0.4s   17.00nm          5.3mb
MBO    53.38 274 iPc   21 49.00   0.5
UER    53.42  40 iPc   21 46.80  -1.5
       2.5s  180.00nm          5.6mb
                 e     23 46.80
```

```
                 e     24 57.00
                 eS    29 24.60
GRM    53.92 193 eP    21 37.00 -15.2X
       1.0s   80.00nm
GTA    55.60  55 P     22 03.50  -1.2
       1.2s   83.00nm          5.6mb
    Z  18s    10.90um          6.0Msz
    E  12s     2.35um
                 pP    22 08.00  15kmX
                 S     29 50.00
CER    55.88 200 iPc   22 06.40  -0.1
       1.0s  100.00nm          5.8mb
CHTO   56.53  86 eP    22 09.80  -1.7
BDT    56.91  82 eP    22 11.00  -3.2X
       1.0s   27.60nm          5.2mb
KHT    57.08  85 eP    22 14.00  -1.5
MOY    57.65  41 eP    22 18.90   0.0
NRI    58.01  18 iPd-  22 21.90   0.8
       1.0s  175.00nm          6.0mb
    Z  16s    14.00um        6.2MszX
    N  16s     6.90um
    E  18s    12.00um
                 e     23 11.00
                 e     24 30.00
                 eS    30 25.00
                 e     32 16.00
                 eSS   34 20.00
NST    58.32  83 eP    22 25.00   0.9
NNT    58.71  87 eP    22 25.30  -1.6
LZH    58.81  59 eP    22 27.50   0.0
       2.0s 1140.00nm          6.6mb
    Z  20s     9.68um          5.9Msz
    E  16s     5.56um
                 sP    22 40.00
                 PP    24 43.00
ZAK    58.91  42 iPd   22 27.00  -0.7
       2.3s  195.00nm          5.8mb
    Z  17s    19.02um        6.3MszX
    N  17s     2.16um
    E  18s    23.23um
                 e     24 41.00
                 eS    30 40.00
KMI    58.91  72 Pc    22 28.00  -0.4
    Z  20s     4.50um          5.6Msz
    N  15s     1.00um
    E  15s     1.70um
                 S     30 36.00
CD2    59.10  65 eP    22 28.20  -1.2
    Z  20s     5.16um          5.7Msz
    N  13s     2.41um
                 S     30 38.00
LOE    59.41  81 eP    22 33.00   1.3
IRK    59.77  40 ePd   22 32.00  -1.7
       2.7s  351.00nm          6.0mb
    Z  16s     4.42um        5.7MszX
    N  15s     2.20um
    E  16s     4.37um
                 e     24 51.00
                 eS    30 45.00
                 ePS   31 00.00
GYA    62.20  70 iPd   22 49.60  -1.2
       1.2s   68.00nm          5.7mb
    Z  24s     3.07um        5.4MszX
    N  20s     3.93um
    E  20s     2.89um
                 PP    25 11.00
                 S     31 17.00
IPM    62.33  95 ePc   22 50.00  -1.6
XAN    63.12  61 P     22 55.10  -1.5
       1.2s   26.00nm          5.3mb
    Z  16s     7.74um        6.0MszX
    N  12s     1.55um
    E  14s     3.10um
                 sP    23 07.90
                 PP    25 16.50
BTO    63.42  54 P     22 58.00  -0.6
       1.4s   63.00nm          5.6mb
    N  14s     2.92um
    E  19s    11.10um
                 sP    23 03.50
                 PP    25 23.50
                 S     31 33.00
DAG    63.81 347 iP    22 58.80  -1.6
       1.0s   30.00nm          5.4mb
HHC    64.57  53 Pd    23 06.80   0.7
       2.0s  480.00nm          6.3mb
    Z  21s    11.20um          6.0Msz
```

```
    N  16s     2.02um
    E  15s     2.91um
                 S     31 46.00
KGM    65.36  97 ePd   23 12.10   0.7
CIT    65.47  41 eP    23 11.00  -0.6
    Z  16s     3.80um        5.7MszX
    E  16s     3.40um
                 eS    32 00.00
TIY    65.54  57 Pd    23 12.20  -0.2
    Z  17s     8.85um        6.0MszX
    E  16s     3.67um
                 S     31 58.00
BOD    65.84  35 eP    23 10.60  -3.2X
       1.2s  134.00nm          6.0mb
QIZ    66.55  77 Pd    23 24.00   5.0X
    N  17s     1.62um
BJI    68.16  54 eP    23 28.50  -0.3
    Z  22s    10.80um          6.0Msz
    N  18s     4.20um
                 ePP   26 00.00
WHN    68.18  64 eP    23 29.00  -0.1
    Z  20s     4.98um          5.7Msz
    N  12s     1.60um
    E  12s     1.21um
                 eS    32 28.00
GZH    68.81  72 eP    23 30.00  -3.1X
    Z  24s     2.84um        5.4MszX
TIA    69.47  58 eP    23 36.60  -0.5
    Z  18s     5.75um          5.9Msz
    N  13s     1.20um
TIK    71.56  20 iPd   23 48.00  -1.1
       2.6s  290.00nm          5.9mb
    Z  16s     3.50um        5.7MszX
                 i     24 12.00
                 i     26 29.00
                 ePPP  28 18.00
                 eS    33 12.00
                 ePS   33 47.00
NJ2    71.67  62 Pc    23 50.40   0.0
       1.0s   10.00nm          4.9mb
    Z  20s     2.37um          5.5Msz
    N  15s     1.85um
    E  19s     3.13um
DL2    72.50  54 Pd    23 55.00  -0.3
       1.0s   53.00nm          5.6mb
    Z  22s     4.31um          5.7Msz
    N  16s     3.80um
    E  16s     3.78um
LEM    72.62 104 ePc   23 55.50  -1.0
GDH    72.65 338 ePd   23 54.00  -1.5
       1.0s   60.00nm          5.6mb
QZH    73.04  69 Pc    23 58.50  -0.1
    Z  20s     3.36um          5.6Msz
YAK    73.31  29 iPc   23 58.00  -1.5
       2.5s  591.00nm          6.2mb
    Z  17s     5.40um        5.9MszX
    E  17s     4.30um
                 ePPP  28 32.00
                 eS    33 26.00
                 ePS   33 57.00
SNY    73.39  51 iPc   24 00.00  -0.4
    Z  16s     4.81um        5.9MszX
    N  14s     1.69um
    E  16s     4.09um
                 iS    33 34.00
SSE    73.82  62 P+    24 04.00   0.9
       5.0s    0.80nm        3.0mb X
    Z  12s     4.10um        5.9MszX
    N  16s     2.00um
    E  16s     2.60um
                 PP    26 44.00
                 S     33 32.00
                 sS    34 08.00
                 SS    38 24.00
CN2    74.33  49 eP    24 05.40  -0.4
       1.2s   57.00nm          5.5mb
    Z  20s     7.95um          6.0Msz
    N  12s     2.13um
    E  12s     2.40um
                 eS    33 36.00
                 eSS   38 27.00
MDJ    77.03  47 eP    24 20.10  -1.1
    Z  22s     5.73um          5.8Msz
    N  14s     1.96um
    E  14s     1.78um
BAG    77.11  77 eP    24 22.90   0.6
                 eS    34 14.00
```

13d 17h

VLA 79.04 48 iPc 24 32.00 -0.2
2.5s 237.00nm 5.8mb
Z 18s 1.40um 5.3Msz
N 21s 3.80um
E 12s 2.90um
e 27 29.00
ePPP 29 17.00
iSP 34 55.00
eSS 39 43.00
SHNJ 81.09 57 P 24 42.40 -0.9
KUMJ 81.34 59 P 24 43.10 -1.6
RES 81.44 349 eP 24 46.00 1.6
1.0s 3.00nm 4.3mb X
KAGJ 81.80 60 eP 24 43.70 -3.4X
SHK 82.20 56 eP 24 49.50 0.4
YONJ 82.60 55 P 24 50.30 -0.9
CTB 83.31 85 ePc 24 59.00 3.8X
TKSJ 83.45 56 P 24 55.60 0.0
MGD 83.57 28 eP 24 55.00 -0.6
1.7s 260.00nm 6.2mb
Z 18s 9.20um 6.2Msz
N 18s 3.70um
E 17s 1.70um
ePPP 30 00.00
eS 35 16.00
ePS 36 18.00
TSRJ 84.43 54 P 25 00.90 0.4
WKYJ 84.58 56 P 25 01.80 0.4
DAV 84.63 84 eP 25 04.00 2.1
YSS 84.93 42 iPd 25 02.30 -0.5
1.0s 30.00nm 5.5mb
Z 15s 3.40um 5.9MszX
E 15s 3.00um
eS 35 30.00
eSS 41 12.00
LMN 85.19 317 eP 25 08.00 3.9X
MAT 85.77 53 ePKP 25 06.00 -1.2
Z 20s 3.19um 5.7Msz
ASAJ 86.03 45 eP 25 07.50 -0.9
CBM 86.84 319 P 25 13.10 0.9
1.6s 181.85nm 6.0mb
Z 19s 0.48um 4.9Msz
HNME 87.09 318 P 25 15.70 2.2
JAO 87.89 327 eP 25 16.50 -0.7
ILT 88.51 13 iPc 25 19.40 -0.5
2.0s 161.00nm 6.0mb
Z 14s 2.20um 5.7MszX
E 14s 2.60um
e 28 50.00
eS 36 06.00
BRW 88.67 5 P 25 21.40 0.8
MAW 88.77 171 P 25 35.50 14.6X
MRWA 88.83 122 eP 25 22.00 -0.1
0.6s 4.00nm 4.9mb
CDCB 90.85 249 eP 25 32.90 1.2
e(S) 36 39.30
NWAO 91.24 124 eP 25 34.00 0.8
0.9s 19.00nm 5.4mb
RSNY 91.92 319 P 25 50.00 13.8X
Z 21s 0.53um 5.0Msz
FCC 92.83 338 eP 25 43.50 3.4X
EEO 93.54 322 eP 25 47.00 3.4X
COOL 93.59 121 iPc 25 43.80 -0.3
1.0s 17.00nm 5.4mb
IMA 94.05 5 eP 25 46.30 0.5
1.8s 57.30nm 5.6mb
YKA 95.49 348 eP 25 50.70 -1.6
0.9s 6.70nm 5.1mb
FBA 95.59 3 P 25 52.80 0.0
1.7s 20.68nm 5.3mb
SMY 98.19 26 P 26 20.00 15.3X
Z 21s 2.71um 5.7Msz
PWA 98.71 4 eP 26 07.20 0.3
1.1s 62.20nm 6.2mb
PMR 98.82 4 P 26 07.50 0.2
1.1s 9.59nm 5.4mb
Z 19s 0.99um 5.3Msz
CEH 99.39 313 P 26 20.00 9.5X
Z 20s 1.27um 5.4Msz
RSSD 108.02 333 PKP 31 10.00 13.8X
Z 20s 0.67um 5.2Msz
MIAR 109.63 320 PKP 31 10.00 10.8X
Z 20s 0.71um 5.2Msz
CNCB 110.89 259 ePKP 31 02.00 -0.8
i 31 36.00
LPB 110.93 259 ePKP 31 02.00 -0.7
Z 19s 2.78um 5.9Msz

LR 06 00.00
DUG 114.87 336 PKP 31 20.00 10.7X
Z 20s 0.63um 5.2Msz
ALQ 116.49 328 PKP 31 30.00 17.4X
Z 20s 1.21um 5.5Msz
WDC 117.64 344 PKP 31 30.00 15.7X
Z 21s 0.66um 5.2Msz
S.D. = 1.0 on 386 of 434 obs.

? MAR 13, 1993 17h 54m 59.83± 0.98s
84.980 N ±18.6km 4.356 E ±20.0km
DEPTH = 10.0km (geophysicist)
3.4mb (3 obs.)
NORTH OF SVALBARD (641)

ARA0 15.98 153 Pn 58 39.70 -6.1X
RES 16.96 296 eP 58 58.00 -0.1
0.8s 2.00nm 3.3mb
NB2 24.11 172 P 00 15.60 -0.4
0.7s 2.60nm 3.9mb
NRA0 24.42 171 P 00 19.34 0.4
YKA 30.41 307 eP 01 13.80 0.1
0.9s 0.40nm 3.3mb
GBA 75.06 106 P 06 43.00 0.0
S.D. = 0.4 on 5 of 6 obs.

MAR 13, 1993 17h 59m 10.32± 0.82s
49.170 N ± 2.8km 128.758 W ± 7.4km
DEPTH = 10.0km (geophysicist)
4.1mb (3 obs.)
VANCOUVER ISLAND REGION (25)

BPBC 1.18 33 P 59 32.85 0.5
EDB 1.28 56 Pd 59 34.44 0.4
ETB 1.47 81 P 59 37.33 0.5
HOLB 1.53 15 Pd 59 37.13 -0.5
PHC 1.76 29 Pd 59 41.08 0.1
S 00 05.63
GDR 1.88 70 Pd 59 43.11 0.4
BTB 2.14 81 P 59 46.91 0.2
S 00 15.60
OZB 2.16 94 Pc 59 45.94 -0.9
S 00 13.74
CBB 2.37 67 P 59 50.89 1.1
ALB 2.58 86 P 59 53.06 0.3
PFB 2.91 100 P 59 56.43 -1.1
NAB 3.12 87 P 00 01.26 0.9
PGC 3.54 96 P 00 06.70 0.3
0.6s 1.50nm
OSD 3.62 110 P 00 07.71 -0.1
MCW 3.94 95 eP 00 12.38 0.3
eS 00 58.37
HDW 4.09 110 P 00 14.27 -0.1
CPW 4.36 118 P 00 18.20 0.0
CMW 4.45 97 P 00 20.07 0.6
MBW 4.53 92 P 00 21.06 0.4
BMW 4.60 124 eP 00 20.13 -1.4
JCW 4.63 100 P 00 21.54 -0.4
RPW 4.84 96 P 00 24.74 -0.2
LMW 5.02 118 P 00 26.88 -0.6
KMOR 5.03 133 P 00 26.19 -1.4
GSM 5.06 110 P 00 28.26 0.2
RVW 5.06 124 P 00 27.41 -0.6
RVC 5.07 114 P 00 28.51 0.4
KOSW 5.19 119 P 00 30.47 0.6
ERK 5.19 121 P 00 30.05 0.1
REMR 5.20 114 P 00 30.85 0.6
TDL 5.24 120 P 00 30.88 0.3
RCS 5.25 113 P 00 32.85 1.9X
FL2 5.25 122 P 00 31.35 0.5
FMW 5.25 113 P 00 31.08 0.1
LON 5.26 115 eP 00 31.02 0.2
LVP 5.30 123 P 00 31.74 0.3
SHW 5.32 122 eP 00 31.83 0.1
ESD 5.36 121 P 00 33.15 0.7
JLK 5.39 122 P 00 33.34 0.6
MTMW 5.43 123 P 00 33.78 0.4
WPW 5.44 114 P 00 34.07 0.6
CDFW 5.47 121 P 00 34.65 0.8
GLK 5.47 116 P 00 34.18 0.2
PGO 5.66 128 P 00 38.50 2.0X
ASR 5.70 119 P 00 36.68 -0.5
TBM 5.81 107 P 00 39.05 0.4
ETW 5.83 102 P 00 38.94 0.0
VLMM 5.83 126 P 00 39.65 0.7
GULW 5.83 121 P 00 37.89 -1.1
NAC 5.86 112 P 00 40.60 1.3
MPOR 5.88 141 P 00 38.40 -1.2
EBG 5.94 109 P 00 40.86 0.4
WTV 6.04 101 P 00 41.83 0.0
VLL 6.07 125 P 00 42.95 0.6
SSOR 6.09 133 P 00 42.42 -0.3
TDH 6.13 127 P 00 43.69 0.5
GL2 6.26 118 P 00 44.64 -0.3
MXC 6.26 111 P 00 44.65 -0.3
VFP 6.28 125 P 00 45.65 0.2
EPH 6.38 103 P 00 45.72 -1.0
VBEM 6.39 127 P 00 47.08 0.2
SAW 6.40 100 P 00 45.84 -1.1
BVW 6.41 108 P 00 46.79 -0.3
VGB 6.54 121 (P) 00 49.13 0.2
MDW 6.57 110 P 00 49.36 0.1
WAH2 6.63 108 P 00 49.30 -0.8
CRF 6.71 107 P 00 49.75 -1.5
HSO 6.87 143 P 00 53.59 0.0
OD2 6.94 101 P 00 52.89 -1.6
DPW 7.13 97 eP 00 55.75 -1.5
DBO 7.16 146 P 00 57.55 -0.1
LNOR 7.82 111 P 01 06.58 -0.3
LBFM 9.20 146 eP 01 26.88 0.8
BONR 13.52 142 eP 02 25.39 0.6
DUG 14.44 122 (P) 02 36.90 0.2
1.1s 6.05nm 4.2mb
BW06 14.78 108 (P) 02 43.66 2.3X
1.6s 13.03nm 4.2mb
YKA 15.48 25 eP 02 49.40 -0.7
0.8s 5.20nm 3.9mb
MSU 15.98 126 eP 02 58.38 1.5
ULM 21.20 75 eP 04 06.00 8.0X
FCC 22.30 51 eP 04 15.50 6.6X
S.D. = 0.7 on 75 of 80 obs.

& MAR 13, 1993 18h 07m 32.59s
60.373 N 152.140 W
DEPTH = 84.5km
SOUTHERN ALASKA (2)
<AEIC>.

RSO 0.32 287 eP 07 45.23 -0.7
RS1 0.32 286 eP 07 45.29 -0.6
eS 07 55.28
RS2 0.32 287 eP 07 45.29 -0.7
eS 07 55.71
RDN 0.34 295 eP 07 45.27 -0.7
DFR 0.35 309 eP 07 45.14 -0.8
eS 07 55.35
RDW 0.35 289 eP 07 45.40 -0.7
NCT 0.43 296 eP 07 45.71 -0.9
eS 07 56.63
INE 0.56 236 eP 07 46.71 -0.9
eS 07 58.85
NKA 0.58 50 eP 07 48.80 1.2
INW 0.58 239 eP 07 46.81 -1.0
SPU 0.81 3 iP 07 49.29 -0.8
S 08 02.43
CKT 0.83 358 eP 07 49.46 -0.9
eS 08 03.41
CKL 0.83 353 eP 07 49.52 -0.9
CKN 0.85 359 eP 07 49.93 -0.6
BRLK 0.88 134 eP 07 50.09 -0.7
eS 08 03.73
CPAM 0.88 360 eP 07 50.33 -0.6
eS 08 04.14
eS 08 04.23
CP2 0.90 357 iPd 07 50.67 -0.5
eS 08 04.42
CRP 0.90 360 iPd 07 50.30 -0.9
eS 08 04.05
BGL 0.90 352 eP 07 50.43 -0.7
OPT 0.91 218 eP 07 50.51 -0.6
SLKM 0.96 81 eP 07 50.80 -1.0
CNPM 0.96 151 eP 07 51.27 -0.5
eS 08 05.56
PDB 1.18 241 eP 07 53.20 -1.2
eS 08 09.36
AUL 1.19 214 eP 07 54.04 -0.5
AUE 1.19 212 eP 07 53.65 -0.9
AUH 1.21 214 eP 07 54.11 -0.7
AUI 1.23 213 eP 07 54.11 -0.9
SUA 1.29 31 eP 07 55.39 -0.5
SEW 1.37 100 eP 07 55.34 -1.4
MPA 1.38 84 eP 07 55.86 -1.1
PMS 1.54 54 P 07 58.70 -0.3
PTE 1.61 71 eP 07 58.74 -1.2

```
MCNL    1.63 224 eP     07 58.85  -1.3
                 eS     08 19.36
CDD     1.64 208 eP     07 59.01  -1.3
SKT     1.64  10 eP     07 59.12  -1.2
                 eS     08 20.18
                 eS     08 20.66
PWA     1.69  40 P      08 00.40  -0.6
SYI     1.77 184 eP     08 01.20  -0.9
SVW     1.86 295 P      08 01.70  -1.7
PMR     1.91  49 eP     08 02.66  -1.2
GHO     2.10  47 eP     08 05.14  -1.5
SML     2.34  50 eP     08 08.17  -1.7
HIN     2.80  87 eP     08 13.80  -2.3
VLZ     2.95  73 eP     08 16.39  -1.7
TRF     3.21  15 eP     08 20.47  -1.5
KLU     3.24  67 eP     08 19.53  -2.7
      45 obs. associated
-------------------------------------
? MAR 13, 1993  18h 37m 21.63±12.17s
   18.317 N ±19.9km  103.272 W ±99.9km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF MICHOACAN, MEXICO ( 56)

MRX     2.40  55 iP     37 59.50   0.0
                 iS     38 25.50
ACX     3.56 113 eP     38 16.00   0.0
                 iS     38 57.50
CRX     3.57  72 eP     38 15.50  -0.9
                 (S)    39 03.50
III     3.61  88 eP     38 16.50  -0.4
UNM     4.00  75 eP     38 23.50   1.0
                 (S)    39 15.00
IIA     4.45  79 (P)    38 30.50   1.9X
PPM     4.47  80 eP     38 29.50   0.2
                 iS     39 17.50
IISM    5.63  82 (P)    38 52.50   7.3X
    S.D. = 0.8  on   6 of   8 obs.
-------------------------------------
& MAR 13, 1993  18h 51m 57.69s
   60.121 N           153.647 W
   DEPTH = 159.1km
   3.2mb (  1 obs.)
 SOUTHERN ALASKA                  (  2)
      <AEIC>.

INW     0.26 102 ePc    52 18.58   0.6
                 eS     52 35.52
INE     0.30 101 iPc    52 18.72   0.5
                 eS     52 36.36
PDB     0.43 220 iPd    52 18.94   0.5
                 eS     52 35.62
OPT     0.51 156 iPc    52 19.65  -0.8
                 eS     52 36.94
RDW     0.55  49 iPc    52 19.90  -0.9
                 eS     52 37.78
RS1     0.56  52 iPc    52 19.94  -0.9
                 eS     52 37.39
RS2     0.56  52 iPc    52 19.93  -1.0
RSO     0.56  52 iPc    52 19.93  -1.0
NCT     0.57  39 iPc    52 19.88  -0.9
                 eS     52 37.16
RDN     0.59  48 ePc    52 20.11  -0.8
DFR     0.67  45 iPc    52 20.25  -1.1
AUL     0.75 172 ePd    52 21.00  -0.7
AUH     0.77 172 ePd    52 21.19  -0.8
AUE     0.78 170 iPc    52 20.90  -1.0
                 eS     52 38.23
AUI     0.80 172 eP     52 21.16  -0.9
MCNL    1.00 201 iPd    52 22.43  -1.2
                 eS     52 41.86
XLV     1.18 124 eP     52 23.56  -1.6
CDD     1.20 180 iPd    52 23.97  -1.4
                 eS     52 45.25
CKL     1.26  30 iPc    52 25.23  -0.8
                 eS     52 47.06
CKT     1.30  33 iPc    52 25.33  -1.0
BGL     1.30  28 iPc    52 25.86  -0.6
CKN     1.32  32 iPc    52 25.77  -0.8
SPU     1.32  36 iPc    52 25.39  -1.2
CP2     1.34  30 iPc    52 26.33  -0.6
NKA     1.35  61 iPc    52 26.68   0.0
CNPM    1.36 115 iPc    52 25.43  -1.4
                 eS     52 46.47
CPAM    1.36  32 iPc    52 26.07  -0.9
CRP     1.36  32 iPc    52 25.89  -1.2
SVW     1.39 316 iPd    52 26.30  -0.9
BRLK    1.44 103 ePc    52 26.39  -1.3

SYI       1.65 156 iPd    52 27.97  -1.8
                   eS     52 51.70
SLKM      1.75  76 ePc    52 28.72  -2.2
SUA       1.96  45 ePc    52 31.71  -1.7
                   eS     52 59.09
SEW       2.10  89 eP     52 32.63  -2.2
SKT       2.13  28 ePc    52 34.03  -1.3
                   eS     53 02.62
                   eS     53 02.75
MPA       2.17  78 ePc    52 33.19  -2.4
PMS       2.31  59 P      52 35.00  -2.4
PWA       2.40  49 P      52 36.00  -2.4
PTE       2.41  70 ePc    52 35.45  -3.1
PLRM      2.66  54 ePc    52 38.21  -3.4
PMR       2.66  54 eP     52 38.15  -3.4
GHO       2.84  52 iPc    52 40.79  -3.2
                   eS     53 14.89
TTA       3.04 339 eP     52 44.79  -1.7
SML       3.09  55 iPc    52 43.87  -3.3
SCM       3.53  58 ePc    52 49.58  -3.2
HIN       3.57  82 ePc    52 50.47  -2.8
TRF       3.70  24 eP     52 53.19  -1.9
VLZ       3.74  71 eP     52 52.20  -3.2
MID       3.76  97 P      52 53.70  -1.9
CVA       3.95  80 ePc    52 55.38  -2.7
RND       4.01  33 eP     52 57.14  -1.8
KLU       4.03  67 ePc    52 55.94  -3.3
RAGM      4.48  83 ePc    53 02.25  -2.9
SDG       4.59  55 eP     53 04.29  -2.3
PAX       4.84  50 ePc    53 07.55  -2.5
GLB       5.00  70 eP     53 09.11  -2.9
CROM      5.24  78 ePc    53 13.08  -2.3
CCB       5.29  28 eP     53 12.97  -2.9
HDA       5.31  33 ePc    53 13.53  -2.6
TGL       5.40  79 eP     53 15.13  -2.2
MDM       5.46  25 eP     53 15.56  -2.6
BALM      5.65  76 eP     53 18.21  -2.5
GLM       5.67  28 eP     53 18.60  -2.4
YAH       5.93  83 ePc    53 22.90  -1.7
CTGM      6.14  77 ePc    53 25.51  -1.7
YKA      18.70  66 eP     56 02.40  -3.5
          0.5s     0.60nm           3.2mb
          66 obs. associated
-----------------------------------------
? MAR 13, 1993  19h 04m 56.66± 4.92s
   26.486 S ±31.9km  176.967 W ±29.4km
   DEPTH =  64.2 ± 37.8 km
   4.4mb (  3 obs.)
 SOUTH OF FIJI ISLANDS              (171)

RAO      2.88 197 iPd    05 40.50  -0.6
                  eS     06 12.00
DZM     15.75 283 iPc    08 37.40   1.4
BRS     26.96 261 iP     10 34.00  -0.2
WB2     45.00 268 eP     13 04.00  -3.7X
         0.9s     6.40nm           4.5mb
WRA     45.01 268 P      13 06.20  -1.6
         1.3s     0.80nm           3.4mb
SPA     63.67 180 iPd    15 25.10   1.8
         0.8s    13.75nm           5.0mb
NB2    145.01 353 PKP    24 26.90  -0.7
         0.9s     6.50nm
UPP    145.15 347 iPKP   24 28.90   1.1
HFS    145.57 351 ePKP   24 27.40  -1.1
         0.9s     4.20nm
BCAO   153.53 217 ePKPc  24 50.90   8.8X
         0.6s     4.00nm
                  ic     25 02.20
CLL    154.07 346 e(PKP)24 51.00   9.3X
     S.D. = 1.7  on   8 of  11 obs.
-----------------------------------------
? MAR 13, 1993  19h 15m 31.02± 0.83s
   19.923 N ±18.5km   38.935 E ± 9.8km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  2 obs.)
 RED SEA                            (554)
      MD 3.7 (RYD).

ABHA     3.97 114 eP     16 33.00  -0.6
                  eS     17 13.00
KMTA     4.11 115 eP     16 36.00   0.6
BCAO    25.14 235 ePd    20 58.00   0.0
         1.1s    11.00nm           4.5mb
                  ic     21 09.10
GEC2    35.26 331 P      22 27.90   0.0
         1.4s     1.23nm           3.6mb
KIC     44.47 258 P      23 44.40  -0.1

     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
? MAR 13, 1993  19h 37m 35.60± 1.31s
   31.475 S ±19.5km   68.291 W ±33.9km
   DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA       (137)

CFA      0.14 161 iPc    37 50.00  -0.1
                  S      38 02.00
RTLL     0.21 313 iPc    37 50.50   0.2
                  S      38 01.00
RTCB     0.43 268 iPd    37 51.20  -0.1
                  S      38 02.50
RTCV     0.44 209 iPd    37 51.30   0.1
                  S      38 04.10
RTRS     1.64 322 ePd    38 04.00   0.0
     S.D. = 0.2  on   5 of   5 obs.
-----------------------------------------
• MAR 13, 1993  19h 52m 14.82± 1.11s
   51.529 N ± 7.0km    7.111 E ±16.5km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                            (543)
      ML 2.1 (BNS).

WTS      0.50 338 ePg    52 25.00   0.0
         0.5s    16.70nm
BNS      0.57 176 iPgd   52 26.23  -0.1
         0.5s   105.00nm
                  iSg    52 34.25
ENN      1.07 225 ePg    52 35.00   0.1
         0.6s     8.30nm
                  eSg    52 50.00
ABH      1.67 170 ePn    52 44.71   0.4
RUP      1.83 181 ePn    52 46.22  -0.4
     S.D. = 0.4  on   5 of   5 obs.
-----------------------------------------
   MAR 13, 1993  20h 54m 19.46± 1.30s
   53.096 N ± 7.0km  160.106 E ±10.5km
   DEPTH =  60.2 ±  9.9 km
   4.6mb ( 25 obs.)
 NEAR EAST COAST OF KAMCHATKA       (218)

PET      0.88 265 iPnd   54 37.00   0.9
SKR      3.48 227 ePn    55 10.50  -1.7
MGD      8.69 328 ePn    56 27.00   2.1
KUSJ    14.32 232 eP     57 33.00  -7.2X
ASAJ    14.60 239 eP     57 44.10   0.2
HOOJ    15.54 233 eP     57 49.50  -6.5X
ILT     17.98  26 eP     58 24.60  -1.7
YAK     18.42 311 eP     58 30.30  -1.4
         0.9s    26.00nm           4.4mb
NIIJ    21.62 231 P      59 05.60  -0.3
KAKJ    21.93 228 eP     59 07.70  -1.3
MAT     22.55 232 iPc    59 15.80   0.6
         0.7s    53.42nm           5.1mb
CHJJ    22.59 229 P      59 16.70   1.1
MTMJ    22.71 232 P      59 17.40   0.5
TIK     23.07 335 eP     59 20.00   0.1
         1.0s     9.00nm           4.2mb
IIDJ    23.56 230 P      59 26.90   1.9
WKYJ    25.68 232 P      59 45.90   0.6
YONJ    25.96 237 P      59 49.00   1.2
BOD     26.05 299 iPd    59 47.70  -0.7
         1.0s    11.00nm           4.3mb
TKSJ    26.62 235 P      59 56.00   2.1
FBA     28.42  45 (P)    00 09.07  -0.8
ELT     42.40 301 iPd    02 08.00  -1.1
         1.0s    14.00nm           4.7mb
YKA     43.16  43 eP     02 15.00  -0.1
         0.6s     0.40nm           3.4mb X
GUN     58.90 276 P      04 12.80  -2.0
KKN     59.35 276 P      04 16.00  -1.7
PKI     59.43 276 P      04 16.60  -1.9
GKN     59.58 277 P      04 17.60  -1.6
DMN     59.59 276 P      04 17.80  -1.6
NB2     63.54 344 P      04 44.30  -1.0
         0.6s     3.00nm           4.5mb
HFS     63.95 342 eP     04 46.20  -1.7
         0.5s     2.30nm           4.5mb
CLL     72.35 339 iPd    05 40.10  -0.1
WTS     72.91 343 eP     05 44.00   0.6
         0.7s     8.20nm           4.8mb
PRU     73.25 338 eP     05 46.00   0.5
MOX     73.27 340 eP     05 45.80   0.2
ENN     74.25 343 eP     05 52.00   0.8
         0.9s    11.20nm           4.8mb
GRF     74.26 340 iPc    05 52.30   0.9
```

13d 21h

0.8s 10.00nm 4.8mb
KHC 74.27 338 eP 05 52.40 0.9
GEC2 74.51 338 Pd 05 53.30 0.4
0.5s 1.84nm 4.3mb
e 05 59.00
GBA 74.86 272 P 05 54.50 -0.7
WB2 76.08 205 eP 06 00.90 -1.1
0.7s 3.70nm 4.4mb
KBA 76.26 337 iPc 06 04.10 1.1
0.8s 19.10nm 5.1mb
CDF 76.27 342 eP 06 03.00 0.1
0.8s 6.45nm 4.6mb
WTTA 76.47 339 iPc 06 05.00 0.8
HAU 76.83 342 eP 06 06.10 0.1
0.6s 4.95nm 4.7mb
BSF 76.92 342 eP 06 06.40 -0.2
0.8s 4.85nm 4.5mb
VBY 77.27 335 ePc 06 07.00 -1.4
LOR 77.98 344 eP 06 12.40 0.1
0.9s 6.20nm 4.6mb
SSF 78.24 344 eP 06 13.90 0.2
0.7s 2.45nm 4.3mb
AVF 78.53 344 eP 06 15.60 0.3
1.2s 14.30nm 4.8mb
SMF 78.59 344 eP 06 16.00 0.3
0.9s 4.10nm 4.4mb
VAY 79.07 329 eP 06 19.00 0.7
LPL 79.15 341 eP 06 20.20 1.2
0.8s 16.40nm 5.0mb
LPG 79.17 341 eP 06 20.50 1.3
0.7s 14.75nm 5.0mb
TCF 79.21 345 eP 06 19.40 0.4
0.9s 4.60nm 4.4mb
MAF 79.21 344 eP 06 19.80 0.7
0.8s 3.65nm 4.4mb
HRI 81.35 316 eP 06 31.10 0.4
PGF 81.53 339 eP 06 31.70 0.2
0.7s 4.85nm 4.6mb
HMDT 82.32 315 eP 06 36.30 0.7
SAGI 84.45 315 eP 06 46.90 0.3
S.D. = 1.1 on 56 of 58 obs.

---

* MAR 13, 1993 22h 13m 01.79± 2.17s
17.696 S ±10.9km 178.597 W ±10.0km
DEPTH = 509.6 ± 25.7 km
4.6mb (17 obs.)
FIJI ISLANDS REGION (181)

DZM 14.73 250 iPc 16 12.10 2.7
KUZ 19.63 194 P 16 59.60 2.4
0.7s 36.00nm 5.1mb
URZ 20.83 190 eP 17 08.10 -0.2
0.3s 14.00nm 5.1mb
NOZ 21.05 187 eP 17 11.20 0.8
MNG 23.41 191 eP 17 31.70 -0.2
DSZ 25.34 197 P 17 50.60 1.3
KHZ 25.54 194 P 17 49.60 -1.3
LTZ 26.19 195 eP 17 55.80 -0.9
0.5s 14.00nm 4.8mb
LRCZ 29.10 198 P 18 21.30 -0.9
MSCZ 29.10 198 P 18 21.40 -0.8
MHZ 29.11 198 P 18 21.40 -0.9
SBCZ 29.13 198 P 18 21.50 -0.9
LSCZ 29.14 198 P 18 21.60 -0.9
CMCZ 29.19 198 P 18 22.30 -0.7
TLC 29.29 198 P 18 23.50 -0.4
TUZ 29.83 197 P 18 28.70 0.4
0.5s 19.00nm 4.9mb
ARMA 29.89 239 iPd 18 29.90 0.6
0.7s 16.00nm 4.7mb
RMQ 31.42 248 iPd 18 42.10 -0.1
0.4s 9.00nm 4.7mb
CNB 33.41 232 iPc 19 00.10 1.1
0.4s 18.00nm 5.0mb
CAN 33.69 232 iPd 19 01.90 0.6
BWA 33.80 234 eP 18 59.50 -2.7
PMG 34.25 279 eP 19 07.00 1.0
QLP 35.44 249 iPd 19 15.80 -0.1
TOO 37.16 230 iPc 19 31.10 1.1
0.9s 74.00nm 5.2mb
STK 38.58 241 iPd 19 42.50 0.9
0.7s 10.00nm 4.5mb
BFD 39.22 232 eP 19 46.60 -0.2
0.9s 13.00nm 4.5mb
ADE 41.60 237 e(P) 20 06.50 0.4
WB2 44.48 259 iPc 20 27.30 -1.6
0.4s 17.50nm 4.9mb

WRA 44.49 259 P 20 27.79 -1.2
ASPA 44.68 254 P 20 22.79 -7.6X
MBL 57.86 256 eP 22 04.50 -2.0
SAO 76.40 44 eP 24 00.51 0.8
ISA 77.80 46 eP 24 07.05 -0.3
1.0s 13.65nm 4.3mb
CMB 77.81 43 iP 24 07.94 0.6
0.9s 12.11nm 4.3mb
ORV 77.95 42 iP 24 08.21 0.2
LBFM 78.75 40 eP 24 13.03 0.6
KVN 79.86 44 eP 24 19.04 0.7
SLKM 81.23 14 eP 24 23.44 -1.3
CP2 81.47 13 eP 24 24.71 -1.4
CRP 81.49 13 ePc 24 24.29 -1.9
GMW 81.91 34 eP 24 27.60 -0.8
TTA 82.30 10 eP 24 29.41 -0.7
1.1s 8.28nm 4.2mb
ARUT 82.36 47 eP 24 31.99 0.9
RMW 82.39 35 iPc 24 31.16 0.2
DPW 84.62 36 eP 24 41.96 0.0
FBA 85.64 13 eP 24 44.83 -1.6
0.5s 3.85nm 4.4mb
LCCM 87.28 40 eP 24 55.20 0.3
BW06 87.33 43 eP 24 55.16 -0.2
0.4s 3.46nm 4.5mb
SES 89.95 36 ePc 25 07.00 0.0
YKA 94.21 25 eP 25 24.80 -1.5
0.9s 2.30nm 4.3mb
KAS 143.60 317 iPKPc 31 37.70 -2.1
WIT 144.71 354 ePKP 31 41.50 0.4
KSP 144.86 344 iPKPc 31 41.10 -0.4
SPC 145.08 338 ePKP 31 42.90 0.7
CLL 145.22 347 iPKPc 31 41.30 -0.8
0.8s 26.00nm
BRG 145.42 346 i(PKP)31 42.40 0.0
0.8s 14.00nm
WTS 145.51 354 ePKP 31 42.00 -0.5
0.8s 12.10nm
PRU 146.09 345 PKPc 31 44.20 0.6
e 31 46.00
MOX 146.13 348 ePKP 31 44.50 0.9
1.4s 12.00nm
ENN 146.81 355 ePKP 31 49.50 4.9X
0.6s 7.30nm
ZST 146.99 341 e(PKP)31 46.80 1.8
GRF 147.11 348 iPKP 31 47.70 2.5
e 31 50.60
KHC 147.13 345 PKPc 31 47.50 2.2
1.0s 5.40nm
e 31 51.00
SNF 147.18 357 PKPc 31 47.50 2.3
GEC2 147.36 345 PKP 31 44.30 -1.5
0.8s 0.31nm
DOU 147.58 356 PKPc 31 48.40 2.5
0.9s 32.50nm
WLF 147.88 354 iPKPc 31 49.79 3.4X
FLN 148.98 2 iPKPc 31 51.70 3.6X
0.8s 12.20nm
CDF 148.99 352 iPKPc 31 52.00 3.7X
0.5s 5.05nm
LDF 149.16 2 iPKPc 31 52.00 3.6X
0.4s 3.15nm
GRR 149.33 3 iPKPc 31 52.70 4.0X
0.5s 7.30nm
HAU 149.50 353 iPKPc 31 53.20 4.2X
0.5s 4.00nm
BSF 149.62 353 iPKPc 31 53.40 4.1X
0.7s 5.85nm
LPF 149.68 3 iPKPc 31 53.50 4.3X
0.5s 8.90nm
VOY 149.90 343 i(PKP)31 53.40 3.6X
e 32 01.20
VBY 149.96 340 ePKP 31 49.30 -0.4
iPKPbc31 54.30
CEY 150.01 342 e(PKP)31 54.00 4.1X
LOR 150.44 357 iPKPc 31 55.50 5.1X
0.5s 8.15nm
SSF 150.66 357 iPKPc 31 56.10 5.3X
0.6s 9.20nm
LBF 150.72 356 iPKPc 31 56.00 5.1X
0.4s 2.70nm
AVF 150.94 357 ePKP 31 56.20 5.0X
0.6s 2.05nm
MFF 151.15 2 iPKPc 31 56.90 5.4X
0.5s 6.25nm
BGF 151.19 358 iPKPc 31 57.60 6.0X
0.8s 10.05nm

OHR 151.32 328 ePKP 31 56.80 4.8X
TCF 151.48 359 iPKPc 31 57.70 5.7X
0.6s 4.35nm
LSF 151.53 360 iPKPc 31 57.60 5.5X
0.8s 10.05nm
MAF 151.54 358 iPKPc 31 58.20 6.1X
0.7s 4.65nm
LPL 151.91 352 ePKP 31 59.40 6.5X
0.8s 3.10nm
LPG 151.92 352 ePKP 31 59.80 6.8X
0.7s 2.75nm
RJF 152.47 360 ePKP 32 00.60 7.2X
S.D. = 1.2 on 65 of 90 obs.

MAR 13, 1993 23h 03m 11.09± 0.40s
43.988 N ± 3.6km 7.559 E ± 3.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 1.6 (GEN), 1.0 (STR).

SAOF 0.00 241 Pg 03 12.86 -0.1
AUTN 0.09 275 Pg 03 14.10 0.1
SBF 0.15 216 Pg 03 14.72 0.0
Sg 03 17.15
AURF 0.19 239 Pg 03 15.50 0.1
TOUF 0.23 277 Pg 03 16.02 0.0
Sg 03 19.84
IMI 0.25 108 P 03 16.51 0.0
S 03 20.31
ENR 0.26 337 P 03 17.01 0.4
S 03 20.67
STV 0.31 327 P 03 17.79 0.3
S 03 21.86
ROB 0.38 36 P 03 19.39 0.5
S 03 24.84
FIN 0.52 64 P 03 21.41 -0.2
PZZ 0.61 328 P 03 23.42 -0.1
S 03 31.70
BHB 0.88 346 P 03 27.08 -0.9
PCP 0.90 52 P 03 28.32 0.0
S.D. = 0.4 on 13 of 13 obs.

% MAR 14, 1993 00h 04m 13.32± 1.61s
34.427 S ±17.9km 70.727 W ±13.1km
DEPTH = 100.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.5 (SAN).

CACH 0.33 19 iP+ 04 28.40 0.0
iS 04 40.56
CHCH 0.50 7 iP+ 04 29.22 -0.1
iS 04 42.47
LNV 0.74 309 iP+ 04 31.31 0.0
iS 04 45.03
TACH 0.79 347 iP+ 04 31.98 0.1
iS 04 47.05
PCH 0.82 12 iP+ 04 32.47 0.2
iS 04 47.67
FCH 1.16 18 iPd 04 36.14 0.0
iS 04 54.53
LCCH 1.18 323 iP+ 04 35.99 -0.1
PEL 1.28 2 iP+ 04 37.24 -0.1
iS 04 56.49
ROCH 1.47 351 iPd 04 39.88 0.0
iS 05 01.87
JACH 1.74 4 iPd 04 43.11 -0.1
iS 05 06.17
S.D. = 0.1 on 10 of 10 obs.

MAR 14, 1993 00h 23m 42.72± 0.63s
43.048 N ± 7.5km 0.296 W ± 3.7km
DEPTH = 5.0km (geophysicist)
PYRENEES (378)
ML 2.5 (LDG). Felt (II) at
Asson, France.

JAU 0.05 259 Pg 23 44.74 0.4
Sg 23 46.28
BTH 0.10 41 iPgd 23 45.30 0.4
i 23 50.30
OGE 0.18 313 Pg 23 46.21 -0.2
Sg 23 48.79
ESCF 0.21 278 Pg 23 46.75 -0.2
Sg 23 50.02
LHE 0.27 241 Pg 23 48.33 0.0
Sg 23 52.50
ATE 0.30 277 Pg 23 48.83 0.1

Sg 23 52.73
ISSF 0.37 267 Pg 23 50.22 0.1
Sg 23 55.64
MADF 0.40 284 Pg 23 50.35 -0.3
Sg 23 56.61
EPF 0.47 92 Pg 23 51.80 -0.3
Sg 23 58.40
LPO 1.95 33 Pg 24 19.00 2.1X
Sg 24 44.60
LFF 2.03 21 Pg 24 21.00 3.0X
Sg 24 47.60
CAF 2.53 41 Pg 24 29.90 4.7X
Sg 25 00.90
RJF 2.61 29 Pg 24 30.80 4.6X
Sg 25 03.70
LSF 3.46 22 Pg 24 47.20 8.9X
Sn 25 15.40
Sg 25 30.40
TCF 3.70 28 Pg 24 52.40 10.6X
Sg 25 39.10
MAF 3.77 32 Pg 24 52.70 9.9X
Sg 25 40.80
BGF 4.16 31 Pg 25 00.40 12.2X
Sg 25 52.50
S.D. = 0.3 on 9 of 17 obs.

---

* MAR 14, 1993 00h 38m 31.02± 0.52s
5.748 S ± 7.3km 126.598 E ±11.9km
DEPTH = 33.0km (normal)
5.1mb (7 obs.)
BANDA SEA (280)

MTN 8.35 148 eP 40 31.00 -1.8
0.4s 81.00nm 6.2mb X
eS 42 00.00
CGP 14.24 352 eP 41 50.50 -1.9
MBL 16.67 203 eP 42 22.00 -1.8
0.6s 22.00nm 4.5mb
e 42 27.00
PLP 16.88 355 ePc 42 26.00 -0.5
LEM 18.90 266 ePc 42 53.50 1.8
ASPA 19.15 159 iPd 42 53.30 -1.3
Z 22s 0.30um
eS 46 13.80
PGP 19.93 344 iPc 43 04.00 0.8
PMG 20.70 101 eP 43 13.00 1.9
MEEK 22.13 199 eP 43 25.30 -0.2
CVP 23.77 349 ePd 43 45.00 3.4X
CTA 23.84 129 iPc 43 37.00 -5.3X
NWAO 28.41 197 eP 44 24.00 -0.7
0.7s 25.00nm 5.0mb
BFD 34.51 157 iPd 45 19.00 0.7
1.0s 16.00nm 4.9mb
BWA 34.96 148 eP 45 23.80 1.6
BDT 35.57 310 eP 45 27.00 -0.5
CAN 35.95 148 iPc 45 31.10 0.5
TOO 36.06 154 iPd 45 33.00 1.5
1.0s 40.00nm 5.3mb
CHTO 36.58 312 ePc 45 37.60 1.5
1.0s 12.50nm 4.8mb
KMI 38.47 324 Pd 45 57.50 5.3X
Z 12s 1.50um 5.0MszX
pP 46 08.00 37kmX
BJI 46.56 349 eP 46 55.00 -2.5
LZH 46.77 335 eP 47 01.00 1.6
1.2s 38.00nm 5.3mb
YAK 67.61 2 eP 49 26.00 -0.3
0.9s 46.00nm 5.6mb
Z 17s 0.60um 4.9MszX
N 15s 0.40um
e 52 47.00
YKA 108.10 25 ePKP 56 56.40 -0.4
0.6s 0.20nm
CNCB 153.35 147 (PKP) 58 24.00 2.9X
i 58 30.20
LPB 153.52 147 ePKP 58 24.00 2.8X
ZOBO 153.70 147 ePKP 58 26.00 4.3X
S.D. = 1.5 on 20 of 26 obs.

---

* MAR 14, 1993 00h 44m 33.02± 1.04s
9.216 N ± 8.9km 126.109 E ±14.9km
DEPTH = 85.3 ± 8.1 km
4.4mb (2 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 0.99 172 iPd 44 52.00 -0.6
CGP 1.59 242 iPd 45 00.00 -0.1
iS 45 18.50
PLP 2.23 330 ePc 45 09.00 0.2
eS 45 21.30
MAP 2.37 298 iPd 45 12.00 1.4
iS 45 41.00
CVP 9.41 334 eP 46 47.00 -0.9
SSE 22.25 349 Pd 49 23.00 -0.8
1.0s 13.00nm 4.3mb
Z 12s 1.80um 4.7MszX
E 11s 1.30um
pP 49 49.00 128kmX
GUN 42.17 302 P 52 18.80 -0.6
PKI 42.47 301 P 52 21.00 -0.8
KKN 42.64 301 P 52 22.40 -0.7
DMN 42.73 301 P 52 23.20 -0.7
GKN 43.25 301 P 52 27.20 -0.7
ZAK 45.19 340 eP 52 45.50 2.5
1.7s 12.00nm 4.5mb
Z 11s 0.29um 4.5MszX
E 14s 0.38um
ADE 45.53 165 iPd 52 46.70 0.8
HYB 46.89 285 eP 52 57.50 0.6
GBA 47.85 280 P 53 05.00 0.6
e 56 34.80
S.D. = 1.1 on 15 of 15 obs.

MAR 14, 1993 00h 46m 52.27± 1.10s
33.444 N ±12.4km 135.031 E ± 6.8km
DEPTH = 37.2 ± 7.3 km
4.6mb (15 obs.)
NEAR S. COAST OF WESTERN HONSHU (233)

WKYJ 0.90 31 iPd 47 07.80 -0.9
S 47 18.90
TKSJ 0.98 304 P 47 09.80 0.1
S 47 22.80
YONJ 2.17 324 iPd 47 26.10 -0.6
TSRJ 2.23 20 P 47 26.90 -0.7
S 47 53.60
SHK 2.24 300 eP 47 27.00 -0.7
e 48 01.00
IIDJ 3.13 49 P 47 38.90 -1.5
S 48 16.40
SHNJ 3.34 283 iP+ 47 43.00 -0.3
KUMJ 3.65 257 P 47 47.50 -0.2
MTMJ 3.87 35 P 47 50.20 -0.8
KAGJ 4.17 238 P 47 54.90 -0.2
CHJJ 4.17 50 P 47 54.10 -1.1
NIIJ 4.99 39 eP 48 09.50 2.8
KAKJ 5.05 55 eP 48 10.20 2.7
OFUJ 7.77 42 eP 48 49.60 3.9X
VLA 9.97 347 eP 49 18.00 1.9
2.0s 68.00nm 5.5mb
BJI 16.47 299 eP 50 44.00 1.9
1.8s 86.00nm 4.6mb
Z 14s 1.23um 4.5MszX
N 10s 0.56um
CIT 24.17 327 eP 52 06.20 0.2
LZH 25.70 285 eP 52 21.50 0.6
1.4s 23.00nm 4.6mb
Z 15s 0.49um 4.2MszX
sP 52 28.00
eS 57 04.00
esS 57 10.00
MGD 28.61 17 eP 52 43.00 -3.9X
CHTO 35.33 255 eP 53 55.90 9.8X
1.1s 15.31nm 4.8mb
ELT 39.68 315 eP 54 21.80 -0.4
ILT 43.41 23 iPc 54 50.40 -2.2
1.4s 12.00nm 4.5mb
NRI 44.35 338 ePc 54 58.70 -1.5
e 55 32.00
e 56 44.00
FRU 47.53 300 eP 55 26.00 0.1
e 55 55.30
NDI 49.21 281 eP 55 30.00 -9.0X
IMA 52.39 29 (P) 56 03.20 0.3
FBA 54.88 31 ePc 56 21.80 0.8
1.2s 16.67nm 4.9mb
ARU 55.60 319 eP 56 25.00 -1.3
GBA 55.68 264 P 56 34.80 7.4X
1.0s 3.00nm 4.3mb
ASPA 56.80 181 iPd 56 41.70 6.5X
1.1s 8.50nm 4.7mb
MAIO 60.53 296 eP 57 03.00 1.8
RES 67.31 13 eP 57 45.00 0.1
1.0s 2.00nm 4.2mb
GRS 68.76 304 eP 57 54.00 -0.8
1.3s 20.00nm 5.0mb
KIV 69.22 309 iPd 57 57.30 -0.2
1.7s 45.00nm 5.2mb
e 58 21.20
YKA 69.47 28 eP 58 04.50 6.0X
1.0s 2.20nm 4.1mb
HFS 75.09 334 eP 58 30.10 -1.7
0.5s 3.40nm 4.6mb
Z 16s 0.08um 4.1MszX
LR 31 59.00
NB2 75.36 335 P 58 32.20 -1.2
0.8s 4.60nm 4.5mb
KSP 80.25 326 eP 59 02.00 1.5
KHC 82.70 326 eP 59 14.40 1.0
GEC2 82.84 325 P 59 14.00 -0.2
0.8s 0.56nm 3.7mb
e 59 16.90
e 59 21.20
e 59 23.70
SKO 83.34 317 iP 59 18.00 1.2
OHR 84.26 316 eP 59 20.80 -0.7
ZOBO 153.02 56 ePKP 06 53.00 12.1X
LPB 153.21 57 (PKP) 06 52.00 11.1X
CNCB 153.48 57 ePKP 06 52.00 10.5X
S.D. = 1.3 on 35 of 45 obs.

% MAR 14, 1993 01h 20m 18.04± 0.67s
40.658 N ± 5.3km 23.416 E ± 6.5km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

SOH 0.17 344 ePg 20 22.20 0.6
eSg 20 23.68
THE 0.34 266 ePg 20 24.96 0.0
eSg 20 28.96
SRS 0.48 16 ePg 20 27.32 -0.3
OUR 0.54 127 ePg 20 28.88 0.0
KNT 0.64 322 ePg 20 30.44 -0.4
eSg 20 38.64
PAIG 0.76 164 ePg 20 33.20 0.0
S.D. = 0.5 on 6 of 6 obs.

% MAR 14, 1993 02h 16m 26.48± 0.51s
46.459 N ± 8.0km 2.615 E ± 6.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.7 (LDG).

BGF 0.19 58 Pg 16 31.30 0.6
Sg 16 34.30
MAF 0.24 188 Pg 16 31.60 0.0
Sg 16 35.10
TCF 0.33 239 Pg 16 33.50 0.2
Sg 16 37.70
AVF 0.61 57 Pg 16 38.30 -0.4
Sg 16 46.30
LSF 0.78 255 Pg 16 41.50 -0.2
Sg 16 51.20
SSF 0.86 45 Pg 16 42.90 -0.1
Sg 16 54.00
SMF 0.87 77 Pg 16 42.90 -0.3
Sg 16 53.50
LBF 1.07 60 Pg 16 46.90 0.2
Sg 17 00.10
LOR 1.18 46 Pg 16 48.50 0.0
Sg 17 03.30
S.D. = 0.4 on 9 of 9 obs.

MAR 14, 1993 02h 27m 29.50± 0.53s
39.208 N ± 5.0km 28.110 E ± 4.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.6 (ISK), 3.5 (ATH).

DST 0.56 45 iPg 27 40.20 -0.8
iSg 27 49.20
IZM 1.05 220 iPg 27 49.10 -0.2
iSg 28 04.10
KCT 1.06 10 iPg 27 49.90 0.5
EDC 1.15 351 iPn 27 52.00 0.9
BNT 1.16 353 iPg 27 51.10 0.0
PRK 1.43 272 iPbd 27 55.70 0.3
eSb 28 16.00
ALT 1.56 95 iPn 27 58.40 0.9
YLV 1.67 35 iPn 27 58.00 -1.0

```
14d 02h

GBZT     1.88  33 ePn    28 04.90   2.9X
                  iSg    28 31.10
CTT      1.95   7 iPn    28 03.10   0.1
ISK      1.99  21 ePn    28 02.60  -1.0
HRT      2.01  36 iPn    28 03.00  -0.8
GPA      2.01  57 iPn    28 04.50   0.6
ITU      2.02  20 ePn    28 08.00   4.1X
                  iSg    28 34.00
EYL      2.08  49 ePn    28 04.60  -0.3
ALN      2.31 317 ePg    28 07.96  -0.3
                  eSg    28 14.64
BCK      2.62 131 ePn    28 12.90   0.3
DMK      2.62 354 iPn    28 11.90  -0.7
RDO      2.76 315 ePn    28 15.00   0.4
OUR      3.37 291 ePb    28 20.84  -2.4
                  iSb    28 36.84
PAIG     3.50 283 ePb    28 28.12   3.1X
                  eSb    28 49.36
SRS      3.95 300 ePb    28 22.92  -8.6X
SOH      3.99 295 ePb    28 27.04  -5.0X
VAY      4.73 298 iPn    28 43.70   1.1
KAS      4.84  62 eP     29 00.00  15.9X
MLR      6.48 346 eP     29 08.50   1.1
VRI      6.74 352 eP     29 12.00   1.2
    S.D. = 1.0  on  21 of  27 obs.
-------------------------------------
   MAR  14, 1993  02h 33m 04.16± 0.67s
   38.946 N ± 5.7km    23.051 E ± 6.4km
    DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)
     ML 2.5 (THE).

AGG      0.57 278 ePg    33 15.00  -0.7
                  eSg    33 21.76
PAIG     1.09  26 ePg    33 24.84   0.1
                  iSg    33 39.40
ATH      1.10 152 iPc    33 25.00   0.1
                  eS     33 39.00
OUR      1.56  27 iPb    33 31.74  -0.2
                  eSb    33 52.70
KZN      1.68 324 iPd    33 34.70   0.9
THE      1.69 358 ePb    33 33.33  -0.4
SOH      1.89   7 iPb    33 36.94   0.2
GRG      2.07 346 ePn    33 38.88  -0.5
SRS      2.21  11 ePn    33 41.08  -0.3
KNT      2.22 357 ePn    33 41.60   0.1
FNA      2.24 325 ePn    33 41.28  -0.7
KEK      2.64 288 eP     33 56.00   8.5X
OHR      2.77 322 iPn    33 50.70   1.3
      1.0s      73.00nm
                  i      33 56.70
                  i      34 24.70
                  i      34 34.50
                  Lg     34 46.60
    S.D. = 0.7  on  12 of  13 obs.
-------------------------------------
   MAR  14, 1993  02h 48m 53.75± 0.48s
   54.378 N ± 4.1km     0.595 W ± 6.0km
    DEPTH =   5.0km  (geophysicist)
 UNITED KINGDOM                  (533)
     ML 2.4 (BGS).

LWH      0.06 225 ePg    49 02.00   6.6X
HPK      0.74 236 iPgc   49 09.10   0.6
                  eSg    49 17.50
XAL      1.06 298 ePg    49 12.90  -1.3
                  eSg    49 24.60
XSO      1.47 320 ePn    49 20.80  -0.1
                  eSn    49 38.50
KWE      1.55 209 ePn    49 24.00   1.9X
LMI      1.60 265 ePn    49 22.70   0.0
                  eSn    49 40.10
ECK      1.67 300 iPnc   49 24.10   0.3
                  eSn    49 42.70
XDE      1.70 275 ePn    49 24.10   0.0
                  eSn    49 42.10
CWF      1.70 195 ePn    49 26.70   2.6X
ESK      1.78 303 ePn    49 25.90   0.6
                  eSn    49 44.70
ESY      1.93 324 ePn    49 27.60   0.1
EBL      1.98 316 ePn    49 28.50   0.2
GCD      2.01 285 ePn    49 27.90  -0.7
EDI      2.15 317 ePn    49 31.10   0.4
ELO      2.75 321 ePn    49 39.20  -0.1
EDR      2.77 337 ePn    49 40.10   0.4
GRR      6.00 182 Pn     50 26.10   0.8
                  Sg     51 29.40
```

```
LPF      6.36 183 Pn     50 30.10  -0.3
                  Sn     51 38.80
LOR      7.66 157 Pn     50 49.00   0.4
                  Sn     52 11.50
LBF      7.95 157 Pn     50 52.80   0.1
                  Sn     52 16.90
BGF      8.13 163 Pn     50 53.80  -1.4
                  Sg     52 23.90
TCF      8.30 166 Pn     50 57.80   0.2
    S.D. = 0.6  on  19 of  22 obs.
-------------------------------------
? MAR  14, 1993  03h 20m 01.92± 0.95s
   31.205 S ± 9.7km   68.683 W ±11.2km
   DEPTH =  33.0km  (normal)
 SAN JUAN PROVINCE, ARGENTINA    (137)

CFA      0.55 137 ePd    20 17.40   4.1X
                  S      20 33.10
RTCV     0.67 169 iPc    20 16.00   1.1
                  S      20 30.20
RTBS     0.80 235 ePd    20 12.00  -4.7X
                  S      20 24.80
RTRS     1.23 327 ePc    20 22.90   0.1
                  S      20 43.00
MDZ      1.68 185 eP     20 28.60  -0.9
                  iS     20 49.40
MRA      2.80 116 ePc    20 45.00  -0.4
TCA      3.51  93 iP     20 55.60   0.1
                  (S)    21 41.00
    S.D. = 1.0  on   5 of   7 obs.
-------------------------------------
• MAR  14, 1993  03h 48m 30.10± 0.84s
   9.086 S ±15.6km  109.016 W ±19.8km
   DEPTH =  10.0km  (geophysicist)
   4.4mb ( 5 obs.) 4.2Msz ( 1 obs.)
 CENTRAL EAST PACIFIC RISE       (694)

ZOBO    40.47 104 Pd     56 11.30  -0.3
        1.1s      8.70nm         4.4mb
     Z  24s       0.43um         4.2MszX
                  S      02 28.00
                  LR     07 52.00
LPB     40.52 105 Pc     56 12.50   0.7
        1.0s     16.00nm         4.7mb
     Z  20s       0.35um         4.2Msz
                  LR     08 30.00
CNCB    40.66 105 P      56 13.50   0.4
ALQ     43.85   3 ePc    56 38.90   0.4
        1.0s      1.25nm         3.7mb
GSC     44.75 351 (P)    56 44.65  -1.1
SIV     47.22 103 P      57 10.00   4.6X
OLY     47.34  20 eP     57 05.24  -0.8
TNP     47.54 351 (P)    57 09.17   1.3
        1.2s     11.31nm         4.8mb
                  e      57 11.43
                  e      57 20.72
BONR    47.59 350 (P)    57 10.78   2.4X
LCCM    54.73 358 eP     58 01.30  -0.8
PPD     56.76 110 (P)    58 17.00  -0.1
ULM     60.19  10 eP     58 41.50   1.1
LMN     67.51  32 eP     59 23.50  -5.0X
FCC     68.69   8 eP     59 37.00   1.4
JAQ     68.69  20 eP     59 35.00  -0.8
YKA     71.49 357 eP     59 50.70  -1.9
        0.9s      1.50nm         4.1mb
CRP     77.83 340 eP     00 29.19  -0.1
RES     84.07   4 eP     01 03.00   1.2
BCAO   127.75  91 ePKPd  07 37.60  -1.0
        0.7s      3.00nm
VTY    143.70 141 ePKP   08 07.60  -0.6
AVY    143.94 141 ePKP   08 08.00  -0.7
KMI    145.84 302 PKPc   08 13.50   1.7
        1.4s     30.00nm
                  sP     08 20.00
NST    150.81 286 ePKP   08 26.50   7.1X
CHTO   151.23 293 ePKP   08 27.70   7.6X
    S.D. = 1.1  on  19 of  24 obs.
-------------------------------------
% MAR  14, 1993  04h 12m 56.73± 0.93s
   32.021 S ± 7.7km   68.316 W ± 8.1km
   DEPTH =  10.0km  (geophysicist)
 MENDOZA PROVINCE, ARGENTINA     (139)

RTCV     0.25 310 iPc    13 02.10   0.1
CFA      0.42   9 ePc    13 05.70   0.4
                  S      13 11.80
MDZ      0.97 208 eP     13 15.90   0.7
```

```
RTBS     1.03 290 ePc    13 14.90  -1.3
                  S      13 28.00
RTRS     2.09 332 e(P)   13 33.00   0.8
MRA      2.24 101 e(P)   13 38.00   3.5X
                  S      14 08.40
TCA      3.25  79 eP     13 48.10  -0.7
                  (S)    14 38.50
CYA      4.18  32 eP     14 06.30   4.3X
    S.D. = 1.1  on   6 of   8 obs.
-------------------------------------
& MAR  14, 1993  06h 12m 18.49s
   62.854 N          149.009 W
   DEPTH =  66.3km
 CENTRAL ALASKA                  (  1)
     <AEIC>. ML 2.9 (AEIC), 3.1
     (PMR).

HUR      0.31 294 iPc    12 29.45  -0.1
                  eS     12 38.01
RND      0.56   7 iPc    12 31.52  -0.3
                  eS     12 41.64
TRF      0.83 316 iPc    12 34.91  -0.2
                  eS     12 47.93
MCK      0.88   2 iPc    12 35.43  -0.2
                  eS     12 48.23
GHO      1.09 178 iPc    12 38.04  -0.2
                  eS     12 53.32
SML      1.10 163 iPc    12 38.01  -0.4
PLRM     1.27 183 iPc    12 40.44  -0.1
                  eS     12 57.54
PMR      1.27 183 ePd    12 40.32  -0.2
                  eS     12 57.45
PWA      1.27 199 P      12 40.70   0.0
                  S      12 59.30
SCM      1.29 142 ePc    12 40.44  -0.6
SKT      1.46 234 iPd    12 42.96  -0.3
THY      1.58  68 eP     12 45.42   0.5
SUA      1.62 211 ePd    12 45.62   0.2
                  eS     13 08.43
PAX      1.62  84 iPd    12 45.52   0.0
                  eS     13 06.75
SDG      1.63 100 ePd    12 46.09   0.5
                  eS     13 06.75
PMS      1.64 189 P      12 45.70   0.0
NEA      1.73 359 iPc    12 45.74  -1.2
HDA      1.81  30 iPd    12 47.04  -1.0
                  eS     13 08.37
TZL      1.85 114 eP     12 49.18   0.6
CCB      1.88  16 iPc    12 47.70  -1.2
                  eS     13 08.99
KLU      1.99 132 iPc    12 49.98  -0.6
PTE      2.00 180 eP     12 50.55   0.0
FBA      2.12  14 P      12 51.20  -1.2
MDM      2.14   9 iPc    12 51.59  -1.1
VLZ      2.14 143 iPc    12 51.44  -1.1
CRP      2.18 224 eP     12 53.13  -0.1
CPAM     2.18 224 eP     12 53.78   0.5
CP2      2.21 225 eP     12 54.09   0.4
SPU      2.21 222 eP     12 53.69   0.1
CKN      2.22 224 eP     12 54.56   0.9
CKT      2.24 224 eP     12 54.38   0.3
BGL      2.25 226 eP     12 54.02  -0.3
GLM      2.26  18 eP     12 53.01  -1.3
CKL      2.29 225 eP     12 54.78   0.0
NKA      2.37 208 eP     12 59.12   3.4
DOT      2.38  68 eP     12 55.62  -0.3
MPA      2.38 184 eP     12 55.78  -0.1
SLKM     2.42 194 eP     12 57.77   1.2
HIN      2.74 153 iPc    12 59.46  -1.6
SEW      2.77 185 eP     13 01.56   0.2
CVA      2.79 145 iPc    13 00.41  -1.2
GLB      2.82 118 iPc    13 01.55  -0.6
DFR      2.87 219 eP     13 02.70  -0.1
NCT      2.96 221 eP     13 04.59   0.4
SGAM     2.98 141 eP     13 02.19  -2.1
RDW      2.99 219 eP     13 05.50   0.8
RS2      2.99 218 eP     13 06.48   1.8
RSO      2.99 218 eP     13 06.59   1.9
RS1      2.99 218 iPd    13 06.75   2.0
TTA      3.21 274 P      13 06.50  -1.1
RAGM     3.23 138 eP     13 06.13  -1.7
INE      3.41 217 eP     13 12.82   2.3
INW      3.43 217 eP     13 13.03   2.3
CNPM     3.51 199 eP     13 11.63  -0.2
SVW      3.58 244 P      13 12.10  -0.7
TGL      3.61 123 eP     13 12.06  -1.2
BALM     3.64 117 eP     13 11.95  -1.7
```

```
KAIM    3.67 141 eP     13 11.68  -2.4
IMA     3.81 330 P      13 15.00  -1.1
PDB     3.96 221 eP     13 17.39  -0.7
CTGM    4.09 114 eP     13 19.11  -1.0
      61 obs. associated
---------------------------------------
? MAR 14, 1993 06h 38m 46.51± 1.10s
  42.125 N ±20.6km  105.537 E ± 9.6km
  DEPTH = 33.0km (normal)
  3.8mb ( 1 obs.)
 MONGOLIA                        (334)

BTO     3.70 113 ePn    39 43.50   0.6
                 Sn     40 26.40
HHC     4.70 104 Pn     39 56.40  -0.7
                 Sn     40 53.40
GTA     5.12 240 Pn     40 03.00  -0.1
                 Pg     40 20.00
                 Sn     41 03.00
LZH     6.17 193 Pgc    40 29.50  11.6X
LZH     6.17 193 Pgc    40 39.50  21.6X
      1.0s    131.00nm
                 Sg     41 54.00
TIY     6.89 127 ePg    40 39.80  11.9X
XAN     8.50 161 ePg    41 01.40  11.1X
GBA    37.42 229 P      46 09.00  10.7X
YKA    70.86  18 eP     50 01.70   0.1
      0.6s      0.50nm           3.8mb
    S.D. = 0.9 on  4 of  9 obs.
---------------------------------------
* MAR 14, 1993 07h 06m 55.09± 0.42s
  7.981 N ±10.4km   38.563 W ± 7.9km
  DEPTH = 10.0km (geophysicist)
  4.8mb ( 9 obs.)
 CENTRAL MID-ATLANTIC RIDGE      (406)

SIV    32.62 223 Pc     13 35.00   5.6X
TIC    33.29  90 P      13 35.80   0.5
LIC    33.32  91 P      13 36.20   0.7
KIC    33.59  91 P      13 38.60   0.7
ZOBO   37.92 230 iP     14 14.80  -0.6
      1.0s     17.50nm           4.8mb
                 S      20 16.00
                 LR     25 10.00
LPB    38.04 230 iPc    14 16.00  -0.2
      1.2s     31.25nm           5.0mb
                 eLR    26 10.00
CNCB   38.13 230 P      14 17.00   0.0
                 i      14 35.90
EPF    48.78  38 eP     15 42.30   0.0
      1.5s     35.00nm           5.2mb
CAF    50.87  37 eP     15 59.00   0.7
      1.3s     20.95nm           4.9mb
HAU    55.02  35 eP     16 29.30   0.2
      1.1s      7.55nm           4.6mb
    Z  23s      0.10um        3.8MszX
BSF    55.19  36 eP     16 30.50   0.0
      1.2s     12.20nm           4.8mb
FVM    55.40 311 eP     16 31.90  -0.1
BCAO   56.84  90 iPd    16 42.00  -0.8
      0.8s      5.00nm           4.6mb
GRF    58.65  35 eP     16 53.80  -1.1
                 e      16 56.10
                 e      17 02.20
GEC2   59.74  37 P      17 00.70  -1.8
      0.9s      0.89nm           3.9mb
                 e      17 06.60
                 e      17 10.70
ULM    63.31 323 eP     17 27.00   0.6
HFS    64.99  26 ePKP   17 37.10  -0.1
      1.1s      9.60nm           4.9mb
FCC    65.80 332 eP     17 50.50   8.1X
BMW    80.60 316 (P)    19 10.90   1.3
                 e      19 14.12
    S.D. = 0.8 on 17 of 19 obs.
---------------------------------------
& MAR 14, 1993 07h 13m 58.77s
  35.942 N          120.488 W
  DEPTH = 11.2km
 CENTRAL CALIFORNIA              ( 39)
      <GM-P>. MD 3.5 (GM). ML 3.2
      (PAS), 3.0 (BRK). Mo=9.8*10**13
      Nm (BRK).

PHAM    0.13 145 iPd    14 02.29   0.2
PRI     0.25 324 iPc    14 04.62   0.5
PKEM    0.33  69 iPc    14 07.26   1.6
LLA     0.77 331 eP     14 13.76   0.1
                 eS     14 26.75
PRS     0.81 299 iPc    14 13.95  -0.5
                 eS     14 26.05
BCH     0.82 156 iPd    14 14.31  -0.4
SAO     1.13 317 eP     14 19.01  -0.8
                 eS     14 32.97
FRI     1.22  31 iPc    14 20.67  -0.7
                 eS     14 35.79
GCC     1.63 312 iPc    14 26.08  -1.3
ARN     1.64 329 eP     14 26.74  -0.8
ISA     1.66  99 eP     14 26.68  -1.3
                 eS     14 48.24
MHC     1.68 327 ePc    14 27.17  -1.1
                 eS     14 49.43
STAN    1.99 318 eP     14 31.72  -1.0
CMB     2.09   2 ePc    14 33.56  -0.6
                 eS     15 01.82
MEMM    2.12  35 eP     14 35.15   0.6
BKS     2.39 325 ePd    14 37.30  -1.1
                 eS     15 07.76
BONR    2.67  40 eP     14 43.10   0.4
SSK     2.87 126 eP     14 44.98  -0.5
NTYM    3.00 325 iPd    14 45.38  -1.6
                 eS     15 19.98
GSC     3.07 101 eP     14 46.18  -1.9
TNP     3.38  50 eP     14 51.98  -0.7
PEC     3.41 126 eP     14 51.49  -1.5
TPNV    3.56  72 eP     14 54.40  -0.8
ORV     3.70 348 eP     14 57.79   0.8
                 eS     15 38.80
      24 obs. associated
---------------------------------------
& MAR 14, 1993 07h 46m 15.03s
  60.894 N          150.278 W
  DEPTH = 27.8km
  2.8mb ( 1 obs.)
 KENAI PENINSULA, ALASKA         ( 14)
      <AEIC>. ML 3.3 (AEIC), 3.1
      (PMR).

SLKM    0.39 176 iPd    46 23.22  -0.4
                 eS     46 30.46
NKA     0.49 253 iPc    46 26.38   1.1
PMS     0.50  44 P      46 24.80  -0.5
MPA     0.61 132 iPc    46 25.93  -1.1
                 eS     46 34.45
PTE     0.61  92 iPc    46 26.17  -1.0
                 eS     46 34.87
SUA     0.61 339 iPc    46 26.61  -0.7
                 eS     46 36.37
PWA     0.78  14 P      46 29.00  -1.0
                 S      46 41.00
SEW     0.89 152 ePc    46 29.29  -2.3
                 eS     46 42.84
PLRM    0.89  38 ePd    46 30.26  -1.3
PMR     0.89  38 iPc    46 30.13  -1.5
                 eS     46 42.14
SPU     0.91 289 iPc    46 30.58  -1.4
                 eS     46 42.88
CGLM    0.94 297 eP     46 31.27  -1.1
CPAM    0.98 293 iPc    46 31.81  -1.1
CKN     0.98 291 iPc    46 31.90  -1.1
CRP     0.99 293 iPc    46 31.69  -1.5
CKT     0.99 289 iPc    46 31.71  -1.4
CP2     1.02 292 iPc    46 32.57  -1.2
CKL     1.05 288 iPc    46 32.71  -1.3
BGL     1.09 291 iPc    46 33.44  -1.2
GHO     1.10  36 iPd    46 33.50  -1.2
BRLK    1.17 195 eP     46 34.41  -1.3
                 eS     46 49.29
DFR     1.22 257 iPc    46 34.71  -1.7
SKT     1.25 332 iPc    46 35.92  -0.8
                 eS     46 52.63
RDN     1.28 254 ePc    46 35.60  -1.7
                 eS     46 52.30
RSO     1.29 252 iPc    46 36.11  -1.4
RS2     1.29 252 iPc    46 36.15  -1.4
RS1     1.30 251 iPc    46 36.16  -1.4
RDW     1.31 253 iPc    46 36.25  -1.5
SML     1.31  45 iPd    46 36.35  -1.3
NCT     1.35 257 iPc    46 36.64  -1.5
CNPM    1.45 200 iPd    46 38.30  -1.4
                 eS     46 56.41
INE     1.61 240 ePc    46 40.71  -1.4
INW     1.64 241 ePc    46 41.16  -1.3
                 eS     47 02.15
SCM     1.71  55 eP     46 41.82  -1.6
HIN     1.93 103 iPc    46 42.94  -3.6
VLZ     1.94  81 ePc    46 44.29  -2.3
                 eS     47 08.21
HUR     2.11   8 eP     46 49.54   0.3
AUE     2.18 227 eP     46 48.88  -1.3
AUL     2.19 228 eP     46 50.01  -0.3
KLU     2.19  72 iPc    46 48.09  -2.3
AUH     2.21 227 eP     46 50.14  -0.4
AUI     2.22 227 eP     46 49.95  -0.7
PDB     2.24 242 eP     46 49.93  -1.0
                 eS     47 18.24
CVA     2.25  97 ePc    46 47.43  -3.7
MID     2.46 125 P      46 57.40   3.3
SGAM    2.52  97 iPc    46 50.95  -4.1
SYI     2.53 206 eP     46 53.16  -1.9
TRF     2.57 360 iPd    46 56.12   0.3
CDD     2.60 222 iPd    46 54.58  -1.6
TZL     2.60  62 eP     46 56.71   0.6
RND     2.61  14 eP     46 57.40   1.1
SVW     2.61 277 P      46 54.90  -1.4
MCNL    2.66 232 eP     46 55.35  -1.6
SDG     2.79  52 eP     46 59.93   1.2
RAGM    2.81  98 eP     46 54.55  -4.5
KAIM    3.07 106 eP     47 01.12  -1.6
GLB     3.18  77 ePc    47 01.37  -3.0
TTA     3.40 309 P      47 06.10  -1.4
CRQM    3.50  89 iPc    47 05.09  -4.0
TGL     3.65  89 ePc    47 06.96  -4.2
SNH     3.74  98 P      47 07.80  -4.6
HDA     3.84  22 eP     47 12.94  -0.8
BALM    3.87  84 iPc    47 10.27  -3.9
CCB     3.93  16 eP     47 14.25  -0.7
FBA     4.18  15 eP     47 17.20  -1.3
YAH     4.24  93 P      47 15.10  -4.4
GLM     4.32  17 eP     47 21.08   0.6
CTGM    4.37  85 eP     47 17.56  -3.7
IMA     5.41 345 eP     47 34.72  -1.4
YKA    16.86  69 eP     50 07.80  -2.5
      0.4s      0.30nm           2.8mb
      70 obs. associated
---------------------------------------
? MAR 14, 1993 08h 02m 11.88± 1.19s
  32.700 S ±20.3km  178.128 W ±22.1km
  DEPTH = 33.0km (normal)
  4.2mb ( 2 obs.)
 SOUTH OF KERMADEC ISLANDS       (179)

KHZ    11.73 212 eP     04 59.50  -0.4
                 eS     07 06.10
CMS    30.47 262 eP     08 25.40   1.5
STK    33.92 260 eP     08 54.80   0.8
      0.5s      1.60nm           4.2mb
WB2    44.11 275 ePc    10 17.90  -1.1
      0.5s     18.20nm         5.1mb X
                 e      10 30.70
WRA    44.12 275 P      10 18.00  -1.1
      0.5s      2.20nm           4.2mb
KAF   146.66 339 iPKP   21 45.50  -3.8X
      0.5s      5.00nm
NUR   148.42 339 iPKP   21 51.10  -1.0
      0.6s     13.10nm
NB2   151.00 351 PKP    21 57.20   1.1
      0.8s      3.90nm
HFS   151.46 348 ePKP   21 56.90   0.1
      0.5s      1.40nm
    S.D. = 1.2 on  8 of  9 obs.
---------------------------------------
  MAR 14, 1993 08h 12m 13.25± 0.31s
  19.602 N ± 5.1km   38.774 E ± 4.3km
  DEPTH = 10.0km (geophysicist)
  4.9mb ( 41 obs.) 4.6Msz ( 8 obs.)
 RED SEA                         (554)
      Mw 5.0 (HRV). MD 4.7 (RYD).
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 17C
      Centroid Location:
      Origin Time        08:12:19.8 0.6
      Lat 19.65N FIX;Lon 38.74E FIX
      Dep 15.0 FIX Half-duration 1.0
      Moment Tensor;   Scale 10**16 Nm
        Mrr=-2.46 1.40  Mtt= 2.35 1.36
        Mff= 0.11 0.62  Mrt= 0.00 0.00
        Mrf= 0.00 0.00  Mtf=-2.07 1.30
       Principal Axes:
        T  Val=  3.59  Plg= 0  Azm=211
```

14d 08h

```
       N        -1.12         0        121
       P        -2.46        90        180
     Best Double Couple:Mo=3.0*10**16
       NP1:Strike=301 Dip=45 Slip= -90
       NP2:         121     45       -90

ABHA     4.00 109 eP     13 11.66   -4.5X
                  eS     13 52.00
KMTA     4.13 110 eP     13 18.00    0.0
                  eS     14 02.00
DHJN     4.87 113 eP     13 27.00   -1.6
                  eS     14 23.00
AAE     10.51 180 eP     14 49.50    2.1
SAGI    11.21 341 eP     14 56.60    0.0
MKT     11.76 345 eP     15 05.30    1.2
MZDA    12.08 346 eP     15 09.30    1.0
BHL     14.51 350 P      15 40.00   -0.7
                  S      20 20.00
NAI     20.84 186 iP     17 08.00   10.0X
     Z  18s      1.41um           4.4Msz
                  iS     24 00.00
GRS     20.87  17 eP     17 00.00    1.8
        2.1s   110.00nm            4.9mb
     Z  11s      1.34um          4.6MszX
                  eS     20 56.00
ERE     21.09  12 iP     17 02.00    1.7
     Z  14s      1.50um          4.5MszX
                  iS     21 02.00
SHE     22.60  20 eP     17 32.00   16.8X
        1.0s    50.00nm
     Z  13s      1.20um          4.5MszX
     N  13s      4.00um
     E  13s      2.00um
MTA     22.62  12 eP     17 18.00    2.6X
     Z  13s      1.00um          4.4MszX
     N  13s      1.50um
     E  13s      0.50um
                  i      17 20.60
BAK     22.80  22 iPc    17 28.00   10.7X
                  eS     21 38.00
SOC     23.92   2 eP     17 30.00    1.9
        2.0s   150.00nm            5.2mb
     Z  12s      0.50um          4.2MszX
     N  12s      1.00um
GRO     24.38  12 eP     17 32.00   -0.6
     Z  14s      2.00um          4.8MszX
     N  14s      2.00um
     E  14s      2.00um
                  eS     21 51.00
KIV     24.50   7 iPc    17 36.30    2.4
        3.0s   203.00nm            5.2mb
                  iPPP   18 18.00
                  eS     22 07.40
PYA     24.62   7 eP     17 38.00    3.0X
     Z  14s      1.50um          4.6MszX
                  i      18 25.00
                  e      22 01.00
MAIO    24.65  43 eP     17 38.00    2.6X
                  eS     22 15.00
KAT     24.69  34 eP     17 37.00    1.4
     Z  14s      1.60um          4.7MszX
     N  14s      2.00um
     E  14s      1.50um
                  iS     22 06.00
BCAO    24.83 235 iPc    17 38.10    0.9
        1.0s    55.00nm            5.2mb
                  id     17 47.70
ASH     24.98  39 eP     17 40.00    1.5
ANN     25.24 358 eP     17 41.00    0.2
VAY     25.68 331 eP     17 45.60    0.6
OHR     26.36 328 iP     17 52.00    0.6
SKO     26.71 330 iP     17 55.20    0.7
QUE     27.58  62 eP     18 07.30    4.5X
CMP     28.01 339 ePd    18 10.00    3.6X
PSZ     32.13 336 eP     18 40.00   -3.1
ZAG     32.20 329 e(P)   18 44.00    0.5
PTJ     32.27 330 i(P)   18 45.10    0.8
VBY     32.33 328 ePc    18 45.20    0.5
SRO     32.68 334 eP     18 48.60    0.9
SPC     33.06 338 eP     18 52.20    1.0
TRI     33.22 327 eP     18 52.50    0.1
ZST     33.48 333 eP     18 54.90    0.2
OJC     34.08 338 eP     19 01.30    1.5
GEC2    35.47 331 P      19 11.60   -0.3
        1.7s    12.91nm            4.5mb
                  e      19 17.10
                  e      19 20.40
```

```
                  e      21 40.40
                  e      21 45.20
                  e      21 52.20
OBN     35.48 358 eP     19 10.00   -1.7
        1.7s   100.00nm            5.4mb
                  e      21 44.70
KHC     35.73 331 P      19 14.30    0.3
                  e      19 45.50
                  e      22 51.00
KSP     35.89 336 ePc    19 15.60    0.3
PRU     35.94 333 eP     19 15.00   -0.7
MOS     36.09 359 eP     19 18.00    1.1
                  e      21 46.00
NDI     36.10  68 eP     19 19.00    1.7
BRG     36.86 334 iP     19 23.00   -0.4
        1.6s    34.00nm            4.9mb
GRF     37.21 330 eP     19 26.10   -0.3
     Z  18s      0.10um           3.7Msz
GBA     37.47  93 P      19 30.00    1.1
CLL     37.58 333 eP     19 29.00   -0.5
        2.2s    71.00nm            5.0mb
MOX     37.70 332 iPc    19 30.70    0.2
        2.2s    62.00nm            5.0mb
HYB     37.73  87 eP     19 31.80    0.6
BSF     38.26 325 iPd    19 34.60   -0.8
        1.1s    13.65nm            4.6mb
HAU     38.60 325 iPd    19 37.70   -0.5
SMF     39.27 321 iPd    19 43.00   -0.7
        1.1s     7.55nm            4.3mb
LBF     39.37 322 iPd    19 43.90   -0.7
        1.3s    29.95nm            4.8mb
CAF     39.50 318 iPd    19 45.80    0.1
        1.5s    33.45nm            4.8mb
LOR     39.59 322 iPd    19 45.70   -0.7
        1.2s    19.95nm            4.7mb
ARU     39.62  17 eP     19 44.00   -2.5
AVF     39.63 321 iPd    19 45.90   -0.8
        1.3s    15.15nm            4.5mb
SSF     39.68 322 iPd    19 46.50   -0.7
        1.4s    20.90nm            4.6mb
BGF     39.81 321 iPd    19 48.20    0.0
        1.2s    49.40nm            5.1mb
MAF     39.81 320 iPd    19 48.20   -0.1
        1.1s    13.65nm            4.5mb
LPO     39.95 317 iPd    19 49.90    0.5
        1.5s    52.25nm            5.0mb
RJF     40.02 318 iPd    19 50.20    0.2
        1.3s    27.10nm            4.8mb
TCF     40.06 320 iPd    19 50.40    0.1
        1.3s    16.95nm            4.6mb
LFF     40.35 317 iPd    19 53.00    0.4
        1.3s    33.95nm            4.9mb
LSF     40.46 320 iPd    19 53.60    0.0
        1.0s    13.80nm            4.6mb
SVE     40.56  18 ePc    19 55.50    1.3
        2.2s    60.00nm            4.9mb
     Z  21s      0.50um           4.3Msz
     N  21s      0.50um
     E  21s      0.50um
BUL     40.73 195 eP     19 57.00    0.8
PAB     41.97 308 eP     20 07.00    0.9
LDF     42.56 322 iPd    20 09.60   -1.2
        1.1s    20.50nm            4.8mb
GKN     42.59  70 P      20 11.60    0.1
LPF     42.84 321 iPd    20 12.00   -1.0
        1.1s    26.00nm            4.9mb
FLN     42.86 322 iPd    20 12.00   -1.2
        0.9s    16.70nm            4.8mb
GRR     42.90 321 iPd    20 12.40   -1.1
        1.4s    34.00nm            4.9mb
DMN     43.00  70 P      20 14.80   -0.2
        1.0s    45.00nm            5.2mb
KKN     43.15  70 P      20 16.00   -0.2
        1.0s    42.00nm            5.1mb
PKI     43.27  70 P      20 16.80   -0.4
        1.0s    40.00nm            5.1mb
GUN     43.68  70 P      20 19.80   -0.8
KIC     44.26 259 P      20 25.02    0.0
HFS     44.27 342 eP     20 27.80    3.3X
        0.6s     1.20nm          3.9mb X
     Z  17s      0.10um          3.8MszX
                  LR     38 47.00
TIC     44.41 259 P      20 26.20   -0.1
LIC     44.57 259 P      20 27.46   -0.1
     Z  20s      0.26um           4.2Msz
NB2     45.73 342 P      20 34.80   -1.4
        1.0s     4.30nm            4.4mb
```

```
PRY     47.53 194 e(P)   20 43.00   -8.0X
ELT     49.51  36 iPd    21 05.50   -0.3
        1.6s    55.00nm            5.3mb
     Z  12s      0.90um          5.0MszX
     N  12s      0.60um
     E  12s      0.50um
                  eS     28 17.00
KHT     57.11  85 eP     22 00.60   -2.1
NRI     58.04  18 iPc    22 09.40    1.0
        2.0s    65.00nm            5.3mb
     Z  22s      1.80um           5.1Msz
                  e      22 14.00
LZH     58.84  59 eP     22 15.00    0.2
        1.8s    87.00nm            5.6mb
     Z  20s      0.84um           4.9Msz
     E  16s      0.71um
                  sP     22 19.50
ZAK     58.94  42 eP     22 14.00   -1.0
        1.6s    22.00nm            5.0mb
     Z  17s      1.70um          5.2MszX
     E  17s      1.98um
KMI     58.94  72 eP     22 05.00  -10.7X
     Z  20s      1.00um           4.9Msz
IRK     59.80  40 eP     22 19.70   -1.3
        1.6s    31.00nm            5.2mb
     Z  14s      0.42um          4.7MszX
     E  14s      0.50um
CIT     65.50  41 eP     22 59.00    0.1
BOD     65.87  35 eP     22 58.60   -2.4
        1.0s    35.00nm            5.5mb
BJI     68.19  54 eP     23 16.00   -0.1
        1.6s    34.00nm            5.3mb
     Z  20s      1.20um           5.1Msz
TIK     71.59  20 eP     23 35.00   -1.3
        2.0s    41.00nm            5.2mb
                  e      26 14.00
SZP     76.70  76 ePd    24 13.00    6.2X
MGD     83.60  28 eP     24 43.00    0.1
YKA     95.51 348 eP     25 38.60   -0.9
        0.8s     0.50nm            4.0mb
        S.D. = 1.1  on  85 of  98 obs.
------------------------------------------
? MAR 14, 1993 08h 42m 06.39± 1.10s
   19.932 N ±22.3km   38.759 E ±15.8km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  5 obs.)
 RED SEA                            (554)

BCAO    25.01 235 ePd    47 34.00    1.9
        0.3s     3.00nm            4.5mb
GEC2    35.17 331 P      49 03.90    1.4
        1.5s     3.31nm            4.0mb
SMF     39.00 321 eP     49 37.70    3.0X
        1.0s     7.80nm            4.3mb
LBF     39.10 322 eP     49 35.20   -0.3
        0.9s     3.30nm            4.0mb
SSF     39.41 322 eP     49 37.90   -0.2
        1.1s     6.60nm            4.2mb
GKN     42.49  70 P      50 16.40   12.6X
DMN     42.90  71 P      50 07.20   -0.1
KKN     43.05  70 P      50 15.00    6.5X
PKI     43.17  71 P      50 13.40    3.8X
GUN     43.58  70 P      50 12.80   -0.2
KIC     44.31 258 P      50 16.00   -2.5
        S.D. = 1.7  on   7 of  11 obs.
------------------------------------------
* MAR  14, 1993  09h 14m 38.63± 1.49s
   53.572 N ±22.0km  165.559 W ±13.0km
   DEPTH =  68.6 ±  9.3 km
   4.5mb ( 20 obs.)
 FOX ISLANDS, ALEUTIAN ISLANDS    (  9)

SDN      3.45  57 eP     15 32.38    1.4
                  eS     16 07.39
ADK      6.97 260 (P)    16 19.76   -0.4
        2.4s  2430.55nm          6.4mb X
KDC      8.49  55 eP     16 38.21   -2.9X
        0.3s     4.56nm            4.8mb
SVW      9.26  31 eP     16 51.72   -0.1
        0.9s    10.98nm            4.8mb
RSO      9.81  40 eP     16 58.58   -0.8
CP2     10.52  38 eP     17 09.88    0.9
CRP     10.55  38 eP     17 09.42    0.0
SLKM    10.85  44 eP     17 11.32   -2.0
KLU     13.15  45 eP     17 41.14   -2.7X
IMA     13.85  21 (P)    17 55.14    2.2
        0.7s     1.88nm            3.7mb
```

FBA 14.47 31 eP 17 58.35 -2.6X
0.6s 2.53nm 3.7mb
BALM 14.54 50 eP 18 00.39 -1.6
YKA 27.70 51 eP 20 22.50 0.7
0.5s 2.20nm 4.0mb
KAF 64.28 354 iP 25 06.90 -1.3
0.4s 7.80nm 5.0mb
NB2 65.71 2 P 25 16.20 -1.3
0.7s 4.00nm 4.5mb
HFS 66.64 0 eP 25 21.10 -2.3
0.4s 8.00nm 5.0mb
GRF 77.08 2 eP 26 25.80 0.3
KHC 77.67 1 eP 26 29.50 0.7
GEC2 77.96 0 Pd 26 30.60 0.2
0.6s 0.98nm 3.9mb
e 26 36.20
e 47 25.40
GUN 78.13 301 P 26 32.40 0.3
0.6s 17.00nm 5.2mb
KKN 78.53 301 P 26 32.20 -1.9
HAU 78.57 6 iPd 26 33.90 0.2
0.7s 3.65nm 4.4mb
PKI 78.64 301 P 26 34.60 -0.3
GKN 78.68 302 P 26 35.20 0.3
0.6s 16.00nm 5.1mb
BSF 78.76 5 iPd 26 34.90 0.0
0.6s 2.80nm 4.4mb
DMN 78.77 301 P 26 36.00 0.5
LOR 79.13 7 iPd 26 36.90 0.1
0.7s 3.00nm 4.3mb
SSF 79.31 8 iPd 26 38.10 0.3
0.8s 6.30nm 4.6mb
LBF 79.43 7 iPd 26 38.40 0.0
0.8s 3.75nm 4.4mb
AVF 79.57 8 iPd 26 39.30 0.2
0.7s 4.50nm 4.5mb
SMF 79.75 7 iPd 26 40.30 0.2
0.9s 9.65nm 4.7mb
BGF 79.76 8 iPd 26 40.40 0.2
0.7s 4.65nm 4.5mb
LSF 79.95 9 iPd 26 41.50 0.3
0.6s 5.75nm 4.7mb
VBY 81.30 359 ePc 26 49.00 0.7
HYB 90.56 301 eP 27 35.30 0.9
GBA 94.34 300 P 27 53.00 1.2
BUL 144.89 336 ePKP 34 09.20 -0.1
S.D. = 1.0 on 34 of 37 obs.

% MAR 14, 1993 09h 55m 34.02± 1.15s
40.434 N ± 6.9km 28.527 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.5 (ISK).

KCT 0.23 215 iPg 55 39.30 0.4
eSg 55 42.30
BNT 0.47 261 iPg 55 43.80 0.2
eSg 55 51.00
EDC 0.51 260 iPg 55 44.00 -0.4
iSg 55 52.00
CTT 0.72 354 iPg 55 48.20 0.1
DST 0.83 175 iPg 55 49.90 -0.2
S.D. = 0.5 on 5 of 5 obs.

? MAR 14, 1993 10h 01m 58.46± 1.45s
9.792 S ±16.0km 117.964 E ±17.6km
DEPTH = 33.0km (normal)
3.5mb (1 obs.)
SUMBAWA REGION, INDONESIA (285)

KHKI 2.73 301 ePd 02 40.70 -0.1
eS 03 11.00
e 06 40.00
MBL 11.44 171 eP 04 41.50 -1.2
0.4s 9.00nm 5.3mb X
eS 06 41.00
NANU 12.91 190 iPd 05 03.80 1.4
eS 07 18.00
MEEK 16.77 178 eP 05 52.00 -0.5
eS 08 47.00
WB2 18.76 124 iPd 06 17.80 0.4
0.7s 2.20nm 3.5mb
eS 09 35.40
S.D. = 1.4 on 5 of 5 obs.

? MAR 14, 1993 10h 12m 44.63± 3.87s
16.598 N ±34.9km 100.796 W ±18.9km
DEPTH = 33.0km (normal)
3.5mb (1 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 0.94 73 eP 13 03.00 1.5
iS 13 14.75
III 2.18 35 iP 13 18.50 -0.9
iS 13 50.00
CRX 2.99 21 (P) 13 37.50 6.4X
(S) 14 17.50
MRX 3.11 353 eP 13 34.50 2.0
UNM 3.12 29 (P) 13 38.50 5.6X
(S) 14 19.00
PPM 3.21 40 eP 13 33.50 -0.9
IIA 3.25 38 (P) 13 34.25 -0.3
IISM 4.03 53 eP 13 45.50 -0.1
YKA 46.86 351 eP 21 11.80 -1.4
0.6s 0.30nm 3.5mb
S.D. = 1.6 on 7 of 9 obs.

% MAR 14, 1993 12h 26m 14.37± 0.54s
28.013 S ± 4.8km 26.751 E ± 6.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.5 (PRE).

SEK 0.83 112 eP 26 31.00 -0.1
S 26 41.00
BFS 1.11 2 eP 26 35.80 0.0
S 26 51.00
BLF 1.20 204 iPc 26 37.60 0.3
S 26 53.60
PRY 1.26 31 eP 26 38.00 -0.3
S 26 55.00
SWZ 1.51 303 eP 26 42.00 -0.3
FRS 2.14 216 iPc 26 50.90 -0.2
S 27 16.50
KSR 2.14 4 eP 26 52.00 0.6
S 27 19.50
SLR 2.65 31 eP 26 58.60 0.0
S 27 30.00
S.D. = 0.4 on 8 of 8 obs.

% MAR 14, 1993 13h 25m 33.13± 0.97s
39.049 N ± 9.5km 27.686 E ±16.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.73 207 iPg 25 47.50 0.0
iSg 26 00.00
DST 0.92 52 ePn 25 50.70 0.0
EDC 1.30 6 ePn 25 58.00 0.8
KCT 1.31 23 iPn 25 57.40 0.1
BNT 1.32 8 ePn 25 56.60 -0.9
S.D. = 0.8 on 5 of 5 obs.

MAR 14, 1993 13h 35m 32.59± 0.66s
47.774 N ± 6.1km 16.174 E ± 5.6km
DEPTH = 0.0km (geophysicist)
AUSTRIA (546)
ML 2.8 (VIE), 2.6 (BRA).
Probable explosion. Felt (IV) at
Wiener Neustadt.

SOP 0.28 109 iPg 35 37.70 -0.4
VKA 0.50 11 iPgd 35 43.70 1.1
iSg 35 51.40
ZST 0.75 56 iPg 35 46.50 -1.1
i 35 47.90
iSg 35 58.00
Lg 35 59.50
SRO 1.44 88 iP 36 00.80 0.8
VRAC 1.56 10 iPnc 36 00.60 -1.0
0.2s 8.00nm
e 36 04.40
eSg 36 20.90
PTJ 1.88 185 iPg 36 07.40 1.0
iSg 36 31.40
KBA 2.04 251 iPnc 36 07.40 -1.4
iPg 36 10.10
iSg 36 37.20
KHC 2.20 309 Pn 36 11.40 0.5
e 36 14.40
e 36 17.00
e 36 32.50
eSg 36 39.00
e 36 42.50
PRU 2.46 335 eP 36 15.00 0.3
0.4s 13.60nm 4.2mb
ePg 36 18.80
Sn 36 35.60
eSg 36 45.50
e 36 50.50
GRF 3.80 302 ePg 36 44.30 10.6X
eSg 37 33.60
CLL 4.10 331 iPn 36 38.00 0.2
eSg 37 42.00
S.D. = 1.1 on 10 of 11 obs.

? MAR 14, 1993 13h 49m 33.19± 5.66s
31.521 S ±40.4km 69.052 W ±45.4km
DEPTH = 121.4 ± 41.9 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTCV 0.55 128 eP 49 51.80 -0.1
S 50 06.00
CFA 0.70 97 ePd 49 53.10 0.1
S 50 08.20
RTRS 1.39 345 ePd 49 59.80 0.0
S 50 20.30
MRA 2.98 108 ePc 50 20.00 0.1
TCA 3.82 88 iP 50 31.10 -0.2
(S) 54 15.00
S.D. = 0.3 on 5 of 5 obs.

% MAR 14, 1993 14h 15m 20.66± 0.67s
44.393 N ± 5.3km 7.359 E ± 6.8km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

STV 0.15 190 P 15 23.69 -0.2
S 15 25.29
ENR 0.17 165 P 15 24.15 -0.1
S 15 26.62
PZZ 0.22 301 P 15 25.20 0.1
S 15 28.13
ROB 0.38 105 P 15 28.13 -0.2
S 15 35.68
BHB 0.45 351 P 15 29.73 0.0
IMI 0.62 141 P 15 33.35 0.4
S 15 41.36
S.D. = 0.3 on 6 of 6 obs.

MAR 14, 1993 14h 49m 18.07± 0.41s
19.564 N ± 6.2km 38.648 E ± 5.3km
DEPTH = 10.0km (geophysicist)
4.7mb (31 obs.) 4.4Msz (2 obs.)
RED SEA (554)
MD 4.7 (RYD).

ABHA 4.10 108 eP 50 19.66 -2.7
eS 50 59.00
KMTA 4.23 109 eP 50 23.50 -0.7
eS 51 07.00
DHJN 4.97 112 eP 50 36.20 1.4
eS 51 24.42
BADA 9.52 340 eP 51 36.00 -2.2
eS 54 10.00
AYN 9.57 346 eP 51 36.30 -2.6
eS 54 14.00
SHWJ 11.14 346 P 52 00.80 0.1
MASJ 12.40 348 P 52 17.60 0.1
SALJ 12.68 348 P 52 21.60 0.3
BHL 14.53 350 P 52 48.00 2.3
S 57 30.00
CSS 16.04 344 eP 53 10.00 4.6X
KER 16.53 25 eP 53 12.00 0.2
NAI 20.79 185 P 54 12.00 9.7X
Z 16s 0.91um 4.2MszX
S 01 16.00
GRS 20.95 17 eP 54 05.00 1.3
1.7s 70.00nm 4.8mb
Z 13s 0.75um 4.3MszX
eS 58 08.00
ERE 21.16 12 iP+ 54 09.00 3.2X
Z 14s 1.00um 4.4MszX
eS 58 11.00
MTA 22.68 12 iP 54 23.40 2.6X
Z 13s 0.50um 4.1MszX
N 13s 1.00um
E 13s 0.40um
e 54 25.00

14d 14h

SOC 23.97 2 eP 54 35.00 1.7
GRO 24.44 12 eP 54 46.00 8.0X
Z 14s 1.00um 4.5MszX
N 12s 1.00um
KIV 24.56 7 eP 54 44.50 5.3X
1.7s 20.00nm 4.5mb
i 55 23.00
PYA 24.68 8 eP 54 44.00 3.7X
2.0s 110.00nm 5.2mb
Z 16s 1.00um 4.4MszX
BCAO 24.71 235 iPc 54 42.10 1.2
1.0s 25.00nm 4.8mb
id 54 49.10
MAIO 24.76 43 eP 54 33.00 -8.3X
eS 59 20.00
ASH 25.09 39 eP 54 46.00 1.7
ANN 25.27 358 eP 54 47.00 1.1
VAY 25.65 331 eP 54 49.30 -0.2
OHR 26.33 329 eP 54 56.50 0.6
SKO 26.69 331 iP 55 00.70 1.6
PTJ 32.24 330 iP 55 49.10 0.2
VBY 32.30 328 ePc 55 49.00 -0.2
SRO 32.66 334 eP 55 53.50 1.2
SPC 33.05 338 eP 55 56.00 0.1
TRI 33.19 327 eP 55 56.60 -0.3
VOY 33.35 328 e(P) 55 59.00 0.5
ZST 33.47 334 eP 56 00.60 1.2
OJC 34.07 338 eP 56 05.60 1.0
GEC2 35.44 331 Pd 56 15.70 -0.8
1.2s 7.63nm 4.4mb
e 56 29.30
e 58 43.90
e 58 53.00
e 59 01.10
OBN 35.51 358 eP 56 16.50 -0.3
1.2s 44.00nm 5.2mb
KHC 35.71 332 eP 56 18.50 -0.1
e 56 35.60
KSP 35.87 336 eP 56 19.00 -1.0
MOS 36.12 359 eP 56 22.00 0.0
BRG 36.84 334 iP 56 28.00 -0.1
1.2s 22.00nm 4.8mb
GRF 37.19 330 eP 56 30.00 -1.1
CLL 37.56 334 eP 56 34.00 -0.1
1.8s 29.00nm 4.7mb
MOX 37.68 332 eP 56 34.60 -0.6
1.6s 29.00nm 4.8mb
e 56 42.90
BSF 38.22 325 iPd 56 39.10 -0.8
1.4s 25.70nm 4.8mb
LBF 39.32 322 iPd 56 48.40 -0.7
1.2s 15.45nm 4.5mb
CAF 39.45 318 iPd 56 50.60 0.5
1.4s 30.50nm 4.8mb
LOR 39.54 322 iPd 56 50.10 -0.8
1.5s 35.00nm 4.8mb
AVF 39.59 321 iPd 56 50.40 -0.8
1.4s 19.60nm 4.6mb
SSF 39.64 322 iPd 56 51.00 -0.6
1.4s 20.90nm 4.6mb
ARU 39.69 17 eP 56 54.00 2.1
MAF 39.76 320 iPd 56 52.60 -0.1
1.4s 23.10nm 4.7mb
BGF 39.77 321 iPd 56 52.70 0.0
1.5s 56.40nm 5.0mb
RJF 39.97 318 iPd 56 54.70 0.3
0.9s 7.70nm 4.4mb
TCF 40.01 320 iPd 56 54.80 0.0
1.3s 11.20nm 4.4mb
LFF 40.29 318 iPd 56 57.60 0.6
1.0s 17.20nm 4.7mb
LSF 40.41 320 iPd 56 58.20 0.2
1.4s 26.55nm 4.7mb
BUL 40.67 195 eP 57 03.30 2.8X
LDF 42.52 322 iPd 57 14.20 -1.1
1.1s 14.40nm 4.6mb
LPF 42.79 321 iPd 57 16.30 -1.2
1.0s 16.00nm 4.7mb
FLN 42.81 322 iPd 57 16.50 -1.1
1.0s 17.20nm 4.7mb
GRR 42.85 321 iPd 57 16.90 -1.1
1.3s 31.05nm 4.9mb
KIC 44.13 259 P 57 29.56 0.8
TIC 44.29 259 P 57 30.76 0.7
LIC 44.45 259 P 57 32.02 0.7
Z 19s 0.16um 4.0Msz
NB2 45.72 342 P 57 40.40 -0.6
1.2s 7.80nm 4.6mb
LZH 58.96 59 Pd 59 20.80 0.3
1.6s 36.00nm 5.2mb
Z 17s 0.29um 4.5MszX
pP 59 24.00 11kmX
sP 59 26.00
BTO 63.57 54 eP 59 49.20 -2.2
HHC 64.72 53 P 00 00.00 1.0
1.0s 9.90nm 5.0mb
TIY 65.70 57 eP 00 05.10 -0.2
Z 18s 0.73um 4.9Msz
BJI 68.31 54 eP 00 21.50 -0.1
1.6s 34.00nm 5.3mb
Z 16s 0.58um 4.9MszX
CN2 74.47 49 eP 01 01.60 3.1X
1.0s 5.80nm 4.6mb
YKA 95.52 348 eP 02 43.90 -0.5
0.8s 0.50nm 4.0mb
CMS 114.27 116 iPKPc 08 02.40 2.3X
0.7s 4.00nm
S.D. = 1.1 on 62 of 73 obs.

---

* MAR 14, 1993 14h 50m 18.44± 0.52s
11.733 N ± 8.1km 92.312 E ± 7.0km
DEPTH = 33.0km (normal)
4.6mb (18 obs.)
ANDAMAN ISLANDS, INDIA (703)

KHT 6.82 63 iPc 51 59.00 0.1
NNT 7.31 83 eP 52 05.40 -0.2
BDT 8.48 49 eP 52 19.00 -3.0
0.8s 77.90nm 5.9mb X
NST 8.55 62 eP 52 22.50 -0.4
LOE 10.72 57 eP 52 55.00 2.2X
IPM 11.17 129 ePd 53 01.90 2.9X
GBA 14.63 279 P 53 43.00 -2.0
S 56 16.00
KMI 16.58 35 Pd 54 11.40 1.1
1.5s 70.00nm 4.6mb
Z 16s 0.80um 5.0Msz
PKI 17.04 339 P 54 16.60 0.4
DMN 17.18 338 P 54 18.80 0.9
0.8s 68.00nm 4.8mb
GUN 17.19 340 P 54 19.80 1.7
KKN 17.28 339 P 54 19.60 0.5
NDI 21.98 322 eP 55 09.00 -2.4
LZH 26.39 21 eP 55 54.00 0.1
1.4s 32.00nm 4.7mb
pP 57 02.50
BJI 35.21 33 eP 57 11.50 -0.1
1.0s 13.00nm 4.8mb
WB2 51.99 127 iPc 59 25.60 -1.5
0.2s 18.30nm 5.7mb X
ASPA 53.77 131 iPc 59 38.70 -1.6
0.9s 6.50nm 4.6mb
YAK 56.97 20 eP 00 02.80 0.0
1.1s 25.00nm 5.2mb
e 00 54.00 228kmX
RMQ 66.70 126 iPd 01 09.80 1.1
0.7s 10.00nm 5.0mb
CMS 66.89 132 eP 01 09.40 -0.4
KAF 68.56 333 iP 01 26.50 6.8X
TOO 69.90 137 eP 01 29.80 1.4
BRS 70.32 125 iP 01 32.00 0.8
ARMA 70.74 128 eP 01 35.30 1.5
1.0s 16.00nm 5.0mb
VBY 72.67 314 eP 01 49.00 4.1X
BCAO 73.24 271 ePc 01 49.00 0.1
0.2s 4.00nm 5.1mb
ic 02 16.10 106kmX
id 02 48.90
id 03 10.70
GEC2 73.77 318 P 01 51.90 0.5
0.9s 0.82nm 3.7mb
e 01 58.70 22kmX
e 02 01.10
HFS 74.24 329 eP 01 53.50 -0.2
0.5s 1.50nm 4.2mb
GRF 75.40 318 eP 02 08.60 7.9X
NB2 75.51 330 P 02 00.60 -0.5
0.6s 1.40nm 4.1mb
BSF 78.41 317 eP 02 25.50 7.9X
LPG 78.64 314 eP 02 26.60 7.4X
0.7s 4.50nm 4.6mb
LPL 78.65 314 eP 02 26.70 7.5X
0.7s 6.05nm 4.7mb
HAU 78.70 317 eP 02 26.00 6.9X
LBF 80.40 316 eP 02 35.50 7.2X
0.9s 5.55nm 4.6mb
LOR 80.45 316 eP 02 35.80 7.3X
0.9s 3.10nm 4.3mb
SSF 80.71 316 eP 02 37.90 8.0X
0.9s 3.60nm 4.4mb
IMA 88.74 22 ePc 03 10.64 0.6
0.8s 1.61nm 4.4mb
MSU 125.02 23 (PKP) 09 19.28 1.7
ZOBO 160.50 254 ePKP 10 37.00 19.6X
Z 25s 0.08um
LR 43 10.00
S.D. = 1.3 on 27 of 40 obs.

& MAR 14, 1993 15h 20m 19.42s
62.920 N 150.927 W
DEPTH = 105.5km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.59 84 iP 20 36.43 -0.3
eS 20 49.49
TRF 0.61 28 iP 20 36.65 -0.4
eS 20 50.38
SKT 0.98 197 iP 20 40.00 -0.4
eS 20 55.75
RND 1.06 62 iP 20 40.88 -0.4
S 20 56.83
MCK 1.21 47 eP 20 42.41 -0.5
PWA 1.36 158 eP 20 44.79 0.1
eS 21 05.55
SUA 1.46 177 eP 20 46.03 0.0
GHO 1.48 140 eP 20 46.25 0.0
PLRM 1.58 147 P 20 46.60 -0.6
SML 1.65 132 iP 20 47.62 -0.6
CPAM 1.77 199 eP 20 48.82 -1.0
CP2 1.77 201 eP 20 49.62 -0.4
BGL 1.80 203 eP 20 49.60 -0.6
PMS 1.80 158 iP 20 49.54 -0.6
CKN 1.80 200 eP 20 50.21 0.0
SPU 1.82 197 eP 20 49.44 -1.0
CKL 1.85 202 eP 20 50.35 -0.6
SCM 2.00 121 eP 20 51.71 -1.1
CCB 2.22 37 eP 20 54.40 -1.2
PTE 2.25 156 eP 20 54.67 -1.3
HDA 2.32 48 eP 20 56.35 -0.5
SLKM 2.44 172 eP 20 57.70 -0.9
PAX 2.50 86 iP 20 58.96 -0.4
SDG 2.51 97 eP 20 59.22 -0.3
SEW 2.91 165 iP 21 03.82 -1.0
CNPM 3.41 183 iP 21 10.85 -0.8
26 obs. associated

? MAR 14, 1993 15h 37m 18.12± 1.04s
39.021 N ± 9.8km 27.454 E ±18.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.64 194 iPg 37 31.00 0.0
eSg 37 40.00
DST 1.08 57 ePn 37 38.50 0.0
EDC 1.36 13 ePn 37 43.00 -0.1
BNT 1.38 15 ePn 37 43.50 0.1
S.D. = 0.1 on 4 of 4 obs.

? MAR 14, 1993 15h 50m 28.47± 7.24s
51.276 N ±36.0km 15.787 E ±49.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)

BRG 1.23 252 iPg 50 51.40 0.1
iSg 51 10.60
PRU 1.51 212 eP 50 56.50 0.9
eSg 51 20.00
CLL 1.75 272 ePg 50 59.00 0.0
eSg 51 25.00
KHC 2.57 214 eP 51 10.00 -0.9
ePg 51 21.90
eSn 51 46.00
eSg 52 00.00
MOX 2.71 258 ePg 51 19.10 6.2X
iSg 51 58.40
S.D. = 1.3 on 4 of 5 obs.

? MAR 14, 1993 17h 53m 44.47± 0.67s
45.457 N ±24.5km 26.161 E ±15.8km

DEPTH = 130.0km (geophysicist)
ROMANIA (358)

MLR 0.16 283 iPc 54 02.50 0.5
CVO 0.37 1 iPc 54 02.50 0.0
ISR 0.42 140 iPc 54 03.00 -0.4
VRI 0.57 44 iPc 54 04.00 -0.2
BRD 0.63 84 iPd 54 05.00 0.4
MTUR 0.81 254 eP 54 06.00 -0.1
S.D. = 0.5 on 6 of 6 obs.

% MAR 14, 1993 18h 01m 08.70± 0.91s
44.366 N ± 8.4km 7.320 E ± 8.4km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

STV 0.12 179 P 01 11.35 0.0
S 01 13.00
ENR 0.16 153 P 01 12.36 0.4
S 01 14.37
PZZ 0.21 312 P 01 13.00 0.0
S 01 15.93
ROB 0.40 100 P 01 16.93 0.2
S 01 22.75
IMI 0.61 138 P 01 20.50 -0.5
S.D. = 0.4 on 5 of 5 obs.

% MAR 14, 1993 18h 05m 14.14± 0.72s
44.363 N ± 6.0km 7.298 E ± 8.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

STV 0.12 171 P 05 16.82 0.1
S 05 18.47
ENR 0.16 147 P 05 17.64 0.1
S 05 19.82
PZZ 0.20 315 P 05 18.42 0.1
S 05 21.35
ROB 0.42 99 P 05 22.86 0.3
S 05 28.76
BHB 0.48 357 P 05 23.54 -0.2
IMI 0.62 137 P 05 26.15 -0.4
S.D. = 0.4 on 6 of 6 obs.

? MAR 14, 1993 18h 28m 46.90± 0.93s
7.135 S ± 8.2km 128.274 E ±17.8km
DEPTH = 33.0km (normal)
4.2mb (1 obs.)
BANDA SEA (280)

WB2 14.03 156 iPd 32 05.60 0.0
eS 34 28.60
MBL 16.16 209 eP 32 33.70 0.5
eS 35 20.00
WARB 19.01 185 iPd 33 08.20 -0.5
0.4s 6.00nm 4.2mb
eS 36 30.00
NANU 19.65 217 eP 33 15.00 -1.0
eS 36 46.00
COOL 24.55 195 eP 34 16.90 11.9X
MRWA 24.83 206 eP 34 07.50 -0.2
MUN 27.16 203 eP 34 30.50 1.2
GUN 53.76 312 P 38 09.20 0.2
PKI 53.92 312 P 38 10.00 -0.1
KKN 54.14 312 P 38 11.60 0.0
GKN 54.73 312 P 38 15.80 -0.1
0.4s 6.00nm 5.0mb X
S.D. = 0.7 on 10 of 11 obs.

% MAR 14, 1993 20h 14m 52.77± 5.69s
33.701 S ±13.8km 70.300 W ±25.5km
DEPTH = 104.0 ± 45.4 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.2 (SAN).

PCH 0.20 294 iP 15 07.83 0.0
iS 15 18.81
FCH 0.37 1 iP 15 08.51 -0.3
iS 15 21.42
CHCH 0.37 232 iP 15 08.65 0.2
iS 15 20.77
CACH 0.48 211 iP 15 09.40 0.2
iS 15 22.85
TACH 0.53 275 iP 15 09.40 -0.1
iS 15 21.70
PEL 0.64 330 iP 15 10.49 0.1
iS 15 23.39
ROCH 0.94 320 iP 15 13.57 0.2
iS 15 28.99
LNV 0.96 254 iP 15 13.01 -0.3
iS 15 28.27
JACH 1.05 346 iP 15 14.38 0.0
iS 15 30.10
LCCH 1.08 282 iP 15 14.68 0.0
iS 15 30.90
S.D. = 0.2 on 10 of 10 obs.

? MAR 14, 1993 20h 47m 46.66± 1.04s
11.165 S ±15.9km 163.470 E ±17.9km
DEPTH = 33.0km (normal)
4.3mb (6 obs.) 3.8Msz (1 obs.)
SOLOMON ISLANDS (193)

HNR 3.87 296 eP 48 46.00 0.7
eS 49 34.00
RMQ 20.61 220 eP 52 27.60 1.7
0.9s 16.00nm 4.4mb
CMS 25.98 216 eP 53 19.20 1.0
0.9s 11.00nm 4.5mb
WB2 29.34 249 iPc 53 47.30 -1.6
0.6s 2.20nm 4.1mb
ASPA 30.75 242 iPc 54 00.00 -1.4
0.7s 4.00nm 4.3mb
Z 19s 0.20um 3.8Msz
LZH 73.20 313 eP 59 17.20 0.6
1.4s 16.00nm 4.8mb
pP 59 21.00 12kmX
FBA 84.14 19 eP 00 16.00 0.6
YKA 96.11 28 eP 01 12.00 0.1
0.8s 0.50nm 4.0mb
BCAO 144.65 262 iPKPd 07 21.00 -1.7
0.7s 6.00nm
S.D. = 1.4 on 9 of 9 obs.

• MAR 14, 1993 20h 55m 27.83± 0.87s
46.050 S ±11.8km 166.745 E ± 9.6km
DEPTH = 124.2 ± 14.7 km
OFF W. COAST OF S. ISLAND, N.Z. (161)

BCZ 0.76 87 P 55 46.30 -2.1
eS 55 57.30
SIZ 1.27 131 P 55 52.90 -0.3
MSZ 1.61 31 P 55 56.40 -0.7
S 56 16.80
TLC 1.84 63 P 56 00.50 0.3
CMCZ 1.99 64 P 56 02.70 0.8
S 56 26.90
TUZ 2.01 88 P 56 02.60 0.5
eS 56 26.70
MHZ 2.04 62 P 56 03.30 0.8
SBCZ 2.04 63 Pd 56 03.20 0.7
LSCZ 2.07 64 P 56 03.40 0.6
LRCZ 2.08 63 P 56 03.80 0.7
MSCZ 2.10 64 P 56 04.10 0.8
BWZ 2.69 57 P 56 11.10 0.4
ODZ 2.92 71 Pd 56 13.60 -0.2
S 56 46.80
LMZ 2.94 38 P 56 14.50 0.4
EWZ 3.87 51 P 56 26.80 0.3
LTZ 5.13 52 P 56 43.10 -0.6
S 57 38.60
DSZ 5.64 42 P 56 49.90 -0.7
THZ 6.18 48 P 56 56.80 -1.2
QRZ 6.70 41 P 57 05.60 0.5
MNG 8.36 53 eP 57 26.20 -1.4
TAU 14.22 276 eP 58 45.00 0.5
S.D. = 0.9 on 21 of 21 obs.

% MAR 14, 1993 20h 56m 17.11± 2.46s
32.829 S ±16.4km 70.932 W ± 9.5km
DEPTH = 62.4 ± 22.2 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.2 (SAN).

ROCH 0.16 205 iP 56 27.05 0.0
iS 56 36.28
JACH 0.32 63 iP 56 27.90 0.0
iS 56 36.39
PEL 0.38 147 iP 56 28.53 0.3
iS 56 37.62
FCH 0.73 133 iP 56 32.47 0.1
iS 56 46.26
TACH 0.82 180 iP 56 33.18 0.1
iS 56 46.08
LCCH 0.84 220 iP 56 33.47 0.2
iS 56 47.14
PCH 0.86 156 iP 56 33.78 0.1
iS 56 47.38
CHCH 1.13 168 iP 56 37.11 0.0
iS 56 53.43
LNV 1.19 199 iP 56 38.08 0.1
iS 56 55.04
S.D. = 0.1 on 9 of 9 obs.

& MAR 14, 1993 21h 08m 11.70s
37.068 N 121.497 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK). Felt at
Gilroy.

ARN 0.28 354 iPd 08 17.32 -0.1
MHC 0.30 337 iPd 08 17.59 -0.1
iS 08 22.52
SAO 0.31 172 iPd 08 18.00 0.2
GCC 0.40 265 iPc 08 19.46 -0.3
eS 08 25.55
LLA 0.63 135 iPc 08 23.39 -1.0
eS 08 34.73
STAN 0.64 302 ePc 08 23.87 -0.6
eS 08 34.15
PRS 0.74 172 iPd 08 25.59 -0.9
eS 08 36.53
PCC 0.83 302 iPc 08 26.85 -1.3
eS 08 40.46
BKS 1.00 324 ePc 08 30.11 -1.1
eS 08 44.84
ZSP 1.06 326 iPc 08 31.30 -1.0
eS 08 48.30
PRI 1.14 144 iPd 08 33.08 -0.6
CMB 1.31 42 iPd 08 34.91 -1.6
iS 08 52.46
PKEM 1.50 132 eP 08 38.26 -1.2
PHAM 1.52 144 eP 08 39.12 -0.5
eS 09 07.94
NTYM 1.61 325 eP 08 38.76 -2.2
MEMM 2.12 73 eP 08 48.69 0.3
eS 09 16.13
BCH 2.20 148 eP 08 47.16 -2.5
ORV 2.48 360 eP 08 53.59 0.0
ISA 2.81 119 eP 08 55.91 -2.5
eS 09 29.75
19 obs. associated

• MAR 14, 1993 21h 18m 41.45± 0.96s
23.683 S ± 8.2km 179.718 W ±11.3km
DEPTH = 551.3 ± 12.2 km
4.8mb (16 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN 5.90 343 eP 20 19.00 -0.9
DZM 12.86 274 iPd 21 31.00 1.8
URZ 14.78 190 eP 21 47.50 -0.7
0.2s 9.00nm 4.9mb
MNG 17.36 192 eP 22 12.20 -1.2
0.2s 13.00nm 5.2mb
eS 25 03.80
DSZ 19.36 199 eP 22 33.70 1.2
KHZ 19.51 195 eP 22 34.30 0.5
LTZ 20.17 197 eP 22 39.80 -0.2
0.3s 8.00nm 4.8mb
ARMA 26.34 249 iPc 23 36.90 1.2
0.8s 17.00nm 4.7mb
CNB 29.18 240 iPd 24 01.90 1.6
CAN 29.47 240 iPd 24 03.50 0.7
BWA 29.73 242 iPd 24 03.50 -1.5
CTA 31.73 270 iPd 24 22.50 0.5
0.5s 42.25nm 5.3mb
QLP 32.70 257 iPd 24 29.60 -0.5
TOO 32.78 237 iPd 24 32.00 1.3
0.3s 30.00nm 5.4mb
STK 35.05 248 iPd 24 50.50 0.8
0.9s 10.80nm 4.5mb
WB2 42.67 266 iPd 25 50.70 -0.8
0.4s 70.30nm 5.5mb
WARB 48.42 255 iPd 26 34.80 -0.9
0.3s 7.00nm 4.7mb
COOL 52.53 248 eP 27 04.70 -1.1
0.5s 10.00nm 4.4mb

14d 21h

KLB 55.31 247 iPd 27 24.60 -0.7
0.4s 10.00nm 4.5mb
RKG 55.54 243 eP 27 26.50 -0.4
NWAO 55.56 245 eP 27 27.50 0.5
MBL 55.57 260 iPd 27 26.10 -1.2
0.4s 10.00nm 4.5mb
BAL 56.35 248 iPd 27 31.60 -0.9
0.4s 32.00nm 5.0mb
MUN 56.56 246 eP 27 33.50 -0.4
0.5s 90.00nm 5.4mb
MRWA 57.20 250 eP 27 37.90 -0.4
ADK 75.28 2 eP 29 28.27 -0.8
0.6s 18.17nm 4.7mb
SDN 80.40 11 eP 29 56.20 -0.1
0.5s 12.30nm 4.6mb
RMW 87.87 35 eP 30 35.11 1.8
FBA 91.68 13 eP 30 51.00 0.6
NB2 141.91 351 PKP 37 06.40 -5.2X
0.5s 1.20nm
HFS 142.38 349 ePKP 37 07.90 -4.4X
0.3s 5.10nm
KSP 150.18 339 iPKPc 37 31.80 6.6X
CLL 150.72 344 iPKP 37 33.30 7.3X
0.9s 9.00nm
BRG 150.86 342 i(PKP)37 33.40 7.1X
S.D. = 1.0 on 29 of 34 obs.

MAR 14, 1993 21h 23m 16.12± 0.61s
26.516 N ±10.2km 57.831 E ± 6.4km
DEPTH = 33.0km (normal)
4.6mb (23 obs.) 4.0Msz (3 obs.)
SOUTHERN IRAN (353)

QUE 8.83 63 eP 25 23.50 -1.1
eS 27 07.00
MAIO 9.86 8 eP 25 40.00 1.3
KMTA 16.14 242 eP 27 02.60 0.2
GLH 20.22 293 eP 27 52.20 1.1
PRNI 20.43 286 eP 27 53.20 -0.1
RMN 20.77 286 eP 27 56.40 -0.4
HYB 21.22 111 eP 28 02.00 0.5
GBA 22.41 121 P 28 19.00 5.7X
CSS 22.64 298 eP 28 19.00 3.5X
OHR 33.76 305 eP 29 56.00 -0.9
VBY 38.77 311 e(P) 30 41.00 1.9
CEY 39.39 311 eP 30 45.50 1.1
LJU 39.39 311 e(P) 30 47.70 3.3X
VOY 39.82 311 e(P) 30 49.50 1.5
TRI 39.83 310 eP 30 49.20 1.2
GEC2 40.69 315 Pd 30 54.50 -0.7
0.6s 1.97nm 4.0mb
e 30 58.70
e 31 00.80
e 31 02.80
NUR 40.81 336 eP 30 56.00 0.3
KHC 40.86 316 eP 30 52.40 -4.0X
e 31 03.60
CLL 41.88 318 eP 31 16.00 11.3X
GRF 42.49 316 eP 31 11.40 1.6
SBF 43.97 307 eP 31 22.20 0.3
0.9s 21.95nm 5.0mb
LPG 44.64 309 eP 31 28.20 0.6
1.0s 8.20nm 4.5mb
LPL 44.65 309 eP 31 27.40 -0.3
0.6s 2.55nm 4.3mb
BSF 44.95 312 eP 31 28.90 -1.0
0.8s 8.60nm 4.7mb
HFS 45.07 331 eP 31 29.30 -1.2
0.4s 2.60nm 4.5mb
Z 18s 0.16um 4.0Msz
LR 48 17.00
HAU 45.27 312 eP 31 32.00 -0.3
0.7s 5.85nm 4.6mb
NB2 46.57 331 P 31 40.70 -1.7
0.5s 0.60nm 3.8mb
LBF 46.73 311 eP 31 43.50 -0.3
0.6s 3.45nm 4.5mb
SMF 46.78 310 eP 31 44.00 -0.2
0.8s 14.25nm 5.0mb
LOR 46.84 311 eP 31 44.10 -0.6
0.7s 8.80nm 4.9mb
Z 19s 0.22um 4.1Msz
SSF 47.06 311 eP 31 46.10 -0.3
0.7s 16.00nm 5.1mb
AVF 47.13 310 eP 31 46.40 -0.6
0.8s 7.50nm 4.7mb
BGF 47.46 310 eP 31 49.20 -0.4
0.7s 9.15nm 4.9mb
MAF 47.62 309 eP 31 50.70 -0.2
0.9s 6.40nm 4.6mb
HYF 47.66 311 eP 31 51.60 0.4
TCF 47.87 309 eP 31 52.10 -0.8
0.7s 4.85nm 4.6mb
CAF 47.89 308 eP 31 53.00 0.0
0.7s 3.95nm 4.5mb
RJF 48.29 308 eP 31 56.30 0.2
0.6s 3.80nm 4.6mb
Z 20s 0.10um 3.8Msz
LDF 49.63 312 eP 32 05.50 -0.8
0.6s 3.70nm 4.6mb
FLN 49.88 313 eP 32 07.50 -0.8
0.9s 7.85nm 4.7mb
Z 23s 0.15um 3.9MszX
GRR 50.11 312 eP 32 09.60 -0.4
0.9s 5.55nm 4.6mb
LPF 50.20 312 eP 32 10.00 -0.7
0.7s 3.75nm 4.5mb
IMA 84.62 12 eP 35 49.00 1.6
1.0s 3.00nm 4.4mb
YKA 91.10 356 eP 36 28.90 10.5X
0.3s 0.10nm
S.D. = 0.9 on 38 of 44 obs.

% MAR 14, 1993 22h 08m 15.31± 1.89s
44.997 N ± 6.6km 6.758 E ±15.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.6 (GEN).

RRL 0.08 166 P 08 18.06 0.1
S 08 19.25
RSP 0.39 66 P 08 23.32 0.1
S 08 28.22
BHB 0.39 113 P 08 23.32 0.0
S 08 28.31
LSD 0.54 31 P 08 26.25 0.0
S 08 32.98
PZZ 0.55 153 P 08 26.53 0.1
S 08 33.62
S.D. = 0.1 on 5 of 5 obs.

% MAR 14, 1993 23h 00m 38.19± 0.84s
37.041 N ± 7.7km 5.500 W ± 7.8km
DEPTH = 10.0km (geophysicist)
SPAIN (377)

EPRU 0.23 109 eP 00 43.10 0.0
eS 00 46.10
EJIF 0.59 178 eP 00 50.50 0.4
eS 00 57.20
EHOR 0.81 14 eP 00 54.50 0.7
eS 01 05.40
EVAL 1.13 299 eP 00 59.00 -0.4
eS 01 15.40
ECOG 1.56 81 eP 01 05.50 -0.7
eS 01 25.40
S.D. = 0.8 on 5 of 5 obs.

MAR 14, 1993 23h 07m 00.17± 0.80s
37.225 S ±15.7km 176.449 E ±20.1km
DEPTH = 254.5 ± 19.1 km
NORTH ISLAND, NEW ZEALAND (159)

URZ 1.16 153 P 07 36.80 0.0
S 08 03.30
HBZ 1.52 105 P 07 38.30 -1.0
PUZ 1.67 121 P 07 39.80 -0.7
S 08 07.80
PAHZ 1.70 164 P 07 41.50 0.7
NOZ 1.87 138 P 07 42.20 0.0
MOH 1.98 164 P 07 43.80 0.6
MAHZ 2.26 151 eP 07 46.00 0.3
TTH 2.33 173 P 07 48.00 1.6
WAHZ 2.47 182 P 07 48.30 0.5
MNG 3.47 192 P 07 58.20 -0.3
S 08 42.40
KIW 3.83 198 P 08 02.50 -0.1
MTW 4.00 190 P 08 04.70 0.1
CAW 4.02 195 eP 08 04.40 -0.5
DIW 4.08 208 P 08 05.50 0.0
BLW 4.21 190 eP 08 06.70 -0.3
MRW 4.23 198 P 08 07.00 -0.2
S 08 58.20
TCW 4.33 202 P 08 08.30 -0.1
THZ 5.30 210 eP 08 20.00 -0.3
eS 09 22.70
KHZ 5.65 202 P 08 24.50 0.0
eS 09 28.70
DSZ 5.77 217 eP 08 26.30 0.2
LTZ 6.41 209 eP 08 33.40 -0.7
WRA 40.42 283 P 14 15.80 0.5
1.1s 0.40nm 2.7mb
S.D. = 0.6 on 22 of 22 obs.

• MAR 14, 1993 23h 18m 51.22± 0.52s
25.617 N ± 6.9km 141.380 E ±14.9km
DEPTH = 103.0km (2 depth phases)
4.6mb (12 obs.)
VOLCANO ISLANDS REGION (213)

IIDJ 10.27 344 eP 21 18.00 0.8
CHJJ 10.60 349 P 21 19.80 -1.7
eS 23 12.90
KAKJ 10.61 355 P 21 19.50 -2.0
MTMJ 11.35 345 P 21 31.50 -0.1
NIIJ 11.76 351 P 21 34.50 -2.4
OFUJ 13.43 1 P 21 57.00 -1.7
eS 24 21.10
MRRJ 16.77 359 eP 22 40.00 -1.0
HOOJ 16.80 5 eP 22 43.80 2.5
ASAJ 18.49 3 P 23 03.20 1.3
WB2 45.80 189 iPc 27 03.80 -0.6
0.4s 162.90nm 6.2mb X
GUN 49.25 286 P 27 32.60 0.8
ASPA 49.52 189 iPc 27 31.90 -1.5
0.4s 12.60nm 5.2mb
e 28 53.30 404kmX
KKN 49.79 286 P 27 37.00 1.2
DMN 49.98 285 P 27 40.00 2.8
GKN 50.31 286 P 27 41.40 1.8
WARB 53.43 197 eP 28 02.00 -0.6
0.4s 7.00nm 5.0mb
STK 57.18 180 iPc 28 28.10 -1.4
0.8s 6.80nm 4.7mb
BFD 62.47 179 iPd 29 04.50 -1.1
0.9s 13.00nm 4.9mb
TOO 62.97 176 iPd 29 09.00 0.0
0.4s 10.00nm 5.1mb
RES 73.66 13 eP 30 16.50 1.8
1.0s 4.00nm 4.2mb
pP 30 43.00 103km
KAF 78.49 334 iP 30 41.20 -0.8
0.4s 5.70nm 4.7mb
NUR 80.05 333 iP 30 50.20 -0.3
0.2s 1.90nm 4.6mb
SES 81.03 38 eP 30 57.00 1.1
LCCM 82.78 42 ePc 31 06.60 1.3
e 31 33.60 103km
HFS 84.49 337 eP 31 11.90 -1.5
0.4s 1.90nm 4.4mb
NB2 84.71 338 P 31 13.30 -1.3
0.6s 2.80nm 4.4mb
BW06 85.77 44 eP 31 21.38 0.9
0.7s 2.74nm 4.4mb
DAU 85.88 47 eP 31 22.52 1.4
MSU 86.21 49 eP 31 23.91 1.2
GEC2 92.39 328 P 31 50.60 -0.8
0.5s 0.55nm 4.1mb
S.D. = 1.5 on 30 of 30 obs.

& MAR 14, 1993 23h 26m 34.50s
62.402 N 151.160 W
DEPTH = 92.2km
3.8mb (1 obs.)
CENTRAL ALASKA (1)
<AEIC>. Felt (III) at Skwentna
and (II) at Talkeetna.

CUT 0.41 89 eP 26 48.36 -0.7
eS 26 58.85
SKT 0.46 202 iPd 26 48.54 -0.9
iS 26 59.78
HUR 0.91 50 iPc 26 52.67 -1.0
eS 27 06.57
SUA 0.96 168 iPd 26 53.91 -0.4
eS 27 08.78
PWA 0.97 141 P 26 53.90 -0.3
TRF 1.13 20 iPc 26 55.36 -0.9
CGLM 1.17 200 eP 26 56.31 -0.4
GHO 1.23 120 ePc 26 57.03 -0.4
eS 27 14.30

CRP 1.23 203 iPd 26 56.89 -0.7
CPAM 1.24 202 iPd 26 57.00 -0.6
CP2 1.25 205 iPd 26 57.26 -0.6
PLRM 1.26 129 ePc 26 56.70 -0.9
PMR 1.26 129 ePd 26 56.36 -1.3
eS 27 13.60
CKN 1.28 203 iPd 26 57.68 -0.3
8GL 1.28 208 iPd 26 57.76 -0.4
SPU 1.30 200 iPd 26 57.41 -0.8
CKT 1.30 203 iPd 26 57.66 -0.7
CKL 1.33 205 iPd 26 58.15 -0.6
PMS 1.39 146 P 26 58.50 -0.9
SML 1.46 113 iPc 26 59.39 -0.9
RND 1.46 45 iPc 26 59.25 -1.1
NKA 1.67 181 eP 27 04.19 1.3
MCK 1.68 36 iPd 27 02.27 -0.8
eS 27 23.65
PTE 1.85 146 iPd 27 03.95 -1.3
eS 27 26.88
SCM 1.89 106 iPc 27 04.48 -1.4
RDT 1.93 199 eP 27 05.61 -0.8
SLKM 1.95 166 ePd 27 05.43 -1.3
DFR 1.96 203 iPd 27 06.08 -0.8
NCT 2.03 205 iPd 27 07.26 -0.6
RDN 2.05 203 eP 27 07.02 -1.0
RDW 2.08 203 iPd 27 08.01 -0.6
RS2 2.09 202 iPd 27 08.42 -0.3
RSO 2.09 202 iPd 27 08.33 -0.4
RS1 2.09 202 iPd 27 08.42 -0.3
MPA 2.11 155 ePd 27 07.33 -1.4
TTA 2.30 285 P 27 10.10 -1.3
NEA 2.38 22 iPd 27 10.51 -1.8
eS 27 37.20
SEW 2.45 160 eP 27 11.92 -1.4
SVW 2.49 241 iPd 27 12.80 -1.1
INE 2.52 202 iPc 27 14.11 -0.4
INW 2.53 203 eP 27 14.10 -0.5
SDG 2.61 85 iPc 27 14.57 -1.0
VLZ 2.63 117 iPc 27 13.36 -2.3
KLU 2.64 108 iPc 27 13.88 -2.1
eS 27 45.11
BRLK 2.65 177 eP 27 15.45 -0.7
THY 2.68 65 eP 27 16.76 0.3
PAX 2.69 75 ePc 27 15.61 -1.1
eS 27 47.76
CCB 2.71 32 iPd 27 15.04 -1.8
eS 27 45.24
TZL 2.71 95 iPc 27 15.89 -1.0
HDA 2.76 41 iPd 27 15.96 -1.7
MDM 2.88 26 iPd 27 17.70 -1.6
CNPM 2.89 181 eP 27 18.45 -0.9
FBA 2.92 29 P 27 18.20 -1.6
OPT 2.94 201 eP 27 20.24 0.2
XLV 2.97 186 P 27 21.60 1.1
PDB 3.01 211 iPd 27 20.21 -0.8
HIN 3.01 130 iPc 27 18.80 -2.3
eS 27 54.78
GLM 3.09 31 ePd 27 20.42 -1.8
CVA 3.19 123 iPc 27 21.08 -2.4
eS 27 56.10
AUL 3.23 201 eP 27 24.59 0.6
AUE 3.24 200 eP 27 24.69 0.6
AUW 3.25 201 eP 27 24.47 0.2
AUH 3.25 201 eP 27 25.03 0.7
AUI 3.27 201 P 27 26.00 1.4
SGAM 3.44 121 ePd 27 24.18 -2.7
DOT 3.47 66 eP 27 25.71 -1.6
MCNL 3.58 207 eP 27 28.38 -0.5
GLB 3.61 102 ePc 27 26.79 -2.5
eS 28 07.65
CDD 3.69 200 eP 27 30.09 -0.3
RAGM 3.72 120 eP 27 28.54 -2.2
MID 3.80 140 P 27 31.80 -0.1
IMA 3.84 344 ePd 27 30.72 -1.9
SYI 3.85 190 eP 27 31.91 -0.7
TMW 3.85 72 eP 27 30.85 -1.8
CRQM 4.17 110 ePc 27 35.10 -2.2
eS 28 22.70
TGL 4.31 109 ePd 27 36.25 -2.8
eS 28 24.68
BALM 4.41 104 iPc 27 37.45 -3.0
KDC 4.72 189 eP 27 41.70 -2.8
CTGM 4.90 103 ePc 27 44.52 -2.7
FYU 4.90 29 iPd 27 45.25 -1.9
YAH 4.97 110 iPc 27 45.39 -2.9
SDN 8.57 218 (P) 28 37.90 0.4
BRW 9.20 349 eP 28 42.47 -3.7
SIT 9.61 117 eP 28 44.24 -7.4
YKA 16.77 73 eP 30 15.50 -9.1
0.7s 4.10nm 3.8mb
85 obs. associated

? MAR 14, 1993 23h 32m 51.42± 0.97s
42.739 N ±11.3km 3.412 E ± 7.8km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 2.5 (LDG).

PERF 0.47 238 Pg 33 00.93 -0.1
MTHF 0.68 287 Pg 33 05.57 0.7
VDCF 0.79 259 Pg 33 06.20 -0.5
TRGS 1.09 258 Pg 33 12.24 0.2
LRG 2.27 71 Pn 33 29.80 0.2
Pg 33 35.80
Sg 34 07.30
EPF 2.28 278 Pg 33 34.80 5.1X
Sg 34 01.60
LMR 2.35 74 Pg 33 37.60 7.0X
Sg 34 09.90
CAF 2.39 336 Pg 33 36.00 4.7X
Sg 34 06.00
FRF 2.51 70 Pg 33 40.70 7.8X
Sg 34 13.20
LPO 2.53 321 Pg 33 39.20 6.1X
Sg 34 10.10
RJF 2.91 333 Pg 33 46.00 7.4X
Sg 34 21.70
LFF 2.93 320 Pg 33 47.10 8.3X
Sg 34 22.80
MAF 3.53 350 Pn 33 47.00 -0.4
Pg 33 58.00
Sg 34 41.20
TCF 3.65 347 Pg 34 00.60 11.4X
Sg 34 47.10
S.D. = 0.6 on 6 of 14 obs.

---

* MAR 14, 1993 23h 35m 55.53± 0.50s
36.250 N ±13.1km 71.139 E ± 9.5km
DEPTH = 33.0km (normal)
4.2mb (6 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

NDI 9.12 144 eP 38 08.00 0.1
MAIO 9.40 274 eP 38 12.00 0.1
eS 39 51.00
GKN 14.08 122 P 39 15.00 0.2
0.6s 17.00nm 4.9mb
DMN 14.65 122 P 39 22.60 0.2
KKN 14.65 121 P 39 21.80 -0.6
0.6s 10.00nm 4.4mb
PKI 14.88 122 P 39 25.80 0.3
0.4s 6.00nm 4.3mb
GUN 15.00 120 P 39 26.80 -0.3
HFS 43.33 322 eP 43 55.60 -0.2
0.4s 1.40nm 4.0mb
NB2 44.65 323 P 44 05.80 -0.7
0.5s 1.10nm 4.0mb
YKA 81.49 3 eP 48 11.30 0.9
0.5s 0.30nm 3.6mb
S.D. = 0.5 on 10 of 10 obs.

MAR 14, 1993 23h 40m 11.51± 0.43s
1.320 N ± 7.1km 97.707 E ± 6.9km
DEPTH = 19.4km (4 depth phases)
4.9mb (24 obs.)
NORTHERN SUMATERA, INDONESIA (706)

IPM 4.63 46 ePc 41 23.50 1.3
0.9s 96.00nm
e 43 39.80
KGM 5.65 83 iPd 41 38.50 1.9
e 43 11.50
SNG 6.50 26 ePn 41 48.20 -0.4
1.2s 171.88nm 5.8mb
KHT 13.41 4 eP 43 32.00 8.7X
BDT 15.88 5 eP 43 54.80 -0.8
CHTO 17.43 4 eP 44 14.00 -1.3
GBA 23.48 302 P 45 26.00 5.0X
KMI 24.16 11 eP 45 28.00 0.2
1.5s 50.00nm 4.9mb
HYB 24.71 311 eP 45 38.00 5.0X
PKI 28.64 337 P 46 10.40 0.9
0.8s 24.00nm 5.0mb
GUN 28.76 338 P 46 10.80 0.2
0.8s 44.00nm 5.3mb
DMN 28.79 336 P 46 14.80 4.0X
KKN 28.89 337 P 46 11.00 -0.6
0.8s 28.00nm 5.1mb
GKN 29.33 336 P 46 15.20 -0.3
0.6s 19.00nm 5.0mb
LZH 35.06 9 eP 47 04.00 -1.5
1.5s 19.00nm 4.8mb
WB2 41.68 122 iPc 47 59.40 -1.4
0.5s 7.50nm 4.7mb
i 49 57.60
ASPA 43.06 128 eP 48 11.10 -1.0
0.8s 3.90nm 4.2mb
MAIO 49.61 319 eP 49 05.00 1.2
STK 53.06 132 eP 49 29.50 -0.4
0.7s 1.90nm 4.1mb
8UL 70.89 248 iPc 51 31.00 1.0
1.0s 7.50nm 4.8mb
OBN 72.76 328 eP 51 44.00 3.7X
1.0s 18.00nm 5.1mb
BCAO 79.10 274 iPd 52 16.60 -0.5
0.9s 9.00nm 4.8mb
KAF 80.21 333 iP 52 21.80 -0.2
NUR 80.56 331 eP 52 24.20 0.4
SRO 81.90 318 eP 52 37.30 6.2X
ZST 82.75 318 eP 52 35.40 -0.2
VBY 83.76 315 ePc 52 41.60 0.8
LJU 84.31 316 eP 52 44.50 0.9
e 52 49.50 16km
PRU 84.59 320 eP 52 50.00 5.1X
VOY 84.75 316 e(P) 52 45.00 -0.9
GEC2 85.06 319 P 52 47.30 -0.1
1.1s 2.75nm 4.4mb
e 52 53.30 19km
KHC 85.16 319 eP 52 47.50 -0.3
e 52 55.00 24km
HFS 85.87 330 eP 52 52.50 1.5
0.4s 0.60nm 4.2mb
GRF 86.72 320 eP 52 56.00 0.5
e 53 02.20 19km
NB2 87.15 331 P 52 56.60 -0.8
0.9s 3.40nm 4.6mb
LPG 89.74 315 eP 53 16.60 6.2X
0.8s 3.35nm 4.6mb
LPL 89.75 315 eP 53 16.50 6.1X
1.1s 10.00nm 5.0mb
HAU 89.94 318 eP 53 16.70 5.8X
0.9s 4.90nm 4.7mb
LBF 91.60 317 eP 53 24.80 6.2X
1.1s 8.30nm 5.0mb
LOR 91.66 317 eP 53 25.10 6.3X
0.9s 4.90nm 4.9mb
SMF 91.71 317 eP 53 25.30 6.2X
1.1s 12.70nm 5.2mb
AVF 92.04 317 eP 53 26.80 6.3X
1.1s 11.00nm 5.2mb
BGF 92.40 317 eP 53 28.90 6.6X
1.1s 11.50nm 5.2mb
MAF 92.62 316 eP 53 29.90 6.6X
S.D. = 1.0 on 28 of 44 obs.

MAR 15, 1993 00h 42m 24.06± 0.30s
39.610 N ± 4.3km 143.289 E ± 4.9km
DEPTH = 27.5km (3 depth phases)
5.1mb (55 obs.) 4.6Msz (6 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 1.36 248 P 42 48.50 1.1
eS 43 08.40
AOMJ 2.43 294 eP 43 04.60 1.9
HOOJ 2.77 360 iPd 43 07.60 0.1
eS 43 39.30
YAMJ 2.92 242 P 43 10.60 1.0
eS 43 46.90
MRRJ 3.27 330 eP 43 16.30 1.6
eS 43 53.00
KUSJ 3.65 17 eP 43 17.90 -2.1
eS 43 57.70
NIIJ 4.11 236 P 43 27.00 0.3
KAKJ 4.20 217 P 43 25.40 -2.4
S 44 12.30
ASAJ 4.53 354 eP 43 31.30 -1.3
CHJJ 4.92 225 P 43 37.20 -0.8
eS 44 31.40
MAT 5.04 234 iPc 43 40.60 0.7
(S) 44 40.00
MTMJ 5.27 237 P 43 44.00 0.8

15d 00h

IIDJ 5.94 228 P 43 52.50 0.0
eS 45 03.80
KUR 6.56 30 (P) 44 13.50 12.4X
eS 45 09.50
TSRJ 7.08 237 P 44 08.80 0.3
YSS 7.42 357 ePd 44 11.00 -2.1
0.8s 40.00nm 5.5mb
Z 16s 1.90um 4.5MszX
N 16s 1.80um
(S) 45 36.60
WKYJ 8.18 231 eP 44 21.80 -2.1
YONJ 8.98 244 eP 44 35.10 0.2
VLA 9.26 296 eP 44 38.00 -0.8
Z 16s 1.00um
N 15s 2.50um
E 16s 2.70um
TKSJ 9.29 236 eP 44 37.90 -1.4
SHNJ 11.18 244 eP 45 06.40 1.3
KUMJ 12.30 239 eP 45 20.40 0.2
KAGJ 13.14 234 eP 45 31.10 -0.3
SSE 19.89 252 P- 46 54.00 -2.1
1.0s 1830.00nm 6.4mb X
Z 20s 0.90um 3.7MszX
N 12s 0.80um
E 12s 0.80um
sP 47 08.00
S 50 48.00
BJI 20.81 280 eP 47 01.00 -4.6X
1.4s 105.00nm 5.0mb
Z 16s 2.04um 4.6MszX
N 14s 0.82um
E 15s 1.97um
eS 51 00.00
MGD 21.05 11 ePc 47 06.00 -1.9
1.0s 70.00nm 5.0mb
Z 12s 1.00um 4.4MszX
N 12s 1.00um
e 47 37.00
YAK 23.92 344 iPc 47 34.90 -1.3
Z 13s 1.20um 4.6MszX
N 14s 0.90um
E 13s 0.70um
epP 48 05.00 149kmX
i 48 18.00
eS 51 49.00
CIT 23.94 311 eP 47 36.50 -0.1
BOD 26.17 324 iPc 47 57.60 0.0
0.8s 80.00nm 5.4mb
CVP 28.69 227 eP 48 23.00 2.1
IRK 29.54 308 eP 48 28.50 0.2
1.5s 48.00nm 5.0mb
SZP 29.59 229 ePd 48 27.00 -2.0
ZAK 29.93 304 iPc 48 31.50 -0.2
1.0s 28.00nm 5.0mb
Z 15s 3.14um 5.1MszX
E 16s 3.69um
LZH 31.17 276 Pd 48 42.50 -0.6
1.5s 94.00nm 5.4mb
Z 15s 1.75um 4.8MszX
E 13s 1.30um
pP 48 57.00 59kmX
sP 49 03.00
PP 50 10.00
eS 53 44.00
esS 54 10.00
MOY 31.50 307 ePc 48 45.40 -0.1
1.3s 36.00nm 5.1mb
TIK 32.92 352 eP 48 56.00 -1.7
1.4s 11.00nm 4.6mb
Z 16s 0.80um 4.5MszX
e 50 31.00
ILT 35.10 24 iPd 49 14.40 -2.2
1.2s 10.00nm 4.6mb
KMI 36.85 259 Pc 49 31.50 -0.6
1.5s 110.00nm 5.5mb
Z 15s 1.30um 4.8MszX
pP 49 38.00 22km
ELT 40.51 309 iPc 50 02.00 0.0
1.7s 90.00nm 5.2mb
Z 14s 1.20um 4.9MszX
NRI 41.41 334 iPc 50 07.60 -1.6
1.6s 28.00nm 4.7mb
Z 17s 1.40um 4.9MszX
E 16s 1.00um
LOE 42.21 251 eP 50 09.00 -7.3X
TTA 42.47 36 eP 50 27.60 9.5X
CHTO 43.38 255 ePc 50 26.00 0.1
0.9s 14.92nm 4.8mb
IMA 43.72 32 eP 50 28.41 0.1
1.3s 9.15nm 4.4mb
RSO 43.98 40 (P) 50 30.29 -0.2
KDC 44.26 44 eP 50 46.60 14.1X
PMR 45.69 38 eP 50 46.00 2.1
FBA 46.14 34 eP 50 45.40 -2.1
pP 50 53.70 28km
GUN 48.40 274 P 51 06.00 -0.1
KKN 48.92 275 P 51 10.40 0.4
PKI 48.93 274 P 51 10.20 0.0
DMN 49.15 274 P 51 12.00 0.3
GKN 49.31 275 P 51 13.20 0.3
FRU 50.44 297 ePc 51 21.00 -0.2
2.5s 150.00nm 5.5mb
e 51 39.00 71kmX
SVE 54.22 318 iPc 51 49.50 0.3
2.0s 100.00nm 5.5mb
Z 15s 2.50um 5.4MszX
N 15s 0.50um
E 15s 1.60um
NDI 54.66 280 iPc 51 52.50 -0.3
0.7s 27.40nm 5.4mb
ARU 55.42 318 iPc 51 57.50 -0.5
1.3s 180.00nm 5.9mb
Z 16s 2.50um 5.4MszX
N 14s 1.00um
E 15s 2.00um
e 52 16.00 72kmX
RES 59.74 15 eP 52 28.00 -0.2
1.0s 4.00nm 4.5mb
HYB 59.76 268 ePc 52 28.00 -1.1
WB2 59.83 190 eP 52 27.00 -2.3
0.7s 7.20nm 4.9mb
YKA 60.84 31 eP 52 33.50 -2.4
1.0s 1.20nm 4.0mb X
QUE 61.60 287 eP 52 41.90 0.2
GBA 62.89 265 P 52 50.00 -0.2
ASH 63.72 299 eP 52 55.00 -0.4
MAIO 63.79 296 eP 52 56.00 0.0
MOS 66.06 323 eP 53 10.00 -0.2
e 53 26.00 58kmX
KAF 66.70 333 iP 53 13.20 -1.0
0.8s 16.50nm 5.2mb
DPW 66.89 46 eP 53 16.92 1.1
OBN 66.91 323 iPc 53 15.00 -0.7
1.0s 35.00nm 5.4mb
e 53 32.00 63kmX
NEW 67.27 46 eP 53 19.00 0.8
1.0s 7.50nm 4.8mb
NUR 68.37 332 iP 53 23.90 -0.8
KIV 70.33 311 iPc 53 37.70 0.5
eS 02 50.20
GRS 70.74 306 iPc 53 39.00 -0.8
1.5s 40.00nm 5.3mb
STK 71.15 182 eP 53 45.60 3.7X
0.8s 1.20nm 4.0mb X
UPP 71.28 334 iP 53 42.20 -0.3
LCCM 71.59 45 ePd 53 46.10 1.2
HFS 72.34 336 eP 53 47.90 -1.0
0.9s 28.20nm 5.3mb
Z 18s 0.35um 4.7Msz
LR 24 15.00
NB2 72.38 338 P 53 48.50 -0.6
0.9s 21.80nm 5.2mb
BW06 74.82 47 eP 54 04.50 0.6
1.2s 5.71nm 4.5mb
DAU 75.35 50 eP 54 08.61 1.5
BSD 75.87 332 iPd 54 09.80 0.5
1.0s 24.00nm 5.2mb
SRU 76.62 50 eP 54 15.35 1.2
RSSD 76.94 43 eP 54 16.37 0.6
0.8s 3.84nm 4.5mb
KAS 77.07 313 eP 54 17.50 1.1
OJC 77.71 327 eP 54 20.50 0.8
PV09 77.84 50 eP 54 22.70 1.7
SPC 78.30 326 eP 54 20.70 -2.4
KSP 78.68 329 iPc 54 25.30 0.3
PSZ 79.41 325 eP 54 30.00 0.9
BRG 79.57 330 eP 54 29.60 -0.2
1.0s 10.00nm 4.8mb
e 57 16.00
CLL 79.58 331 iPc 54 30.10 0.2
1.1s 25.00nm 5.1mb
i 54 56.30 101kmX
VRAC 79.75 328 eP 54 32.00 1.3
1.3s 103.30nm 5.7mb
PRU 80.04 329 Pc 54 32.70 0.3
1.0s 10.10nm 4.8mb
e 55 11.00 154kmX
SRO 80.18 326 iP 54 34.80 1.7
ZST 80.40 327 eP 54 35.00 0.7
MOX 80.64 331 ePc 54 36.00 0.5
1.2s 15.00nm 4.9mb
KHC 81.11 329 Pc 54 38.60 0.5
1.0s 8.90nm 4.7mb
e 54 49.00 33km
e 55 07.00
e 57 50.00
EKA 81.18 341 Pd 54 39.00 0.7
0.8s 4.20nm 4.5mb
WTS 81.22 334 eP 54 39.00 0.5
0.9s 5.70nm 4.6mb
GRF 81.56 331 iPc 54 41.40 1.0
1.3s 49.00nm 5.4mb
Z 18s 0.30um 4.7Msz
CSS 81.63 309 eP 54 41.00 0.0
ADI 81.73 306 iPc 54 42.40 0.8
ENN 82.55 334 eP 54 46.00 0.5
1.0s 10.00nm 4.8mb
YTIR 82.95 305 eP 54 48.90 0.9
VAY 83.08 319 iP 54 49.00 0.6
SKO 83.16 320 iP 54 54.70 5.9X
VBY 83.30 326 eP 54 49.60 0.2
TRI 83.77 327 eP 54 51.50 -0.3
CDF 84.08 332 iPc 54 53.70 0.2
1.1s 12.70nm 5.0mb
OHR 84.12 320 iP 54 53.80 0.0
MBH 84.17 304 iPc 54 54.80 0.6
HAU 84.75 333 iPc 54 56.80 0.0
1.2s 11.60nm 5.0mb
Z 19s 0.22um 4.6Msz
LOR 86.25 334 eP 55 04.40 0.1
1.1s 22.20nm 5.3mb
Z 18s 0.15um 4.4Msz
FLN 86.34 337 eP 55 04.80 0.1
1.3s 20.20nm 5.2mb
Z 19s 0.20um 4.5Msz
LBF 86.46 333 iPc 55 05.40 0.1
1.0s 13.40nm 5.1mb
SSF 86.55 334 iPc 55 06.00 0.3
1.1s 13.45nm 5.1mb
LPL 86.72 331 eP 55 07.30 0.4
1.0s 11.60nm 5.1mb
LPG 86.73 331 eP 55 07.40 0.4
1.2s 12.50nm 5.0mb
GRR 86.79 337 eP 55 07.20 0.4
1.2s 26.50nm 5.3mb
SMF 86.80 333 eP 55 07.30 0.4
1.3s 22.00nm 5.2mb
AVF 86.84 334 iPc 55 07.60 0.5
0.9s 16.85nm 5.3mb
LPF 87.16 337 eP 55 09.30 0.6
1.1s 15.15nm 5.2mb
MAF 87.60 334 eP 55 11.80 1.0
1.2s 19.65nm 5.3mb
TCF 87.67 334 eP 55 11.90 0.7
LSF 87.93 335 iPc 55 13.00 0.6
1.2s 24.10nm 5.4mb
MFF 88.16 336 eP 55 14.20 0.7
1.4s 22.65nm 5.3mb
RJF 88.76 334 eP 55 17.10 0.7
Z 21s 0.25um 4.6Msz
LFF 89.34 334 eP 55 20.10 0.9
ZOBO 144.11 59 PKP 02 02.80 2.8X
LPB 144.30 59 PKP 01 58.50 -1.5
CNCB 144.58 59 PKP 02 00.70 0.0
i 02 25.80
SIV 148.29 49 PKP 02 13.00 6.9X
S.D. = 1.0 on 123 of 132 obs.

MAR 15, 1993 00h 49m 46.61± 0.63s
43.105 N ± 8.4km 0.541 W ± 4.4km
DEPTH = 5.0km (geophysicist)
PYRENEES (378)
ML 1.0 (STR).

ESCF 0.04 223 Pg 49 47.87 -0.1
OGE 0.08 38 Pg 49 48.00 -0.5
ATE 0.12 261 Pg 49 49.15 0.0
Sg 49 51.78
JAU 0.14 118 Pg 49 48.94 -0.7
Sg 49 51.00
ISSF 0.20 248 Pg 49 50.91 0.1

Sg 49 54.51
MADF 0.21 281 Pg 49 50.95 0.1
BTH 0.25 86 (Pg) 49 52.70 1.1
iSg 49 56.00
S.D. = 0.7 on 7 of 7 obs.

MAR 15, 1993 01h 38m 13.33± 0.26s
19.491 N ± 4.0km 38.738 E ± 3.7km
DEPTH = 10.0km (geophysicist)
5.0mb (45 obs.)
RED SEA (554)
MD 4.8 (RYD).

ABHA 3.99 107 eP 39 10.50 -5.7X
eS 39 51.60
KMTA 4.12 108 eP 39 17.30 -0.7
eS 39 59.60
DHJN 4.86 111 eP 39 29.00 0.5
eS 40 15.20
BADA 9.62 340 eP 40 28.70 -6.1X
eS 42 42.00
AYN 9.67 346 eP 40 31.30 -4.1X
eS 42 44.00
AAE 10.40 180 eP 40 45.00 -0.9
MBH 10.82 342 eP 40 51.60 0.2
SHWJ 11.23 345 P 40 57.70 0.5
RMN 11.57 342 iPd 41 02.60 0.9
DSI 12.40 347 iPd 41 13.60 0.8
SHMJ 13.45 349 P 41 26.00 -0.7
HRI 13.98 350 eP 41 34.70 0.9
BHL 14.62 350 P 41 42.00 -0.1
S 46 20.00
CSS 16.14 344 eP 42 07.00 5.1X
KER 16.56 25 eP 42 09.00 1.6
TAB 19.65 18 eP 42 52.00 6.5X
e 49 16.00
NAI 20.72 185 P 43 08.00 11.1X
Z 18s 1.75um 4.5Msz
S 49 10.00
GRS 20.99 17 eP 43 00.00 0.6
1.7s 130.00nm 5.0mb
Z 11s 1.01um 4.5MszX
eS 47 05.00
KAS 22.22 350 eP 43 14.00 2.3
SHE 22.71 20 eP 43 23.00 6.6X
1.2s 60.00nm 5.0mb
Z 13s 1.50um 4.6MszX
N 13s 3.50um
E 13s 2.50um
BAK 22.92 22 iP 43 23.00 4.5X
Z 15s 6.08um 5.2MszX
N 12s 3.44um
E 12s 3.44um
iS 47 40.00
ALN 23.94 336 eP 43 27.98 -0.4
SOC 24.04 2 eP 43 31.00 1.7
2.0s 150.00nm 5.2mb
AGG 24.09 327 eP 43 28.78 -1.1
PAIG 24.14 331 eP 43 28.62 -1.7
OUR 24.33 332 iP 43 31.34 -0.8
GRO 24.50 12 eP 43 37.00 3.2X
2.0s 240.00nm 5.5mb
Z 14s 2.50um 4.9MszX
N 14s 2.50um
E 12s 1.00um
KIV 24.62 7 eP 43 34.30 -0.8
2.3s 38.00nm 4.6mb
PYA 24.74 7 eP 43 38.00 1.9
Z 14s 2.00um 4.8MszX
N 14s 1.50um
E 14s 1.00um
BCAO 24.74 235 iPd 43 38.10 1.7
1.0s 50.00nm 5.1mb
id 43 45.20
id 44 06.80
MAIO 24.75 43 iPc 43 37.40 0.9
eS 48 06.00
KAT 24.80 34 eP 43 38.00 1.3
Z 13s 0.90um 4.5MszX
N 13s 1.80um
E 13s 0.90um
SOH 25.00 332 eP 43 39.02 0.3
ASH 25.09 39 eP 43 38.50 -1.1
SRS 25.14 332 eP 43 39.10 -0.9
KNT 25.48 331 eP 43 42.98 -0.3
GRG 25.55 330 eP 43 43.22 -0.7
VAY 25.76 331 iP 43 47.00 1.2
OHR 26.44 328 iP 43 52.00 -0.2
SKO 26.79 331 iP 43 56.00 0.7
QUE 27.66 62 P 44 00.00 -3.6X
ZAG 32.28 330 eP 44 45.30 1.0
PTJ 32.35 330 eP 44 45.10 0.1
VBY 32.40 328 eP 44 46.20 0.8
SRO 32.76 334 eP 44 49.70 1.2
CEY 32.98 328 e(P) 44 51.00 0.5
SPC 33.15 338 eP 44 52.00 -0.1
TRI 33.29 327 eP 44 53.70 0.6
VOY 33.45 328 eP 44 55.40 0.7
ZST 33.57 334 eP 44 55.60 0.1
OJC 34.17 338 eP 45 01.20 0.5
GEC2 35.55 331 eP 45 10.60 -2.0
1.3s 13.32nm 4.6mb
e 45 17.60
e 47 40.90
e 47 42.60
OBN 35.59 358 eP 45 12.50 -0.2
1.2s 70.00nm 5.4mb
Z 12s 0.70um 4.6MszX
KHC 35.81 331 P 45 15.00 0.2
1.5s 13.30nm 4.6mb
e 45 24.50
e 46 32.60
KSP 35.97 336 eP 45 15.40 -0.7
PRU 36.02 333 eP 45 14.00 -2.5
e 45 23.50
LSZ 36.07 197 eP 45 19.00 1.6
NDI 36.17 68 eP 45 20.00 2.0
MOS 36.20 359 iPc 45 18.00 0.1
2.0s 190.00nm 5.6mb
BRG 36.94 334 iPc 45 24.00 -0.2
1.2s 32.00nm 5.0mb
i 45 32.20
LPL 37.03 322 eP 45 25.00 -0.3
GRF 37.29 330 eP 45 27.00 -0.2
1.8s 43.00nm 4.9mb
Z 18s 0.10um 3.7Msz
e 45 35.50
GBA 37.50 93 P 45 31.60 2.3
CLL 37.66 334 eP 45 30.00 -0.3
1.7s 41.00nm 4.9mb
HYB 37.77 86 eP 45 31.50 -0.1
MOX 37.78 332 eP 45 31.80 0.5
1.8s 44.00nm 4.9mb
FRU 38.10 44 eP 45 36.00 1.9
Z 24s 0.60um 4.3MszX
E 24s 0.70um
e 47 46.00
BSF 38.33 325 eP 45 35.40 -0.7
1.4s 38.75nm 4.9mb
CDF 38.42 326 eP 45 36.20 -0.6
HAU 38.67 325 eP 45 38.20 -0.7
1.7s 34.55nm 4.8mb
SMF 39.33 322 eP 45 43.40 -1.0
1.4s 16.55nm 4.5mb
LBF 39.43 322 eP 45 44.40 -0.8
1.1s 20.25nm 4.7mb
CAF 39.56 318 eP 45 46.50 0.2
1.5s 40.75nm 4.9mb
LOR 39.65 322 eP 45 46.20 -0.8
1.0s 17.20nm 4.7mb
Z 20s 0.10um 3.7Msz
AVF 39.70 321 eP 45 46.40 -0.9
1.0s 10.40nm 4.5mb
ARU 39.74 17 iP 45 49.00 1.4
2.2s 300.00nm 5.6mb
Z 14s 1.00um 4.8MszX
N 16s 0.50um
E 16s 0.50um
SSF 39.75 322 eP 45 46.90 -0.9
1.0s 17.20nm 4.7mb
WLF 39.77 327 P 45 49.00 1.1
MAF 39.88 320 eP 45 48.60 -0.3
1.5s 37.60nm 4.8mb
BGF 39.88 321 eP 45 48.70 -0.2
1.4s 81.90nm 5.2mb
LPO 40.01 317 eP 45 50.40 0.4
1.6s 64.70nm 5.0mb
RJF 40.08 318 eP 45 50.70 0.1
1.6s 39.80nm 4.8mb
Z 21s 0.10um 3.6Msz
TCF 40.12 320 eP 45 50.90 0.0
HYF 40.36 322 eP 45 52.70 -0.1
LFF 40.41 318 eP 45 53.50 0.3
1.7s 103.65nm 5.2mb
LSF 40.52 320 eP 45 54.20 0.1
1.5s 47.55nm 5.0mb
BUL 40.62 195 eP 46 01.00 5.6X
BUL 40.62 195 eP 45 56.10 0.7
SVE 40.67 18 ePd 45 55.00 -0.3
2.2s 60.00nm 4.9mb
e 47 40.00
e 48 07.90
ETOR 40.71 311 eP 45 57.00 1.1
DOU 40.84 326 P 45 57.10 0.4
SNF 41.24 327 P 46 01.60 1.6
MFF 41.71 319 eP 46 03.20 -0.7
PAB 42.01 308 eP 46 08.00 1.4
EJIF 42.15 303 eP 46 09.00 1.4
GUD 42.17 310 iPd 46 09.10 1.2
LDF 42.63 322 eP 46 10.20 -1.2
0.9s 11.80nm 4.6mb
GKN 42.66 70 P 46 11.60 -0.5
LPF 42.90 321 eP 46 12.50 -1.2
1.2s 27.35nm 4.9mb
FLN 42.92 322 eP 46 12.50 -1.3
1.1s 31.50nm 5.0mb
Z 22s 0.10um 3.7Msz
GRR 42.96 321 eP 46 12.90 -1.2
1.3s 29.25nm 4.9mb
DMN 43.07 70 P 46 15.40 -0.2
KKN 43.22 70 P 46 16.40 -0.4
PKI 43.33 70 P 46 16.80 -1.1
GUN 43.75 70 P 46 20.80 -0.5
KIC 44.20 259 P 46 24.48 -0.1
TIC 44.36 259 P 46 26.02 0.1
LIC 44.52 259 P 46 27.62 0.5
Z 20s 0.22um 4.1Msz
APO 44.63 343 eP 46 26.40 -1.1
0.6s 0.60nm 3.7mb X
N82 45.82 342 P 46 33.10 -3.9X
1.0s 9.10nm 4.7mb
SLR 46.09 193 e(P) 46 31.80 -7.8X
Z 18s 5.42um 5.5MszX
KSR 46.53 195 e(P) 46 50.00 6.9X
PRY 47.42 194 eP 46 50.00 -0.1
EKA 47.67 329 Pc 46 56.70 5.1X
1.5s 27.70nm 5.1mb
ELT 49.62 36 iPc 47 06.00 -0.7
1.6s 60.00nm 5.3mb
Z 12s 9.00um 6.0MszX
eS 54 13.00
MOY 57.79 41 eP 48 07.20 0.2
NRI 58.15 18 ePc 48 09.00 -0.3
1.5s 52.00nm 5.4mb
e 48 13.00
e 48 53.00
e 50 24.00
LZH 58.93 59 Pc 48 15.00 -0.5
2.0s 54.00nm 5.3mb
Z 20s 0.70um 4.8Msz
E 14s 0.43um
pP 48 19.00 13kmX
sP 48 22.00
KMI 59.01 72 Pc 48 15.00 -1.2
2.0s 50.00nm 5.3mb
pP 48 22.50 25kmX
ZAK 59.04 42 eP 48 15.00 -0.8
Z 17s 1.72um 5.2MszX
E 17s 1.97um
IRK 59.91 40 eP 48 19.20 -2.6
1.8s 37.00nm 5.2mb
Z 12s 0.42um 4.8MszX
CIT 65.61 41 eP 48 59.00 -0.6
BOD 65.98 35 eP 49 00.20 -1.6
1.2s 32.00nm 5.4mb
BJI 68.28 54 eP 49 17.00 0.3
2.0s 62.00nm 5.5mb
Z 20s 4.56um 5.7MszX
TIK 71.71 20 eP 49 36.00 -1.1
2.0s 41.00nm 5.2mb
e 52 24.00
MGD 83.71 28 eP 50 43.00 -0.5
YKA 95.61 348 eP 51 38.70 -1.3
0.8s 0.90nm 4.3mb
S.D. = 1.0 on 112 of 127 obs.

& MAR 15, 1993 01h 51m 35.04s
63.222 N 151.077 W
DEPTH = 12.6km
CENTRAL ALASKA (1)
<AEIC>. ML 2.5 (AEIC), 2.7

(PMR).
TRF 0.42 57 eP 51 43.35 -0.5
eS 51 50.30
HUR 0.70 110 eP 51 48.82 0.2
RND 1.02 79 eP 51 54.30 0.1
eS 52 08.35
MCK 1.09 61 eP 51 55.28 0.0
eS 52 11.16
SKT 1.26 190 eP 51 57.87 -0.4
eS 52 14.72
eS 52 15.02
NEA 1.62 32 eP 52 03.37 -0.1
eS 52 25.52
PWA 1.67 160 eP 52 04.70 0.6
GHO 1.77 145 eP 52 06.03 0.4
SUA 1.77 175 eP 52 06.36 0.6
eS 52 31.01
PLRM 1.87 150 eP 52 07.29 0.3
PMR 1.87 150 eP 52 06.83 -0.2
SML 1.91 137 eP 52 07.55 0.0
CRP 2.03 195 eP 52 08.71 -0.7
eS 52 35.66
CCB 2.03 44 eP 52 10.76 1.4
S 52 37.58
CPAM 2.04 195 eP 52 09.46 -0.1
CP2 2.04 196 eP 52 09.34 -0.3
BGL 2.06 198 eP 52 09.96 0.1
CKN 2.07 195 eP 52 10.13 0.1
CKT 2.10 195 eP 52 10.21 -0.2
SPU 2.10 193 eP 52 10.16 -0.2
eS 52 38.02
PMS 2.11 160 eP 52 12.50 2.0
CKL 2.12 197 eP 52 10.57 -0.2
HDA 2.18 55 eP 52 12.26 0.7
FBA 2.22 39 eP 52 13.10 1.0
eS 52 42.40
SCM 2.23 127 eP 52 13.44 1.1
TTA 2.26 265 eP 52 12.88 0.1
SDG 2.63 103 eP 52 18.73 0.8
SLKM 2.75 171 eP 52 19.88 0.1
RSO 2.88 197 eP 52 22.27 0.6
KLU 2.96 124 eP 52 22.16 -0.6
VLZ 3.06 131 eP 52 24.74 0.8
IMA 3.07 340 eP 52 21.06 -3.2
32 obs. associated

% MAR 15, 1993 03h 17m 08.71± 1.28s
45.699 N ±17.7km 5.719 E ±11.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.9 (LDG).

LPL 0.73 104 Pg 17 23.10 -0.2
Sg 17 33.80
LPG 0.75 105 Pg 17 23.80 0.2
Sg 17 35.00
SMF 1.61 307 Pg 17 37.80 0.5
Sg 17 56.30
LBF 1.76 317 Pg 17 38.90 -0.6
Sg 18 00.30
BSF 2.26 19 Pg 17 46.90 0.1
Sg 18 13.70
S.D. = 0.6 on 5 of 5 obs.

? MAR 15, 1993 03h 29m 05.45± 1.19s
6.423 N ±29.8km 72.431 W ±33.2km
DEPTH = 143.8 ± 30.5 km
NORTHERN COLOMBIA (99)

BOG 2.42 222 iPKP 29 46.00 -0.1
iS 30 16.00
SDV 3.03 36 iPnd 29 53.80 0.1
iSn 30 31.00
TOV 4.24 38 ePnc 30 09.50 -0.1
iPP 30 09.80
iSn 30 59.00
CEOS 4.82 57 iP 30 17.70 0.4
iS 31 15.00
GUAC 6.33 53 iP 30 37.90 0.1
iS 31 50.00
OLLA 6.62 57 iP 30 41.30 -0.3
iS 31 58.50
LLAV 6.87 54 iP 30 37.90 -7.1X
iS 31 49.90
GUAN 7.58 62 iP 30 54.30 -0.3
ZOBO 22.96 169 P 33 59.00 0.1
S.D. = 0.3 on 8 of 9 obs.

MAR 15, 1993 03h 35m 05.92± 0.17s
42.299 N ± 3.1km 143.100 E ± 3.5km
DEPTH = 55.5km (28 depth phases)
5.1mb (102 obs.)
HOKKAIDO, JAPAN REGION (224)
Mw 5.1 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 22C
Centroid Location:
Origin Time 03:35:11.8 1.3
Lat 42.11N 0.11 Lon 143.37E 0.11
Dep 68.8 5.1 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 3.67 0.43 Mtt=-1.83 0.77
Mff=-1.85 0.50 Mrt= 0.80 0.54
Mrf= 2.77 0.60 Mtf=-3.54 0.59
Principal Axes:
T Val= 4.90 Plg=64 Azm=255
N 1.15 21 36
P -6.05 15 132
Best Double Couple:Mo=5.5*10**16
NP1:Strike=250 Dip=35 Slip= 129
NP2: 25 63 66

HOOJ 0.16 59 iP+ 35 16.60 1.9
KUSJ 1.43 56 P 35 31.50 1.6
S 35 49.80
MRRJ 1.51 275 iPd 35 32.70 1.8
S 35 51.40
ASAJ 1.85 350 iPd 35 38.10 2.4
AOMJ 2.69 231 P 35 49.30 1.7
eS 36 20.70
OFUJ 3.39 199 P 35 57.50 -0.1
eS 36 35.00
KUR 4.53 48 iPnd 36 15.50 2.0
iS 37 08.50
YSS 4.72 357 iPnc 36 17.20 0.9
(S) 37 06.50
YAMJ 4.74 211 P 36 16.80 0.2
NIIJ 5.96 213 P 36 33.60 0.0
KAKJ 6.50 201 P 36 38.10 -3.0
S 37 47.70
MAT 6.88 215 iPc 36 46.50 -0.1
0.8s 68.66nm 5.4mb
eS 38 06.00
CHJJ 7.01 208 P 36 46.70 -1.6
eS 38 03.40
MTMJ 7.02 217 P 36 49.10 0.5
IIDJ 7.92 212 P 37 01.30 0.3
eS 38 28.50
TSRJ 8.73 222 P 37 12.90 0.7
eS 38 53.10
WKYJ 9.99 219 eP 37 28.10 -1.4
YONJ 10.34 230 eP 37 34.50 0.3
TKSJ 10.94 224 eP 37 41.30 -0.9
OKH 11.26 359 ePn 37 48.00 1.5
Z 14s 1.20um
SKR 12.25 42 ePn 37 58.00 -1.7
e 40 18.80
SHNJ 12.46 233 P 38 03.00 0.4
KUMJ 13.77 229 eP 38 20.00 0.1
KAGJ 14.77 225 P 38 31.90 -1.1
MGD 18.44 12 eP 39 16.00 -2.9
1.0s 50.00nm 4.7mb
e 42 42.00
SSE 20.77 245 Pc 39 41.50 -2.9
Z 20s 1.30um 4.3Msz
pP 39 47.50 22kmX
eS 43 40.00
eSS 44 16.00
YAK 21.30 343 iPd 39 45.90 -3.7X
0.9s 102.00nm 5.2mb
ipP 40 07.00 101kmX
e 40 20.00
iS 43 35.00
iSS 44 14.00
iSSS 44 36.00
i 51 05.00
SEY 21.35 12 iPc 39 47.50 -2.5
1.0s 46.00nm 4.8mb
eS 43 40.00
CIT 22.15 306 eP 39 56.00 -2.2
e 44 00.00
BOD 23.96 320 eP 40 14.10 -1.5
0.9s 16.00nm 4.5mb
IRK 27.83 304 ePc 40 50.00 -1.8
1.5s 51.00nm 4.9mb
Z 16s 0.85um 4.4MszX
ZAK 28.37 300 iPc 40 57.00 0.5
1.3s 59.00nm 5.1mb
Z 17s 1.01um 4.5MszX
E 17s 1.68um
e 44 09.00
eS 45 45.00
ADK 28.68 57 eP 40 59.30 0.0
MOY 29.85 303 iPc 41 09.90 0.1
1.5s 124.00nm 5.4mb
TIK 30.24 351 eP 41 12.00 -1.1
e 41 33.00 92kmX
e 42 16.00
e 42 33.00
CVP 30.50 223 eP 41 16.50 0.7
LZH 30.85 272 iPc 41 19.00 0.0
1.2s 79.00nm 5.3mb
Z 16s 0.78um 4.5MszX
N 13s 0.44um
pP 41 29.00 36kmX
PP 43 04.00
eS 47 10.00
ILT 32.72 26 iPd 41 32.40 -2.4
1.0s 40.00nm 5.2mb
i 42 42.00 366kmX
iS 46 41.50
KMI 37.29 256 Pc+ 42 15.00 0.5
1.0s 160.00nm 5.9mb
Z 22s 1.00um 4.6Msz
pP 42 27.50 46km
sP 42 34.00
eS 48 20.00
CGP 37.41 211 eP 42 15.00 -0.2
ELT 38.75 307 iPc 42 26.00 -0.2
1.3s 95.00nm 5.5mb
eS 48 23.00
NRI 38.95 333 ePd 42 24.00 -3.6X
1.1s 21.00nm 4.9mb
e 42 40.00 64km
e 42 49.00
e 44 37.00
TTA 40.42 38 eP 42 36.21 -3.7X
0.9s 6.78nm 4.5mb
SVW 40.60 41 eP 42 43.86 2.4
1.0s 27.82nm 5.0mb
BRW 41.08 25 eP 42 44.60 -0.5
e 43 04.07 80kmX
IMA 41.54 33 eP 42 48.93 -0.2
0.5s 10.02nm 4.8mb
RSO 42.04 42 (P) 42 52.86 -0.5
CP2 42.23 41 (P) 42 51.13 -3.8X
CRP 42.27 41 (P) 42 54.90 -0.4
PMS 43.52 40 eP 43 05.90 0.6
0.8s 17.80nm 4.9mb
PMR 43.69 40 eP 43 04.95 -1.6
0.8s 12.10nm 4.7mb
FBA 44.00 35 eP 43 09.39 0.3
0.8s 21.85nm 5.0mb
e 43 22.83 50km
CHTO 44.02 252 iPc 43 10.40 0.7
0.8s 23.24nm 5.0mb
KLU 45.23 40 eP 43 16.85 -2.2
NST 45.34 247 eP 43 21.20 1.0
BALM 47.01 40 eP 43 31.26 -1.9
epP 43 46.09 57km
KHT 47.01 248 eP 43 35.00 1.5
NNT 47.80 245 eP 43 40.90 1.2
GUN 48.11 272 Pc 43 42.20 -0.3
KKN 48.62 272 Pc 43 46.00 -0.3
PKI 48.65 272 Pc 43 46.20 -0.4
DMN 48.85 272 Pc 43 48.00 -0.1
GKN 48.98 273 Pc 43 48.80 -0.2
FRU 49.13 295 ePc 43 49.20 -0.6
2.0s 80.00nm 5.4mb
Z 22s 0.80um 4.7Msz
N 22s 0.60um
E 22s 0.90um
e 44 02.00 47km
SNG 51.24 239 eP 44 07.20 1.2
SVE 52.16 316 iPc 44 12.00 -0.6
1.1s 160.00nm 6.0mb
Z 22s 0.50um 4.5Msz
N 21s 0.20um
E 21s 0.50um

```
                          e     44 34.10   90kmX
ARU    53.35 316 eP       44 20.00   -1.4
       1.2s   120.00nm             5.8mb
                          e     44 33.00   47km
                          e     44 42.00
NDI    54.09 278 iPc      44 27.00   -0.2
       0.8s     2.99nm             4.4mb
RES    57.19  16 ePc      44 48.30   -0.6
       0.5s     5.00nm             4.8mb
LEM    58.62 222 iPc      44 51.70   -8.1X
YKA    58.63  32 eP       44 57.80   -1.4
       0.8s     4.20nm             4.6mb
HYB    59.74 266 iPc      45 06.50   -1.0
       1.0s    45.00nm             5.6mb
DAG    60.65 355 eP       45 11.50   -1.4
       0.8s    11.94nm             5.1mb
QUE    60.71 285 eP       45 14.00   -0.1
CTA    62.14 177 eP       45 38.00   14.5X
ASH    62.34 297 eP       45 22.00   -2.8
WB2    62.45 189 iPc      45 24.70   -0.8
       0.5s     6.90nm             5.0mb
                          i     45 39.90   56km
WRA    62.45 189 P        45 25.00   -0.6
       0.9s     4.10nm             4.5mb
MAIO   62.49 295 iPc      45 25.00   -0.9
GBA    63.00 264 P        45 29.00   -0.3
LON    63.80  50 eP       45 28.67   -5.7X
MOS    63.83 323 iPc      45 34.00   -0.3
       2.0s   160.00nm             5.7mb
                          e     45 56.00   86kmX
KAF    64.25 332 iP       45 35.30   -1.6
       0.4s    12.60nm             5.3mb
PUL    64.35 329 (P)      45 37.00   -0.6
       1.5s    70.00nm             5.4mb
DPW    65.15  47 eP       45 41.70   -1.4
                          epP   45 56.05   51km
NEW    65.50  46 eP       45 43.27   -2.1
       0.9s    20.05nm             5.1mb
                          e     45 59.09   58km
NUR    65.93 332 iP       45 46.40   -1.4
       0.4s    27.60nm             5.6mb
ASPA   66.18 189 iPc      45 49.40   -0.3
       0.7s     6.00nm             4.7mb
                          e     46 05.10   57km
SES    67.33  42 ePc      45 56.50   -0.4
                          pP    46 11.00   52km
GDH    68.09   6 iPd      46 00.90   -0.4
       1.0s    36.00nm             5.3mb
ORV    68.20  56 eP       46 02.88    0.4
KIV    68.47 310 ePc      46 04.20    0.0
       1.1s   131.00nm             5.8mb
                          e     46 20.90   61km
                          e     55 01.90
RMQ    68.64 175 eP       46 21.10   16.0X
FCC    68.73  28 ePc      46 07.70    2.3
UPP    68.80 334 iP       46 04.50   -1.3
GRS    69.07 305 iPc      46 07.00   -1.1
       1.5s    40.00nm             5.1mb
WARB   69.81 196 eP       46 13.00    0.6
       0.6s     6.00nm             4.7mb
LCCM   69.82  46 eP       46 13.20    0.7
                          e     46 27.00   48km
CMB    69.82  57 eP       46 10.80   -1.7
       0.7s     6.15nm             4.6mb
                          e     46 26.89   58km
HFS    69.83 336 eP       46 10.70   -1.4
       0.5s    16.30nm             5.2mb
   Z   19s      0.12um             4.2Msz
                          LR    12 35.00
NB2    69.84 337 P        46 10.80   -1.4
       0.9s    23.00nm             5.1mb
KVN    70.59  55 eP       46 18.16    0.8
                          e     46 29.54   38kmX
TNP    71.74  55 eP       46 24.20   -0.1
       0.7s     6.63nm             4.7mb
KER    71.79 300 iPc      46 24.70    0.1
DUG    72.98  51 eP       46 30.84   -0.7
       0.8s     5.29nm             4.5mb
                          epP   46 45.53   52km
TPNV   73.05  55 eP       46 33.22    1.2
       0.8s    20.16nm             5.1mb
BW06   73.09  47 eP       46 30.53   -1.7
                          epP   46 43.75   46km
BSD    73.43 332 iP       46 33.50   -0.1
       0.7s    14.00nm             5.0mb
                          e     46 49.00   55km
DAU    73.73  50 (P)      46 35.45   -0.6
GSC    73.78  57 eP       46 37.21    1.1
                          epP   46 50.79   47km
COP    73.81 333 iPc      46 35.60   -0.2
       0.8s    29.85nm             5.3mb
STK    73.83 181 eP       46 37.00    1.0
       0.7s     1.70nm             4.1mb
EMUT   74.38  50 eP       46 39.95    0.2
ULM    74.42  35 eP       46 42.00    2.5
MSU    74.46  52 eP       46 40.83    0.6
                          epP   46 53.75   44kmX
SRU    75.02  51 eP       46 43.53    0.1
                          epP   46 55.63   41kmX
RSSD   75.07  43 eP       46 43.11   -0.6
       0.7s     7.94nm             4.8mb
KAS    75.13 313 eP       46 44.30    0.5
OJC    75.39 326 iP       46 45.20    0.1
                          e     47 07.60   85kmX
UZH    75.54 324 eP       46 45.00   -0.9
                          e     47 08.00   87kmX
VRI    75.56 320 eP       46 46.50    0.4
ISR    76.18 319 eP       46 51.00    1.3
KSP    76.31 329 iPc      46 50.40    0.2
       0.9s    22.00nm             5.1mb
                          i     47 12.50   83kmX
GLA    76.49  58 eP       46 52.56    0.9
                          epP   47 05.60   45kmX
BWA    76.51 175 iPd      46 53.30    1.9
                          i     47 08.30   53km
CMP    76.80 320 ePd      46 55.00    1.9
PSZ    77.12 325 eP       46 50.50   -4.4X
CLL    77.17 330 iPc      46 54.40   -0.6
       1.0s    32.00nm             5.3mb
                          epP   47 14.00   73km
BRG    77.18 330 iPc      46 55.00    0.0
       1.0s    14.00nm             4.9mb
                          e     47 17.60   85kmX
CAN    77.43 175 eP       46 58.40    1.9
                          i     47 12.70   50km
GOL    77.49  47 eP       46 57.47    0.1
       1.0s     7.47nm             4.7mb
                          epP   47 12.51   53km
PRU    77.66 329 Pc       46 58.10    0.4
       0.8s    10.90nm             4.9mb
                          e     47 07.60   30kmX
                          e     47 18.50
SRO    77.88 326 eP       46 59.10    0.2
WIT    78.08 335 eP       47 00.00    0.1
ZST    78.08 326 eP       47 00.50    0.5
MOX    78.22 331 iPc      47 00.80    0.0
       1.3s    22.00nm             5.0mb
                          e     47 20.10   71km
HOF    78.40 331 iPc      47 01.80    0.0
       0.8s    14.00nm             5.0mb
EKA    78.59 341 P        47 03.00    0.3
       1.7s    40.50nm             5.1mb
JAQ    78.64  22 eP       47 16.00   13.0X
KHC    78.73 329 iPc      47 04.00    0.4
       0.9s     9.00nm             4.7mb
                          i     47 26.50   85kmX
                          e     47 40.00
WTS    78.73 334 eP       47 03.50    0.0
       0.8s    14.40nm             5.0mb
                          e     47 20.00   59km
GEC2   78.91 329 Pc       47 04.60   -0.1
       0.5s     3.66nm             4.5mb
                          e     47 10.30   18kmX
                          e     47 20.60
                          e     47 27.40
                          e     47 40.80
WET    78.98 329 iPc      47 05.60    0.6
       1.0s    15.00nm             4.9mb
GRF    79.15 331 iPc      47 06.70    0.8
       1.1s    49.00nm             5.3mb
   Z   20s      0.20um             4.5Msz
                          epP   47 22.60   57km
                          esP   47 29.50
HRI    79.59 306 iPc      47 09.50    0.8
CSS    79.84 308 eP       47 10.10    0.2
ENN    80.07 334 eP       47 10.50   -0.3
       0.8s    11.30nm             4.8mb
                          e     47 26.50   57km
                          e     47 33.50
FUR    80.39 330 iPc      47 13.10    0.5
KBA    80.49 328 iPd      47 14.10    0.8
       1.0s    17.70nm             4.9mb
                          i     47 33.40   71km
                          i     47 37.00
DMU    80.78 343 eP       47 15.40    0.9
SNF    80.82 335 Pc       47 14.60   -0.1
LJU    80.85 327 e(P)     47 14.50   -0.5
WLF    80.94 333 P        47 17.00    1.6
VAY    80.96 319 iP       47 16.20    0.6
WATA   80.97 329 iPc      47 16.10    0.3
VBY    80.99 326 iP       47 15.60   -0.1
SKO    81.00 320 iP       47 16.70    0.8
       1.0s    42.00nm             5.3mb
WTTA   81.00 329 iPc      47 16.30    0.3
                          i     47 32.70   58km
                          i     47 35.90
BGIO   81.06 305 iPc      47 17.30    0.8
DOU    81.08 334 P        47 16.10    0.0
VOY    81.12 327 e(P)     47 15.70   -0.9
MOTA   81.14 329 iPc      47 16.90    0.2
       0.8s    27.80nm             5.3mb
CEY    81.14 326 eP       47 16.00   -0.6
SQTA   81.20 329 iPc      47 17.30    0.3
       0.8s    15.70nm             5.0mb
DLF    81.25 342 eP       47 17.30    0.3
DCN    81.38 343 eP       47 17.60    0.0
TRI    81.44 327 eP       47 17.30   -0.8
                          e     47 39.70   84kmX
RIY    81.48 326 eP       47 17.80   -0.5
OGA    81.57 329 iPc      47 19.50    0.5
       0.8s    13.00nm             5.0mb
CDF    81.63 332 eP       47 19.10   -0.1
       1.0s    17.20nm             5.0mb
OHR    81.97 320 iP       47 21.20    0.2
       0.8s    48.00nm             5.6mb
BSF    82.30 332 iPc      47 22.20   -0.5
       0.7s     3.75nm             4.5mb
HAU    82.30 332 iPc      47 22.30   -0.3
       0.9s     8.70nm             4.8mb
   Z   22s      0.20um             4.4Msz
MBH    82.56 304 eP       47 25.00    0.7
PGD    83.77 327 P        47 31.62    1.2
       0.9s    25.80nm             5.3mb
LOR    83.78 333 eP       47 30.10   -0.1
       0.9s    22.75nm             5.2mb
FLN    83.82 337 iPc      47 30.10   -0.2
       0.9s    14.40nm             5.0mb
   Z   20s      0.17um             4.4Msz
LDF    83.86 336 iPc      47 30.30   -0.2
MME    83.92 328 P        47 32.15    0.9
       0.9s    26.90nm             5.3mb
LBF    83.99 333 iPc      47 31.10   -0.2
       0.9s    17.05nm             5.1mb
ASS    84.05 326 P        47 32.02    0.3
       1.3s    22.70nm             5.0mb
BDI    84.07 328 P        47 31.45   -0.3
SSF    84.08 334 iPc      47 31.70    0.0
       0.8s    13.70nm             5.0mb
HYF    84.18 334 eP       47 32.60    0.4
GRR    84.26 337 iPc      47 32.70    0.2
       0.8s    17.60nm             5.2mb
LPL    84.30 331 iPc      47 33.60    0.5
       0.8s     9.65nm             4.9mb
LPG    84.31 331 iPc      47 33.70    0.5
       0.6s     9.75nm             5.0mb
AQU    84.33 325 P        47 33.93    0.9
       1.0s    39.80nm             5.4mb
SMF    84.33 333 eP       47 33.20    0.2
       0.9s    20.80nm             5.2mb
AVF    84.37 334 iPc      47 33.40    0.3
LPF    84.64 337 iPc      47 34.90    0.5
       0.6s     6.05nm             4.9mb
CKI    84.66 329 P        47 34.22   -0.4
       0.8s    18.80nm             5.2mb
BNI    84.72 331 P        47 35.84    0.7
       1.0s    11.60nm             4.9mb
ORI    84.84 322 P        47 36.68    1.1
       1.0s    61.90nm             5.7mb
RFI    84.94 324 P        47 37.79    1.8
       1.5s    45.70nm             5.4mb
MAF    85.13 334 eP       47 37.80    0.8
       1.0s    37.80nm             5.5mb
TCF    85.19 334 iPc      47 37.70    0.4
       1.0s    10.00nm             4.9mb
TDS    85.21 322 P        47 38.13    0.7
       0.7s     5.70nm             4.8mb
LSF    85.44 334 iPc      47 38.90    0.4
       0.8s    16.50nm             5.2mb
SBF    85.46 330 eP       47 38.30   -0.4
MFF    85.65 336 iPc      47 40.20    0.7
GRI    85.85 321 P        47 41.22    0.5
```

15d 03h

```
       1.0s    26.30nm              5.4mb
LRG   86.21 330 iPc    47 42.40    0.1
       0.9s    36.35nm              5.6mb
     Z 22s     0.20um               4.5Msz
LMR   86.26 330 iPc    47 42.60    0.0
RJF   86.28 334 iPc    47 43.30    0.6
       0.9s    15.05nm              5.2mb
     Z 24s     0.25um               4.5MszX
CAF   86.44 333 iPc    47 44.70    1.2
       1.0s    34.00nm              5.5mb
SOI   86.62 321 P      47 44.54    0.1
       0.4s     6.50nm              5.2mb
LFF   86.86 334 iPc    47 46.60    1.1
       0.9s    32.75nm              5.5mb
LPO   86.94 334 iPc    47 46.90    1.0
       0.7s    16.85nm              5.4mb
ELC   87.55  39 eP     47 49.85    0.9
EPF   88.69 334 iPc    47 54.80    0.4
       1.1s    13.45nm              5.1mb
LMN   88.78  19 eP     47 58.50    3.8X
ETOR  91.46 334 eP     48 08.00    0.6
KIC  123.40 321 PKP    53 58.60    0.0
ZOBO 142.76  55 PKP    54 34.00   -1.7
                LR     44 12.00
LPB  142.97  56 ePKP   54 36.00    0.2
CNCB 143.26  56 PKP    54 34.30   -2.2
SIV  146.57  46 PKP    54 48.00    6.6X
     S.D. = 1.0  on 206 of 218 obs.
```

```
• MAR 15, 1993 03h 52m 32.11± 1.27s
  66.697 N ± 8.8km   12.961 E ±16.3km
  DEPTH = 10.0km (geophysicist)
 NORTHERN NORWAY                 (646)
    MD 2.8 (BER).

MOR7   0.82 119 eP     52 49.08    1.0
                eS     53 00.90
LOF    1.46   9 eP     52 59.44    1.0
                eSg    53 22.59
NSS    2.22 191 eP     52 45.39  -24.0X
                eSg    53 13.88
ARA0   5.48  53 Pn     53 54.26   -1.5
                Sn     54 55.41
                Lg     55 26.06
NRA0   6.02 187 Pn     54 03.22    0.0
                Sn     55 10.20
                Lg     55 42.40
HFS    6.60 177 eP     54 11.00   -0.5
       0.1s     0.20nm              4.0mb
     S.D. = 1.5  on  5 of  6 obs.
```

```
• MAR 15, 1993 04h 15m 35.55± 1.51s
  7.292 S ± 8.4km  106.796 E ±11.1km
  DEPTH = 73.5 ± 14.1 km
  5.1mb ( 17 obs.)
 JAWA, INDONESIA                 (277)

LEM    0.94  60 iPd    15 56.50    2.6
                iS     16 11.00
NANU  17.36 152 iPd    19 31.50   -3.0
MBL   18.68 139 eP     19 49.00   -1.6
MEEK  22.28 151 eP     20 28.00    0.1
                e      20 40.00
                eS     24 22.00
WB2   29.53 118 iPc    21 34.30   -1.2
       0.7s     7.80nm              4.5mb
                e      24 37.10
ASPA  30.68 125 iPd    21 44.60   -1.0
       0.9s     8.90nm              4.5mb
GBA   35.79 305 P      22 30.00    0.2
PKI   40.37 330 P      23 07.00   -1.3
GUN   40.42 331 P      23 07.20   -1.5
       0.6s    14.00nm              5.0mb
STK   40.60 132 iPd    23 10.20    0.5
       0.4s    40.50nm              5.6mb
KKN   40.61 330 P      23 08.20   -1.9
GKN   41.11 330 P      23 11.80   -2.3
       0.4s    10.00nm              5.0mb
XAN   41.15   3 P      23 14.40    0.1
       0.4s     2.50nm              4.4mb
                sP     23 30.60
TIY   45.08   6 eP     23 44.40   -1.7
NDI   45.75 323 eP     23 51.00   -0.5
GTA   46.91 353 eP     24 00.00   -0.7
CAN   47.66 132 eP     24 07.30    0.7
CN2   53.59  17 eP     24 51.40    0.2
       0.8s     5.80nm              4.7mb
                epP    24 55.00   12kmX
MAIO  62.02 318 eP     25 50.00   -0.7
MTD   73.82 255 iPc    27 05.20    0.6
                ipP    27 09.50   14kmX
BFT   74.96 245 iPc    27 12.80    1.5
       0.5s    12.00nm              5.1mb
BUL   76.46 251 iPc    27 20.00    0.2
       0.9s    15.55nm              4.9mb
SLR   76.55 245 iPc    27 20.20    0.0
       0.5s    20.00nm              5.3mb
SEK   77.07 243 iPc    27 24.20    1.2
       0.7s    33.00nm              5.4mb
LSZ   77.17 256 iPc    27 24.00    0.3
PRY   77.24 244 iPd    27 25.00    1.0
       1.0s    30.00nm              5.2mb
BLF   78.31 242 eP     27 24.50   -5.3X
FRS   79.04 241 iPc    27 33.20   -0.4
       0.7s    11.00nm              4.9mb
CSS   80.80 307 eP     27 43.50    0.6
SPA   82.75 180 iPd    27 52.80    0.2
       0.7s    23.44nm              5.2mb
CER   83.96 237 iPc    28 09.00    9.7X
       1.2s   100.00nm              5.7mb
BCAO  88.83 275 iPc    28 23.10   -0.4
       0.5s    13.00nm              5.4mb
                ic     28 44.50
KAF   91.96 332 iP     28 38.20    1.3
       0.5s     3.30nm              5.0mb
YKA  117.20  20 ePKP   34 12.50   -1.1
       0.5s     0.50nm
RSSD 134.51  31 ePKP   34 47.24   -0.3
ELC  146.78  24 ePKP   35 11.42    2.1
UYO  146.83  33 iPKPc  35 11.10    1.6
MIAR 147.02  32 ePKP   35 10.65    0.9
OLY  147.30  28 ePKP   35 11.42    1.2
GBTN 150.01  18 ePKP   35 16.72    2.3
SIV  153.93 207 ePKP   35 27.00    6.3X
                i      35 35.40
                i      35 49.20
     S.D. = 1.4  on 38 of  41 obs.
```

```
  MAR 15, 1993 04h 29m 53.97± 0.53s
  39.233 N ±10.4km   76.897 W ±10.8km
  DEPTH =  5.0km (geophysicist)
 CHESAPEAKE BAY REGION           (493)
    mbLg 2.7 (GS). Felt in the
    Columbia-Laurel area, Maryland.

MVL    0.87  29 Pg     30 11.00   -0.2
                Sg     30 23.00
NED    1.03  63 iPc    30 13.69   -0.2
                iS     30 27.29
BWD    1.17  61 iPc    30 15.39   -0.8
                iS     30 31.60
BVD    1.21  63 iPc    30 16.89    0.0
                iS     30 34.59
NA5    1.39 209 eP     30 19.50   -0.4
                S      30 36.63
GHV    1.72 214 P      30 25.13    0.4
                S      30 47.18
CVL    1.75 225 eP     30 25.41    0.3
                eS     30 48.65
PBV    2.30 193 P      30 32.22   -0.9
                S      31 05.00
GPD    2.58  46 (Pn)   30 37.76    0.6
                S      31 13.55
TBR    2.80  46 (Pn)   30 41.00    0.8
                ePg    30 44.01
                S      31 19.49
PAL    2.89  51 (Pn)   30 41.66    0.1
                S      31 22.88
CRNY   3.30  50 (Pn)   30 51.23    4.0X
                S      31 34.38
BLA    3.43 235 (Pn)   30 51.65    2.4X
                S      31 38.79
NAV    3.61 239 (Pn)   30 50.58   -1.2
                S      31 44.31
CEH    3.76 208 (Pn)   30 55.72    1.8
                S      31 47.77
     S.D. = 0.9  on 13 of  15 obs.
```

```
  MAR 15, 1993 04h 57m 33.09± 0.64s
  19.438 N ±11.6km   38.762 E ± 6.7km
  DEPTH = 10.0km (geophysicist)
  4.7mb ( 25 obs.)  4.3Msz (  3 obs.)
 RED SEA                         (554)
    MD 4.5 (RYD).

ABHA   3.96 107 eP     58 32.30   -3.1
                eS     59 14.00
KMTA   4.09 107 eP     58 40.00    2.8X
                eS     59 18.60
DHJN   4.82 111 eP     58 51.60    3.8X
                eS     59 42.00
BHL   14.67 350 P      01 06.00    3.4X
                S      05 20.00
CSS   16.19 344 eP     01 28.00    5.7X
KER   16.60  25 eP     01 31.00    3.4X
NAI   20.67 186 P      02 34.00   17.9X
     Z 16s     0.57um               4.0MszX
                S      09 16.00
GRS   21.03  17 eP     02 21.00    1.4
       1.7s    50.00nm              4.6mb
                eS     06 26.00
ERE   21.26  12 iP     02 24.00    2.2
     Z 14s     0.70um               4.2MszX
                eS     06 25.00
MTA   22.78  12 iP     02 39.60    2.8X
       0.8s    10.00nm              4.4mb
KIV   24.67   7 (P)    02 53.70   -1.6
       1.9s    20.00nm              4.4mb
                e      03 31.10
                (S)    06 34.80
BCAO  24.73 235 iPd    02 58.30    2.2
       1.5s    85.00nm              5.2mb
                id     03 03.00
                ic     04 05.10
MAIO  24.78  43 eP     03 02.00    5.5X
                eS     07 36.00
ASH   25.12  39 eP     02 44.50  -15.1X
QUE   27.66  62 eP     03 30.40    7.0X
SRO   32.82 334 eP     04 12.50    3.8X
SPC   33.20 338 eP     04 14.00    1.7
TRI   33.35 327 eP     04 14.20    0.8
ZST   33.63 334 eP     04 16.00    0.2
GEC2  35.60 331 P      04 33.00    0.1
       1.3s     6.70nm              4.3mb
                e      04 37.80
KHC   35.87 332 eP     04 35.00    0.0
                e      04 41.50
KSP   36.03 336 eP     04 35.50   -0.8
MTD   36.68 192 iPd    04 45.80    3.6X
BRG   37.00 334 iP     04 44.40   -0.1
       1.4s    24.00nm              4.8mb
GRF   37.35 330 eP     04 47.20   -0.2
KSH   37.70  50 P      04 54.00    3.3X
CLL   37.72 334 eP     04 50.00   -0.5
       1.4s    13.00nm              4.5mb
MOX   37.84 332 eP     04 52.10    0.6
       2.0s    24.00nm              4.6mb
BSF   38.39 325 eP     04 56.10   -0.2
CDF   38.48 326 eP     04 56.60   -0.4
HAU   38.73 325 eP     04 58.80   -0.3
LBF   39.49 322 eP     05 04.90   -0.6
       1.2s     9.80nm              4.4mb
LOR   39.71 322 eP     05 06.90   -0.3
       1.4s    24.40nm              4.7mb
AVF   39.75 321 eP     05 07.00   -0.6
ARU   39.78  17 eP     05 10.00    2.3X
       2.0s   200.00nm              5.4mb
SSF   39.80 322 eP     05 07.60   -0.4
       1.3s    14.10nm              4.5mb
MAF   39.93 320 eP     05 09.20    0.1
       1.5s    21.95nm              4.6mb
BGF   39.93 321 eP     05 09.30    0.2
       1.5s    53.30nm              5.0mb
BUL   40.57 195 eP     05 17.50    2.7X
SVE   40.72  18 ePd    05 19.80    4.4X
GKN   42.65  70 P      05 34.00    2.1
LPF   42.96 321 eP     05 33.00   -0.9
       1.1s    16.85nm              4.7mb
FLN   42.98 322 eP     05 33.10   -0.9
       1.1s    18.30nm              4.7mb
DMN   43.06  70 P      05 37.00    1.7
KKN   43.22  70 P      05 38.20    1.7
PKI   43.33  70 P      05 37.20   -0.4
GUN   43.75  70 P      05 41.00    0.0
LIC   44.53 259 P      05 47.00    0.0
     Z 20s     0.10um               3.7Msz
NB2   45.88 342 P      05 56.80   -0.4
       1.3s    10.80nm              4.7mb
WMQ   47.39  48 P      06 10.70    1.2
       1.5s    24.00nm              5.1mb
     Z 20s     0.54um               4.5Msz
                pP     06 20.00   31kmX
```

ELT 49.65 36 eP 06 27.00 0.3
1.4s 27.00nm 5.0mb
GTA 55.73 55 eP 07 12.00 -0.5
1.0s 6.00nm 4.6mb
NRI 58.20 18 eP 07 29.00 -0.3
e 07 34.00
LZH 58.93 59 eP 07 36.50 1.2
2.0s 51.00nm 5.3mb
Z 20s 0.30um 4.4Msz
pP 07 40.00 12kmX
ZAK 59.07 42 eP 07 35.00 -0.7
2.0s 31.00nm 5.1mb
Z 16s 0.70um 4.9MszX
E 16s 0.68um
HHC 64.71 53 eP 08 15.20 1.3
1.6s 37.00nm 5.3mb
Z 28s 0.59um 4.6MszX
TIY 65.68 57 eP 08 23.40 3.3X
Z 16s 0.71um 5.0MszX
BOD 66.01 35 eP 08 19.00 -2.8
1.0s 16.00nm 5.2mb
MGD 83.75 28 eP 10 01.00 -2.5
YKA 95.66 348 eP 10 59.70 -0.3
0.8s 0.50nm 4.0mb
PMG 110.34 93 ePKP 16 04.50 -3.5X
S.D. = 1.2 on 43 of 61 obs.

MAR 15, 1993 06h 37m 10.92± 0.47s
43.891 N ± 3.4km 7.889 E ± 3.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 3.4 (GEN), 3.2 (LDG), 3.1
(STR). MD 2.8 (LJU).

IMI 0.02 1 P 37 12.80 -0.1
SAOF 0.26 292 Pg 37 16.08 -0.3
SBF 0.33 265 Pg 37 17.04 -0.7
AUTN 0.35 288 Pg 37 18.00 -0.2
Sg 37 22.71
FIN 0.39 36 P 37 19.90 0.9
S 37 25.90
ROB 0.40 358 P 37 19.20 0.0
S 37 25.00
AURF 0.41 270 Pg 37 18.73 -0.5
Sg 37 24.34
REVF 0.41 248 Pg 37 19.03 -0.2
Sg 37 24.92
TOUF 0.48 285 Pg 37 20.34 -0.3
Sg 37 26.72
STV 0.54 311 P 37 20.80 -1.0
S 37 27.70
CALN 0.74 259 Pg 37 24.99 -0.5
PCP 0.80 36 P 37 26.80 0.2
PZZ 0.84 318 P 37 26.10 -1.1
FRF 0.96 250 Pg 37 28.80 -0.4
Sg 37 42.00
FRF 0.96 250 Pn 37 29.50 0.3
BHB 1.05 335 P 37 29.70 -1.1
S 37 43.40
LMR 1.15 241 Pn 37 31.60 -0.8
Pg 37 32.00
Sg 37 46.20
LRG 1.19 249 Pn 37 33.10 0.0
Pg 37 33.80
Sg 37 48.20
RRL 1.30 323 P 37 34.30 -0.8
RSP 1.34 341 P 37 34.60 -1.1
TAVF 1.35 259 Pg 37 36.36 0.5
GANF 1.43 275 Pg 37 38.04 1.0
Sg 37 57.00
BORS 1.44 75 P 37 37.13 0.1
S 37 55.43
CDR 1.55 263 iPgd 37 38.70 0.1
i 37 39.30
eSg 37 55.70
e 37 57.80
i 37 58.70
PGF 1.57 148 Pn 37 37.30 -1.7
Sn 37 56.10
VILF 1.57 269 Pg 37 40.24 1.3
Sg 38 01.80
PUYF 1.63 258 Pg 37 40.74 1.0
Sg 38 02.17
LSD 1.65 342 P 37 40.50 0.2
S 38 02.10
BERF 1.70 251 Pg 37 42.64 1.8
Sg 38 04.21
ORX 1.74 2 P 37 41.70 0.2
LPG 1.80 334 Pn 37 43.10 0.6
LPL 1.82 334 Pn 37 43.50 0.7
TREF 1.83 263 Pg 37 44.66 1.9
Sg 38 09.39
GELF 1.86 255 Pn 37 42.50 -0.6
PRAF 1.97 268 Pn 37 44.40 -0.3
LBF 4.14 320 Pn 38 16.00 0.4
Sn 39 04.30
HAU 4.25 346 Pn 38 16.70 -0.5
Sn 39 06.40
CAF 4.30 286 Pn 38 16.80 -1.1
AVF 4.32 314 Pn 38 18.60 0.5
Sn 39 08.00
LOR 4.41 321 Pn 38 19.40 0.1
Sn 39 08.60
SSF 4.42 317 Pn 38 20.60 1.0
Sn 39 09.10
MAF 4.43 304 Pn 38 21.10 1.4
BGF 4.45 309 Pn 38 21.30 1.3
Pg 38 36.40
CDF 4.54 355 Pn 38 20.20 -1.1
Sn 39 13.30
TCF 4.68 303 Pn 38 23.90 0.6
Sn 39 16.80
VOY 4.77 61 e(Pg) 39 13.90 49.3X
eSg 39 17.80
e 40 11.00
LPO 4.88 282 Pn 38 23.50 -2.5
GEC2 6.38 37 Pn 38 50.40 3.1X
Sn 39 59.10
LDF 7.28 313 Pn 39 00.20 0.4
LPF 7.47 307 Pn 39 02.90 0.4
GRR 7.56 310 Pn 39 04.00 0.3
FLN 7.57 313 Pn 39 03.50 -0.4
S.D. = 0.9 on 50 of 52 obs.

? MAR 15, 1993 06h 43m 14.34± 2.96s
32.574 S ±22.5km 179.530 E ±57.5km
DEPTH = 438.4 ± 30.5 km
4.3mb (1 obs.)
SOUTH OF KERMADEC ISLANDS (179)

HBZ 5.11 191 P 44 38.30 -1.7
PUZ 5.58 190 P 44 45.40 0.6
URZ 6.01 199 P 44 48.80 -0.3
S 46 05.20
NOZ 6.15 191 P 44 51.00 0.3
PAHZ 6.59 197 P 44 55.50 0.1
MAHZ 6.73 191 P 44 58.60 1.7
MOH 6.82 196 P 44 58.20 0.3
TTH 7.29 197 P 45 03.60 0.7
NGZ 7.32 205 P 45 03.90 0.5
CNZ 7.36 205 P 45 04.40 0.6
WAHZ 7.56 199 P 45 04.50 -1.5
TEHZ 7.72 196 P 45 08.10 0.4
PGZ 8.44 197 P 45 15.20 -0.5
MNG 8.66 201 eP 45 15.20 -3.0X
S 47 00.00
KIW 9.06 203 P 45 22.50 -0.2
CAW 9.24 201 P 45 23.90 -0.7
DIW 9.36 207 P 45 25.80 -0.3
MRW 9.46 203 P 45 25.60 -1.6
S 47 16.10
TCW 9.59 204 P 45 28.30 -0.3
ORZ 9.97 212 P 45 33.30 0.5
THZ 10.58 208 P 45 40.40 0.6
S 47 41.80
KHZ 10.91 204 P 45 43.40 0.1
DSZ 11.03 212 P 45 45.30 0.6
WB2 42.13 276 eP 50 27.90 0.0
0.3s 4.30nm 4.3mb
S.D. = 0.9 on 23 of 24 obs.

& MAR 15, 1993 07h 07m 02.63s
65.117 N 156.172 W
DEPTH = 10.0km (geophysicist)
NORTHERN ALASKA (676)
<AEIC>. ML 3.5 (AEIC), 3.3
(PMR).

IMA 1.41 46 P 07 28.20 -0.2
S 07 47.80
TTA 2.20 178 P 07 39.70 -0.1
TRF 3.06 120 eP 07 52.05 0.0
FBA 3.56 90 eP 07 57.54 -1.5
CCB 3.60 94 eP 07 58.11 -1.5
GLM 3.72 88 eP 08 00.18 -1.3
SKT 3.77 144 eP 08 01.63 -0.5
SVW 4.03 176 P 08 05.60 -0.2
BGL 4.23 154 eP 08 08.03 -0.6
CP2 4.26 153 eP 08 08.89 -0.2
CRP 4.27 153 eP 08 08.46 -0.8
CPAM 4.28 153 eP 08 08.90 -0.5
CKL 4.30 154 eP 08 08.82 -0.9
CKN 4.31 153 eP 08 09.29 -0.4
SPU 4.37 153 eP 08 09.87 -0.7
SUA 4.41 144 eP 08 10.25 -0.9
GHO 4.67 133 eP 08 14.38 -0.6
PMR 4.75 135 eP 08 14.63 -1.3
NCT 4.81 161 eP 08 15.65 -1.2
DFR 4.81 159 eP 08 15.66 -1.3
SML 4.83 130 eP 08 16.72 -0.5
RDW 4.90 160 eP 08 15.53 -2.7
PMS 4.90 139 eP 08 18.40 0.3
RSO 4.93 160 eP 08 17.54 -1.1
PDB 5.43 169 eP 08 24.09 -1.4
KLU 5.88 124 eP 08 31.69 -0.2
26 obs. associated

% MAR 15, 1993 08h 51m 24.57± 1.03s
38.926 N ±12.4km 27.775 E ±18.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.66 217 ePn 51 37.80 0.0
DST 0.95 44 ePn 51 42.50 -0.2
KCT 1.40 19 iPn 51 50.50 0.4
EDC 1.42 3 ePn 51 50.00 -0.4
BNT 1.43 4 ePn 51 50.70 0.1
S.D. = 0.4 on 5 of 5 obs.

? MAR 15, 1993 08h 54m 04.58± 4.30s
30.121 S ±32.3km 179.726 W ±60.9km
DEPTH = 575.7 ± 22.1 km
4.9mb (2 obs.)
KERMADEC ISLANDS REGION (177)

HBZ 7.64 192 P 56 00.90 0.7
eS 57 25.80
PUZ 8.11 191 P 56 05.60 0.8
URZ 8.53 197 P 56 08.00 -0.8
WLZ 8.65 205 P 56 11.60 1.6
NOZ 8.67 192 eP 56 10.90 0.6
PATZ 8.88 201 eP 56 13.70 1.2
MOZ 9.51 207 P 56 19.90 1.4
NGZ 9.82 202 eP 56 20.70 -1.1
CNZ 9.86 202 eP 56 21.60 -0.5
WAHZ 10.08 198 eP 56 23.20 -1.1
BSZ 10.60 203 P 56 30.00 0.6
PGZ 10.97 196 P 56 33.00 -0.1
MNG 11.18 199 eP 56 33.50 -1.7
S 58 28.30
KIW 11.57 201 P 56 37.80 -1.2
MTW 11.68 198 eP 56 39.70 -0.4
CAW 11.75 200 eP 56 40.40 -0.4
DIW 11.84 204 P 56 40.70 -1.1
BLW 11.88 198 eP 56 42.10 0.0
MRW 11.97 201 eP 56 42.00 -1.0
MOW 11.99 198 eP 56 42.60 -0.6
TCW 12.09 202 eP 56 43.20 -1.0
ORZ 12.40 208 P 56 47.30 0.0
THZ 13.05 205 P 56 53.70 -0.2
eS 59 04.00
KHZ 13.41 202 P 56 57.70 0.4
eS 59 09.50
DSZ 13.47 208 P 56 57.50 -0.4
LTZ 14.17 205 P 57 04.30 -0.6
MQZ 14.86 202 eP 57 11.70 0.2
LRCZ 17.22 207 eP 57 34.90 0.3
MHZ 17.25 207 P 57 35.00 0.2
LSCZ 17.26 207 P 57 35.20 0.4
SBCZ 17.26 207 P 57 35.00 0.2
TLC 17.44 207 eP 57 37.60 1.0
TUZ 17.87 205 eP 57 43.20 2.7
STK 33.09 257 iPc 59 55.00 0.0
0.4s 5.40nm 4.5mb
WB2 42.58 273 iPd 01 11.90 -0.5
0.3s 23.30nm 5.2mb
S.D. = 1.0 on 35 of 35 obs.

MAR 15, 1993 08h 57m 55.45± 0.49s
19.434 N ± 8.4km 38.708 E ± 4.8km

15d 08h

```
   DEPTH = 13.4km  ( 2 depth phases)
  4.9mb ( 32 obs.)  4.7Msz ( 2 obs.)
 RED SEA                        (554)
    MD 4.7 (RYD).

ABHA     4.00 106 eP    58 56.70  -1.3
                  eS    59 35.00
KMTA     4.13 107 eP    59 01.40   1.6
                  ed    59 46.60
BHL     14.67 350 P     01 24.00  -0.5
                  S     05 36.00
GRS     21.05  17 eP    02 42.00   0.3
        1.4s    40.00nm         4.6mb
     Z  13s     0.89um          4.3MszX
                  eS    06 30.00
ERE     21.27  12 iP+   02 45.00   1.2
     Z  14s     0.85um          4.3MszX
                  iS    06 48.00
MTA     22.79  12 eP    02 59.00   0.2
        0.8s    20.00nm         4.7mb
SOC     24.09   2 eP    03 12.00   0.6
        2.0s   210.00nm         5.4mb
                  e     03 54.00 220kmX
KIV     24.68   7 (P)   03 17.80   0.5
        2.3s    29.00nm         4.5mb
                  e     03 51.90 171kmX
BCAO    24.69 235 iPd   03 21.00   3.5X
        1.5s   100.00nm         5.2mb
                  id    03 31.90  42kmX
PYA     24.80   7 eP    03 20.00   1.7
        1.3s    70.00nm         5.2mb
     Z  12s     1.00um          4.5MszX
                  e     07 36.00
MAIO    24.81  43 eP    03 21.00   2.4
                  eS    07 56.00
ASH     25.15  39 eP    03 31.00   9.3X
OHR     26.47 329 eP    03 34.00   0.0
SKO     26.83 331 eP    03 37.00  -0.2
QUE     27.71  62 eP    03 49.00   3.3X
SRO     32.80 334 eP    04 31.70   1.3
SPC     33.19 338 eP    04 33.30  -0.7
TRI     33.33 327 eP    04 35.60   0.6
ZST     33.61 334 iP    04 37.20  -0.2
GEC2    35.58 331 Pc    04 54.20  -0.3
        1.5s    11.38nm         4.5mb
                  e     05 15.10  87kmX
KHC     35.85 332 eP    04 56.50  -0.2
KSP     36.01 336 eP    04 57.70  -0.3
MOS     36.25 359 eP    05 00.00   0.1
BRG     36.98 334 iP    05 05.80  -0.3
        1.5s    31.00nm         4.9mb
GRF     37.33 330 eP    05 08.00  -1.1
GBA     37.52  93 P     05 12.00   1.0
CLL     37.70 334 ePc   05 12.00  -0.2
        1.8s    29.00nm         4.8mb
HYB     37.80  86 eP    05 14.00   0.6
BSF     38.36 325 eP    05 17.70  -0.2
        1.4s    24.40nm         4.8mb
SMF     39.36 322 eP    05 25.80  -0.4
LBF     39.46 322 eP    05 26.60  -0.4
        1.5s    31.85nm         4.8mb
CAF     39.58 318 eP    05 28.90   0.8
        1.6s    48.50nm         4.9mb
LOR     39.68 322 eP    05 28.50  -0.3
        1.3s    20.20nm         4.6mb
AVF     39.72 322 eP    05 28.70  -0.4
        1.1s     7.55nm         4.3mb
SSF     39.77 322 eP    05 29.30  -0.3
        1.5s    27.70nm         4.7mb
ARU     39.80  17 eP    05 30.00   0.4
        1.8s   150.00nm         5.4mb
MAF     39.90 320 eP    05 30.90   0.3
        1.4s    21.80nm         4.6mb
BGF     39.90 321 eP    05 30.90   0.3
        1.6s    72.15nm         5.1mb
LPO     40.03 318 eP    05 32.70   1.0
RJF     40.10 319 eP    05 33.10   0.8
        1.9s    50.35nm         4.9mb
TCF     40.15 320 eP    05 33.10   0.4
LFF     40.43 318 eP    05 36.10   1.1
        1.5s    49.60nm         5.0mb
LSF     40.54 320 eP    05 36.40   0.5
SVE     40.74  18 ePc   05 38.00   0.7
        2.2s    50.00nm         4.8mb
     Z  16s     0.50um          4.5MszX
     N  14s     0.40um
     E  14s     0.30um
LDF     42.66 322 eP    05 52.40  -0.8
        1.3s    20.95nm         4.7mb
GKN     42.70  70 P     05 54.00  -0.1
LPF     42.93 321 eP    05 54.60  -0.8
        1.3s    22.40nm         4.7mb
FLN     42.95 322 eP    05 54.80  -0.8
        1.3s    37.55nm         5.0mb
GRR     42.99 321 eP    05 55.00  -0.9
        1.3s    26.00nm         4.8mb
DMN     43.11  70 P     05 57.60   0.1
KKN     43.27  70 P     05 58.60  -0.1
PKI     43.38  70 P     05 59.20  -0.6
GUN     43.80  70 P     06 03.00  -0.2
TIC     44.32 259 P     06 08.50   1.4
ELT     49.68  36 iPd   06 47.40  -1.3
NRI     58.22  18 iPc   07 50.80  -0.5
        1.6s    35.00nm         5.2mb
                  e     07 55.00  14km
LZH     58.98  59 eP    07 57.00  -0.4
        1.8s    51.00nm         5.4mb
     Z  18s     0.35um          4.5Msz
                  pP    08 01.00  13km
ZAK     59.11  42 eP    07 57.00  -0.7
        1.8s    17.00nm         4.9mb
     Z  16s     0.70um          4.9MszX
     E  16s     0.68um
CIT     65.67  41 eP    08 41.00  -0.6
BOD     66.04  35 iPd   08 40.90  -2.9
        1.1s    25.00nm         5.3mb
BJI     68.34  54 eP    08 59.00   0.4
        1.5s    35.00nm         5.3mb
     Z  20s     0.60um          4.8Msz
YAK     73.51  29 eP    09 27.50  -1.8
        1.4s    26.00nm         5.1mb
YKA     95.66 348 eP    11 21.30  -0.5
        0.9s     0.70nm         4.1mb
     S.D. = 0.9  on  60 of  63 obs.
--------------------------------------
% MAR 15, 1993  09h 17m 35.88± 0.76s
  46.522 N ± 8.6km    2.346 E ± 6.7km
  DEPTH = 14.9 ±  6.5 km
 FRANCE                         (538)
     ML 1.6 (LDG).

TCF      0.25 202 Pg    17 41.70   0.1
                  Sg    17 45.40
MAF      0.34 153 Pg    17 43.00  -0.1
                  Sg    17 47.90
BGF      0.35  84 Pg    17 42.70  -0.5
                  Sg    17 47.40
LSF      0.63 245 Pg    17 48.00   0.0
                  Sg    17 56.50
AVF      0.74  68 Pg    17 50.30   0.3
                  Sg    17 58.30
SSF      0.96  55 Pg    17 53.50  -0.2
                  Sg    18 05.50
SMF      1.04  83 Pg    17 55.50   0.5
                  Sg    18 08.30
LBF      1.21  67 Pg    17 58.00   0.0
                  Sg    18 13.40
LOR      1.28  54 Pg    17 59.10   0.0
                  Sg    18 14.80
     S.D. = 0.4  on   9 of   9 obs.
--------------------------------------
   MAR 15, 1993  09h 46m 36.82± 0.52s
  43.433 N ± 3.5km    5.464 E ± 3.9km
  DEPTH =  5.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE     (379)
     ML 2.8 (STR).

GELF     0.06 209 Pg    46 38.37   0.0
PUYF     0.20  60 Pg    46 40.68  -0.2
TREF     0.20 343 Pg    46 40.68  -0.3
BERF     0.20 126 Pg    46 41.53   0.5
CDR      0.33  42 ePgd  46 42.70  -0.7
PRAF     0.43 330 Pg    46 45.66   0.2
VILF     0.46  23 Pg    46 46.10   0.1
TAVF     0.47  67 Pg    46 46.26   0.0
GANF     0.65  30 Pg    46 49.72  -0.1
CALN     1.08  72 Pg    46 58.53   0.8
REVF     1.42  77 Pg    47 03.65   0.3
                  Sg    47 23.62
TOUF     1.42  65 Pn    47 03.67   0.2
                  Sg    47 24.19
AURF     1.43  71 Pn    47 03.15  -0.4
                  Sg    47 24.36
SURF     1.43  42 Pg    47 04.67   1.0
                  Sg    47 25.33
SBF      1.49  73 Pn    47 04.71   0.3
                  Sg    47 25.40
AUTN     1.53  68 Pn    47 04.79  -0.3
                  Sg    47 27.35
SAOF     1.61  69 Pn    47 05.83  -0.2
PGF      2.74 108 Pn    47 21.20  -1.2
     S.D. = 0.5  on  18 of  18 obs.
--------------------------------------
   MAR 15, 1993  10h 48m 49.86± 0.52s
  39.552 N ± 4.9km  112.075 W ± 5.3km
  DEPTH =  5.0km  (geophysicist)
 UTAH                           (478)
     ML 3.0 (GS), 3.3 (SLC).

DUG      0.86 319 ePc   49 06.76  -0.2
                  eS    49 18.57
EMUT     1.01  75 eP    49 09.48  -0.1
                  eS    49 22.71
MSU      1.04 184 ePnc  49 09.75  -0.4
                  eS    49 26.34
DAU      1.07  36 eP    49 11.21   0.6
SRU      1.28 110 iPc   49 13.65  -0.6
ARUT     2.06 212 ePn   49 25.90   0.2
HVU      2.29 347 eP    49 28.20  -0.8
BW06     3.74  30 ePn   49 49.39  -0.4
TPNV     4.19 233 (Pn)  49 56.88   0.9
TNP      4.28 252 ePg   50 09.63  12.3X
GOL      5.18  86 (Pn)  50 11.77   1.6
                  ePg   50 25.95
ALQ      6.42 134 eP    50 26.71  -0.9
     S.D. = 0.9  on  11 of  12 obs.
--------------------------------------
& MAR 15, 1993  10h 59m 48.61s
  61.757 N          149.578 W
  DEPTH =   6.9km
 SOUTHERN ALASKA                 ( 2)
     <AEIC>. ML 2.9 (AEIC), 3.5
     (PMR). Felt (III) at Willow,
     (II) at Palmer and (I) at
     Eagle River.

PWA      0.18 233 P     59 53.20   0.8
                  S     59 58.20
PLRM     0.27 128 iPd   59 54.51   0.4
                  eS    59 59.80
PMR      0.27 128 iPc   59 54.56   0.4
GHO      0.31  87 iPd   59 54.97   0.0
                  eS    00 00.44
PMS      0.51 179 P     59 58.70  -0.3
SML      0.59  84 iPd   00 00.07  -0.5
                  eS    00 08.30
SUA      0.63 243 iPd   00 01.15  -0.1
                  eS    00 10.71
PTE      0.93 163 iPc   00 06.30  -0.4
                  eS    00 18.94
SKT      0.95 284 iPd   00 06.60  -0.4
                  eS    00 19.44
SCM      1.07  85 iPd   00 07.71  -1.4
HUR      1.23 359 ePc   00 11.62  -0.1
CGLM     1.25 250 eP    00 11.87  -0.3
MPA      1.28 175 eP    00 11.04  -1.5
SLKM     1.29 194 eP    00 11.13  -1.7
                  eS    00 28.92
NKA      1.30 219 eP    00 14.17   1.3
SPU      1.32 245 iPd   00 12.66  -0.7
                  eS    00 30.74
CPAM     1.33 249 eP    00 13.06  -0.4
CRP      1.33 249 iPd   00 13.30  -0.3
CKN      1.36 248 ePd   00 13.93   0.0
CP2      1.37 250 iPd   00 13.96  -0.3
CKT      1.38 247 ePd   00 13.85  -0.5
                  eS    00 32.94
BGL      1.44 251 iPd   00 14.95  -0.2
CKL      1.44 248 iPd   00 14.95  -0.3
SEW      1.66 178 eP    00 17.87  -0.3
VLZ      1.68 110 eP    00 18.57   0.1
RND      1.69  11 eP    00 19.08   0.3
TRF      1.73 349 eP    00 20.16   0.7
KLU      1.77  97 ePd   00 19.08  -0.8
DFR      1.91 234 eP    00 21.84  -0.1
RDN      1.99 232 P     00 23.70   0.6
TZL      1.99  80 eP    00 23.68   0.7
MCK      2.01   8 eP    00 25.42   2.1
RSO      2.02 231 iPc   00 24.13   0.5
RS2      2.02 231 ePc   00 24.19   0.6
RS1      2.02 231 iPc   00 24.20   0.6
```

```
NCT      2.02 235 iPc    00 23.91    0.3
HIN      2.02 131 iPc    00 24.37    0.8
RDW      2.02 232 iPc    00 24.18    0.5
SDG      2.05  66 ePd    00 24.07    0.2
BRLK     2.10 198 iP     00 25.30    0.6
CVA      2.22 122 eP     00 26.91    0.6
PAX      2.27  56 iPc    00 27.81    0.6
CNPM     2.38 201 eP     00 29.24    0.5
INE      2.41 227 eP     00 30.66    1.5
INW      2.43 227 eP     00 30.80    1.4
SGAM     2.47 119 iPc    00 30.39    0.5
OPT      2.77 222 eP     00 36.51    2.2
GLB      2.77  94 eP     00 34.89    0.5
NEA      2.84   4 P      00 39.70    4.5
HDA      2.91  23 P      00 39.20    2.9
SVW      2.98 260 P      00 39.20    2.0
PDB      3.00 231 eP     00 38.87    1.4
CCB      3.01  15 eP     00 39.43    1.9
TTA      3.22 294 eP     00 42.20    1.5
FBA      3.26  14 eP     00 40.27   -0.8
                  S      01 28.46
CRQM     3.27 105 eP     00 44.20    2.7
TGL      3.41 104 eP     00 44.99    1.6
BALM     3.55  99 eP     00 45.16   -0.2
IMA      4.69 339 eP     00 58.14   -3.5
YKA     16.25  72 eP     03 44.20    5.6
        0.6s      0.10nm           2.1mb
        60 obs. associated
------------------------------------------
?  MAR  15, 1993  11h 53m 00.09± 1.78s
   11.573 N ±22.7km    88.446 W ±34.0km
   DEPTH =  71.7 ± 14.1 km
   4.4mb (  4 obs.)
 OFF COAST OF CENTRAL AMERICA     ( 76)
       MD 4.8 (GCG).

YUP      2.93 333 eP     53 45.61    0.2
                  eS     54 25.45
IXG      3.24 323 eP     53 49.59   -0.3
                  eS     54 31.96
TER      3.48 321 eP     53 53.50    0.4
                  eS     54 35.57
MRL      3.68 341 eP     53 55.26   -0.7
UYO     23.15 347 iPd    58 02.30    1.4
MIAR    23.34 349 iPc    58 03.45    0.7
        0.9s     15.06nm           4.4mb
ACO     26.81 341 iPd    58 35.10   -0.4
RSSD    35.11 340 eP     59 48.93    0.2
        0.9s      5.80nm           4.5mb
SIV     38.52 135 P      00 17.60    0.1
LCCM    39.55 334 eP     00 37.70   11.8X
YKA     54.20 345 eP     02 18.20   -2.1
        0.9s      1.70nm           4.1mb
RSO     67.44 331 ePc    03 50.84    0.6
TTA     69.61 333 eP     04 03.29   -0.2
        1.0s      4.82nm           4.4mb
GBA    151.33  30 PKP    12 46.00    4.4X
     S.D. = 1.0  on  12 of  14 obs.
------------------------------------------
?  MAR  15, 1993  12h 50m 57.02± 8.01s
   47.424 N ±24.5km     1.294 W ±97.0km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
       ML 2.0 (LDG).

LPF      0.63  16 Pg     51 09.60   -0.1
                  Sg     51 19.80
GRR      1.01  17 Pg     51 16.20    0.1
                  Sg     51 31.10
MFF      1.14 136 Pg     51 18.30    0.0
                  Sg     51 33.60
LDF      1.41  33 Pn     51 22.70    0.0
                  Pg     51 23.90
                  Sg     51 44.00
FLN      1.45  22 Pn     51 23.20    0.0
                  Pg     51 24.70
                  Sg     51 44.90
     S.D. = 0.1  on   5 of   5 obs.
------------------------------------------
%  MAR  15, 1993  13h 10m 23.78± 0.91s
   39.109 N ± 8.5km    27.654 E ±15.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
       MD 2.6 (ISK).

IZM      0.77 203 iPg    10 38.90    0.0
                  eSg    10 50.40
```

```
DST      0.90  56 ePn    10 41.00   -0.1
EDC      1.25   7 ePn    10 46.50   -0.4
KCT      1.26  25 ePn    10 47.50    0.3
BNT      1.26   9 ePn    10 47.50    0.3
     S.D. = 0.4  on   5 of   5 obs.
------------------------------------------
?  MAR  15, 1993  13h 12m 20.52± 1.00s
   44.376 N ± 8.8km     7.341 E ± 8.5km
   DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                    (545)
       ML 1.5 (GEN).

STV      0.13 185 P      12 23.27   -0.1
                  S      12 25.19
ENR      0.16 159 P      12 23.95    0.1
                  S      12 26.24
PZZ      0.21 307 P      12 24.96    0.0
                  S      12 28.01
ROB      0.39 102 P      12 28.32    0.0
                  S      12 33.77
     S.D. = 0.1  on   4 of   4 obs.
------------------------------------------
?  MAR  15, 1993  13h 24m 22.11± 1.17s
   41.182 N ±29.6km    31.618 E ±11.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
       MD 3.0 (ISK).

EYL      1.27 241 ePn    24 45.50   -0.2
                  eSg    25 05.50
GPA      1.34 229 iPn    24 47.00    0.2
HRT      1.52 257 iPn    24 50.00    0.6
KAS      1.63  83 ePn    24 51.00    0.0
                  iSg    25 15.50
YLV      1.81 251 ePn    24 53.00   -0.6
     S.D. = 0.7  on   5 of   5 obs.
------------------------------------------
%  MAR  15, 1993  14h 23m 29.03± 0.99s
   53.098 N ± 5.7km     1.077 W ±11.6km
   DEPTH =   5.0km  (geophysicist)
 UNITED KINGDOM                    (533)
       ML 2.3 (BGS).

CWF      0.39 201 ePg    23 36.80    0.0
                  eSg    23 42.30
KWE      0.47 260 ePgc   23 38.60    0.2
                  eSg    23 45.80
HPK      0.92 339 ePnd   23 46.70   -0.4
                  eSn    23 59.20
LWH      1.26  11 ePn    23 53.20    0.3
                  eSn    24 10.10
HAE      1.39 221 ePn    23 54.80   -0.3
HTR      1.68 234 ePn    23 59.60    0.4
HCG      1.75 245 ePn    24 09.00    8.8X
                  eSn    24 22.80
HGH      1.81 217 ePn    24 00.80   -0.2
     S.D. = 0.4  on   7 of   8 obs.
------------------------------------------
*  MAR  15, 1993  15h 20m 28.93± 1.37s
   50.561 N ±20.6km   178.105 W ± 9.8km
   DEPTH =  33.0km  (normal)
   4.3mb ( 10 obs.)
 ANDREANOF ISLANDS, ALEUTIAN IS. (  7)

ADK      1.60  33 iPd    20 55.09   -0.1
SMY      5.32 297 (P)    21 48.55    0.6
SDN     11.64  59 eP     23 15.14   -0.4
SVW     16.37  41 eP     24 18.71    1.2
        0.6s     30.29nm           4.6mb
KDC     16.56  54 eP     24 18.53   -1.4
        0.4s      9.11nm           4.3mb
TTA     17.21  36 eP     24 27.48   -0.6
        0.7s      5.60nm           3.8mb
RSO     17.33  45 eP     24 30.36    0.6
CP2     17.89  43 eP     24 38.49    1.7
CRP     17.93  43 eP     24 38.19    1.0
SLKM    18.51  47 eP     24 43.68   -0.5
IMA     19.93  30 eP     24 57.70   -2.9X
        1.3s     20.66nm           4.3mb
KLU     20.81  46 (P)    25 09.56   -0.1
FBA     21.33  36 eP     25 13.25   -1.6
        0.6s     11.18nm           4.4mb
BALM    22.37  48 eP     25 26.48    1.1
YKA     35.48  46 eP     27 22.10   -1.8
        0.4s      1.50nm           4.3mb
LCCM    43.08  70 ePd    28 32.10    4.8X
TPNV    45.41  83 eP     28 50.95    4.7X
```

```
        0.5s      3.58nm           4.5mb
FVM     60.50  65 eP     30 37.77    0.0
        0.7s      7.66nm           4.9mb
ELC     61.67  65 (P)    30 46.59    0.8
LHS     68.46  62 (P)    31 30.67    1.1
HFS     69.25 354 eP     31 29.90   -4.1X
        0.4s      1.00nm           4.2mb
GEC2    80.46 352 P      32 37.20   -1.4
        0.6s      0.44nm           3.6mb
     S.D. = 1.1  on  18 of  22 obs.
------------------------------------------
%  MAR  15, 1993  15h 26m 18.45± 0.67s
   60.639 N ± 4.8km     5.353 E ± 7.3km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                   (535)
       MD 1.6 (BER).

ASK      0.18 206 iPc    26 22.51    0.1
                  iS     26 24.62
BER      0.26 182 eP     26 24.12    0.2
EGD      0.37 190 eP     26 26.46    0.3
                  iS     26 31.13
SUE      0.51 326 eP     26 28.24   -0.5
                  eS     26 35.92
HYA      0.67  37 eP     26 32.58    0.9
ODD1     0.97 138 eP     26 36.15   -0.7
                  eS     26 49.24
NRA0     3.05  85 ePn    27 07.19   -0.3
                  ePg    27 15.03
                  eLg    27 53.26
     S.D. = 0.7  on   7 of   7 obs.
------------------------------------------
   MAR  15, 1993  15h 32m 38.32± 0.33s
   38.102 N ± 6.1km    45.807 E ± 3.3km
   DEPTH =  10.6km  (  5 depth phases)
   4.8mb ( 52 obs.) 4.2Msz (  3 obs.)
 ARMENIA-AZERBAIJAN-IRAN BORD REG(344)
       Felt (V) in the Tabriz-Sufian-
       Marand area, Iran. Also felt
       (III) at Goris, Armenia.

TAB      0.41  95 iPd    32 48.50    1.7
GRS      1.46  16 iPgc+  33 04.00   -0.7
                  i      33 21.00
ERE      2.31 334 iPn-   33 18.00    0.9
SHE      3.34  40 iPnd   33 32.50    0.9
                  i      33 37.50
                  i      33 40.80
                  i      34 08.50
                  i      34 22.50
MTA      3.68 348 iPn    33 37.40    1.1
                  i      33 44.00
                  iS     34 38.40
KER      3.89 164 eP     33 47.00    7.6X
BAK      3.91  53 ePn    33 25.00  -14.6X
TEH      5.05 116 eP     34 08.00   12.0X
MAK      5.06  14 iPn-   34 09.00   13.1X
                  iS     34 55.00
GRO      5.24 359 ePn    34 11.00   12.5X
     E  12s      12.00um
PYA      6.28 342 eP     34 10.00   -3.1X
     Z  12s       2.00um
KIV      6.31 339 eP     34 16.60    3.0
        1.1s     65.00nm           5.4mb
GAZ      6.88 265 eP     34 37.00   15.3X
SOC      7.16 322 iPd    34 27.00    1.5
        1.1s    150.00nm           6.1mb X
     Z  12s       3.50um           4.0Msz
     N  11s       3.00um
     E  12s       2.50um
KAT      8.26  79 eP     34 40.00   -0.9
                  eS     36 22.00
BHL      9.23 246 P      35 00.00    5.5X
                  S      37 42.00
ANN      9.30 319 eP     34 57.00    1.7
        1.0s     40.00nm           5.7mb
HRI      9.50 243 eP     34 59.50    1.3
KAS      9.83 293 iPd    35 07.80    5.1X
ASH      9.90  87 eP     35 02.00   -1.6
        1.0s    210.00nm           6.5mb X
CSS     10.52 256 eP     35 20.40    8.3X
DSI     10.76 236 eP     35 23.10    7.7X
MAIO    11.07  95 eP     35 19.60   -0.1
        0.8s     18.30nm           5.5mb
SHWJ    11.48 231 P      35 31.80    6.3X
SAGI    12.12 233 eP     35 42.00    8.1X
KIS     15.31 311 iPd-   36 21.00    5.1X
```

15d 15h

```
       1.0s   300.00nm             5.6mb
    Z  14s      0.30um             4.4MszX
VRI    16.15 305 ePc    36 28.50   1.7
CVO    16.49 304 eP     36 33.50   2.4
MLR    16.53 303 ePd    36 36.00   4.3X
CMP    17.06 301 ePd    36 40.00   1.7
OBN    18.11 343 iPc    36 49.20  -2.1
       0.9s    74.00nm             4.8mb
    Z  16s      1.20um             4.4MszX
    N  20s      1.10um
    E  20s      0.60um
                 eS     40 18.00
VAY    18.15 287 eP     36 55.20   3.3X
MOS    18.48 345 eP     36 45.00 -10.8X
SKO    19.04 289 iP     37 04.30   1.5
       1.2s    47.00nm             4.6mb
QUE    19.17 108 eP     37 06.90   2.2
OHR    19.48 287 iPc    37 09.50   1.2
       1.2s   196.00nm             5.3mb
UZH    19.99 309 iPc    37 13.20  -0.3
       1.7s   132.00nm             5.0mb
MNK    20.16 327 eP     37 14.00  -1.2
PVY    20.16 291 iPd    37 16.10   0.5
ARU    20.20  21 eP     37 14.00  -1.7
       2.0s   100.00nm             4.8mb
    Z  18s      1.00um             4.2Msz
    E  16s      1.00um
                 e      37 43.00
                 eS     40 56.00
                 e      41 19.00
                 eSS    41 35.00
IVA    20.24 292 iPd    37 17.32   1.0
PLE    20.65 293 iPd    37 21.19   0.6
ULC    20.67 289 iPd    37 18.72  -2.0
TTG    20.68 290 iPd    37 20.20  -0.5
NKY    20.90 291 iPd    37 23.15   0.0
BDV    20.99 290 iPd    37 22.97  -1.0
SVE    21.15  23 ePd    37 26.00   0.6
       2.1s   180.00nm             5.1mb
    Z  18s      0.50um             3.9Msz
    N  16s      0.40um
    E  16s      0.60um
BRY    21.24 292 iPd    37 26.68   0.0
HCY    21.24 290 iPd    37 25.87  -0.7
PSZ    21.25 306 ePd    37 27.00   0.3
SPC    21.46 309 eP     37 28.50  -0.4
                 i      37 30.50   7km
BUD    21.68 304 eP     37 31.00   0.1
UZD    21.75 302 iP     37 32.00   0.3
OJC    22.12 312 iP     37 34.90  -0.4
       1.0s    90.00nm             5.2mb
                 i      37 37.60  10km
SRO    22.24 305 iP     37 38.90   2.5
FRU    22.37  69 eP     37 38.00   0.1
       2.2s   320.00nm             5.4mb
                 e      38 21.00
ZST    23.12 305 eP     37 45.10  -0.1
ZAG    23.38 299 eP     37 48.00   0.3
PTJ    23.41 299 eP     37 46.90  -1.2
VRAC   23.76 308 eP     37 53.10   1.8
       2.3s   561.10nm             5.7mb
VBY    23.84 298 eP     37 53.00   0.8
LJU    24.41 299 eP     38 00.00   2.2
KSP    24.43 311 eP     37 45.00 -12.8X
                 i      37 59.20  59kmX
CEY    24.45 298 eP     37 59.20   1.1
VOY    24.86 299 eP     38 02.80   0.7
TRI    24.91 298 eP     38 02.90   0.4
PRZ    25.15  70 eP     38 07.00   1.9
       1.0s    20.00nm             4.8mb
PRU    25.23 308 P      38 05.70   0.2
       1.5s    21.60nm             4.6mb
KBA    25.38 301 iPd    38 07.30   0.1
       1.1s    53.80nm             5.1mb
                 i      38 09.80   9km
GEC2   25.47 305 P      38 07.90  -0.1
       0.6s     4.81nm             4.3mb
KHC    25.62 306 P      38 09.40   0.2
       1.5s    29.50nm             4.8mb
                 e      38 16.50  25kmX
                 e      39 06.50
BRG    25.85 310 iP     38 10.20  -1.1
       1.0s    10.00nm             4.5mb
WET    26.07 306 iPc    38 13.50   0.1
NUR    26.10 336 iP     38 14.10   0.6
       0.9s    26.90nm             4.9mb
CLL    26.55 310 eP     38 17.00  -0.7
```

```
       1.2s    23.00nm             4.7mb
WTTA   26.56 301 iPd    38 17.40  -0.7
       1.4s    41.70nm             4.9mb
KAF    26.88 340 iP     38 22.20   1.6
GRF    27.24 306 eP     38 24.30   0.1
       1.4s    26.00nm             4.8mb
                 e      38 29.20  17km
NDI    27.75 100 eP     38 30.00   1.1
LPG    29.81 297 iPd    38 46.60  -1.1
       0.9s     3.75nm             4.2mb
LPL    29.82 297 iPd    38 46.50  -1.2
       1.0s    56.00nm             5.3mb
HFS    29.95 328 eP     38 46.20  -2.3
       0.8s    17.70nm             4.9mb
    Z  17s      0.37um             4.1MszX
                 LR     49 42.00
WTS    30.45 310 eP     38 54.00   1.1
       0.9s    14.20nm             4.8mb
ENN    30.78 307 eP     38 56.50   0.7
       0.9s     7.50nm             4.6mb
NB2    31.47 328 P      38 59.40  -2.5
       1.2s    15.80nm             4.8mb
ELT    31.58  48 eP     39 02.00  -0.8
       1.4s    25.00nm             4.9mb
LBF    31.75 300 eP     39 03.00  -1.5
       0.9s     4.60nm             4.4mb
LOR    31.84 300 eP     39 03.50  -1.7
       0.9s     4.90nm             4.4mb
SMF    31.84 299 eP     39 04.00  -1.3
       0.8s     5.65nm             4.5mb
AVF    32.18 299 eP     39 06.80  -1.4
       0.9s     4.60nm             4.4mb
MAF    32.73 298 iPd    39 12.20  -0.8
       1.3s    16.25nm             4.8mb
TCF    32.97 299 eP     39 14.30  -0.8
       0.9s     5.55nm             4.5mb
CAF    33.14 296 eP     39 15.70  -0.9
       1.1s     9.50nm             4.6mb
MFF    34.59 299 eP     39 27.60  -1.5
       0.8s     7.95nm             4.7mb
GRR    35.02 302 eP     39 31.30  -1.5
       1.2s    41.05nm             5.2mb
LPF    35.15 302 eP     39 32.40  -1.4
       1.2s    14.90nm             4.7mb
HYB    35.28 117 eP     39 36.00   0.7
EKA    36.85 314 Pc     39 47.70  -0.4
       0.9s    38.10nm             5.2mb
GBA    37.18 122 P      39 52.00   0.7
NRI    38.62  22 ePd    40 03.50   0.7
                 e      41 41.00 553kmX
                 e      42 14.00
MOY    40.42  52 eP     40 19.60   1.7
BCAO   41.73 223 iPd    40 31.00   2.0
       0.9s    18.00nm             4.8mb
                 id     40 48.00  68kmX
ZAK    41.96  54 eP     40 31.20   0.6
       1.2s     8.00nm             4.3mb
LZH    45.68  74 eP     41 01.50   0.4
       1.5s    24.00nm             4.9mb
    Z  18s      0.35um             4.3Msz
                 pP     41 04.50  10km
                 sP     41 07.00
BOD    47.57  42 iPc    41 13.40  -2.1
       0.9s    16.00nm             5.1mb
CHTO   49.81  97 eP     41 32.80  -0.6
       0.9s    10.66nm             4.8mb
BDT    50.75  99 eP     41 39.00  -1.5
TIK    52.19  23 eP     41 50.00  -0.8
       1.2s    10.00nm             4.6mb
KIC    55.54 249 P      42 15.00  -1.1
       1.0s    20.00nm             5.1mb
TIC    55.55 249 P      42 15.40  -0.8
LIC    55.84 249 P      42 17.20  -1.0
       1.0s    15.00nm             5.0mb
ILT    69.15  16 eP     43 45.00  -1.3
IMA    75.07   8 eP     44 21.30  -0.3
FBA    76.78   6 eP     44 30.60  -0.5
       1.1s    11.88nm             4.9mb
YKA    78.51 351 eP     44 38.80  -1.9
       1.4s     2.20nm             4.0mb
WRA   100.92 107 Pdiff  46 36.80   7.5X
       0.6s     1.00nm             4.6mb
    S.D. = 1.3  on  97 of 116 obs.
```

```
* MAR  15, 1993  15h 39m 24.70± 0.78s
  52.647 S ±10.0km  160.419 E ±10.3km
  DEPTH =  33.0km  (normal)
 MACQUARIE ISLANDS REGION         (167)

MCQ     2.05 205 eP     39 57.50   0.0
                 eS     40 16.90
SIZ     7.63  44 P      41 16.10  -0.2
                 eS     42 37.30
BCZ     8.22  39 eP     41 24.80   0.3
TUZ     9.00  46 eP     41 35.50   0.3
                 eS     43 08.90
ODZ    10.15  46 eP     41 50.80  -0.4
TAU    13.11 313 eP     42 31.00   0.0
    S.D. = 0.3  on   6 of   6 obs.
```

```
? MAR  15, 1993  15h 47m 13.36± 6.37s
  33.908 S ±20.0km   72.173 W ±43.7km
  DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE       (134)
     MD 3.8 (SAN).

LNV     0.64  94 P      47 26.62   0.5
                 iS     47 36.30
LCCH    0.66  50 iP     47 27.15   0.6
                 iS     47 37.83
TACH    1.06  76 iP     47 33.09  -0.3
CHCH    1.26  92 iP     47 36.76  -0.1
                 iS     47 54.03
CACH    1.32  99 iP     47 37.98   0.1
                 iS     47 56.96
ROCH    1.35  46 iP     47 37.90  -0.4
                 iS     47 58.60
PCH     1.41  79 iP     47 38.43  -0.7
                 iS     47 59.44
PEL     1.46  59 iP     47 40.43   0.7
                 iS     48 00.63
FCH     1.67  70 iP     47 42.99  -0.2
JACH    1.80  48 iP     47 44.69  -0.1
    S.D. = 0.5  on  10 of  10 obs.
```

```
? MAR  15, 1993  15h 57m 47.38± 4.59s
  40.106 N ±14.0km   24.367 E ±32.4km
  DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)
     ML 2.5 (THE).

OUR     0.37 308 ePg    57 55.28   0.2
                 eSg    57 59.20
PAIG    0.56 251 ePg    57 58.68   0.0
                 eSg    58 06.84
SOH     1.05 313 ePg    58 07.00  -0.3
                 eSg    58 20.76
SRS     1.17 330 ePg    58 09.12  -0.1
                 eSg    58 24.56
THE     1.19 297 ePg    58 09.44  -0.2
KNT     1.54 314 ePb    58 15.16   0.3
                 eSb    58 35.80
    S.D. = 0.3  on   6 of   6 obs.
```

```
  MAR  15, 1993  16h 08m 57.88± 0.10s
  26.708 S ± 2.3km   70.918 W ± 3.2km
  DEPTH =  28.9km  (geophysicist)
  6.0mb ( 89 obs.)  6.2Msz ( 50 obs.)
 NEAR COAST OF NORTHERN CHILE     (122)
```

Mw 6.7 (GS), 6.5 (HRV). Ms 5.9 (BRK). Mo=2.2*10**19 Nm (PPT). Some damage (VI) in the Chanaral-Copiapo-Taltal area. Felt (V) at Vallenar; (IV) at Antofagasta, Mejillones, Sierra Gorda, Tocopilla and Vicuna; (III) at Andacollo, Combarbala, La Serena and Maria Elena; (II) at Calama, Coquimbo and Ovalle. Depth from broadband displacement seismograms.

```
FAULT PLANE SOLUTION: P-Waves
 NP1:Strike=347 Dip=75 Slip=-153
 NP2:       249     64      -17
 Principal Axes:
 T               Plg= 7  Azm=116
 P                   30      211
```

Comment: The focal mechanism is moderately well controlled and corresponds to strike-slip faulting with a moderate normal component. The preferred fault plane is not determined.

RADIATED ENERGY
No. of sta: 16 Focal mech. F
Energy 6.0±1.5*10**14 Nm
MOMENT TENSOR SOLUTION
Dep 44 No. of sta: 19
Moment Tensor; Scale 10**19 Nm
Mrr=-0.27 Mtt= 0.30
Mff=-0.03 Mrt= 0.00
Mrf=-0.69 Mtf= 0.77
Principal axes:
T Val= 1.08 Plg=20 Azm=135
N -0.01 46 22
P -1.07 37 240
Best Double Couple:Mo=1.1*10**19
NP1:Strike=271 Dip=48 Slip= -14
NP2: 11 79 -137
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 48S, **C M.W.: 34S, 57C
Centroid Location:
Origin Time 16:09: 9.7 0.1
Lat 26.55S 0.01 Lon 71.16W 0.01
Dep 59.6 1.2 Half-duration 4.2
Moment Tensor; Scale 10**18 Nm
Mrr=-2.26 0.05 Mtt= 0.73 0.06
Mff= 1.53 0.08 Mrt= 0.78 0.05
Mrf=-5.93 0.08 Mtf= 1.25 0.07
Principal Axes:
T Val= 5.92 Plg=35 Azm= 98
N 0.92 12 359
P -6.84 52 253
Best Double Couple:Mo=6.4*10**18
NP1:Strike=232 Dip=15 Slip= -36
NP2: 357 81 -102

ANT 3.02 9 iPd 09 44.30 -0.6
RTRS 3.68 160 ePd 09 58.00 3.8X
FSA 4.44 83 iPc 10 11.00 6.0X
RTLL 5.08 156 iPd 10 16.40 2.3
RTCB 5.11 159 iPc 10 16.80 2.2
ZON 5.20 158 eP 10 19.50 3.6X
SLA 5.27 69 ePd 10 22.80 5.8X
RTPR 5.28 134 e(P) 10 18.10 1.3
CFA 5.41 155 ePd 10 20.90 2.1
JACH 5.96 177 P 10 25.40 -1.2
HJA 6.09 56 iPc 10 33.10 4.8X
ROCH 6.24 181 iPd 10 28.08 -2.6
IHA 6.33 186 eP 10 27.80 -3.8X
i 10 48.80
i(S) 11 44.50
MDZ 6.41 164 iP 10 37.60 4.7X
i 10 59.70
i 11 47.80
iS 12 06.90
PEL 6.42 178 P 10 31.09 -1.9
FCH 6.62 175 iPd 10 35.06 -1.0
iS 11 38.72
SAN 6.73 178 P 10 35.70 -1.6
LCCH 6.77 185 iPd 10 34.10 -3.7X
PCH 6.90 177 iPd 10 37.85 -1.9
TACH 6.92 180 iPd 10 37.05 -3.0
CHCH 7.20 178 iPd 10 41.04 -3.0
TCA 7.21 131 iPc 10 44.00 -0.1
LNV 7.24 183 iPd 10 40.06 -4.3X
MRA 7.27 143 ePc 10 45.70 0.9
CACH 7.39 178 iP 10 44.25 -2.4
ARE 10.21 357 eP 11 24.00 -1.9
eS 13 16.00
CNCB 10.22 16 Pc 11 26.30 0.1
CCH 10.28 26 eP 11 27.00 0.1
LPB 10.46 15 P 11 28.50 -0.9
0.8s 1402.98nm 7.3mb X
iS 13 42.00
LR 14 33.00
ZOBO 10.69 15 iPc 11 31.90 -0.9
LPA 13.82 129 iPc+ 12 13.50 -0.6
0.9s 1048.74nm 6.6mb
eS 14 49.00
SIV 14.06 43 P 12 18.40 1.1
NNA 15.67 338 ePc 12 40.14 1.8
0.7s 23.29nm 4.5mb X
ic 12 42.04
eS 15 34.31
i 16 14.37
PPD 18.45 80 eP 13 13.40 0.1
e 13 17.40
eS 16 43.00

VAO 22.03 86 iPc 13 52.00 0.0
i 13 55.50
CACB 22.61 82 eP 13 57.20 -0.5
e 14 05.80
e 14 12.90
e 17 55.00
e 21 55.00
BAO 24.01 67 iPc 14 11.00 -0.4
e 18 10.90
e 22 04.00
e 28 45.00
BDF 24.07 67 eP 14 11.40 -0.5
CDCB 24.85 81 ePc 14 19.90 0.4
i 14 35.60
eS 18 43.40
PSO 28.42 346 ePKP 14 56.00 3.4X
BOG 31.29 354 iPKP 15 12.00 -6.2X
SOB1 33.31 64 eP 15 35.40 -0.1
SDV 35.38 0 iPc 15 52.00 -1.4
TOV 36.29 2 ePc 16 00.20 -0.8
iPP 16 01.70
ECO 36.85 345 iPc 16 07.76 2.1
CAR 37.19 7 eP 16 10.00 1.4
TCE 38.23 15 eP 16 17.50 0.3
TRN 38.27 15 eP 16 16.00 -1.4
GRW 39.67 14 eP 16 28.82 -0.5
SVB 40.84 14 eP 16 37.32 -1.5
SVV 40.89 15 eP 16 37.98 -1.2
SLB 41.42 15 P 16 40.14 -3.5X
SLW 41.63 15 eP 16 43.50 -1.8
BIM 42.08 14 eP 16 45.40 -3.6X
MVM 42.16 15 eP 16 48.10 -1.5
FDF 42.27 14 eP 16 47.97 -2.6
CRM 42.34 14 eP 16 50.40 -0.7
ACX 51.64 324 (P) 18 04.50 0.3
IISM 52.18 328 (P) 18 09.00 0.8
III 52.69 325 (P) 18 12.50 0.1
PPM 52.85 327 (P) 18 15.00 1.1
IIA 52.94 327 (P) 18 09.50 -4.4X
UNM 53.35 326 (P) 18 18.50 1.2
CRX 53.66 326 (P) 18 22.00 2.4
AGX 57.06 325 (P) 18 46.00 2.1
SNA 57.91 158 e(P) 18 49.90 0.6
0.9s 335.00nm 6.4mb
HBF 59.99 351 eP 19 03.02 -1.0
e 19 18.67
MZX 60.34 322 (P) 19 06.50 -0.1
PRM 61.43 349 eP 19 12.02 -1.8
JSC 61.44 350 eP 19 11.98 -1.9
e 19 28.27
LHS 61.57 351 eP 19 12.38 -2.4
e 19 32.18
NVL 62.67 158 iPc 19 19.60 -2.1
1.6s 783.00nm 6.6mb
Z 20s 14.00um 6.1Msz
N 20s 6.50um
E 20s 11.00um
e 19 36.00
e 19 58.00
e 21 42.00
eS 27 28.00
e 29 06.00
e 31 21.00
LR 46 57.00
CEH 62.74 353 (P) 19 20.52 -2.0
0.3s 95.91nm 6.4mb
Z 21s 4.94um 5.7Msz
e 19 39.84
TKL 63.21 348 eP 19 23.09 -2.6
GBTN 63.30 348 ePd 19 24.03 -2.2
e 19 41.09
SPA 63.45 180 iPc 19 26.70 -0.6
0.9s 413.64nm 6.6mb
i 27 56.70
LTX 63.96 328 P 19 30.00 -0.8
BLA 64.20 352 eP 19 31.03 -1.2
0.8s 53.50nm 5.7mb
NAV 64.36 351 eP 19 31.61 -1.6
UYO 64.53 338 iPd 19 33.00 -1.3
MIAR 64.59 339 ePd 19 33.41 -1.3
1.0s 231.61nm 6.2mb
Z 20s 3.31um 5.5Msz
epPc 19 42.85 30kmX
ec 19 50.79
CVL 64.74 353 ePc 19 34.86 -0.7
e 19 53.89
OLY 64.85 342 eP 19 34.26 -2.2

CBN 64.85 354 eP 19 36.00 -0.3
1.0s 25.00nm 5.3mb
e 19 53.00
ELC 65.94 344 ePd 19 41.51 -1.8
e 19 56.70
MBO 66.45 59 iPc 19 47.40 0.4
iS 28 37.90
FNO 66.52 337 iPc 19 46.60 -0.6
MEO 66.53 335 iPc 19 45.50 -1.7
WMOK 66.56 335 ePd 19 45.81 -1.7
0.6s 47.73nm 5.8mb
Z 20s 3.38um 5.6Msz
ed 19 48.71
ec 19 52.60
epPc 19 54.34 27kmX
ec 20 03.44
OCO 66.79 337 iPd 19 49.10 0.2
FVM 66.90 343 eP 19 47.91 -1.6
1.2s 687.27nm 6.6mb
RRO 67.05 336 iPc 19 50.10 -0.4
CCM 67.18 343 ePd 19 50.28 -1.0
epPc 19 59.72 30kmX
iS 28 39.14
esS 28 58.67
eScS 29 42.78
esScS 30 08.61
eSS 33 04.14
PAL 67.42 358 eP 19 54.27 1.6
GPD 67.46 357 eP 19 51.95 -1.0
SLM 67.47 344 P 19 52.37 -0.7
Z 21s 14.11um 6.2Msz
S 28 46.64
TBR 67.57 357 (P) 19 47.40 -6.3X
CRNY 67.72 358 eP 19 53.38 -1.1
e 20 12.27
ACO 68.44 336 iPd 19 58.30 -1.0
HRV 68.87 359 ePc 20 00.26 -1.4
ed 20 05.80
iS 29 04.80
esS 29 25.21
eScS 29 59.42
esScS 30 23.70
eSS 33 42.15
KDS 69.09 63 iPc 20 07.50 3.9X
TUC 69.90 325 ePd 20 07.99 -0.4
1.3s 125.75nm 5.9mb
ed 20 11.30
epPc 20 17.01 29kmX
ePP 22 43.00
iS 29 17.89
eScS 30 09.04
ALQ 69.93 329 ePd 20 08.63 0.0
0.8s 66.07nm 5.8mb
ANMO 69.94 329 ePd 20 09.66 1.0
ed 20 12.72
epPc 20 19.01 30kmX
ePP 22 45.00
iS 29 18.58
e 29 29.17
esS 29 40.76
eScS 30 08.57
eSS 33 45.89
TYNO 69.94 353 P 20 06.96 -1.3
STCO 69.98 354 P 20 07.59 -0.9
SBA 70.39 191 iPc 20 12.00 1.3
ACTO 70.47 353 P 20 11.45 -0.1
WLVO 70.62 354 P 20 11.45 -0.9
BNH 70.95 360 (P) 20 14.75 0.4
RSNY 70.99 357 eP 20 14.17 -0.4
0.8s 225.69nm 6.3mb
Z 21s 8.53um 6.0Msz
e 20 32.94
S 29 34.96
EMM 71.17 3 eP 20 15.82 0.2
e 20 32.13
RUV 71.43 262 iPc 20 17.60 -0.3
1.9s 1308.50nm 6.7mb
MIM 71.62 1 eP 20 18.33 0.0
VAH 71.63 262 iPc 20 18.60 -0.5
2.1s 1638.40nm 6.7mb
LIC 71.63 73 Pc 20 18.00 -1.1
0.8s 58.50nm 5.7mb
Z 20s 39.20um 6.7Msz
TPT 71.72 262 iPc 20 19.60 0.0
1.9s 1868.10nm 6.8mb
TIC 71.85 73 P 20 19.72 -0.7
0.9s 68.00nm 5.7mb

15d 16h

```
KIC     71.95  73 Pc      20 20.20  -0.8
        0.8s    97.00nm          5.9mb
                   S      29 40.60
PMO     71.96 262 iPc     20 20.80  -0.2
        2.0s  1903.20nm          6.8mb
TVO     72.06 259 iPc     20 21.50  -0.2
        1.3s  1123.50nm          6.7mb
PAE     72.39 259 eP      20 23.30  -0.3
        1.0s   691.20nm          6.6mb
LMN     72.43   4 eP      20 26.00   2.8X
PPT     72.43 259 iPc     20 23.60  -0.2
        1.0s   400.00nm          6.4mb
HNME    72.57   2 eP      20 28.78   4.8X
AFR     72.62 259 eP      20 24.40  -0.5
        0.9s   212.90nm          6.2mb
GLA     72.63 322 ePc     20 24.71   0.0
CBM     73.34   2 (P)     20 29.07   0.6
        0.7s    56.27nm          5.7mb
     Z  20s     5.82um           5.9Msz
                  ed      20 34.53
                  epPc    20 38.09  29kmX
EEO     73.37 354 eP      20 30.50   1.8
GOL     73.46 333 eP      20 29.19  -0.5
        0.8s   112.42nm          5.9mb
                  epP     20 37.88  28kmX
                  ePP     23 22.24
PFO     73.94 322 ePc     20 31.34  -1.1
                  epPc    20 41.28  32kmX
                  ePP     23 14.47
                  iS      30 05.24
                  esS     30 27.09
                  eScS    30 42.32
                  e       31 01.86
                  eSS     34 51.26
PLM     73.98 321 eP      20 33.07   0.3
                  e       20 49.78
PEC     74.54 321 eP      20 35.85   0.0
        1.0s   328.81nm          6.3mb
SSK     75.08 321 eP      20 39.13   0.0
SRU     75.21 329 ePd     20 39.56  -0.2
GSC     75.40 323 ePd     20 41.07   0.3
                  ed      20 44.13
                  epPc    20 50.09  29kmX
                  ec      20 58.95
                  iS      30 21.23
                  eHSS    35 12.55
                  eSS     35 13.87
MSU     75.50 328 eP      20 41.44  -0.1
ARUT    75.55 326 ePd     20 42.24   0.5
EMUT    75.91 329 eP      20 44.24   0.5
CER     76.00 120 iPd     20 43.50  -0.9
        0.5s   350.00nm          6.6mb
TPNV    76.34 324 ePd     20 46.69   0.5
        0.9s   108.59nm          5.9mb
     Z  19s     8.87um           6.1Msz
                  ed      20 49.75
                  ec      20 53.89
                  epPc    20 56.20  30kmX
SBC     76.39 320 ePd     20 46.67   0.4
                  ed      20 49.32
                  ec      20 54.61
                  epPc    20 55.94  30kmX
                  iS      30 30.42
                  e       30 47.14
ISA     76.58 322 ePd     20 47.71   0.3
        1.2s   246.29nm          6.1mb
                  e       21 05.23
DAU     76.59 329 ePd     20 47.95   0.3
RSSD    76.73 336 eP-     20 48.00  -0.3
        1.0s   131.19nm          5.9mb
     Z  21s     3.45um           5.6Msz
                  e       21 06.01
BCH     77.13 321 ePd     20 51.11   0.5
DUG     77.13 328 ePc     20 50.79   0.3
        1.0s   159.92nm          6.0mb
     Z  21s    11.38um           6.2Msz
TNP     77.69 324 eP      20 53.18  -0.5
        0.9s   114.59nm          5.9mb
BW06    77.76 332 ePd     20 53.40  -0.6
        1.1s   111.29nm          5.8mb
PKEM    77.78 321 eP      20 55.14   1.2
PHAM    77.78 321 (P)     20 54.85   0.9
POF     78.09 117 iPc     20 53.00  -2.9
        0.6s   171.00nm          6.3mb
PRI     78.15 321 iPd     20 56.77   0.6
BONR    78.17 324 (P)     20 56.25  -0.2
FRI     78.23 322 eP      20 55.50  -0.9
MEMM    78.30 323 ePd     20 57.56   0.8
HVU     78.37 329 ePd     20 56.80  -0.5
WIN     78.51 109 iPc     20 58.50  -0.1
        1.0s   490.00nm          6.5mb
LLA     78.64 321 iPd     20 59.14   0.4
PRS     78.68 321 iPd     20 59.39   0.4
SAO     79.03 321 ePd     21 00.94   0.1
        1.3s    97.26nm          5.7mb
     Z  21s     6.30um           5.9Msz
CMB     79.35 322 eP      21 02.27  -0.3
        2.4s   590.00nm          6.2mb
     Z  20s     4.10um           5.8Msz
                  ed      21 05.41
                  epPc    21 11.54  30kmX
                  ePP     24 01.77
                  iS      31 01.60
                  esS     31 25.44
                  ePS     31 43.32
                  eHSS    36 12.78
                  eSS     36 14.11
                  eSSS    39 53.68
                  eLR     47 25.68
ARN     79.50 321 eP      21 03.70   0.3
GCC     79.53 321 iPd     21 03.86   0.3
MHC     79.55 321 ePd     21 05.08   1.3
        1.5s   290.00nm          6.1mb
     Z  20s     6.00um           5.9Msz
                  eS      31 04.08
                  eSS     36 25.08
                  eSSS    39 33.08
                  eLQ     42 37.08
                  eLR     46 46.08
ULM     79.75 344 ePd     21 06.00   1.6
                  pP      21 26.50  76kmX
MAW     79.88 164 iPc     21 05.30   0.4
        1.0s   400.00nm          6.4mb
     Z  20s    22.73um           6.5Msz
STAN    79.90 321 ePd     21 08.71   3.2X
        2.2s  1300.00nm          6.6mb
     Z  19s     3.40um           5.7Msz
                  eS      31 05.71
                  eSS     36 02.71
                  eLR     47 08.71
TPMT    80.24 332 ePd     21 08.55   1.0
BKS     80.26 321 eP      21 07.99   0.6
        3.1s  3370.00nm          6.8mb X
     Z  20s     4.20um           5.8Msz
                  eS      31 13.09
                  eSS     36 17.09
                  eSSS    39 56.09
                  eLQ     42 38.09
                  eLR     47 07.09
JAQ     80.28 357 ePc     21 06.40  -0.7
MEMT    80.66 333 ePc     21 10.41   0.8
BGMT    80.80 332 ePd     21 10.37  -0.1
MCMT    80.82 331 iPd     21 11.26   0.7
NTYM    80.86 321 eP      21 11.27   0.7
ORV     81.05 323 ePd     21 11.88   0.3
SXM     81.20 333 ePd     21 12.70   0.3
LCCM    81.22 332 ePd     21 12.43  -0.1
LRM     81.45 332 ePd     21 13.85   0.0
HBMT    81.49 332 iPd     21 14.50   0.4
BUT     81.65 332 ePd     21 15.45   0.7
HRY     81.91 333 iPd     21 16.40   0.4
FRS     82.17 119 iPc     21 17.00  -0.7
        0.8s   193.00nm          6.2mb
WDC     82.34 323 eP      21 17.69  -0.5
        1.3s   140.37nm          5.9mb
     Z  20s     3.62um           5.7Msz
                  epPc    21 25.97  26kmX
                  ec      21 34.82
LBFM    82.54 324 ePd     21 19.03  -0.5
FOX     83.09 322 ePd     21 24.33   2.3
BLF     83.14 119 iPc     21 22.20  -0.8
        1.0s   620.00nm          6.7mb
FHC     83.28 322 iP      21 24.72   1.6
EKR     83.29 322 eP      21 24.94   1.9
SWZ     83.31 117 eP      21 23.50  -0.4
        0.6s   257.00nm          6.5mb
ARC     83.38 322 eP      21 24.89   1.4
        1.9s   850.00nm          6.6mb
     Z  18s     4.10um           5.8Msz
                  eS      31 41.89
                  eLR     48 55.89
TIO     83.54  51 iP      21 26.00   1.2
                  i       21 43.00
DRV     84.01 192 iP      21 30.00   3.5X
                  PP      25 00.00
                  S       31 50.00
                  SS      37 39.00
SES     84.59 336 ePd     21 29.00  -0.5
        1.3s   446.00nm          6.5mb
                  pP      21 45.00  56kmX
BFS     84.60 117 iPd     21 30.30  -0.1
        1.1s   240.00nm          6.3mb
SEK     84.62 119 iPc     21 29.60  -0.9
        0.8s   233.00nm          6.4mb
AVE     84.84  49 iPc     21 32.50   1.4
                  i       21 50.00
VGB     84.98 327 eP      21 31.85   0.3
PRY     85.13 118 iPc     21 32.50  -0.6
        1.5s   150.00nm          6.0mb
KSR     85.16 116 iPc     21 31.00  -2.2
        1.0s   570.00nm          6.7mb
NEW     85.35 331 ePc     21 32.13  -1.2
        1.0s   113.93nm          6.0mb
DPW     85.52 330 eP      21 34.32   0.0
COR     85.56 325 (P)     21 32.53  -1.9
                  ed      21 38.00
                  ed      21 47.60
                  eSKS    31 57.32
                  iS      32 04.44
SHW     86.17 327 eP      21 37.34  -0.3
SLR     86.33 117 iPc     21 37.50  -1.5
        0.7s    66.00nm          6.0mb
     Z  20s    88.00um           7.2Msz
LON     86.36 328 eP      21 38.07  -0.4
IFR     86.52  50 iPd     21 41.50   1.8
BMW     86.85 327 eP      21 40.65  -0.2
RMW     86.87 328 eP      21 40.11  -0.8
TSY     87.02  48 iP      21 44.50   2.7
CSY     87.29 181 eP      21 42.20  -0.5
        1.2s   151.30nm          6.1mb
FCC     87.30 348 eP      21 45.50   2.9X
GMW     87.40 328 eP      21 42.71  -0.7
EVAL    87.82  46 iPd     21 46.20   0.6
EJIF    87.98  47 iPd     21 47.00   0.6
MCW     88.23 329 eP      21 46.91  -0.4
EPRU    88.43  47 eP      21 50.00   1.4
PGC     88.50 328 eP      21 48.00  -0.5
        0.8s    67.00nm          6.0mb
PGZ     88.51 225 eP      21 50.50   1.4
TEHZ    88.53 225 eP      21 50.20   1.0
BLW     88.59 224 eP      21 50.30   0.9
MAL     88.84  47 iPc     21 40.00 -10.5X
                  iPP     25 52.00
                  iS      32 16.00
                  iPSS    33 20.00
                  iSS     38 42.00
MQZ     88.91 221 eP      21 52.70   1.8
EHOR    88.92  46 eP      21 51.10   0.2
WAHZ    88.98 225 eP      21 52.60   1.2
MNG     89.01 224 P       21 51.70   0.2
MRW     89.14 223 eP      21 54.20   2.1
BUL     89.21 112 iPd     21 41.10 -11.8X
        1.1s   129.11nm
     Z  17s    29.93um           6.8MszX
     N  18s    17.87um
     E  18s     6.87um
                  i       22 10.00
                  iPP     25 15.50
                  iS      32 42.00
TUZ     89.23 217 eP      21 52.60   0.2
ODZ     89.24 219 eP      21 54.10   1.6
URZ     89.30 227 eP      21 53.90   1.0
ELUQ    89.41  47 iPd     21 54.50   1.2
EGUA    89.45  48 eP      21 55.10   1.6
LTZ     89.69 221 P       21 55.10   0.4
EPLA    89.70  44 eP      21 55.00   0.4
ECOG    89.70  47 eP      21 55.00   0.2
NGZ     89.76 225 eP      21 56.00   0.8
DIW     89.87 223 eP      21 56.90   1.3
LSCZ    89.90 218 eP      21 55.70   0.0
THZ     89.92 222 eP      21 56.50   0.7
SBCZ    89.95 218 eP      21 55.40  -0.5
MHZ     89.98 218 eP      21 56.50   0.4
TLC     90.02 218 eP      21 57.70   1.4
EBAN    90.06  47 iPd     21 56.50   0.2
ERUA    90.43  42 iPc     21 57.00  -0.8
ENIJ    90.44  48 iPd     21 57.50  -0.5
PAB     90.48  45 (P)     21 58.57   0.3
                  ePP     26 05.00
                  eSKS    32 27.56
                  iS      32 53.72
```

			isS	33 15.40	
WLZ	90.51	227	eP	21 59.30	0.8
DSZ	90.59	222	eP	21 57.70	-1.2
EHUE	90.65	47	eP	21 59.00	-0.1
MOZ	90.65	226	eP	21 58.90	-0.3
CRZF	90.69	144	eP	22 09.00	9.8X
			ePP	25 42.00	
			iS	32 42.00	
			eSS	39 21.00	
ORZ	90.71	223	P	21 57.50	-1.9
NRZ	90.72	225	eP	21 56.80	-2.7
EMON	90.94	41	iPc	22 00.30	0.1
MSZ	90.98	218	eP	22 02.10	1.6
LSZ	91.12	108	iPd	22 03.20	1.4
			i	25 43.00	
			e	33 02.00	
EVIA	91.16	47	eP	22 01.70	0.3
CIR	91.23	114	iPd	22 02.80	0.7
			ipP	22 15.60	42kmX
GUD	91.23	44	iPd	22 01.50	-0.2
BCAO	91.48	86	iPc	22 03.50	0.1
	1.0s	150.00nm			6.3mb
			ic	22 21.00	
			id	23 54.20	
			id	25 33.20	
ACU	92.47	48	eP	22 09.00	1.7
ETOR	92.65	45	iPd	22 07.50	-0.7
ECHE	92.68	47	eP	22 08.80	0.5
MTD	93.28	110	iPd	22 12.80	1.1
			ipP	22 30.60	63kmX
			iPKKP	30 20.60	
EBR	94.28	46	eP	22 16.00	0.4
			e	32 50.00	
			e	34 42.00	
ESEL	95.31	48	eP	22 21.90	1.5
EPF	95.35	44	eP	22 21.00	0.5
	1.0s	31.80nm			5.7mb
YKA	95.49	341	eP	22 19.70	-0.9
	0.9s	27.00nm			5.7mb
GDH	96.51	6	ePc	22 26.00	0.9
	1.7s	153.85nm			6.2mb
			i	33 02.00	
			i	40 16.00	
LPO	96.73	43	eP	22 26.70	0.0
	1.3s	33.20nm			5.7mb
PAF	96.73	156	iP	22 36.00	9.1X
			ePP	23 33.00	
			iSKS	33 25.00	
			iSP	35 18.00	
			iSS	40 42.00	
HON	96.84	290	P	22 40.00	12.4X
Z	21s	19.15um			6.6Msz
MFF	96.93	41	eP	22 27.20	-0.3
	1.1s	58.35nm			6.0mb
LPF	97.17	39	eP	22 27.90	-0.6
	1.0s	273.20nm			6.7mb
RJF	97.25	43	eP	22 28.70	-0.3
	1.2s	28.25nm			5.7mb
Z	22s	12.63um			6.4Msz
CAF	97.39	43	eP	22 29.70	0.0
	1.0s	13.20nm			5.4mb
GRR	97.46	39	eP	22 29.00	-0.9
	1.0s	28.20nm			5.8mb
LSF	97.74	42	eP	22 30.90	-0.3
	1.2s	34.80nm			5.8mb
FLN	97.87	39	eP	22 31.10	-0.6
	1.1s	38.10nm			5.8mb
Z	21s	11.63um			6.3Msz
LDF	97.99	39	eP	22 31.50	-0.7
	0.9s	26.85nm			5.8mb
TCF	98.17	42	eP	22 32.80	-0.3
	1.0s	12.40nm			5.4mb
MAF	98.35	42	eP	22 33.70	-0.2
	1.1s	18.80nm			5.5mb
BGF	98.68	42	eP	22 35.10	-0.3
	1.2s	42.85nm			5.9mb
SSB	99.09	44	P	22 38.04	0.7
CDR	99.10	46	ePd	22 39.20	1.8
AVF	99.10	42	eP	22 36.90	-0.4
	1.3s	36.10nm			5.7mb
SMF	99.32	42	eP	22 38.20	-0.2
	1.4s	60.10nm			5.9mb
SSF	99.32	42	eP	22 37.60	-0.7
	1.0s	20.40nm			5.6mb
LRG	99.38	46	eP	22 39.30	0.7
	1.0s	83.60nm			6.2mb
Z	20s	9.65um			6.3Msz
SIT	99.40	330	P	22 50.00	11.7X
Z	20s	4.29um			5.9Msz
LMR	99.42	46	eP	22 39.10	0.3
	1.0s	60.20nm			6.1mb
LBF	99.57	42	eP	22 38.80	-0.7
	1.4s	31.35nm			5.7mb
FRF	99.61	46	eP	22 40.10	0.4
	1.1s	43.00nm			5.9mb
LOR	99.64	42	eP	22 38.90	-0.9
	0.9s	11.45nm			5.4mb
Z	22s	15.55um			6.5Msz
SBF	100.26	46	ePdiff	22 43.10	0.2
	1.0s	76.60nm			6.2mb
LPL	100.57	44	ePdiff	22 45.10	0.7
	1.0s	34.40nm			5.8mb
LPG	100.57	44	ePdiff	22 45.20	0.7
	0.9s	33.75nm			5.9mb
RSL	100.58	44	Pdiff	22 44.41	0.0
PGF	100.69	48	ePdiff	22 45.00	0.1
EMS	100.94	44	ePdiff	22 46.60	0.6
DIX	101.24	44	Pdiffc	22 48.40	0.9
DOU	101.41	40	Pdiff	22 47.30	-0.4
			S	33 27.00	
			e	36 11.00	
HAU	101.47	42	ePdiff	22 47.40	-0.7
Z	22s	10.40um			6.3Msz
MMK	101.58	44	ePdiff	22 49.80	0.9
BSF	101.66	42	ePdiff	22 48.20	-0.9
WLF	102.11	40	iPdiff	22 51.66	0.8
TMA	102.17	44	ePdiff	22 51.40	-0.1
CDF	102.21	42	ePdiff	22 50.70	-0.8
	1.2s	11.60nm			5.4mb
RES	102.34	354	ePdiff	22 55.00	3.7X
ENN	102.48	39	ePdiff	22 53.00	0.6
	0.8s	6.50nm			5.4mb
DBN	102.67	38	ePdiff	23 12.00	18.8X
Z	20s	6.00um			6.1Msz
			ePP	26 41.00	
			e	27 28.00	
			eSKS	33 32.00	
			e	36 13.00	
VDL	102.71	44	ePdiff	22 54.50	0.6
OSS	103.21	44	ePdiff	22 56.40	0.3
WTS	103.52	38	ePdiff	22 57.50	0.5
	0.7s	6.20nm			5.5mb
MOTA	104.08	44	iPdiff	23 00.10	0.2
	0.9s	20.10nm			6.0mb
SQTA	104.10	44	iPdiff	23 00.30	0.3
			i	23 04.90	
WATA	104.37	44	iPdiff	23 01.30	0.1
			i	23 05.90	
WTTA	104.38	44	iPdiff	23 01.60	0.3
	0.9s	25.90nm			6.1mb
			i	23 06.40	
			i	26 18.10	
			i	26 26.20	
GRF	105.10	42	ePdiff	23 04.90	0.7
Z	22s	8.00um			6.2Msz
			e(PP)	27 25.00	
TRI	105.12	46	e(Pdif	23 05.20	0.9
NAI	105.21	99	Pdiff	23 12.00	6.2X
Z	20s	13.30um			6.5Msz
			PcS	27 38.00	
			SS	36 44.00	
			PKKS	46 16.00	
VOY	105.33	46	ePKP	27 23.00	3.6X
VOY	105.33	46	ePdiff	23 06.20	0.8
			e	26 24.20	
KBA	105.38	45	iPdiff	23 05.60	-0.1
	0.9s	10.70nm			5.8mb
			i	23 10.20	
CEY	105.56	46	ePdiff	23 05.50	-0.9
CEY	105.56	46	ePKP	27 24.00	4.3X
MOX	105.71	41	ePdiff	23 18.00	11.1X
MOX	105.71	41	ePKP	27 12.00	-7.8X
Z	20s	7.00um			6.2Msz
			eSKS	33 50.00	
LJU	105.74	46	ePdiff	23 09.00	1.8
LJU	105.74	46	ePKP	27 25.00	5.0X
			eSKS	33 27.00	
VBY	106.01	47	e(Pdif	23 08.00	-0.3
VBY	106.01	47	e(PKP	27 28.00	7.5X
KMR	106.24	44	iPKP	27 31.00	10.1X
GEC2	106.27	43	Pdiff	23 09.60	0.0
	1.0s	1.16nm			4.9mb X
			e	23 14.00	
			e	23 16.50	
			e	26 44.80	
			e	26 54.30	
			e	27 03.00	
GEC2	106.27	43	PKP	27 24.90	3.8X
			e	27 33.90	
			e	27 40.60	
KHC	106.30	43	ePdiff	23 10.30	0.7
Z	26s	18.10um			6.5MszX
N	26s	1.40um			
E	26s	13.20um			
			e	23 41.00	
			e	25 20.50	
			e	26 17.00	
			e	26 32.00	
			ePP	27 23.00	
			e	27 44.50	
			SKS	33 50.00	
			eSP	36 49.60	
			ePKKP	38 45.00	
			e	39 00.90	
			e	41 36.00	
			e	51 03.50	
			Sg	51 28.00	
			e	51 56.70	
KLU	106.33	331	ePdiff	23 08.55	-0.9
CLL	106.77	41	ePdiff	23 12.00	0.4
Z	22s	12.00um			6.4Msz
			eSKS	33 48.00	
			PKKP	38 57.00	
BRG	107.16	41	ePdiff	23 17.60	4.3X
Z	24s	14.00um			6.4MszX
N	24s	8.50um			
E	24s	10.50um			
			e	25 16.00	
			e	33 48.00	
PRU	107.20	42	ePdiff	23 18.00	4.5X
Z	26s	12.60um			6.4MszX
N	27s	3.60um			
E	26s	7.90um			
			e	26 46.00	
			PP	27 38.00	
			e	27 45.10	
			e	32 08.00	
			SKS	33 52.00	
			e	35 27.00	
			iSP	36 59.00	
			e	38 42.50	
			PKKP	38 55.40	
			SS	42 50.00	
			eSg	51 39.50	
			e	51 45.10	
TOO	107.49	210	ePKP	27 34.00	10.3X
VKA	107.68	44	ePKP	27 38.00	14.4X
Z	20s	5.20um			6.1Msz
			LR	17 10.00	
SLKM	107.84	329	ePdiff	23 16.15	0.0
			epP	23 31.29	
KONO	108.07	32	Pdiffc	23 34.60	17.4X
			iSKS	33 53.93	
			eSKKS	34 47.23	
VRAC	108.21	44	PKP	27 42.40	17.9X
	2.9s	881.00nm			
			e	27 50.50	
			e	33 57.40	
			e	34 01.70	
FBA	108.52	334	(Pdiff	23 17.57	-1.5
	1.0s	8.07nm			5.9mb
RSO	108.99	329	(Pdiff	23 21.09	-0.4
CRP	109.00	330	ePdiff	23 15.20	-6.3X
BUD	109.14	46	e(PKP)	27 09.00	-17.4X
HFS	110.18	32	ePKP	27 29.90	2.0
	0.5s	1.20nm			
Z	21s	6.86um			6.2Msz
			LR	02 33.00	
SPC	110.44	44	ePKP	27 16.60	-12.5X
			e	28 16.40	
OJC	110.47	43	ePKP	27 32.80	4.0X
			e	28 11.20	
SVW	110.53	329	(PKP)	27 33.30	4.6X
			epP	27 56.22	
IMA	111.23	334	ePKP	27 32.00	2.0
IMA	111.23	334	(PKP)	27 28.39	-1.6
UZH	111.58	45	ePdiff	23 45.00	12.0X
Z	21s	8.80um			6.3Msz
N	21s	3.00um			
E	21s	13.20um			
			i	27 29.70	

15d 16h

			i	27 34.70	
			e	28 22.00	
			e	34 12.00	
			i	37 43.00	
			eSS	44 00.00	
			eSSS	47 55.00	
LVV	112.99	45	ePdiff	23 58.00	18.7X
Z	22s	11.70um			6.4Msz
N	22s	12.00um			
E	22s	18.60um			
			i	34 14.00	
			iPS	37 46.00	
			iSSS	48 21.00	
MLR	113.14	49	ePKPc	27 30.00	-4.2X
CVO	113.38	49	ePKP	27 36.00	1.4
VRI	113.76	49	ePKP	27 31.00	-4.3X
BRD	113.90	50	ePKP	27 31.50	-4.1X
STK	114.00	210	ePKP	27 38.70	2.5
	1.3s	3.00nm			
			ePKKP	38 23.10	
CFR	114.57	50	ePKP	27 35.00	-1.8
KIS	115.47	48	ePKP	27 40.00	1.5
Z	20s	8.60um			6.4Msz
			e	34 27.00	
			i	38 22.00	
NUR	115.56	33	ePKP	27 40.00	1.8
			ePP	28 40.00	
			eSKS	34 20.00	
			ePS	38 12.00	
SAGI	115.58	68	ePKP	27 38.80	-0.5
CSS	115.84	62	ePKP	27 39.20	-0.4
MNK	116.01	41	ePdiff	24 08.00	15.4X
Z	22s	13.90um			6.5Msz
E	22s	11.30um			
			i	27 38.00	
			e	34 24.00	
			ePS	38 24.00	
			eSS	45 00.00	
YTIR	116.29	67	ePKP	27 40.10	-0.6
AYN	116.30	69	ePKP	27 40.60	0.0
KAF	116.58	31	iPKP	27 39.60	-0.5
OLP	117.13	215	ePKP	27 42.80	0.5
HRI	117.32	65	ePKP	27 42.20	-0.4
PUL	118.28	34	ePKP	27 45.00	1.6
SIM	118.65	51	ePKP	27 41.00	-3.6X
Z	24s	16.00um			6.6MszX
			e	34 36.00	
			e	38 44.00	
			e	45 40.00	
KMTA	118.78	83	ePKP	27 46.00	0.1
ADK	120.10	316	(PKP)	27 43.38	-3.7X
NWAO	120.19	188	ePKP	27 48.00	0.1
Z	20s	5.40um			6.2Msz
NWAO	120.19	188	Pdiff	24 12.04	0.3
			eSKS	34 43.08	
			e	35 07.24	
ANN	120.88	52	ePKP	27 50.00	1.2
	1.0s	40.00nm			
Z	25s	6.50um			6.2MszX
E	26s	3.50um			
			e	29 19.00	
			ePPP	31 49.00	
			e	34 39.00	
			ePS	39 04.00	
ILT	121.14	335	iPKPc	27 47.60	-1.0
	1.0s	28.00nm			
			i	39 14.00	
			iPPS	46 08.00	
			i	50 14.00	
CTA	121.15	222	iPKPc	27 48.00	-2.1
	1.5s	34.72nm			
			e(PP)	29 05.00	
CTAO	121.15	222	Pdiffd	24 20.68	4.4X
			eSKS	34 45.08	
			eHSKKS	36 08.68	
			eSKKS	36 09.78	
MUN	121.25	187	ePKP	27 49.00	-1.0
OBN	121.37	40	iPKPc	27 43.40	-6.0X
	1.5s	217.00nm			
Z	24s	22.00um			6.7MszX
N	24s	6.60um			
E	24s	16.80um			
			i	28 04.60	
			i	28 08.50	
			i	28 36.00	
			ePP	29 20.00	
			i	30 52.00	
			ePPP	32 20.00	
			iSKS	34 44.00	
			iSKKS	36 16.00	
			iPS	39 08.00	
			i	39 40.00	
			iPPS	40 40.00	
			iSS	45 42.00	
			e	49 18.00	
			eSSS	50 26.00	
OBN	121.37	40	ePdiff	24 24.00	7.6X
Z	24s	22.00um			6.7MszX
N	24s	6.60um			
E	24s	16.80um			
			e	29 20.00	
			i	34 44.00	
			iPS	39 08.00	
			iPPS	40 40.00	
			eSSS	50 26.00	
KLB	121.44	189	ePKP	27 50.00	-0.3
QASM	121.90	75	ePKP	27 50.00	-1.5
MOS	121.98	39	ePKP	27 50.00	-0.5
	2.0s	170.00nm			
Z	24s	22.50um			6.7MszX
N	23s	3.00um			
E	23s	18.50um			
			e	29 23.00	
			e	39 08.00	
SOC	122.42	54	iPKP	27 51.00	-0.8
Z	24s	6.70um			6.2MszX
N	23s	3.70um			
E	24s	4.90um			
			e	34 49.00	
BAL	122.54	188	ePKP	27 51.00	-1.5
MRWA	124.00	187	ePKP	27 53.50	-1.9
ASPA	124.47	208	iPKPc	27 54.80	-1.7
Z	20s	8.70um			6.4Msz
			ePP	29 41.80	
			ePKS	31 33.60	
			e	33 16.00	
			ePKKP	37 37.00	
			eSKKP	41 03.00	
KIV	124.60	54	ePKP	27 55.20	-1.0
WARB	124.76	199	ePKP	27 55.00	-1.9
	0.6s	15.00nm			
PYA	124.88	53	ePKP	27 57.00	0.4
	1.3s	150.00nm			
Z	25s	11.25um			6.4MszX
			i	28 12.00	
			e	29 48.00	
			ePS	39 48.00	
			iPPS	41 08.00	
			eSS	47 06.00	
			eSSS	51 16.00	
ERE	125.55	58	iPKP	27 59.00	0.8
			i	29 47.00	
			e	35 01.00	
			iSS	46 50.00	
SMY	125.77	317	PKP	28 10.00	12.0X
Z	21s	10.85um			6.5Msz
MTA	125.94	56	ePKP	27 58.00	-0.7
Z	30s	0.50um			5.0MszX
N	30s	1.00um			
E	30s	3.00um			
			e	35 02.00	
MEEK	126.17	191	ePKP	27 59.00	-0.7
GRO	126.72	54	ePKP	28 02.00	1.8
Z	20s	4.50um			6.1Msz
N	20s	13.00um			
E	20s	6.00um			
			iPPP	32 40.00	
			iPS	40 00.00	
			iPPS	41 26.00	
KER	126.78	66	ePKP	28 00.00	-0.8
GRS	126.88	59	ePKP	27 59.00	-1.9
	1.0s	20.00nm			
Z	23s	6.20um			6.2MszX
N	20s	5.88um			
E	20s	5.59um			
			e	29 54.00	
			ePPP	32 52.00	
			e	35 04.00	
			ePS	39 54.00	
WB2	127.55	210	ePKP	28 01.40	-1.1
			eSKKP	40 05.90	
MAK	127.98	55	ePKP	28 05.00	2.4
Z	29s	8.00um			6.2MszX
N	29s	8.00um			
E	29s	4.50um			
			e	30 16.00	
			e	32 56.00	
			e	35 06.00	
RAB	128.25	240	e(PKP)	28 04.00	0.0
PMG	128.48	231	ePKP	28 05.00	0.6
SHE	128.74	58	iPKPd	28 05.50	1.4
	1.8s	80.00nm			
Z	20s	3.00um			6.0Msz
N	20s	5.50um			
E	20s	6.00um			
			i	28 22.00	
			i	35 06.00	
BAK	129.68	58	ePKP	28 06.00	0.1
Z	20s	13.00um			6.6Msz
N	20s	13.30um			
E	20s	10.64um			
NANU	130.63	188	ePKP	28 06.00	-2.2
MBL	131.29	193	ePKP	28 06.00	-3.5X
ARU	133.47	36	ePKP	28 13.00	0.4
	2.0s	500.00nm			
Z	24s	11.00um			6.5MszX
N	22s	1.50um			
E	26s	13.00um			
			i	28 27.00	
			e	30 46.00	
TIK	133.69	351	ePKP	27 56.00	-16.6X
	2.0s	123.00nm			
Z	20s	2.50um			5.9Msz
			i	28 10.50	
			i	30 40.00	
SVE	134.40	35	iPKPc	28 14.00	-0.4
	2.0s	180.00nm			
			e	42 52.00	
			e	49 03.00	
KAT	134.55	60	iPKP-	28 16.00	0.8
Z	20s	4.60um			6.2Msz
N	20s	5.60um			
E	20s	4.60um			
			e	30 52.00	
			e	35 21.00	
NRI	135.54	10	iPKPc+	28 16.00	-0.1
	1.8s	129.00nm			
			e	30 53.00	
			(SS)	42 56.00	
ASH	136.17	62	ePKP	28 13.00	-5.3X
			e	28 22.00	
			e	30 57.00	
MGD	136.17	331	ePKPd-	28 09.00	-8.6X
	1.6s	170.00nm			
			i	28 18.00	
			e	31 00.00	
			e	35 18.00	
			ePPS	43 08.00	
			eSS	49 00.00	
			eSSS	54 00.00	
YAK	142.10	344	iPKP	28 23.20	-5.2X
	1.5s	500.00nm			
Z	22s	4.80um			6.2Msz
N	24s	2.90um			
E	22s	4.00um			
			e	31 42.00	
			ePS	44 04.00	
KUR	144.00	311	iPKP	28 30.00	-2.1
	1.0s	370.00nm			
Z	18s	8.90um			6.6Msz
N	18s	8.90um			
E	18s	8.90um			
GUA	144.03	256	PKP	28 29.70	-3.4X
	1.0s	1104.00nm			
GUMO	144.09	256	PKPd	28 29.50	-3.6X
Z	23s	3.26um			6.0MszX
			PP	31 47.00	
PJG	144.09	256	PKP	28 29.50	-3.6X
YSS	146.68	316	ePKP	28 37.94	1.4
Z	21s	5.40um			6.3Msz
N	21s	2.30um			
E	21s	6.20um			
KUSJ	146.81	309	ePKP	28 37.00	0.1
GBA	147.66	108	PKP	28 39.10	0.1
AAK	147.68	52	ePKPc	28 39.47	0.9
FRU	147.71	51	iPKP	28 39.40	1.0
Z	26s	11.00um			6.5MszX
N	25s	12.00um			
E	26s	15.00um			
			ePPS	44 53.00	
ASAJ	147.89	311	ePKP	28 40.20	1.6

HOOJ 148.03 308 ePKP 28 40.20 1.3
ELT 148.52 26 iPKPc 28 38.20 -1.1
2.0s 392.00nm
e 32 11.00
e 35 42.00
BOD 148.67 355 ePKP 28 57.90 18.5X
1.8s 645.00nm
BOD 148.67 355 ePKP 28 37.40 -2.0
1.8s 535.00nm
MRRJ 149.57 309 ePKP 28 45.10 3.9X
OFUJ 150.15 303 ePKP 28 44.30 2.0
PRZ 150.45 50 iPKPd 28 44.00 1.1
1.6s 670.00nm
Z 24s 10.30um 6.5MszX
E 24s 8.90um
i 28 53.00
AOMJ 150.68 306 ePKP 28 46.20 3.2X
YAMJ 151.61 301 ePKP 28 50.20 5.7X
KAKJ 151.94 297 PKP 28 51.00 6.0X
NIIJ 152.64 300 PKP 28 47.60 1.6
UER 152.69 21 ePKP 28 44.80 -0.8
1.1s 180.00nm
CHJJ 152.91 297 PKP 28 48.10 1.7
MAT 153.42 299 (PKP) 28 47.00 -0.2
Z 21s 14.34um 6.8Msz
MTMJ 153.72 299 PKP 28 56.40 8.7X
IRK 154.22 7 ePKPc 28 47.30 -0.4
1.8s 156.00nm
e 29 06.00
eSSS 52 21.00
MOY 154.31 12 iPKPc 28 49.40 1.6
2.0s 28.00nm
CIT 154.51 354 ePKP 28 49.00 0.8
e 32 46.00
TLY 154.72 8 ePKPc 28 49.48 1.1
ed 28 52.04
eHPP 32 48.32
ePP 32 48.66
KGM 154.83 166 ePKP 28 51.50 1.8
e 29 18.00
KGM 154.83 166 ePKPc 28 53.50 3.8X
e 29 31.50
DAV 154.96 222 ePKP 28 50.00 0.2
VLA 155.26 317 iPKPc 28 52.00 2.7
ipP 29 13.00
i 32 50.00
BIP 155.44 225 ePKP 28 36.00 -14.5X
MDJ 155.68 323 ePKP 28 49.65 -0.3
WMQ 155.69 40 ePKPc 28 50.47 0.4
ed 28 52.95
ec 28 57.42
ZAK 155.94 9 ePKPc 28 51.00 0.9
3.0s 750.00nm
e 32 55.00
eSS 52 40.00
HIA 156.01 343 ePKPc 28 49.54 -0.8
ed 28 52.02
ec 28 56.57
ed 29 01.62
ec 29 08.24
ePP 32 54.84
eHPP 32 55.17
CGP 156.57 222 ePKP 28 53.00 1.0
IPM 156.69 159 ePKPd 28 52.10 -0.1
e 30 15.80
PLP 158.47 227 ePKPc 28 52.80 -1.4
PGP 162.79 223 ePKP 28 53.00 -5.7X
TGY 163.26 224 ePKP 29 03.00 3.8X
NNT 163.44 146 ePKP 29 02.20 2.9X
e 33 31.00
LSA 163.91 75 iPKPc 29 01.02 1.0
ePKPab29 54.49
eSKP 32 30.98
eHPP 32 56.15
ePP 32 57.47
KHT 164.62 138 ePKP 29 01.30 0.9
CVP 165.20 235 ePKP 29 04.00 3.1X
BAG 165.20 228 ePKP- 29 02.00 0.9
BJI 165.45 338 ePKP 29 01.00 0.5
NST 166.22 141 ePKP 29 02.00 0.3
BDT 166.74 133 ePKP 29 01.00 -1.1
1.0s 62.10nm
CHTO 167.79 128 ePKPc 29 02.43 -0.5
ePKPab30 08.65
LOE 168.51 142 ePKP 29 04.00 0.7
SSE 168.53 295 iPKP- 29 04.00 1.0
SSE 168.53 295 ePKPc 28 59.54 -3.4X

TATO 168.69 264 ePKP 29 04.56 1.3
ec 29 22.60
ePKPab30 16.40
LZH 169.64 24 ePKPc 29 05.18 1.4
Z 30s 18.58um
E 24s 10.33um
sPKP 29 18.00
ePKPab30 24.31
PKS 31 36.00
ePP 34 06.10
SKS 36 00.00
SKKS 40 53.00
SS 55 00.00
QIZ 172.32 185 ePKPc 29 07.01 1.8
ec 29 24.89
ePKPab30 31.85
eHP'ab30 33.00
ePP 34 21.83
XAN 172.69 1 ePKPc 29 05.75 0.7
e 29 08.15
ePP 34 20.65
eHPP 34 21.31
HKC 173.62 228 ePKP 29 09.00 3.4X
KMI 174.08 104 ePKPc 29 06.72 0.6
e 29 09.12
sPKP 29 21.00
ePKPab30 42.73
eSKP 32 25.82
e 33 03.06
ePP 34 29.97
eHPP 34 30.52
ENH 176.43 354 ePKP 29 06.73 0.6
e 29 08.80
ec 29 13.43
ePKPab30 44.56
S.D. = 1.1 on 399 of 482 obs.

& MAR 15, 1993 16h 19m 26.31s
63.095 N 150.876 W
DEPTH = 127.0km
CENTRAL ALASKA (1)
<AEIC>.

TRF 0.45 36 iP 19 44.81 -0.4
eS 19 59.14
HUR 0.58 101 eP 19 45.39 -0.4
S 19 59.69
RND 0.97 70 eP 19 48.32 -0.7
MCK 1.08 53 eP 19 49.61 -0.5
SKT 1.16 195 iP 19 50.31 -0.5
eS 20 08.57
eS 20 09.51
PWA 1.52 162 P 19 54.70 -0.1
GHO 1.61 145 eP 19 55.59 -0.3
eS 20 18.81
SUA 1.64 178 eP 19 56.57 0.3
eS 20 19.16
NEA 1.69 27 eP 19 55.55 -1.2
PLRM 1.71 151 eP 19 56.12 -0.9
PMR 1.71 151 iPd 19 55.92 -1.1
SML 1.75 136 eP 19 56.67 -0.9
CRP 1.93 199 eP 19 59.03 -0.8
CPAM 1.94 198 eP 19 59.87 -0.1
CP2 1.95 200 eP 19 59.96 -0.2
PMS 1.96 161 P 19 59.40 -0.7
BGL 1.97 202 eP 20 00.34 0.0
CKN 1.98 199 eP 20 00.71 0.4
SPU 2.00 197 eP 19 59.97 -0.6
CKT 2.00 199 eP 20 01.06 0.4
CKL 2.03 200 eP 20 00.70 -0.3
CCB 2.07 40 eP 20 00.29 -1.1
SCM 2.08 126 eP 20 00.74 -0.9
HDA 2.18 51 eP 20 01.71 -1.2
FBA 2.26 35 iPd 20 02.81 -1.1
TTA 2.35 268 eP 20 04.04 -1.0
PTE 2.40 158 eP 20 04.39 -1.2
GLM 2.44 37 eP 20 05.19 -1.0
PAX 2.47 90 eP 20 05.94 -0.7
SDG 2.51 101 eP 20 06.54 -0.6
SLKM 2.62 173 eP 20 07.64 -0.8
DFR 2.65 200 eP 20 07.48 -1.5
MPA 2.71 164 eP 20 08.47 -1.2
TZL 2.74 110 eP 20 08.10 -1.9
RDW 2.78 200 eP 20 08.78 -1.9
RSO 2.79 199 (P) 20 11.14 0.3
KLU 2.82 123 eP 20 09.27 -1.9
SEW 3.08 167 eP 20 13.40 -1.0

DOT 3.12 77 eP 20 13.68 -1.4
IMA 3.22 339 eP 20 15.11 -1.4
HIN 3.41 141 eP 20 16.78 -2.2
CNPM 3.59 183 eP 20 20.40 -0.9
GLB 3.70 114 eP 20 21.22 -1.6
SGAM 3.74 132 eP 20 21.18 -2.2
RAGM 4.01 130 eP 20 25.22 -1.8
MCNL 4.27 205 eP 20 29.84 -0.6
CRQM 4.34 119 eP 20 30.12 -1.5
CDD 4.39 199 eP 20 31.52 -0.6
TGL 4.47 118 eP 20 31.10 -2.1
BALM 4.51 113 eP 20 31.90 -2.0
50 obs. associated

? MAR 15, 1993 17h 10m 38.90± 0.67s
59.979 S ±16.0km 25.967 W ±21.8km
DEPTH = 33.0km (normal)
5.0mb (3 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SNA 14.23 146 iPd 13 57.40 -2.3
0.6s 22.00nm 5.0mb
SPA 30.19 180 iPc 16 50.90 2.8
1.0s 25.00nm 5.0mb
PPD 41.92 324 (P) 18 27.00 -0.8
BAO 47.11 330 iPc 19 09.80 0.3
SIV 50.78 314 P 19 43.00 5.2X
SOB1 51.89 341 eP 19 45.40 -0.8
CNCB 52.68 306 P 19 54.00 1.3
LPB 52.98 306 (P) 19 53.00 -1.8
ZOBO 53.21 306 P 19 57.00 0.2
KIC 68.24 23 P 21 39.00 0.8
BCAO 73.07 47 iPd 22 08.90 1.5
0.6s 8.00nm 4.9mb
ic 22 17.60
RSSD 121.65 304 ePKP 29 30.00 0.0
BW06 122.93 299 ePKPc 29 31.20 -1.3
HFS 123.68 23 ePKP 29 32.00 -1.1
0.7s 2.30nm
NB2 124.06 21 PKP 29 35.00 1.1
0.9s 2.70nm
YKA 139.46 314 ePKP 29 58.90 -4.1X
0.8s 6.80nm
FBA 153.50 306 ePKP 30 34.80 9.1X
pP 30 47.00
IMA 156.16 307 (PKP) 30 42.00 12.6X
S.D. = 1.6 on 14 of 18 obs.

% MAR 15, 1993 17h 40m 53.42± 0.69s
26.880 S ± 6.7km 26.726 E ± 6.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.8 (PRE).

BFS 0.06 110 iPd 40 55.40 0.3
S 40 56.00
PRY 0.67 94 eP 41 06.00 -0.8
S 41 14.50
KSR 1.02 9 iPd 41 13.00 -0.3
S 41 25.60
SWZ 1.29 256 eP 41 18.40 0.6
S 41 34.20
SEK 1.64 151 iPc 41 24.40 1.2
S 41 46.40
SLR 1.80 51 iPd 41 26.00 0.5
S 41 48.00
BLF 2.27 192 eP 41 32.00 -0.3
S 41 58.00
FRS 3.12 203 eP 41 43.00 -1.1
S 42 19.00
BFT 3.21 69 eP 41 54.00 8.4X
S 42 32.60
S.D. = 0.9 on 8 of 9 obs.

? MAR 15, 1993 17h 43m 02.86± 1.82s
33.465 S ±10.6km 179.791 W ±31.3km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
SOUTH OF KERMADEC ISLANDS (179)

HBZ 4.41 200 eP 44 10.30 1.1
PUZ 4.86 198 eP 44 16.00 0.4
eS 45 15.20
URZ 5.41 207 eP 44 23.60 0.4
eS 45 30.40
NOZ 5.43 198 eP 44 23.70 0.1
MOZ 6.67 220 eP 44 46.80 5.7X

15d 17h

MNG 8.08 207 eP 44 58.70 -2.1
eS 46 29.10
WB2 42.79 276 iPd 50 59.20 -0.1
0.3s 4.00nm 4.6mb
WRA 42.80 276 P 50 59.80 0.5
0.5s 1.30nm 3.9mb
HFS 151.88 346 ePKP 02 48.10 -0.3
0.6s 1.00nm
S.D. = 1.1 on 8 of 9 obs.

MAR 15, 1993 17h 53m 47.19± 0.70s
49.130 N ± 6.5km 6.931 E ± 5.5km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
mbLg 3.1 (UCC).

RUP 0.58 8 ePg 53 58.46 -0.5
WLF 0.74 317 iPd 54 01.51 -0.1
ABH 0.85 28 ePg 54 03.52 -0.1
TOD 1.31 68 ePg 54 11.00 -0.5
L 1.45 150 ePg 54 13.58 0.1
S 1.47 41 ePnc 54 15.00 1.2
iSn 54 38.30
iSg 54 44.20
NN 1.76 339 ePn 54 18.20 0.3
0.6s 52.60nm
iPg 54 20.00
eS 54 44.50
DOU 1.80 303 iPn 54 18.40 -0.1
iPg 54 21.60
iSn 54 41.60
SNF 2.20 310 iP 54 28.80 4.5X
GRF 2.86 77 ePg 54 43.80 10.1X
eSg 55 18.20
MOX 3.39 62 ePg 54 54.30 13.1X
eSg 55 36.40
KHC 4.36 87 ePn 54 54.90 -0.2
e 55 15.00
e 55 44.00
eSg 56 05.60
GEC2 4.47 91 Pn 54 56.50 -0.1
Pg 55 16.80
Sn 55 48.80
Sg 56 12.60
S.D. = 0.5 on 10 of 13 obs.

MAR 15, 1993 18h 22m 34.78± 0.21s
16.367 S ± 7.4km 173.688 W ± 8.7km
DEPTH = 68.6km (6 depth phases)
5.1mb (31 obs.)
TONGA ISLANDS (173)

VUN 7.68 257 eP 24 33.00 6.7X
SVA 7.70 256 eP 24 34.60 8.0X
DZM 19.59 250 iPc 27 03.10 2.7
URZ 23.26 199 eP 27 37.90 1.0
NOZ 23.33 197 eP 27 40.00 2.5
PGZ 25.69 198 P 27 59.80 -0.2
MNG 25.93 199 eP 28 01.20 -1.1
QRZ 27.14 203 eP 28 13.10 -0.3
0.4s 41.00nm 5.3mb
e 28 16.30 11kmX
THZ 27.82 202 eP 28 18.40 -1.2
KHZ 28.18 200 eP 28 21.10 -1.6
DSZ 28.21 203 eP 28 20.80 -2.3
LTZ 28.94 202 eP 28 26.80 -2.8
ARMA 34.62 240 iPd 29 19.20 -0.4
0.5s 10.00nm 5.0mb
RMQ 36.27 247 eP 29 35.00 1.5
CNB 37.95 233 iPc 29 47.10 -0.5
0.4s 10.00nm 5.1mb
CTA 38.17 258 eP 30 08.00 18.5X
PMG 38.74 275 eP 29 55.00 0.7
CMS 39.71 240 iPc 30 01.30 -0.9
0.5s 11.00nm 5.0mb
ipP 30 21.40 84km
MDG 41.23 281 eP 30 18.20 3.4X
TOO 41.65 231 eP 30 17.10 -1.0
0.5s 21.00nm 5.2mb
STK 43.32 241 iPc 30 31.30 -0.5
0.5s 8.00nm 4.8mb
i 30 48.50 69km
WB2 49.35 258 iPc 31 18.40 -1.1
0.3s 10.00nm 5.3mb
i 32 41.70 416kmX
WRA 49.36 258 P 31 18.79 -0.8
ASPA 49.56 253 iPc 31 20.00 -1.1
0.8s 31.80nm 5.4mb
WARB 56.05 249 eP 32 07.00 -2.3
0.5s 7.00nm 4.9mb
MBL 62.74 254 eP 32 54.00 -1.3
CSY 69.42 205 eP 33 37.50 0.3
0.9s 25.20nm 5.1mb
ARN 72.53 41 eP 33 56.55 0.1
e 34 14.43 66km
PLM 73.36 47 eP 34 00.43 -1.1
PEC 73.44 46 eP 34 00.93 -0.9
0.8s 24.95nm 5.2mb
ISA 73.53 44 eP 34 01.24 -1.1
0.9s 23.38nm 5.1mb
CMB 73.67 41 ePc 34 02.47 -0.6
0.8s 11.13nm 4.8mb
SPA 73.74 180 iPc 34 04.10 1.0
0.6s 69.11nm 5.8mb
ORV 73.90 39 eP 34 03.37 -0.9
YSS 74.25 331 eP 34 05.50 -0.6
e 34 25.00 73km
GSC 74.46 45 ePc 34 07.16 -0.6
LBFM 74.77 38 ePc 34 09.19 -0.4
TNP 75.73 43 ePc 34 14.34 -0.8
0.9s 28.62nm 5.2mb
e 34 28.31 49kmX
TPNV 75.74 44 eP 34 14.87 -0.3
0.8s 17.76nm 5.0mb
KDC 75.90 12 (P) 34 14.15 -1.2
0.9s 10.10nm 4.7mb
TUC 77.21 51 eP 34 22.88 -0.5
0.8s 15.80nm 5.0mb
BMW 77.29 33 eP 34 20.15 -3.3X
SHW 77.64 34 eP 34 25.21 -0.2
ARUT 78.08 45 eP 34 27.73 -0.4
GMW 78.22 32 eP 34 28.32 -0.1
RSO 78.40 10 eP 34 28.14 -1.3
SVW 78.55 9 eP 34 29.16 -0.9
0.8s 13.13nm 4.9mb
e 34 46.09 61km
RMW 78.67 33 eP 34 30.65 -0.4
SLKM 78.91 12 eP 34 31.21 -0.8
CP2 79.24 10 eP 34 32.86 -1.1
MSU 79.31 45 ePc 34 35.21 0.3
DUG 79.75 43 ePd 34 36.59 -0.5
1.2s 26.68nm 5.0mb
PMR 80.12 12 eP 34 37.37 -1.0
0.5s 9.06nm 5.0mb
TTA 80.24 8 ePc 34 39.27 0.1
1.3s 19.89nm 4.9mb
HVU 80.61 41 ePc 34 41.37 -0.3
KLU 80.69 13 eP 34 40.55 -1.0
SRU 80.72 45 eP 34 42.22 -0.1
ALQ 81.63 50 eP 34 47.06 -0.1
0.8s 13.53nm 4.9mb
BW06 83.17 42 ePc 34 54.22 -0.8
0.7s 27.93nm 5.3mb
LCCM 83.29 38 iPc 34 55.20 -0.3
FBA 83.39 11 eP 34 54.72 -0.7
0.8s 26.26nm 5.3mb
e 35 11.52 60km
IMA 83.55 8 ePc 34 56.34 0.0
1.4s 18.36nm 4.9mb
ILT 84.11 358 iPc 34 58.00 -0.8
GOL 84.52 46 eP 35 02.08 0.1
0.9s 22.46nm 5.2mb
SES 86.15 35 iPc 35 09.10 -0.4
0.9s 63.00nm 5.7mb
RSSD 87.36 43 eP 35 14.15 -1.6
0.7s 11.62nm 5.1mb
YKA 91.09 23 eP 35 31.10 -1.5
1.0s 5.50nm 4.9mb
PEL 91.65 125 iP+ 35 37.80 1.7
OLY 93.20 54 (P) 35 42.67 -0.3
FVM 94.74 52 eP 35 48.95 -1.0
0.9s 13.36nm 5.4mb
ULM 94.85 39 eP 35 51.50 1.3
FCC 98.55 31 eP 36 09.00 2.3
KAF 132.17 347 iPKP 41 41.80 -0.1
0.4s 3.50nm
NUR 133.97 348 ePKP 41 46.00 0.6
NB2 135.25 357 PKP 41 48.40 0.5
0.8s 3.40nm
HFS 135.97 355 ePKP 41 48.80 -0.4
0.5s 1.30nm
WTS 144.45 359 ePKP 42 03.50 -1.1
0.8s 6.80nm
e 42 25.50
OJC 144.52 345 ePKP 42 04.00 -0.9
e 42 23.50
KSP 144.69 349 iPKPd 42 04.30 -0.8
CLL 144.73 353 iPKPd 42 03.90 -1.3
e 43 02.00
BRG 145.04 352 ePKP 42 04.60 -1.1
1.6s 22.00nm
NAI 145.17 243 iPKP 42 10.50 3.2X
Z 18s 0.52um 5.3Msz
UZH 145.26 341 iPKPc 42 05.70 -0.4
1.1s 83.00nm
SPC 145.35 344 ePKP 42 05.70 -0.9
BNS 145.48 359 iPKP 42 06.70 0.3
MOX 145.54 354 ePKP 42 06.70 0.1
1.5s 61.00nm
e 42 26.90
e 42 42.10
UCC 145.62 2 PKP 42 06.00 -0.7
ENN 145.68 0 ePKP 42 07.00 0.2
1.0s 60.00nm
e 42 25.00
PRU 145.81 351 iPKPc 42 07.60 0.5
1.1s 33.00nm
e 42 27.70
HOF 145.84 354 ePKP 42 07.80 0.6
SNF 145.90 2 iPKPc 42 07.76 0.6
i 42 27.87
VRI 145.99 334 ePKP 42 09.00 1.5
VRAC 146.09 348 ePKP 42 08.70 1.2
1.7s 151.40nm
DOU 146.33 2 PKPc 42 09.40 1.5
JLP 146.50 10 ePKP 42 09.40 1.2
JVM 146.51 10 ePKP 42 09.40 1.2
GRF 146.52 354 iPKPc 42 10.50 2.2
e(pPKP42 30.90
JSA 146.54 10 ePKP 42 09.60 1.4
PSZ 146.61 343 ePKP 42 09.50 1.0
WLF 146.79 0 iPKPc 42 11.10 2.5
1.2s 75.50nm
i 42 31.23
KHC 146.79 351 PKPc 42 11.00 2.3
1.3s 21.10nm
e 42 31.10
e 42 40.50
ZST 147.04 347 ePKP 42 11.70 2.6
0.7s 10.20nm
GEC2 147.05 351 PKP 42 11.30 2.1
0.6s 7.20nm
e 42 15.90
GEC2 147.05 351 e(PKP)42 16.80 7.6X
0.7s 2.90nm
GEC2 147.05 351 e(PKP)42 11.40 2.2
0.6s 7.20nm
SRO 147.12 345 ePKP 42 11.40 2.2
FLN 147.22 8 iPKPc 42 11.40 2.1
0.9s 69.10nm
LDF 147.43 8 iPKPc 42 11.90 2.2
1.0s 56.80nm
GRR 147.53 9 iPKPc 42 12.50 2.6
0.8s 64.20nm
LPF 147.85 9 iPKPc 42 13.50 3.1X
1.0s 131.20nm
FUR 148.03 354 iPKPc 42 14.50 3.8X
0.8s 50.00nm
CDF 148.03 359 iPKPc 42 14.30 3.5X
0.9s 53.25nm
HAU 148.45 360 iPKPc 42 15.40 4.0X
0.9s 63.20nm
HRI 148.58 308 ePKP 42 16.50 4.3X
BSF 148.62 359 iPKPc 42 15.50 3.7X
0.7s 12.35nm
SLE 148.64 357 ePKPc 42 15.60 3.9X
WATA 148.81 353 iPKPc 42 16.00 3.8X
KBA 148.83 351 iPKPc 42 15.50 3.2X
0.9s 11.70nm
MOTA 148.86 354 iPKPc 42 16.10 3.8X
0.9s 21.30nm
i 42 35.90
WTTA 148.88 353 iPKPc 42 16.40 4.1X
0.6s 19.20nm
i 42 36.70
ZLA 148.93 357 ePKPc 42 16.50 4.3X
SOTA 148.97 354 iPKPc 42 16.60 4.2X
i 42 36.70
HYF 149.04 5 iPKPc 42 17.00 4.7X
LOR 149.12 3 iPKPc 42 17.10 4.6X
1.0s 51.60nm

SSF 149.31 4 iPKPc 42 17.70 5.0X
0.7s 42.75nm
OGA 149.34 354 ePKP 42 18.10 5.0X
1.0s 27.00nm
MFF 149.38 9 iPKPc 42 17.30 4.4X
1.3s 72.20nm
LBF 149.41 3 iPKPc 42 17.70 4.7X
0.8s 36.55nm
PTJ 149.47 347 e(PKP)42 17.60 4.5X
LLS 149.51 356 ePKPd 42 18.30 5.0X
ZAG 149.54 347 e(PKP)42 18.00 4.9X
DSI 149.55 305 ePKP 42 18.50 4.9X
CSS 149.56 313 ePKP 42 19.40 5.9X
AVF 149.57 4 iPKPc 42 17.90 4.8X
1.1s 38.85nm
OSS 149.60 355 iPKPc 42 18.70 5.3X
LJU 149.63 349 ePKP 42 12.50 -0.8
LJU 149.63 349 e(PKP)42 18.00 4.7X
ePP 42 34.00
SMF 149.74 3 iPKPc 42 18.30 4.9X
1.3s 55.25nm
VOY 149.75 349 ePKPc 42 13.00 -0.6
i(PKPb42 17.80
e 42 35.50
BGF 149.76 5 iPKPc 42 18.50 5.1X
1.1s 67.90nm
VDL 149.85 356 ePKPc 42 19.20 5.3X
CEY 149.94 349 e(PKP)42 18.50 4.7X
LSF 149.94 7 iPKPc 42 18.70 5.0X
0.9s 63.90nm
TCF 149.97 6 iPKPc 42 18.90 5.1X
1.1s 42.25nm
VBY 150.00 347 ePKP 42 14.20 0.4
iPKPbc42 19.00
i 42 38.10
MAF 150.07 5 iPKPc 42 19.40 5.5X
1.2s 83.30nm
TRI 150.09 349 ePKP 42 19.00 5.1X
e 42 34.00
TMA 150.27 356 iPKPc 42 19.90 5.4X
DIX 150.36 358 iPKPc 42 21.20 6.5X
MMK 150.37 358 iPKPc 42 21.00 6.3X
EMS 150.38 359 ePKPc 42 20.90 6.3X
MBH 150.62 302 ePKP 42 21.10 5.7X
ORX 150.79 358 PKP 42 20.57 5.4X
RJF 150.87 7 iPKPc 42 21.10 5.9X
1.3s 53.45nm
LPL 150.94 359 iPKPc 42 22.40 6.9X
0.9s 30.15nm
LPG 150.96 359 iPKPc 42 22.60 6.9X
0.9s 33.25nm
LSD 150.99 359 PKP 42 22.44 6.8X
LFF 151.13 8 iPKPc 42 21.80 6.3X
0.9s 45.05nm
RSP 151.29 359 PKP 42 22.12 6.2X
CAF 151.31 6 iPKPc 42 22.40 6.5X
0.9s 21.95nm
SKO 151.36 336 ePKP 42 22.00 6.0X
LPO 151.44 8 iPKPc 42 22.40 6.4X
0.6s 14.05nm
VAY 151.45 334 ePKP 42 22.00 5.9X
RRL 151.53 359 PKP 42 23.77 7.3X
BHB 151.60 359 PKP 42 21.85 5.6X
PCP 151.85 357 PKP 42 24.27 7.6X
PZZ 151.94 359 PKP 42 22.72 5.8X
ROB 152.13 358 PKP 42 23.36 6.2X
STV 152.20 358 PKP 42 23.04 5.8X
FIN 152.20 357 PKP 42 23.36 6.2X
ENR 152.21 358 PKP 42 22.72 5.4X
OHR 152.35 336 ePKP 42 25.00 7.5X
IMI 152.51 358 PKP 42 24.69 7.0X
SBF 152.58 358 iPKPc 42 24.90 7.1X
0.6s 7.95nm
CDR 152.78 1 ePKPd 42 26.40 8.4X
e 42 36.00
e 42 46.80
PGF 153.81 355 iPKPc 42 27.60 8.0X
0.7s 6.40nm
BCAO 163.13 227 iPKPd 42 31.90 0.8
0.4s 18.00nm
id 43 22.00
id 43 40.00
LIC 165.00 131 PKP 42 32.90 0.1
PKPab 43 30.00
KIC 165.30 131 PKP 42 33.08 0.0
PKPab 43 31.50
S.D. = 1.2 on 108 of 179 obs.

MAR 15, 1993 19h 48m 00.62± 0.63s
34.774 N ± 6.3km 29.141 E ± 6.1km
DEPTH = 50.7 ± 10.6 km
4.2mb (15 obs.)
EASTERN MEDITERRANEAN SEA (371)

ELL 2.07 17 iPn 48 36.00 2.4
PPCY 2.64 87 eP 48 42.80 1.2
eS 49 12.50
BCK 2.93 23 ePn 48 48.00 2.2
NPS 2.94 281 iPd 48 47.60 1.7
CSS 3.45 86 eP 48 53.80 0.6
eS 49 30.30
KHL 3.56 5 ePn 48 53.00 -1.7
IZM 3.92 338 iPn 48 58.60 -1.2
FAM 4.00 85 eP 49 02.90 2.0
eS 49 45.60
DST 4.84 355 ePn 49 09.00 -3.8X
PRK 5.02 334 eP 49 15.80 0.5
HLW 5.24 159 eP 49 20.00 1.5
eS 50 13.00
ADI 5.33 107 eP 49 18.90 -0.8
VLI 5.41 293 eP 49 20.00 -0.7
BHL 5.46 97 Pn 49 21.00 -0.5
Sn 50 18.00
ZNT 5.53 116 eP 49 22.50 0.0
eS 50 20.50
SHMJ 5.88 108 P 49 26.40 -1.0
JVI 5.92 117 eP 49 27.60 -0.4
MASJ 6.29 117 P 49 32.00 -1.2
MKT 6.33 125 eP 49 33.10 -0.7
eS 50 39.80
SAGI 6.51 133 eP 49 35.40 -0.8
eS 50 43.90
SHWJ 6.93 127 P 49 40.30 -1.9
AOBJ 7.10 134 P 49 43.60 -0.8
KZN 8.05 315 eP 49 59.40 1.8
KEK 8.93 306 eP 50 07.80 -2.0
LCI 10.47 305 P 50 25.35 -5.4X
GRI 10.97 295 P 50 33.84 -3.8X
SOI 11.04 291 P 50 34.13 -4.5X
GMB 11.21 291 P 50 37.43 -3.7X
BRT 11.23 306 P 50 36.72 -4.5X
TDS 11.31 299 P 50 38.54 -3.7X
ORI 11.39 301 P 50 39.27 -4.0X
MEU 11.75 285 P 50 44.68 -3.6X
PZI 11.76 285 P 50 43.43 -4.9X
MGR 12.05 300 P 50 47.33 -4.8X
SGO 12.38 302 P 50 52.56 -4.0X
HVAR 12.95 314 iP 50 59.20 -4.8X
DUI 13.43 305 P 51 08.60 -1.8
SDI 13.88 304 P 51 14.63 -1.7
PSZ 14.84 335 eP 51 34.80 6.0X
GEC2 18.12 326 Pn 52 10.50 0.3
LPG 20.13 309 eP 52 33.30 0.0
0.6s 6.05nm 4.1mb
LPL 20.15 309 eP 52 33.90 0.5
0.5s 5.05nm 4.1mb
BSF 21.17 315 eP 52 43.10 -0.6
0.6s 2.80nm 3.8mb
CDF 21.19 317 eP 52 42.40 -1.5
0.5s 1.95nm 3.7mb
LBF 22.49 310 eP 52 57.30 0.5
0.5s 2.25nm 3.9mb
AVF 22.81 310 eP 52 59.60 -0.2
0.8s 4.55nm 4.0mb
SSF 22.82 310 eP 53 00.00 0.1
0.7s 13.25nm 4.5mb
BGF 23.05 309 eP 53 02.50 0.3
0.7s 8.95nm 4.3mb
RJF 23.51 305 eP 53 07.30 0.6
1.0s 6.80nm 4.1mb
MFF 25.01 307 eP 53 21.30 0.2
0.7s 3.30nm 4.0mb
LDF 25.66 311 eP 53 26.80 -0.4
0.6s 9.55nm 4.5mb
FLN 25.95 312 eP 53 29.00 -0.8
0.5s 9.40nm 4.6mb
LPF 26.04 310 eP 53 30.20 -0.5
0.7s 8.25nm 4.4mb
GRR 26.05 311 eP 53 30.40 -0.3
0.5s 10.50nm 4.6mb
BCAO 31.75 200 ePc 54 24.10 1.9
0.5s 5.00nm 4.6mb
KIC 42.12 236 P 55 51.10 1.5
LIC 42.41 236 P 55 53.60 1.6

DAG 47.19 347 eP 56 43.80 14.3X
S.D. = 1.3 on 43 of 58 obs.

% MAR 15, 1993 20h 44m 47.49± 0.75s
40.294 N ±13.3km 25.054 E ± 4.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (THE).

OUR 0.82 273 iPg 45 04.06 0.7
iSg 45 15.17
ALN 0.97 51 ePg 45 05.16 -0.7
eSg 45 19.12
PAIG 1.12 251 ePg 45 07.52 -0.9
eSg 45 23.36
SRS 1.38 307 ePb 45 12.80 0.0
eSb 45 31.24
SOH 1.40 293 iPb 45 12.92 -0.2
eSb 45 31.52
KNT 1.85 299 ePb 45 19.92 0.3
iSb 45 42.92
EDC 2.15 88 ePn 45 25.00 1.1
BNT 2.19 87 ePn 45 24.00 -0.5
S.D. = 0.8 on 8 of 8 obs.

? MAR 15, 1993 21h 23m 57.01± 1.59s
35.271 N ±24.4km 137.158 E ±21.7km
DEPTH = 33.0km (normal)
EASTERN HONSHU, JAPAN (227)

MAT 1.53 34 iPc 24 22.30 0.0
iS 24 42.50
WKYJ 1.66 231 eP 24 24.60 0.3
TKSJ 2.87 244 P 24 40.90 -0.5
S 25 13.50
YONJ 3.03 270 P 24 43.90 0.2
S.D. = 0.6 on 4 of 4 obs.

? MAR 15, 1993 23h 22m 43.62± 0.68s
42.515 S ± 3.9km 176.708 E ± 6.6km
DEPTH = 15.7 ± 2.8 km
3.7mb (2 obs.)
OFF E. COAST OF S. ISLAND, N.Z. (164)

BLW 1.47 321 P 23 09.50 0.0
MOW 1.54 315 P 23 10.20 -0.3
MTW 1.63 326 P 23 11.50 -0.2
CAW 1.86 318 P 23 14.90 -0.3
WEL 1.90 310 eP 23 15.50 -0.2
PGZ 1.92 350 eP 23 16.30 0.3
MRW 1.97 310 P 23 16.70 0.0
S 23 34.20
MNG 2.11 334 P 23 18.70 0.0
KIW 2.13 320 P 23 18.90 -0.1
TCW 2.23 305 P 23 20.40 -0.1
KHZ 2.35 271 P 23 21.50 -0.6
DIW 2.70 308 P 23 27.70 0.5
WAHZ 2.83 354 eP 23 29.20 0.2
THZ 2.93 284 eP 23 29.00 -1.4
MOZ 3.20 247 P 23 34.10 -0.1
LTZ 3.29 264 P 23 34.90 -0.6
CNZ 3.43 345 P 23 38.70 1.1
NGZ 3.44 346 P 23 38.70 0.9
MAHZ 3.44 15 P 23 37.20 -0.5
QRZ 3.56 297 P 23 39.20 -0.1
PAHZ 3.66 4 P 23 40.30 -0.6
NRZ 3.81 326 P 23 44.40 1.5
MOZ 4.26 339 P 23 49.30 0.0
URZ 4.26 4 P 23 47.80 -1.5
S 24 31.30
EWZ 4.41 255 P 23 51.70 0.4
WLZ 4.72 349 eP 23 55.30 -0.5
HBZ 5.06 15 P 23 58.20 -2.4X
ODZ 5.07 238 P 24 00.80 0.1
BWZ 5.36 246 P 24 05.20 0.4
MSCZ 5.87 242 P 24 12.30 0.2
LRCZ 5.91 242 eP 24 12.40 -0.3
LSCZ 5.91 241 P 24 12.50 -0.2
SBCZ 5.94 242 P 24 12.90 -0.2
MHZ 5.95 242 P 24 13.00 -0.2
CMCZ 5.99 241 P 24 13.70 0.0
TLC 6.13 242 P 24 15.70 -0.2
TUZ 6.14 234 P 24 16.20 0.5
SIZ 7.50 232 P 24 35.20 0.2
WB2 42.07 289 eP 30 36.80 0.5
0.5s 1.90nm 4.1mb
WRA 42.08 289 P 30 37.50 1.1

15d 23h

0.5s 0.30nm 3.3mb
S.D. = 0.6 on 39 of 40 obs.

% MAR 15, 1993 23h 28m 10.91± 1.22s
32.906 S ±12.4km 70.212 W ±17.9km
DEPTH = 110.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.3 (SAN).

JACH 0.39 305 iP 28 27.32 -0.1
iS 28 40.65
FCH 0.43 189 iP 28 27.80 -0.1
iS 28 40.74
PEL 0.46 239 iP 28 27.87 0.1
iS 28 40.81
ROCH 0.68 264 iP 28 29.69 0.1
iS 28 44.29
PCH 0.76 199 iP 28 30.27 0.2
iS 28 45.34
TACH 0.96 219 iP 28 32.03 0.0
iS 28 48.53
CHCH 1.09 200 iP 28 33.46 0.1
iS 28 51.16
LCCH 1.27 243 iP 28 35.48 0.1
iS 28 54.44
LNV 1.45 223 iP 28 37.08 -0.4
iS 28 57.45
S.D. = 0.2 on 9 of 9 obs.

% MAR 15, 1993 23h 30m 45.34± 1.27s
39.163 N ±10.1km 28.139 E ±15.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

DST 0.58 40 iPg 30 56.80 -0.4
eSg 31 06.80
IZM 1.03 222 iPg 31 04.80 0.0
iSg 31 18.30
KCT 1.10 9 iPn 31 07.10 1.1
EDC 1.20 350 ePn 31 07.50 -0.2
BNT 1.20 352 ePn 31 07.20 -0.6
S.D. = 0.9 on 5 of 5 obs.

% MAR 15, 1993 23h 31m 03.47± 0.69s
44.759 N ± 3.9km 6.992 E ± 7.4km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 1.9 (GEN).

BHB 0.21 67 P 31 07.79 0.0
S 31 10.54
RRL 0.22 318 P 31 07.98 0.0
S 31 10.86
PZZ 0.27 163 P 31 09.26 0.4
S 31 13.28
RSP 0.44 26 P 31 12.46 0.2
S 31 18.04
STV 0.57 155 P 31 14.84 0.0
S 31 23.12
ENR 0.61 150 P 31 15.39 -0.4
S 31 24.36
LSD 0.71 9 P 31 17.45 -0.2
S 31 27.33
S.D. = 0.3 on 7 of 7 obs.

MAR 15, 1993 23h 33m 45.07± 0.48s
19.677 N ±10.9km 38.860 E ± 7.6km
DEPTH = 10.0km (geophysicist)
4.2mb (13 obs.)
RED SEA (554)
MD 4.2 (RYD).

ABHA 3.94 110 eP 34 46.10 -1.1
eS 35 35.40
KMTA 4.08 111 eP 34 49.30 0.2
eS 35 40.60
DHJN 4.82 114 eP 35 04.20 4.4X
eS 35 58.40
MAIO 24.54 43 eP 39 11.00 4.9X
BCAO 24.94 235 iPc 39 11.00 0.9
1.0s 15.00nm 4.6mb
ic 39 20.00
OHR 26.34 328 eP 39 12.00 -11.0X
GEC2 35.44 331 P 40 39.70 -3.8X
1.5s 3.92nm 4.1mb
e 40 46.00
e 40 53.00
BRG 36.83 334 eP 41 03.10 8.1X
CLL 37.55 333 e(P) 41 01.00 -0.1
LBF 39.36 322 eP 41 16.00 -0.4
0.9s 3.75nm 4.1mb
CAF 39.50 318 eP 41 18.10 0.5
1.1s 6.60nm 4.2mb
LOR 39.58 322 eP 41 17.80 -0.3
0.9s 2.30nm 3.8mb
BGF 39.81 321 eP 41 20.40 0.4
1.0s 6.60nm 4.3mb
MAF 39.81 320 eP 41 20.20 0.1
0.8s 3.10nm 4.0mb
EPF 39.81 314 eP 41 20.40 0.2
0.9s 2.80nm 3.9mb
LFF 40.35 317 eP 41 25.20 0.7
0.9s 4.60nm 4.2mb
LDF 42.56 322 eP 41 41.80 -0.8
0.7s 2.75nm 4.1mb
LPF 42.83 321 eP 41 44.20 -0.6
1.1s 11.50nm 4.5mb
FLN 42.85 322 eP 41 44.10 -0.8
1.0s 8.40nm 4.4mb
KIC 44.35 259 P 41 56.90 -0.7
LZH 58.73 59 eP 43 47.50 1.6
2.0s 20.00nm 4.9mb
S.D. = 0.8 on 16 of 21 obs.

MAR 15, 1993 23h 43m 29.16± 0.15s
44.377 N ± 1.6km 7.348 E ± 1.5km
DEPTH = 20.2 ± 1.9 km
3.7mb (1 obs.)
NORTHERN ITALY (545)
ML 4.3 (GEN), 4.0 (LDG), 4.0
(STR), 3.7 (VIE), MD 4.1 (TRI),
3.8 (FIR), 3.7 (ROM), mbLg
3.7 (UCC).

STV 0.13 187 Pd 43 33.03 -0.6
DOI 0.15 330 P 43 33.81 0.0
ENR 0.16 161 Pd 43 33.58 -0.4
PZZ 0.22 306 Pd 43 34.40 -0.4
TOUF 0.37 191 Pg 43 36.73 -0.4
ROB 0.38 102 Pc 43 38.24 1.0
AUTN 0.39 171 Pg 43 37.33 -0.1
SAOF 0.42 159 Pg 43 37.93 0.1
Sg 43 43.17
BHB 0.47 353 Pd 43 38.31 -0.4
AURF 0.49 182 Pg 43 38.93 -0.2
SBF 0.52 173 Pg 43 39.55 0.0
IMI 0.61 140 Pc 43 41.53 0.5
S 43 49.44
REVF 0.64 179 Pg 43 41.74 0.2
FIN 0.64 105 Pc 43 42.51 0.9
S 43 51.21
RRL 0.68 324 Pd 43 42.27 0.0
S 43 51.05
CALN 0.71 208 Pg 43 42.80 0.0
Sg 43 51.95
RSP 0.78 355 Pc 43 43.25 -0.7
S 43 52.66
BNI 0.83 325 P 43 44.90 0.1
PCP 0.87 79 Pc 43 46.78 1.2
S 43 58.16
FRF 0.96 212 Pg 43 46.90 -0.1
Sg 43 58.50
LSD 1.09 353 Pc 43 48.65 -0.7
S 44 03.04
GANF 1.10 250 Pg 43 50.04 0.6
Sg 44 04.94
LRG 1.17 218 Pn 43 50.60 0.3
Sg 44 05.80
LPG 1.20 339 Pn 43 51.50 0.4
Sg 44 08.50
TAVF 1.20 231 Pg 43 51.25 0.4
LMR 1.21 210 Pn 43 51.20 0.3
Sg 44 05.80
LPL 1.22 339 Pn 43 52.10 0.8
Sg 44 08.20
VILF 1.29 247 Pg 43 53.57 1.5
Sg 44 10.74
ORO 1.33 20 P 43 51.63 -1.1
ORX 1.33 19 Pc 43 51.64 -1.2
S 44 07.45
GRN 1.43 308 Pg 43 56.53 2.4
PUYF 1.46 235 Pn 43 55.12 0.6
Sg 44 14.27
BERF 1.60 229 Pn 43 57.07 0.4
Sg 44 18.95
TREF 1.60 243 Pn 43 57.34 0.7
PRAF 1.67 251 Pn 43 58.22 0.6
Sg 44 22.82
DIX 1.70 1 iPc 43 58.20 -0.1
GELF 1.71 235 Pn 43 58.54 0.4
Sg 44 22.46
EMS 1.72 350 iPd 44 00.10 1.7
MMK 1.73 14 iPd 43 58.20 -0.4
BORS 1.78 93 Pd 43 59.44 0.2
VAI 1.80 34 P 43 59.83 0.5
TMA 2.04 31 iPc 44 02.80 -0.2
MDI 2.18 49 P 44 05.34 0.4
PGF 2.19 146 Pn 44 04.17 -1.0
SSB 2.19 295 Pn 44 05.97 0.8
BDI 2.36 97 P 44 07.67 0.2
MME 2.41 93 P 44 09.13 0.7
SAL 2.57 60 P 44 12.28 1.8
VDL 2.58 35 iPc 44 11.30 0.4
LLS 2.75 24 ePc 44 12.70 -0.5
COLF 2.83 295 Pn 44 14.66 0.4
FIR 2.88 101 ePn 44 15.00 0.2
iSn 45 05.00
LOMF 3.00 353 Pn 44 17.14 0.6
OSS 3.03 39 ePc 44 17.90 0.8
BBS 3.09 2 Pn 44 17.91 0.1
PGD 3.19 98 P 44 18.72 -0.7
ZLA 3.19 13 ePd 44 19.40 0.1
SFI 3.27 96 P 44 20.06 -0.3
SMF 3.35 314 Pn 44 22.50 1.0
Sn 45 01.40
CRE 3.41 101 P 44 22.52 0.1
CTI 3.47 60 P 44 22.96 -0.4
BSF 3.48 354 Pn 44 23.40 0.0
MOF 3.48 358 Pn 44 23.28 -0.1
SLE 3.48 13 iPd 44 22.60 -0.8
LBF 3.52 319 Pn 44 25.00 1.0
Sn 45 04.60
FEL 3.53 7 eP 44 23.36 -0.8
OGA 3.59 45 ePn 44 26.80 1.7
HAU 3.70 350 Pn 44 26.50 0.0
Sn 45 08.80
AVF 3.70 312 Pn 44 27.30 0.8
Sn 45 08.90
Sg 45 28.20
RSM 3.70 95 P 44 28.13 1.6
LOR 3.78 321 Pn 44 28.50 0.8
Sn 45 12.40
SSF 3.80 316 Pn 44 28.80 0.9
Sn 45 11.10
CAF 3.81 280 Pn 44 28.40 0.3
Sn 45 12.20
ECH 3.84 358 Pn 44 28.05 -0.5
BGF 3.84 306 Pn 44 29.40 0.9
Sn 45 17.10
MAF 3.84 300 Pn 44 29.30 0.7
Sn 45 12.00
Sg 45 32.50
ETER 3.88 239 iPd 44 28.70 -0.3
eS 45 11.00
SQTA 3.92 42 iPnc 44 31.00 1.3
iSn 45 10.40
i 45 18.30
iSg 45 24.20
VVI 3.93 64 P 44 29.70 -0.1
VITF 3.96 347 Pn 44 30.24 0.2
MOTA 3.96 40 iPnc 44 31.00 0.7
0.6s 61.50nm
i 45 19.20
iSg 45 26.20
CDF 4.04 359 Pn 44 30.56 -0.8
TCF 4.10 300 Pn 44 32.80 0.7
Sn 45 18.50
Sg 45 40.20
ARV 4.13 100 P 44 33.09 0.4
WTTA 4.16 45 iPnd 44 34.60 1.4
0.7s 57.00nm
i 45 16.30
iSg 45 26.00
WATA 4.18 43 iPnd 44 35.00 1.5
iSg 45 26.90
RJF 4.25 285 Pn 44 34.60 0.3
Sn 45 22.90
HYF 4.38 313 Pn 44 37.20 1.1
Sn 45 26.80
LPO 4.42 276 Pn 44 36.60 0.0

			Sn	45	25.40	
FVI	4.42	58	P	44	37.77	1.2
GRBF	4.49	252	Pn	44	37.40	-0.4
LSF	4.51	297	Pn	44	38.70	0.7
			Sn	45	28.50	
			Sg	45	52.00	
HOFF	4.59	5	Pn	44	37.87	-1.2
PAND	4.61	248	Pn	44	38.83	-0.8
TRI	4.74	71	e(Pn)	44	39.30	-1.9
			e(Pg)	44	57.10	
			e	45	00.50	
			e(Sn)	45	34.50	
			e(Sg)	46	03.50	
LFF	4.75	279	Pn	44	41.00	-0.4
RBL	4.84	63	P	44	41.83	-0.9
AQU	4.86	113	P	44	45.43	2.5
VOY	4.91	68	ePn	44	42.40	-1.4
			iSn	45	36.40	
			i	45	40.00	
			e(Sg)	45	59.00	
KBA	4.99	55	iPnc	44	44.80	-0.2
			i	45	00.40	
			i	45	33.80	
			iSn	45	38.20	
CEY	5.20	72	ePn	44	46.00	-1.7
			eSn	45	44.20	
EPF	5.26	258	Pn	44	47.20	-1.4
LJU	5.34	69	ePn	44	51.00	1.2
			e(Pb)	45	12.50	
			e(Sn)	45	48.50	
WLF	5.35	352	P	44	51.00	1.2
BTH	5.61	260	Pnc	44	52.00	-1.6
			i	44	52.40	
BTH	5.61	260	Pgd	45	13.70	20.1X
			i	45	15.00	
			Sg	46	29.50	
			Lg	46	54.00	
ESEL	5.67	217	iPd	44	54.00	-0.4
			eS	46	01.00	
MFF	5.72	296	Pn	44	55.10	0.0
VBY	5.73	76	ePn	44	54.00	-1.2
GRF	5.94	25	ePg	44	57.50	-0.6
			e(Sg)	46	01.00	
DOU	6.02	343	iP	44	59.40	0.2
			i	45	04.40	
			i	45	43.20	
			iS	46	04.40	
WET	6.10	37	iPc	44	58.80	-1.6
EROO	6.23	238	eP	45	02.00	-0.3
GEC2	6.25	42	Pn	45	01.30	-1.4
			Sn	46	08.90	
KHC	6.40	40	iPn	45	03.00	-1.7
			e	45	19.60	
			e	45	48.90	
			eSg	46	12.00	
			e	46	24.50	
			e	46	29.40	
ENN	6.47	352	ePn	45	12.00	6.4X
	0.8s	5.40nm				4.5mb X
			e(S)	46	14.00	
SNF	6.48	342	iP	45	10.70	5.0X
			S	46	16.30	
LDF	6.66	312	Pn	45	07.70	-0.6
			Sn	46	18.80	
LPF	6.87	305	Pn	45	11.00	-0.3
MOX	6.90	23	ePg	45	56.80	45.1X
			(Sn)	46	25.50	
GRR	6.95	308	Pn	45	11.70	-0.7
			Sn	46	25.40	
FLN	6.95	312	Pn	45	11.50	-0.9
			Sn	46	26.10	
VKA	7.33	55	ePn	45	18.00	0.3
			e(Sn)	46	36.00	
PRU	7.45	39	ePn	45	17.00	-2.4X
			Sn	46	40.50	
			e	47	04.00	
			e	47	35.50	
ETOR	7.79	246	eP	45	23.80	-0.5
BRG	7.88	32	ePg	46	10.00	44.6X
			e	46	49.00	
			e	47	47.00	
CLL	7.91	27	e(Pg)	46	19.00	53.2X
			e	47	43.00	
KSP	8.85	40	eP	45	35.60	-3.2X
			eS	47	08.20	
GUD	9.28	250	eP	45	43.60	-1.3
YKA	63.83	334	eP	54	01.20	-0.6

0.6s 0.40nm 3.7mb

S.D. = 0.9 on 122 of 130 obs.

MAR 15, 1993 23h 53m 07.93± 0.48s
44.352 N ± 3.8km 7.293 E ± 4.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN), 1.6 (LDG).

STV	0.11	168	P	53	11.30	0.4
			S	53	13.36	
ENR	0.16	144	P	53	12.26	0.7
			S	53	14.41	
PZZ	0.21	318	P	53	12.90	0.4
			S	53	15.92	
ROB	0.42	98	P	53	16.71	0.2
			S	53	22.74	
BHB	0.49	358	P	53	17.15	-0.7
			S	53	23.45	
SBF	0.50	168	Pg	53	17.00	-1.1
			Sg	53	24.70	
IMI	0.62	136	P	53	19.90	-0.5
			S	53	28.14	
FIN	0.67	102	P	53	21.11	-0.2
			S	53	30.26	
PCP	0.92	78	P	53	26.04	0.5
			S	53	37.84	
FRF	0.92	211	Pg	53	25.20	-0.3
			Sg	53	36.80	
LRG	1.12	217	Pg	53	29.50	0.6
			Sg	53	44.10	
LMR	1.16	209	Pg	53	29.70	0.0
			Sg	53	44.40	

S.D. = 0.6 on 12 of 12 obs.

MAR 15, 1993 23h 53m 51.23± 0.27s
44.363 N ± 2.0km 7.327 E ± 3.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (LDG), 2.1 (GEN).

STV	0.12	181	P	53	54.71	0.4
			S	53	56.68	
ENR	0.15	154	P	53	55.26	0.4
			S	53	57.64	
PZZ	0.22	311	P	53	55.99	0.0
			S	53	59.15	
TOUF	0.35	189	Pg	53	58.51	-0.1
AUTN	0.37	169	Pg	53	59.02	0.0
			Sg	54	03.35	
ROB	0.40	100	P	53	59.97	0.6
			S	54	06.42	
SAOF	0.41	156	Pg	53	59.47	-0.2
			Sg	54	04.89	
AURF	0.48	180	Pg	54	00.52	-0.4
			Sg	54	06.95	
BHB	0.48	355	P	54	00.34	-0.7
			S	54	06.84	
SBF	0.51	171	Pg	54	01.50	0.0
			Sg	54	07.80	
IMI	0.61	138	P	54	03.13	-0.4
			S	54	11.28	
REVF	0.62	177	Pg	54	03.99	0.2
FIN	0.65	103	P	54	04.18	-0.1
			S	54	13.11	
RRL	0.68	325	P	54	04.55	-0.3
			S	54	13.32	
CALN	0.69	207	Pg	54	05.61	0.7
RSP	0.79	356	P	54	06.47	-0.2
PCP	0.89	78	P	54	09.03	0.7
			S	54	20.34	
FRF	0.94	212	Pg	54	09.20	0.0
			Sg	54	20.20	
LRG	1.15	218	Pg	54	12.90	0.3
			Sg	54	27.60	
LMR	1.19	210	Pg	54	13.20	-0.2
			Sg	54	28.10	
LPG	1.21	340	Pg	54	14.50	0.6
			Sg	54	31.10	
LPL	1.23	340	Pg	54	14.40	0.2
			Sg	54	31.30	
PGF	2.18	146	Pn	54	26.68	-1.5

S.D. = 0.5 on 23 of 23 obs.

% MAR 15, 1993 23h 56m 24.25± 0.68s
44.399 N ± 5.8km 7.359 E ± 7.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

STV	0.16	189	P	56	27.43	-0.5
			S	56	29.39	
ENR	0.18	166	P	56	28.25	-0.1
			S	56	30.40	
PZZ	0.21	300	P	56	29.17	0.2
			S	56	32.00	
ROB	0.38	106	P	56	31.82	-0.3
BHB	0.45	351	P	56	33.19	-0.2
IMI	0.62	142	P	56	37.36	0.6

S.D. = 0.5 on 6 of 6 obs.

MAR 15, 1993 23h 57m 04.53± 0.34s
44.353 N ± 2.9km 7.313 E ± 3.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN), 2.1 (LDG).

STV	0.11	176	Pd	57	07.83	0.4
			S	57	09.85	
ENR	0.15	149	P	57	08.37	0.3
			S	57	10.93	
PZZ	0.21	315	Pc	57	09.26	0.0
			S	57	12.37	
ROB	0.40	98	P	57	13.05	0.2
			S	57	19.14	
BHB	0.49	356	P	57	13.28	-1.2
			S	57	20.15	
SBF	0.50	170	Pg	57	14.70	0.1
			Sg	57	20.70	
IMI	0.61	137	P	57	16.31	-0.5
			S	57	24.59	
FIN	0.66	102	P	57	17.36	-0.3
			S	57	26.28	
RRL	0.68	327	P	57	17.36	-0.8
			S	57	26.56	
PCP	0.90	77	P	57	22.03	0.2
			S	57	33.57	
FRF	0.93	212	Pg	57	22.10	-0.1
			Sg	57	33.50	
LRG	1.13	218	Pg	57	25.80	0.1
			Sg	57	39.80	
LMR	1.17	210	Pg	57	26.10	-0.3
			Sg	57	40.50	
LPG	1.21	341	Pg	57	28.30	1.0
			Sg	57	43.90	
LPL	1.23	341	Pg	57	28.70	1.1
			Sg	57	44.70	
CDR	1.31	239	eP	57	28.70	0.0
			e	57	44.90	

S.D. = 0.6 on 16 of 16 obs.

MAR 15, 1993 23h 57m 47.68± 0.36s
44.363 N ± 2.9km 7.315 E ± 3.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN), 1.7 (LDG).

STV	0.12	177	P	57	51.09	0.4
			S	57	53.06	
ENR	0.16	151	P	57	51.73	0.4
			S	57	54.11	
PZZ	0.21	313	P	57	52.69	0.4
			S	57	55.89	
ROB	0.40	99	P	57	56.08	0.1
			S	58	01.64	
BHB	0.48	356	P	57	56.85	-0.6
			S	58	03.16	
SBF	0.51	170	Pg	57	58.30	0.3
			Sg	58	04.50	
IMI	0.61	137	P	57	59.78	-0.3
			S	58	07.84	
FIN	0.66	103	P	58	00.61	-0.2
			S	58	09.26	
FRF	0.94	211	Pg	58	05.00	-0.5
			Sg	58	16.70	
LRG	1.14	218	Pg	58	08.90	-0.1
			Sg	58	23.20	
LMR	1.18	210	Pg	58	09.50	-0.2
			Sg	58	24.40	
LPG	1.20	341	Pg	58	10.40	0.1
LPL	1.23	340	Pg	58	11.00	0.4

S.D. = 0.4 on 13 of 13 obs.

MAR 15, 1993 23h 58m 52.85± 0.63s

15d 23h

12.814 N ± 9.7km 88.260 W ± 7.8km
DEPTH = 75.0 ± 6.6 km
4.3mb (6 obs.)
OFF COAST OF CENTRAL AMERICA (76)
MD 4.4 (GCG), 4.1 (APY). Felt (III) at San Salvador, El Salvador.

SJAS 1.22 314 iPd 59 14.00 -0.9
LFU 1.25 318 iPd 59 14.50 -0.6
YPE 1.90 313 iPd 59 23.50 -0.5
CUSS 1.97 304 iPd 59 24.50 -0.4
iS 59 48.00
PYT 2.16 97 eP 59 27.33 -0.1
TER 2.78 302 eP 59 35.47 -0.6
eS 00 08.14
SSN 2.79 122 eP 59 36.60 0.4
TPX 4.41 299 iP 00 00.00 1.2
iS 00 42.50
SCX 5.75 313 (P) 00 29.50 11.9X
IISM 10.70 306 eP 01 26.25 0.8
PPM 11.75 303 (P) 01 41.50 1.5
III 12.13 299 eP 01 45.00 0.2
MIAR 22.17 348 eP 03 44.12 0.3
1.0s 26.09nm 4.6mb
GBTN 23.04 8 (P) 03 52.63 0.3
MEO 23.79 339 iPc 04 01.10 1.5
WMOK 23.82 338 eP 04 00.03 0.1
0.9s 9.37nm 4.2mb
OCO 24.10 341 iPc 04 21.10 18.5X
ELC 24.38 358 eP 04 05.50 0.2
ACO 25.71 340 iPc 04 16.90 -1.0
SRU 32.78 327 (P) 05 21.24 0.1
RSSD 34.01 340 eP 05 31.35 -0.4
0.6s 3.15nm 4.4mb
BW06 35.09 332 eP 05 39.82 -1.2
0.8s 2.66nm 4.2mb
ZOBO 35.10 145 P 05 42.00 0.2
CNCB 35.61 145 eP 05 46.00 0.0
ULM 37.85 352 eP 06 04.50 0.7
LMN 38.46 27 eP 06 11.50 2.4
LCCM 38.52 333 eP 06 10.20 0.4
SIV 39.27 136 eP 06 22.00 5.9X
JAQ 42.08 11 eP 06 36.50 -2.3
FCC 46.07 356 eP 07 12.00 1.3
YKA 53.06 345 eP 08 03.20 -1.0
0.6s 1.50nm 4.2mb
RES 61.97 358 eP 09 05.00 -1.8
1.0s 4.00nm 4.5mb
pP 09 23.50 71kmX
WB2 138.60 254 ePKP 18 11.60 -1.1
0.4s 2.80nm
S.D. = 1.1 on 30 of 33 obs.

% MAR 16, 1993 00h 28m 36.12± 0.91s
44.374 N ± 9.1km 7.354 E ± 8.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

STV 0.13 189 P 28 39.36 0.0
S 28 41.28
ENR 0.15 162 P 28 39.89 0.1
S 28 42.41
PZZ 0.22 306 P 28 41.03 0.0
S 28 44.01
ROB 0.38 102 P 28 43.97 0.1
IMI 0.60 140 P 28 48.20 -0.1
S.D. = 0.1 on 5 of 5 obs.

MAR 16, 1993 00h 34m 58.68± 0.35s
44.337 N ± 2.7km 7.336 E ± 3.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN), 2.0 (LDG).

STV 0.09 185 Pd 35 01.86 0.5
S 35 03.86
ENR 0.13 151 Pd 35 02.39 0.5
S 35 04.96
PZZ 0.24 315 Pc 35 03.30 -0.5
S 35 06.36
TOUF 0.33 191 Pg 35 05.80 0.2
Sg 35 09.77
AUTN 0.35 169 Pg 35 05.79 -0.2
Sg 35 10.36
SAOF 0.38 156 Pg 35 06.26 -0.3
Sg 35 12.00
ROB 0.39 96 Pd 35 07.16 0.5
S 35 12.98
AURF 0.45 181 Pg 35 07.57 -0.3
Sg 35 13.82
SBF 0.48 171 Pg 35 08.70 0.3
Sg 35 15.40
BHB 0.51 354 P 35 07.26 -1.7
S 35 13.16
IMI 0.58 137 Pd 35 10.33 -0.2
S 35 18.75
REVF 0.60 178 Pg 35 10.20 -0.6
FIN 0.64 101 Pd 35 11.41 -0.1
S 35 20.39
CALN 0.67 209 Pg 35 11.99 -0.1
Sg 35 20.67
RRL 0.70 326 P 35 12.30 -0.4
S 35 20.76
RSP 0.82 356 P 35 13.35 -1.2
PCP 0.89 76 P 35 15.50 -0.3
S 35 27.96
FRF 0.92 213 Pg 35 16.50 0.2
Sg 35 27.30
LRG 1.13 219 Pg 35 20.00 0.2
Sg 35 34.70
LMR 1.17 211 Pg 35 20.80 0.3
Sg 35 34.80
LPG 1.23 341 Pg 35 23.80 2.0
LPL 1.25 340 Pg 35 24.30 2.1
CDR 1.31 240 eP 35 22.00 -0.9
e 35 38.70
S.D. = 0.9 on 23 of 23 obs.

MAR 16, 1993 00h 44m 38.42± 1.03s
9.570 N ± 6.5km 70.826 W ± 6.9km
DEPTH = 16.5 ± 8.0 km
4.2mb (1 obs.)
VENEZUELA (101)
Felt at Bocono, Santo Domingo, Merida, El Tocuyo and Trujillo.

SDV 0.71 164 iPgc 44 51.90 -0.1
iSg 45 00.60
TOV 1.04 78 iPgd 44 57.50 -0.2
eSg 45 10.00
CEOS 2.52 102 iPc 45 19.20 -0.2
eS 45 47.20
MORO 2.79 62 iPc 45 23.30 0.0
eS 45 56.20
GUAC 3.56 80 iP 45 34.90 0.7
eS 46 22.50
OLLA 3.99 83 iP 45 40.30 0.0
eS 46 19.80
LLAV 4.06 77 iP 45 41.70 0.5
eS 46 28.70
GUAN 5.12 85 eP 45 55.50 -0.8
ZOBO 25.83 174 P 50 12.00 0.5
LPB 26.07 174 eP 50 31.00 17.5X
CNCB 26.36 174 P 50 16.00 -0.4
SIV 27.17 159 eP 50 28.00 4.8X
FVM 33.34 331 eP 51 17.20 -0.6
SRU 46.04 316 eP 53 04.19 0.8
BW06 47.29 321 (P) 53 13.00 -0.3
YKA 61.52 339 eP 54 55.00 -1.6
0.7s 1.20nm 4.2mb
SLKM 76.51 330 (P) 56 30.55 1.4
WB2 153.60 244 ePKP 04 36.80 6.2X
0.3s 3.50nm
i 04 43.50
S.D. = 0.8 on 15 of 18 obs.

% MAR 16, 1993 01h 06m 28.48± 0.89s
44.364 N ± 9.2km 7.336 E ± 8.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.4 (GEN).

STV 0.12 184 P 06 31.67 0.1
S 06 33.60
ENR 0.15 156 P 06 32.26 0.2
S 06 34.76
PZZ 0.22 310 P 06 33.28 0.0
S 06 36.60
ROB 0.39 100 P 06 36.67 0.2
S 06 43.17
IMI 0.60 139 P 06 40.28 -0.4
S 06 48.66
S.D. = 0.4 on 5 of 5 obs.

• MAR 16, 1993 01h 08m 36.63± 1.17s
26.715 S ± 6.3km 71.341 W ±17.9km
DEPTH = 58.9 ± 16.9 km
OFF COAST OF NORTHERN CHILE (121)

ANT 3.11 16 iPd 09 23.00 -1.3
CYA 5.22 111 eP 09 53.50 -0.5
(S) 11 12.60
RTCB 5.25 156 iPd 09 56.20 1.7
S 10 53.50
RTPR 5.55 131 e(P)c 09 58.60 0.0
CFA 5.58 152 eP 10 00.20 1.2
PEL 6.43 175 iPd 10 10.50 -0.5
TCA 7.49 130 e(P) 10 24.00 -1.8
MRA 7.50 141 ePc 10 25.30 -0.5
ARE 10.20 359 eP 11 02.00 -1.2
eS 12 54.00
CNCB 10.34 18 P 11 06.00 0.7
LPB 10.57 17 eP 11 10.00 1.6
ZOBO 10.80 17 P 11 11.00 -0.6
SIV 14.32 44 eP 12 00.00 2.2
PPD 18.83 80 eP 12 59.60 5.2X
VAO 22.41 86 eP 13 31.70 0.2
e 13 43.00
CACB 22.98 83 eP 13 36.50 -0.7
i 13 38.10
BAO 24.36 68 eP 13 50.20 -0.4
e 14 08.00
BDF 24.42 68 eP 13 51.00 -0.1
e 14 08.20
S.D. = 1.3 on 17 of 18 obs.

MAR 16, 1993 01h 14m 09.86± 0.28s
44.366 N ± 2.2km 7.296 E ± 3.1km
DEPTH = 12.9 ± 2.9 km
NORTHERN ITALY (545)
ML 2.2 (GEN), 1.9 (LDG).

STV 0.12 170 Pd 14 13.49 0.1
S 14 15.41
ENR 0.17 147 P 14 14.02 0.0
S 14 16.48
PZZ 0.20 315 P 14 14.88 0.3
S 14 17.87
TOUF 0.35 186 Pg 14 17.14 -0.3
Sg 14 21.54
AUTN 0.38 166 Pg 14 17.54 -0.4
Sg 14 22.29
ROB 0.42 100 P 14 18.53 0.0
S 14 24.77
SAOF 0.42 154 Pg 14 18.37 -0.3
Sg 14 23.97
BHB 0.48 357 P 14 18.80 -0.8
S 14 26.63
AURF 0.48 177 Pg 14 19.08 -0.6
Sg 14 25.74
SBF 0.51 169 Pg 14 20.20 -0.1
Sg 14 26.70
IMI 0.63 137 P 14 21.98 -0.2
S 14 30.48
REVF 0.63 175 Pg 14 22.90 0.7
RRL 0.66 327 P 14 22.25 -0.7
S 14 32.21
FIN 0.67 103 P 14 23.11 0.1
S 14 32.41
CALN 0.68 206 Pg 14 23.21 0.0
PCP 0.91 78 P 14 27.76 0.7
S 14 39.51
FRF 0.93 210 Pg 14 27.40 0.0
Sg 14 39.10
LRG 1.13 217 Pg 14 31.30 0.5
Sg 14 46.00
LMR 1.18 209 Pg 14 31.80 0.2
Sg 14 46.40
LPG 1.20 341 Pg 14 32.40 0.3
Sg 14 48.30
LPL 1.22 341 Pg 14 32.70 0.3
S.D. = 0.4 on 21 of 21 obs.

MAR 16, 1993 01h 17m 34.68± 0.38s
44.374 N ± 2.5km 7.326 E ± 3.1km
DEPTH = 12.2 ± 4.4 km
NORTHERN ITALY (545)
ML 2.2 (GEN), 2.0 (LDG).

STV	0.13	181	P	17 37.96	-0.2
			S	17 39.85	
ENR	0.16	155	P	17 38.57	-0.1
			S	17 41.07	
PZZ	0.21	309	P	17 39.51	0.0
			S	17 42.42	
ROB	0.40	101	P	17 43.29	0.3
			S	17 49.17	
BHB	0.47	355	P	17 43.34	-1.0
			S	17 49.42	
SBF	0.52	171	Pg	17 44.80	-0.4
			Sg	17 51.00	
IMI	0.62	139	P	17 46.67	-0.2
			S	17 54.97	
FIN	0.65	104	P	17 47.61	0.1
			S	17 56.46	
RRL	0.67	325	P	17 47.75	-0.2
			S	17 56.93	
RSP	0.78	356	P	17 49.42	-0.3
			S	17 59.34	
PCP	0.89	79	P	17 52.00	0.4
			S	18 04.02	
FRF	0.95	211	Pg	17 52.80	0.2
			Sg	18 03.60	
LRG	1.15	218	Pg	17 56.20	0.2
			Sg	18 10.10	
LMR	1.20	210	Pg	17 56.60	-0.2
			Sg	18 11.00	
LPG	1.20	340	Pg	17 57.60	0.6
LPL	1.22	340	Pg	17 57.80	0.5
CDR	1.32	239	eP	17 59.20	0.3
			e	18 15.60	

S.D. = 0.4 on 17 of 17 obs.

MAR 16, 1993 01h 21m 35.97± 0.48s
44.370 N ± 3.7km 7.302 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN), 1.4 (LDG).

STV	0.13	173	P	21 39.61	0.5
			S	21 41.51	
ENR	0.17	149	P	21 40.43	0.6
			S	21 42.66	
PZZ	0.20	313	P	21 41.26	0.9
			S	21 44.23	
ROB	0.42	100	P	21 44.76	0.3
			S	21 50.78	
BHB	0.47	357	P	21 45.30	-0.3
			S	21 51.43	
SBF	0.52	169	Pg	21 44.50	-1.9
			Sg	21 53.00	
IMI	0.62	137	P	21 49.09	0.5
			S	21 56.34	
FRF	0.94	211	Pg	21 53.50	-0.3
			Sg	22 05.20	
LRG	1.14	217	Pg	21 57.90	0.6
			Sg	22 13.10	
LMR	1.18	209	Pg	21 58.10	0.1
			Sg	22 14.20	
LPG	1.19	341	Pg	21 57.80	-0.6
LPL	1.22	341	Pg	21 58.50	-0.3

S.D. = 0.8 on 12 of 12 obs.

---

* MAR 16, 1993 01h 28m 45.91± 1.76s
44.455 N ±13.1km 7.591 E ± 8.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.2 (GEN).

ROB	0.26	129	P	28 51.49	0.1
			S	28 57.21	
ENR	0.26	208	P	28 52.33	0.9
			S	28 54.44	
STV	0.29	222	P	28 51.55	-0.4
			S	28 53.48	
PZZ	0.35	278	P	28 53.29	0.0
			S	28 56.36	
SBF	0.60	191	Pg	28 57.50	-0.6

S.D. = 0.8 on 5 of 5 obs.

MAR 16, 1993 01h 30m 09.38± 1.14s
51.309 N ±10.7km 15.807 E ± 5.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.4 (GRF), 3.3 (VIE).

KSP	0.56	146	iPd	30 19.20	-1.5
	0.3s			77.00nm	
			iS	30 28.60	
			eLR	30 36.00	
BRG	1.25	250	iPg	30 33.60	1.0
			iSg	30 53.50	
			eSg	49 08.60	
PRU	1.55	212	Pn	30 37.00	0.0
	0.4s			22.60nm	
			Pg	30 39.40	
			e	30 43.40	
			Sn	30 56.40	
			eSg	31 04.50	
			e	31 09.20	
			eSg	48 55.50	
CLL	1.76	271	iPn	30 38.80	-1.3
			iPg	30 41.90	
			iSg	31 08.20	
			eSg	49 35.00	
VRAC	2.06	166	iPnc	30 44.60	0.1
	0.3s			9.90nm	
			Pg	30 49.40	
			eSg	31 17.70	
KHC	2.61	214	Pn	30 52.00	-0.3
			e	30 58.50	
			e	31 05.40	
			e	31 28.00	
			e	31 37.60	
			eSg	31 41.20	
HOF	2.68	250	ePn	30 52.70	-0.7
MOX	2.73	258	ePn	30 54.00	-0.1
			iPg	31 01.90	
			iSg	31 40.60	
OJC	2.76	112	eP	30 55.60	1.2
			iS	31 30.40	
GEC2	2.81	210	Pn	30 56.10	0.8
			Pg	31 08.60	
			Sg	31 46.00	
WET	2.87	222	ePn	30 56.40	0.4
VKA	3.06	174	iPgd	31 07.00	8.3X
			iSg	31 50.90	
ZST	3.23	164	eP	31 14.20	13.1X
			e	31 29.70	
GRF	3.35	243	ePnc	31 02.70	-0.1
			ePg	31 14.30	
			e(Sn)	31 53.40	
			eSg	32 01.20	
SPC	3.55	125	eP	31 11.40	5.6X
KBA	4.53	202	iPnd	31 19.30	-0.4
			i	31 27.90	
			iSg	32 42.90	
WATA	4.84	216	iPnd	31 24.30	0.1
			iSg	32 51.70	
WTTA	4.88	216	iPnc	31 24.20	-0.5
			iSg	32 52.20	
MOTA	5.02	220	iPnc	31 27.20	0.6
			iSg	32 58.80	
SOTA	5.08	218	iPnc	31 28.00	0.6
VBY	5.82	184	ePn	31 33.40	-4.4X
			e	31 37.00	

S.D. = 0.8 on 17 of 21 obs.

MAR 16, 1993 02h 11m 20.63± 0.31s
44.371 N ± 1.9km 7.322 E ± 2.7km
DEPTH = 12.3 ± 3.5 km
NORTHERN ITALY (545)
ML 2.2 (LDG), 2.1 (GEN).

STV	0.13	179	P	11 24.16	0.1
			S	11 26.12	
ENR	0.16	154	P	11 24.72	0.1
			S	11 27.23	
PZZ	0.21	310	P	11 25.57	0.1
			S	11 28.59	
TOUF	0.36	188	Pg	11 27.81	-0.4
AUTN	0.38	169	Pg	11 28.46	-0.2
			Sg	11 33.53	
ROB	0.40	101	P	11 29.40	0.4
			S	11 35.19	
SAOF	0.42	156	Pg	11 29.33	0.0
			Sg	11 34.58	
BHB	0.47	355	P	11 29.55	-0.8
			S	11 35.59	
AURF	0.48	180	Pg	11 30.00	-0.6
SBF	0.51	171	Pg	11 31.02	-0.1
			Sg	11 37.75	
IMI	0.62	138	P	11 32.67	-0.2
			S	11 41.03	
REVF	0.63	177	Pg	11 33.33	0.2
FIN	0.66	104	P	11 33.58	0.0
			S	11 42.54	
RRL	0.67	325	P	11 34.03	0.1
			S	11 42.39	
CALN	0.69	207	Pg	11 33.93	-0.3
			Sg	11 43.13	
RSP	0.78	357	P	11 34.78	-1.0
PCP	0.89	79	P	11 37.91	0.3
			S	11 49.84	
FRF	0.95	211	Pg	11 38.70	0.3
			Sg	11 49.30	
LRG	1.15	218	Pg	11 42.30	0.4
			Sg	11 56.90	
LMR	1.19	210	Pg	11 42.50	-0.1
			Sg	11 57.00	
LPG	1.20	340	Pg	11 43.50	0.6
LPL	1.22	340	Pg	11 43.70	0.4
CDR	1.32	239	ePg	11 45.10	0.3
			eSg	12 01.20	

S.D. = 0.4 on 23 of 23 obs.

---

* MAR 16, 1993 02h 20m 32.35± 0.85s
19.182 N ± 9.9km 63.234 W ± 7.1km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
LEEWARD ISLANDS (92)

BPA	2.50	148	eP	21 12.74	1.2
MGH	2.63	158	eP	21 13.76	0.3
MGH	2.63	158	eP	21 17.00	3.5X
			S	21 46.00	
LPR	2.64	251	P	21 13.50	-0.2
CPD	2.79	246	P	21 16.00	0.4
SJG	2.96	249	iP	21 18.40	0.2
APR	3.39	258	P	21 24.00	-0.2
PORP	3.42	251	P	21 24.40	-0.2
DEG	3.53	144	eP	21 25.00	-1.2
MGP	3.84	253	P	21 30.20	-0.3
LHS	21.81	318	eP	25 24.96	1.4
YKA	55.72	334	eP	30 06.60	-1.2
	0.8s		0.80nm		3.8mb

S.D. = 0.9 on 11 of 12 obs.

? MAR 16, 1993 02h 22m 47.46± 0.96s
44.363 N ±10.1km 7.315 E ± 9.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

STV	0.12	177	P	22 50.52	0.0
			S	22 52.45	
ENR	0.16	151	P	22 51.15	0.0
			S	22 53.38	
PZZ	0.21	313	P	22 52.09	0.0
			S	22 55.04	
ROB	0.40	100	P	22 55.75	0.0
			S	23 01.46	

S.D. = 0.0 on 4 of 4 obs.

MAR 16, 1993 02h 55m 47.49± 0.46s
44.343 N ± 3.8km 7.343 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN), 1.7 (LDG).

STV	0.10	188	Pd	55 50.55	0.3
			S	55 52.59	
ENR	0.13	155	Pd	55 51.11	0.4
			S	55 53.72	
PZZ	0.24	313	Pc	55 51.98	-0.7
			S	55 55.00	
ROB	0.38	97	Pd	55 55.83	0.5
			S	56 01.74	
SBF	0.48	172	Pg	55 56.60	-0.7
			Sg	56 03.90	
BHB	0.50	354	P	55 55.96	-1.7
			S	56 02.03	
IMI	0.58	138	P	55 59.23	-0.2
			S	56 07.47	
FIN	0.64	102	Pc	55 59.86	-0.4
			S	56 08.78	
RRL	0.70	326	P	56 00.54	-1.0
PCP	0.88	77	P	56 04.40	-0.1
FRF	0.93	213	Pg	56 04.40	-0.8
			Sg	56 16.10	

```
16d  02h

LRG      1.14 219 Pg     56 08.70  -0.1
                  Sg     56 23.70
LMR      1.18 211 Pg     56 10.60   1.2
                  Sg     56 23.50
LPG      1.23 340 Pg     56 12.00   1.5
LPL      1.25 340 Pg     56 12.70   1.8
      S.D. = 1.0  on  15 of  15 obs.
-----------------------------------------
% MAR  16, 1993  03h 04m 00.64± 0.70s
   44.392 N ± 6.3km     7.350 E ± 8.0km
   DEPTH =   10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.9 (GEN).

STV      0.15 187 P      04 04.24   0.1
                  S      04 06.25
ENR      0.17 163 P      04 04.76   0.1
                  S      04 07.28
PZZ      0.21 303 P      04 05.63   0.3
                  S      04 08.59
ROB      0.39 104 P      04 09.19   0.6
                  S      04 14.89
BHB      0.45 352 P      04 09.54  -0.3
IMI      0.62 141 P      04 12.37  -0.8
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
% MAR  16, 1993  03h 35m 43.10± 0.69s
   44.382 N ± 5.7km     7.348 E ± 7.4km
   DEPTH =    5.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.8 (GEN).

STV      0.14 187 P      35 45.99   0.0
                  S      35 47.89
ENR      0.16 162 P      35 46.82   0.3
                  S      35 48.90
PZZ      0.22 305 P      35 47.80   0.3
                  S      35 50.78
ROB      0.39 103 P      35 51.37   0.5
                  S      35 57.23
BHB      0.46 353 P      35 52.06  -0.3
IMI      0.61 140 P      35 54.69  -0.7
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
& MAR  16, 1993  03h 59m 26.63s
   38.789 N            122.774 W
   DEPTH =    4.1km
 NORTHERN CALIFORNIA                ( 36)
      &lt;GM-P&gt;. MD 3.5 (GM). ML 3.5
      (BRK), 3.4 (GS). Felt (IV) at
      Cobb.

NTYM     0.41 168 iPd    59 34.91   0.1
ZSP      0.94 154 iPc    59 44.65  -0.4
                  eS     59 59.86
BKS      1.00 155 ePc    59 45.35  -0.9
                  eS     00 00.19
ORV      1.25  52 iPd    59 49.21  -1.2
PCC      1.32 166 ePc    59 49.81  -1.8
STAN     1.46 161 e(P)   59 53.11  -0.7
                  eS     00 18.64
MHC      1.70 148 eP     59 55.99  -1.3
                  eS     00 22.48
ARN      1.74 145 eP     59 56.62  -1.2
MIN      1.80  30 eP     59 57.48  -1.3
WDC      1.80   6 ePn    59 58.10  -0.5
GCC      1.86 160 ePc    59 57.08  -2.4
FOX      1.97 332 ePd    00 07.35   6.3
CMB      2.02 111 iPc    00 00.58  -1.4
                  eS     00 26.92
FHC      2.22 335 ePc    00 12.97   8.2
SAO      2.28 152 ePn    00 03.39  -2.2
LLA      2.61 146 iPc    00 08.57  -1.7
LBFM     2.64  15 eP     00 12.24   1.3
PRS      2.69 155 iPd    00 09.52  -2.0
FRI      3.02 126 ePd    00 16.84   0.8
PRI      3.13 147 ePc    00 15.65  -2.1
MEMM     3.22 109 ePn    00 18.18  -0.7
PHAM     3.50 147 eP     00 21.56  -1.4
BONR     3.61 102 ePn    00 24.98   0.2
KVN      3.66  84 ePn    00 24.04  -1.3
                  ePg    00 34.03
BCH      4.19 148 eP     00 32.16  -0.7
TNP      4.42  97 (Pn)   00 35.80  -0.4
                  ePg    00 45.88
ISA      4.64 131 eP     00 38.68  -0.5
                  eS     01 44.31
```

```
TPNV     5.48 108 (Pn)   00 52.75   1.5
                  ePg    01 06.37
                  eS     02 25.78
DUG      7.83  77 eP     01 23.11  -1.1
MSU      8.30  89 eP     01 30.02  -0.9
      30 obs. associated
-----------------------------------------
? MAR  16, 1993  04h 47m 51.96± 0.87s
   8.092 S ± 8.8km   122.464 E ±16.0km
   DEPTH =   33.0km  (normal)
   4.1mb (  2 obs.)
 FLORES REGION, INDONESIA           (286)

WSI      2.66 234 ePc    48 34.80   1.4
                  eS     48 59.20
MBL     13.24 191 eP     50 58.00  -2.2
ASPA    18.97 146 eP     52 14.50   1.1
         1.0s      8.20nm          3.9mb
                  eS     55 34.90
MRWA    21.88 195 eP     52 44.00   0.1
         0.4s      6.00nm          4.4mb
BAL     23.04 193 eP     52 55.60   0.2
GUN     50.32 317 P      56 48.40   0.2
PKI     50.42 316 P      56 48.60  -0.4
KKN     50.65 316 P      56 50.40  -0.2
DMN     50.66 316 P      56 50.40  -0.3
GKN     51.23 316 P      56 55.00   0.1
      S.D. = 1.1  on  10 of  10 obs.
-----------------------------------------
% MAR  16, 1993  05h 23m 05.50± 0.70s
   44.382 N ± 6.4km     7.325 E ± 8.3km
   DEPTH =   10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.6 (GEN).

STV      0.14 180 P      23 08.81   0.0
                  S      23 10.78
ENR      0.17 156 P      23 09.50   0.1
                  S      23 11.84
PZZ      0.20 308 P      23 10.39   0.4
                  S      23 13.35
ROB      0.40 102 P      23 14.27   0.5
                  S      23 20.21
BHB      0.46 355 P      23 14.49  -0.4
                  S      23 20.71
IMI      0.62 139 P      23 17.53  -0.5
                  S      23 25.43
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
& MAR  16, 1993  06h 04m 06.34s
   62.751 N            149.562 W
   DEPTH =   69.9km
 CENTRAL ALASKA                     (  1)
      &lt;AEIC&gt;. ML 2.6 (AEIC).

HUR      0.23 352 iPd    04 17.13  -0.1
                  eS     04 25.38
RND      0.73  26 iPd    04 21.64  -0.3
                  eS     04 33.30
TRF      0.78 335 iPd    04 22.44  -0.1
                  eS     04 34.64
MCK      1.03  16 eP     04 25.42   0.0
                  eS     04 41.08
GHO      1.03 163 iPc    04 25.19  -0.3
                  eS     04 40.36
SML      1.11 148 ePc    04 26.06  -0.5
                  eS     04 42.21
PWA      1.11 188 P      04 26.20  -0.3
PLRM     1.18 170 ePc    04 27.44   0.0
                  eS     04 43.74
PMR      1.18 170 eP     04 27.06  -0.3
                  eS     04 43.28
SKT      1.20 231 iPc    04 27.27  -0.4
                  eS     04 43.49
SCM      1.39 130 eP     04 30.32   0.0
SUA      1.41 204 ePc    04 30.40  -0.2
                  eS     04 50.76
PMS      1.51 180 P      04 32.40   0.5
NEA      1.85   7 iPc    04 35.62  -0.8
SDG      1.87  95 ePc    04 37.40   0.6
PAX      1.89  81 eP     04 37.34   0.2
PTE      1.91 172 ePc    04 37.95   0.7
CRP      1.93 221 eP     04 36.68  -1.0
CPAM     1.93 220 eP     04 38.05   0.3
CP2      1.96 221 eP     04 38.34   0.2
SPU      1.97 218 eP     04 38.35   0.2
CKN      1.97 220 eP     04 38.57   0.4
```

```
CKT      1.99 220 eP     04 38.96   0.4
BGL      2.00 223 eP     04 39.41   0.7
HDA      2.03  34 iPc    04 38.40  -0.6
CKL      2.04 221 eP     04 39.28   0.1
CCB      2.06  22 iPc    04 38.49  -0.8
KLU      2.13 125 ePc    04 40.17  -0.2
NKA      2.17 202 eP     04 43.65   2.8
VLZ      2.23 135 eP     04 40.99  -0.7
MPA      2.27 177 eP     04 43.85   1.5
SLKM     2.27 188 eP     04 43.01   0.6
MDM      2.29  14 ePc    04 42.03  -0.6
FBA      2.30  19 iPc    04 41.91  -0.7
GLM      2.44  22 iPc    04 43.96  -0.8
SEW      2.66 179 eP     04 48.82   1.2
RDW      2.75 216 eP     04 49.84   0.6
RS2      2.76 215 eP     04 50.87   1.6
RSO      2.76 215 eP     04 51.08   1.8
RS1      2.76 215 eP     04 50.98   1.7
HIN      2.78 147 eP     04 48.22  -1.2
CVA      2.86 139 eP     04 52.68   2.1
GLB      3.01 113 eP     04 52.19  -0.5
SGAM     3.07 135 P      04 57.50   4.0
CNPM     3.34 195 eP     04 57.37   0.1
CRQM     3.65 120 eP     05 01.64  -0.1
PDB      3.72 219 eP     05 03.13   0.6
IMA      3.78 334 eP     05 02.47  -1.0
BALM     3.82 114 eP     05 04.96   0.8
      49 obs. associated
-----------------------------------------
   MAR  16, 1993  06h 18m 36.10± 0.55s
   38.558 S ± 5.2km   175.843 E ± 6.3km
   DEPTH = 174.4 ±  6.5 km
   4.5mb (  2 obs.)
 NORTH ISLAND, NEW ZEALAND          (159)

PATZ     0.37  62 Pc     18 59.60  -0.3
UTU      0.47  36 P      18 59.80  -0.4
WHH      0.61 123 P      19 00.80  -0.3
TAZ      0.61  58 Pd     19 00.40  -0.6
NGZ      0.65 197 P      19 01.80   0.4
CNZ      0.68 200 Pd     19 02.00   0.5
WLZ      0.71 344 P      19 01.20  -0.4
                  S      19 18.40
DRZ      0.75 197 eP     19 02.50   0.3
MOZ      0.82 273 P      19 02.60   0.4
                  eS     19 21.90
TAHZ     0.91 130 eP     19 03.70   0.7
PAHZ     0.99 108 P      19 03.60   0.1
URZ      1.04  74 P      19 02.50  -1.3
                  S      19 19.80
MOH      1.17 120 Pd     19 05.60   0.7
WAHZ     1.21 161 Pc     19 06.30   1.0
TTH      1.25 142 P      19 06.70   1.2
BSZ      1.43 209 Pc     19 08.60   1.4
TEHZ     1.62 153 P      19 10.20   1.1
NRZ      1.68 242 P      19 11.30   1.6
MAHZ     1.71 112 P      19 10.50   0.5
NOZ      1.72  93 P      19 09.90  -0.2
KUZ      1.81 357 Pd     19 10.00  -1.0
                  S      19 35.00
PUZ      1.96  76 Pc     19 11.60  -1.1
                  eS     19 35.70
MNG      2.08 188 Pc     19 14.90   0.9
                  S      19 41.50
PGZ      2.09 171 Pc     19 15.00   1.0
HBZ      2.16  65 P      19 14.00  -0.9
KIW      2.41 197 Pc     19 18.20   0.3
MTW      2.61 186 Pc     19 20.40   0.2
CAW      2.62 193 Pc     19 20.60   0.3
DIW      2.69 213 P      19 21.20   0.0
MRW      2.81 198 P      19 22.70   0.1
                  eS     19 56.70
BLW      2.82 186 P      19 22.80   0.0
WEL      2.85 197 P      19 23.10   0.1
                  S      19 57.70
MOW      2.90 189 P      19 23.70   0.0
TCW      2.91 204 P      19 23.90   0.0
QRZ      3.42 227 P      19 29.60  -0.6
THZ      3.91 214 P      19 35.80  -0.8
                  eS     20 22.20
KHZ      4.24 204 P      19 40.30  -0.3
DSZ      4.44 223 P      19 41.90  -1.5
LTZ      5.02 212 eP     19 49.00  -1.9
MQZ      5.68 204 P      19 57.30  -2.2
ODZ      7.55 209 P      20 22.70  -1.7
LRCZ     8.11 215 eP     20 29.10  -2.8X
MHZ      8.14 215 eP     20 28.90  -3.3X
```

SBCZ 8.15 215 eP 20 29.30 -3.0X
CMCZ 8.21 215 eP 20 30.20 -2.9X
eS 21 58.20
TLC 8.33 215 eP 20 31.80 -3.0X
TUZ 8.71 210 eP 20 38.40 -1.2
ASPA 38.51 280 eP 25 45.40 2.4
0.3s 5.50nm 4.7mb
WB2 40.27 285 iPd 25 59.10 1.6
0.3s 1.90nm 4.2mb
LIC 147.80 178 PKP 38 03.50 4.5X
KIC 147.94 179 PKP 38 03.30 4.1X
TIC 148.22 178 PKP 38 04.70 5.1X
KAF 149.95 332 iPKP 38 05.50 4.7X
0.3s 2.90nm
S.D. = 1.0 on 44 of 53 obs.

---

* MAR 16, 1993 06h 52m 33.34± 0.95s
37.128 N ± 7.9km 22.686 E ±15.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.4 (ATH).

VLI 0.46 154 iPgc 52 42.50 -0.1
ATH 1.18 44 ePb 53 00.10 4.8X
PAIG 2.90 15 ePn 53 21.34 1.0
eSn 53 57.38
LIT 2.97 357 ePn 53 21.66 0.3
eSn 53 59.38
NPS 3.01 127 ePg 53 31.60 9.6X
KZN 3.25 348 ePb 53 32.00 6.5X
OUR 3.36 17 ePn 53 27.26 0.4
KEK 3.44 320 ePn 53 29.50 1.5
SOH 3.72 8 ePn 53 31.82 -0.4
FNA 3.79 345 ePn 53 32.38 -0.7
iSn 54 17.66
GRG 3.83 357 ePn 53 32.86 -0.8
eSn 54 18.62
KNT 4.03 2 ePn 53 36.42 0.0
eSn 54 25.28
SRS 4.05 10 ePn 53 35.98 -0.6
VAY 4.19 359 ePn 53 40.00 1.4
OHR 4.24 340 ePn 53 37.50 -1.9
SKO 4.93 349 ePn 53 53.50 4.3X
S.D. = 1.1 on 12 of 16 obs.

? MAR 16, 1993 06h 57m 17.59± 1.02s
44.382 N ± 8.9km 7.344 E ± 8.5km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

STV 0.14 186 P 57 20.46 0.0
S 57 22.64
ENR 0.16 160 P 57 21.09 0.0
S 57 23.53
PZZ 0.21 305 P 57 21.99 0.0
S 57 25.39
ROB 0.39 103 P 57 25.38 0.0
S.D. = 0.1 on 4 of 4 obs.

MAR 16, 1993 06h 59m 05.94± 0.37s
19.422 N ± 6.0km 38.718 E ± 4.5km
DEPTH = 10.0km (geophysicist)
4.7mb (38 obs.) 4.6Msz (4 obs.)
RED SEA (554)
MD 4.8 (RYD).

ABHA 3.99 106 eP 00 08.50 -0.3
eS 00 46.76
KMTA 4.12 107 eP 00 10.00 -0.6
eS 00 53.80
DHJN 4.85 110 eP 00 19.90 -1.2
eS 01 12.60
MJMA 8.82 42 eP 02 13.00 56.5X
AYN 9.73 346 eP 01 10.90 -18.0X
SAGI 11.36 342 eP 01 49.70 -1.7
ARVI 11.63 345 eP 01 53.80 -1.1
BHL 14.68 350 P 02 42.00 6.4X
S 05 42.00
CSS 16.20 344 eP 03 03.00 7.8X
KER 16.63 25 eP 03 02.00 1.1
NAI 20.65 185 iP 04 02.00 13.2X
Z 18s 1.13um 4.3Msz
S 08 20.00
GRS 21.06 17 eP 03 53.00 0.2
1.6s 60.00nm 4.7mb
Z 11s 0.89um 4.4MszX
eS 07 54.00
ERE 21.28 12 iP+ 03 55.00 0.1
Z 14s 2.50um 4.8MszX
iS 07 59.00
SHE 22.78 20 eP 04 11.00 1.3
1.2s 40.00nm 4.8mb
N 12s 2.50um
E 12s 1.80um
iS 08 25.00
MTA 22.80 12 iP 04 12.00 2.1
BAK 22.99 22 iPc 04 18.00 6.2X
N 12s 2.58um
eS 08 32.00
SOC 24.10 2 eP 04 24.00 1.4
2.0s 70.00nm 4.9mb
eS 08 50.00
GRO 24.57 12 iP+ 04 30.00 2.9
Z 14s 2.00um 4.8MszX
N 15s 1.50um
E 14s 1.00um
MAK 24.64 15 eP 04 32.00 4.2X
eS 09 01.00
BCAO 24.69 235 iPd 04 32.70 4.2X
1.1s 66.00nm 5.2mb
i 04 43.00
KIV 24.69 7 ePc 04 30.60 2.2
2.2s 45.00nm 4.7mb
Z 15s 0.50um 4.1MszX
e 05 09.00
eSS 09 47.80
MAIO 24.81 43 eP 04 32.00 2.3
eS 09 10.00
KAT 24.87 34 eP 04 30.00 0.0
Z 14s 0.80um 4.4MszX
N 14s 1.50um
ASH 25.15 39 eP 04 31.40 -1.4
OHR 26.48 329 eP 04 45.50 0.3
SKO 26.84 331 P 04 49.00 0.6
QUE 27.71 62 eP 05 03.90 7.2X
eS 09 51.90
SRO 32.82 334 eP 05 42.30 0.7
SPC 33.20 338 eP 05 43.10 -2.0
TRI 33.34 327 P 05 46.70 0.5
ZST 33.62 334 eP 05 48.80 0.2
GEC2 35.60 331 P 06 05.50 -0.2
0.9s 2.80nm 4.1mb
e 06 10.50
e 06 13.80
e 06 17.60
OBN 35.65 358 eP 06 05.00 -0.9
SBF 35.74 320 eP 06 06.60 -0.3
0.8s 7.95nm 4.6mb
KHC 35.86 332 eP 06 07.50 -0.3
e 06 20.00
LMR 36.03 319 eP 06 08.90 -0.4
0.9s 7.85nm 4.6mb
BRG 37.00 334 eP 06 17.20 -0.1
1.7s 31.00nm 4.8mb
GBA 37.51 93 P 06 23.00 1.0
CLL 37.72 334 eP 06 22.00 -1.3
1.8s 23.00nm 4.6mb
HYB 37.79 86 eP 06 25.00 0.6
MOX 37.83 332 eP 06 24.50 0.2
2.2s 48.00nm 4.9mb
FRU 38.16 44 eP 06 28.00 0.8
2.2s 60.00nm 5.0mb
e 08 22.00
SMF 39.37 322 eP 06 36.70 -0.6
1.1s 5.60nm 4.1mb
LBF 39.47 322 eP 06 37.60 -0.6
0.9s 11.45nm 4.5mb
CAF 39.60 318 eP 06 39.60 0.4
1.1s 14.15nm 4.5mb
LOR 39.70 322 eP 06 39.50 -0.5
0.9s 9.15nm 4.4mb
AVF 39.74 322 eP 06 39.60 -0.7
0.9s 5.90nm 4.3mb
SSF 39.79 322 eP 06 40.20 -0.5
0.9s 9.00nm 4.4mb
ARU 39.81 17 eP 06 41.00 0.2
2.3s 280.00nm 5.5mb
Z 16s 0.50um 4.5MszX
MAF 39.92 320 eP 06 41.80 0.0
1.4s 21.80nm 4.6mb
BGF 39.92 321 eP 06 41.80 0.0
1.3s 50.90nm 5.0mb
LPO 40.04 318 eP 06 43.40 0.5
0.8s 8.35nm 4.5mb
RJF 40.12 319 eP 06 43.90 0.4
1.2s 17.25nm 4.6mb
TCF 40.16 320 eP 06 44.20 0.3
1.0s 6.80nm 4.3mb
LFF 40.44 318 eP 06 46.80 0.7
1.0s 20.60nm 4.8mb
LSF 40.56 320 eP 06 47.50 0.4
SVE 40.75 18 ePc 06 39.80 -8.7X
2.1s 60.00nm 4.9mb
MFF 41.75 319 eP 06 56.30 -0.5
0.9s 7.35nm 4.4mb
LDF 42.67 322 eP 07 03.30 -1.1
0.8s 9.25nm 4.6mb
GKN 42.70 70 P 07 05.40 0.3
LPF 42.95 321 eP 07 05.70 -0.9
0.9s 13.75nm 4.7mb
FLN 42.96 322 eP 07 05.70 -1.0
0.7s 13.80nm 4.8mb
GRR 43.00 321 eP 07 06.00 -1.1
0.8s 5.10nm 4.3mb
DMN 43.11 70 P 07 08.80 0.3
PKI 43.38 70 P 07 09.80 -1.0
GUN 43.80 70 P 07 13.20 -1.0
KIC 44.17 259 P 07 18.00 1.0
TIC 44.33 259 P 07 19.70 1.4
LIC 44.48 259 P 07 21.00 1.5
Z 20s 0.21um 4.1Msz
SLR 46.02 193 e(P) 07 34.20 2.5
Z 18s 4.06um 5.4Msz
PRY 47.35 194 eP 07 40.00 -2.2
ELT 49.68 36 iPd 07 59.00 -0.8
1.8s 40.00nm 5.1mb
Z 13s 1.00um 5.0MszX
eS 15 05.00
NRI 58.22 18 iPc 09 02.20 -0.2
2.0s 55.00nm 5.3mb
e 11 13.00
LZH 58.98 59 eP 09 08.20 -0.2
1.8s 60.00nm 5.4mb
Z 18s 0.69um 4.8Msz
E 13s 0.43um
pP 09 20.00 41kmX
ZAK 59.11 42 eP 09 08.00 -0.8
1.8s 24.00nm 5.0mb
Z 17s 1.50um 5.2MszX
E 17s 1.68um
CIT 65.67 41 eP 09 52.00 -0.7
BOD 66.05 34 eP 09 52.30 -2.6
1.0s 28.00nm 5.4mb
BJI 68.34 54 eP 10 05.50 -4.2X
TIK 71.78 19 eP 10 30.00 -0.1
1.6s 26.00nm 5.1mb
YKA 95.67 348 eP 12 33.20 0.3
0.8s 0.70nm 4.2mb
S.D. = 1.1 on 69 of 80 obs.

% MAR 16, 1993 07h 10m 35.02± 0.75s
44.381 N ± 6.1km 7.315 E ± 8.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

STV 0.14 177 P 10 37.84 -0.1
S 10 39.76
ENR 0.17 154 P 10 38.48 -0.1
S 10 40.82
PZZ 0.20 309 P 10 39.35 0.2
S 10 42.46
ROB 0.41 102 P 10 43.44 0.2
S 10 49.19
BHB 0.46 355 P 10 44.03 -0.3
S 10 49.96
S.D. = 0.3 on 5 of 5 obs.

---

* MAR 16, 1993 07h 22m 26.86± 1.18s
44.134 N ±11.0km 21.844 E ± 7.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.7 (TTG).

VTS 1.83 147 iPd 23 01.00 2.2
IVA 1.90 229 iPgd 22 59.43 -0.2
iSg 23 21.46
DEV 1.90 23 ePd 23 30.00 30.4X
PLE 1.95 246 iPnc 23 01.10 0.7
iSn 23 24.45

16d 07h

PVY 2.06 222 iPnd 23 02.50 0.5
iSn 23 26.05
SKO 2.18 188 iPn 23 07.70 4.0X
TNR 2.30 48 ePc 23 42.00 36.6X
PGB 2.32 132 iPd 23 08.00 2.3
NKY 2.46 238 iPnd 23 08.21 0.5
iSn 23 36.33
TTG 2.54 229 iPnc 23 09.11 0.3
iSn 23 37.88
BRY 2.70 244 iPnc 23 11.63 0.4
iSn 23 42.52
BDV 2.88 231 iPnc 23 13.85 0.2
iSn 23 46.21
ULC 2.88 222 iPnd 23 13.91 0.2
iSn 23 46.46
HCY 2.97 237 iPnd 23 15.26 0.4
iSn 23 48.45
KNT 3.07 165 ePn 23 15.64 -0.7
eSn 23 45.08
OHR 3.12 195 ePn 23 16.00 -1.0
GRG 3.20 172 ePn 23 17.28 -0.9
MLR 3.22 64 eP 23 37.00 18.4X
SRS 3.28 156 ePn 23 18.40 -0.9
eSn 23 50.84
SOH 3.49 161 ePn 23 20.68 -1.7
eSn 23 55.76
VRI 3.87 62 eP 23 46.00 18.3X
PAIG 4.42 161 ePn 23 34.44 -1.0
GEC2 7.33 313 Pn 24 15.30 -1.3
0.5s 0.49nm 3.9mb
S.D. = 1.2 on 18 of 23 obs.

& MAR 16, 1993 07h 38m 10.20s
35.670 N 90.550 W
DEPTH = 10.0km (geophysicist)
ARKANSAS (502)
<SLM-P>. MD 3.0 (SLM), 3.0 (TEIC). mbLg 3.3 (GS). Felt (IV) at Marked Tree and (III) at Trumann and Tyronza.

WGAR 0.34 58 ePc 38 16.84 -0.5
S 38 22.12
OLY 0.77 258 eP 38 26.13 0.9
HATI 0.87 54 ePd 38 27.95 1.0
MFTN 1.06 62 ePc 38 29.45 -0.7
S 38 45.00
DRTN 1.07 64 P 38 29.20 -1.1
GRT 1.09 57 eP 38 30.35 -0.3
eS 38 44.38
LDMO 1.09 47 ePc 38 30.57 -0.1
S 38 45.81
BBTN 1.14 51 iPd 38 30.59 -0.9
S 38 45.97
OGTN 1.14 49 eP 38 30.80 -0.7
S 38 47.00
ACTN 1.21 56 ePd 38 32.38 -0.4
S 38 48.08
NMMO 1.22 41 ePc 38 32.90 0.0
S 38 48.34
DWM 1.42 37 ePc 38 35.61 -0.4
S 38 54.77
UTMA 1.42 64 P 38 35.40 -0.6
ELC 1.93 33 eP 38 43.14 -0.3
eS 39 08.84
FVM 2.31 2 eP 38 50.97 2.1
eS 39 20.58
MIAR 2.72 247 eP 38 55.52 0.7
eS 39 36.77
RLO 3.66 279 P 39 09.80 1.7
TUL 4.27 275 P 39 17.00 0.3
SIO 4.69 273 P 39 21.79 -0.9
GBTN 5.16 88 eP 39 27.32 -2.0
eS 40 40.64
MEO 6.64 265 e(P) 39 50.00 -0.2
WMOK 6.80 265 eP 39 52.99 0.5
eS 41 45.13
ACO 7.03 281 iPc 40 02.50 6.8
23 obs. associated

& MAR 16, 1993 07h 50m 13.54s
34.224 N 116.757 W
DEPTH = 1.8km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.5 (PAS), 3.3 (GS). Felt (III) at Highland and Yucca Valley. Also felt in the Big Bear Lake area.

PEC 0.47 225 iPd 50 22.51 -0.4
SSK 0.78 269 iPc 50 28.29 -0.7
PLM 0.87 186 iPd 50 30.03 -1.1
eS 50 40.55
GSC 1.08 358 iPc 50 33.70 -0.9
GLA 1.99 125 eP 50 45.75 -2.9
ISA 2.01 316 ePn 50 47.10 -1.9
ePg 50 50.99
TPNV 2.75 9 ePn 50 58.37 -1.3
eS 51 41.50
BCH 2.90 290 ePn 50 59.95 -1.9
PHAM 3.39 299 ePn 51 06.19 -2.5
TNP 3.87 355 ePn 51 14.13 -1.5
BONR 3.93 342 ePn 51 16.21 -0.3
eS 52 23.28
ARUT 4.46 36 ePn 51 22.32 -1.6
CMB 4.80 323 eP 51 27.14 -1.6
MSU 5.66 39 ePn 51 39.43 -1.5
14 obs. associated

& MAR 16, 1993 07h 59m 24.00s
39.200 N 76.900 W
DEPTH = 5.0km (geophysicist)
CHESAPEAKE BAY REGION (493)
<MACRO>. mbLg 1.8 (GS). Felt at Columbia, Maryland.

NED 1.05 61 iPd 59 43.60 -0.7
iS 59 57.50
BWD 1.19 59 iPd 59 45.60 -1.0
iS 00 01.60
TBR 2.82 46 P 00 13.90 3.3
CEH 3.73 208 P 01 15.70 52.1
4 obs. associated

% MAR 16, 1993 08h 05m 32.58± 2.61s
43.019 N ±13.5km 18.496 E ±18.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.8 (TTG).

BRY 0.12 163 iPgc 05 37.11 1.4
iSg 05 40.59
NKY 0.42 119 iPgd 05 41.18 -0.1
iSg 05 48.55
HCY 0.57 180 iPgd 05 43.34 -0.8
iSg 05 52.71
PLE 0.73 64 iPgc 05 46.86 -0.1
iSg 05 57.59
BDV 0.77 161 iPgc 05 47.58 -0.1
iSg 05 59.05
TTG 0.82 136 iPgc 05 48.06 -0.3
iSg 06 00.68
S.D. = 0.9 on 6 of 6 obs.

% MAR 16, 1993 08h 06m 18.09± 1.96s
44.337 N ±13.9km 7.154 E ±19.0km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

STV 0.15 127 P 06 21.28 -0.1
S 06 23.43
PZZ 0.17 347 P 06 21.69 0.0
S 06 24.25
ENR 0.22 120 P 06 22.84 0.2
S 06 25.44
ROB 0.52 94 P 06 28.37 -0.1
S 06 35.93
IMI 0.68 129 P 06 31.58 -0.1
S.D. = 0.2 on 5 of 5 obs.

MAR 16, 1993 08h 18m 53.21± 0.32s
15.073 N ± 4.8km 123.015 E ± 5.6km
DEPTH = 25.6km (3 depth phases)
4.9mb (14 obs.) 4.2Msz (2 obs.)
PHILIPPINE ISLANDS REGION (248)
Felt in the epicentral area.

QVP 2.00 257 iP 19 25.50 -0.4
iS 19 49.00
TGY 2.23 245 ePd 19 31.00 1.7
eS 20 05.00
PGP 2.54 232 iPd 19 34.00 0.4
iS 19 55.00
PGP 2.54 232 iPc 19 34.80 1.2
iS 19 55.00
BCP 2.67 300 eP 19 35.80 0.1
eS 20 04.00
CVP 2.86 337 ePd 19 38.80 0.7
eS 20 13.50
SZP 3.48 315 ePd 19 48.00 1.0
PIP 3.97 325 iPd 19 53.50 -0.4
iS 20 42.50
PLP 4.33 154 ePd 20 01.20 2.2
iS 20 27.20
MAP 4.81 169 eP 20 14.00 8.1X
CGP 6.78 166 eP 20 37.00 3.4X
BIP 7.51 155 ePc 20 45.00 1.2
CTB 7.91 171 ePc 20 57.00 7.5X
KMI 21.48 301 eP 23 47.50 5.1X
1.5s 50.00nm 4.7mb
Z 15s 1.20um 4.4MszX
N 13s 1.10um
E 13s 0.60um
pP 23 53.50 22km
S 27 46.00
sS 28 08.00
CHTO 23.32 283 eP 24 01.00 0.7
KHT 23.60 272 iPc 24 03.70 0.7
BJI 25.58 348 eP 24 27.00 5.1X
1.2s 33.00nm 4.8mb
Z 20s 0.60um 4.1Msz
N 14s 0.49um
LZH 27.05 324 eP 24 39.50 3.9X
1.4s 26.00nm 4.7mb
Z 18s 0.83um 4.3Msz
E 13s 0.50um
PP 25 40.00
WB2 36.54 162 iPd 25 57.20 -1.6
0.4s 19.10nm 5.3mb
GUN 36.69 297 P 26 00.00 -0.5
PKI 37.03 296 P 26 03.20 -0.1
KKN 37.18 296 P 26 04.60 0.1
DMN 37.30 296 P 26 04.60 -0.9
GKN 37.78 296 P 26 08.60 -0.9
WARB 41.16 175 eP 26 37.00 -0.2
0.6s 40.00nm 5.3mb
MEEK 41.68 186 eP 26 40.00 -1.5
CTA 41.75 146 iPd 26 44.00 1.9
MRWA 44.55 189 eP 27 03.00 -1.8
COOL 45.73 182 eP 27 12.00 -2.2
QLP 46.26 153 iPc 27 18.30 -0.1
KLB 46.67 186 eP 27 20.00 -1.6
NWAO 48.05 187 eP 27 32.00 -0.4
STK 49.97 159 iPc 27 47.10 -0.2
0.6s 17.10nm 5.3mb
BRS 51.14 145 iP 27 56.00 -0.3
CMS 51.21 155 eP 27 56.80 0.1
0.4s 2.00nm 4.4mb
ADE 51.95 164 eP 28 02.50 0.2
ARMA 52.96 149 eP 28 10.00 0.0
BWA 54.84 154 iPd 28 25.10 1.4
ipP 28 33.00 26km
e 28 43.70
BFD 55.13 161 iPd 28 25.00 -0.7
0.8s 29.00nm 5.4mb
CAN 55.85 154 eP 28 31.40 0.4
e 28 47.90 63kmX
CNB 56.00 154 eP 28 32.10 0.0
0.5s 12.00nm 5.2mb
TOO 56.47 159 iPc 28 35.30 -0.1
0.6s 33.00nm 5.5mb
TIK 56.65 2 eP 28 35.00 -1.2
1.2s ********nm 7.9mb X
e 28 44.00 29km
e 29 17.00
MAIO 59.98 303 eP 29 05.00 4.8X
IMA 73.63 25 eP 30 27.40 1.3
FBA 76.14 26 eP 30 41.00 0.6
1.1s 9.38nm 4.7mb
HFS 86.34 332 eP 31 33.60 -0.6
0.4s 3.00nm 4.9mb
Z 17s 0.15um 4.4MszX
LR 06 09.00
NB2 87.07 333 P 31 37.20 -0.6
0.6s 1.50nm 4.4mb
YKA 90.65 23 eP 31 55.20 0.6
0.6s 1.20nm 4.4mb
S.D. = 1.0 on 42 of 49 obs.

% MAR 16, 1993 08h 27m 42.09± 0.71s

44.397 N ± 6.1km 7.342 E ± 7.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

STV 0.15 185 P 27 45.42 -0.3
S 27 47.32
ENR 0.18 162 P 27 46.50 0.3
S 27 48.56
PZZ 0.20 302 P 27 47.15 0.5
S 27 49.84
ROB 0.39 105 P 27 50.71 0.6
S 27 56.84
BHB 0.45 353 P 27 50.71 -0.5
IMI 0.63 141 P 27 54.19 -0.5
S 28 02.51
S.D. = 0.7 on 6 of 6 obs.

? MAR 16, 1993 08h 36m 51.67± 3.03s
15.455 N ±27.1km 90.168 W ±23.3km
DEPTH = 33.0km (normal)
4.0mb (2 obs.)
GUATEMALA (70)

TPX 2.09 255 iP 37 25.50 0.4
iS 37 50.00
SCX 2.69 299 iP 37 34.50 0.9
(S) 38 16.00
IISM 7.73 298 eP 38 45.00 0.2
PPM 8.84 295 (P) 38 53.00 -7.7X
III 9.36 289 (P) 39 05.75 -1.9
MEO 20.68 340 iPc 41 31.00 -0.5
ALQ 24.30 326 ePd 42 09.00 1.5
1.0s 2.75nm 3.8mb
YKA 50.05 345 eP 45 44.30 -0.6
0.5s 1.30nm 4.2mb
GBA 148.63 24 PKP 56 47.00 13.0X
S.D. = 1.4 on 7 of 9 obs.

? MAR 16, 1993 08h 39m 05.81± 1.00s
44.377 N ± 8.9km 7.337 E ± 8.6km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.3 (GEN).

STV 0.13 184 P 39 08.67 0.0
S 39 10.54
ENR 0.16 158 P 39 09.17 0.0
S 39 11.64
PZZ 0.21 307 P 39 10.18 0.0
S 39 13.06
ROB 0.39 102 P 39 13.70 0.0
S.D. = 0.1 on 4 of 4 obs.

& MAR 16, 1993 09h 08m 46.41s
58.282 N 155.955 W
DEPTH = 142.1km
ALASKA PENINSULA (12)
<AEIC>.

MCNL 1.24 42 eP 09 11.88 -1.1
eS 09 32.65
AUH 1.70 49 eP 09 17.28 -0.7
AUL 1.71 49 eP 09 17.34 -0.8
AUE 1.72 50 eP 09 16.65 -1.5
PDB 1.76 30 eP 09 17.17 -1.5
S 09 41.45
SYI 1.90 79 eP 09 19.55 -0.7
KDC 1.92 105 ePc 09 18.55 -1.9
INE 2.32 39 P 09 22.30 -3.3
CNPM 2.75 61 eP 09 29.39 -1.4
eS 10 01.82
SVW 2.84 3 P 09 30.30 -1.7
CKL 3.45 31 eP 09 38.72 -1.3
BGL 3.49 30 eP 09 39.62 -0.9
SPU 3.52 33 eP 09 39.18 -1.6
CP2 3.53 31 eP 09 40.08 -1.1
CRP 3.56 31 eP 09 40.29 -1.2
SLKM 3.68 50 eP 09 41.15 -1.9
SEW 3.81 59 eP 09 42.88 -1.8
MPA 4.03 54 eP 09 45.53 -2.1
SUA 4.13 37 eP 09 46.75 -2.3
SKT 4.32 29 eP 09 49.86 -1.6
PTE 4.37 51 eP 09 49.52 -2.6
PMS 4.39 45 P 09 49.70 -2.7
GHO 4.97 42 eP 09 56.93 -3.3
MID 5.12 73 eP 10 00.20 -1.9
HIN 5.28 62 eP 10 01.53 -2.8
KLU 5.99 53 eP 10 10.46 -3.5
26 obs. associated

% MAR 16, 1993 09h 37m 28.13± 0.95s
39.111 N ± 8.8km 27.637 E ±16.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.77 202 iPg 37 43.20 0.0
eSg 37 55.70
DST 0.91 57 ePn 37 45.40 -0.2
EDC 1.25 8 ePn 37 51.50 0.2
BNT 1.26 10 ePn 37 50.90 -0.7
KCT 1.27 26 iPn 37 52.30 0.7
S.D. = 0.7 on 5 of 5 obs.

? MAR 16, 1993 09h 50m 54.25± 1.07s
31.632 S ±13.9km 66.961 W ± 9.9km
DEPTH = 33.0km (normal)
LA RIOJA PROVINCE, ARGENTINA (138)

CFA 1.09 271 ePd 51 13.00 -0.3
S 51 29.30
MRA 1.32 126 ePc 51 17.20 0.8
RTPR 1.38 16 ePd 51 18.00 0.6
S 51 38.30
TCA 2.05 82 iP 51 26.00 -1.1
(S) 51 51.00
S.D. = 1.5 on 4 of 4 obs.

? MAR 16, 1993 10h 01m 57.59± 0.97s
44.361 N ± 8.8km 7.319 E ± 9.0km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.4 (GEN).

STV 0.12 178 P 02 00.11 0.0
S 02 02.08
ENR 0.15 152 P 02 00.79 0.0
S 02 03.13
PZZ 0.21 313 P 02 01.98 0.0
S 02 04.96
ROB 0.40 99 P 02 05.65 0.0
S.D. = 0.0 on 4 of 4 obs.

• MAR 16, 1993 10h 37m 43.42± 0.58s
6.536 S ± 9.7km 75.558 W ±16.3km
DEPTH = 33.0km (normal)
4.3mb (4 obs.)
NORTHERN PERU (111)

NNA 5.56 193 eP 39 06.00 -0.1
0.5s 14.08nm 4.8mb X
e 39 07.20
eS 40 06.00
ZOBO 12.12 144 P 40 37.00 -0.4
LPB 12.33 144 P 40 40.00 0.0
CNCB 12.62 145 P 40 44.10 0.1
SIV 17.02 125 P 41 46.60 5.9X
ALQ 50.51 327 eP 46 40.90 0.0
1.0s 1.63nm 4.0mb
YKA 75.04 342 eP 49 21.80 -1.5
0.5s 1.00nm 4.1mb
FBA 88.45 336 eP 50 33.38 0.0
1.0s 2.86nm 4.5mb
DAG 89.12 11 eP 50 37.20 0.9
0.8s 2.24nm 4.5mb
WB2 140.52 228 ePKP 57 13.10 1.0
0.4s 2.60nm
LZH 150.58 1 ePKP 57 35.40 6.9X
4.0s 0.69nm
Z 28s 2.57um 5.9MszX
E 15s 1.54um
pP 09 37.50
sP 09 42.50
eS 17 32.00
S.D. = 0.8 on 9 of 11 obs.

? MAR 16, 1993 10h 42m 03.75± 1.05s
39.121 N ±10.2km 27.600 E ±18.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.77 200 iPg 42 18.80 0.0
eSg 42 32.30
DST 0.93 58 ePn 42 21.40 -0.2
EDC 1.24 9 ePn 42 26.50 -0.3
KCT 1.27 27 iPn 42 27.80 0.5
S.D. = 0.6 on 4 of 4 obs.

MAR 16, 1993 10h 54m 11.37± 0.56s
37.863 S ± 6.1km 176.045 E ±10.1km
DEPTH = 313.2 ± 6.7 km
4.3mb (4 obs.)
NORTH ISLAND, NEW ZEALAND (159)

UTU 0.33 160 P 54 50.70 -0.6
WLZ 0.36 269 P 54 51.00 -0.3
eS 55 19.90
TAZ 0.52 135 P 54 51.40 -0.2
PATZ 0.54 162 Pc 54 51.80 0.0
URZ 0.93 116 Pc 54 51.70 -1.3
S 55 21.30
WHH 1.08 161 P 54 54.00 0.1
KUZ 1.14 347 P 54 51.30 -2.8
MOZ 1.17 236 P 54 54.80 0.5
eS 55 26.90
PAHZ 1.27 142 Pc 54 55.20 0.3
NGZ 1.36 195 Pc 54 55.80 0.3
TAHZ 1.38 157 P 54 56.70 1.1
CNZ 1.39 196 P 54 56.00 0.4
DRZ 1.46 195 P 54 57.00 0.7
MOH 1.53 146 P 54 56.80 0.5
NOZ 1.74 116 P 54 56.70 -1.0
PUZ 1.76 98 Pd 54 56.40 -1.5
S 55 29.80
TTH 1.78 160 P 54 59.10 1.1
HBZ 1.81 82 Pd 54 56.50 -1.7
WAHZ 1.85 173 P 54 59.40 0.8
MAHZ 1.96 133 P 54 59.80 0.5
BSZ 2.12 204 Pc 55 01.80 1.3
TEHZ 2.21 165 P 55 02.20 0.9
NRZ 2.21 228 P 55 03.00 1.7
PGZ 2.76 176 Pc 55 07.30 1.2
MNG 2.79 189 Pc 55 07.20 0.8
S 55 49.20
KIW 3.12 196 Pc 55 10.40 0.8
MTW 3.32 187 Pc 55 12.10 0.5
CAW 3.33 193 Pc 55 12.30 0.6
DIW 3.37 209 P 55 12.50 0.4
MRW 3.52 197 Pc 55 14.20 0.6
S 56 03.30
BLW 3.53 187 P 55 14.40 0.7
WEL 3.56 196 P 55 14.70 0.7
MOW 3.61 190 Pc 55 15.00 0.5
TCW 3.61 202 P 55 15.30 0.7
QRZ 4.02 222 P 55 18.40 -0.6
THZ 4.59 211 P 55 25.20 0.0
S 56 24.00
KHZ 4.94 202 P 55 30.00 0.9
S 56 25.40
DSZ 5.07 219 P 55 30.10 -0.7
LTZ 5.70 209 P 55 38.00 -0.1
MQZ 6.38 203 P 55 45.50 -0.6
EWZ 6.88 213 P 55 51.80 -0.3
LMZ 7.78 219 eP 56 02.00 -1.0
BWZ 8.12 213 eP 56 05.40 -1.7
ODZ 8.24 208 P 56 08.90 0.3
MSCZ 8.77 212 eP 56 14.00 -1.2
LRCZ 8.78 213 eP 56 14.50 -0.9
MHZ 8.80 213 eP 56 13.90 -1.7
LSCZ 8.81 213 eP 56 14.10 -1.5
SBCZ 8.81 213 eP 56 14.20 -1.5
CMCZ 8.87 213 eP 56 15.20 -1.3
S 57 52.30
TLC 8.99 213 eP 56 16.70 -1.3
MSZ 9.14 219 eP 56 18.50 -1.2
S 57 56.90
TUZ 9.39 209 eP 56 22.90 0.2
BCZ 10.17 214 eP 56 32.10 -0.2
SIZ 10.73 210 eP 56 39.90 0.7
CMS 25.58 275 iPd 59 15.90 1.6
0.6s 5.00nm 4.1mb
STK 28.78 272 eP 59 44.70 1.9
0.6s 3.40nm 4.0mb
OLP 29.03 283 eP 59 46.10 1.0
CTA 31.32 296 iPc 00 06.00 0.9
ASPA 38.55 279 iPd 01 06.10 0.1
0.5s 21.20nm 4.7mb
WB2 40.25 284 iPc 01 19.70 -0.2
0.5s 17.20nm 4.6mb

S.D. = 1.0 on 61 of 61 obs.

% MAR 16, 1993 10h 55m 24.21± 0.72s
44.386 N ± 6.9km 7.375 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

STV 0.15 194 P 55 27.72 0.0
S 55 30.39
ENR 0.16 169 P 55 27.77 -0.2
S 55 30.43
PZZ 0.23 301 P 55 29.25 0.0
S 55 33.18
ROB 0.37 104 P 55 31.99 0.2
S 55 36.85
IMI 0.60 142 P 55 36.80 0.4
S 55 44.95
FIN 0.62 106 P 55 36.43 -0.4
S 55 45.27
PCP 0.85 79 P 55 40.64 0.0
S.D. = 0.3 on 7 of 7 obs.

% MAR 16, 1993 11h 14m 14.29± 0.77s
40.808 N ± 6.6km 22.973 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE 0.18 182 ePg 14 18.20 -0.1
eSg 14 21.04
SOH 0.29 87 ePg 14 20.60 0.2
eSg 14 24.40
KNT 0.36 351 ePg 14 21.72 0.1
eSg 14 26.72
GRG 0.46 289 ePg 14 23.64 0.0
SRS 0.56 56 ePg 14 25.44 -0.3
S.D. = 0.2 on 5 of 5 obs.

& MAR 16, 1993 11h 24m 37.44s
60.055 N 153.493 W
DEPTH = 152.9km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.18 86 iPc 24 57.42 0.6
eS 25 13.16
INE 0.22 88 iPc 24 57.52 0.6
eS 25 13.75
OPT 0.42 162 iPc 24 58.28 0.8
eS 25 14.60
PDB 0.44 233 iPc 24 57.96 -1.1
eS 25 13.84
RS1 0.55 42 iPc 24 58.97 -0.9
eS 25 16.90
RDW 0.55 38 iPc 24 58.92 -0.9
eS 25 16.31
RS2 0.55 42 iPc 24 58.97 -0.9
RSO 0.55 42 iPc 24 58.95 -0.9
eS 25 17.07
NCT 0.58 29 iPc 24 59.04 -0.9
eS 25 15.89
DFR 0.67 36 ePc 24 59.41 -1.0
AUL 0.68 177 eP 24 59.51 -0.8
AUH 0.69 178 eP 24 59.74 -0.8
AUE 0.70 175 iPc 24 59.54 -0.9
AUI 0.72 177 eP 24 59.80 -0.8
RDT 0.75 46 eP 25 00.07 -0.9
MCNL 0.97 207 eP 25 01.53 -1.0
CNPM 1.26 114 iPc 25 04.03 -1.1
eS 25 24.49
CKL 1.28 26 iPd 25 04.84 -0.6
eS 25 26.11
CKT 1.31 28 iPd 25 04.91 -0.8
NKA 1.32 57 iPc 25 06.24 0.6
BGL 1.33 24 iPd 25 05.55 -0.4
SPU 1.33 31 iPd 25 04.98 -0.9
eS 25 27.12
CKN 1.34 28 eP 25 05.51 -0.4
BRLK 1.35 101 ePc 25 05.03 -1.0
eS 25 25.47
CP2 1.36 26 eP 25 05.79 -0.6
CPAM 1.38 28 iPd 25 05.77 -0.6
CRP 1.38 28 eP 25 05.44 -1.1
SVW 1.49 316 P 25 06.80 -0.7
SYI 1.56 158 iPd 25 06.54 -1.6
SLKM 1.69 73 eP 25 08.23 -1.4
SUA 1.95 42 iPd 25 11.47 -1.3
SEW 2.03 87 eP 25 11.97 -1.4
MPA 2.10 76 eP 25 13.15 -1.2
SKT 2.16 25 ePd 25 13.91 -1.1
PMS 2.28 57 P 25 14.60 -1.8
PTE 2.36 68 eP 25 16.51 -0.8
PWA 2.39 46 P 25 16.20 -1.5
GHO 2.82 50 eP 25 20.65 -2.6
SML 3.07 53 iPd 25 23.62 -2.8
HIN 3.50 81 eP 25 29.80 -2.2
TRF 3.73 23 eP 25 33.71 -1.4
KLU 3.98 66 eP 25 35.88 -2.4
42 obs. associated

? MAR 16, 1993 11h 31m 33.30± 2.31s
39.205 N ±10.0km 27.048 E ±26.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.82 168 iPg 31 49.30 0.0
eSg 32 02.80
DST 1.29 71 ePn 31 57.30 0.1
BNT 1.33 30 iPn 31 58.30 0.4
KCT 1.45 44 ePn 31 59.00 -0.6
S.D. = 0.7 on 4 of 4 obs.

MAR 16, 1993 11h 59m 26.46± 0.21s
19.516 N ± 3.4km 38.768 E ± 3.4km
DEPTH = 10.0km (geophysicist)
5.4mb (81 obs.) 4.8Msz (21 obs.)
RED SEA (554)
Mw 5.3 (HRV). MD 5.0 (RYD).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 22S, 39C
Centroid Location:
Origin Time 11:59:28.8 0.7
Lat 19.18N 0.09 Lon 38.61E 0.07
Dep 15.0 FIX Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr=-8.02 0.83 Mtt= 2.50 0.89
Mff= 5.53 0.53 Mrt= 0.49 2.30
Mrf=-3.46 2.36 Mtf=-6.11 0.85
Principal Axes:
T Val= 10.80 Plg= 9 Azm= 53
N -1.85 14 146
P -8.96 73 290
Best Double Couple:Mo=9.9*10**16
NP1:Strike=127 Dip=38 Slip=-114
NP2: 335 56 -73

ABHA 3.97 108 iP 00 22.63 -6.4X
eS 01 04.37
KMTA 4.11 108 iP 00 27.98 -2.9
DHJN 4.84 112 iP 00 38.99 -2.4
ARO 8.86 153 eP+ 01 41.00 3.4X
BADA 9.60 340 iP 01 46.10 -1.6
AYN 9.65 345 iP 01 41.68 -6.6X
AYN 9.65 345 eP 01 46.00 -2.3
eS 03 51.00
AAE 10.43 180 eP 01 57.50 -1.9
AOBJ 10.71 342 P 02 02.50 -0.5
MBH 10.80 342 eP 02 04.40 0.1
SHWJ 11.22 345 P 02 01.40 -8.7X
DHLJ 11.66 346 P 02 08.70 -7.1X
MASJ 12.47 348 P 02 08.80 -18.1X
JVI 12.74 347 eP 02 31.10 0.6
SALJ 12.75 348 P 02 13.90 -16.7X
HRI 13.96 349 eP 02 47.00 0.3
BHL 14.60 350 P 02 56.00 1.0
S 05 56.00
CSS 16.12 344 eP 03 19.30 4.5X
KER 16.53 25 eP 03 21.00 0.9
GAZ 17.64 356 eP 03 33.00 -0.9
ELL 18.84 337 eP 03 50.00 1.1
TAB 19.62 18 eP 04 02.00 3.7X
KHL 20.39 339 eP 04 04.00 -2.3
NAI 20.75 186 iPc 04 14.00 3.7X
Z 16s 5.62um 5.0MszX
iS 08 36.00
GRS 20.96 17 iPd 04 14.00 1.8
1.6s 310.00nm 5.4mb
Z 11s 3.80um 5.0MszX
N 11s 3.00um
E 11s 1.65um
iS 08 16.00
ERE 21.18 12 iP+ 04 16.00 1.6
iS 08 20.00
IZM 21.30 334 iP 04 17.30 1.7
TBZ 21.43 2 iP 04 30.50 13.8X
KVT 21.62 354 iP 04 18.00 -0.8
KAS 22.20 350 eP 04 26.00 1.4
EYL 22.24 342 eP 04 25.70 0.6
KCT 22.51 339 eP 04 29.70 2.0
SHE 22.68 20 iPd 04 31.50 2.3
1.2s 50.00nm 4.9mb
Z 13s 4.00um 5.0MszX
N 13s 11.00um
E 12s 6.50um
iS 08 42.00
BAK 22.89 22 iPd 04 36.00 4.7X
Z 15s 18.24um 5.6MszX
N 14s 13.14um
E 15s 33.46um
iS 08 52.00
ITU 23.08 341 eP 04 36.00 2.9X
ALN 23.93 336 eP 04 40.64 -0.7
SOC 24.01 2 iPc+ 04 44.00 1.8
2.0s 300.00nm 5.5mb
Z 14s 1.00um 4.4MszX
N 11s 2.00um
eS 09 06.00
eSS 10 18.00
AGG 24.08 327 iP 04 40.94 -2.0
PAIG 24.13 331 eP 04 37.76 -5.6X
OUR 24.32 332 eP 04 43.60 -1.6
GRO 24.46 12 iPc 04 50.00 3.4X
1.5s 320.00nm 5.7mb
MAK 24.54 15 eP 04 51.00 3.7X
Z 14s 6.20um 5.3MszX
e 05 35.00
eS 09 16.00
KIV 24.59 7 eP 04 49.80 1.8
1.0s 34.00nm 5.0mb
Z 15s 2.20um 4.8MszX
i 08 28.10
PYA 24.71 7 eP 04 51.00 2.0
Z 16s 4.00um 5.0MszX
N 16s 3.50um
E 16s 1.50um
eS 09 18.00
MAIO 24.71 43 iPc 04 50.20 1.0
eS 09 20.00
KAT 24.76 34 iP+ 04 50.00 0.5
Z 14s 4.00um 5.1MszX
N 14s 5.00um
E 14s 2.00um
eS 09 15.00
BCAO 24.78 235 iPc 04 51.00 1.1
1.0s 70.00nm 5.3mb
i 04 56.00
i 05 21.50
i 08 29.00
LIT 24.83 329 eP 04 47.92 -2.3
SOH 24.99 331 eP 04 54.56 2.7X
THE 25.02 331 eP 04 52.20 0.2
ASH 25.05 39 eP 04 53.00 0.7
e 05 26.00
e 09 25.00
RZN 25.13 335 iPc 04 55.00 1.8
SRS 25.13 332 eP 04 53.60 0.6
ANN 25.32 358 eP 04 55.00 0.2
1.1s 5.00nm 4.1mb X
MMB 25.45 333 iP 04 54.00 -2.1
KNT 25.47 331 eP 04 55.16 -1.1
GRG 25.54 330 eP 04 56.52 -0.4
SIM 25.66 352 eP 04 58.00 0.1
Z 24s 1.00um 4.3MszX
e 05 46.00
ePPP 05 56.00
eS 09 30.00
VAY 25.75 331 iP 05 00.50 1.7
LSK 25.81 327 eP 05 01.70 2.1
FNA 25.90 329 eP 04 56.96 -3.3X
SRN 25.93 326 eP 05 01.60 1.1
TPE 26.22 326 eP 05 04.40 1.1
OHR 26.43 328 iP 05 05.50 0.3
1.1s 82.00nm 5.3mb
VTS 26.50 334 iP 05 07.00 1.0
VLO 26.62 326 eP 05 10.40 3.5X
SKO 26.78 330 iP 05 08.50 0.1
1.5s 106.00nm 5.3mb
CFR 27.07 343 eP 05 11.00 0.0
TIR 27.07 328 eP 05 11.50 0.5

```
ISR     27.49 341 eP     05 18.00   3.1X
QUE     27.62  62 eP     05 19.60   3.2X
                  eS     10 07.60
SDA     27.78 328 eP     05 14.60  -2.8
MLR     28.00 341 eP     05 20.00   0.4
CMP     28.09 339 ePd    05 22.00   1.7
VRI     28.10 342 eP     05 21.00   0.6
UZH     31.95 339 ePc    05 55.00   0.5
        1.5s    77.00nm           5.4mb
                  e      07 19.00
PSZ     32.21 336 eP     05 58.00   1.1
PTJ     32.34 330 iP     05 58.50   0.4
VBY     32.40 328 eP     05 56.50  -2.0
RIY     32.72 327 eP     06 01.60   0.3
SRO     32.75 334 iP     06 01.90   0.4
CEY     32.97 328 eP     06 03.00  -0.5
SPC     33.13 338 iP     06 06.20   1.1
LJU     33.14 328 ePc    06 05.60   0.7
TRI     33.29 327 eP     06 06.50   0.3
VOY     33.45 328 ePc    06 08.10   0.4
ZST     33.56 333 eP     06 07.90  -0.6
PGF     34.03 319 P      06 12.58  -0.3
KBA     34.45 329 iPc    06 16.80   0.3
        1.3s    40.40nm           5.2mb
VRAC    34.64 334 iPc    06 18.10   0.3
        2.1s   706.90nm           6.2mb
                  e      06 31.40
MNK     35.39 349 eP     06 27.00   2.8X
WTTA    35.42 328 iPc    06 25.20   0.4
        1.3s    42.60nm           5.2mb
OGA     35.47 327 iPc    06 26.50   1.2
        1.5s    97.00nm           5.5mb
GEC2    35.54 331 e(P)   06 32.70   7.0X
        1.3s    31.30nm           5.0mb
GEC2    35.54 331 P      06 25.10  -0.6
        1.3s    50.53nm           5.2mb
                  e      06 31.40
OBN     35.56 358 iPc    06 25.20  -0.4
        1.5s   280.00nm           5.9mb
     Z  16s     1.40um            4.8MszX
     N  16s     1.20um
     E  16s     0.70um
                  e      07 42.00
                  ePPP   08 08.00
                  i      08 55.00
                  eS     12 08.00
                  (SS)   14 24.00
REVF    35.68 320 P      06 25.65  -1.2
SAOF    35.69 320 P      06 26.82  -0.2
SBF     35.70 320 P      06 26.90  -0.2
AURF    35.78 320 P      06 27.88   0.1
KHC     35.80 331 eP     06 27.50  -0.3
        1.4s    33.80nm           5.0mb
                  e      08 56.00
OSS     35.82 326 ePc    06 29.30   1.1
LMR     35.99 318 iPd    06 28.40  -1.1
        1.3s    90.25nm           5.5mb
PRU     36.01 333 eP     06 28.50  -1.1
        1.7s    46.70nm           5.1mb
                  e      07 25.50
                  e      08 57.00
FRF     36.02 319 iPd    06 28.90  -0.9
        1.3s   118.40nm           5.6mb
VDL     36.06 325 P      06 35.22   5.0X
LSZ     36.11 198 eP     06 31.00   0.2
NDI     36.13  68 eP     06 32.50   1.6
LRG     36.15 319 iPd    06 30.00  -0.8
        1.2s    58.60nm           5.3mb
TMA     36.15 324 iPc    06 31.40   0.4
FUR     36.21 328 iPd    06 31.90   0.6
SURF    36.41 320 P      06 34.03   0.8
LLS     36.55 325 ePc    06 34.40   0.0
MMK     36.63 323 ePc    06 36.60   1.5
CDR     36.63 319 ePd    06 35.90   1.0
BRG     36.93 334 iPc    06 36.80  -0.5
        1.8s   150.00nm           5.5mb
DIX     36.96 323 iPc    06 37.80  -0.1
LPG     37.01 322 eP     06 37.80  -0.5
        1.3s    57.05nm           5.2mb
LPL     37.03 322 eP     06 37.60  -0.8
        1.2s    51.45nm           5.2mb
RSL     37.19 322 P      06 38.07  -1.6
EMS     37.22 323 iPc    06 39.50  -0.5
ZLA     37.25 325 ePc    06 39.70  -0.4
GRF     37.28 330 ePd    06 39.00  -1.3
        1.5s    58.00nm           5.1mb
     Z  22s     0.20um            3.9Msz
```

```
SLE     37.37 326 ePc    06 40.70  -0.4
GRN     37.46 321 P      06 42.73   0.8
GBA     37.47  93 P      06 42.10  -0.1
CLL     37.65 333 iP     06 42.20  -1.1
        1.7s   105.00nm           5.3mb
                  i      07 11.60
BBS     37.72 325 P      06 43.75  -0.2
HYB     37.74  87 ePc    06 44.50   0.0
        1.2s    57.10nm           5.2mb
                  eS     12 40.00
MOX     37.77 332 iPc    06 44.20  -0.2
        1.5s    84.00nm           5.3mb
LOMF    38.02 324 P      06 46.73   0.1
FRU     38.06  44 eP     06 48.00   1.1
        1.6s   100.00nm           5.3mb
     Z  16s     2.50um            5.1MszX
                  e      08 19.00
                  e      12 52.00
LIBD    38.08 326 P      06 47.11   0.2
MOF     38.15 325 P      06 45.09  -2.6
BSF     38.33 325 P      06 48.94  -0.2
ECH     38.36 326 P      06 49.35   0.0
WLS     38.37 326 P      06 49.34  -0.2
CDF     38.42 326 P      06 49.64  -0.3
HAU     38.67 325 eP     06 51.00  -1.0
        1.0s    29.40nm           4.9mb
     Z  22s     0.20um            3.9Msz
COLF    38.84 320 P      06 53.24  -0.2
VITF    38.99 325 P      06 54.04  -0.6
PLDF    39.11 320 P      06 55.52  -0.2
AVY     39.20 167 eP     06 59.00   2.2
VTY     39.30 167 eP     06 58.80   1.1
SMF     39.33 322 eP     06 56.20  -1.3
        1.2s    44.65nm           5.0mb
PYM     39.37 320 P      06 58.14   0.2
LBF     39.43 322 iPd    06 57.10  -1.2
        1.2s   123.15nm           5.5mb
AGO     39.45 320 P      06 58.51   0.0
CAF     39.56 318 iPd    06 59.20  -0.3
        1.4s   152.50nm           5.5mb
LOR     39.65 322 iPd    06 58.90  -1.2
        1.4s   156.40nm           5.5mb
     Z  21s     0.30um            4.1Msz
AVF     39.69 321 iPd    06 59.20  -1.3
        1.3s    85.20nm           5.3mb
ARU     39.70  17 iPc    07 02.00   1.6
        1.3s   200.00nm           5.6mb
     Z  16s     2.50um            5.1MszX
     N  16s     1.50um
     E  16s     1.00um
SSF     39.74 322 iPd    06 59.70  -1.2
        1.4s   120.25nm           5.4mb
WLF     39.76 327 P      07 02.00   1.0
EPF     39.86 315 iPd    07 00.80  -1.2
        1.0s    17.60nm           4.7mb
BGF     39.87 321 iPd    07 01.40  -0.6
        1.3s   290.25nm           5.8mb
MAF     39.87 320 iPd    07 01.30  -0.7
        1.3s    92.40nm           5.3mb
LPO     40.01 317 iPd    07 03.00  -0.1
        1.6s   194.05nm           5.5mb
RJF     40.08 318 iPd    07 03.50  -0.2
        1.2s    82.10nm           5.3mb
     Z  20s     0.35um            4.2Msz
TCF     40.12 320 iPd    07 03.50  -0.6
        1.4s    78.40nm           5.2mb
HYF     40.36 322 eP     07 05.30  -0.6
LFF     40.41 318 iPd    07 06.30   0.0
        1.1s   102.05nm           5.4mb
PRZ     40.46  47 iPd-   07 09.00   1.9
        1.2s    80.00nm           5.3mb
                  e      08 52.00
                  eS     13 22.00
LSF     40.52 320 iPd    07 06.90  -0.4
        1.3s   128.50nm           5.5mb
SVE     40.64  18 ePd    07 08.00  -0.1
        2.1s   120.00nm           5.2mb
     Z  16s     2.00um            5.1MszX
     N  16s     2.00um
     E  16s     1.50um
                  ePPP   09 01.30
                  eS     13 25.00
                  eSSS   17 02.00
PUL     40.66 353 eP     07 09.00   0.8
        1.5s   200.00nm           5.6mb
     Z  17s     0.40um            4.3MszX
ETOR    40.72 310 iPc    07 09.87   0.8
```

```
DOU     40.83 326 P      07 06.60  -3.1X
ELIZ    41.17 314 iPc    07 13.85   1.2
SNF     41.24 327 P      07 14.80   1.8
ECRI    41.64 313 iPc    07 17.11   0.5
MFF     41.71 319 iPd    07 16.00  -1.0
        1.4s   102.80nm           5.4mb
PAB     42.01 308 iPc    07 20.50   0.8
        1.3s    96.15nm           5.4mb
EPRU    42.07 304 iPc    07 19.94  -0.3
EJIF    42.16 303 iPc    07 20.56  -0.3
GUD     42.18 309 iPc    07 21.72   0.6
GKN     42.62  70 P      07 24.40  -0.6
LDF     42.63 322 iPd    07 22.80  -1.7
        1.3s   110.45nm           5.4mb
LPF     42.90 321 iPd    07 25.20  -1.6
        1.2s   127.95nm           5.5mb
FLN     42.92 322 iPd    07 25.20  -1.7
        1.2s   127.95nm           5.5mb
     Z  21s     0.20um            4.0Msz
GRR     42.96 321 iPd    07 25.60  -1.6
        1.4s   144.20nm           5.5mb
DMN     43.03  70 P      07 27.80  -0.6
KKN     43.19  70 P      07 29.20  -0.5
PKI     43.30  70 P      07 30.00  -0.7
EVAL    43.38 304 iPc    07 31.60   0.7
EPLA    43.44 308 iPd    07 32.09   0.8
GUN     43.72  70 P      07 33.40  -0.7
HFS     44.35 342 eP     07 37.20  -1.1
        1.6s   100.50nm           5.4mb
     Z  16s     0.30um            4.3MszX
                  LR     24 44.00
TIC     44.39 259 P      07 39.30   0.0
LIC     44.55 259 Pc     07 40.46  -0.1
        0.8s    25.00nm           5.2mb
     Z  20s     0.80um            4.6Msz
ERUA    44.83 311 iPc    07 44.08   1.6
EMON    45.25 312 iPd    07 46.60   0.7
BFT     45.72 191 eP     07 51.00   1.0
        1.0s    30.00nm           5.2mb
NB2     45.80 342 P      07 48.90  -1.1
        1.3s    54.50nm           5.4mb
SLR     46.12 193 eP     07 53.40   0.4
        1.3s    40.00nm           5.3mb
     Z  18s     9.49um            5.8Msz
KSR     46.56 195 eP     07 40.00 -16.5X
WIN     46.88 208 eP     08 04.00   4.9X
        1.0s    50.00nm           5.5mb
PRY     47.45 194 eP     08 02.50  -1.0
        0.9s    12.31nm           5.0mb
EKA     47.66 329 Pd     08 04.90   0.2
        1.5s    60.70nm           5.5mb
SEK     48.76 193 iPd    08 14.00   0.3
        0.9s    25.00nm           5.3mb
ELT     49.58  36 iPd    08 18.80  -0.7
        1.2s   136.00nm           5.8mb
     Z  14s     2.70um            5.4MszX
                  e      10 20.00
                  eS     15 31.00
BLF     49.84 194 eP     08 22.50   0.5
        1.0s    60.00nm           5.5mb
FRS     50.67 195 eP     08 28.50   0.5
        1.1s    20.00nm           5.0mb
MBO     53.36 274 eP     08 48.70   0.1
GRM     53.81 193 eP     08 43.50  -8.1X
MOY     57.75  41 ePc    09 19.90   0.1
        1.4s    60.00nm           5.4mb
NRI     58.12  18 iPc    09 22.00  -0.2
        1.3s   132.00nm           5.8mb
     Z  16s     4.20um            5.6MszX
     N  16s     1.90um
                  e      10 07.00
                  e      11 30.00
                  e      17 26.00
NST     58.36  83 eP     09 24.00  -0.6
NNT     58.74  87 eP     09 26.30  -1.1
KMI     58.97  72 eP     09 27.50  -1.6
        2.0s    80.00nm           5.5mb
     Z  20s     1.60um            5.1Msz
     N  14s     0.77um
     E  14s     0.60um
                  sP     09 36.00
ZAK     59.01  42 iPc    09 27.50  -1.1
        1.4s    34.00nm           5.3mb
     Z  17s     5.80um            5.8MszX
     E  17s     6.53um
                  e      10 18.00
                  eS     17 43.00
```

16d 12h

LOE 59.46 81 eP 09 31.10 -1.2
IRK 59.87 40 eP 09 33.00 -1.6
1.4s 47.00nm 5.4mb
CIT 65.57 41 eP 10 11.00 -1.5
BOD 65.94 35 eP 10 12.20 -2.5
1.3s 109.00nm 5.9mb
BJI 68.24 54 eP 10 29.00 -0.6
1.3s 60.00nm 5.6mb
Z 22s 2.96um 5.5Msz
N 16s 1.04um
eS 19 32.00
eSS 23 40.00
TIK 71.67 20 eP 10 49.00 -1.0
2.0s 41.00nm 5.2mb
e 11 13.00
i 13 32.00
ePPP 15 21.00
eS 20 13.00
LEM 72.62 104 ePc 10 56.50 -0.2
SHNJ 81.17 57 P 11 45.30 1.3
KUMJ 81.43 59 eP 11 45.10 -0.3
RES 81.54 349 eP 11 46.50 1.3
1.5s 15.00nm 4.8mb
TKSJ 83.53 56 P 11 57.80 1.5
MGD 83.68 28 eP 11 56.00 -0.5
1.3s 100.00nm 5.9mb
e 22 20.00
WKYJ 84.66 56 P 12 02.00 -0.1
YSS 85.03 42 iPd 12 04.40 0.9
1.1s 50.00nm 5.7mb
LMN 85.25 317 eP 12 09.00 4.3X
MAT 85.86 53 ePKP 12 08.00 0.1
JAO 87.97 327 eP 12 19.00 1.2
ILT 88.62 13 iPd 12 21.40 0.7
2.0s 46.00nm 5.4mb
eS 22 54.00
BRW 88.78 5 eP 12 23.38 2.0
BDF 92.08 254 eP 12 40.00 2.2
BAO 92.15 254 eP 12 40.50 2.4
FCC 92.92 338 eP 12 44.00 3.2X
IMA 94.16 5 eP 12 47.49 0.9
1.3s 6.78nm 4.9mb
YKA 95.59 348 eP 12 51.80 -1.3
1.1s 5.50nm 4.9mb
FBA 95.70 3 (P) 12 54.08 0.6
1.3s 4.76nm 4.8mb
PMR 98.93 4 P 13 20.00 11.9X
Z 21s 0.36um 4.8Msz
WRA 101.46 107 Pdiff 13 22.50 2.1
ASPA 102.12 111 Pdiff 13 24.39 1.2
RSSD 108.11 333 PKP 18 10.00 13.4X
Z 21s 0.21um 4.7Msz
MIAR 109.70 320 PKP 18 10.00 10.4X
Z 20s 0.28um 4.8Msz
GOL 112.24 331 PKP 18 20.00 15.4X
Z 19s 0.36um 5.0Msz
WMOK 112.63 323 PKP 18 20.00 14.8X
Z 20s 0.44um 5.0Msz
DUG 114.96 336 PKP 18 20.00 10.3X
Z 20s 0.26um 4.8Msz
ALQ 116.56 328 PKP 18 20.00 7.0X
Z 21s 0.26um 4.8Msz
WDC 117.73 344 PKP 18 30.00 15.2X
Z 19s 0.23um 4.8Msz
CMB 119.49 341 PKP 18 30.00 11.7X
Z 20s 0.23um 4.8Msz
TUC 120.79 330 PKP 18 30.00 9.0X
Z 21s 0.26um 4.9Msz
ISA 121.03 338 PKP 18 30.00 8.7X
Z 19s 0.25um 4.9Msz
HON 136.22 23 PKP 19 00.00 9.4X
Z 21s 0.25um 4.9Msz
S.D. = 1.1 on 208 of 250 obs.

% MAR 16, 1993 12h 37m 37.79± 0.68s
40.630 N ± 5.3km 23.406 E ± 6.6km
DEPTH = 5.0km (geophysicist)
GREECE (364)

SOH 0.20 348 ePg 37 42.20 0.4
eSg 37 44.00
THE 0.34 271 ePg 37 44.88 0.3
SRS 0.51 16 ePg 37 47.72 -0.2
eSg 37 54.80
OUR 0.53 124 iPg 37 48.80 0.4
KNT 0.66 324 iPg 37 50.48 -0.4
iSg 37 59.04
PAIG 0.73 163 ePg 37 51.96 -0.5
S.D. = 0.5 on 6 of 6 obs.

% MAR 16, 1993 12h 43m 56.14± 0.58s
40.208 N ± 6.0km 29.252 E ± 4.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

YLV 0.37 14 ePg 44 03.70 -0.1
eSg 44 10.70
DST 0.77 219 ePg 44 10.80 -0.4
EYL 0.78 62 ePg 44 11.20 -0.2
GPA 0.81 84 ePn 44 12.00 0.1
BNT 1.03 279 iPn 44 16.20 0.6
EDC 1.07 278 ePn 44 16.00 -0.3
ALT 1.33 150 ePn 44 21.00 0.3
S.D. = 0.4 on 7 of 7 obs.

% MAR 16, 1993 12h 55m 06.84± 0.71s
26.395 S ± 5.4km 27.410 E ± 7.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.5 (PRE).

PRY 0.53 174 eP 55 17.70 0.1
S 55 24.50
KSR 0.70 319 eP 55 21.00 0.1
S 55 29.00
BFS 0.75 228 eP 55 22.60 0.6
S 55 31.80
SLR 1.02 50 iPc 55 27.00 0.2
S 55 39.80
SEK 1.93 174 iPc 55 41.40 0.6
S 56 04.20
BLF 2.91 202 eP 55 54.70 -0.2
S 56 28.50
FRS 3.82 208 eP 56 06.60 -1.0
S.D. = 0.7 on 7 of 7 obs.

MAR 16, 1993 13h 03m 07.07± 0.20s
0.527 N ± 3.4km 126.145 E ± 5.1km
DEPTH = 56.7km (3 depth phases)
5.2mb (38 obs.)
NORTHERN MOLUCCA SEA (266)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 27S, 40C
Centroid Location:
Origin Time 13:03: 7.5 0.7
Lat 1.01N 0.08 Lon 125.70E 0.09
Dep 15.5 4.6 Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr=-4.14 0.39 Mtt= 0.29 0.40
Mff= 3.85 0.56 Mrt= 3.73 1.47
Mrf= 8.97 2.71 Mtf=-0.36 0.38
Principal Axes:
T Val= 10.01 Plg=34 Azm=283
N 0.95 8 18
P -10.96 55 119
Best Double Couple:Mo=1.0*10**17
NP1:Strike=343 Dip=13 Slip=-126
NP2: 200 80 -82

SWI 5.30 105 ePc 04 24.50 -1.1
PCI 6.47 257 ePd 04 44.00 2.1
DAV 6.54 355 eP 04 43.80 0.8
BIP 7.65 1 eP 04 57.00 -1.4
CGP 8.01 350 eP 05 03.50 0.2
MAP 9.97 348 eP 05 34.00 3.7X
WSI 11.69 210 e(P) 05 53.20 -0.4
PPR 11.78 321 eP 06 00.00 5.1X
KHKI 13.72 230 eP 06 27.00 6.5X
e 11 30.20
TRT 15.76 238 ePc 06 48.20 1.3
0.8s 6.00nm 3.8mb X
SJI 16.52 240 iPd 07 01.80 5.2X
1.5s 4.30nm 3.4mb X
BAG 16.71 341 eP 06 59.00 -0.1
CVP 17.59 346 eP 07 11.00 1.1
WB2 21.88 159 iPc 07 55.30 -1.6
1.0s 249.80nm 5.6mb
i 08 00.90 20kmX
eS 17 17.00
MBL 22.42 196 eP 08 01.50 -0.8
0.5s 11.00nm 4.5mb
KGM 22.87 274 eP 08 05.50 -1.2
PMG 23.13 116 eP 08 10.00 0.7
1.5s 227.78nm 5.4mb
QIZ 24.37 320 P 08 16.00 -5.2X
IPM 25.41 280 ePd 08 29.90 -1.3
0.8s 49.50nm 5.1mb
SNG 26.30 285 eP 08 38.50 -0.9
eS 13 35.00
WARB 26.56 179 iPc 08 41.70 0.0
0.8s 147.00nm 5.6mb
CTA 28.42 137 iPd 08 59.00 0.4
1.0s 12.50nm 4.5mb
NNT 28.80 296 eP 08 57.80 -4.3X
LOE 29.30 306 eP 09 05.70 -0.9
NST 29.76 302 eP 09 11.00 0.3
KHT 30.70 299 eP 09 18.20 -0.7
MRWA 31.13 197 eP 09 21.00 -1.6
BDT 31.46 303 eP 09 22.20 -3.4X
GYA 31.88 326 P 09 28.40 -1.0
1.2s 16.00nm 4.7mb
Z 18s 1.05um 4.6Msz
QLP 32.10 148 iPc 09 29.90 -1.2
NJ2 32.10 348 Pd 09 35.00 4.0X
Z 20s 0.71um 4.4Msz
BAL 32.24 195 eP 09 31.20 -1.1
KLB 32.92 193 eP 09 35.50 -2.7
KMI 33.31 319 Pd 09 41.50 -0.4
1.5s 70.00nm 5.3mb
Z 22s 1.90um 4.8Msz
MUN 33.67 195 eP 09 43.00 -1.7
NWAO 34.32 193 eP 09 51.00 0.7
RMQ 34.59 143 eP 09 52.00 -0.7
e 11 14.20 450kmX
STK 35.40 157 iPc 09 59.50 0.0
0.8s 28.10nm 5.2mb
e 11 19.30 414kmX
CMS 36.91 151 eP 10 12.10 -0.1
CD2 36.93 327 eP 10 11.10 -1.4
1.2s 42.00nm 5.2mb
Z 20s 1.40um 4.7Msz
XAN 37.04 336 P 10 11.50 -1.9
1.0s 11.00nm 4.7mb
Z 20s 0.97um 4.6Msz
S 15 52.00
SS 18 20.00
ScS 20 23.00
ADE 37.21 163 iPd 10 15.50 0.7
MAT 37.54 16 eP 10 16.00 -1.5
1.0s 21.00nm 5.0mb
eS 16 34.00
BRS 37.76 139 iPc 10 18.00 -1.5
1.0s 7.50nm 4.6mb
TIY 39.10 343 eP 10 29.70 -1.0
Z 26s 1.13um 4.6MszX
N 20s 1.55um
S 16 28.50
ARMA 39.18 144 iPc 10 31.90 0.4
0.8s 56.00nm 5.5mb
BJI 40.36 348 eP 10 42.50 1.6
Z 22s 0.62um 4.4Msz
eS 16 44.00
BFD 40.47 160 iPc 10 42.20 0.3
1.0s 40.00nm 5.2mb
BWA 40.55 151 eP 10 44.30 1.7
e 12 16.60 503kmX
i 12 22.10
LZH 41.00 332 eP 10 47.00 0.6
1.4s 32.00nm 4.9mb
Z 18s 0.93um 4.7Msz
E 13s 0.50um
pP 11 03.00 63km
SNY 41.18 357 Pc 10 47.80 0.3
0.8s 34.00nm 5.2mb
Z 24s 0.84um 4.5MszX
CAN 41.56 151 iPd 10 51.70 0.8
e 12 18.20 457kmX
e 12 26.40
CNB 41.73 151 eP 10 53.50 1.2
1.0s 41.00nm 5.1mb
TOO 41.92 157 iPd 10 54.80 1.0
1.1s 68.00nm 5.3mb
HHC 42.26 344 eP 10 56.20 -0.4
CN2 43.09 359 eP 11 01.80 -1.4
1.0s 9.30nm 4.5mb
Z 20s 0.67um 4.5Msz
MDJ 44.01 4 eP 11 08.90 -1.7
Z 20s 1.11um 4.8Msz

```
LSA     44.17 314 P        11 12.40  -0.4
         1.6s    65.00nm           5.1mb
DZM     45.25 122 iPc      11 18.80  -2.3
GTA     45.57 331 eP       11 22.50  -0.8
    Z  22s     1.53um            4.9Msz
    E  15s     0.41um
YSS     48.51  15 eP       11 45.00  -1.2
CIT     52.36 350 eP       12 17.00   1.5
ZAK     53.35 342 eP       12 24.00   1.3
         1.3s    32.00nm           5.2mb
    Z  18s     0.51um            4.6Msz
    E  20s     0.54um
                  e        13 30.00 308kmX
IRK     54.72 344 ePc      12 34.00   1.2
         1.8s    20.00nm           4.8mb
                  e        13 04.00 127kmX
                  e        13 28.00
MOY     55.21 341 eP       12 22.10 -14.2X
BOD     57.94 352 eP       12 54.00  -1.7
         1.0s    30.00nm           5.4mb
YAK     61.39   2 iPc      13 18.80  -0.5
         1.5s    80.00nm           5.6mb
MGD     62.40  14 eP       13 26.00  -0.1
         1.5s    70.00nm           5.6mb
                  e        22 00.00
CSY     67.60 187 iPd      14 00.20   0.7
         0.9s    43.50nm           5.5mb
TIK     71.02   1 iPc      14 19.50  -0.9
         1.6s    39.00nm           5.1mb
                  e        14 35.00  56km
SVE     76.37 329 iPd      14 52.00   0.2
         2.9s   100.00nm           5.3mb
ILT     77.02  19 iPc      14 55.40   0.2
         1.2s    25.00nm           5.1mb
                  e        15 10.00  51km
                  e        15 25.00
ARU     77.29 328 eP       14 57.00   0.1
         1.5s   160.00nm           5.8mb
AVY     79.21 251 eP       15 08.80   0.3
VTY     79.41 251 eP       15 10.00   0.5
SDN     80.15  34 eP       15 12.99   0.5
         0.9s   190.97nm           6.0mb
GRS     81.80 310 eP       15 21.00  -0.8
         1.5s    40.00nm           5.2mb
ERE     83.27 310 eP       15 29.00  -0.3
SVW     83.86  29 ePd      15 33.38   1.7
         1.1s    36.60nm           5.3mb
TTA     84.00  27 eP       15 34.19   1.7
         1.0s    11.75nm           4.9mb
PYA     84.66 314 eP       15 37.00   0.9
KDC     84.94  32 eP       15 38.50   1.4
RSO     85.15  29 eP       15 38.35   0.0
CP2     85.50  29 (P)      15 41.00   0.8
IMA     85.53  24 eP       15 41.10   0.9
         0.6s     1.68nm           4.4mb
SLKM    86.40  30 (P)      15 44.36   0.0
PMS     86.79  29 eP       15 46.40   0.1
FBA     87.85  25 eP       15 51.00  -0.3
MOS     88.73 326 eP       16 11.00  15.4X
ANN     88.81 315 eP       15 56.00  -0.2
SPA     90.52 180 iPd      16 04.80   0.8
         1.0s    28.00nm           5.6mb
MNK     94.64 324 eP       16 25.00   2.0
BUL     97.25 250 iPc      16 36.10   0.3
UZH     98.74 319 eP       16 42.50   0.8
YKA    102.64  25 ePdiff16 58.00  -0.9
         1.0s     1.00nm           4.5mb
KIC    130.51 279 PKP      22 15.40   1.2
TIC    130.75 279 PKP      22 16.00   1.4
LIC    130.81 279 PKP      22 16.00   1.3
CFA    146.22 158 e(PKP)22 43.20   0.9
TCA    147.71 163 iPKPc    22 49.00   4.2X
CNCB   158.66 140 PKP      23 04.10   3.1X
LPB    158.79 139 ePKP     23 05.00   4.0X
ZOBO   158.94 139 PKP      23 04.00   2.6
         1.6s    31.33nm
                  i        23 39.30
SIV    163.06 155 PKP      23 14.50   9.6X
                  e        24 03.00
      S.D. = 1.1  on  90 of 104 obs.
--------------------------------------
  MAR  16, 1993  13h 07m 20.26± 0.35s
   38.137 N ± 5.7km   73.600 E ± 6.4km
  DEPTH = 135.8km  (  3 depth phases)
  4.4mb ( 20 obs.)
 TAJIKISTAN-XINJIANG BORDER REG. (719)
```

```
FRU      4.75   9 iPnd     08 31.00  -0.1
                  i        09 32.20
PRZ      5.68  39 iPnd     08 45.00   1.3
                  eS       09 49.50
QUE      9.65 217 eP       09 37.10  -0.1
                  eS       11 21.10
NDI      9.90 161 ePc      09 42.50   2.2
MAIO    11.40 265 eP       09 56.00  -4.1X
         0.7s     8.89nm           4.5mb
                  eS       11 52.00
ASH     12.03 274 eP       10 18.00   9.7X
GKN     13.69 134 P        10 29.60  -0.4
KKN     14.22 133 P        10 35.80  -1.0
DMN     14.26 134 P        10 37.20  -0.1
PKI     14.46 133 P        10 39.80  -0.2
GUN     14.48 131 P        10 39.20  -1.0
ELT     17.47  26 eP       11 15.00  -1.7
         0.9s    12.00nm           4.2mb
                  e        14 25.00
SVE     20.57 339 ePd      11 42.50  -7.2X
         1.2s    60.00nm           4.9mb
                  e        12 16.00
ARU     20.83 336 iPc      11 51.50  -0.8
         1.2s   180.00nm           5.3mb
HYB     21.09 167 eP       11 53.50  -1.8
         1.0s    60.00nm           4.9mb
                  e        12 03.00  36kmX
                  eS       15 49.00
GRS     21.26 282 eP       11 57.00   0.0
                  e        12 22.00 127km
KIV     23.94 294 eP       12 33.40  10.4X
         1.4s    14.00nm
                  e        13 16.20
GBA     24.67 171 P        12 39.00   9.1X
         0.6s    12.00nm           4.6mb
OBN     30.09 316 (P)      13 22.00   3.5X
                  i        14 26.00 338kmX
                  e        16 22.00
NRI     32.29  10 iPc      13 37.70   0.1
         1.0s    14.00nm           4.7mb
                  e        14 07.00 135km
                  e        14 27.00
MLR     35.83 297 eP       14 10.00   1.7
HFS     43.09 321 eP       15 06.50  -1.4
         0.4s     3.80nm           4.4mb
VBY     43.26 299 e(P)     15 10.50   1.0
GEC2    43.70 304 P        15 14.10   0.9
         0.7s     1.39nm           3.7mb
KHC     43.74 305 eP       15 13.50   0.1
                  e        15 46.00 145km
NB2     44.35 322 P        15 16.60  -1.6
         0.6s     3.60nm           4.2mb
LPG     49.06 301 eP       15 55.60   0.0
LPL     49.07 301 eP       15 55.60   0.1
         0.5s     2.50nm           4.3mb
AVF     50.96 304 eP       16 08.90  -0.7
         0.7s     4.85nm           4.4mb
MAF     51.65 303 eP       16 14.60  -0.2
         0.9s     5.40nm           4.4mb
TCF     51.86 303 eP       16 16.10  -0.3
         1.0s     6.80nm           4.4mb
RJF     52.64 302 eP       16 22.10  -0.1
         0.5s     1.70nm           4.2mb
LDF     52.65 307 eP       16 21.40  -0.8
         0.6s     5.75nm           4.6mb
FBA     72.31  17 eP       18 33.90   1.7
         1.0s     7.50nm           4.4mb
YKA     79.50   4 eP       19 13.80   1.2
         0.7s     1.70nm           3.9mb
WRA     81.14 124 P        19 26.00   4.1X
         0.9s     1.00nm           3.6mb
WB2     81.15 124 iPc      19 24.10   2.2
         0.6s     3.50nm           4.3mb
      S.D. = 1.1  on  30 of  37 obs.
--------------------------------------
? MAR  16, 1993  13h 35m 39.80± 1.28s
  15.238 N ± 9.0km  122.560 E ±17.2km
  DEPTH = 33.0km  (normal)
  4.0mb (  2 obs.)
 PHILIPPINE ISLANDS REGION        (248)

QVP      1.62 248 eP       36 07.50   1.0
                  eS       36 32.00
PGP      2.32 222 ePc      36 15.50  -1.1
                  eS       36 49.50
CVP      2.55 344 eP       36 20.00   0.2
                  eS       36 53.00
```

```
SZP      3.06 319 iPd      36 31.00   4.0X
PIP      3.59 329 iPd      36 34.00  -0.5
BBP      5.21 354 eP       36 53.00  -4.4X
WB2     36.83 161 eP       42 47.20   0.3
         0.4s     2.50nm           4.4mb
YKA     90.67  23 eP       48 44.90   4.7X
         0.6s     0.20nm           3.6mb
      S.D. = 1.1  on   5 of   8 obs.
--------------------------------------
? MAR  16, 1993  14h 15m 07.37± 1.08s
   6.848 S ±16.9km  102.354 E ±15.8km
  DEPTH =  30.4km  (  3 depth phases)
  4.5mb (  4 obs.)
 SOUTHWEST OF SUMATERA, INDONESIA(273)

LEM      5.23  90 ePd      16 27.00   1.3
                  e(S)     16 45.00
SJI      9.38  96 iPd      17 23.60   0.1
KHT     21.81 350 eP       19 58.60  -0.5
NST     22.48 354 eP       20 05.00  -0.7
LOE     24.11 359 eP       20 22.10   0.6
BDT     24.17 352 eP       20 20.50  -1.6
WB2     33.66 116 iPc      21 47.70  -0.2
         0.6s     9.20nm           4.9mb
                  i        21 56.40  30km
ASPA    34.60 122 eP       21 54.20  -1.8
         1.5s     7.50nm           4.4mb
PKI     37.94 335 P        22 25.20   0.7
GUN     38.05 336 P        22 26.20   0.8
KKN     38.19 335 P        22 27.20   0.8
GKN     38.64 334 P        22 31.20   1.0
LZH     42.73   2 eP       23 04.00   0.3
         1.6s    22.00nm           4.6mb
                  pP       23 14.00  34km
STK     44.23 130 eP       23 16.80   1.0
         0.8s     2.40nm           4.1mb
                  i        23 25.20  28km
YAK     71.85  13 eP       26 27.00  -2.0
      S.D. = 1.2  on  15 of  15 obs.
--------------------------------------
*  MAR  16, 1993  14h 15m 48.32± 0.41s
  15.115 S ±10.8km  173.661 W ±15.0km
  DEPTH =  33.0km  (normal)
  4.7mb (  9 obs.)
 TONGA ISLANDS                    (173)

DZM     20.07 247 iPc      20 26.30   4.3X
NOZ     24.53 196 eP       21 05.10  -1.0
MOZ     25.43 201 eP       21 16.40   1.8
MNG     27.11 198 eP       21 30.50   0.3
ORZ     28.30 202 eP       21 40.00  -0.9
DSZ     29.37 203 eP       21 46.70  -3.9X
CMS     40.36 239 eP       23 24.50  -0.3
TOO     42.45 230 eP       23 42.00   0.1
         0.5s    11.00nm           4.8mb
STK     43.96 240 eP       23 53.80  -0.5
         0.9s     4.90nm           4.3mb
WB2     49.65 257 eP       24 38.40  -0.8
         0.6s    10.40nm           5.0mb
WARB    56.52 248 eP       25 30.00  -0.1
         0.6s     8.00nm           4.9mb
MAT     68.56 320 eP       26 50.00   0.0
         1.1s    20.25nm           5.1mb
SPA     74.98 180 iPd      27 27.10  -1.0
         1.1s     7.74nm           4.6mb
ALQ     80.81  50 eP       28 00.23  -0.5
         1.0s     3.52nm           4.3mb
FBA     82.16  11 iPc      28 06.27  -0.6
         0.9s    12.53nm           5.0mb
LCCM    82.30  38 eP       28 11.00   2.8X
SES     85.11  35 eP       28 21.00  -1.2
RSSD    86.42  43 (P)      28 28.96  -0.1
YKA     89.94  23 eP       28 43.30  -1.9
         0.8s     0.90nm           4.1mb
PRU    144.58 351 ePKP     35 22.40  -0.7
GRF    145.29 354 ePKP     35 25.00   0.7
MLR    145.51 335 ePKP     35 36.50  11.5X
KHC    145.56 352 ePKP     35 26.00   1.2
         1.0s     7.00nm
                  e        35 35.60
                  e        36 08.00
GEC2   145.82 351 PKP      35 26.30   0.9
         1.1s     3.61nm
                  e        35 36.70
                  e        35 44.30
LPF    146.62   9 ePKP     35 27.40   0.9
CDF    146.79 359 ePKP     35 28.60   1.7
```

16d 14h

LOR 147.88 3 ePKP 35 30.40 1.8
SSF 148.06 4 ePKP 35 32.00 3.1X
MAF 148.83 5 ePKP 35 33.90 3.7X
LPL 149.69 359 ePKP 35 37.10 5.3X
LPG 149.71 359 ePKP 35 37.50 5.6X
OHR 151.21 337 ePKP 35 42.70 8.7X
S.D. = 1.1 on 23 of 32 obs.

% MAR 16, 1993 14h 25m 20.50± 1.21s
37.860 S ±15.9km 176.222 E ±12.1km
DEPTH = 200.0km (geophysicist)
NORTH ISLAND, NEW ZEALAND (159)

WLZ 0.50 269 eP 25 48.80 1.1
URZ 0.81 120 P 25 48.90 -0.4
eS 26 13.80
WHH 1.04 168 eP 25 52.30 1.4
PAHZ 1.19 147 eP 25 53.10 1.1
MOZ 1.29 240 eP 25 54.70 2.0
NGZ 1.40 200 eP 25 56.00 2.2
CNZ 1.44 201 eP 25 56.10 2.0
MOH 1.46 151 eP 25 55.60 1.4
NOZ 1.62 118 P 25 55.20 -0.3
PUZ 1.62 98 P 25 53.50 -2.1
eS 26 21.20
HBZ 1.67 82 eP 25 53.30 -2.7
TTH 1.74 164 P 25 58.60 1.9
WAHZ 1.84 177 eP 25 59.30 1.5
BSZ 2.18 207 eP 26 02.90 1.7
PGZ 2.76 179 eP 26 08.10 0.5
MNG 2.81 192 P 26 08.90 0.5
eS 26 48.80
KIW 3.17 198 P 26 12.20 -0.3
MTW 3.34 189 P 26 13.90 -0.8
CAW 3.37 195 P 26 14.70 -0.2
DIW 3.44 211 P 26 15.40 -0.4
BLW 3.55 189 P 26 16.80 -0.4
MRW 3.57 199 P 26 17.00 -0.4
eS 27 04.50
MOW 3.63 192 P 26 17.50 -0.8
TCW 3.67 204 P 26 18.10 -0.6
ORZ 4.12 223 P 26 22.90 -1.4
THZ 4.66 212 eP 26 30.70 -0.5
KHZ 4.99 203 P 26 34.20 -1.2
DSZ 5.16 220 eP 26 35.00 -2.6
LTZ 5.77 210 eP 26 43.20 -2.3
S.D. = 1.5 on 29 of 29 obs.

• MAR 16, 1993 16h 11m 00.36± 0.96s
9.314 S ± 7.9km 119.244 E ± 8.0km
DEPTH = 55.5 ± 10.2 km
4.8mb (17 obs.)
SUMBA REGION, INDONESIA (287)

WSI 1.10 109 iPd 11 21.00 1.3
iS 11 31.70
KHKI 3.72 284 ePd 11 56.00 -0.6
eS 12 47.90
e 18 12.20
TRT 6.73 283 ePc 12 39.40 0.5
eS 13 46.90
SJI 7.56 281 iPc 12 55.30 4.8X
iS 14 18.00
LEM 11.77 281 e(P)c 13 50.50 2.2X
MBL 11.79 177 eP 13 42.00 -6.3X
0.3s 17.00nm 5.5mb
eS 15 39.00
MEEK 17.24 182 eP 14 55.50 -3.5X
0.2s 8.00nm 4.5mb
eS 17 49.00
WB2 18.02 128 iPc 15 06.90 -1.7
0.5s 9.50nm 4.2mb
iS 18 18.20
WARB 18.19 158 iPc 15 08.60 -2.0
0.4s 6.00nm 4.1mb
eS 18 15.00
ASPA 20.00 137 iPd 15 30.40 -0.9
0.6s 20.30nm 4.6mb
Z 20s 0.20um 3.5Msz
eS 18 57.30
MRWA 20.03 188 eP 15 32.50 1.0
0.3s 3.00nm 4.1mb
eS 18 52.00
BAL 21.32 186 eP 15 42.00 -2.6X
COOL 21.53 176 eP 15 44.00 -2.8X
KLB 22.21 183 eP 16 02.50 9.0X
eS 19 44.00
MUN 22.73 187 eP 16 08.00 9.4X
eS 19 58.00
NWAO 23.57 184 eP 16 22.00 15.2X
eS 20 14.00
STK 30.56 140 eP 17 11.20 0.2
0.7s 4.60nm 4.3mb
CMS 33.11 136 eP 17 34.50 1.2
TOO 36.77 144 iPc 18 06.10 1.6
1.0s 39.00nm 5.3mb
GYA 37.60 341 P 18 12.60 1.0
CD2 42.66 340 P 18 53.80 0.4
0.8s 42.00nm 5.2mb
XAN 44.21 348 P 19 06.00 0.1
0.8s 7.00nm 4.5mb
pP 19 13.80 26kmX
LSA 47.29 326 P 19 31.00 0.1
1.8s 38.00nm 5.0mb
LZH 47.43 343 eP 19 32.50 1.0
1.4s 29.00nm 5.0mb
GUN 49.11 320 P 19 44.60 -0.3
0.8s 32.00nm 5.4mb
PKI 49.17 319 P 19 45.00 -0.4
0.6s 9.00nm 5.0mb
BJI 49.18 357 eP 19 42.50 -2.3
DMN 49.40 319 P 19 46.60 -0.4
KKN 49.41 319 P 19 46.80 -0.2
GKN 49.97 319 P 19 51.00 -0.2
0.6s 15.00nm 5.2mb
GTA 51.73 341 P 20 05.00 0.6
1.0s 11.00nm 4.8mb
pP 20 13.00 27kmX
sP 20 15.00
CN2 53.16 6 eP 20 14.60 -0.2
WMQ 60.14 334 eP 21 04.80 0.2
1.0s 8.40nm 4.8mb
MAIO 72.13 313 iPc 22 21.00 -0.3
BUL 87.43 250 eP 23 44.40 0.7
ipP 23 56.20 38kmX
YKA 114.38 24 ePKP 29 48.50 13.3X
0.6s 0.20nm
CNCB 153.08 165 PKP 30 57.50 10.3X
LPB 153.31 164 ePKP 31 08.00 20.7X
ZOBO 153.54 164 ePKP 30 57.00 9.1X
S.D. = 1.0 on 26 of 39 obs.

? MAR 16, 1993 16h 44m 12.14± 0.96s
44.367 N ±10.1km 7.319 E ± 9.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.4 (GEN).

STV 0.12 178 P 44 15.21 0.0
S 44 17.39
ENR 0.16 153 P 44 15.91 0.0
S 44 18.46
PZZ 0.21 312 P 44 16.77 0.0
S 44 20.02
ROB 0.40 100 P 44 20.38 0.0
S.D. = 0.1 on 4 of 4 obs.

% MAR 16, 1993 16h 45m 05.23± 0.62s
26.370 S ± 5.2km 27.346 E ± 6.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.7 (PRE).

PRY 0.57 168 eP 45 16.00 -0.6
S 45 23.50
KSR 0.65 321 iPc 45 18.00 -0.2
S 45 26.00
BFS 0.73 224 eP 45 20.60 0.8
S 45 29.90
SLR 1.05 53 eP 45 25.20 -0.4
S 45 37.50
SEK 1.96 173 iPc 45 40.20 0.6
S 46 05.00
BFT 2.52 75 eP 45 48.50 0.8
S 46 19.00
BLF 2.91 200 eP 45 53.00 -0.3
S 46 28.20
FRS 3.81 208 iP 46 05.20 -0.7
S 46 48.00
S.D. = 0.7 on 8 of 8 obs.

• MAR 16, 1993 16h 57m 23.61± 0.97s
46.187 N ±13.5km 16.871 E ± 9.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.3 (ZAG). Felt in the
Ludbreg area, Croatia.

PTJ 0.70 246 iPgc 57 36.30 -1.2X
iSg 57 45.80
PTJ 0.70 246 Pg 57 36.60 -0.9
Sg 57 45.80
ZAG 0.72 239 iPg 57 37.20 -0.6X
iSg 57 46.80
ZAG 0.72 239 Pg 57 37.50 -0.3
Sg 57 47.20
UZD 1.25 70 ePn 57 46.80 -0.1
VBY 1.32 239 iPn 57 49.00 1.0
iSn 58 07.00
GEC2 3.42 322 Pn 58 18.20 0.1
Sg 59 14.50
S.D. = 1.0 on 5 of 7 obs.

% MAR 16, 1993 17h 05m 20.76± 1.38s
33.145 S ± 5.2km 70.272 W ±11.0km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.8 (SAN).

FCH 0.18 185 iPd 05 25.09 0.1
iS 05 27.90
PEL 0.35 270 iPd 05 28.11 0.2
iS 05 33.41
PCH 0.52 203 iP 05 31.37 0.1
iS 05 39.07
JACH 0.54 330 iP 05 31.65 0.0
iS 05 39.31
ROCH 0.64 285 iP 05 33.64 -0.2
iS 05 43.04
TACH 0.75 228 iP 05 35.49 0.0
iS 05 46.28
CHCH 0.85 202 iP 05 37.05 -0.1
iS 05 48.95
LCCH 1.14 253 iP 05 42.14 0.1
iS 05 57.69
LNV 1.25 229 iP 05 43.68 -0.2
iS 06 00.28
S.D. = 0.2 on 9 of 9 obs.

• MAR 16, 1993 17h 52m 59.05± 0.86s
27.892 N ± 6.3km 126.527 E ± 6.0km
DEPTH = 259.9 ± 9.3 km
4.5mb (16 obs.)
NORTHWEST OF RYUKYU ISLANDS (234)

SSE 5.64 306 Pd 54 22.50 -1.0
1.0s 25.00nm 4.1mb
pP 54 30.50
NJ2 7.84 304 eP 54 51.60 0.6
TIA 11.50 318 Pd 55 37.70 0.5
1.4s 54.00nm 4.5mb
MAT 13.11 46 eP 55 58.00 0.8
1.2s 29.69nm 4.4mb
eS 56 49.00
SNY 14.11 351 Pd 56 09.90 0.6
1.0s 28.00nm 4.6mb
BJI 14.84 327 eP 56 18.50 0.4
1.0s 35.00nm 4.7mb
CN2 15.90 357 Pd 56 29.80 -1.0
0.8s 31.00nm 4.8mb
epP 56 39.00
MDJ 16.87 8 eP 56 40.10 -1.1
LZH 20.87 299 eP 57 22.50 0.4
1.5s 46.00nm 4.7mb
pP 58 06.00
KMI 21.46 268 eP 57 27.00 -0.9
1.0s 40.00nm 4.9mb
pP 57 34.50 27kmX
GUN 35.81 280 P 59 36.20 0.2
PKI 36.27 279 P 59 39.60 -0.3
KKN 36.35 280 P 59 40.60 0.2
DMN 36.53 280 P 59 42.00 0.0
GKN 36.87 280 P 59 44.60 -0.1
0.4s 9.00nm 4.6mb
WRA 48.15 170 P 01 15.60 0.5
0.5s 2.70nm 3.8mb
WB2 48.15 170 iPd 01 15.00 -0.1
0.4s 11.00nm 4.6mb
ipP 02 05.30 232kmX
ASPA 51.75 171 iPc 01 42.40 0.1
0.5s 9.10nm 4.5mb

OLP	56.77	161	iPd	02 18.00	-0.4
STK	61.15	165	iPc	02 48.20	-0.1
	0.4s	6.30nm			4.6mb
N82	77.15	333	P	04 23.60	-1.6X
	0.8s	3.10nm			4.1mb
YKA	77.66	25	eP	04 27.00	-0.9
	0.6s	0.80nm			3.6mb
GEC2	82.96	322	P	04 56.60	0.4
	0.7s	2.12nm			4.0mb
GRF	83.79	324	eP	05 01.20	1.0
KIC	121.94	298	PKP	11 24.70	0.2

S.D. = 0.7 on 24 of 25 obs.

MAR 16, 1993 18h 41m 37.49± 0.45s
42.332 N ± 3.6km 19.462 E ± 4.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.7 (TTG). ML 2.4 (TIR).

TTG	0.18	303	iPgd	41 41.50	0.0
			iSg	41 45.12	
SDA	0.28	174	iPgd	41 42.80	-0.6
			iSg	41 47.60	
ULC	0.40	203	iPgc	41 45.17	-0.5
			iSg	41 51.70	
PVY	0.46	55	iPgd	41 46.58	-0.3
			iSg	41 54.12	
BDV	0.47	264	iPgc	41 46.79	-0.3
			iSg	41 54.83	
NKY	0.59	325	iPgd	41 48.85	-0.7
			iSg	41 58.93	
IVA	0.63	31	iPgc	41 49.49	-0.7
			iSg	42 00.09	
LACI	0.72	165	ePg	41 52.00	0.4
			iSg	42 03.50	
HCY	0.72	280	iPgd	41 51.45	-0.3
			iSg	42 03.39	
BRY	0.88	310	iPgd	41 54.23	-0.3
			iSg	42 09.08	
PLE	1.00	357	iPgd	41 56.49	0.0
			iSg	42 12.74	
TIR	1.03	163	ePn	41 57.00	0.1
			iSn	42 14.00	
SKO	1.51	103	ePn	41 58.00	-6.6X
	1.1s	131.00nm			
			iSg	42 28.60	
			Lg	42 31.50	
OHR	1.58	140	iPn	42 06.40	0.8
	1.0s	94.00nm			
			i	43 09.20	
			i	43 31.50	
			Lg	43 35.70	
TPE	2.08	168	ePn	42 23.00	10.2X
HVAR	2.38	292	e(Pn)	42 20.10	3.0X
VAY	2.53	112	ePn	42 23.50	4.2X
VBY	4.39	318	e(Pn)	42 50.20	4.5X
			e	43 43.00	
VOY	5.45	315	ePn	43 03.20	2.4
			eSn	44 07.80	

S.D. = 0.9 on 14 of 19 obs.

MAR 16, 1993 19h 17m 59.87± 0.38s
44.355 N ± 3.0km 7.302 E ± 4.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN), 1.6 (LDG).

STV	0.11	172	P	18 03.22	0.4
			S	18 05.18	
ENR	0.15	146	P	18 03.86	0.3
			S	18 06.14	
PZZ	0.21	316	P	18 04.73	0.2
			S	18 07.97	
ROB	0.41	98	P	18 08.98	0.7
			S	18 14.15	
BHB	0.49	357	P	18 10.00	0.2
			S	18 16.03	
SBF	0.50	169	Pg	18 09.30	-0.7
			Sg	18 16.80	
IMI	0.61	136	P	18 11.96	-0.3
			S	18 20.61	
FIN	0.67	102	P	18 12.71	-0.5
			S	18 21.80	
FRF	0.92	211	Pg	18 17.20	-0.3
			Sg	18 29.10	
LRG	1.13	217	Pg	18 21.50	0.5
			Sg	18 36.60	
LMR	1.17	210	Pg	18 21.80	0.1
			Sg	18 36.80	
LPG	1.21	341	Pg	18 22.30	-0.3
LPL	1.23	341	Pg	18 22.50	-0.4

S.D. = 0.5 on 13 of 13 obs.

& MAR 16, 1993 19h 33m 33.70s
40.430 N 124.602 W
DEPTH = 12.0km
2.9mb (1 obs.)
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.4 (BRK), 3.2 (GS).
Felt at Petrolia.

FHC	0.60	51	iPc	33 45.49	-0.2
			eS	33 53.81	
ARC	0.60	42	iPc	33 45.19	-0.4
			eS	33 52.84	
WDC	1.58	84	ePc	33 59.12	-2.4
LBFM	2.25	65	eP	34 09.70	-1.8
ORV	2.54	109	eP	34 11.33	-4.0
			eS	34 41.33	
ARN	3.90	141	eP	34 31.75	-3.0
YKA	22.90	12	eP	38 37.50	-0.5
	0.9s	0.40nm			2.9mb

7 obs. associated

% MAR 16, 1993 21h 49m 13.64± 0.87s
26.339 S ± 7.0km 27.710 E ±10.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY	0.62	200	eP	49 27.00	0.9
			S	49 34.60	
SLR	0.79	41	eP	49 29.90	0.3
			S	49 38.40	
KSR	0.87	303	eP	49 30.40	-0.6
			S	49 41.00	
SEK	1.98	182	iPc	49 48.10	-0.2
			S	50 11.60	
SWZ	2.29	248	eP	49 54.20	1.4
			S	50 21.60	
BLF	3.07	206	eP	50 03.00	-0.9
FRS	4.00	211	e(P)	50 16.00	-0.9

S.D. = 1.1 on 7 of 7 obs.

% MAR 16, 1993 22h 06m 08.32± 1.12s
36.929 N ±14.0km 29.162 E ± 6.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.2 (ISK).

ELL	0.63	107	ePg	06 21.00	0.0
YER	0.73	287	iPg	06 22.50	-0.3
			iSg	06 32.50	
BCK	1.26	65	ePn	06 31.80	0.1
KHL	1.42	12	ePn	06 34.00	-0.3
IZM	2.10	315	ePn	06 44.50	0.4

S.D. = 0.4 on 5 of 5 obs.

---

* MAR 16, 1993 22h 40m 17.90± 0.78s
46.186 N ±12.9km 16.753 E ± 7.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.9 (LJU). ML 2.5 (ZAG).

PTJ	0.62	243	iPgc	40 29.10	-1.4
			iSg	40 38.60	
ZAG	0.65	236	iPg	40 30.00	-0.9
			iSg	40 40.00	
VBY	1.25	237	ePn	40 41.10	0.0
			iSn	40 59.80	
UZD	1.33	72	ePn	40 42.20	-0.2
LJU	1.55	266	eP	40 46.50	0.9
			eSg	41 11.40	
CEY	1.68	255	e(Pg)	40 49.50	2.0
			eSg	41 15.20	
VOY	2.00	267	ePn	40 54.80	2.7X
			eSn	41 22.70	
GEC2	3.37	323	Pn	41 11.00	-0.7
			Pg	41 21.80	
			Sn	41 49.30	
DEV	4.29	92	ePd	41 25.00	0.3

S.D. = 1.3 on 8 of 9 obs.

MAR 16, 1993 22h 43m 15.24± 0.38s
46.224 N ± 3.7km 16.785 E ± 3.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.8 (GRF), 3.7 (ZAG), 3.5
(BRA), 3.4 (VIE). MD 3.5 (TRI).
Felt in the Ludbreg area,
Croatia.

PTJ	0.66	241	iPgc	43 28.30	-0.2
			iSg	43 37.30	
ZAG	0.69	234	iPgc	43 29.40	0.5
			iSg	43 39.00	
VBY	1.29	237	ePn	43 39.20	0.1
			iSn	43 59.00	
UZD	1.30	73	iPn	43 38.50	-0.7
LJU	1.58	264	ePn	43 43.50	0.2
			e	43 45.40	
			iSg	44 03.50	
CEY	1.71	254	ePn	43 45.00	-0.3
			i	43 48.00	
			eSg	44 12.50	
RIY	1.90	243	e(Pn)	43 50.20	2.3X
			iSn	44 16.20	
SRO	1.90	33	eP	43 47.20	-0.8
			iPg	43 52.60	
			i	44 15.30	
			i	44 24.30	
ZST	1.99	6	iPnc	43 49.20	0.0
			iPb	43 53.70	
			iPg	44 00.60	
			i(Sn)	44 25.70	
BUD	1.99	50	ePn	43 48.40	-0.8
VOY	2.02	266	iPn	43 49.80	0.0
			e(Pg)	43 52.80	
			eSg	44 24.00	
VKA	2.07	351	iPnc	43 51.00	0.6
			iPg	43 56.60	
			iSn	44 20.60	
			iSg	44 28.40	
TRI	2.17	257	ePn	43 52.00	0.1
			ePg	43 54.40	
			e	44 15.40	
			eSn	44 20.00	
			iSg	44 28.20	
KBA	2.52	291	iPnc	43 57.30	0.3
			iPb	43 59.90	
			iPg	44 04.00	
			iSn	44 26.70	
			iSb	44 32.40	
			iSg	44 38.10	
PSZ	2.72	50	ePn	43 58.50	-1.3
HVAR	3.06	185	iPnc	44 05.10	0.6
VRAC	3.09	358	iPn	44 05.10	0.2
	0.4s	71.10nm			
GEC2	3.35	323	Pn	44 10.10	1.3
			Sn	44 47.90	
			Sg	45 07.10	
KHC	3.63	324	Pn	44 14.00	1.4
			e	44 30.50	
			e	44 56.00	
			eSg	45 15.50	
			e	45 23.30	
WTTA	3.69	288	iPnc	44 13.20	-0.5
			iSn	44 57.60	
SPC	3.78	37	eP	44 16.30	1.4
			e	44 27.20	
			e	51 59.50	
PRU	4.06	339	Pn	44 19.00	0.4
	1.0s	58.90nm			
			ePg	44 35.00	
			e	44 37.50	
			eSn	45 06.50	
			Sg	45 26.60	
FUR	4.23	299	iPc	44 21.60	0.4
BRG	5.02	339	iPg	44 32.00	-0.3
			e	44 53.00	
			e	45 57.00	
GRF	5.10	315	ePn	44 32.90	-0.6
			ePg	44 55.70	
			e(Sn)	45 28.40	
			eSg	46 00.80	
HOF	5.24	323	iPc	44 35.50	0.0
SKO	5.41	140	eP	44 39.50	1.6
MOX	5.60	324	iPn	44 40.80	0.2
			iSg	46 14.80	
CLL	5.67	335	ePn	44 41.00	-0.5
			ePg	45 07.00	

16d 22h

```
                 eSg    46 19.00
PGF     6.68 239 Pn     44 56.40   0.5
SBF     7.03 254 Pn     45 01.30   0.5
LPG     7.04 268 Pn     45 01.20   0.0
LPL     7.05 268 Pn     45 01.80   0.6
FRF     7.68 253 Pn     45 08.10  -1.6
LMR     7.86 252 Pn     45 09.30  -3.0
LRG     7.91 253 Pn     45 12.80  -0.2
     S.D. = 0.9  on  35 of  36 obs.
```

MAR 16, 1993 22h 49m 17.86± 0.56s
23.829 S ± 6.0km 179.976 W ± 8.4km
DEPTH = 555.9 ± 7.4 km
4.6mb (20 obs.)
SOUTH OF FIJI ISLANDS (171)

```
DZM    12.63 275 iPc    52 06.20   2.9
KUZ    13.40 195 eP     52 11.70   0.9
                 e      52 18.40
HBZ    13.81 186 eP     52 16.70   1.9
WLZ    14.50 194 eP     52 23.30   1.5
URZ    14.60 189 eP     52 21.60  -1.1
                 eS     54 56.10
NOZ    14.84 186 eP     52 26.00   0.9
       0.4s   120.00nm          5.7mb X
WAHZ   16.12 190 eP     52 36.20  -1.5
PGZ    17.04 190 eP     52 45.40  -1.1
MNG    17.17 192 eP     52 45.90  -1.9
                 eS     55 35.60
KIW    17.52 193 eP     52 50.90  -0.3
CAW    17.72 192 eP     52 53.40   0.2
MRW    17.92 193 P      52 55.00   0.0
                 S      55 57.00
TCW    17.99 194 eP     52 54.70  -1.0
THZ    18.85 197 eP     53 03.90   0.0
DSZ    19.14 199 eP     53 05.70  -1.0
KHZ    19.31 195 eP     53 07.30  -0.8
LTZ    19.97 197 eP     53 13.60  -0.7
       0.5s    91.00nm          5.7mb
CAN    29.20 240 eP     54 37.30   0.7
CMS    31.14 248 iPc    54 53.20   0.1
       0.5s     7.00nm          4.5mb
CTA    31.50 270 iP     54 56.00  -0.2
       0.5s    15.85nm          4.9mb
TOO    32.51 237 iPd    55 05.90   1.3
       0.3s    22.00nm          5.3mb
STK    34.77 248 iPc    55 24.10   0.6
       0.5s     7.90nm          4.6mb
WB2    42.42 266 eP     56 24.20  -1.5
       0.4s    44.20nm          5.3mb
                 epP    58 02.80 544kmX
                 iScP   01 09.80
                 eS     02 04.90
WARB   48.15 255 iPc    57 08.60  -1.2
       0.4s     9.00nm          4.7mb
DHH    49.75  27 (P)    57 19.73  -1.8
MBL    55.31 260 eP     58 00.00  -1.5
       0.4s     9.00nm          4.5mb
MRWA   56.93 250 iPc    58 11.70  -0.9
       0.4s     7.00nm          4.3mb
CSY    60.19 206 iPd    58 34.20   0.4
       0.6s    24.50nm          4.7mb
SPA    66.31 180 iPc    59 15.20   2.1
       0.7s    63.67nm          5.3mb
MAT    71.85 326 (P)    59 48.00   1.8
       0.8s     8.96nm          4.3mb
ADK    75.44   2 eP     00 04.39  -1.5
SDN    80.59  11 eP     00 32.18  -1.1
PLM    82.72  49 ePc    00 45.52   0.7
PEC    82.82  48 (P)    00 45.02  -0.1
ISA    82.96  46 eP     00 46.16   0.3
       0.9s    19.50nm          4.6mb
CMB    83.13  43 eP     00 47.10   0.4
       0.9s    15.90nm          4.6mb
ORV    83.38  42 eP     00 48.37   0.6
GSC    83.86  47 iPd    00 51.14   0.8
GLA    83.96  50 ePd    00 52.17   1.3
BONR   84.41  44 eP     00 53.89   0.6
TUC    86.46  52 ePc    01 04.38   1.4
       1.1s    20.29nm          4.8mb
SLKM   87.46  14 eP     01 05.89  -1.2
GMW    87.67  35 (P)    01 08.39   0.1
CP2    87.71  13 eP     01 06.57  -1.9
TTA    88.53  11 eP     01 10.89  -1.1
       1.2s     6.39nm          4.4mb
PMR    88.67  14 ePd    01 11.34  -1.2
       0.9s    18.27nm          5.0mb
MSU     88.72  47 eP      01 14.64    1.0
CHTO    89.67 291 eP      01 19.20    1.1
HVU     90.07  44 eP      01 20.15    0.5
SRU     90.13  47 eP      01 20.55    0.5
ALQ     90.89  52 eP      01 24.26    0.6
        1.0s      7.35nm          4.7mb
FBA     91.88  13 eP      01 25.20   -2.1
        0.4s      1.68nm          4.4mb
YKA    100.29  25 ePdiff02 05.10   -0.3
        0.6s      0.20nm          3.8mb
GBA    106.73 278 PKP     06 36.00   -6.2X
NDI    111.73 293 ePKP    06 57.00    5.6X
PRY    123.00 209 iPKPc   07 31.00   17.8X
        1.5s     60.00nm
                  e       21 07.00
SLR    123.65 211 iPKPc   07 19.20    4.7X
        1.3s     70.00nm
     Z  18s      18.90um          6.8MszX
                  e       20 20.00
SWZ    123.71 207 ePKP    07 15.00    0.4
                  e       07 37.70
KSR    124.17 209 iPKPd   07 23.50    7.9X
        1.5s     56.00nm
WIN    130.99 201 iPKPd   07 41.50   12.8X
        1.0s     50.00nm
KER    137.87 295 iPdiff04 53.80    0.6
MOS    137.87 329 iPKPd   07 57.00   16.6X
        2.0s    640.00nm
     Z  18s       3.10um          6.1Msz
     N  17s       3.40um
     E  17s       2.80um
                  e       09 33.00
NB2    142.01 351 PKP     07 42.40   -5.3X
        0.7s      7.20nm
HFS    142.48 349 ePKP    07 43.70   -4.8X
        0.4s     30.20nm
GAZ    145.53 301 ePdiff05 23.00   -3.9X
EKA    148.45   3 PKPd    08 02.30    3.9X
        1.0s     20.60nm
DMU    149.52   8 ePKP    08 05.30    5.2X
DCN    150.01   9 ePKP    08 06.30    5.5X
BRG    150.92 342 iPKPd   08 04.20    1.9
        1.6s    240.00nm
WTS    151.40 351 ePKP    08 10.00    7.1X
        0.7s     20.50nm
PRU    151.53 340 ePKP    07 56.00   -7.2X
        1.6s    145.70nm
                  e       09 02.80
                  e       14 50.00
HOF    151.99 344 iPKPc   08 07.90    4.0X
GRF    152.73 344 ePKPd   08 16.40   11.4X
        1.6s    178.00nm
     Z  20s       0.70um          5.5Msz
WET    152.78 341 iPKPd   07 57.30   -7.8X
        1.6s    200.00nm
TNS    152.84 348 ePKPd   08 19.60   14.4X
WLF    153.77 351 iPKPc   08 26.03   19.8X
        1.6s     33.80nm
FUR    154.12 343 iPKPd   07 57.60   -9.3X
        1.3s     85.00nm
CDF    154.80 349 iPKPd   08 14.50    6.6X
        1.4s    147.70nm
HAU    155.35 350 iPKPd   08 16.20    7.6X
        1.6s    281.10nm
     Z  21s       0.75um          5.5Msz
OGA    155.37 342 iPKPd   07 53.10  -15.8X
        1.7s    148.00nm
BSF    155.45 349 iPKPd   08 13.70    4.9X
        1.5s    325.90nm
LOR    156.41 353 ePKP    08 10.20    0.2
        0.8s      2.70nm
LOR    156.41 353 iPKPd   08 23.00   13.0X
        1.6s    303.50nm
     Z  23s       8.25um          6.5MszX
HYF    156.52 356 iPKPd   08 28.40   18.3X
SSF    156.65 354 ePKP    08 10.50    0.2
        1.4s     14.80nm
SSF    156.65 354 iPKPd   08 23.40   13.1X
        1.5s    146.75nm
LBF    156.68 353 iPKPd   08 21.20   10.8X
        1.4s    227.40nm
AVF    156.93 354 iPKPd   08 22.90   12.3X
        1.5s    133.70nm
SMF    157.03 353 iPKPd   08 20.10    9.3X
        1.3s     63.20nm
BGF    157.21 355 iPKPd   08 24.70   13.7X
        1.4s    237.00nm
ORX    157.31 345 PKP     07 56.44  -14.8X
TCF    157.52 356 ePKP    08 11.60    0.2
        1.0s      5.40nm
TCF    157.52 356 iPKPd   08 26.60   15.2X
        1.8s    131.20nm
MAF    157.56 355 iPKPd   08 24.60   13.2X
        1.7s    101.45nm
LSF    157.60 357 iPKPd   08 29.60   18.2X
        1.5s    152.00nm
LSD    157.66 347 PKP     08 00.66  -11.2X
LPL    157.69 348 iPKPd   08 02.10   -9.7X
        0.9s     39.15nm
LPG    157.70 347 iPKPd   08 02.10   -9.8X
        1.1s     48.35nm
RSP    157.93 346 PKP     07 58.09  -13.9X
BHB    158.22 346 PKP     07 56.08  -16.1X
RRL    158.25 347 PKP     07 59.88  -12.6X
RJF    158.54 357 iPKPd   08 26.00   13.5X
        1.5s    109.15nm
     Z  20s       0.90um          5.6Msz
PZZ    158.58 346 PKP     07 55.71  -17.0X
CAF    158.89 356 iPKPd   08 22.20    9.3X
        1.7s    189.70nm
LFF    158.93 359 iPKPd   08 28.60   15.7X
        1.6s    323.40nm
LPO    159.17 358 iPKPd   08 25.30   12.1X
        1.6s    169.80nm
CDR    159.65 348 ePKPd   07 58.90  -14.8X
EPF    160.85 359 iPKPd   08 22.80    7.8X
        1.5s     58.50nm
EBR    163.05 359 ePKP    08 16.00   -1.2
PAB    163.90  12 iPKPd   08 36.50   18.3X
        1.4s    209.30nm
MAL    166.59  16 iPKPd   08 32.00   11.6X
                  iPP     10 28.00
     S.D. = 1.2  on  60 of 111 obs.
```

MAR 16, 1993 22h 50m 57.67± 0.57s
46.219 N ± 5.0km 16.840 E ± 4.8km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
NORTHWESTERN BALKAN REGION (383)
ML 3.5 (BRA), 3.4 (VIE), 3.4
(ZAG). MD 3.4 (TRI).

```
PTJ     0.69 243 iPg    51 10.90  -0.5
                 iSg    51 20.00
ZAG     0.72 236 iPgc   51 11.50  -0.3
                 iSg    51 21.50
UZD     1.26  72 iPn    51 21.50   0.4
VBY     1.32 238 iPg    51 21.90  -0.1
                 iSg    51 40.50
LJU     1.61 265 ePn    51 26.00  -0.3
                 e      51 27.90
                 eSg    51 46.00
CEY     1.75 255 e(Pn)  51 27.50  -0.8
                 e      51 32.50
                 eSg    51 49.00
SRO     1.89  32 ePn    51 30.70   0.5
                 iPg    51 35.30
                 i      51 58.00
                 Lg     52 08.00
RIY     1.93 244 ePn    51 33.40   2.6
                 iSn    51 59.20
BUD     1.96  49 ePn    51 30.50  -0.8
ZST     1.99   5 iPnc   51 32.10   0.5
                 iPb    51 36.90
                 iPg    51 41.80
                 i(Sn)  52 08.60
VOY     2.06 266 e(Pn)  51 32.30  -0.5
                 e      51 35.70
                 e(Sg)  51 58.50
VKA     2.08 350 ePn    51 32.50  -0.5
                 iPg    51 38.90
                 iSn    52 03.30
                 iSg    52 11.00
TRI     2.21 258 ePn    51 34.70  -0.1
                 ePg    51 38.00
                 e      51 58.70
                 eSn    52 03.30
                 eSg    52 09.80
KBA     2.56 291 iPnc   51 39.80  -0.2
                 iPb    51 42.50
                 iPg    51 45.80
                 iSg    52 20.50
HVAR    3.05 185 i(Pn)  51 50.40   3.5X
VRAC    3.10 357 iPnc   51 47.50   0.1
```

0.5s 67.00nm
GEC2 3.38 322 Pn 51 52.60 1.0
Sg 52 48.60
KHC 3.65 324 Pn 51 56.20 0.7
eSg 52 58.00
e 53 05.50
e 55 09.50
e 55 41.00
WTTA 3.73 288 iPnc 51 57.00 0.3
iPg 52 12.90
iSn 52 40.80
WET 3.97 319 iPc 52 14.60 14.8X
PRU 4.07 339 Pn 52 02.20 0.9
0.9s 37.80nm
ePg 52 17.50
e 52 19.50
eSn 52 47.50
Sg 53 08.10
BRG 5.04 339 e(P) 52 15.00 0.0
e 52 25.00
GRF 5.13 315 ePn 52 16.50 0.2
ePg 52 38.00
e(Sn) 53 12.20
eSg 53 40.00
HOF 5.27 323 iPc 52 18.00 -0.3
SKO 5.38 140 eP 52 29.00 9.0X
MOX 5.63 324 iPn 52 23.10 -0.3
iSg 54 00.40
CLL 5.69 335 ePn 52 23.00 -1.2
ePg 52 50.00
eSg 54 01.00
YKA 64.91 337 eP 01 37.70 -1.2
0.6s 0.20nm 3.5mb
S.D. = 0.8 on 25 of 28 obs.

MAR 16, 1993 22h 59m 45.81± 0.17s
11.625 N ± 2.9km 41.987 E ± 2.7km
DEPTH = 16.2km (8 depth phases)
5.6mb (103 obs.) 5.2Msz (26 obs.)
ETHIOPIA (558)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 39S, 79C
Centroid Location:
Origin Time 22:59:48.1 0.6
Lat 11.49N 0.04 Lon 41.82E 0.03
Dep 15.0 BDY Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr=-2.86 0.06 Mtt= 2.51 0.07
Mff= 0.34 0.08 Mrt=-1.07 0.29
Mrf= 0.14 0.23 Mtf=-1.68 0.06
Principal Axes:
T Val= 3.59 Plg= 9 Azm=208
N -0.51 9 116
P -3.07 78 344
Best Double Couple:Mo=3.3*10**17
NP1:Strike=308 Dip=37 Slip= -76
NP2: 110 55 -100
KSU 0.46 103 eP+ 59 54.59 -0.5
DAF 0.53 92 eP+ 59 55.75 -0.6
GBR 0.66 135 eP+ 59 57.50 -1.1
SGH 0.66 106 eP+ 59 57.78 -0.8
ARO 0.85 96 eP+ 00 00.97 -0.8
eS 00 13.93
ATA 1.21 98 eP+ 00 06.65 -1.2
AAE 4.09 231 iP 00 47.80 -1.5
DHJN 6.17 13 ePc 01 17.67 -1.1
KMTA 6.56 7 ePc 01 21.67 -2.5
ABHA 6.63 6 iPc 01 22.60 -2.6
RYD 13.74 18 ePc 03 06.00 3.6X
iS 05 28.00
NAI 13.81 202 iPd 03 03.50 0.0
1.0s 50.00nm 5.3mb
S 05 50.00
OASM 14.46 6 eP 03 15.00 3.1X
MJMA 14.49 12 ePc 03 16.60 4.3X
DHR 16.50 27 iPc 03 40.00 1.8
iS 06 40.00
AYN 18.05 343 ePc 04 01.00 3.5X
MBH 19.23 341 eP 04 12.50 0.4
SHWJ 19.61 343 P 04 17.00 0.2
DSI 20.77 344 eP 04 29.50 0.9
MASJ 20.83 345 P 04 30.65 1.4
SALJ 21.10 345 P 04 33.59 1.5
SHMJ 21.77 346 P 04 40.38 1.6
HRI 22.29 346 eP 04 45.60 1.5
BHL 22.92 346 P 04 52.00 1.8
S 09 08.00
BCAO 24.28 255 iPd 05 02.90 -0.7
1.2s 154.00nm 5.5mb
ic 05 42.50 205kmX
ic 06 37.40
FAM 24.37 344 eP 05 04.00 -0.2
CSS 24.53 343 eP 05 07.00 1.2
PPCY 24.76 341 eP 05 10.50 2.5
TEH 25.47 18 eP 05 19.00 4.1X
TAB 26.62 8 eP 05 28.00 2.5
ELL 27.28 338 iP 05 33.00 1.4
GRS 28.03 7 eP 05 39.00 0.6
1.4s 80.00nm 5.3mb
ERE 28.53 4 iP- 05 44.00 1.2
1.8s 26.00nm 4.7mb
MAIO 29.21 30 eP 05 50.00 1.0
eS 10 55.00
TBZ 29.32 357 iP 05 50.00 0.3
SHE 29.48 10 iPc 05 54.00 2.8X
1.5s 180.00nm 5.6mb
Z 12s 8.00um 5.6MszX
N 12s 8.00um
E 12s 18.00um
i 06 58.00 339kmX
BAK 29.48 12 iPc 05 56.00 4.8X
Z 14s 16.44um 5.8MszX
N 11s 13.68um
OUE 29.63 48 eP 05 54.00 1.0
eS 10 57.00
ASH 30.03 26 eP 05 56.00 -0.2
e 07 00.00 338kmX
e 12 30.00
MTD 30.04 200 eP 05 57.00 0.4
MTA 30.06 4 iPd- 05 57.00 0.6
0.8s 90.00nm 5.7mb
i 06 48.00 258kmX
i 07 02.00
KAT 30.25 22 eP 05 58.00 -0.1
Z 11s 6.00um 5.5MszX
N 11s 9.00um
E 11s 3.50um
i 07 00.00 325kmX
e 09 04.00
eS 10 57.00
eSS 12 35.00
KAS 30.50 348 eP 06 01.00 0.6
AVY 30.87 169 eP 06 05.10 1.1
ATH 30.91 331 eP 06 06.00 2.1
VTY 30.99 170 eP 06 06.50 1.5
ITU 31.50 341 eP 06 08.00 -1.1
MAK 31.63 8 eP 06 13.00 2.8X
Z 17s 9.10um 5.5MszX
N 17s 9.00um
E 17s 6.90um
e 07 08.00 279kmX
eS 11 20.00
GRO 31.77 5 iPc 06 13.00 1.6
1.5s 240.00nm 5.9mb
i 07 14.00 315kmX
SOC 31.90 357 eP 06 13.00 0.4
3.0s 140.00nm 5.4mb
Z 13s 14.00um 5.8MszX
N 13s 12.00um
E 11s 3.00um
i 07 27.00 397kmX
eS 11 31.00
KIV 32.22 1 ePd 06 16.50 1.0
1.3s 156.00nm 5.8mb
Z 15s 4.60um 5.3MszX
e 07 19.60 327kmX
e 09 04.70
eSS 13 39.10
PYA 32.30 1 iP 06 17.00 0.9
2.0s 220.00nm 5.7mb
Z 17s 6.00um 5.4MszX
N 17s 5.00um
e 07 20.00 326kmX
eS 11 19.00
iS 11 38.00
ALN 32.36 337 eP 06 17.14 0.6
AGG 32.41 331 eP 06 16.22 -0.9
PAIG 32.51 333 eP 06 17.02 -0.9
OUR 32.72 334 eP 06 19.58 -0.1
LIT 33.19 332 eP 06 23.02 -0.9
KDZ 33.25 337 iP 06 26.00 1.7
ANN 33.38 354 iP- 06 25.00 -0.4
Z 14s 4.30um 5.3MszX
N 14s 7.00um
E 18s 4.50um
i 07 48.00 457kmX
SOH 33.39 334 eP 06 24.70 -0.9
SRS 33.53 334 iP 06 25.82 -1.0
DIM 33.55 338 iP 06 28.00 1.1
RZN 33.55 336 iPd 06 28.00 0.8
KNT 33.87 334 iP 06 29.14 -0.6
MMB 33.87 335 iPd 06 30.00 0.2
SIM 33.89 350 eP 06 28.00 -1.9
eSS 14 26.00
PLD 33.91 337 iPd 06 31.00 0.9
GRG 33.92 333 eP 06 29.46 -0.8
VAY 34.14 333 iP 06 31.40 -0.7
BUL 34.20 203 iPd 06 31.30 -1.7
SRN 34.21 329 eP 06 33.40 0.7
FNA 34.25 332 eP 06 31.98 -1.1
PGB 34.50 336 iP 06 36.00 0.8
TPE 34.52 330 eP 06 36.50 1.1
OHR 34.77 331 iP 06 34.80 -2.8
1.6s 302.00nm 5.9mb
VLO 34.91 329 eP 06 39.50 0.8
VTS 34.92 335 iPd 06 40.00 1.1
SOI 35.08 323 P 06 41.20 1.0
1.5s 102.40nm 5.5mb
SKO 35.16 333 iP 06 40.50 -0.4
1.5s 291.00nm 6.0mb
Z 14s 2.24um 5.1MszX
i 06 45.00 15km
LR 23 28.00
GMB 35.26 323 P 06 43.00 1.1
0.9s 33.80nm 5.2mb
GRI 35.37 324 P 06 43.40 0.7
1.2s 70.80nm 5.4mb
TIR 35.40 331 eP 06 43.20 0.3
CFR 35.48 343 eP 06 54.30 10.8X
ATN 35.49 323 P 06 45.10 1.4
1.9s 324.30nm 5.9mb
LCI 35.60 328 P 06 44.10 -0.5
1.6s 467.20nm 6.1mb
LACI 35.70 331 eP 06 45.20 -0.2
MNO 35.80 322 P 06 48.80 2.2
HYB 35.82 76 ePc 06 47.00 0.2
1.4s 100.00nm 5.5mb
e 07 05.00 73kmX
eS 12 24.00
ISR 35.92 341 eP 06 50.00 2.7
TDS 35.99 325 P 06 48.80 0.9
1.9s 185.50nm 5.7mb
BRD 36.10 342 eP 06 52.00 3.2X
SDA 36.12 331 eP 06 49.50 0.6
ULC 36.17 331 iPd 06 49.50 0.1
ORI 36.21 326 P 06 50.30 0.5
1.8s 361.70nm 5.9mb
GIB 36.25 321 P 06 50.90 0.7
1.1s 169.30nm 5.8mb
PVY 36.32 332 iPd 06 50.78 0.0
BRT 36.39 328 P 06 52.50 1.3
1.8s 299.80nm 5.8mb
MLR 36.43 341 ePd 06 53.50 1.8
TTG 36.52 331 iPd 06 52.75 0.5
VRI 36.52 342 ePd 06 54.00 1.7
CMP 36.53 340 iPc 06 53.00 0.6
IVA 36.57 332 iPd 06 52.75 -0.1
BDV 36.61 331 iPd 06 53.39 0.3
CVO 36.65 341 eP 06 54.00 0.6
MGR 36.76 325 P 06 54.20 -0.2
1.7s 629.90nm 6.2mb
CVT 36.82 320 P 06 56.30 1.4
1.4s 436.50nm 6.1mb
HCY 36.90 331 iPd 06 56.00 0.5
NKY 36.94 331 iPd 06 56.35 0.4
KIS 36.98 345 iPd- 06 56.00 -0.1
2.0s 400.00nm 5.9mb
i 08 18.00 426kmX
PLE 37.16 332 iPd 06 57.79 0.0
ERC 37.17 320 P 06 58.47 0.6
1.1s 55.60nm 5.3mb
BRY 37.22 331 iPd 06 58.69 0.3
DUI 38.41 326 P 07 08.60 0.3
1.6s 240.50nm 5.7mb
RFI 38.43 325 P 07 09.70 1.4
1.9s 549.30nm 6.0mb
HVAR 38.45 330 iP 07 08.90 0.4
SDI 38.79 326 P 07 11.40 -0.1

16d 23h

1.4s 155.20nm 5.5mb
RDP 39.44 325 P 07 18.10 1.2
1.6s 795.10nm 6.2mb
AQU 39.46 326 P 07 17.20 0.2
1.5s 655.40nm 6.1mb
RMP 39.48 325 P 07 18.40 1.2
1.4s 521.60nm 6.0mb
MNS 39.87 326 P 07 20.10 -0.4
1.5s 294.50nm 5.8mb
UZD 40.09 335 eP 07 22.50 0.4
ASS 40.34 326 P 07 23.70 -0.6
1.3s 58.60nm 5.1mb
UZH 40.38 340 iPd- 07 24.60 0.1
2.2s 510.00nm 5.8mb
Z 15s 2.00um 5.1MszX
E 15s 3.00um
e 08 56.00 496kmX
i 09 29.00
eS 13 40.00
ARV 40.48 327 P 07 25.00 -0.4
1.4s 192.40nm 5.6mb
BUD 40.62 336 iP 07 26.80 0.3
ZAG 40.63 332 iPd 07 27.70 1.2
PSZ 40.64 337 iPd 07 27.00 0.2
PTJ 40.70 332 iPd 07 28.00 0.7
VBY 40.74 331 iPd 07 28.00 0.6
LVV 40.86 342 eP 07 28.00 -0.4
e 09 10.00 582kmX
RIY 41.04 330 iP 07 30.30 0.4
CRE 41.10 326 P 07 29.40 -1.2
1.7s 108.40nm 5.3mb
SRO 41.17 336 iP 07 32.00 1.0
CEY 41.31 331 ePd 07 33.00 0.9
SFI 41.35 327 P 07 32.50 0.1
1.5s 83.50nm 5.2mb
PGD 41.39 327 P 07 32.80 -0.2
1.8s 67.10nm 5.1mb
LJU 41.48 331 eP 07 34.00 0.5
SPC 41.57 339 iPd 07 36.10 1.6
FIR 41.58 326 eP 07 33.00 -1.3
TRI 41.60 330 e(P)d 07 35.10 0.6
e(PP) 09 24.00
e(S) 14 04.00
e(SS) 17 12.00
eLR 20 28.00
VOY 41.77 330 iPd 07 36.60 0.5
e 09 09.00 499kmX
PII 41.94 326 P 07 36.30 -1.0
1.5s 65.50nm 5.1mb
ZST 41.97 335 iPd 07 38.10 0.6
FRU 42.05 36 eP 07 40.80 2.5
2.4s 160.00nm 5.3mb
e 09 22.00 569kmX
SEK 42.07 199 iPc 07 39.30 0.5
1.1s 160.00nm 5.7mb
PGF 42.08 323 P 07 38.00 -0.7
MME 42.15 326 P 07 39.50 0.1
1.3s 27.20nm 4.8mb
RBL 42.23 331 P 07 40.10 0.4
2.1s 195.40nm 5.5mb
VVI 42.46 329 P 07 42.40 0.8
2.3s 264.70nm 5.6mb
FVI 42.71 330 P 07 44.30 0.7
1.6s 381.70nm 5.9mb
KBA 42.79 331 iPd 07 44.60 0.1
1.2s 49.70nm 5.1mb
i 07 54.00 31kmX
i 08 04.70
i 09 45.90
GKN 43.06 61 P 07 46.40 -0.5
VRAC 43.06 336 iPd 07 46.60 0.2
1.9s 779.50nm 6.1mb
e 08 20.70 153kmX
e 09 38.20
SAL 43.18 328 P 07 48.50 1.1
BOB 43.21 326 P 07 47.30 -0.5
1.6s 115.90nm 5.4mb
BLF 43.27 200 eP 07 49.10 0.5
DMN 43.37 62 P 07 49.80 0.2
FIN 43.55 325 P 07 49.12 -1.4
IMI 43.55 324 P 07 49.81 -0.8
KKN 43.56 62 P 07 50.50 -0.6
PCP 43.57 325 P 07 49.44 -1.3
OBN 43.58 356 iPd- 07 51.00 0.5
1.7s 250.00nm 5.7mb
Z 14s 3.10um 5.4MszX
N 12s 2.70um

i 09 39.00 623kmX
iS 14 26.00
iSS 18 10.00
PKI 43.62 62 P 07 51.80 0.0
CKI 43.64 325 P 07 50.40 -0.9
1.3s 100.60nm 5.5mb
MNK 43.70 348 eP 07 46.00 -5.6X
e 09 42.00 704kmX
e 14 24.00
eS 14 40.00
MDI 43.72 327 P 07 51.70 -0.1
1.7s 301.40nm 5.8mb
WTTA 43.74 330 iPd 07 51.90 -0.3
1.4s 152.00nm 5.6mb
i 08 01.20 31kmX
SAOF 43.79 324 P 07 51.80 -0.7
ROB 43.80 324 P 07 51.73 -0.8
WATA 43.82 330 iPd 07 52.20 -0.6
AURF 43.86 324 P 07 52.75 -0.4
AUTN 43.87 324 P 07 52.62 -0.8
SQTA 43.92 330 iPd 07 53.20 -0.4
1.4s 129.00nm 5.6mb
i 07 57.20 13km
GEC2 43.92 333 Pd 07 53.00 -0.6
1.2s 69.34nm 5.4mb
pP 07 59.40 21km
sP 08 03.70
e 08 06.40
TLG 43.93 38 eP 07 53.00 -0.7
2.4s 20.00nm 4.5mb X
Z 15s 2.00um 5.2MszX
N 13s 3.10um
TOUF 43.98 324 P 07 53.88 -0.4
ENR 44.01 324 P 07 53.79 -0.6
LMR 44.02 322 iPd 07 53.40 -0.9
1.2s 43.15nm 5.2mb
CALN 44.04 323 P 07 54.16 -0.5
MOTA 44.06 330 iPd 07 53.90 -0.9
1.2s 83.80nm 5.5mb
i 08 03.60 32kmX
FRF 44.07 323 iPd 07 54.00 -0.7
1.6s 156.10nm 5.6mb
STV 44.08 324 P 07 54.34 -0.5
OSS 44.10 329 iPd 07 55.40 0.3
GUN 44.10 62 P 07 55.00 -0.7
PRZ 44.11 39 eP 07 57.00 1.7
2.0s 100.00nm 5.3mb
eS 14 45.00
FRS 44.16 201 eP 07 54.50 -1.0
1.2s 90.00nm 5.5mb
e 07 58.70 14km
KHC 44.19 333 Pd 07 54.90 -0.8
1.4s 95.00nm 5.5mb
Z 18s 1.50um 5.0Msz
N 18s 1.00um
E 18s 2.00um
e 08 13.50 76kmX
e 09 38.50
e 10 00.00
eS 14 40.00
VAI 44.28 327 P 07 55.70 -0.6
1.9s 298.90nm 5.8mb
DOI 44.28 324 P 07 55.20 -1.3
1.6s 129.00nm 5.5mb
VDL 44.31 328 ePd 07 56.30 -0.6
TMA 44.38 327 iPd 07 56.90 -0.5
SURF 44.51 324 P 07 58.73 0.2
ORO 44.55 326 P 07 57.20 -1.6
1.1s 42.20nm 5.2mb
LLS 44.81 328 iPd 08 00.10 -0.8
MMK 44.83 326 ePd 07 59.70 -1.4
BNI 44.93 325 P 08 01.10 -0.8
1.7s 101.10nm 5.5mb
DIX 45.15 326 iPd 08 02.70 -1.0
EMS 45.41 326 iPd 08 04.10 -1.6
ZLA 45.52 328 iPd 08 05.30 -1.1
GRN 45.58 324 P 08 07.11 0.2
SLE 45.65 329 iPd 08 06.40 -1.0
BBS 45.97 328 P 08 09.10 -0.8
FEL 45.97 328 P 08 09.22 -0.8
POF 45.98 207 iPc 08 12.00 1.9
1.0s 50.00nm 5.4mb
CLL 46.07 335 iPc 08 08.10 -2.4
1.7s 170.00nm 5.7mb
eS 15 15.00
MOX 46.17 333 iPd 08 10.70 -0.7
1.7s 195.00nm 5.8mb

Z 19s 1.00um 4.8Msz
eS 15 12.00
LOMF 46.25 327 P 08 11.68 -0.5
LIBD 46.36 328 P 08 12.00 -0.9
TRGS 46.40 319 P 08 13.69 0.1
KIC 46.41 268 P 08 12.78 -1.0
MOF 46.41 328 P 08 12.51 -0.9
ARU 46.50 13 iPd 08 14.30 0.4
2.0s 450.00nm 6.1mb
Z 16s 3.00um 5.3MszX
N 14s 2.00um
E 14s 2.00um
e 08 17.50 11km
e 09 47.00
e 10 05.00
ePPP 10 48.00
eS 15 08.00
STR 46.55 329 P 08 14.21 -0.2
ECH 46.63 328 P 08 14.15 -0.9
TIC 46.63 268 P 08 14.52 -1.1
WLS 46.65 329 P 08 14.40 -0.9
LSPF 46.66 319 P 08 15.00 -0.4
PAND 46.68 319 P 08 16.20 0.4
HOFF 46.69 330 P 08 14.89 -0.6
LIC 46.71 268 P 08 15.18 -1.0
Z 20s 0.65um 4.6Msz
LANF 46.80 329 P 08 15.69 -0.7
GRBF 46.84 319 P 08 17.93 1.0
SALF 47.03 319 P 08 18.31 -0.1
GRM 47.04 198 eP 08 07.50 -11.0X
1.3s 100.00nm
LESF 47.10 319 P 08 18.52 -0.3
VITF 47.24 328 P 08 18.79 -1.1
SVE 47.33 14 iPd 08 21.00 0.5
2.0s 240.00nm 5.9mb
Z 19s 2.20um 5.1Msz
N 19s 2.00um
E 19s 1.10um
e 10 12.50 631kmX
eS 15 05.00
ENSF 47.60 319 P 08 23.26 0.3
IFR 48.16 305 iPd 08 30.50 2.9X
JAU 48.17 318 P 08 28.36 0.9
LHE 48.27 318 P 08 28.42 0.2
OGE 48.29 319 P 08 28.23 0.0
ESCF 48.32 318 P 08 28.81 0.4
ATE 48.40 318 P 08 29.22 0.1
BNS 48.41 331 ePd 08 28.10 -0.9
ISSF 48.44 318 P 08 29.81 0.3
MADF 48.51 318 P 08 29.94 0.0
BOH 48.61 318 P 08 30.94 0.1
ELYF 48.63 318 P 08 30.74 -0.1
PUL 48.83 352 ePd 08 32.00 -0.1
1.5s 170.00nm 5.9mb
Z 16s 2.20um 5.2MszX
N 16s 1.50um
E 16s 0.80um
e 09 58.00 435kmX
e 10 32.00
eS 15 46.00
ENN 48.88 330 eP 08 26.00 -6.6X
ENN 48.88 330 ePd 08 32.50 -0.1
1.2s 120.70nm 5.8mb
DOU 49.12 329 P 08 33.90 -0.5
WTS 49.27 332 ePd 08 35.50 0.0
1.2s 175.00nm 6.0mb
e 10 18.00 547kmX
TIO 49.31 301 iP 08 35.50 -0.9
SNF 49.53 329 iPd 08 36.91 -0.7
UCC 49.67 329 P 08 37.00 -1.7
CER 49.69 205 iPc 08 41.00 1.9
1.3s 100.00nm 5.7mb
e 25 48.00
MFF 49.76 323 iPd 08 38.20 -1.2
1.5s 87.25nm 5.5mb
AVE 49.96 304 eP 08 40.00 -1.2
i 09 19.00 173kmX
NUR 50.45 349 eP 08 43.20 -1.3
LDF 50.78 325 iPd 08 45.40 -1.8
1.6s 219.55nm 5.9mb
LPF 51.01 324 iPd 08 47.20 -1.7
1.3s 155.95nm 5.8mb
FLN 51.07 325 iPd 08 47.70 -1.7
1.3s 181.25nm 5.8mb
Z 23s 0.82um 4.7MszX
GRR 51.09 324 iPd 08 47.70 -1.8
1.4s 207.35nm 5.9mb

```
MUD    51.42 337 iPc   08 52.30   0.4
       1.1s    76.00nm          5.5mb
KAF    51.67 351 iP    08 52.30  -1.4
       1.4s    83.20nm          5.5mb
HFS    52.76 343 eP    09 00.60  -1.4
       0.4s     1.20nm          4.2mb X
    Z  18s      1.00um          4.9Msz
                  LR   27 23.00
NB2    54.22 342 P     09 11.20  -1.6
       1.6s   153.00nm          5.8mb
ELT    54.44  31 iPd   09 13.00  -1.4
       2.0s   188.00nm          5.8mb
    Z  13s      4.50um          5.7MszX
                  eS   16 50.00
KHT    55.08  80 eP    09 20.30   0.6
BDT    55.34  77 eP    09 18.00  -3.5X
NNT    56.37  83 eP    09 28.70  -0.3
DLF    56.65 327 eP    09 30.00  -0.4
       1.3s   226.00nm          6.0mb
DCN    57.07 327 eP    09 33.20  -0.2
       1.2s   221.00nm          6.1mb
DMU    57.14 328 eP    09 33.30  -0.6
       1.0s    93.00nm          5.8mb
MBO    57.37 280 iP    09 36.50   0.4
UER    57.85  36 iP    09 35.20  -3.7X
       2.0s    38.00nm          5.1mb
                  eS   17 40.00
SNG    57.93  89 eP    09 43.00   2.9X
                  eS   17 52.00
CRZF   58.46 172 eP    09 27.00 -16.2X
                  eS   17 48.00
                  eSS  21 45.00
KMI    58.77  68 Pd-   09 45.00  -1.1
       2.0s    80.00nm          5.5mb
    Z  22s      1.90um          5.2Msz
                  pP   09 52.00  23km
                  S    17 50.00
                  sS   18 02.00
                  PS   18 06.00
KEV    58.86 354 iP    09 45.90   0.2
       1.0s    76.00nm          5.8mb
                  eS   18 04.00
LZH    60.55  55 eP    09 57.50  -0.6
       1.6s   111.00nm          5.7mb
    Z  30s      1.59um          5.0MszX
    N  13s      1.23um
                  pP   10 09.00  39kmX
                  sP   10 14.00
                  PP   12 16.00
                  eS   18 16.00
MOY    61.91  37 eP    10 07.00   0.2
       1.8s    72.00nm          5.5mb
ZAK    62.93  39 iPc   10 13.50  -0.1
       2.0s    35.00nm          5.2mb
    Z  17s      2.60um          5.5MszX
    E  18s      3.70um
                  e    12 37.00 792kmX
                  eS   18 41.00
IRK    64.05  37 eP    10 20.00  -1.0
       2.0s    58.00nm          5.4mb
    Z  20s      4.37um          5.6Msz
    N  13s      0.83um
    E  20s      4.04um
NRI    64.68  16 iPd-  10 23.80  -1.0
       1.7s   110.00nm          5.7mb
                  e    12 45.00 760kmX
                  ePPP 14 26.00
                  eS   19 07.00
                  ePPS 19 38.00
                  eSSS 26 10.00
LEM    67.80 102 ePc   10 46.50   0.7
CIT    69.61  39 eP    10 55.50  -0.7
                  e    20 12.00
BJI    70.53  52 eP    11 02.00   0.0
       1.7s   122.00nm          5.8mb
                  epP  11 41.00 161kmX
                  ePP  13 44.00
                  eS   20 20.00
                  eSKS 20 40.00
                  eSS  25 08.00
BOD    70.77  33 eP    11 00.50  -2.6
       1.6s    74.00nm          5.6mb
DAG    72.24 348 eP    11 10.80  -0.8
       1.8s   186.36nm          5.9mb
SSE    74.91  61 P-    11 26.00  -2.0
       4.0s     0.50nm          2.9mb X
    Z  20s      0.90um          5.1Msz
```

```
       N  16s      1.00um
                      S     21 08.00
                      sS    21 16.00
                      SS    25 56.00
TIK     78.07  19 iPd   11 44.00  -0.9
                      e     11 50.00  19km
                      e     14 40.00
                      eS    21 43.00
YAK     78.76  29 eP    11 47.80  -1.1
        1.8s    70.00nm          5.4mb
                      e     14 46.00
GDH     81.17 339 iPc   12 02.20   0.5
        1.0s    76.00nm          5.7mb
NVL     84.73 190 eP    12 20.00   0.2
MGD     89.14  28 eP    12 41.00  -0.6
        1.5s    80.00nm          5.8mb
                      e     16 07.00
                      e     23 26.00
                      e     24 34.00
RES     89.83 350 eP    12 47.00   2.3
        1.5s    15.00nm          5.0mb
CDCB    90.91 250 eP    12 52.20   1.5
                      e     12 56.30  13km
CBM     94.88 320 P     13 20.00  11.6X
      Z  19s     0.65um          5.1Msz
ILT     95.50  14 iPd   13 10.00  -0.9
        2.0s    41.00nm          5.5mb
                      e     16 59.00
                      e     23 52.00
                      eS    24 34.00
                      ePS   25 54.00
                      eSSS  34 44.00
WRA     96.07 109 P     13 16.40   2.1
        0.9s     0.70nm          4.1mb X
WB2     96.08 109 eP    13 15.40   1.0
        1.0s     3.10nm          4.7mb
RSNY    99.95 319 P     13 40.00   8.5X
      Z  21s     0.64um          5.1Msz
SMY    103.93  28 Pdiff 14 00.00  11.1X
      Z  21s     1.63um          5.5Msz
CEH    107.09 313 PKP   18 20.00   6.9X
      Z  18s     1.00um          5.4Msz
SIT    111.53 358 PKP   18 30.00   9.3X
      Z  18s     1.17um          5.5Msz
SLM    113.03 321 PKP   18 40.00  15.8X
      Z  19s     0.60um          5.2Msz
FVM    113.55 320 PKP   18 40.00  14.7X
      Z  19s     0.86um          5.4Msz
RSSD   116.50 333 PKP   18 40.00   8.9X
      Z  21s     0.55um          5.1Msz
GOL    120.61 331 PKP   18 50.00  10.9X
      Z  18s     0.57um          5.2Msz
WMOK   120.76 323 PKP   18 50.00  10.8X
      Z  18s     0.74um          5.4Msz
DAU    122.60 336 PKP   18 43.50   0.6
DUG    123.39 337 PKP   18 44.70   0.5
      Z  20s     0.56um          5.2Msz
MSU    124.58 335 PKP   18 46.90   0.2
ALQ    124.87 328 PKP   19 00.00  12.7X
      Z  19s     0.72um          5.4Msz
WDC    126.12 345 PKP   19 00.00  10.7X
      Z  21s     0.42um          5.1Msz
ORV    126.82 344 PKP   18 51.70   1.0
TNP    126.86 340 PKP   18 52.00   0.9
CMB    127.92 342 PKP   18 53.60   0.7
      Z  21s     0.51um          5.2Msz
ARN    128.89 343 PKP   18 56.00   1.2
TUC    129.14 330 PKP   18 56.00   0.5
      Z  18s     0.60um          5.3Msz
GSC    129.19 338 PKP   18 56.40   0.9
SAO    129.40 343 PKP   19 10.00  14.3X
      Z  22s     0.69um          5.3Msz
ISA    129.47 339 PKP   19 10.00  14.0X
      Z  18s     0.63um          5.3Msz
BCH    130.45 341 PKP   18 59.60   1.7
PEC    130.58 337 PKP   18 59.20   1.1
PLM    130.94 336 PKP   19 00.60   1.6
HON    141.82  31 PKP   19 30.00  10.7X
      Z  20s     0.37um          5.1Msz
      S.D. = 1.0  on 287 of 320 obs.
-----------------------------------------
% MAR 16, 1993  23h 09m 34.47± 0.69s
   44.401 N ± 5.8km    7.354 E ± 7.5km
   DEPTH = 10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.8 (GEN).
```

```
STV     0.16 188 P      09 38.08  -0.1
                 S      09 40.14
ENR     0.18 165 P      09 38.68   0.1
                 S      09 41.20
PZZ     0.21 300 P      09 39.50   0.4
                 S      09 42.57
ROB     0.39 106 P      09 42.89   0.5
                 S      09 49.89
BHB     0.45 352 P      09 43.16  -0.4
                 S      09 50.21
IMI     0.62 142 P      09 46.60  -0.5
                 S      09 54.97
     S.D. = 0.5  on   6 of   6 obs.
-----------------------------------------
   MAR 17, 1993  00h 07m 17.54± 0.91s
   37.519 N ±10.7km   13.670 E ± 6.4km
   DEPTH = 10.0km  (geophysicist)
 SICILY                             (398)
      MD 3.3 (ROM).

GIB     0.55  31 P      07 28.61   0.0
MEU     1.09 112 P      07 37.20  -0.8
PZI     1.11 116 P      07 40.16   1.8
GIO     1.14  87 P      07 38.90  -0.1
ATN     1.56  65 P      07 45.11  -0.2
GMB     1.85  69 P      07 48.99  -0.8
SOI     1.97  73 P      07 50.50  -0.7
PGF     6.17 326 Pn     08 51.00   0.0
                 Sn     09 57.80
LMR     7.97 319 Pn     09 14.80  -1.3
                 Sn     10 37.80
FRF     8.06 321 Pn     09 15.60  -1.8
                 Sn     10 41.10
LRG     8.13 319 Pn     09 16.90  -1.5
                 Sn     10 40.90
LPG     9.51 329 Pn     09 38.40   0.7
LPL     9.53 329 Pn     09 38.80   0.8
BSF    11.48 336 Pn     10 05.50   1.0
SMF    11.67 324 Pn     10 06.90  -0.2
HAU    11.77 335 Pn     10 09.40   1.0
CDF    11.85 339 Pn     10 11.00   1.5
LBF    11.87 326 Pn     10 09.70   0.0
LOR    12.14 326 Pn     10 14.00   0.7
     S.D. = 1.1  on  19 of  19 obs.
-----------------------------------------
? MAR 17, 1993  00h 12m 13.25± 0.97s
   44.365 N ± 9.9km    7.328 E ± 9.3km
   DEPTH = 10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.3 (GEN).

STV     0.12 181 P      12 16.36   0.0
                 S      12 18.29
ENR     0.15 154 P      12 16.87   0.0
                 S      12 19.38
PZZ     0.21 311 P      12 17.97   0.0
                 S      12 20.99
ROB     0.40 100 P      12 21.38   0.0
     S.D. = 0.0  on   4 of   4 obs.
-----------------------------------------
* MAR 17, 1993  00h 36m 31.09± 1.16s
   46.165 N ±15.4km   16.776 E ±10.1km
   DEPTH =  5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 2.4 (ZAG).

PTJ     0.63 245 iPg    36 42.90  -0.8
                 iSg    36 52.20
ZAG     0.65 238 iPg    36 43.80  -0.4
                 iSg    36 53.50
VBY     1.25 239 iPg    36 57.80   3.0X
                 iSg    37 13.50
UZD     1.32  70 ePn    36 56.00   0.0
CEY     1.69 256 eP     37 05.00   3.5X
                 e(Sg)  37 30.00
VOY     2.01 267 eP     37 08.00   1.9
                 e(Sg)  37 39.60
GEC2    3.40 323 Pn     37 25.10  -0.8
                 Sg     38 21.60
     S.D. = 1.6  on   5 of   7 obs.
-----------------------------------------
* MAR 17, 1993  01h 03m 40.50± 0.63s
   19.478 N ±13.4km   38.784 E ± 9.1km
   DEPTH = 10.0km  (geophysicist)
   4.3mb ( 8 obs.)
 RED SEA                            (554)
      MD 4.0 (RYD).
```

```
17d 01h

ABHA     3.95 107 eP     04 42.00  -0.7
                  eS     05 20.00
DHJN     4.82 111 eP     04 54.60  -0.5
MAIO    24.73  43 eP     09 06.00   2.6
BCAO    24.77 235 iPc    09 05.30   1.4
         0.9s     9.00nm           4.4mb
BSF     38.37 325 eP     11 05.30   1.8
         1.2s     8.35nm           4.3mb
LBF     39.47 322 eP     11 12.20  -0.5
         1.1s     7.55nm           4.3mb
LOR     39.69 322 eP     11 13.90  -0.6
         1.0s     5.60nm           4.2mb
SSF     39.78 322 eP     11 14.70  -0.6
BGF     39.91 321 eP     11 16.30   0.0
         1.0s    13.20nm           4.6mb
MAF     39.91 320 eP     11 15.60  -0.8
         0.9s     2.60nm           3.9mb
LPO     40.04 317 eP     11 17.20  -0.2
FLN     42.96 322 eP     11 40.30  -1.0
         1.1s    15.15nm           4.6mb
KIC     44.24 259 P      11 52.20   0.1
YKA     95.63 348 eP     17 06.40  -0.9
         0.6s     0.40nm           4.1mb
      S.D. = 1.2  on   14 of   14 obs.
--------------------------------------------
% MAR 17, 1993  02h 10m 16.64± 0.84s
   40.634 N ± 6.0km    23.368 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

SOH      0.19 357 iPg    10 20.78  -0.1
                  eSg    10 23.58
THE      0.31 270 ePg    10 23.58   0.6
                  eSg    10 27.18
SRS      0.51  19 ePg    10 27.46   0.4
                  eSg    10 35.34
KNT      0.64 326 ePg    10 28.90  -0.5
                  eSg    10 37.42
PAIG     0.74 161 ePg    10 31.06  -0.2
                  eSg    10 41.02
GRG      0.80 294 ePg    10 31.98  -0.2
                  eSg    10 43.14
      S.D. = 0.5  on    6 of    6 obs.
--------------------------------------------
? MAR 17, 1993  02h 17m 58.47± 1.92s
   39.051 N ±14.6km    28.304 E ±22.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.5 (ISK).

DST      0.61  24 ePg    18 10.70  -0.1
IZM      1.04 232 iPg    18 18.20   0.0
                  iSg    18 31.70
KCT      1.20   2 ePn    18 21.00   0.2
EDC      1.34 345 ePn    18 23.00  -0.1
      S.D. = 0.3  on    4 of    4 obs.
--------------------------------------------
% MAR 17, 1993  02h 48m 27.78± 0.59s
   44.843 N ± 4.6km     7.627 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 2.1 (GEN).

BHB      0.26 270 P      48 34.99   1.7
                  S      48 39.43
RSP      0.41 320 P      48 36.31   0.2
                  S      48 42.18
PZZ      0.50 228 P      48 37.08  -1.0
                  S      48 44.60
ROB      0.57 162 P      48 40.11   0.6
ENR      0.63 194 P      48 40.47  -0.1
                  S      48 48.72
STV      0.64 200 P      48 40.02  -0.6
                  S      48 48.17
LSD      0.70 332 P      48 40.74  -1.0
PCP      0.72 114 P      48 42.63   0.6
FIN      0.76 147 P      48 42.22  -0.4
ORX      0.83  17 P      48 43.77  -0.1
      S.D. = 1.0  on   10 of   10 obs.
--------------------------------------------
   MAR 17, 1993  02h 52m 07.02± 0.36s
   11.572 N ± 8.9km   141.617 E ± 9.1km
   DEPTH =  30.9km  (  4 depth phases)
   4.9mb (  9 obs.)
 WESTERN CAROLINE ISLANDS            (209)

GUMO     3.75  57 eP     53 03.90  -0.3
         0.8s  1031.60nm
                  e      53 04.60
                  eS     53 51.80
PJG      3.75  57 eP     53 03.90  -0.3
GUA      3.76  58 eP     53 04.00  -0.4
         0.8s   423.88nm
                  e      53 05.10
                  e(S)   53 50.50
PMG     21.56 165 eP     56 55.00  -1.1
MAT     25.05 354 eP     57 40.00   9.9X
WB2     32.12 193 eP     58 32.50  -1.5
         0.6s     7.60nm           4.8mb
BJI     36.19 326 eP     59 08.50  -0.3
         1.5s    29.00nm           5.0mb
WARB    40.26 201 eP     59 44.00   1.0
         0.5s     5.00nm           4.5mb
SNG     40.66 268 eP     59 46.00  -0.5
SVW     66.92  28 eP     02 57.74  -0.7
         0.8s    22.21nm           5.3mb
SLKM    69.29  29 ePd    03 11.66  -1.6
PMR     70.06  28 ePd    03 15.86  -1.9
         0.8s    12.10nm           5.0mb
                  pP     03 25.27  30km
FBA     71.39  25 iPd    03 24.40  -1.4
         0.6s     6.21nm           4.8mb
                  pP     03 34.17  31km
KLU     71.55  29 ePc    03 26.09  -0.9
BALM    73.19  30 ePd    03 35.78  -0.9
MAIO    76.94 305 eP     04 03.00   4.4X
YKA     86.09  27 eP     04 45.50  -0.4
         0.5s     3.20nm           4.8mb
VBEM    86.65  45 P      04 50.01   0.8
CROR    87.08  45 P      04 52.01   0.8
VGB     87.10  44 eP     04 52.15   0.9
                  pP     05 01.84  30km
WTV     87.14  42 P      04 51.89   0.4
RES     87.22  13 eP     04 52.50   1.2
         0.8s     5.00nm           4.8mb
VIPM    87.45  45 P      04 53.85   0.7
SAW     87.50  42 P      04 53.58   0.4
WAH2    87.63  43 P      04 54.65   1.0
JBO     87.76  44 P      04 54.74   0.3
LNOR    88.71  43 P      04 59.85   0.8
NEW     88.83  41 ePd    04 59.96   0.4
         0.8s    12.13nm           5.3mb
BCH     90.09  54 eP     05 06.88   1.1
                  pP     05 17.09  32km
GSC     92.65  53 eP     05 18.23   0.7
LCCM    92.99  42 eP     05 19.40   0.4
BCAO   121.20 282 ePKPd  11 01.00   1.5
         0.5s     3.00nm
KIC    142.09 296 PKP    11 38.00  -1.0
ZOBO   150.77 103 PKP    11 54.90   1.1
LPB    150.77 103 PKP    11 53.00  -0.5
CNCB   150.85 104 ePKP   12 02.00   8.2X
      S.D. = 1.0  on   33 of   36 obs.
--------------------------------------------
* MAR 17, 1993  03h 00m 45.75± 0.63s
   46.227 N ± 6.0km    16.873 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION          (383)
      ML 3.2 (ZAG), 2.9 (VIE). MD 3.1
      (TRI).

PTJ      0.72 243 iPgc   00 58.60  -1.3
                  iSg    01 08.00
ZAG      0.74 237 iPg    00 59.70  -0.6
                  iSg    01 09.50
UZD      1.24  72 ePn    01 09.40   0.7
VBY      1.34 238 ePg    01 09.50  -0.9
                  iSg    01 28.00
                  iSn    01 29.20
LJU      1.64 264 e(Pn)  01 14.90   0.2
                  e      01 16.10
                  eSg    01 34.40
CEY      1.77 255 ePn    01 15.90  -0.8
                  e      01 20.50
                  eSg    01 42.50
SRO      1.87  31 e(Pn)  01 18.80   0.8
                  i(Pg)  01 23.80
                  i      01 46.30
BUD      1.94  49 ePn    01 23.50   4.5X
RIY      1.95 244 ePn    01 21.40   2.2
                  iSn    01 46.90
ZST      1.98   4 iPn    01 19.60   0.0
                  iSn    01 56.30
VKA      2.07 350 ePn    01 22.00   1.0
                  iPg    01 27.00
                  iSg    01 58.80
VOY      2.08 266 ePn    01 23.40   2.2
                  eSn    01 54.50
TRI      2.23 258 e(Pn)  01 23.50   0.2
                  e      01 47.30
                  e(Sg)  01 57.70
KBA      2.58 291 iPnc   01 26.70  -1.7
                  iPg    01 34.20
                  iSn    01 57.00
                  iSb    02 02.70
                  iSg    02 08.00
PSZ      2.67  50 ePn    01 27.50  -2.1
HVAR     3.06 186 e(Pn)  01 35.50   0.4
VRAC     3.09 357 ePn    01 35.50   0.1
         0.3s    20.80nm
GEC2     3.39 322 Pn     01 40.40   0.6
                  Sn     02 18.60
KHC      3.66 324 Pn     01 44.00   0.4
                  e      02 26.40
                  eSg    02 43.90
PRU      4.07 338 ePn    01 48.50  -0.9
                  e      02 05.00
                  eSg    02 54.50
GRF      5.14 314 ePg    02 26.50  21.9X
                  eSg    03 31.50
MOX      5.64 324 ePg    02 11.30  -0.3
                  eSg    03 54.10
      S.D. = 1.2  on   20 of   22 obs.
--------------------------------------------
   MAR 17, 1993  03h 14m 53.40± 0.39s
   45.769 N ± 3.7km    26.639 E ± 4.4km
   DEPTH =  94.5 ±  5.7 km
   3.6mb (  2 obs.)
 ROMANIA                             (358)

VRI      0.12  31 iPc    15 05.80  -0.4
CVO      0.33 279 iPc    15 06.50  -1.3
BRD      0.38 131 iPc    15 07.00  -1.0
MLR      0.56 241 iPc    15 08.00  -1.5
ISR      0.63 186 iPc    15 11.50   1.5
PPE      0.82  56 iPc    15 14.50   2.8
PTT      1.18 352 eP     15 16.00   0.2
CFR      1.21 118 iPd    15 16.00  -0.2
CMP      1.23 247 iPd    15 16.00  -0.5
TNR      1.66 267 iPd    15 22.00   0.1
DEV      2.61 274 iPd    15 35.00   0.4
SSR      3.57 257 ePd    15 49.00   1.3
DMK      4.03 168 iPn    15 54.10   0.1
RZN      4.31 200 iPc    15 58.00  -0.1
CTT      4.80 164 iPn    16 04.70   0.1
ALN      4.89 185 ePn    16 05.84   0.0
                  eSn    16 34.72
ISK      5.02 159 iPn    16 06.70  -1.0
PSZ      5.10 297 iPn    16 08.10  -0.8
SRS      5.15 207 ePn    16 09.56   0.0
                  eSn    16 40.40
VAY      5.34 215 ePn    16 13.00   0.9
SKO      5.34 227 ePn    16 28.00  15.8X
KNT      5.35 212 ePn    16 12.84   0.6
                  eSn    16 48.44
HRT      5.42 155 iPn    16 13.20  -0.1
BNT      5.49 170 iPn    16 14.20  -0.1
SOH      5.49 207 ePn    16 14.04  -0.3
                  iSn    16 48.72
BUD      5.52 291 ePn    16 14.00  -0.6
SPC      5.52 311 e(Pn)  16 15.90   1.1
GRG      5.72 214 iPn    16 19.08   1.7
OUR      5.77 201 ePn    16 17.24  -0.8
EYL      5.80 152 eP     16 19.00   0.4
SRO      6.07 293 i(Pg)  16 22.20   0.0
PAIG     6.23 201 ePn    16 23.60  -0.8
LIT      6.43 210 ePn    16 27.48   0.3
KAS      6.79 128 eP     16 31.50  -0.7
GEC2     9.31 294 Pn     17 06.70   0.0
                  Pg     17 13.10
NB2     17.77 335 P      18 54.60  -1.2
         0.8s     2.70nm           3.5mb
NSD     19.94 350 eP     19 19.60  -0.1
         0.4s     1.70nm           3.7mb
      S.D. = 0.9  on   36 of   37 obs.
--------------------------------------------
   MAR 17, 1993  04h 35m 58.12± 0.19s
   37.691 S ± 4.1km    74.939 W ± 3.9km
   DEPTH =   9.2km  (geophysicist)
   5.8mb ( 45 obs.)
 OFF COAST OF CENTRAL CHILE          (134)
```

Mw 5.6 (HRV). Ms 5.2 (BRK).
Depth from broadband
displacement seismagroms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=340 Dip=62 Slip= -90
NP2: 160 28 -90
Principal Axes:
T Plg=17 Azm= 70
P 73 250
Comment: The focal mechanism is
poorly controlled and
corresponds to normal
faulting. The preferred fault
plane is NP1.
RADIATED ENERGY
No. of sta: 10 Focal mech. C
Energy 6.1±1.1*10**12 Nm
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 26S, 45C
Centroid Location:
Origin Time 04:35:58.3 0.3
Lat 38.67S 0.04 Lon 75.37W 0.05
Dep 15.0 BDY Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr=-1.57 0.06 Mtt=-0.63 0.07
Mff= 2.20 0.08 Mrt= 0.74 0.17
Mrf=-2.15 0.25 Mtf= 0.76 0.07
Principal Axes:
T Vol= 3.22 Plg=23 Azm= 96
N -0.25 24 356
P -2.96 56 226
Best Double Couple:Mo=3.1*10**17
NP1:Strike=224 Dip=30 Slip= -37
NP2: 348 72 -115

TMU 2.12 120 iP 36 37.00 2.9
(S) 37 00.00
LNV 4.70 39 iP+ 37 09.98 -0.9
(S) 38 02.79
CACH 5.01 46 iP+ 37 15.27 -0.1
iS 38 12.96
LCCH 5.02 34 iP+ 37 13.91 -1.5
(S) 38 10.63
CHCH 5.12 44 iP+ 37 16.87 0.1
iS 38 15.30
TACH 5.18 40 iP+ 37 17.02 -0.6
(S) 38 14.90
IHA 5.38 31 iPd 37 18.90 -1.5
i 38 00.60
iS 38 18.70
PCH 5.43 43 iP+ 37 20.83 -0.4
iS 38 22.35
SAN 5.48 41 iP+ 37 21.35 -0.6
iS 38 23.19
ROCH 5.70 35 iP+ 37 23.80 -1.4
(S) 38 27.80
PEL 5.71 39 iPd 37 24.58 -0.6
iS 38 29.35
FCH 5.77 42 iPd 37 25.79 -0.5
iS 38 31.04
JACH 6.13 37 iP+ 37 30.20 -1.0
iS 38 38.68
RTBS 7.52 39 ePd 37 51.80 1.3
RTCV 7.84 44 ePc 37 54.30 -0.9
ZON 8.01 42 iPd 37 57.30 -0.2
eS 39 27.30
CFA 8.20 44 ePd 37 59.00 -1.1
S 39 30.00
RTLL 8.29 42 iPd 38 00.00 -1.4
S 39 34.00
MRA 9.22 58 ePc 38 13.80 -0.3
RTPR 10.16 46 ePd 38 23.90 -3.2X
CYA 11.99 42 ePc 38 46.20 -5.9X
S 40 56.30
LPA 14.00 84 iPd+ 39 20.50 1.8
ANT 14.47 17 eP 39 17.00 -8.0X
SLA 15.23 35 ePc 39 34.90 -0.2
HJA 16.59 32 ePc 39 50.30 -2.1
YJA 17.48 30 e(P) 40 04.00 -0.1
e 40 05.30
ARE 21.36 9 iPd 40 50.00 1.7
CCH 21.66 23 P 40 53.00 1.7
CNCB 21.68 18 iPd 40 54.70 2.9
LPB 21.92 18 iPd 40 56.00 1.9
1.2s 562.50nm 5.9mb
S 45 04.00

ZOBO 22.15 18 iPd 40 58.10 1.5
Z 24s 1.42um 4.3MszX
S 44 54.10
LR 50 24.00
NNA 25.65 356 (P) 41 29.23 -0.6
1.2s 70.31nm 5.2mb
Z 18s 2.06um 4.7Msz
eS 45 53.48
PPD 25.65 59 eP 41 31.50 1.7
e 41 34.40 10kmX
(S) 46 10.00
VAO 28.10 67 eP 41 54.30 2.0
e 41 57.20 10kmX
e 42 26.00
CACB 29.09 65 eP 42 02.80 1.5
e 42 06.80 14kmX
e 42 09.20
CDCB 31.46 65 eP 42 22.20 0.0
e 42 26.20 14kmX
e 43 23.90
SDV 46.51 6 iPd 44 27.30 -0.5
TOV 47.47 7 eP 44 35.00 -0.3
SNA 49.22 155 iPd 44 51.30 3.1X
1.2s 88.00nm 5.7mb
SPA 52.50 180 iPd 45 13.40 -0.1
1.1s 95.83nm 5.6mb
NVL 53.90 156 eP 45 23.00 -0.4
1.8s 257.00nm 5.9mb
Z 20s 1.50um 5.0Msz
N 20s 0.30um
E 18s 1.00um
e 45 29.00 20kmX
e 45 37.00
e 45 54.00
e 46 24.00
e 47 13.00
IISM 60.20 335 (P) 46 09.50 0.8
III 60.36 333 (P) 46 10.50 0.5
PPM 60.70 334 (P) 46 13.50 0.8
IIA 60.78 334 (P) 46 14.00 1.4
UNM 61.14 334 (P) 46 16.50 1.1
MRX 62.21 332 (P) 46 23.50 1.2
AGX 64.60 332 (P) 46 40.00 2.0
RUV 67.07 268 iPc 46 52.60 -1.5
1.6s 247.50nm 6.2mb
TVO 67.10 265 iPc 46 53.40 -0.9
1.3s 329.30nm 6.4mb
VAH 67.24 268 iPc 46 53.70 -1.5
1.4s 254.40nm 6.2mb
TPT 67.38 268 iPc 46 54.80 -1.2
1.2s 142.20nm 6.0mb
PPN 67.38 265 iPc 46 55.00 -1.0
1.6s 406.70nm 6.4mb
PAE 67.42 265 iPc 46 55.30 -1.0
1.4s 362.50nm 6.4mb
PPT 67.47 265 iPc 46 55.60 -1.0
1.5s 808.50nm 6.7mb
Z 31s 2525.00um 8.2MszX
MAW 70.30 164 iPd 47 13.90 0.6
0.8s 34.48nm 5.5mb
GOGA 71.18 352 eP 47 16.96 -2.0
e 47 27.04 32kmX
PRM 71.74 354 eP 47 21.38 -1.0
JSC 71.84 354 eP 47 21.87 -1.1
e 47 31.42 31kmX
LHS 72.01 355 eP 47 22.50 -1.4
CEH 73.31 356 eP 47 30.35 -1.2
1.4s 90.17nm 5.7mb
e 47 33.94 12kmX
TUH 73.43 119 iPd 47 30.60 -1.9
1.0s 40.00nm 5.4mb
TKL 73.44 353 eP 47 31.16 -1.2
e 47 39.81 28kmX
CER 73.49 119 iPc 47 33.00 0.0
0.8s 93.00nm 5.9mb
GBTN 73.49 352 eP 47 31.52 -1.1
MIAR 73.93 344 eP 47 33.41 -1.8
1.3s 64.05nm 5.5mb
Z 21s 0.23um 4.4Msz
ec 47 37.13 12kmX
OLY 74.42 346 eP 47 36.79 -1.2
BLA 74.70 355 eP 47 39.08 -0.6
1.6s 76.86nm 5.5mb
GRT 74.80 348 eP 47 39.70 -0.5
NAV 74.83 355 eP 47 38.85 -1.5
CVL 75.37 357 eP 47 42.66 -0.7
WMOK 75.39 340 ePd 47 42.40 -1.3

1.6s 159.28nm 5.8mb
Z 21s 0.43um 4.7Msz
epPc 47 45.38 10kmX
CBN 75.55 358 eP 47 43.00 -1.4
ELC 75.76 348 ePd 47 44.07 -1.6
OCO 75.79 341 iPc 47 46.40 0.5
POF 76.22 116 iPd 47 50.00 1.4
1.0s 40.00nm 5.5mb
FVM 76.64 347 ePd 47 49.67 -1.0
1.5s 238.96nm 6.1mb
CCM 76.86 347 eP 47 51.82 0.0
epPc 47 54.72 9kmX
TUC 77.25 329 ePd 47 54.66 0.4
1.2s 70.17nm 5.6mb
Z 18s 0.19um 4.5Msz
epPc 47 57.47 9kmX
eS 57 41.58
ACO 77.33 340 iPc 47 53.90 -0.6
ALQ 77.97 334 iPd 47 58.43 0.1
1.2s 70.73nm 5.6mb
ANMO 77.97 334 eP 47 58.83 0.5
epPc 48 02.64 12kmX
WIN 78.10 109 iPd 48 01.50 2.1
1.5s 120.00nm 5.8mb
LIC 78.15 73 Pd 48 00.60 1.1
Z 20s 0.03um 3.7MszX
GPD 78.33 0 eP 47 59.70 -0.1
TIC 78.43 72 Pd 48 01.98 0.9
1.1s 69.50nm 5.6mb
KIC 78.46 73 Pd 48 02.32 1.1
GLA 79.59 327 ePc 48 07.79 0.8
FRS 79.77 120 iPd 48 08.00 -0.1
0.7s 50.00nm 5.6mb
HRV 79.88 3 ePd 48 07.25 -1.0
ec 48 11.89 15kmX
PLM 80.74 325 eP 48 14.00 0.7
BLF 80.75 120 iPc 48 14.00 0.4
1.2s 80.00nm 5.6mb
PEC 81.33 326 eP 48 16.65 0.5
1.3s 74.34nm 5.6mb
SSK 81.83 325 eP 48 20.10 1.1
RSNY 81.86 0 ePc 48 18.98 0.4
1.0s 133.63nm 6.0mb
Z 20s 0.30um 4.7Msz
e 48 28.52 30kmX
BNH 81.97 3 eP 48 18.33 -0.9
PAS 82.00 325 ePd 48 20.44 0.8
epPc 48 23.09 8kmX
eS 58 40.84
SEK 82.23 120 iPd 48 21.70 0.3
0.9s 83.00nm 5.9mb
GSC 82.36 327 ePd 48 22.65 1.1
epPc 48 25.46 9kmX
e 48 37.34
PRY 82.99 119 iPd 48 25.00 -0.3
1.3s 60.00nm 5.6mb
ARUT 83.08 330 ePd 48 26.38 1.0
SRU 83.14 333 ePd 48 25.96 0.3
MSU 83.23 331 iPd 48 26.94 0.8
KSR 83.25 117 iPd 48 25.00 -1.7
1.0s 48.00nm 5.7mb
ISA 83.40 326 ePd 48 28.15 1.2
1.1s 64.22nm 5.7mb
epPc 48 30.88 9kmX
TPNV 83.51 328 eP 48 29.14 1.6
1.1s 37.86nm 5.5mb
e 48 46.58 62kmX
LMN 83.66 7 ePd 48 31.70 3.8X
pP 48 40.50 28kmX
HNME 83.70 5 eP 48 32.57 4.5X
e 48 36.15 11kmX
e 48 42.25
BCH 83.74 324 ePd 48 29.87 1.2
e 48 39.32 30kmX
EMUT 83.87 333 eP 48 29.80 0.4
EEO 84.03 357 ePd 48 32.50 2.7
SLR 84.30 118 iPd 48 36.70 4.7X
1.1s 13.00nm 5.1mb
Z 20s 5.33um 5.9MszX
PHAM 84.42 324 eP 48 33.66 1.7
CBM 84.46 5 P 48 32.71 0.8
1.1s 155.10nm 6.1mb
Z 20s 0.47um 4.9Msz
DAU 84.55 333 eP 48 33.00 0.0
PRI 84.79 324 iPd 48 35.57 1.6
TNP 84.88 328 eP 48 35.25 0.8
1.2s 86.21nm 5.9mb

17d 04h

```
DUG     84.93 332 ePc     48 35.42    0.8
        1.4s   178.67nm            6.1mb
     Z  20s     0.40um             4.8Msz
FRI     85.05 326 iPd     48 35.24    0.2
BONR    85.24 327 eP      48 37.09    0.7
MEMM    85.27 326 eP      48 38.43    2.3
PRS     85.27 324 iPd     48 37.69    1.4
LLA     85.31 324 iPd     48 37.81    1.4
RSSD    85.59 339 eP      48 37.40   -0.5
        1.1s    69.31nm            5.8mb
     Z  20s     0.14um             4.4Msz
SAO     85.66 324 eP      48 38.34    0.2
        1.3s    30.74nm            5.3mb
BW06    86.06 335 iPd     48 39.87   -0.5
        1.3s   115.18nm            5.9mb
KVN     86.07 328 eP      48 41.06    0.7
GCC     86.13 324 iPd     48 41.86    1.4
ARN     86.18 325 eP      48 41.50    0.7
CMB     86.22 326 eP      48 46.68    5.7X
     Z  18s     0.20um             4.6Msz
                  eS      59 16.68
                  eSS     04 45.68
                  eSSS    08 45.68
                  eLQ     12 24.68
                  eLR     17 19.68
CMB     86.22 326 eP      48 41.59    0.6
     Z  18s     0.20um             4.6Msz
                  epPc    48 45.06  11kmX
                  eS      59 16.68
                  eSS     04 45.68
                  eSSS    08 45.68
                  eLQ     12 24.68
                  eLR     17 19.68
HVU     86.30 333 ePd     48 41.45    0.0
BKS     86.93 324 iPd     48 45.95    1.6
ORV     87.96 326 iPd     48 50.67    1.4
BUL     88.07 114 eP      48 51.80    1.2
WDC     89.26 326 ePd     48 55.06   -0.4
        1.7s    95.09nm            5.8mb
                  epPc    48 58.21  10kmX
ULM     89.49 347 ePd     48 58.40    2.1
                  pP      49 08.00  30kmX
LCCM    89.54 335 iPd     48 57.60    0.7
LBFM    89.59 327 eP      48 57.48    0.2
FOX     89.87 325 iPd     49 00.51    2.2
EKR     90.07 325 iPd     49 01.21    2.0
FHC     90.09 325 iPd     49 01.19    1.8
JAQ     91.12 360 eP      49 03.50   -0.2
MTD     92.38 113 iPc     49 12.70    2.1
VGB     92.54 330 eP      49 11.50    0.9
SES     93.30 338 ePd     49 13.10   -0.9
NEW     93.45 333 ePc     49 14.15   -0.5
        1.1s    70.55nm            6.0mb
DPW     93.51 332 ePd     49 15.29    0.3
BCAO    95.43  89 iPd     49 25.70    1.1
        0.8s    32.00nm            5.8mb
                  id      49 35.00  29kmX
                  ic      49 41.10
FCC     97.41 350 eP      49 35.00    2.6
YKA    104.81 342 ePdiff50 03.60   -2.0
        0.9s     3.00nm            5.2mb
GRF    115.37  46 ePKP    54 42.00    0.7
     Z  19s     0.30um             4.9Msz
SLKM   115.42 328 (PKP)   54 39.35   -1.8
PMR    115.55 329 PKP     54 50.00    8.8X
     Z  20s     0.34um             4.9Msz
MOX    116.05  45 ePKP    54 42.90    0.3
        1.6s    31.00nm
WB2    116.39 211 ePKP    54 42.80   -1.3
        1.0s     3.70nm
WRA    116.39 211 PKP     54 43.30   -0.8
        0.9s     2.50nm
GEC2   116.40  48 PKP     54 43.00   -0.4
        1.1s     7.57nm
                  e       54 47.00
                  e       54 52.80
                  e       54 58.00
KHC    116.46  47 ePKP    54 43.50    0.0
                  e       55 43.50
FBA    116.80 333 ePKP    54 40.60   -3.0
CLL    117.13  45 ePKP    54 45.00    0.4
        1.7s    26.00nm
OHR    117.30  58 ePKP    54 44.20   -1.1
BRG    117.47  46 ePKP    54 45.80    0.6
TTA    119.01 329 ePKP    54 46.94   -1.0
DAG    119.39  13 ePKP    54 46.60   -1.6
        1.1s    10.13nm
```

```
IMA    119.52 333 ePKP   54 47.88  -1.0
N82    120.39  34 PKP    54 50.00  -0.6
        1.1s    13.90nm
HFS    121.17  36 ePKP   54 49.10  -2.9
        0.4s     1.00nm
MLR    122.55  55 ePKPd  54 55.00  -0.3
BRW    122.67 338 ePKP   54 54.38  -0.1
VRI    123.20  55 ePKP   54 55.00  -1.3
CSS    123.47  69 ePKP   54 57.10  -0.1
MNK    126.33  46 ePKP   55 02.00  -0.1
NUR    126.47  37 ePKP   55 01.80  -0.4
KAF    127.59  36 iPKP   55 03.70  -0.6
        0.8s     7.50nm
KEV    128.90  26 ePKP   54 48.00 -18.6X
ILT    129.42 332 iPKPd  55 07.00  -0.6
        1.6s    86.00nm
                  e      57 25.00
OBN    131.73  46 ePKP   55 11.00  -1.4
        1.4s    90.00nm
                  e      55 21.00
MOS    132.40  45 ePKP   55 14.00   0.4
KIV    133.38  62 iPKPd  55 16.20   0.1
        1.7s   100.00nm
                  e      57 38.30
ERE    133.63  67 iPKP   55 16.00  -0.6
PYA    133.65  62 iPKPc  55 17.00   0.5
GRS    134.78  69 ePKP   55 15.00  -3.9X
        1.4s    30.00nm
ASH    143.40  75 ePKP   55 31.00  -3.5X
        1.5s   340.00nm
MGD    143.54 323 ePKP   55 30.00  -4.0X
        1.1s    60.00nm
                  e      58 48.00
TIK    143.85 347 iPKPd-55 29.50   -4.7X
        1.3s   150.00nm
ARU    144.08  43 ePKP   55 33.00  -2.0
        2.2s   650.00nm
                  e      55 47.00
KGM    144.46 177 ePKPc  55 35.20  -1.8
        1.2s   173.30nm
KGM    144.46 177 ePKPd  55 41.00   4.0X
        1.2s   107.80nm
SVE    145.09  42 iPKPd  55 36.00  -0.7
        2.1s   760.00nm
GBA    145.66 127 PKP    55 39.00   0.1
CGP    145.90 216 iPKPd  55 39.00  -0.4
IPM    146.84 173 ePKPc  55 40.90   0.0
        1.4s   152.40nm
NRI    146.93  11 iPKPd  55 38.90  -0.5
        1.6s   389.00nm
                  e      59 05.00
KUR    147.36 297 PKP    55 42.00   1.2
        1.0s   320.00nm
HYB    149.19 124 ePKPd  55 44.30  -0.3
        1.4s   495.00nm
                  i      55 49.00
SNG    149.36 171 ePKP   55 45.00   0.1
        2.0s   647.06nm
KUSJ   149.53 293 ePKP   55 47.60   3.3X
HOOJ   150.53 291 ePKP   55 51.60   5.8X
YSS    150.89 301 iPKPd  55 51.00   4.8X
        1.2s   190.00nm
YSS    150.89 301 (PKP)  55 43.92  -2.3
        1.2s   190.00nm
                  e      55 51.12
ASAJ   151.06 295 ePKP   55 52.50   5.9X
YAK    151.27 336 iPKPd  55 44.20  -2.1
        1.1s   650.00nm
                  e      59 33.00
OFUJ   151.39 284 ePKP   55 53.20   6.0X
KAKJ   151.99 278 PKP    55 54.00   5.8X
MRRJ   152.17 291 ePKP   55 55.00   6.8X
CHJJ   152.88 277 PKP    55 56.10   6.6X
NIIJ   153.14 280 PKP    55 56.40   6.6X
IIDJ   153.60 275 PKP    55 58.10   7.5X
MAT    153.61 278 ePKP   55 49.00  -1.5
MTMJ   153.94 278 PKP    55 58.00   6.9X
NDI    155.10 103 iPKPd  55 53.20   0.5
CVP    155.24 221 ePKP   55 53.20   0.1
FRU    156.28  68 iPKPc  55 55.20   1.2
        2.5s   240.00nm
                  e      00 00.00
BOD    158.95 346 ePKP   55 53.10  -3.5X
        1.2s    16.00nm
ELT    159.71  34 ePKP   55 54.00  -3.5X
        2.0s    44.00nm
CHTO   160.45 162 ePKP   55 59.30  -0.1
```

```
                      i      56 40.30
UER     164.10  26 iPKPd 56 01.30  -0.7
         1.5s    70.00nm
HIA     164.30 322 ePKPd 56 00.03  -2.3
                   ePKPab56 57.05
CIT     164.48 340 ePKP  56 00.50  -1.9
IRK     165.41   2 ePKPc 56 02.30  -0.9
         2.0s    58.00nm
                   e     57 02.10
                   e     00 45.70
WMQ     165.49  60 ePKPd 56 04.02   0.4
                   ePKPab57 02.79
MOY     165.72  10 ePKP  56 04.30   1.0
         2.3s   130.00nm
LSA     165.95 120 iPKPd 56 05.88   1.0
                   ePKPab57 05.80
TLY     165.98   4 ePKPd 56 03.12  -0.5
                   ePKPab57 02.54
KMI     167.32 170 PKP-  56 06.00   0.2
                   sPKP  56 43.00
BJI     171.02 289 ePKP  56 06.50  -0.7
LZH     178.13 148 PKP   56 10.00   0.4
                   sPKP  57 34.00
      S.D. = 1.2  on 200 of 228 obs.
------------------------------------------
% MAR  17, 1993  04h 36m 55.47± 1.35s
   43.188 N ± 9.6km    18.871 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.6 (TTG).

BRY       0.37 220 iPgd  37 03.24   0.0
                   iSg   37 09.00
NKY       0.39 166 iPgc  37 03.47   0.0
                   iSg   37 09.40
PLE       0.41  69 iPgd  37 03.89   0.0
                   iSg   37 10.07
HCY       0.79 200 iPgc  37 10.72  -0.1
                   iSg   37 22.58
TTG       0.81 159 iPgd  37 11.20   0.0
                   iSg   37 23.20
IVA       0.82 112 iPgd  37 11.25  -0.1
                   iSg   37 23.50
BDV       0.90 182 iPgd  37 12.82   0.0
                   iSg   37 26.32
PVY       1.00 126 iPgd  37 14.60   0.0
                   iSg   37 29.57
      S.D. = 0.1  on   8 of   8 obs.
------------------------------------------
% MAR  17, 1993  04h 44m 27.11± 4.69s
   34.085 S ±25.5km    71.001 W ± 9.3km
   DEPTH =  70.9 ± 38.1 km
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 3.5 (SAN).

CHCH      0.33  62 iP    44 38.45  -0.3
                   iS    44 48.34
CACH      0.33  96 iP    44 39.18   0.2
                   iS    44 48.99
LNV       0.36 291 iP    44 38.90   0.0
                   iS    44 48.97
TACH      0.43   7 iP    44 39.53  -0.1
                   iS    44 49.93
PCH       0.62  41 iP    44 41.62   0.2
                   iS    44 53.46
LCCH      0.77 322 iP    44 43.07   0.0
                   iS    44 56.16
FCH       0.96  38 iP    44 45.66  -0.1
                   iS    45 01.25
PEL       0.98  16 iP    44 45.94   0.3
                   iS    45 00.94
ROCH      1.11 360 iP    44 47.87   0.3
                   iS    45 03.86
JACH      1.44  14 iP    44 51.38  -0.4
                   iS    45 11.56
      S.D. = 0.3  on  10 of  10 obs.
------------------------------------------
? MAR  17, 1993  04h 46m 30.35± 4.25s
   36.597 S ±32.9km   177.669 E ±17.5km
   DEPTH = 282.5 ± 23.8 km
 OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ       1.12 153 P     47 08.50  -1.2
PUZ       1.55 163 P     47 12.20  -0.2
                   eS    47 38.70
URZ       1.72 195 P     47 12.90  -0.7
                   S     47 41.20
```

EDR No. 3-93
Part 2 of 2
P. 245-486

U. S. DEPARTMENT OF THE INTERIOR

Geological Survey

EARTHQUAKE DATA REPORT

The Earthquake Data Report (EDR) is a bulletin of all seismic phase and amplitude data which were associated with events published in the Preliminary Determination of Epicenters (PDE) Monthly Listing. It also contains information about the hypocentral computations (such as standard errors) that are not included in the PDE Monthly Listing. A machine-readable version of this EDR is available from the Books and Open-File Reports Section of the U.S. Geological Survey.

All data in the EDR are grouped by event, with events listed by origin time in date/time order through the month. All times are in Coordinated Universal Time (UTC). Locations are in decimal degrees of geographic latitude and longitude. Depths are in kilometers below the free surface. Hypocentral coordinates are determined by a modified Geiger's method and may be constrained by reported first arriving P-waves, Pdiff, and the DF branch of PKP. Data are corrected for station elevation and for the ellipticity of the Earth. Outliers may be truncated (ie., removed from the calculation) either automatically or manually. The solution is allowed to converge between rounds of automatic truncation to insure a unique result. Convergence is aided by step length damping.

The error bars of the computed hypocentral coordinates are 90% marginal confidence intervals incorporating Baysian information to stabilize estimates derived from small samples (Jordan and Sverdrup, 1981). It is assumed that the travel-time errors *of the data used* are independent, unbiased, and have an expected standard deviation of 1 s. Monte Carlo experiments suggest that the error bars are accurate for events constrained by more than about 30 data. However, care should be exercised in interpreting these numbers in terms of absolute location accuracy because of unmodeled biases. Analysis of events with independently known coordinates indicates that most PDE determinations are accurate to a few tenths of a degree in epicentral position and 25 km in depth. For special studies, we urge that inquiry be made to this office for possible recomputation of hypocenters of interest, using more complete instrumental data.

Restricted focal depths occur in four instances. If at any point in the computation the depth becomes negative, the solution is automatically restricted at 33 km and indicated by "NORMAL DEPTH." If the unrestricted depth computation is unsatisfactory, and in the judgment of the reviewing geophysicist the earthquake probably has a shallow focus, a solution may be held at 33 km. These are also indicated by "NORMAL DEPTH." The geophysicist may restrain the depth at any value indicated by evidence from available seismograms. These are indicated by, for example, "DEPTH = 100 KM (GEOPHYSICIST)." If two or more pP phases are identified, and in general, yield depths within 10 km of the mean, then the depth is automatically restricted to this value and denoted by, for example, "DEPTH = 51 KM (5 DEPTH PHASES)." pP phases may also appear as unidentified second arrivals with associated travel-time residuals. Hypocentral coordinates derived from other sources, such as the California Institute of Technology, the University of California at Berkeley, and the U. S. Department of Energy are noted on the EDR.

Two types of magnitude are computed: body-wave magnitude (m_b) and surface-wave magnitude (M_{SZ}). Each is a 25% trimmed mean of individual station values. Station magnitudes not used in the trimmed mean are marked with an X. This includes station magnitudes of either type which deviate significantly from the mean and surface-wave magnitudes determined from horizontal amplitudes. Body-wave magnitudes are computed according to the formula $\log(A/T)+Q$, derived by Gutenberg and Richter (1956), where A is the P-wave amplitude in micrometers, T is the period in seconds, and Q is the depth-distance factor. Surface-wave magnitudes are computed from the formula $\log(A/T) + 1.66\log(\Delta) + 3.3$, where A is the maximum vertical surface-wave amplitude in micrometers, T is the period in seconds, and Δ is the epicentral distance in degrees. Surface-wave magnitudes are determined only for earthquakes whose focal depths (taking into account the computed standard deviations) are potentially less than 50 km, for stations having $20° \leq \Delta \leq 160°$, and for reported periods of $18 \leq T \leq 22$ s. No correction for focal depth is used in the M_S calculation. Body-wave magnitudes are not determined from PKP arrivals or for stations having $\Delta \leq 5°$. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (μm) for surface-waves.

The travel-time residual (observed – computed) is based on the 1940 Jeffreys-Bullen P and 1968 Bolt PKP travel-time tables. Phases not used in the computation are marked by an X. The azimuth from the epicenter to the station is measured clockwise from north. The epicentral distance is the central angle in degrees.

The pulse distortion of seismic phases that have ray paths that touch a single internal caustic (*e.g.*, PP, pPP, SS and PKPab) can be corrected using the method of Hilbert transformation described by Choy and Richards (1975). Arrival times that are read from the phases that are corrected for pulse distortion are identified by the symbol H preceding the phase identifier (*e.g.*, HPP, HpPP, HSS and HP′ab).

Hypocenter Symbols

& Indicates that parameters of the hypocenter were supplied or determined by a computational procedure not normally used by the National Earthquake Information Service (NEIS). The source or nature of the determination is indicated by a 2 to 5 letter code enclosed by angle brackets and appearing in the first line of comments. A "-P" appended to the code indicates that the computation is preliminary. These codes are included with the list of abbreviations in the PDE Monthly Listing.

% Indicates a single network solution. A non-furnished hypocenter has been computed using data reported by a single network of stations for which the date and/or origin time cannot be confirmed from seismograms available to a NEIS analyst. Also, if we define η to be the geometric mean of the semi-major and semi-minor axes of the horizontal 90% confidence ellipse, then $\eta \leq 16.0$ km.

* Indicates a less reliable solution. In general, $8.5 < \eta \leq 16.0$ km.

? Indicates a poor solution, published for completeness of the catalog. In general, $\eta > 16.0$ km. This includes poor solutions computed using data reported by a single network.

The lack of any symbol indicates that $\eta \leq 8.5$ km.

Note: On printers available to the NEIS for this publication, the symbol for degrees (°) appears as "`". Also note that certain phase codes are abbreviated because the data base and file format limit the length of the codes to five characters. Thus, PKP is occasionally abbreviated to P′ and the numbers 2 and 3 are sometimes used to represent the AB (AC for SKKS) and BC branches of core phases, respectively. In some codes, R is used to represent repetition; for example, pRPKP represents the phase pPKPPKP and RRPG represents PgPgPg.

References

Bolt, Bruce A. (1968), Estimation of PKP Travel Times, *Bull. Seis. Soc. Am.*, **58**, pp. 1305–1324.

Choy, George L. and P. G. Richards (1975), Pulse Distortion and Hilbert Transformation in Multiply Reflected and Refracted Body Waves, *Bull. Seis. Soc. Am.*, **65**, pp. 55–70.

Gutenberg, B. and C. F. Richter (1956), Magnitude and Energy of Earthquakes, *Ann. di Geofisica*, **9**, no. 1, pp. 1–15.

Jeffreys, Harold and K. E. Bullen (1940), *Seismological Tables*, British Assoc. for the Advancement of Science, Gray Milne Trust.

Jordan, Thomas H. and Keith A. Sverdrup (1981), Teleseismic Location Techniques and their Application to Earthquake Clusters in the South-Central Pacific, *Bull. Seis. Soc. Am.*, **71**, pp. 1105–1130.

```
NOZ     2.04 172 P      47 16.70   0.5
WLZ     2.09 232 P      47 16.90   0.3
PAHZ    2.31 192 P      47 18.90   0.3
WHH     2.47 202 eP     47 20.00  -0.1
MOH     2.56 189 eP     47 21.40   0.5
MAHZ    2.59 176 eP     47 22.80   1.6
MOZ     2.97 229 P      47 26.50   1.5
TTH     3.01 193 P      47 26.40   1.0
NGZ     3.05 212 eP     47 25.40  -0.6
CNZ     3.09 212 eP     47 26.30  -0.1
WAHZ    3.27 198 P      47 28.30   0.2
TEHZ    3.45 191 eP     47 30.10   0.0
BSZ     3.86 213 eP     47 33.70  -0.8
PGZ     4.16 195 eP     47 38.10   0.2
MNG     4.37 202 P      47 39.30  -1.0
                 eS     48 30.90
KIW     4.77 206 eP     47 44.10  -0.9
MRW     5.17 206 eP     47 49.00  -0.8
                 eS     48 47.40
WEL     5.20 205 eP     47 49.70  -0.4
TCW     5.31 209 eP     47 49.60  -1.8X
THZ     6.35 214 eP     48 04.60   0.5
KHZ     6.63 207 eP     48 06.70  -0.7
                 eS     49 19.70
LTZ     7.45 212 eP     48 17.30  -0.3
ODZ     9.97 210 eP     48 50.30   1.2
     S.D. = 0.8  on  25 of  26 obs.
----------------------------------------
%  MAR  17, 1993  05h 11m 55.04± 0.71s
   44.367 N ± 6.4km    7.336 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 1.7 (GEN).

STV     0.12 184 P      11 58.44   0.3
                 S      12 00.41
ENR     0.15 157 P      11 58.93   0.3
                 S      12 01.46
PZZ     0.22 309 P      11 59.91   0.1
                 S      12 03.16
ROB     0.39 101 P      12 03.59   0.5
                 S      12 09.65
BHB     0.48 354 P      12 04.57  -0.2
IMI     0.61 139 P      12 06.36  -1.0
     S.D. = 0.7  on   6 of   6 obs.
----------------------------------------
%  MAR  17, 1993  05h 34m 48.46± 0.57s
   27.997 S ± 5.2km   26.728 E ± 6.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.8 (PRE).

SEK     0.86 113 iPc    35 05.60   0.1
                 S      35 16.60
BFS     1.10   3 eP     35 09.80   0.2
                 S      35 25.00
BLF     1.21 203 iPd    35 11.60   0.1
                 S      35 29.00
PRY     1.25  32 eP     35 12.50   0.2
                 S      35 30.50
SWZ     1.49 303 eP     35 16.00   0.0
                 S      35 35.60
FRS     2.14 215 iPd    35 25.10  -0.1
                 S      35 50.50
SLR     2.65  32 eP     35 32.25  -0.4
                 S      36 04.20
     S.D. = 0.3  on   7 of   7 obs.
----------------------------------------
   MAR  17, 1993  05h 56m 37.28± 0.36s
   44.370 N ± 2.9km    7.335 E ± 3.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.1 (GEN), 1.6 (LDG).

STV     0.13 184 P      56 40.63   0.2
                 S      56 42.55
ENR     0.16 157 P      56 41.18   0.2
                 S      56 43.60
PZZ     0.21 309 P      56 42.00   0.0
                 S      56 45.07
ROB     0.39 101 P      56 45.77   0.4
                 S      56 51.66
BHB     0.47 354 P      56 46.07  -0.8
                 S      56 52.25
SBF     0.51 172 Pg     56 47.30  -0.4
                 Sg     56 53.80
IMI     0.61 139 P      56 48.86  -0.8
                 S      56 57.29
FIN     0.65 104 P      56 50.15  -0.1
                 S      56 59.57
PCP     0.88  78 P      56 54.64   0.4
FRF     0.95 212 Pg     56 55.80   0.4
                 Sg     57 06.70
LRG     1.16 218 Pg     56 58.80  -0.1
                 Sg     57 14.30
LMR     1.20 210 Pg     56 59.50  -0.1
                 Sg     57 14.10
LPG     1.20 340 Pg     56 59.60  -0.3
LPL     1.22 340 Pg     57 01.10   0.9
     S.D. = 0.5  on  14 of  14 obs.
----------------------------------------
%  MAR  17, 1993  06h 33m 04.53± 3.66s
   44.905 N ± 7.8km    6.652 E ±25.3km
   DEPTH =   5.0km  (geophysicist)
 FRANCE                            (538)
      ML 1.8 (GEN).

RRL     0.10  81 P      33 06.69  -0.1
                 S      33 07.47
BHB     0.44  98 P      33 12.87  -0.5
                 S      33 17.91
RSP     0.50  60 P      33 15.25   0.8
                 S      33 20.94
PZZ     0.51 141 P      33 15.02   0.2
                 S      33 21.52
LSD     0.66  33 P      33 17.36  -0.3
     S.D. = 0.7  on   5 of   5 obs.
----------------------------------------
?  MAR  17, 1993  08h 09m 22.88± 1.34s
   10.386 N ±10.9km   67.108 W ±10.5km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF VENEZUELA           ( 97)

CAR     0.21  56 iPc    09 27.60   0.0
                 iS     09 31.00
LLAV    0.31  73 iPc    09 29.30   0.0
                 iS     09 34.70
OLLA    0.47 141 iPc    09 32.50   0.0
CEOS    1.81 222 iPc    09 54.40   0.0
                 iS     10 18.30
     S.D. = 0.0  on   4 of   4 obs.
----------------------------------------
%  MAR  17, 1993  08h 45m 10.51± 0.46s
   39.636 S ± 2.9km  175.470 E ± 4.1km
   DEPTH =  89.1 ±  8.2 km
 NORTH ISLAND, NEW ZEALAND         (159)

DRZ     0.37  11 P      45 23.90  -0.9
CNZ     0.44   8 Pc     45 24.10  -1.0
BSZ     0.45 249 P      45 25.10   0.2
NGZ     0.47  12 P      45 23.90  -1.4
WAHZ    0.69  96 P      45 27.00  -0.1
MNG     0.98 179 Pd     45 30.70   0.5
                 eS     45 44.10
TEHZ    1.09 109 P      45 32.30   0.8
WHH     1.09  47 P      45 31.20  -0.4
PGZ     1.16 148 eP     45 32.70   0.4
NRZ     1.23 284 P      45 34.50   1.3
MOZ     1.24 335 Pd     45 33.70   0.4
                 S      45 49.50
KIW     1.30 199 P      45 34.80   0.8
PATZ    1.40  26 P      45 35.70   0.3
PAHZ    1.45  58 P      45 36.60   0.5
CAW     1.50 192 P      45 37.00   0.4
MTW     1.52 179 P      45 36.90   0.0
UTU     1.56  21 eP     45 38.00   0.6
TAZ     1.62  30 P      45 39.00   0.9
DIW     1.66 225 P      45 39.50   0.8
MRW     1.70 200 P      45 39.40   0.2
                 S      45 58.80
BLW     1.73 180 P      45 39.20  -0.4
WEL     1.73 198 P      45 39.80   0.2
WLZ     1.77   3 P      45 40.50   0.4
MOW     1.79 185 P      45 40.20  -0.2
TCW     1.82 210 P      45 41.10   0.3
URZ     1.88  43 P      45 41.40  -0.1
                 S      46 04.10
NOZ     2.24  64 P      45 46.30  -0.1
QRZ     2.55 241 P      45 50.70   0.1
                 eS     46 20.60
THZ     2.88 222 P      45 55.50   0.2
                 S      46 29.80
KUZ     2.89   4 P      45 55.10  -0.2
HBZ     3.01  48 P      45 56.20  -0.8
KHZ     3.14 207 P      45 57.70  -1.0
                 S      46 30.70
DSZ     3.50 232 P      46 03.00  -0.7
LTZ     3.96 216 P      46 08.50  -1.7
                 eS     46 50.80
MQZ     4.58 207 eP     46 15.20  -3.5X
                 S      47 03.30
ODZ     6.48 212 eP     46 41.10  -3.9X
     S.D. = 0.7  on  34 of  36 obs.
----------------------------------------
?  MAR  17, 1993  09h 10m 30.09± 0.97s
   44.370 N ± 9.2km    7.302 E ± 9.5km
   DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 1.4 (GEN).

STV     0.13 173 P      10 32.80   0.0
                 S      10 34.68
ENR     0.17 149 P      10 33.58   0.0
                 S      10 35.91
PZZ     0.20 313 P      10 34.18   0.0
                 S      10 37.43
ROB     0.41 100 P      10 38.43   0.0
                 S      10 44.00
     S.D. = 0.0  on   4 of   4 obs.
----------------------------------------
   MAR  17, 1993  09h 19m 18.69± 0.88s
   39.098 N ± 7.8km   27.752 E ± 8.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.8 (ISK).

IZM     0.80 209 iPg    19 34.00  -0.2
                 eSg    19 46.90
DST     0.85  53 ePn    19 35.40   0.3
KCT     1.24  22 iPn    19 41.80   0.1
BNT     1.26   6 ePn    19 41.50  -0.6
VAY     4.55 301 ePn    20 29.60   0.5
SKO     5.60 303 ePn    20 44.00  -0.1
     S.D. = 0.5  on   6 of   6 obs.
----------------------------------------
?  MAR  17, 1993  09h 31m 10.44± 1.11s
   39.088 N ±11.0km   27.583 E ±19.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

IZM     0.73 200 iPg    31 24.90   0.0
                 iSg    31 37.40
DST     0.96  57 iPn    31 28.40  -0.4
EDC     1.28  10 ePn    31 33.50  -0.6
KCT     1.30  27 iPn    31 35.50   0.9
     S.D. = 1.2  on   4 of   4 obs.
----------------------------------------
?  MAR  17, 1993  09h 31m 49.35± 1.09s
   39.132 N ±10.1km   27.555 E ±18.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

IZM     0.77 197 iPg    32 04.40   0.0
                 iSg    32 17.00
DST     0.96  60 ePn    32 07.40  -0.2
EDC     1.24  11 ePn    32 12.00  -0.3
KCT     1.28  29 ePn    32 13.50   0.5
     S.D. = 0.6  on   4 of   4 obs.
----------------------------------------
?  MAR  17, 1993  09h 51m 42.45± 6.41s
   42.543 N ±39.7km    0.148 W ±25.4km
   DEPTH =   5.0km  (geophysicist)
 PYRENEES                          (378)
      ML 2.5 (LDG).

BTH     0.58 356 iPgc   51 54.00  -0.1
EPF     0.61  36 Pg     51 54.60   0.0
                 Sg     51 57.30
LPO     2.35  24 Pn     52 22.70   0.4
                 Pg     52 25.10
                 Sg     52 49.30
LFF     2.48  15 Pg     52 26.40   2.3X
                 Sg     52 52.70
CAF     2.87  33 Pn     52 29.40  -0.4
                 Pg     52 34.10
                 Sg     53 04.70
RJF     3.01  23 Pg     52 37.10   5.4X
                 Sg     53 08.50
     S.D. = 0.5  on   4 of   6 obs.
```

```
MAR 17, 1993 10h 15m 03.89± 0.21s
41.065 N ± 4.5km   72.048 E ± 2.9km
DEPTH = 20.5km ( 12 depth phases)
4.8mb ( 52 obs.)  4.2Msz (  3 obs.)
KYRGYZSTAN                      (716)
   Felt (VI) at Kyzyl-Dzhar. Also
   felt (V) at Namangan and (II) at
   Toshkent, Uzbekistan.

FRU      2.61  46 iPnc+ 15 49.80   4.1X
                 e      15 54.00
                 i      16 26.00
KSH      3.41 117 Pn    15 59.80   2.6
                 Sn     16 41.80
TLG      4.53  59 iPnc  16 13.90   0.8
                 i      16 25.00
                 i      17 03.00
                 i      17 21.00
PRZ      4.96  71 ePn   16 21.00   1.8
                 eS     17 41.00
MAIO    10.90 248 eP    17 40.00  -1.9
        0.8s     9.15nm           5.1mb
                 eS     19 36.00
ASH     11.03 258 eP    17 44.00   0.4
QUE     11.61 202 eP    17 50.40  -1.3
                 eS     19 58.40
WMQ     11.89  71 eP    17 51.90  -3.4X
     Z  10s      0.91um
                 eS     20 12.00
NDI     13.06 159 iPc   18 09.50  -1.4
        0.5s    59.86nm           6.0mb X
ELT     15.52  33 eP    18 42.00  -0.9
        1.0s    69.00nm           4.9mb
     Z  10s      1.50um           3.5Msz
                 e      21 31.00
SVE     17.41 339 ePd   19 08.80   1.9
ARU     17.67 335 eP    19 09.00  -1.2
        1.5s   160.00nm           4.9mb
     Z  11s      1.50um           4.4MszX
UER     18.42  48 eP    19 18.20  -1.2
        1.4s    26.00nm           4.2mb
LSA     19.22 120 Pd    19 31.60   1.8
        1.0s     8.00nm           3.9mb
GRO     19.64 285 eP    19 36.00   1.9
     N  14s      1.50um
     E  16s      1.00um
GRS     19.66 274 iPd   19 34.00  -0.6
        0.8s    80.00nm           5.1mb
MTA     20.43 281 eP    19 41.00  -1.4
                 e      23 54.00
ERE     20.90 277 eP    19 43.00  -4.4X
GTA     21.23  85 P     19 50.00  -0.8
        1.0s    28.00nm           4.6mb
     Z  16s      1.14um           4.4MszX
     E  12s      0.42um
                 pP     20 01.00  44kmX
                 sP     20 06.00
PYA     21.51 288 iP    19 53.00  -0.5
        1.0s   100.00nm           5.2mb
                 i      20 22.00 151kmX
                 eS     24 03.00
KIV     21.78 287 iPc   19 55.80  -0.5
        0.8s    21.00nm           4.6mb
     Z  16s      0.20um           3.6MszX
                 i      20 07.30  46kmX
                 e      20 20.50
MOY     22.47  52 ePd   20 04.60   1.8
        1.6s    65.00nm           4.9mb
ZAK     23.56  56 iPc   20 15.00   1.5
        1.2s    20.00nm           4.5mb
     Z  15s      0.29um           3.9MszX
HYB     24.22 165 eP    20 21.50   1.2
        0.8s    53.90nm           5.2mb
                 i      20 27.50  21km
                 eS     24 45.00
LZH     25.27  91 eP    20 31.00   0.6
        1.2s    41.00nm           5.0mb
     Z  16s      0.49um           4.1MszX
OBN     27.18 313 eP    21 07.00  19.4X
                 e      21 28.00  94kmX
CD2     27.45 102 Pd    20 51.60   1.2
        1.0s    26.00nm           4.9mb
GBA     27.76 169 P     20 52.00  -1.2
                 S      26 16.00
NRI     29.63  11 iPc   21 08.90  -0.7
        1.0s    15.00nm           4.7mb
                 e      21 22.00  51kmX
                 e      22 25.00
XAN     29.90  92 P     21 11.70  -0.7
        0.6s     8.00nm           4.7mb
                 pP     21 16.00  15km
TIY     31.20  83 eP    21 23.40  -0.5
     Z  18s      0.49um           4.2Msz
BOD     31.48  43 iPc   21 23.90  -2.1
        0.7s    19.00nm           5.1mb
GYA     32.02 106 iPd   21 31.60   0.3
        0.8s    11.00nm           4.8mb
                 PcP    24 20.60
VRI     32.90 294 eP    21 40.00   1.4
MLR     33.50 293 ePc   21 46.00   2.1
KAF     34.34 323 iP    21 50.30  -0.6
NUR     34.72 320 iP    21 54.10   0.0
        0.5s     4.70nm           4.7mb
YAK     39.85  38 iPc   22 36.00  -1.2
HFS     40.08 319 eP    22 38.90  -0.3
        0.4s    12.90nm           4.9mb
     Z  17s      0.23um           4.1MszX
                 LR     39 20.00
PRU     40.36 303 eP    22 43.00   1.4
                 e      22 49.90  23km
BRG     40.58 304 i(P)  22 44.80   1.4
VBY     40.85 296 eP    22 46.60   1.0
CLL     41.10 305 i(P)  22 55.20   7.6X
                 e      25 03.00
GEC2    41.11 301 P     22 49.20   1.3
        0.5s     6.01nm           4.6mb
                 e      22 55.50  21km
GEC2    41.11 301 e(P)  22 56.00   8.1X
        0.8s     6.40nm           4.4mb
KHC     41.13 302 eP    22 49.30   1.3
        1.0s     5.40nm           4.2mb
                 e      22 56.50  24km
TIK     41.25  24 iPc   22 48.00  -0.6
        1.0s    13.00nm           4.6mb
NB2     41.32 320 P     22 49.10  -0.3
        0.6s     5.30nm           4.4mb
CEY     41.35 296 iPc   22 50.70   0.9
                 i      22 55.50  16km
VOY     41.63 297 iP    22 52.70   0.5
                 i      22 59.00  21km
KBA     41.74 299 iPc   22 53.70   0.5
        0.4s     5.40nm           4.6mb
                 i      26 00.90
                 i      26 15.60
TRI     41.80 297 eP    22 54.20   0.8
                 e      23 00.70  22km
MOX     42.08 304 eP    22 57.00   1.3
                 e      23 03.00  20km
GRF     42.52 303 eP    23 01.20   1.8
        1.3s    24.00nm           4.8mb
                 e      23 07.90  22km
OSS     43.96 299 ePc   23 11.50   0.2
VDL     44.47 299 ePd   23 15.60   0.2
LLS     44.67 300 ePc   23 16.70  -0.3
TMA     44.97 299 ePc   23 18.80  -0.6
CDF     45.35 302 iPc   23 22.50   0.2
        0.8s     6.30nm           4.6mb
PCP     45.68 297 P     23 25.07   0.2
BSF     45.83 301 iPc   23 26.30   0.2
        1.0s    18.40nm           5.0mb
DIX     45.95 299 ePc   23 27.50   0.2
FIN     46.02 296 P     23 27.22  -0.3
HAU     46.06 302 iPc   23 28.10   0.2
        0.8s    10.75nm           4.9mb
ROB     46.22 296 P     23 30.38   1.2
EMS     46.27 299 ePc   23 29.90   0.2
LSD     46.32 298 P     23 30.29   0.1
IMI     46.33 296 P     23 30.56   0.5
RSP     46.35 298 P     23 29.51  -0.7
BHB     46.44 297 P     23 29.14  -1.8
ENR     46.54 297 P     23 30.15  -1.6
LPG     46.57 298 iPc   23 32.90   0.7
        0.7s     8.95nm           4.9mb
LPL     46.58 298 iPc   23 32.80   0.6
        0.5s    11.15nm           5.1mb
STV     46.60 297 P     23 30.88  -1.4
PZZ     46.67 297 P     23 31.80  -1.0
RRL     46.74 298 P     23 33.49   0.0
LOR     47.89 302 eP    23 41.70  -0.6
        0.7s     5.30nm           4.7mb
SSF     48.19 301 eP    23 44.00  -0.6
AVF     48.38 301 iPc   23 45.90  -0.1
        0.9s    18.20nm           5.1mb
MAF     49.08 301 iPc   23 51.80   0.3
        0.8s    13.70nm           5.0mb
TCF     49.29 301 iPc   23 53.20   0.1
        1.2s    14.90nm           4.9mb
CAF     49.88 299 iPc   23 58.00   0.4
        1.1s    11.00nm           4.8mb
LDF     49.98 304 eP    23 58.10  -0.2
        1.0s    12.80nm           4.9mb
RJF     50.10 300 eP    23 59.80   0.5
        0.9s    10.15nm           4.8mb
LPO     50.55 299 eP    24 02.80   0.1
        1.0s     9.60nm           4.7mb
DAG     50.63 343 eP    24 02.00  -0.9
        0.5s     7.04nm           4.9mb
MAT     50.65  72 eP    24 02.00  -1.6
MFF     50.70 302 eP    24 03.10  -0.7
        1.1s    11.50nm           4.7mb
LFF     50.74 300 eP    24 04.50   0.3
        0.9s    17.35nm           5.0mb
ILT     59.24  25 iPc   25 04.00  -1.6
        1.0s    10.00nm           4.9mb
BCAO    60.10 248 iPd   25 11.00  -1.2
        0.9s    13.00nm           5.1mb
                 ic     25 17.00  20km
RES     64.21 356 eP    25 39.00   0.1
IMA     67.53  18 iP    25 58.81  -1.7
        0.5s     5.49nm           5.0mb
TTA     69.47  21 eP    26 12.20  -0.2
FBA     69.87  17 eP    26 13.73  -0.9
        0.7s     6.64nm           4.9mb
PWA     72.15  20 ePc   26 27.60  -0.9
PMR     72.39  19 eP    26 28.53  -1.4
        0.7s     7.65nm           4.9mb
PMS     72.58  20 ePc   26 29.90  -1.2
KLU     73.25  18 eP    26 34.66  -0.4
BALM    74.46  17 eP    26 41.95  -0.2
KIC     75.89 266 P     26 50.60  -0.3
TIC     75.92 267 P     26 50.70  -0.4
LIC     76.19 266 P     26 52.20  -0.4
YKA     76.65   3 eP    26 54.00  -0.4
        0.7s    15.30nm           5.2mb
FCC     79.87 353 eP    27 15.50   3.5X
JAO     81.52 341 eP    27 20.50  -0.4
WRA     83.75 123 P     27 33.20   0.3
        0.5s     0.30nm           3.8mb X
WB2     83.76 123 eP    27 32.20  -0.7
        0.5s     4.40nm           4.9mb
                 i      27 38.60  20km
LMN     85.27 331 eP    27 44.00   3.8X
ASPA    86.22 126 P     27 45.20   0.0
RSNY    89.64 337 P     28 10.00   8.6X
     Z  19s      0.07um           4.1Msz
NEW     90.68   6 eP    28 06.90   0.7
        0.7s     5.60nm           5.0mb
LCCM    93.41   3 eP    28 19.70   0.7
RSSD    95.13 357 eP    28 26.64  -0.3
        0.7s     2.58nm           4.8mb
     Z  20s      0.07um           4.2Msz
SSK    104.56   8 (Pdiff29 11.60   2.3
ZOBO   137.74 294 PKP   34 29.00  -0.6
LPB    137.89 294 (PKP) 34 37.00   7.4X
CNCB   138.00 293 PKP   34 31.00   1.1
     S.D. = 1.0  on 108 of 118 obs.
```

```
• MAR 17, 1993 10h 21m 54.16± 0.44s
  35.357 N ± 5.7km   31.156 E ± 6.6km
  DEPTH = 33.0km (normal)
CYPRUS REGION                   (372)
   ML 4.4 (CSS).

PPCY     1.08 115 eP    22 15.00   2.0
                 eS     22 34.40
ELL      1.72 324 iPn   22 22.80   0.5
CSS      1.82 102 eP    22 24.30   0.5
                 eS     22 49.90
BCK      2.15 348 ePn   22 27.20  -1.2
FAM      2.36  98 eP    22 37.60   6.2X
                 eS     23 12.00
YER      2.92 308 iPn   22 42.00   2.6
ALT      3.78 348 iPn   22 52.20   0.6
ADAT     3.80  62 ePn   22 52.50   0.8
BHL      3.98 110 Pn    22 53.00  -1.5
                 Sn     23 34.00
ADI      4.07 123 eP    22 55.40  -0.2
ATZ      4.25 125 eP    22 58.40   0.2
                 eS     23 45.70
IZM      4.35 315 iPn   22 58.40  -1.3
```

ZNT 4.48 133 eP 23 01.60 0.0
eS 23 52.20
SHMJ 4.64 123 P 23 04.04 0.3
DST 4.69 335 ePn 23 07.30 2.8
JVI 4.89 133 eP 23 07.50 0.1
GPA 4.97 353 ePn 23 08.20 -0.3
SALJ 5.04 130 P 23 09.50 0.0
BNN 5.13 46 ePn 23 09.00 -1.8
GAZ 5.22 68 ePn 23 10.00 -1.9
MASJ 5.25 132 P 23 13.00 0.5
EYL 5.26 352 ePn 23 11.90 -0.7
KCT 5.36 336 ePn 23 19.00 5.0X
LISJ 5.47 137 P 23 13.03 -2.4
HLW 5.49 178 eP 23 15.50 -0.2
eS 24 19.50
MKT 5.53 142 eP 23 16.70 0.4
eS 24 18.30
HRT 5.58 348 ePn 23 24.30 7.3X
BNT 5.61 334 ePn 23 21.30 3.9X
ARTJ 5.65 122 P 23 18.91 0.8
QTRJ 5.73 134 P 23 11.62 -7.7X
DHLJ 5.76 141 P 23 19.60 0.1
SAGI 5.91 149 eP 23 22.60 0.8
eS 24 27.30
JRSJ 6.13 145 P 23 11.30 -13.6X
SHWJ 6.16 142 P 23 25.24 -0.2
KAS 6.35 18 eP 23 39.00 11.1X
AQBJ 6.50 149 P 23 10.04 -20.0X
RUWJ 6.67 113 P 23 18.14 -14.4X
HITJ 6.85 143 P 23 35.27 0.2
KVT 6.89 33 eP 23 38.00 2.5
DMK 6.98 339 iPn 23 33.00 -3.7X
MDRJ 7.09 145 P 23 37.97 -0.4
VAY 8.99 314 eP 24 02.40 -2.3
OHR 9.96 308 eP 24 19.50 1.3
SKO 10.06 314 eP 24 16.70 -2.7
SPC 15.98 333 e(P) 25 53.60 15.4X
ZST 16.53 325 eP 25 37.30 -7.6X
GEC2 18.63 322 P 26 12.60 1.5
0.9s 1.65nm 3.2mb
e 26 20.90
BRG 19.88 327 e(P) 26 11.00 -14.4X
GRF 20.43 321 eP 26 30.00 -1.1
CLL 20.61 326 e(P) 26 26.00 -6.9X
S.D. = 1.4 on 36 of 50 obs.

MAR 17, 1993 10h 23m 43.85± 0.71s
46.401 N ± 9.3km 13.094 E ± 8.9km
DEPTH = 5.0km (geophysicist)
AUSTRIA (546)
ML 2.6 (VIE). MD 2.4 (TRI).

VOY 0.67 123 ePg 23 55.80 -1.4
eSg 24 06.60
e 24 09.50
KBA 0.70 14 iPgc 23 57.80 -0.1
iSg 24 08.40
TRI 0.83 146 e(Pg) 24 00.40 -0.1
iSg 24 10.70
CEY 1.14 125 ePn 24 04.50 -1.2
i 24 06.80
eSn 24 22.00
i 24 25.00
SCE 1.15 304 iPgd 24 05.30 -0.6
WTTA 1.32 311 iPgc 24 08.80 -0.1
i 24 10.60
iSg 24 25.90
RIY 1.39 139 e(Pn) 24 10.10 0.2
iSn 24 29.60
OGA 1.50 289 ePg 24 12.00 0.4
VBY 1.75 120 iPnd 24 17.80 2.7
eSn 24 39.10
PTJ 2.05 103 eP 24 24.60 5.1X
S.D. = 1.4 on 9 of 10 obs.

? MAR 17, 1993 10h 33m 29.64± 6.65s
39.331 N ±46.5km 29.636 E ±24.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

DST 0.83 290 ePg 33 45.30 -0.4
eSg 33 56.00
YLV 1.25 351 ePn 33 52.40 -0.5
EYL 1.30 18 ePn 33 53.90 0.2
KCT 1.35 313 ePn 33 55.00 0.6
S.D. = 0.9 on 4 of 4 obs.

% MAR 17, 1993 11h 36m 47.83± 0.56s
27.901 S ± 4.9km 26.682 E ± 6.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

SEK 0.93 117 iPc 37 05.80 -0.4
S 37 17.60
BFS 1.00 5 eP 37 07.30 -0.1
S 37 18.60
PRY 1.20 36 eP 37 11.00 0.3
S 37 28.00
BLF 1.28 200 iPd 37 12.20 0.1
S 37 28.50
SWZ 1.40 300 eP 37 13.50 -0.7
S 37 32.50
KSR 2.04 5 eP 37 24.00 0.6
S 37 49.00
FRS 2.19 213 iPd 37 25.90 0.5
S 37 53.00
SLR 2.59 34 eP 37 31.00 -0.2
S.D. = 0.5 on 8 of 8 obs.

& MAR 17, 1993 11h 58m 47.81s
63.119 N 150.734 W
DEPTH = 132.1km
CENTRAL ALASKA (1)
<AEIC>.

TRF 0.39 31 iP 59 06.59 -0.4
eS 59 21.44
HUR 0.52 105 iP 59 06.95 -0.5
eS 59 22.04
RND 0.90 70 iP 59 09.92 -0.4
eS 59 27.24
MCK 1.02 52 iP 59 11.06 -0.3
eS 59 28.50
SKT 1.20 198 iP 59 12.70 -0.5
eS 59 31.52
eS 59 32.05
PWA 1.53 164 iP 59 16.56 -0.1
GHO 1.59 147 iP 59 17.24 -0.3
eS 59 39.83
NEA 1.64 26 iP 59 16.88 -1.1
eS 59 38.15
SUA 1.66 180 iP 59 18.70 0.3
eS 59 42.08
PLRM 1.71 153 eP 59 17.96 -0.8
eS 59 41.88
SML 1.73 139 iP 59 18.25 -0.8
S 59 42.30
PMS 1.96 163 eP 59 21.15 -0.7
eS 59 46.96
CRP 1.97 200 eP 59 22.10 -0.1
CPAM 1.98 200 eP 59 21.78 -0.5
S 59 49.13
CP2 1.99 201 eP 59 21.74 -0.7
CCB 2.01 39 iP 59 21.48 -0.9
BGL 2.02 203 eP 59 22.52 -0.1
CKN 2.02 200 eP 59 23.07 0.5
SPU 2.04 198 eP 59 21.94 -0.9
SCM 2.04 128 eP 59 21.88 -1.0
CKT 2.05 200 eP 59 22.78 -0.2
CKL 2.07 202 eP 59 22.99 -0.3
HDA 2.12 51 eP 59 23.25 -0.5
GLM 2.38 37 eP 59 26.40 -0.8
NKA 2.40 186 eP 59 29.09 1.8
PTE 2.40 160 eP 59 26.17 -1.1
PAX 2.40 91 iP 59 27.15 -0.3
SDG 2.46 102 eP 59 27.64 -0.4
SLKM 2.63 174 eP 59 29.50 -0.8
DFR 2.70 201 eP 59 30.65 -0.6
MPA 2.72 166 eP 59 30.29 -1.1
KLU 2.78 124 iP 59 30.91 -1.4
RDW 2.82 201 eP 59 29.22 -3.8
RS2 2.83 201 eP 59 28.67 -4.5
RSO 2.83 201 eP 59 28.70 -4.4
RS1 2.84 201 eP 59 29.05 -4.1
VLZ 2.87 132 eP 59 31.66 -1.7
DOT 3.05 77 iP 59 34.69 -1.1
SVW 3.06 231 eP 59 34.83 -1.1
SEW 3.09 168 eP 59 35.21 -1.0
HIN 3.39 142 eP 59 38.80 -1.5
CVA 3.50 135 eP 59 40.47 -1.2
CNPM 3.61 184 iP 59 42.35 -0.9
GLB 3.65 114 eP 59 42.65 -1.1
SGAM 3.71 133 eP 59 42.76 -1.8
PDB 3.73 208 eP 59 44.39 -0.4
RAGM 3.98 131 eP 59 46.69 -1.4
CRQM 4.30 120 eP 59 51.43 -1.2
TGL 4.42 119 eP 59 52.52 -1.7
BALM 4.46 114 P 59 53.24 -1.5
50 obs. associated

MAR 17, 1993 12h 13m 49.91± 0.72s
51.643 N ± 6.1km 16.007 E ± 5.5km
DEPTH = 10.0km (geophysicist)
3.9mb (1 obs.)
POLAND (548)
ML 4.4 (WAR), 4.3 (GRF), 4.1
(VIE), 3.9 (FUR).

BRG 1.51 240 iPn 14 18.00 1.0
iPg 14 19.60
iSg 14 39.40
BRNL 1.82 297 eP 14 27.00 5.6X
PRU 1.90 210 iPnd 14 23.30 0.7
0.4s 208.10nm
Pg 14 26.40
Sg 14 49.50
i 14 56.40
CLL 1.91 261 iPn 14 24.40 1.6
iPg 14 28.30
iSg 14 53.40
RAC 2.09 138 iPg 14 29.50 4.1X
iSn 14 50.20
iSg 14 54.50
VRAC 2.37 171 iPnc 14 30.00 0.6
i 14 30.70
e 14 36.10
eSg 15 03.30
HOF 2.93 245 iPnd 14 38.70 1.3
MOX 2.94 252 ePn 14 39.50 2.0
ePg 14 47.90
eSg 15 27.50
KHC 2.96 213 Pn 14 38.00 0.2
e 14 43.50
e 14 49.00
e 15 14.50
eSg 15 24.50
GEC2 3.17 209 Pn 14 41.40 0.6
Pg 14 49.50
Sg 15 30.80
WET 3.20 220 iPnc 14 41.30 0.0
VKA 3.39 176 iPnc 14 44.00 0.1
iPg 14 53.10
iSg 15 37.10
ZST 3.52 168 ePn 14 45.60 -0.2
0.7s 3.50nm
i 14 55.10
e(Sn) 15 31.70
i 15 41.90
Lg 15 46.00
GRF 3.62 239 iPnc 14 48.90 1.8
ePg 15 01.40
eSg 15 46.40
SPC 3.66 131 ePn 14 48.30 0.4
i 15 00.60
e(Sn) 15 38.80
i 15 45.40
Lg 15 50.50
SRO 4.11 158 e(Pn) 15 06.00 11.9X
e 15 22.40
i 16 15.80
PSZ 4.50 144 ePn 14 59.70 0.0
FUR 4.63 223 ePn 15 01.20 -0.4
KBA 4.89 202 iPnc 15 05.60 0.2
i 15 28.60
i 16 06.20
iSg 16 26.50
TNS 4.99 256 ePnd 15 07.10 0.5
iSb 16 30.00
iSg 16 41.30
WATA 5.19 216 iPnc 15 10.20 0.7
iSg 16 37.90
WTTA 5.23 215 iPnc 15 11.00 0.9
iSg 16 40.20
UZD 5.33 161 e(P) 15 35.00 23.6X
SQTA 5.42 217 iPnc 15 13.40 0.6
LJU 5.69 190 ePn 15 16.50 0.0
e(Sn) 16 30.50
PTJ 5.75 180 eP 15 16.90 -0.5
OGA 5.79 216 iPd 15 19.10 1.1

17d 12h

VOY 5.79 195 ePn 15 16.80 -1.1
e 15 35.70
i 15 42.40
eSn 16 32.20
e 16 49.00
CEY 6.00 191 eP 15 20.00 -0.9
eSn 16 43.50
VBY 6.16 185 iPnc 15 23.00 -0.2
CDF 6.49 244 Pn 15 27.90 0.1
Pg 15 54.90
Sg 17 18.40
BSF 7.08 241 Pn 15 34.50 -1.7
Sg 17 37.80
HAU 7.23 244 Pn 15 36.80 -1.4
Pg 16 07.20
Sg 17 43.80
HFS 8.61 352 eP 15 56.40 -1.0
0.4s 1.50nm 4.7mb X
LPL 8.68 229 Pn 15 57.50 -1.1
Pg 16 35.70
LPG 8.68 229 Pn 15 58.70 0.0
Pg 16 36.20
Sg 18 32.10
LOR 9.04 246 Pn 16 01.90 -1.5
Sg 18 40.90
SSF 9.36 246 Pn 16 05.70 -2.0
Sg 18 48.00
SMF 9.41 243 Pn 16 06.10 -2.3
Sg 18 51.20
AVF 9.60 245 Pn 16 07.50 -3.5X
Sg 18 55.50
SBF 9.68 220 Pn 16 10.80 -1.5
YKA 59.71 336 eP 23 57.50 1.1
0.9s 1.00nm 3.9mb
S.D. = 1.1 on 37 of 42 obs.

& MAR 17, 1993 12h 16m 16.48s
62.610 N 151.224 W
DEPTH = 89.9km
CENTRAL ALASKA (1)
<AEIC>.

SKT 0.65 193 iPc 16 32.68 -0.1
eS 16 44.90
eS 16 44.98
HUR 0.82 62 iPd 16 34.16 -0.3
eS 16 47.39
TRF 0.95 26 iPd 16 35.67 -0.4
eS 16 50.68
PWA 1.15 146 P 16 38.20 0.0
S 16 57.00
SUA 1.17 169 iPc 16 38.46 -0.2
eS 16 56.29
RND 1.35 52 iPd 16 40.28 -0.5
eS 16 59.74
GHO 1.37 127 ePd 16 41.26 0.2
eS 17 01.22
CRP 1.42 199 iPc 16 41.10 -0.6
PLRM 1.42 135 eP 16 41.44 -0.1
PMR 1.42 135 eP 16 41.34 -0.2
CPAM 1.43 198 iPc 16 41.57 -0.2
CP2 1.43 200 iPc 16 41.75 -0.2
BGL 1.46 203 eP 16 42.46 0.2
CKN 1.46 198 eP 16 42.33 0.1
SPU 1.49 196 eP 16 42.01 -0.5
CKT 1.49 199 eP 16 42.23 -0.3
CKL 1.51 201 eP 16 42.86 -0.1
MCK 1.53 42 ePd 16 42.65 -0.4
SML 1.58 119 ePd 16 43.51 -0.1
eS 17 06.32
PMS 1.58 149 P 16 43.70 0.0
NKA 1.87 180 iPc 16 49.82 2.3
SCM 1.98 111 iPc 16 48.40 -0.7
PTE 2.04 148 iPc 16 49.03 -0.7
RDT 2.12 196 eP 16 50.82 -0.1
DFR 2.14 200 eP 16 51.14 -0.1
SLKM 2.16 167 eP 16 52.28 0.8
NCT 2.21 202 eP 16 52.58 0.4
TTA 2.23 280 eP 16 51.13 -1.2
RDW 2.27 200 eP 16 53.18 0.2
RS2 2.28 199 P 16 54.20 1.1
RSO 2.28 199 P 16 54.50 1.4
MPA 2.31 156 eP 16 53.38 0.0
CCB 2.55 35 ePd 16 55.41 -1.2
SVW 2.57 236 eP 16 55.45 -1.6
HDA 2.63 45 eP 16 56.55 -1.2
SDG 2.63 89 eP 16 58.67 0.9
SEW 2.66 160 eP 16 59.68 1.6
PAX 2.67 80 eP 16 58.60 0.2
INE 2.71 200 eP 16 59.20 0.2
MDM 2.71 28 eP 16 58.01 -0.8
INW 2.71 201 eP 16 59.40 0.4
KLU 2.74 112 iPc 16 57.77 -1.5
VLZ 2.75 120 eP 16 58.03 -1.3
FBA 2.76 32 iPd 16 58.32 -1.2
TZL 2.77 99 eP 17 01.29 1.7
GLM 2.93 34 ePd 17 00.81 -1.1
CNPM 3.10 180 eP 17 04.74 0.6
OPT 3.12 199 eP 17 05.50 1.0
HIN 3.17 132 eP 17 03.33 -1.9
PDB 3.18 208 iPd 17 05.22 0.0
CVA 3.34 126 P 17 06.10 -1.3
DOT 3.42 69 eP 17 09.42 0.8
IMA 3.63 344 P 17 11.60 -0.1
GLB 3.68 105 eP 17 10.91 -1.4
RAGM 3.85 122 eP 17 14.34 -0.3
SYI 4.05 189 eP 17 18.19 0.8
TGL 4.41 111 eP 17 20.07 -2.4
BALM 4.50 107 eP 17 21.13 -2.5
FYU 4.74 30 P 17 26.70 -0.1
CTGM 4.98 105 eP 17 29.33 -1.0
YAH 5.07 112 eP 17 29.57 -2.1
61 obs. associated

? MAR 17, 1993 12h 26m 24.48± 7.78s
44.281 N ±16.4km 7.870 E ±87.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (LDG).

SBF 0.52 217 Pg 26 34.20 -0.9
Sg 26 43.10
FRF 1.14 231 Pg 26 45.70 -0.1
Sg 27 00.80
LMR 1.37 227 Pg 26 50.10 0.6
Sg 27 07.40
LRG 1.37 233 Pg 26 50.20 0.6
Sg 27 06.50
LPG 1.45 327 Pg 26 50.70 -0.3
LPL 1.48 327 Pg 26 51.40 0.1
S.D. = 0.7 on 6 of 6 obs.

? MAR 17, 1993 12h 56m 34.18± 3.18s
31.087 S ±49.6km 69.240 W ±28.9km
DEPTH = 120.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.55 137 eP 56 52.50 -0.3
(S) 57 05.00
ZON 0.66 134 iPd 56 54.20 0.6
eS 57 06.20
RTLL 0.70 110 iPc 56 53.70 -0.2
S 57 06.00
RTCV 0.98 142 ePd 56 56.10 -0.2
S 57 10.20
CFA 1.00 121 ePd 56 56.70 0.1
S 57 11.20
MRA 3.29 115 ePc 57 24.90 0.0
S 57 54.70
S.D. = 0.4 on 6 of 6 obs.

? MAR 17, 1993 13h 23m 30.11± 3.92s
42.461 N ±34.6km 24.014 E ± 9.6km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS 1.38 193 ePb 23 54.78 -0.6
eSb 24 15.90
KNT 1.54 213 ePb 23 57.50 -0.2
eSb 24 20.10
VAY 1.57 224 iPg 23 58.40 0.4
SOH 1.71 197 ePb 24 00.02 -0.1
iSb 24 25.02
GRG 1.93 219 ePn 24 03.18 -0.1
DUR 2.12 181 ePn 24 06.70 0.6
eSn 24 36.62
ALN 2.18 135 ePn 24 06.82 -0.1
PAIG 2.54 186 ePn 24 12.22 0.2
S.D. = 0.4 on 8 of 8 obs.

? MAR 17, 1993 13h 23m 43.12± 1.45s
32.570 S ± 7.0km 71.608 W ±11.4km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.0 (SAN).

ROCH 0.64 129 iP 23 56.37 0.2
iS 24 09.47
JACH 0.86 98 iP 23 59.08 -0.7
iS 24 13.22
LCCH 0.90 178 iP 23 59.91 -0.5
iS 24 15.82
PEL 0.96 127 iP 24 01.87 0.4
iS 24 18.00
TACH 1.22 153 iP 24 05.94 0.1
FCH 1.34 125 iP 24 07.60 -0.5
iS 24 29.02
LNV 1.39 173 iP 24 08.31 -0.2
iS 24 31.11
PCH 1.39 139 iP 24 08.88 0.2
CHCH 1.58 150 iP 24 11.96 0.7
iS 24 36.82
RTCB 2.62 66 eP 24 26.50 0.2
S 25 11.30
RTLL 2.94 66 eP 24 30.70 -0.1
S 25 15.50
CFA 3.02 72 eP 24 32.00 0.2
S.D. = 0.5 on 12 of 12 obs.

----

* MAR 17, 1993 13h 37m 10.28± 0.75s
23.437 N ± 7.8km 95.833 E ±11.7km
DEPTH = 33.0km (normal)
4.1mb (6 obs.)
MYANMAR (296)

CHTO 5.44 147 ePnc 38 32.80 1.6
iPg 38 54.00
iSg 40 11.40
KMI 6.52 74 ePg 39 09.50 22.8X
Z 11s 1.30um
BDT 6.84 154 eP 38 50.00 -0.9
e 39 17.00
LSA 7.51 327 P 39 00.70 -0.1
LOE 8.16 136 eP 39 13.00 3.6X
NST 8.72 152 eP 39 16.00 -1.1
e 41 57.50
KHT 8.99 163 eP 39 31.00 10.1X
CD2 10.25 42 eP 39 39.40 1.1
XAN 15.58 44 P 40 51.00 1.8
1.0s 8.00nm 3.9mb
Z 16s 0.60um 5.1Msz
pP 40 53.10
GTA 16.28 11 eP 40 59.00 0.8
Z 10s 0.45um
HYB 17.26 253 eP 41 16.50 6.0X
GBA 19.98 244 P 41 41.90 -0.9
TIY 20.12 41 Pc 41 41.80 -2.5
BTO 20.87 32 eP 41 49.50 -2.5
WMQ 21.41 344 P 41 57.00 -0.5
1.5s 16.00nm 4.2mb
sP 42 09.00
HHC 21.82 34 P 42 00.80 -0.9
0.8s 14.00nm 4.4mb
KSH 23.20 318 P 42 17.20 1.9
BJI 23.85 41 eP 42 21.50 0.1
WRA 57.18 136 P 46 59.80 3.2X
0.8s 1.10nm 3.9mb
WB2 57.18 136 eP 46 58.60 1.9
1.1s 2.40nm 4.1mb
STK 70.29 140 eP 48 26.60 4.1X
1.0s 1.20nm 3.9mb
S.D. = 1.6 on 15 of 21 obs.

& MAR 17, 1993 14h 21m 10.60s
45.550 N 111.681 W
DEPTH = 6.2km
MONTANA (456)
<BUT-P>. ML 3.6 (BUT), 3.5 (GS). Felt (V) at Norris and (III) at Pony. Also felt at Bear Trap Hot Springs.

LCCM 0.32 334 iPc 21 16.90 -0.2
BGMT 0.41 219 iPc 21 18.43 -0.4
MEMT 0.50 84 iPc 21 19.79 -0.9
LRM 0.60 297 iPc 21 22.04 -0.7
SXM 0.68 29 iPc 21 23.61 -0.7
HBMT 0.69 291 iP 21 23.87 -0.7
BUT 0.77 307 ePc 21 25.20 -0.9
TPMT 0.82 179 iPc 21 25.97 -1.1
LTMT 1.07 197 eP 21 30.54 -0.7

MCMT 1.10 229 iPc 21 30.92 -0.8
HRY 1.17 355 iPc 21 32.16 -0.7
HHAI 2.31 193 (P) 21 51.42 1.5
eS 22 22.81
NCM 2.58 310 ePnd 21 53.50 -0.1
BW06 3.17 150 ePn 22 03.79 1.7
HVU 3.85 192 (P) 22 16.91 5.1
eS 23 10.70
NEW 4.61 308 eP 22 20.67 -1.8
LNOR 4.64 276 P 22 22.78 -0.1
SES 4.87 5 P 22 24.00 -2.1
0.7s 14.00nm
DPW 5.05 300 P 22 26.54 -2.2
DAU 5.14 176 (Pn) 22 31.27 1.0
DUG 5.42 189 (Pn) 22 35.61 1.6
MJ2 5.44 283 P 22 32.63 -1.6
GBL 5.51 284 P 22 33.59 -1.6
LOCW 5.51 285 P 22 33.67 -1.5
RSW 5.58 281 P 22 34.58 -1.6
RSSD 5.62 102 ePn 22 36.49 -0.5
eSg 24 04.16
PRW 5.63 280 P 22 35.50 -1.4
MDW 5.72 284 P 22 36.41 -1.7
JBO 5.73 272 P 22 36.57 -1.8
SAW 5.74 295 P 22 36.37 -2.0
EPH 5.76 291 P 22 36.34 -2.3
BVW 5.83 285 P 22 38.01 -1.7
BRVW 5.86 282 P 22 38.62 -1.5
DHW2 6.07 297 P 22 40.21 -2.8
MXC 6.08 283 P 22 41.65 -1.5
WTV 6.09 294 P 22 40.40 -3.0
YAKW 6.24 282 P 22 44.53 -0.9
ETW 6.31 292 P 22 43.74 -2.8
EBG 6.31 286 P 22 45.12 -1.4
TBM 6.38 288 P 22 45.92 -1.6
GLZ 6.41 277 P 22 46.29 -1.6
NAC 6.46 284 P 22 47.28 -1.4
SRU 6.49 172 ePn 22 50.89 1.7
ePg 23 08.98
MSU 7.04 183 ePg 23 20.75 23.8
FMW 7.07 285 P 22 54.88 -2.3
LON 7.14 283 P 22 56.45 -1.7
YKA 17.06 355 eP 25 05.20 -5.8
0.6s 0.50nm 2.8mb
47 obs. associated

& MAR 17, 1993 14h 27m 47.80s
45.552 N 111.692 W
DEPTH = 6.2km
MONTANA (456)
<BUT-P>. ML 2.3 (BUT). Felt at Norris.

LCCM 0.31 336 iPc 27 54.13 -0.1
BGMT 0.40 218 iPc 27 55.56 -0.4
MEMT 0.51 84 iPg 27 57.16 -0.9
LRM 0.60 297 eP 27 59.26 -0.5
HBMT 0.69 291 ePc 28 01.11 -0.5
SXM 0.69 29 iPc 28 00.82 -0.8
BUT 0.76 307 e(P) 28 05.30 2.1
eS 28 12.60
TPMT 0.82 179 eP 28 03.29 -1.0
MCMT 1.09 229 eP 28 08.05 -0.8
HRY 1.16 355 eP 28 09.28 -0.7
10 obs. associated

? MAR 17, 1993 14h 30m 22.35± 7.33s
40.917 N ±30.9km 30.640 E ±41.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

EYL 0.51 226 ePg 30 32.60 -0.1
eSg 30 38.80
GPA 0.68 202 ePg 30 35.80 0.0
HRT 0.74 263 ePg 30 36.80 -0.2
YLV 1.02 250 ePg 30 42.00 0.2
S.D. = 0.3 on 4 of 4 obs.

MAR 17, 1993 14h 34m 00.70± 0.30s
44.368 N ± 2.4km 7.296 E ± 3.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN), 2.0 (LDG).

STV 0.13 171 P 34 04.26 0.4
S 34 06.26
ENR 0.17 148 P 34 04.79 0.2
S 34 07.35
PZZ 0.20 315 P 34 05.66 0.6
S 34 08.77
ROB 0.42 100 P 34 09.55 0.3
S 34 15.41
BHB 0.47 357 P 34 10.07 -0.3
S 34 16.24
SBF 0.51 169 Pg 34 11.10 0.0
Sg 34 17.20
IMI 0.63 137 P 34 12.89 -0.5
S 34 21.13
RRL 0.66 327 P 34 13.95 -0.1
S 34 22.97
FIN 0.67 103 P 34 13.67 -0.4
S 34 22.60
RSP 0.78 358 P 34 16.44 0.4
S 34 26.73
PCP 0.91 79 P 34 18.52 0.3
S 34 30.87
FRF 0.93 210 Pg 34 18.20 -0.3
Sg 34 29.70
LRG 1.14 217 Pg 34 22.30 0.4
Sg 34 37.10
LMR 1.18 209 Pg 34 22.40 -0.3
Sg 34 38.30
LPG 1.19 341 Pg 34 22.80 -0.4
LPL 1.22 341 Pg 34 23.20 -0.3
S.D. = 0.4 on 16 of 16 obs.

& MAR 17, 1993 14h 45m 32.30s
45.557 N 111.670 W
DEPTH = 10.2km
MONTANA (456)
<BUT-P>. MD 1.7 (BUT). Felt at Norris.

LCCM 0.32 333 ePc 45 38.67 -0.3
BGMT 0.42 219 iPc 45 40.18 -0.7
MEMT 0.49 84 ePc 45 41.72 -0.7
LRM 0.61 296 ePc 45 43.77 -1.0
HBMT 0.70 290 ePc 45 45.60 -0.7
TPMT 0.83 180 eP 45 48.01 -0.5
HRY 1.16 355 eP 45 53.29 -0.8
7 obs. associated

& MAR 17, 1993 14h 48m 22.00s
45.552 N 111.680 W
DEPTH = 6.5km
MONTANA (456)
<BUT-P>. MD 1.9 (BUT). Felt at Norris.

LCCM 0.32 334 iPd 48 28.29 -0.2
BGMT 0.41 219 iPc 48 29.18 -1.1
MEMT 0.50 84 iPc 48 31.34 -0.8
LRM 0.60 297 eP 48 33.37 -0.8
HBMT 0.69 291 ePd 48 36.28 0.3
TPMT 0.82 179 ePd 48 37.67 -0.8
6 obs. associated

MAR 17, 1993 14h 48m 34.51± 1.01s
2.592 N ± 6.5km 127.712 E ±10.3km
DEPTH = 102.3 ± 11.8 km
4.9mb (7 obs.)
NORTHERN MOLUCCA SEA (266)

SWI 4.94 134 iPc 49 48.00 0.4
iS 50 41.00
CGP 6.55 333 iPc 50 09.00 -1.0
iS 51 28.50
MAP 8.53 334 eP 50 26.00 -11.0X
PLP 8.94 342 ePc 50 41.70 -0.8
TSM 9.97 280 ePd 50 58.50 2.1
MTN 15.71 168 eP 52 11.00 -0.3
KHKI 16.25 228 ePc 52 23.20 5.1X
e 54 28.50
WB2 23.33 164 iPd 53 34.60 0.2
0.4s 37.90nm 5.1mb
eS 57 39.30
MBL 24.83 198 eP 53 49.00 0.1
ASPA 26.79 167 eP 54 06.80 -0.1
0.2s 6.80nm 4.8mb
WARB 28.62 182 eP 54 23.00 -0.4
0.4s 3.00nm 4.3mb
CTA 28.97 142 eP 54 28.00 1.4
MRWA 33.56 199 eP 55 06.00 -0.8
COOL 33.87 190 eP 55 08.00 -1.4
BAL 34.64 197 eP 55 15.00 -1.0
KLB 35.29 195 eP 55 20.60 -0.9
MUN 36.07 197 eP 55 27.70 -0.4
NWAO 36.69 195 eP 55 34.00 0.8
STK 36.73 160 eP 55 32.50 -1.1
0.9s 16.50nm 5.0mb
BJI 38.72 346 eP 55 50.00 -0.1
LZH 39.97 329 eP 56 05.00 4.2X
1.4s 26.00nm 4.9mb
BFD 41.90 162 eP 56 18.40 2.0
GBA 50.86 285 P 57 27.80 0.6
YAK 59.30 1 iPd 58 27.00 -0.5
0.8s 21.00nm 5.3mb
IMA 83.02 24 ePc 00 50.75 1.1
0.8s 1.86nm 4.1mb
S.D. = 1.1 on 22 of 25 obs.

MAR 17, 1993 15h 23m 06.67± 0.28s
42.816 N ± 3.6km 17.885 E ± 2.9km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)
MD 4.1 (TRI), 3.6 (TTG), ML 3.9 (VIE), 3.7 (ROM), 3.6 (TIR).

BRY 0.49 80 iPgd 23 14.91 -1.8
iSg 23 22.25
HCY 0.58 129 iPgd 23 17.10 -1.4
iSg 23 26.32
NKY 0.82 90 iPgd 23 20.55 -2.1
iSg 23 33.39
BDV 0.88 127 iPgd 23 22.21 -1.3
iSg 23 36.31
TTG 1.09 110 iPgd 23 25.65 -1.4
iSg 23 43.14
HVAR 1.11 289 iPn 23 25.90 -1.7
iSg 23 43.70
PLE 1.22 65 iPgd 23 27.65 -1.8
iSg 23 46.02
ULC 1.32 130 iPgd 23 30.34 -0.8
iSg 23 51.26
SDA 1.42 122 ePn 23 34.50 2.0
iSn 23 56.00
IVA 1.48 87 iPgc 23 32.90 -0.5
iSg 23 55.16
PVY 1.56 97 iPgc 23 34.09 -0.4
iSg 23 57.41
LACI 1.80 130 iPnd 23 39.20 1.3
iSn 24 04.50
BRT 2.00 195 P 23 40.34 -0.6
TIR 2.08 134 ePn 23 43.00 1.0
iSn 24 13.20
VLO 2.64 152 ePn 24 04.20 14.2X
OHR 2.76 127 iPn 23 53.10 1.3
1.0s 194.00nm
i 23 59.30
i 24 28.50
iSg 24 36.60
i 24 42.50
Lg 24 46.20
SKO 2.76 107 ePn 23 53.10 1.3
0.8s 147.00nm
i 23 56.70
i 23 59.80
iSg 24 34.80
Lg 24 42.00
DUI 2.79 247 P 23 54.36 2.0
SGO 2.97 221 P 23 53.90 -0.7
TPE 2.98 147 ePn 24 02.50 7.6X
MGR 3.20 214 P 23 57.29 -0.6
SDI 3.22 251 P 23 58.83 0.5
RFI 3.28 244 P 23 59.84 0.8
VBY 3.29 326 iPn 24 01.00 1.8
ZAG 3.30 336 e(Pn) 24 01.00 1.7
iSn 24 41.00
FNA 3.31 127 ePn 24 02.52 2.9X
eSn 24 33.28
SRN 3.34 151 ePn 24 08.60 8.7X
AQU 3.34 264 P 24 01.73 1.7
LSK 3.36 142 ePn 24 09.60 9.3X
PTJ 3.38 337 ePn 24 01.30 0.7
i(Sn) 24 40.90
KEK 3.42 154 ePb 24 03.00 1.9
SSR 3.46 52 ePd 24 01.00 -0.7
RIY 3.57 316 ePn 24 03.40 0.2
ARV 3.68 282 P 24 04.67 -0.2

17d 15h

IGT 3.77 150 ePn 24 05.88 -0.2
iSn 24 40.72
UZD 3.81 7 ePn 24 05.60 -1.0
CEY 3.83 321 ePn 24 07.60 0.6
e 24 20.00
eSn 24 56.50
ASS 3.84 276 P 24 07.32 0.1
KZN 3.85 129 ePb 24 10.00 2.8X
MNS 3.87 265 P 24 07.26 -0.2
VTS 3.93 91 iPc 24 10.00 1.5
LJU 4.02 325 ePn 24 11.40 1.8
ePb 24 22.50
eSn 25 03.50
TRI 4.14 316 ePn 24 10.40 -0.8
ePg 24 23.10
ePgPg 24 26.00
eSn 24 56.70
iSg 25 19.40
VOY 4.30 320 ePn 24 13.60 -0.1
e 24 26.80
eSn 25 06.10
LIT 4.40 127 ePn 24 15.80 0.8
CRE 4.41 283 P 24 16.40 1.1
MMB 4.51 104 iP 24 20.00 3.4X
SFI 4.53 286 P 24 18.35 1.5
SOH 4.55 114 ePn 24 19.32 2.2
SRS 4.58 110 ePn 24 20.84 3.2X
eSn 25 06.76
PGD 4.62 285 P 24 19.10 0.8
PGB 4.64 91 eP 24 18.00 -0.5
RBL 4.76 321 P 24 20.57 0.4
SOI 4.94 197 P 24 22.86 0.2
ATN 5.00 202 P 24 22.29 -1.3
SRO 5.01 3 ePn 24 25.70 2.2
i(Sn) 25 23.90
AGG 5.07 137 ePn 24 24.40 -0.1
eSn 25 12.68
VLS 5.07 155 ePn 24 23.00 -1.5
FVI 5.24 318 P 24 28.30 1.4
PSZ 5.30 15 ePn 24 26.10 -1.7
KBA 5.34 324 iPnc 24 27.70 -0.8
iPg 24 51.20
iSn 25 30.70
i 25 48.00
ZST 5.41 354 e(Pn) 24 28.50 -0.8
e 25 29.90
PVL 5.48 83 iPc 24 29.00 -1.2
CTI 5.51 308 P 24 29.59 -1.3
WTTA 6.27 317 iPnd 24 42.40 0.7
iSn 25 55.30
OGA 6.34 312 eP 24 42.80 0.2
MLR 6.38 62 eP 24 45.50 2.3
BOB 6.41 291 P 24 43.72 0.2
GEC2 6.70 336 Pn 24 47.10 -0.5
Sn 26 02.10
KHC 6.99 336 ePn 24 54.00 2.4
e 25 29.00
eSg 26 17.00
e 26 33.60
VRI 7.03 61 eP 24 55.00 2.8X
VAI 7.21 298 P 24 54.27 -0.3
PRU 7.54 343 ePn 25 06.50 7.3X
eSg 26 35.50
LPG 8.44 292 Pn 25 09.80 -2.4
LPL 8.46 292 Pn 25 10.30 -2.1
BSF 9.28 307 Pn 25 21.70 -1.9
Sn 27 04.20
CDF 9.30 311 Pn 25 21.40 -2.4
HAU 9.63 307 Pn 25 26.70 -1.6
LBF 10.71 298 Pn 25 39.80 -3.3X
Sn 27 36.30
LOR 10.87 299 Pn 25 42.50 -2.9X
Sn 27 39.50
SSF 11.04 298 Pn 25 45.00 -2.6
OBN 17.31 38 eP 27 12.00 2.3
S.D. = 1.4 on 70 of 82 obs.

---

* MAR 17, 1993 16h 48m 26.16± 0.80s
18.007 S ±11.2km 169.148 E ±12.1km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
VANUATU ISLANDS (186)

PVC 0.84 288 iPc 48 41.00 -0.5
iS 48 52.70
BKM 0.92 291 iP 48 42.00 -0.8
DZM 4.78 212 iPc 49 38.30 0.6
iS 50 32.90
HNR 12.35 312 eP 51 25.00 2.4
QLP 24.55 245 eP 53 45.50 1.3
CMS 25.00 233 eP 53 48.50 -0.1
STK 28.45 236 eP 54 19.90 -0.3
0.5s 2.70nm 4.2mb
WB2 32.93 261 eP 54 58.70 -1.2
0.7s 2.00nm 4.1mb
ASPA 33.36 254 iPd 55 03.10 -0.6
0.5s 8.00nm 4.9mb
YAK 85.65 343 eP 01 00.00 -2.4
0.9s 26.00nm 5.4mb
LJU 145.01 329 e(PKP)08 01.00 -0.7
VBY 145.02 327 e(PKP)08 01.50 -0.2
CEY 145.28 328 ePKP 08 02.00 -0.2
VOY 145.34 329 e(PKP)08 03.60 1.2
CDF 146.27 338 ePKP 08 04.50 0.6
0.9s 6.40nm
BSF 146.94 338 ePKP 08 06.10 1.1
1.0s 6.20nm
BCAO 148.25 248 iPKPc 08 19.00 11.0X
0.5s 8.00nm
SSF 148.71 341 ePKP 08 11.20 3.5X
0.7s 5.50nm
LPF 149.00 347 ePKP 08 17.00 8.9X
1.0s 12.40nm
MAF 149.75 341 ePKP 08 13.80 4.5X
1.3s 11.90nm
TCF 149.79 342 ePKP 08 14.10 4.7X
0.8s 4.45nm
SBF 149.97 333 ePKP 08 14.10 4.3X
0.8s 9.65nm
PGF 150.28 330 ePKP 08 15.20 4.8X
1.0s 17.80nm
FRF 150.55 334 ePKP 08 15.40 4.8X
1.2s 11.60nm
LMR 150.79 334 ePKP 08 16.10 5.1X
0.9s 6.20nm
S.D. = 1.2 on 16 of 25 obs.

& MAR 17, 1993 16h 59m 48.06s
61.664 N 146.445 W
DEPTH = 28.4km
3.0mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>. ML 3.1 (AEIC), 3.0
(PMR).

KLU 0.30 124 iPd 59 55.18 -0.4
eS 00 00.80
SCM 0.45 292 iPc 59 57.12 -0.6
VLZ 0.54 174 iPd 59 57.52 -1.4
eS 00 06.53
TZL 0.62 51 iPd 59 59.63 -0.7
SML 0.91 280 iPc 00 03.32 -1.6
eS 00 16.03
SDG 0.96 26 iPc 00 04.34 -1.3
eS 00 16.89
CVA 1.17 163 iPc 00 07.40 -1.2
eS 00 24.12
GHO 1.19 276 ePc 00 07.39 -1.5
eS 00 24.52
HIN 1.27 181 iPc 00 09.06 -1.0
eS 00 26.54
GL8 1.28 99 iPd 00 08.39 -1.8
eS 00 25.00
eS 00 25.16
PLRM 1.28 268 ePd 00 09.27 -0.9
eS 00 26.63
PMR 1.28 268 ePc 00 09.17 -1.0
S 00 26.43
SGAM 1.31 152 iPc 00 09.16 -1.4
eS 00 27.80
PAX 1.39 19 iPc 00 10.41 -1.4
PTE 1.48 238 iPd 00 12.36 -0.6
eS 00 31.96
RAGM 1.54 145 iPc 00 12.66 -1.3
PMS 1.55 256 P 00 13.80 -0.3
PWA 1.64 271 P 00 14.60 -0.7
THY 1.79 10 eP 00 17.27 -0.3
CRQM 1.84 118 eP 00 17.47 -1.0
MPA 1.84 232 eP 00 18.11 -0.1
eS 00 41.52
TGL 1.97 116 ePc 00 18.49 -1.8
HUR 1.99 313 eP 00 19.88 -0.5
KAIM 2.01 149 ePc 00 19.06 -1.6
SUA 2.07 266 eP 00 20.53 -1.1
BALM 2.07 106 iPc 00 19.94 -1.8
eS 00 46.03
RND 2.07 329 eP 00 21.50 -0.2
SEW 2.15 224 eP 00 21.81 -0.8
eS 00 49.84
SLKM 2.17 239 eP 00 21.77 -1.2
MID 2.24 179 P 00 23.30 -0.7
DOT 2.28 28 eP 00 25.06 0.6
SNH 2.31 129 eP 00 22.93 -2.0
MCK 2.37 332 eP 00 26.10 0.2
SKT 2.43 280 iPd 00 25.79 -1.0
NKA 2.50 250 eP 00 29.77 2.2
CYK 2.50 128 eP 00 28.86 1.2
TRF 2.53 317 eP 00 27.73 -0.5
CTGM 2.56 104 ePc 00 27.07 -1.7
YAH 2.63 118 eP 00 27.44 -2.4
SPU 2.74 262 eP 00 29.28 -1.8
HDA 2.76 355 eP 00 30.86 -0.5
CPAM 2.77 264 eP 00 29.75 -1.7
CRP 2.77 264 eP 00 30.26 -1.3
CKN 2.79 263 eP 00 31.04 -0.7
CKT 2.81 263 eP 00 30.61 -1.4
CP2 2.81 264 eP 00 31.56 -0.7
CKL 2.87 263 eP 00 31.06 -1.9
BGL 2.88 265 eP 00 31.40 -1.7
CCB 3.06 349 eP 00 34.06 -1.5
NEA 3.16 339 eP 00 35.73 -1.3
CNPM 3.19 230 eP 00 35.68 -1.8
DFR 3.21 253 eP 00 36.24 -1.6
RSO 3.30 251 eP 00 37.21 -1.9
RS2 3.30 251 eP 00 37.77 -1.4
RS1 3.30 251 eP 00 37.26 -1.9
FBA 3.31 350 eP 00 38.96 -0.1
RDW 3.31 252 eP 00 38.52 -0.8
NCT 3.34 253 eP 00 37.86 -1.7
GLM 3.36 353 eP 00 39.78 -0.2
MDM 3.40 347 eP 00 40.98 0.5
INE 3.61 246 eP 00 41.02 -2.6
INW 3.64 247 eP 00 41.58 -2.4
SVW 4.45 267 eP 00 51.76 -3.6
TTA 4.64 290 eP 00 54.56 -3.6
IMA 5.45 327 eP 01 06.42 -3.2
0.5s 1.71nm 3.9mb X
YKA 14.86 73 eP 03 13.40 -4.2
0.3s 0.20nm 3.0mb
66 obs. associated

? MAR 17, 1993 17h 07m 21.71± 3.76s
22.477 S ±32.4km 179.844 W ±30.2km
DEPTH = 614.1 ± 36.1 km
4.2mb (4 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM 12.70 269 iPd 10 07.40 0.1
URZ 15.95 189 eP 10 37.60 -0.9
NOZ 16.19 186 eP 10 41.60 0.8
MNG 18.51 191 eP 11 02.30 -0.3
CTA 31.64 268 iPc 12 58.00 -0.2
STK 35.41 246 iPc 13 31.60 2.2
0.6s 3.70nm 4.2mb
ASPA 42.43 259 iPc 14 26.20 0.1
0.4s 16.50nm 4.9mb
WRA 42.66 265 P 14 27.50 -0.5
0.5s 1.50nm 3.7mb
WARB 48.62 254 eP 15 13.00 -0.4
0.4s 4.00nm 4.3mb
MBL 55.68 259 iPc 16 02.50 -1.3
GEC2 151.57 341 PKP 26 02.10 0.4
0.7s 1.29nm
S.D. = 1.1 on 11 of 11 obs.

---

* MAR 17, 1993 17h 21m 00.96± 0.72s
30.109 N ±10.0km 132.338 E ±16.6km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
SOUTHEAST OF SHIKOKU, JAPAN (237)

MAT 8.08 36 iPd 22 57.90 -1.0
BJI 16.51 311 eP 24 50.50 -1.0
YAK 31.96 358 eP 27 27.80 2.1
WB2 49.80 178 eP 29 52.30 -0.4
0.6s 2.50nm 4.4mb
WRA 49.80 178 P 29 53.00 0.3
0.8s 1.10nm 3.9mb
ASPA 53.49 178 eP 30 20.20 -0.2
0.6s 4.00nm 4.6mb
FBA 58.91 29 (P) 31 02.50 3.7X

KAF 70.85 331 iP 32 15.50 -0.6
GEC2 84.24 324 P 33 31.20 0.7
0.7s 0.51nm 3.8mb
S.D. = 1.2 on 8 of 9 obs.

? MAR 17, 1993 17h 25m 02.35± 1.00s
19.712 N ±19.6km 38.974 E ±12.1km
DEPTH = 10.0km (geophysicist)
4.2mb (2 obs.)
RED SEA (554)
MD 3.8 (RYD).

ABHA 3.86 112 eP 26 03.00 -0.3
eS 26 44.00
KMTA 3.99 112 eP 26 05.30 0.2
eS 26 47.00
DHJN 4.74 115 eP 26 15.00 -0.9
MAIO 24.44 43 eP 30 29.00 6.5X
BCAO 25.05 235 iPd 30 28.90 0.5
1.1s 11.00nm 4.5mb
GEC2 35.46 331 P 31 59.60 -1.3
1.5s 3.06nm 4.0mb
KIC 44.46 259 P 33 13.00 -2.8X
LZH 58.62 59 eP 35 04.20 1.8
1.2s 23.00nm 5.1mb X
S.D. = 1.4 on 6 of 8 obs.

• MAR 17, 1993 17h 50m 33.51± 1.12s
7.769 S ± 9.6km 108.042 E ± 9.7km
DEPTH = 96.2 ± 10.2 km
4.9mb (10 obs.)
JAWA, INDONESIA (277)

LEM 1.03 336 iPd 50 55.00 0.6
e 51 12.00
KHKI 7.52 95 eP 52 22.00 -0.2
eS 53 44.10
e 56 45.70
TSM 15.48 40 ePc 54 15.30 7.5X
NANU 16.38 155 eP 54 12.00 -7.0X
eS 56 54.00
MBL 17.52 141 eP 54 28.00 -5.1X
0.3s 10.00nm 4.5mb
eS 57 24.00
MRWA 22.61 162 eP 55 27.00 0.0
eS 59 24.00
MTN 23.26 104 eP 55 34.00 0.7
0.4s 40.00nm 5.1mb
KHT 24.29 337 eP 55 43.00 -0.3
WARB 25.47 138 eP 55 54.00 -0.3
0.4s 4.00nm 4.2mb
eS 00 36.00
WB2 28.21 118 iPc 56 18.80 -0.6
0.4s 14.50nm 5.0mb
ASPA 29.40 125 eP 56 27.40 -2.7
0.4s 5.50nm 4.6mb
eS 02 14.30
GBA 37.07 305 P 57 36.00 -0.2
HYB 38.41 311 ePc 57 46.50 -1.0
CTA 38.95 112 iPd 57 53.50 1.5
STK 39.36 132 iPc 57 55.50 0.3
0.4s 14.60nm 5.2mb
ipP 58 11.70 65kmX
ePcP 00 03.10
LSA 40.64 337 eP 58 08.40 2.1
XAN 41.59 1 P 58 13.80 0.3
pP 58 20.20 22kmX
TIY 45.43 5 eP 58 44.50 0.0
NDI 46.88 322 iPd 58 55.00 -1.0
0.7s 37.67nm 5.3mb
GTA 47.56 351 eP 59 01.50 0.2
PcP 00 31.00
BTO 48.16 2 eP 59 06.20 0.3
WMQ 54.56 342 eP 59 53.60 -0.4
sP 00 10.00
QUE 54.59 316 eP 59 55.00 0.4
KSH 55.58 330 eP 59 58.90 -2.6
MAIO 63.21 317 eP 00 53.00 -1.0
YAK 71.58 11 eP 01 44.60 -1.3
0.9s 26.00nm 5.1mb
BUL 77.48 251 iPd 02 20.90 0.2
LSZ 78.25 256 iPd 02 25.00 0.0
OBN 85.91 327 eP 03 04.00 0.3
BCAO 90.10 274 iPd 03 25.10 0.4
1.0s 10.00nm 4.9mb
KAF 92.95 332 iP 03 37.30 0.6
0.5s 2.30nm 4.8mb

RSSD 134.26 32 ePKPc 09 44.21 2.0
BDF 146.69 226 (PKP) 10 08.00 3.0X
e 10 32.10
BAO 146.77 226 ePKP 10 06.80 1.7
e 10 08.80
e 10 32.90
LHS 152.20 16 ePKPc 10 20.96 8.2X
CNCB 155.26 189 ePKP 10 22.00 3.8X
ZOBO 155.80 189 ePKP 10 23.00 4.0X
S.D. = 1.2 on 30 of 37 obs.

& MAR 17, 1993 17h 53m 35.60s
45.547 N 111.673 W
DEPTH = 2.9km
MONTANA (456)
<BUT-P>. ML 2.8 (BUT). Felt at Norris.

LCCM 0.32 334 iPc 53 42.17 0.1
BGMT 0.41 220 iPc 53 43.69 -0.1
MEMT 0.50 83 iPc 53 45.24 -0.3
SXM 0.68 28 iPc 53 48.89 -0.4
HBMT 0.70 291 ePc 53 49.12 -0.5
BUT 0.78 307 eP 53 53.30 2.1
eS 54 01.90
TPMT 0.82 180 eP 53 51.24 -0.7
LTMT 1.07 197 eP 53 55.90 -0.7
MCMT 1.10 230 iPc 53 56.20 -0.9
HRY 1.17 355 ePc 53 57.41 -0.8
BW06 3.16 150 ePg 54 31.95 4.5
HVU 3.85 192 ePg 54 42.42 5.2
12 obs. associated

% MAR 17, 1993 18h 48m 41.03± 1.77s
40.441 N ± 7.6km 27.843 E ±17.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

EDC 0.09 171 iPg 48 43.50 -0.2
iSg 48 47.50
BNT 0.10 145 iPg 48 43.70 -0.1
iSg 48 47.70
KCT 0.44 116 ePg 48 49.70 -0.2
CTT 0.83 32 iPg 48 57.20 0.0
DST 1.03 144 ePn 49 01.00 0.5
S.D. = 0.4 on 5 of 5 obs.

% MAR 17, 1993 19h 06m 12.43± 1.08s
40.573 N ± 9.1km 23.267 E ± 7.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE 0.24 285 ePg 06 17.26 -0.2
SOH 0.26 15 ePg 06 17.94 0.0
eSg 06 21.38
OUR 0.60 113 ePg 06 24.58 0.1
SRS 0.60 24 ePg 06 24.10 -0.4
eSg 06 32.66
KNT 0.65 335 ePg 06 25.94 0.5
eSg 06 34.58
S.D. = 0.5 on 5 of 5 obs.

% MAR 17, 1993 19h 15m 01.42± 1.25s
31.322 S ± 7.9km 68.276 W ± 9.4km
DEPTH = 98.2 ± 15.8 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.17 267 iPc 15 15.60 -0.2
CFA 0.29 174 iPc 15 16.20 0.2
S 15 26.10
ZON 0.41 237 iPd 15 16.50 -0.2
eS 15 27.50
RTCB 0.48 250 iPd 15 17.00 -0.2
RTCV 0.58 202 ePd 15 17.80 -0.1
RTRS 1.54 318 ePd 15 28.90 0.5
S 15 48.80
MDZ 1.63 197 iP 15 29.80 0.1
iS 15 50.00
RTPR 1.83 57 ePd 15 33.00 0.9
MRA 2.44 117 iPc 15 40.30 0.0
S 16 05.70
CYA 3.59 38 ePd 15 55.00 -1.0
S 16 34.00
S.D. = 0.6 on 10 of 10 obs.

% MAR 17, 1993 19h 47m 15.21± 0.80s
40.825 N ± 6.8km 23.390 E ± 6.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH 0.03 263 ePg 47 16.94 -0.3
eSg 47 17.54
SRS 0.33 28 ePg 47 22.14 0.1
eSg 47 26.46
THE 0.38 239 ePg 47 23.18 0.3
KNT 0.50 312 ePg 47 25.30 -0.1
eSg 47 33.10
OUR 0.67 137 ePg 47 28.38 -0.1
eSg 47 38.78
S.D. = 0.3 on 5 of 5 obs.

MAR 17, 1993 19h 52m 48.87± 0.48s
44.347 N ± 4.9km 11.278 E ± 5.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 3.1 (LJU), 2.9 (FIR), 2.8 (ROM). ML 3.0 (LDG), 3.0 (VIE).

MME 0.44 250 P 53 00.85 2.9
BDI 0.57 240 P 53 02.93 2.5
FIR 0.57 182 iPgd 53 00.50 0.1
iSg 53 08.00
PGD 0.57 146 P 53 00.57 0.0
SFI 0.59 136 P 53 01.28 0.4
CRE 0.87 146 P 53 04.17 -1.5
RSM 0.94 116 P 53 06.59 -0.2
BOB 1.37 288 P 53 16.95 2.8
ARV 1.47 125 P 53 15.35 -0.1
CTI 1.72 9 P 53 19.29 0.2
TRI 2.23 51 eP 53 49.50 23.1X
VAI 2.34 311 P 53 28.59 0.7
TMA 2.45 317 iPd 53 30.30 0.7
OSS 2.47 342 ePd 53 32.00 2.0
FVI 2.48 25 P 53 29.82 -0.1
VDL 2.49 330 ePd 53 31.80 1.5
VOY 2.50 47 ePn 53 27.80 -2.5
eSn 53 57.50
OGA 2.53 356 iPc 53 33.10 2.3
CEY 2.63 57 eP 53 35.50 3.4X
eSg 53 59.40
SCE 2.71 6 iPnd 53 34.50 1.1
SQTA 2.87 359 iPgd 53 37.00 1.3
i 53 38.70
iSg 54 12.20
MMK 2.90 307 Pd 53 35.40 -0.7
WTTA 2.93 5 iPgd 53 37.80 1.3
iSg 54 12.90
LLS 2.99 328 ePd 53 35.20 -2.1
WATA 3.00 4 iPgc 53 39.40 2.0
iSg 54 16.80
MOTA 3.00 358 iPgc 53 39.20 1.7
iSg 54 15.90
VBY 3.05 66 eP 53 51.40 13.3X
KBA 3.09 27 iPgc 53 38.30 -0.5
iSg 54 14.20
DIX 3.24 304 ePd 53 41.00 0.1
LPG 3.41 291 Pn 53 42.10 -1.4
LPL 3.43 292 Pn 53 42.80 -0.9
EMS 3.52 301 ePd 53 46.00 1.1
ZLA 3.73 328 Pc 53 47.90 0.2
SLE 3.93 331 ePc 53 50.40 -0.2
FEL 4.20 328 eP 53 53.45 -1.0
BSF 4.68 320 Pn 54 00.60 -0.7
Sn 54 53.00
GEC2 4.80 20 Pn 54 00.00 -3.0X
Sn 54 55.20
CDF 4.92 327 Pn 54 03.70 -0.9
Sn 54 58.40
HAU 5.01 319 Pn 54 04.90 -1.0
Sn 54 59.50
SMF 5.71 296 Pn 54 13.90 -1.9
Sn 55 15.40
LBF 5.76 300 Pn 54 14.60 -1.8
Sn 55 16.50
LOR 5.95 302 Pn 54 17.50 -1.6
Sn 55 22.50
AVF 6.08 296 Pn 54 19.10 -1.8
SSF 6.08 299 Pn 54 18.90 -2.1
BGF 6.33 293 Pn 54 22.30 -2.2
S.D. = 1.5 on 41 of 45 obs.

• MAR 17, 1993 20h 15m 40.03± 1.54s
49.112 N ±14.1km 6.866 E ± 8.2km

17d 20h

DEPTH = 10.0km (geophysicist)
GERMANY (543)

RUP 0.60 12 ePg 15 51.94 -0.3
WLF 0.72 320 iPd 15 54.14 -0.1
ABH 0.89 30 ePg 15 57.47 0.4
DOU 1.78 305 iP 16 11.10 0.1
i 16 13.70
GEC2 4.51 91 Pn 16 49.90 -0.1
Sn 17 40.60
Sg 18 05.70
S.D. = 0.4 on 5 of 5 obs.

& MAR 17, 1993 20h 21m 31.31s
57.047 N 155.553 W
DEPTH = 38.8km
ALASKA PENINSULA (12)
<AEIC>. ML 2.8 (AEIC).

KDC 1.80 66 eP 21 56.78 -3.6
MCNL 2.24 16 eP 22 05.20 -1.5
eS 22 32.54
SYI 2.31 46 eP 22 06.92 -0.7
AUH 2.58 25 eP 22 10.61 -1.0
PDB 2.84 14 eP 22 13.68 -1.6
S 22 46.48
OPT 2.89 24 eP 22 15.45 -0.5
INW 3.28 22 eP 22 20.54 -1.1
INE 3.29 22 eP 22 20.74 -1.1
CNPM 3.37 41 eP 22 19.80 -3.1
RS1 3.72 22 eP 22 27.34 -0.6
RS2 3.72 22 eP 22 27.15 -0.8
RSO 3.72 22 eP 22 27.60 -0.4
CRP 4.58 21 eP 22 39.57 -0.6
13 obs. associated

& MAR 17, 1993 21h 01m 07.07s
59.435 N 153.322 W
DEPTH = 111.2km
SOUTHERN ALASKA (2)
<AEIC>. Felt (III) at at Homer.

AUL 0.08 227 iPc 01 22.03 1.0
AUE 0.08 199 iPc 01 21.91 0.9
AUH 0.09 221 iPc 01 22.04 0.9
AUW 0.10 230 iPc 01 22.03 1.0
AUI 0.11 208 iPc 01 21.92 0.9
eS 01 33.26
eS 01 33.37
OPT 0.22 12 iPc 01 22.23 0.8
S 01 33.31
PDB 0.57 309 iPd 01 23.84 -0.9
eS 01 36.87
MCNL 0.58 245 iPd 01 23.93 -0.9
eS 01 36.67
INE 0.64 12 iPd 01 24.66 -0.9
INW 0.64 9 iPd 01 24.45 -1.0
eS 01 38.03
XLV 0.82 88 ePc 01 25.90 -0.9
eS 01 41.16
SYI 0.96 149 ePd 01 27.01 -1.2
S 01 42.14
RS1 1.07 15 iPd 01 28.66 -0.9
eS 01 45.70
CNPM 1.07 84 iPc 01 28.35 -1.0
eS 01 45.50
RS2 1.07 15 iPd 01 28.67 -1.0
eS 01 45.46
RSO 1.07 15 iPd 01 28.65 -1.0
eS 01 45.37
RDW 1.08 14 iPd 01 28.74 -1.0
eS 01 45.86
NCT 1.15 10 iPd 01 29.33 -1.0
eS 01 47.67
BRLK 1.28 74 eP 01 30.60 -1.2
eS 01 48.40
NKA 1.68 38 ePd 01 37.13 0.7
KDC 1.75 165 eP 01 33.65 -3.7
S 01 56.59
CKL 1.83 15 iPd 01 37.56 -1.0
CKT 1.86 17 iPd 01 37.60 -1.2
eS 02 02.49
SPU 1.86 19 iPd 01 37.65 -1.2
eS 02 02.23
CKN 1.88 17 ePd 01 38.13 -1.0
BGL 1.89 14 iPd 01 38.44 -0.9
SLKM 1.89 54 eP 01 37.75 -1.5
CP2 1.91 16 eP 01 38.20 -1.5
S 02 03.39
CPAM 1.92 17 ePd 01 38.60 -1.0
SVW 2.03 327 eP 01 39.42 -1.6
SEW 2.07 69 ePd 01 39.93 -1.5
MPA 2.26 60 ePc 01 42.37 -1.5
SUA 2.40 31 ePd 01 44.95 -1.0
eS 02 14.28
PTE 2.58 54 eP 01 46.67 -1.5
PMS 2.61 44 P 01 47.20 -1.4
SKT 2.70 18 ePd 01 48.25 -1.6
PWA 2.80 36 P 01 49.70 -1.4
PLRM 3.00 42 eP 01 52.18 -1.5
PMR 3.00 42 eP 01 51.29 -2.4
S 02 23.67
GHO 3.19 41 eP 01 54.43 -2.1
SML 3.42 44 ePc 01 57.12 -2.4
HIN 3.57 71 eP 01 59.01 -2.5
TTA 3.74 341 iP 02 01.74 -2.2
SCM 3.81 48 eP 02 02.68 -2.2
VLZ 3.87 61 eP 02 03.42 -2.2
CVA 3.96 70 eP 02 04.10 -2.7
KLU 4.21 57 iPd 02 07.88 -2.4
SGAM 4.22 72 ePc 02 07.42 -2.9
TRF 4.29 19 eP 02 09.75 -1.7
RAGM 4.46 74 eP 02 10.97 -2.7
RND 4.53 26 eP 02 12.15 -2.5
KAIM 4.54 80 eP 02 12.67 -2.1
MCK 4.79 24 eP 02 16.20 -2.0
GLB 5.12 63 eP 02 20.09 -2.7
PAX 5.19 44 eP 02 21.33 -2.5
CRQM 5.27 71 eP 02 22.35 -2.5
TGL 5.42 71 eP 02 24.31 -2.6
BALM 5.70 69 eP 02 28.16 -2.6
CCB 5.84 24 ePc 02 29.09 -3.4
YAH 5.90 76 ePc 02 31.43 -2.2
CTGM 6.17 70 eP 02 35.67 -1.6
GLM 6.22 24 eP 02 34.54 -3.4
IMA 6.66 359 eP 02 41.16 -2.8
0.6s 1.86nm 3.7mb X
63 obs. associated

? MAR 17, 1993 21h 07m 36.56± 0.94s
19.401 N ±19.1km 38.980 E ±14.8km
DEPTH = 10.0km (geophysicist)
4.1mb (7 obs.)
RED SEA (554)

ABHA 3.75 107 eP 08 36.00 0.0
eS 09 15.00
MAIO 24.66 43 eP 13 05.00 6.2X
BCAO 24.88 236 iPc 13 01.00 0.0
1.0s 15.00nm 4.6mb
ic 13 17.50
GEC2 35.73 331 P 14 37.30 -0.2
1.2s 2.19nm 3.9mb
e 14 43.10
SMF 39.55 321 eP 15 12.20 2.8
0.9s 3.60nm 4.0mb
LBF 39.64 322 eP 15 09.40 -0.8
0.8s 4.55nm 4.2mb
AVF 39.91 321 eP 15 11.40 -0.9
0.9s 4.10nm 4.1mb
BGF 40.09 321 eP 15 13.00 -0.9
1.0s 10.00nm 4.4mb
MAF 40.09 320 eP 15 13.80 -0.1
1.0s 3.40nm 4.0mb
S.D. = 1.4 on 8 of 9 obs.

? MAR 17, 1993 21h 19m 29.21± 3.43s
19.033 N ±58.1km 38.702 E ±16.7km
DEPTH = 10.0km (geophysicist)
4.2mb (5 obs.)
RED SEA (554)

MAIO 25.11 43 eP 24 57.00 1.2
GEC2 35.93 332 P 26 32.10 0.3
1.3s 3.34nm 4.0mb
e 26 34.90
OBN 36.04 358 eP 26 31.00 -1.4
LBF 39.77 322 eP 27 03.80 -0.1
0.7s 2.55nm 4.0mb
CAF 39.88 319 eP 27 09.00 4.2X
1.1s 6.10nm 4.2mb
BGF 40.21 321 eP 27 08.10 0.6
1.0s 8.20nm 4.4mb
LFF 40.72 318 eP 27 11.70 0.0
0.8s 4.45nm 4.2mb
LZH 59.19 59 eP 29 32.50 -0.7
1.6s 34.00nm 5.2mb X
Z 10s 0.37um 4.8MszX
S.D. = 1.1 on 7 of 8 obs.

% MAR 17, 1993 22h 27m 51.19± 0.71s
44.326 N ± 4.8km 6.930 E ±12.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.5 (LDG).

SBF 0.59 142 Pg 28 03.10 0.0
Sg 28 10.20
FRF 0.79 195 Pg 28 07.20 0.6
Sg 28 15.70
LRG 0.96 206 Pg 28 09.30 -0.2
Sg 28 22.60
LMR 1.04 197 Pn 28 10.40 -0.4
Sg 28 24.10
LPG 1.18 354 Pg 28 13.10 -0.3
Sg 28 27.40
LPL 1.20 353 Pg 28 14.00 0.3
S.D. = 0.5 on 6 of 6 obs.

• MAR 17, 1993 22h 40m 10.73± 0.64s
4.099 N ± 5.7km 124.793 E ± 9.9km
DEPTH = 320.0 ± 9.0 km
4.5mb (11 obs.)
CELEBES SEA (262)

CTB 3.14 349 ePc 41 56.00 46.4X
CGP 4.33 359 ePc 41 46.50 24.5X
eS 42 18.50
BIP 4.35 19 iPc 41 20.50 -1.8
iS 41 45.50
MAP 6.24 353 iPc 41 34.00 -10.0X
TSM 6.91 272 iPc 41 53.80 1.8
PCI 7.02 225 ePc 41 50.80 -2.5
PLP 7.02 1 ePd 41 54.20 0.8
SWI 8.13 127 ePd 42 08.00 1.2
PPR 8.25 313 ePc 42 08.00 -0.2
PGP 10.08 338 iPc 42 32.00 1.2
MTN 17.97 160 eP 44 01.20 0.4
0.4s 131.00nm 5.7mb X
LEM 20.29 238 iPd 44 28.60 4.6X
MBL 25.57 191 eP 45 13.00 -0.3
0.5s 15.00nm 4.6mb
WB2 25.67 159 iPd 45 13.30 -0.9
0.6s 12.40nm 4.5mb
eS 49 15.30
NANU 28.00 198 iPc 45 34.90 -0.1
ASPA 28.99 163 eP 45 42.60 -1.2
0.7s 4.00nm 4.0mb
KMI 29.77 317 Pc 45 51.50 0.6
1.5s 60.00nm 4.8mb
WARB 30.16 177 iPc 45 54.80 0.9
0.4s 6.00nm 4.4mb
MRWA 34.19 194 eP 46 28.20 -0.3
0.5s 11.00nm 4.6mb
MAT 34.57 19 eP 46 33.00 1.4
BAL 35.36 192 eP 46 38.30 -0.1
KLB 36.12 190 eP 46 44.80 0.1
BJI 36.62 349 eP 46 47.50 -1.2
1.0s 11.00nm 4.2mb
MUN 36.80 192 eP 46 50.50 0.2
LZH 37.23 331 eP 46 54.50 0.3
1.4s 73.00nm 4.9mb
NWAO 37.51 190 eP 46 58.00 1.7
STK 39.19 157 eP 47 10.80 0.7
0.8s 3.80nm 3.7mb
YAK 57.90 3 iPc 49 30.60 -1.2
1.0s 45.00nm 4.9mb
DAG 96.65 352 eP 53 04.00 -1.4
0.7s 2.05nm 4.5mb
S.D. = 1.2 on 25 of 29 obs.

• MAR 17, 1993 22h 45m 06.56± 1.24s
7.941 S ±15.0km 104.024 E ±18.5km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
SOUTHWEST OF SUMATERA, INDONESIA(273)

LEM 3.73 73 iPc 46 03.50 0.1
iS 46 42.50
MBL 20.14 132 eP 49 40.00 -0.9
CHTO 27.05 349 ePd 50 48.20 0.2

0.7s 7.31nm 4.4mb
WB2 31.69 115 iPc 51 29.40 -0.2
0.5s 11.70nm 5.0mb X
STK 42.26 130 eP 52 59.90 1.2
0.5s 2.50nm 4.2mb
BJI 49.04 12 eP 53 47.00 -5.4X
YAK 72.54 12 iPd 56 31.50 -0.4
0.9s 27.00nm 5.2mb X
e 56 41.00
S.D. = 0.9 on 6 of 7 obs.

---

* MAR 17, 1993 23h 38m 11.39± 1.01s
6.781 N ± 9.5km 72.922 W ±15.3km
DEPTH = 164.5 ± 11.6 km
4.7mb (1 obs.)
NORTHERN COLOMBIA (99)

BOG 2.43 208 iPd 38 53.00 -0.2
iS 39 24.00
SDV 3.08 47 iPnc 39 02.40 1.3
iSn 39 40.50
TOV 4.30 46 ePnc 39 17.20 0.5
iPP 39 18.80
iSn 40 07.50
CEOS 5.06 64 ePc 39 26.70 -0.1
OLLA 6.85 62 eP 39 49.50 -1.1
ZOBO 23.41 168 P 43 07.00 -0.4
LPB 23.65 168 eP 43 09.00 -0.5
CNCB 23.95 168 P 43 12.20 -0.3
TBR 34.23 358 (P) 44 41.60 -1.7
FVM 34.89 335 eP 44 48.20 -0.7
1.0s 19.00nm 4.7mb
CBM 40.22 5 eP 45 33.32 0.2
ASPA 149.25 234 iPKPc 57 41.20 3.0
0.5s 10.20nm
WB2 150.48 241 iPKPd 57 44.40 4.3X
0.3s 11.90nm
ipP 58 25.90
S.D. = 1.4 on 12 of 13 obs.

MAR 17, 1993 23h 59m 15.01± 0.63s
38.219 N ±10.1km 44.855 E ± 5.8km
DEPTH = 26.3km (2 depth phases)
4.4mb (16 obs.)
TURKEY-IRAN BORDER REGION (343)

TAB 1.17 97 iPd 59 36.30 0.4
GRS 1.72 42 iPnc 59 44.00 0.2
ERE 1.98 352 iPn 59 47.00 -0.5
i 59 57.60
MTA 3.48 359 iPn 00 15.80 7.2X
i 00 22.20
iS 01 01.00
SHE 3.79 49 iPnd 00 15.00 1.9
i 00 24.50
i 01 02.00
i 01 09.00
KER 4.27 154 eP 00 25.00 5.0X
TBZ 4.80 307 eP 00 38.00 10.6X
GRO 5.16 7 ePn 00 44.00 11.5X
i 02 14.00
TEH 5.78 113 e(P) 01 07.00 25.5X
KIV 5.96 345 (P) 00 48.20 4.3X
1.1s 16.00nm 4.6mb
GAZ 6.15 263 eP 00 48.00 1.5
SOC 6.62 326 eP 00 54.00 0.9
1.0s 45.00nm 5.3mb
MAIO 11.82 95 eP 02 06.00 1.0
VRI 15.47 305 eP 02 51.00 -1.9
MLR 15.83 303 eP 03 00.00 2.2
OBN 17.79 344 eP 03 20.00 -2.2
1.0s 17.00nm 4.1mb
e 03 27.00
SKO 18.29 289 eP 03 30.20 1.7
OHR 18.73 286 eP 03 33.50 -0.5
QUE 19.92 107 eP 03 50.50 2.7X
ZST 22.44 305 e(P) 04 14.70 1.6
VBY 23.12 298 e(P) 04 21.20 1.4
KBA 24.67 301 iPc 04 36.00 1.0
0.9s 9.90nm 4.4mb
GEC2 24.79 305 P 04 35.90 -0.2
0.9s 3.20nm 3.9mb
e 04 43.10 26km
KHC 24.94 306 eP 04 37.00 -0.4
e 04 48.60 45kmX
BRG 25.20 310 e(P) 04 40.20 0.4
WTTA 25.85 301 iPc 04 46.60 0.4
0.7s 4.20nm 4.2mb
CLL 25.90 311 e(P) 04 48.00 1.7
KAF 26.51 340 eP 04 50.30 -1.5
GRF 26.57 306 eP 04 55.50 3.0X
SMF 31.13 299 eP 05 33.90 0.4
0.9s 3.30nm 4.2mb
AVF 31.47 299 eP 05 34.20 -2.2
0.8s 2.30nm 4.1mb
ELT 32.07 48 eP 05 40.80 -0.8
0.8s 14.00nm 4.9mb
NRI 38.80 23 eP 06 39.00 0.2
1.0s 10.00nm 4.5mb
e 06 47.00 27km
BCAO 41.30 222 iPd 07 00.00 0.0
0.8s 7.00nm 4.4mb
ZAK 42.50 54 eP 07 11.50 2.1
0.7s 6.00nm 4.4mb
BOD 47.99 42 iPc 07 51.10 -2.1
0.9s 21.00nm 5.2mb
KIC 54.88 248 P 08 43.70 -2.0
0.8s 8.50nm 4.8mb
LIC 55.18 248 P 08 46.00 -1.9
ILT 69.25 16 eP 10 20.00 -1.2
FBA 76.74 6 eP 11 05.10 -0.1
1.0s 6.00nm 4.6mb
YKA 78.28 350 eP 11 12.00 -1.7
1.0s 1.40nm 3.9mb
S.D. = 1.4 on 33 of 41 obs.

? MAR 18, 1993 00h 56m 36.33± 4.36s
36.066 N ±36.1km 4.755 W ± 9.4km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.9 (MDD).

EJIF 0.69 304 eP 56 49.50 -0.5
eS 56 59.00
MAL 0.72 23 iPnd 56 49.00 -1.4
iSg 56 56.40
EPRU 0.98 337 eP 56 55.10 0.2
eS 57 05.00
EGUA 1.23 51 eP 56 59.30 0.1
eS 57 14.60
ELUQ 1.54 15 eP 57 04.90 1.0
eS 57 23.50
EHOR 1.80 347 eP 57 08.20 0.6
eS 57 29.00
EBAN 2.23 20 eP 57 21.00 7.1X
eS 57 44.50
S.D. = 1.1 on 6 of 7 obs.

% MAR 18, 1993 01h 24m 46.62± 0.49s
32.526 S ±10.6km 70.140 W ±11.8km
DEPTH = 110.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).

JACH 0.41 248 iP 25 03.54 0.3
iS 25 16.44
PEL 0.77 217 iP 25 06.02 0.1
iS 25 20.09
FCH 0.81 189 eP 25 06.82 0.2
iS 25 21.94
ROCH 0.86 239 iP 25 07.10 0.2
iS 25 22.58
SAN 1.02 205 iP 25 08.55 0.2
iS 25 25.17
PCH 1.14 196 iP 25 09.87 0.2
iS 25 27.88
TACH 1.31 211 iP 25 11.35 -0.2
iS 25 30.64
CHCH 1.47 197 iP 25 13.46 0.0
iS 25 34.45
LCCH 1.53 231 iP 25 14.12 0.0
iS 25 35.74
RTCB 1.54 48 iPc 25 14.50 0.1
S 25 35.50
LNV 1.78 216 iP 25 16.44 -0.8
iS 25 39.91
RTLL 1.86 50 iPd 25 18.00 -0.3
S 25 40.00
S.D. = 0.3 on 12 of 12 obs.

& MAR 18, 1993 01h 29m 32.60s
45.560 N 111.692 W
DEPTH = 7.3km
MONTANA (456)
<BUT-P>. MD 2.5 (BUT). Felt at
Norris.

LCCM 0.31 335 iPc 29 38.89 0.0
BGMT 0.41 217 iPc 29 40.38 -0.5
MEMT 0.51 85 iPc 29 41.94 -0.9
LRM 0.59 297 ePc 29 44.03 -0.5
SXM 0.68 30 eP 29 45.54 -0.7
HBMT 0.68 290 ePc 29 45.86 -0.5
TPMT 0.83 179 iPd 29 48.25 -0.9
MCMT 1.10 229 iPnc 29 52.95 -0.7
HRY 1.16 355 eP 29 54.13 -0.4
9 obs. associated

MAR 18, 1993 01h 36m 17.41± 0.28s
40.417 N ± 3.1km 28.036 E ± 2.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.6 (ISK).

BNT 0.11 236 iPg 36 20.40 0.2
EDC 0.15 242 iPg 36 21.50 0.6
KCT 0.30 124 iPg 36 23.70 0.1
CTT 0.79 22 iPg 36 32.40 -0.3
DST 0.93 151 iPg 36 35.20 0.0
iSg 36 48.20
ISK 1.01 50 iPg 36 36.40 -0.1
iSg 36 49.50
YLV 1.03 81 iPg 36 36.80 -0.1
GBZT 1.14 70 ePg 36 39.00 0.3
iSg 36 55.50
HRT 1.31 71 iPn 36 40.90 -0.7
DMK 1.42 352 iPn 36 42.90 -0.3
EYL 1.62 84 iPn 36 46.40 0.1
GPA 1.74 93 iPn 36 47.50 -0.4
ALT 2.10 130 iPn 36 53.20 0.1
IZM 2.10 197 iPn 36 53.50 0.3
JMB 2.32 332 iP 36 57.00 0.8
KDZ 2.33 303 iP 36 56.00 -0.4
RZN 2.81 298 iP 37 03.00 -0.4
PLD 3.03 305 iPc 37 06.00 -0.2
PVL 3.45 325 iPc 37 12.00 -0.2
MMB 3.46 291 iP 37 11.00 -1.5
VTS 4.23 303 iP 37 23.00 -0.4
MLR 5.30 344 ePc 37 40.00 1.4
VRI 5.53 350 ePc 37 42.00 0.2
CVO 5.57 346 eP 37 43.50 1.1
S.D. = 0.6 on 24 of 24 obs.

---

* MAR 18, 1993 01h 36m 27.65± 1.29s
39.039 N ±10.4km 23.903 E ± 7.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.90 349 iPg 36 45.86 0.9
iSg 36 56.74
AGG 1.22 270 ePb 36 50.70 0.2
eSb 37 05.54
OUR 1.29 3 iPb 36 51.74 0.1
eSb 37 06.70
LIT 1.52 315 ePb 36 54.94 0.0
eSb 37 13.54
THE 1.75 336 ePb 36 57.98 -0.2
eSb 37 18.50
SOH 1.83 347 ePb 36 59.50 0.1
eSb 37 20.94
SRS 2.09 354 ePn 37 02.86 -0.3
iSn 37 26.78
GRG 2.24 329 ePn 37 04.78 -0.5
eSn 37 30.74
KNT 2.26 340 ePn 37 05.62 0.1
iSn 37 30.90
KKB 2.89 348 iP 37 14.00 -0.6
ITU 4.43 61 ePg 37 36.50 0.1
iSg 37 51.00
S.D. = 0.5 on 11 of 11 obs.

MAR 18, 1993 02h 03m 43.41± 1.02s
51.463 N ± 7.2km 6.925 E ± 9.0km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 2.7 (UCC). ML 2.6 (LDG), 2.1
(BNS).

BNS 0.52 162 iPgd 03 54.64 0.6
0.5s 92.00nm
iSg 04 03.14

```
18d  02h

WTS     0.54 352 ePg    03 54.50    0.2
        0.5s    31.00nm
ENN     0.94 223 iPg    04 03.80    2.5
        0.5s    10.60nm
                 iSg    04 18.80
MEM     1.03 214 iPc    04 04.76    1.9
                 i      04 05.61
                 iS     04 21.57
ABH     1.63 166 ePn    04 13.29    1.0
RUP     1.77 177 ePn    04 15.63    1.4
SNF     1.92 241 iP     04 18.30    1.9
DOU     2.02 228 P      04 20.30    2.5
                 iS     04 50.70
CDF     3.06 176 Pn     04 32.80    0.0
                 Sg     05 22.10
HAU     3.48 186 Pn     04 39.50    0.8
                 Sn     05 19.60
BSF     3.64 181 Pn     04 40.80   -0.2
LOR     4.65 207 Pn     04 54.80   -0.6
                 Sg     06 14.60
LBF     4.88 204 Pn     04 58.20   -0.4
SSF     4.94 208 Pn     04 58.60   -0.8
                 Sg     06 23.80
SMF     5.23 204 Pn     05 01.90   -1.6
AVF     5.23 208 Pn     05 02.30   -1.2
LDF     5.37 240 Pn     05 05.30   -0.2
FLN     5.48 243 Pn     05 07.00    0.0
BGF     5.59 210 Pn     05 07.70   -1.0
GRR     5.89 242 Pn     05 12.20   -0.6
                 Sn     06 19.40
LPL     5.95 181 Pn     05 13.10   -0.8
LPG     5.97 181 Pn     05 13.50   -0.7
TCF     6.04 213 Pn     05 13.50   -1.4
LPF     6.20 239 Pn     05 16.20   -0.9
MFF     6.73 226 Pn     05 22.30   -2.3
     S.D. = 1.3  on  25 of  25 obs.
---------------------------------------
• MAR 18, 1993  02h 13m 45.54± 0.84s
   53.604 N ±10.5km  166.972 W ± 9.9km
   DEPTH =  33.0km  (normal)
   4.5mb (  7 obs.)
 FOX ISLANDS, ALEUTIAN ISLANDS   (  9)

SDN     4.16  63 eP     14 48.69    0.5
                 S      15 41.91
ADK     6.15 258 eP     15 16.13   -0.2
        0.7s   105.74nm          5.6mb X
SVW     9.69  35 eP     16 04.41   -1.3
        0.5s     6.05nm          5.1mb X
                 eS     18 58.35
RSO    10.34  43 eP     16 15.75    1.0
TTA    10.97  27 eP     16 21.36   -1.8
                 S      19 30.52
CP2    11.02  40 (P)    16 24.54    0.5
CRP    11.06  40 eP     16 23.88   -0.6
SLKM   11.42  46 (P)    16 29.02   -0.3
PMS    12.08  44 eP     16 37.30   -0.8
PMR    12.44  43 eP     16 44.77    1.9
KLU    13.74  47 iPc    16 58.48   -1.6
IMA    14.13  23 eP     17 06.20    0.9
FBA    14.90  33 eP     17 14.48   -0.7
        0.9s     4.97nm            3.9mb
BALM   15.17  51 (P)    17 19.16    0.3
BRW    18.33  10 eP     18 00.22    1.8
NEW    31.33  79 eP     20 04.84    0.1
        0.7s    16.86nm            5.0mb
SES    33.83  72 eP     20 28.00    1.5
BW06   38.77  82 eP     21 09.37    0.8
        1.6s    14.93nm            4.5mb
FCC    39.04  52 eP     21 14.00    3.7X
RSSD   41.20  77 eP     21 29.09    0.4
        0.6s     4.44nm            4.4mb
GOL    43.15  83 eP     21 45.27    0.6
        0.6s     5.97nm            4.5mb
WMOK   50.37  83 eP     22 40.46   -0.8
        0.7s     5.33nm            4.7mb
MIAR   53.57  79 eP     23 03.14   -2.1
        1.0s     5.90nm            4.5mb
     S.D. = 1.2  on  22 of  23 obs.
---------------------------------------
? MAR 18, 1993  02h 21m 58.13± 7.51s
   38.886 N ±52.5km   24.136 E ±34.2km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)

PAIG    1.10 341 ePg    22 18.90    0.2
                 eSg    22 32.38
OUR     1.45 355 ePb    22 24.82    0.5
                 iSb    22 42.26
LIT     1.76 314 ePb    22 29.02    0.2
                 eSb    22 50.58
SOH     2.03 343 ePb    22 32.46   -0.3
SRS     2.27 350 ePn    22 35.94   -0.3
KNT     2.46 338 ePn    22 38.74   -0.2
                 eSn    23 07.58
     S.D. = 0.4  on   6 of   6 obs.
---------------------------------------
% MAR 18, 1993  02h 29m 51.26± 0.65s
   40.230 S ± 8.8km  173.455 E ± 7.9km
   DEPTH = 190.0km  (geophysicist)
 COOK STRAIT, NEW ZEALAND         (163)

DIW     0.67 148 P      30 18.90    0.6
QRZ     0.92 229 Pd     30 20.20    0.5
                 S      30 40.80
TCW     1.16 148 P      30 22.20    0.7
BSZ     1.21  70 eP     30 22.40    0.5
KIW     1.28 120 P      30 22.70    0.3
MRW     1.38 137 P      30 23.50    0.2
                 S      30 46.40
WEL     1.45 137 P      30 24.10    0.2
CAW     1.51 126 P      30 24.50    0.0
THZ     1.59 195 P      30 25.40    0.1
                 S      30 50.60
MNG     1.60 105 P      30 25.40    0.1
                 S      30 49.30
MTW     1.81 121 P      30 27.20   -0.2
CNZ     1.91  58 eP     30 28.20   -0.4
NGZ     1.96  58 P      30 28.50   -0.6
DSZ     1.97 219 P      30 28.80   -0.3
PGZ     2.19 101 P      30 30.90   -0.5
KHZ     2.19 178 P      30 30.70   -0.7
                 S      31 00.00
LTZ     2.70 199 P      30 36.60   -0.7
                 eS     31 10.30
     S.D. = 0.5  on  17 of  17 obs.
---------------------------------------
% MAR 18, 1993  02h 30m 15.21± 0.98s
   40.432 N ± 7.8km   27.958 E ± 9.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.7 (ISK).

BNT     0.08 201 iPg    30 18.40    0.7
                 iSg    30 20.90
EDC     0.11 220 iPg    30 17.50   -0.6
                 iSg    30 21.50
KCT     0.36 121 iPg    30 22.40   -0.1
CTT     0.80  26 ePg    30 30.80    0.1
DST     0.97 148 ePg    30 33.70    0.0
     S.D. = 0.6  on   5 of   5 obs.
---------------------------------------
% MAR 18, 1993  02h 47m 13.40± 3.78s
   41.305 N ±22.5km   23.693 E ±18.1km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)

SRS     0.20 202 ePg    47 18.36    0.5
                 eSg    47 21.40
SOH     0.55 208 iPg    47 24.12   -0.4
                 eSg    47 30.64
KNT     0.62 257 ePg    47 26.00    0.2
                 eSg    47 34.44
OUR     0.99 167 ePg    47 32.12   -0.1
                 eSg    47 45.12
GRG     1.04 251 ePg    47 32.76   -0.2
                 eSg    47 45.76
     S.D. = 0.5  on   5 of   5 obs.
---------------------------------------
• MAR 18, 1993  03h 11m 37.31± 3.40s
   15.476 N ± 9.6km   60.505 W ±38.5km
   DEPTH =  33.0km  (normal)
 LEEWARD ISLANDS                  ( 92)
      ML 2.9 (FDF).

CRM     0.82 209 iPd    11 52.22   -0.2
                 S      12 04.10
MGG     0.90 299 eP     11 53.30   -0.2
                 S      12 05.80
FDF     0.97 220 iPd    11 54.76    0.2
                 S      12 07.70
MVM     0.99 202 iPd    11 54.88    0.0
                 S      12 09.10
SFG     1.02 319 eP     11 50.50   -4.8X
BIM     1.10 210 iPd    11 56.56    0.1
                 S      12 11.70
DOG     1.21 297 eP     11 58.06    0.1
BPA     2.03 320 eP     12 10.00    0.1
     S.D. = 0.2  on   7 of   8 obs.
---------------------------------------
? MAR 18, 1993  03h 40m 46.63±10.17s
   34.486 S ±73.1km   71.511 W ±39.4km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.5 (SAN).

LNV     0.54   9 iP     40 58.74    1.0
                 iS     41 07.65
CHCH    0.90  52 eP     41 03.39    0.4
                 iS     41 15.56
TACH    0.96  30 iP     41 03.61   -0.2
                 iS     41 16.12
LCCH    1.01 357 iP     41 04.06   -0.4
PCH     1.20  44 iP     41 07.33    0.1
                 iS     41 22.40
PEL     1.51  27 iP     41 11.49   -0.1
                 iS     41 30.33
FCH     1.54  42 eP     41 12.14   -0.2
                 iS     41 31.62
ROCH    1.57  16 iP     41 12.73    0.0
                 iS     41 32.24
JACH    1.96  23 iP     41 17.47   -0.8
                 iS     41 41.81
     S.D. = 0.6  on   9 of   9 obs.
---------------------------------------
   MAR 18, 1993  05h 24m 27.66± 0.38s
   30.760 S ± 3.9km   71.622 W ± 6.0km
   DEPTH =  45.4km  (  5 depth phases)
   4.7mb ( 10 obs.)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 4.9 (SAN). Felt (IV) at
      Ovalle.

RTBS    2.06 116 ePd    25 02.90    2.4
JACH    2.11 156 iP     25 01.55    0.3
IHA     2.26 180 ePd    25 02.80   -0.5
                 i      25 06.60
                 iS     25 35.10
ROCH    2.27 167 iP+    25 03.41   -0.2
PEL     2.51 162 iPd    25 06.88    0.0
                 iS     25 38.59
RTCB    2.53 107 iPd    25 09.00    1.8
ZON     2.64 108 iPd    25 10.90    2.0
LCCH    2.71 179 iP     25 08.73   -1.0
RTLL    2.76 103 iPc    25 11.50    0.9
FCH     2.80 157 iP     25 11.75    0.4
SAN     2.81 163 iP     25 10.73   -0.4
                 iS     25 46.16
RTCV    2.86 113 ePd    25 13.40    1.4
TACH    2.94 169 iP     25 12.62   -0.5
PCH     3.00 162 iP     25 13.76   -0.3
CFA     3.02 107 ePc    25 16.10    1.9
MDZ     3.17 133 iP     25 18.20    1.8
                 iS     26 11.60
LNV     3.19 177 iP     25 14.87   -1.7
CHCH    3.27 166 iP     25 17.46   -0.3
                 iS     25 57.15
CACH    3.46 166 iP     25 20.34   -0.1
RTPR    4.43  85 ePd    25 33.70   -0.4
MRA     5.31 110 ePd    25 45.00   -1.5
CYA     5.57  67 iPd    25 49.40   -0.9
                 S      26 50.20
FSA     6.79  48 i(P)   26 07.20    0.0
                 (S)    26 13.00
ANT     7.11   9 eP     26 10.00   -1.7
SLA     8.10  44 ePc    26 25.00   -0.6
HJA     9.34  38 eP     26 42.70    0.2
ARE    14.23   1 eP     28 03.00   14.4X
CNCB   14.28  14 P      27 51.30    1.9
LPB    14.52  14 P      27 55.00    2.5
ZOBO   14.76  13 iPc    27 55.10   -0.7
        0.8s    20.69nm            4.5mb
      Z  24s     0.25um           4.1Msz
                 LR     32 36.00
SIV    17.59  36 P      28 40.60    9.5X
PPD    20.14  69 eP     28 57.80   -2.9
                 e      29 03.10  20kmX
VAO    23.28  77 eP     29 30.90   -1.3
                 e      29 48.10  76kmX
BAO    26.35  60 eP     29 58.70   -2.8
                 e      30 18.00  86kmX
```

e 37 16.10
e 38 18.80
BDF 26.39 61 iPc 29 59.00 -2.9
e 30 21.00 100kmX
e 38 28.40
SPA 59.41 180 iPd 34 26.90 -1.0
0.8s 25.00nm 5.4mb
TKL 67.05 349 eP 35 17.40 -0.8
UYO 68.08 340 iPc 35 24.80 0.1
ELC 69.67 345 eP 35 33.90 -0.5
FVM 70.61 344 eP 35 40.00 -0.1
0.9s 22.88nm 5.1mb
ALQ 73.12 331 eP 35 56.27 0.8
0.8s 3.68nm 4.4mb
e 36 10.15 49km
LIC 73.43 72 P 35 56.00 -1.4
Z 20s 0.10um 4.1Msz
KIC 73.74 72 P 35 58.00 -1.2
0.9s 19.50nm 5.1mb
LMN 76.50 5 eP 36 18.00 3.7X
pP 36 31.00 44km
GOL 76.79 334 eP 36 16.76 0.3
1.3s 14.11nm 4.8mb
EEO 77.33 355 ePd 36 22.10 3.2X
pP 36 35.50 46km
PEC 77.34 323 eP 36 20.93 1.6
0.8s 11.37nm 5.0mb
MSU 78.61 329 eP 36 27.50 1.1
e 36 41.03 47km
DAU 79.77 330 eP 36 33.80 1.0
DUG 80.27 329 eP 36 36.23 1.0
0.7s 2.43nm 4.3mb
BW06 81.05 333 eP 36 39.74 0.3
0.7s 2.07nm 4.2mb
ULM 83.47 345 eP 36 54.50 3.1X
JAO 84.28 358 eP 36 55.50 0.1
pP 37 08.00 42km
LCCM 84.52 333 eP 36 57.50 0.4
VGB 88.05 328 (P) 37 15.82 1.6
FCC 91.13 349 eP 37 31.50 3.3X
BCAO 92.37 86 iPd 37 48.80 13.7X
0.7s 6.00nm
YKA 99.11 341 eP 38 03.20 -1.3
0.7s 0.40nm 4.1mb
GBA 146.81 114 PKP 44 06.00 0.9
HYB 149.81 109 ePKP 44 14.00 4.1X
S.D. = 1.3 on 52 of 60 obs.

MAR 18, 1993 05h 34m 25.64± 0.38s
55.097 N ± 7.6km 161.989 E ± 6.5km
DEPTH = 33.0km (normal)
4.6mb (36 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

PET 2.87 225 iPnd 35 08.50 -1.5
Z 16s 3.50um
eS 35 42.00
SKR 5.69 221 ePn 35 49.90 -0.1
MGD 7.82 314 ePn 36 24.00 4.1X
Z 12s 0.50um
SEY 9.25 332 ePn 36 51.70 12.1X
Z 16s 1.60um
YSS 14.53 244 ePd 37 52.80 2.2
1.1s 40.00nm 4.8mb
Z 17s 1.10um 3.8Msz
ILT 15.69 28 iPd 38 07.00 1.5
1.2s 12.00nm 4.0mb
KUSJ 16.44 230 eP 38 09.50 -5.7X
ASAJ 16.61 237 eP 38 17.50 0.2
YAK 18.05 306 eP 38 37.20 2.1
1.1s 45.00nm 4.5mb
e 41 54.00
OFUJ 21.04 229 eP 39 10.90 2.1
TIK 21.77 332 iPc 39 16.00 0.2
1.5s 29.00nm 4.5mb
Z 16s 0.80um 4.2MszX
e 39 26.00
e 39 33.00
e 43 20.00
TTA 22.62 53 eP 39 24.41 -0.1
1.7s 34.75nm 4.6mb
SVW 22.85 57 eP 39 27.21 0.5
1.4s 43.26nm 4.7mb
NIIJ 23.74 231 P 39 36.50 1.1
IMA 23.82 45 eP 39 35.44 -0.7
1.2s 13.33nm 4.3mb
RSO 24.32 59 eP 39 41.92 0.8
CP2 24.47 57 (P) 39 44.34 1.7
CRP 24.51 57 eP 39 43.68 0.7
MAT 24.67 231 eP 39 44.00 -0.5
0.9s 44.54nm 5.0mb
CHJJ 24.74 229 P 39 45.30 0.2
MTMJ 24.82 232 P 39 44.00 -2.0
BOD 26.11 296 eP 40 00.50 2.7
1.4s 15.00nm 4.4mb
FBA 26.23 48 eP 39 57.18 -1.7
1.0s 4.03nm 4.0mb
BALM 29.24 55 (P) 40 26.50 0.2
ZAK 34.94 287 eP 41 15.00 -1.0
1.2s 6.00nm 4.4mb
e 43 41.00
YKA 40.94 45 eP 42 05.50 -0.5
0.6s 3.40nm 4.3mb
RES 41.04 23 eP 42 09.00 2.3
FCC 51.22 40 eP 43 30.00 2.6
BGMT 52.59 63 ePd 43 37.60 -0.7
BW06 55.59 63 eP 43 59.09 -1.2
1.3s 13.85nm 4.8mb
ULM 56.65 49 eP 44 10.00 2.5
MSU 57.30 68 eP 44 12.31 -0.3
RSSD 57.38 59 eP 44 12.01 -1.1
1.1s 19.19nm 5.1mb
KAF 58.07 337 eP 44 16.20 -1.2
NB2 61.92 344 P 44 41.80 -2.0
1.0s 6.60nm 4.7mb
HFS 62.37 343 eP 44 44.60 -2.2
0.4s 1.30nm 4.4mb
TUC 62.69 72 (P) 44 45.03 -4.3X
0.9s 2.90nm 4.4mb
CLL 70.86 340 iPd 45 40.00 -0.6
1.3s 17.00nm 5.0mb
BRG 71.09 339 i(P) 45 41.00 -1.0
1.0s 12.00nm 4.9mb
MOX 71.76 341 eP 45 46.00 -0.1
1.3s 16.00nm 4.9mb
PRU 71.80 339 eP 45 46.00 -0.3
GRF 72.75 341 iPc 45 52.30 0.3
1.0s 22.00nm 5.1mb
KHC 72.82 339 P 45 52.50 0.1
1.0s 5.40nm 4.5mb
e 46 23.00
GEC2 73.06 339 P 45 53.70 -0.2
0.5s 1.61nm 4.3mb
CDF 74.70 343 eP 46 02.70 -0.6
0.9s 7.85nm 4.7mb
KBA 74.82 338 iPc 46 04.60 0.4
1.0s 15.90nm 5.0mb
WTTA 74.99 340 iPc 46 05.30 0.1
HAU 75.24 343 eP 46 05.50 -0.9
0.7s 4.20nm 4.5mb
BSF 75.34 343 eP 46 06.10 -1.0
1.1s 11.70nm 4.8mb
GRR 75.88 348 eP 46 09.20 -0.8
0.7s 5.50nm 4.7mb
VBY 75.89 337 eP 46 09.80 -0.3
LPF 76.26 348 eP 46 11.40 -0.7
0.8s 5.90nm 4.6mb
LOR 76.35 345 eP 46 11.80 -0.9
1.0s 6.20nm 4.6mb
SSF 76.61 345 eP 46 13.30 -0.8
1.0s 6.80nm 4.6mb
AVF 76.90 345 eP 46 15.10 -0.6
1.1s 8.05nm 4.7mb
LPL 77.59 342 eP 46 20.40 0.5
1.1s 10.25nm 4.8mb
LPG 77.61 342 eP 46 20.50 0.5
1.3s 22.00nm 5.0mb
LPO 79.27 346 eP 46 28.90 0.2
0.8s 5.50nm 4.6mb
PGF 80.04 340 eP 46 33.00 -0.1
0.6s 5.30nm 4.7mb
S.D. = 1.2 on 55 of 59 obs.

• MAR 18, 1993 05h 37m 09.74± 0.66s
8.630 S ± 8.9km 120.643 E ± 9.5km
DEPTH = 33.0km (normal)
4.8mb (11 obs.) 4.4Msz (1 obs.)
FLORES REGION, INDONESIA (286)

TRT 7.98 276 ePc 39 07.50 1.1
SJI 8.83 275 iPd 39 19.50 1.4
MTN 11.12 113 eP 39 50.50 0.9
MBL 12.48 183 eP 40 07.40 -0.6
LEM 13.03 277 iPc 40 15.20 -0.2
NANU 14.70 199 eP 40 37.00 -0.1
0.3s 3.00nm 4.2mb
eS 43 12.00
WB2 17.39 132 eP 41 12.20 0.6
0.8s 9.20nm 4.0mb
i 41 20.70
eS 44 20.10
CGP 17.45 13 iPc 41 15.00 2.7
WARB 18.36 163 eP 41 29.00 5.3X
0.6s 11.00nm 4.2mb
ASPA 19.61 141 eP 41 43.50 5.0X
0.8s 45.90nm 4.8mb
eS 45 19.20
PGP 21.99 1 ePc 42 05.00 2.1
STK 30.23 143 eP 43 27.60 7.8X
0.5s 4.20nm 4.5mb
BDT 33.44 320 eP 43 44.80 -3.2X
0.8s 10.00nm 4.8mb
CHTO 34.66 322 ePc 43 57.50 -1.0
1.0s 24.00nm 5.1mb
KMI 37.81 333 Pd 44 25.00 -0.3
1.2s 60.00nm 5.3mb
Z 22s 0.70um 4.4Msz
sP 44 33.50
LZH 47.21 341 eP 45 40.00 -1.6
1.6s 39.00nm 5.2mb
Z 17s 0.98um 4.8MszX
E 13s 0.50um
pP 45 52.00 43kmX
MAT 47.87 19 eP 45 44.00 -2.6
1.3s 23.08nm 5.0mb
BJI 48.60 355 eP 45 50.00 -2.1
1.3s 40.00nm 5.3mb
Z 16s 0.88um 4.8MszX
N 16s 0.58um
BUL 88.96 250 iPd 50 03.00 -0.2
YKA 113.19 25 ePKP 55 52.70 7.6X
0.6s 0.20nm
CNCB 153.32 161 ePKP 57 09.00 9.2X
LPB 153.55 161 ePKP 57 17.00 17.1X
ZOBO 153.76 161 ePKP 57 10.00 9.5X
Z 24s 0.20um 4.9MszX
i 57 23.20
LR 14 22.00
S.D. = 1.6 on 15 of 23 obs.

& MAR 18, 1993 05h 42m 02.23s
34.354 N 116.466 W
DEPTH = 0.1km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS).

PEC 0.74 232 ePn 42 15.91 -1.1
GSC 0.99 344 ePn 42 20.88 -1.0
SSK 1.03 262 ePn 42 21.43 -1.3
PLM 1.05 198 ePn 42 21.78 -1.3
GLA 1.88 133 eP 42 33.50 -2.5
ISA 2.10 309 ePn 42 38.60 -0.6
eS 43 09.23
TPNV 2.60 4 (P) 42 46.20 -0.1
eS 43 25.79
BCH 3.09 287 (P) 42 59.07 5.7
8 obs. associated

? MAR 18, 1993 05h 42m 20.39± 5.80s
43.384 N ±15.4km 5.481 E ±45.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.6 (STR).

CDR 0.36 36 iPgd 42 26.10 -1.7
iSg 42 30.60
CALN 1.09 70 Pg 42 41.54 0.6
REVF 1.42 75 Pn 42 46.83 0.6
Sg 43 07.00
TOUF 1.43 63 Pn 42 46.53 0.0
Sg 43 07.63
AURF 1.43 69 Pn 42 46.33 -0.2
Sg 43 06.83
SURF 1.46 41 Pg 42 48.03 1.1
Sg 43 08.81
SBF 1.50 71 Pn 42 47.31 -0.1
AUTN 1.54 66 Pn 42 48.98 0.9
Sg 43 10.28
SAOF 1.62 67 Pn 42 49.02 -0.1
Sg 43 12.83
PGF 2.71 107 Pn 43 03.75 -1.2

```
     S.D. = 1.0  on  10 of  10 obs.
--------------------------------------
? MAR 18, 1993 06h 44m 45.13± 1.87s
   40.417 N ±10.0km   23.085 E ±17.3km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)

SOH      0.45  27 ePg    44 54.42   0.1
PAIG     0.67 137 ePg    44 58.46   0.0
                  eSg    45 08.02
OUR      0.69  97 ePg    44 58.70  -0.1
                  eSg    45 07.26
KNT      0.76 349 ePg    44 59.90   0.0
     S.D. = 0.1  on   4 of   4 obs.
--------------------------------------
% MAR 18, 1993 06h 54m 52.13± 0.81s
   31.686 S ±11.7km   67.852 W ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)

CFA      0.34 283 ePc    54 59.00  -0.2
                  S      55 04.20
RTCV     0.61 253 ePd    55 03.90  -0.5
RTLL     0.64 304 eP     55 05.00   0.1
RTCB     0.83 284 eP     55 09.00   0.7
RTPR     1.80  40 e(P)d  55 23.00  -0.4
MRA      1.96 112 ePc    55 26.00   0.3
                  S      55 51.20
     S.D. = 0.6  on   6 of   6 obs.
--------------------------------------
? MAR 18, 1993 07h 00m 06.08± 3.12s
   7.190 S ±18.4km  129.326 E ±17.2km
   DEPTH = 104.1 ± 28.1 km
   4.5mb (  5 obs.)
 BANDA SEA                        (280)

MTN      5.89 163 iPd    01 34.30   1.8
                  eS     02 37.00
WB2     13.58 159 iPc    03 12.70  -3.0
                  eS     05 35.00
MBL     16.65 213 eP     03 54.70   0.2
        0.3s     6.00nm          4.3mb
                  eS     06 46.00
ASPA    16.96 165 eP     03 57.70  -0.7
                  eS     07 03.90
WARB    19.06 187 eP     04 23.00   0.0
        0.4s    11.00nm          4.5mb
                  eS     07 50.00
NANU    20.25 220 iPc    04 35.50   0.1
        0.3s    13.00nm          4.7mb
                  eS     08 11.00
CTA     20.83 130 eP     04 34.00  -7.3X
                  i      04 44.50
MEEK    21.86 207 eP     04 51.00  -0.5
                  eS     08 33.00
FORT    23.50 183 eP     05 09.00   1.6
QLP     23.94 145 iPc    05 12.70   1.0
STK     27.10 157 eP     05 40.70  -0.3
        0.4s     4.60nm          4.4mb
                  e      06 02.70
                  eS     10 55.00
BFD     32.18 160 eP     06 26.50   0.4
CHTO    39.56 311 ePd    07 29.20   0.4
        0.9s    10.66nm          4.7mb
GBA     55.50 292 P      09 32.00  -0.8
CNCB   150.64 144 PKP    19 49.50   6.2X
LPB    150.80 144 PKP    19 49.00   5.7X
PPD    150.95 179 (PKP)  19 48.00   5.1X
ZOBO   150.97 144 PKP    19 48.00   4.1X
     S.D. = 1.4  on  13 of  18 obs.
--------------------------------------
   MAR 18, 1993 07h 19m 39.58± 0.26s
   40.388 N ± 3.0km   27.980 E ± 2.3km
   DEPTH =  13.9 ±  1.9 km
   4.0mb (  9 obs.)
 TURKEY                           (366)
      MD 4.2 (ISK), 4.1 (ATH). ML 4.1
      (THE). Felt in the Balikesir-
      Bursa-Istanbul area.

BNT      0.06 235 iPg    19 41.70  -0.7
EDC      0.10 245 iPg    19 43.50   0.7
KCT      0.32 116 ePg    19 46.20  -0.3
CTT      0.83  24 iPg    19 55.20  -0.1
DST      0.93 147 iPg    19 57.50   0.6
ISK      1.06  50 iPg    19 58.70  -0.5
                  eSg    20 12.70
```

```
YLV      1.08  80 iPg    19 59.20  -0.3
GBZT     1.19  70 ePg    20 02.40   1.1
                  iSg    20 17.40
HRT      1.36  71 iPn    20 03.70  -0.4
DMK      1.44 353 iPn    20 05.40   0.2
ALN      1.56 290 iPb    20 07.61   0.8
                  eSb    20 26.88
EYL      1.67  83 iPn    20 08.20  -0.4
PRK      1.74 230 ePb    20 11.00   1.5
GPA      1.78  92 ePn    20 09.20  -1.0
RDO      2.00 293 ePb    20 14.70   1.4
IZM      2.06 196 iPn    20 14.70   0.4
ALT      2.11 128 iPn    20 15.50   0.4
KDZ      2.31 304 iPd    20 19.00   1.2
DIM      2.48 313 iPd    20 21.00   0.8
RZN      2.79 299 iPd    20 25.00   0.2
PLD      3.01 306 iPd    20 28.00   0.4
OUR      3.06 270 iPn    20 28.04  -0.2
                  eSn    21 03.68
YER      3.26 176 iPn    20 31.00  -0.3
PSN      3.30   3 iP     20 31.00  -0.7
PAIG     3.33 263 ePn    20 32.20   0.0
                  iSn    21 10.06
SRS      3.41 284 iPn    20 33.17  -0.2
                  iSn    21 12.84
MM8      3.43 292 iPd    20 34.00   0.2
PVL      3.45 326 iPc    20 35.00   1.1
SOH      3.55 279 iPn    20 35.33  -0.1
                  eSn    21 14.87
BCK      3.56 144 ePn    20 36.00   0.4
PG8      3.59 308 iPc    20 36.00   0.0
THE      3.83 275 ePn    20 39.08  -0.3
                  eSn    21 21.00
ELL      3.94 157 ePn    20 42.00   1.1
KNT      3.94 283 ePn    20 40.60  -0.2
                  eSn    21 22.80
KK8      3.98 293 iP     20 41.00  -0.5
ATH      4.10 235 ePb    20 51.00   7.9X
VAY      4.21 285 iPn    20 44.00  -0.7
        0.8s   316.00nm
                  i      21 55.80
                  i      21 58.70
                  Lg     22 03.70
LIT      4.21 268 ePn    20 44.92   0.1
                  eSn    21 31.00
BUC      4.26 342 ePd    20 03.00 -42.4X
GRG      4.28 279 ePn    20 45.36  -0.4
                  eSn    21 32.08
KSL      4.44 163 ePn    20 52.00   4.0X
KAS      4.50  75 ePn    20 50.00   1.1
AGG      4.57 254 ePn    20 49.84   0.0
                  eSn    21 41.20
CFR      4.80   1 eP     20 52.00  -1.0
BZK      4.81  69 ePn    20 52.00  -1.3
ISR      4.86 348 eP     21 02.00   8.0X
FNA      5.04 277 ePn    20 55.64  -1.0
BRD      5.17 353 eP     21 00.50   2.2
SKO      5.18 290 ePn    20 58.60   0.1
                  i      21 03.10
SKO      5.18 290 iPg    21 21.50  23.0X
        1.0s   120.00nm
                  iSb    22 15.00
                  iSg    22 28.00
                  Lg     22 44.00
MLR      5.32 344 iPc    21 02.50   2.0
VLI      5.39 229 ePn    21 01.00  -0.5
NPS      5.45 201 ePb    21 12.50  10.2X
OHR      5.50 280 iPn    21 02.00  -1.1
        1.4s   208.00nm          5.6mb X
                  i      22 36.20
                  i      22 44.70
                  Lg     23 05.80
VRI      5.56 351 ePd    21 05.10   1.3
CVO      5.59 347 eP     21 05.50   1.2
LSK      5.65 270 ePn    21 10.90   5.7X
PPE      5.83 358 eP     21 10.00   2.4
IGT      5.94 264 ePn    21 08.40  -0.8
TPE      6.09 272 ePn    21 28.50  17.2X
SRN      6.14 268 ePn    21 19.80   7.9X
KVT      6.17  81 ePn    21 12.00  -0.4
TIR      6.23 281 e(Pn)  21 15.00   1.8
GZR      6.29 324 iPd    21 12.50  -1.7
LACI     6.38 284 ePn    21 19.50   4.1X
SSR      6.41 316 iPd    21 13.00  -2.9
SDA      6.61 287 ePn    21 20.10   1.5
DEV      6.63 328 ePd    21 16.00  -2.9
CSS      6.88 140 eP     21 36.00  13.5X
```

```
VBY     10.63 303 e(P)   22 09.50  -5.0X
CEY     11.26 303 e(P)   22 26.50   3.4X
VOY     11.72 303 e(P)   22 29.50   0.1
GEC2    13.21 315 Pn     22 48.00  -1.3
KHC     13.44 315 eP     22 51.50  -0.7
                  e      23 04.40
SBF     15.63 290 eP     23 25.40   4.4X
        0.6s     9.00nm          4.2mb
LPG     16.35 295 eP     23 35.00   4.6X
        0.8s     5.10nm          3.7mb X
LPL     16.36 295 eP     23 35.70   5.2X
        0.9s     5.10nm          3.7mb X
CDF     16.79 305 eP     23 39.70   3.9X
        1.1s    14.40nm          4.0mb
MAF     19.35 296 eP     24 07.60   0.2
        0.9s     4.40nm          3.7mb X
CAF     19.56 292 eP     24 10.50   0.7
        0.8s     3.75nm          3.7mb X
TCF     19.60 296 eP     24 10.90   0.6
        0.9s     6.70nm          3.9mb
LPO     20.17 291 eP     24 15.70  -0.5
        0.9s     6.70nm          4.0mb
MFF     21.26 296 eP     24 27.50   0.1
        0.5s     2.50nm          3.9mb
LDF     21.57 302 eP     24 30.00  -0.5
        0.5s     4.45nm          4.1mb
GRR     22.01 301 eP     24 34.50  -0.4
        0.7s     9.80nm          4.3mb
NB2     23.11 339 P      24 47.20   1.5
        0.7s     2.10nm          3.8mb X
BCAO    36.79 196 iPd    26 48.80   0.1
        0.7s     8.00nm          4.6mb
YKA     73.15 343 eP     31 10.30  -0.7
        0.9s     1.00nm          3.9mb
     S.D. = 1.0  on  71 of  88 obs.
--------------------------------------
   MAR 18, 1993 07h 22m 45.27± 0.38s
   40.405 N ± 5.6km   27.952 E ± 3.9km
   DEPTH =  11.7 ±  3.9 km
 TURKEY                           (366)
      ML 4.0 (THE). MD 3.9 (ISK). Felt
      in the Balikesir-Bursa-Istanbul
      area.

BNT      0.06 207 iPg    22 48.20   0.4
KCT      0.35 117 iPg    22 52.20  -0.3
ISK      1.07  52 iPg    23 04.70  -0.5
                  iSg    23 18.50
YLV      1.10  81 iPg    23 05.20  -0.5
GBZT     1.20  71 ePg    23 07.70   0.2
                  iSg    23 24.60
DMK      1.42 354 iPn    23 11.70   0.8
ALN      1.53 289 ePb    23 13.64   1.2
                  eSb    23 33.20
GPA      1.81  93 ePn    23 17.00   0.5
IZM      2.07 195 iPn    23 21.50   1.1
ALT      2.14 128 iPn    23 21.00  -0.4
OUR      3.03 270 ePn    23 33.92   0.0
                  eSn    24 09.36
PAIG     3.31 263 ePn    23 38.50   0.6
                  eSn    24 15.70
SRS      3.39 284 iPn    23 37.88  -1.2
                  eSn    24 19.14
SOH      3.52 278 iPn    23 41.66   0.6
                  eSn    24 22.02
KNT      3.91 283 iPn    23 46.76   0.3
                  iSn    24 32.34
VAY      4.18 284 ePn    24 02.50  12.2X
LIT      4.19 268 ePn    23 50.26  -0.2
GRG      4.26 279 ePn    23 50.46  -1.0
                  iSn    24 40.26
AGG      4.55 254 ePn    23 53.76  -1.8
SRO     10.14 320 eP     25 21.70   8.1X
BCAO    36.80 196 ePc    29 54.90   0.0
        0.5s     3.00nm          4.3mb X
     S.D. = 0.9  on  19 of  21 obs.
--------------------------------------
   MAR 18, 1993 07h 39m 58.70± 0.34s
   10.510 S ± 6.5km   13.152 W ± 7.2km
   DEPTH =  10.0km  (geophysicist)
   4.9mb ( 17 obs.)
 ASCENSION ISLAND REGION          (408)

LIC     18.49  26 P      44 17.26   0.5
     Z  20s     0.50um
KIC     18.74  27 P      44 20.04   0.2
TIC     18.87  26 P      44 21.16  -0.3
```

0.9s 18.00nm 4.3mb
LKO 21.30 21 P 44 46.70 -1.2
0.9s 31.50nm 4.7mb
SOB1 27.36 270 eP 45 49.70 3.4X
WIN 31.31 116 iPd 46 27.50 5.8X
1.0s 40.00nm 5.3mb
BAO 34.29 258 eP 46 46.90 -0.8
BCAO 34.87 66 iPc 46 51.80 -0.8
1.0s 10.00nm 4.6mb
POF 36.15 126 eP 47 03.50 0.3
CER 37.46 132 e(P) 47 06.00 -8.3X
PPD 38.27 248 (P) 47 22.00 0.8
LSZ 40.53 101 iPc 47 41.00 0.8
KSR 40.81 117 eP 47 41.00 -1.4
SLR 41.99 117 eP 47 34.00 -18.1X
BFT 43.53 116 eP 48 11.00 6.3X
SIV 46.88 258 P 48 42.00 10.6X
CNCB 53.51 257 P 49 24.00 1.3
LPB 53.63 257 eP 49 22.00 -1.4
ZOBO 53.66 258 P 49 22.00 -1.9
LR 05 40.00
LPO 56.45 12 eP 49 43.90 1.0
1.6s 26.10nm 5.0mb
LFF 56.60 12 eP 49 43.80 -0.2
1.2s 18.15nm 5.0mb
ARE 56.88 257 eP 49 48.00 1.1
RJF 57.11 12 eP 49 48.30 0.6
1.4s 17.85nm 4.9mb
LSF 58.02 12 eP 49 53.50 -0.5
1.3s 17.35nm 4.9mb
MFF 58.03 11 eP 49 53.20 -0.9
1.5s 29.25nm 5.1mb
TCF 58.19 12 eP 49 54.80 -0.5
1.4s 14.40nm 4.8mb
LPG 58.56 16 eP 50 00.00 1.8
0.9s 4.10nm 4.5mb
LPL 58.58 16 eP 49 59.90 1.7
1.1s 7.35nm 4.7mb
SMF 58.89 14 eP 49 59.20 -1.0
1.2s 13.10nm 4.9mb
LBF 59.25 14 eP 50 03.20 0.6
1.6s 22.40nm 5.0mb
TRI 60.98 21 eP 50 14.00 -0.4
SKO 61.12 29 iP 50 15.60 0.1
CEY 61.24 22 e(P) 50 16.00 -0.3
VOY 61.30 21 e(P) 50 17.00 0.2
VBY 61.35 22 e(P) 50 17.30 0.3
LJU 61.54 22 e(P) 50 18.50 0.2
NVL 62.20 171 eP 50 22.00 -0.4
e 50 26.00
GEC2 63.67 19 P 50 31.10 -1.4
1.0s 2.60nm 4.4mb
e 50 37.10
KHC 63.88 19 eP 50 33.50 -0.3
SPA 79.56 180 ePd 52 08.50 1.2
1.8s 148.15nm 5.7mb
MAIO 82.52 51 eP 52 24.00 0.6
FVM 86.55 309 eP 52 43.97 0.4
0.7s 9.19nm 5.1mb
S.D. = 0.9 on 36 of 42 obs.

MAR 18, 1993 07h 51m 38.13± 0.22s
40.429 N ± 2.8km 27.986 E ± 2.0km
DEPTH = 10.0km (geophysicist)
4.3mb (23 obs.)
TURKEY (366)
ML 4.5 (THE). MD 4.2 (ISK). Felt in the Bolikesir-Bursa-Istonbul oreo.

KCT 0.34 122 iPg 51 45.20 0.1
CTT 0.79 25 iPg 51 54.20 0.7
DST 0.96 149 iPg 51 56.50 0.1
ISK 1.03 52 iPg 51 57.70 0.1
iSg 52 11.20
YLV 1.07 82 iPg 51 58.00 -0.3
GBZT 1.17 72 iPgc 52 01.40 1.5
iSg 52 17.40
HRT 1.34 72 iPn 52 02.20 -0.6
DMK 1.40 353 iPn 52 04.20 0.5
ALN 1.55 288 ePb 52 06.32 0.6
eSb 52 25.52
EYL 1.66 85 iPn 52 07.00 -0.5
PRK 1.77 229 ePn 52 10.00 1.0
GPA 1.78 94 iPn 52 08.10 -1.1
RDO 1.99 292 ePn 52 13.00 0.8
IZM 2.10 196 iPn 52 14.50 0.6
ALT 2.14 129 iPn 52 14.50 0.1
JMB 2.29 333 iP 52 17.00 0.4
KDZ 2.29 303 iPd 52 17.00 0.4
DIM 2.46 312 iP 52 19.00 0.1
RZN 2.77 298 iPd 52 24.00 0.4
PLD 2.99 305 iP 52 26.00 -0.4
OUR 3.06 270 iPn 52 26.66 -0.7
eSn 53 03.44
PSN 3.25 3 iP 52 30.00 -0.2
YER 3.30 176 iPn 52 31.00 0.1
PAIG 3.34 263 ePn 52 30.28 -1.1
eSn 53 09.16
SRS 3.41 283 iPn 52 31.98 -0.4
iSn 53 10.80
PVL 3.42 325 iP 52 33.00 0.5
MMB 3.42 291 iPd 52 32.00 -0.7
SOH 3.55 278 ePn 52 34.04 -0.4
iSn 53 13.80
PGB 3.57 308 iP 52 35.00 0.3
BCK 3.59 145 ePn 52 34.80 -0.3
THE 3.83 275 ePn 52 37.68 -0.7
eSn 53 21.32
KNT 3.93 282 ePn 52 39.72 -0.1
eSn 53 22.52
ELL 3.97 157 iPn 52 41.00 0.5
KKB 3.97 293 iP 52 40.00 -0.4
ATH 4.13 235 ePb 52 54.50 12.0X
BUC1 4.17 340 eP 53 02.00 18.8X
VTS 4.19 303 iP 52 44.00 0.4
VAY 4.20 284 iPn 52 43.80 0.1
1.0s 942.00nm
iSn 53 56.20
Lg 54 13.00
LIT 4.22 267 ePn 52 43.80 -0.1
eSn 53 30.12
BUC 4.22 341 iPd 52 03.00 -40.9X
GRG 4.28 279 ePn 52 44.68 -0.1
eSn 53 31.24
KAS 4.48 76 ePg 52 46.50 -1.2
iSg 54 03.00
KSL 4.48 163 ePn 53 05.00 17.4X
AGG 4.58 254 ePn 52 48.08 -1.0
eSn 53 40.76
KZN 4.75 271 ePn 52 50.00 -1.6
BZK 4.79 69 ePn 52 52.00 -0.1
ISR 4.82 348 eP 53 04.50 12.0X
FNA 5.04 276 ePn 52 55.04 -0.6
DRA 5.06 328 ePc 52 55.00 -0.8
SKO 5.17 289 iPn 52 57.20 -0.3
1.1s 241.00nm 5.7mb X
iPg 53 18.50
iSb 54 18.10
iSg 54 28.80
Lg 54 36.00
MLR 5.28 344 iPd 53 00.50 1.5
VLI 5.42 228 ePn 53 01.00 0.1
NPS 5.49 201 ePn 53 04.00 2.1
OHR 5.50 279 iPnc 53 02.50 0.4
1.5s 501.00nm 6.0mb X
i 53 09.50
i 54 24.30
i 54 39.70
i 54 46.20
Lg 55 04.20
VRI 5.52 351 ePc 53 02.50 0.2
CVO 5.55 347 ePd 53 05.50 2.7
LSK 5.66 270 ePn 53 07.50 3.2X
PPE 5.79 357 eP 53 07.50 1.4
TNR 5.89 334 ePc 53 07.00 -0.5
IGT 5.95 264 iPn 53 07.24 -1.1
SRN 6.14 267 ePn 53 13.80 2.7
KVT 6.16 81 ePn 53 10.00 -1.3
TIR 6.22 281 e(Pn) 53 14.00 1.8
KEK 6.32 266 ePn 53 13.50 -0.2
LACI 6.37 284 ePn 53 16.10 1.7
SIM 6.39 43 eP 53 13.00 -1.6
SSR 6.39 316 iPd 53 13.00 -1.6
PVY 6.39 292 iPnd 53 15.02 0.2
iSn 54 49.35
VLO 6.48 273 ePn 53 25.50 9.7X
IVA 6.53 295 iPnd 53 16.81 0.1
iSn 54 52.15
DEV 6.60 327 ePd 53 15.50 -2.0
SDA 6.60 287 ePn 53 18.60 1.0
KIS 6.62 5 eP 53 16.00 -1.7
e 54 28.00
ULC 6.77 286 iPnd 53 20.84 0.9
iSn 54 59.45
TTG 6.86 290 iPnc 53 21.80 0.7
iSn 55 01.42
CSS 6.91 140 eP 53 28.00 6.1X
PLE 7.04 297 iPnd 53 23.24 -0.6
iSn 55 03.91
BDV 7.14 288 iPnc 53 25.99 0.9
iSn 55 08.38
NKY 7.14 292 iPnd 53 25.59 0.3
iSn 55 07.53
TIM 7.25 319 eP 54 00.00 33.3X
HCY 7.41 289 iPnd 53 29.60 0.7
iSn 55 15.01
BRY 7.49 292 iPnc 53 30.46 0.3
iSn 55 16.33
ANN 8.18 54 eP 53 41.50 1.9
SRO 10.14 320 eP 54 08.90 2.3
i 54 25.20
PTJ 10.34 306 eP 54 13.60 3.9X
VBY 10.61 303 ePn 54 11.60 -1.7
ZST 11.00 319 eP 54 12.60 -5.8X
LJU 11.30 304 e(P) 54 21.50 -1.1
e 54 56.50
e 57 32.00
KIV 11.46 67 eP 54 37.70 12.7X
0.8s 11.00nm
TRI 11.66 302 eP 54 27.00 -0.5
e 58 17.80
e 59 08.00
VOY 11.70 303 e(P) 54 23.80 -4.4X
KBA 12.49 307 iPd 54 38.70 -0.2
0.8s 6.70nm 4.9mb X
i 55 00.70
GEC2 13.18 314 Pn 54 48.00 0.0
Pg 55 03.10
Sn 56 22.10
KHC 13.41 315 eP 54 50.50 -0.5
e 55 02.50
e 55 41.00
WTTA 13.62 306 iPd 54 41.60 -12.3X
0.6s 4.50nm
CLL 15.04 321 eP 55 22.00 9.7X
SBF 15.62 289 eP 55 24.50 4.6X
0.8s 36.15nm 4.7mb
OBN 15.76 18 iPc 55 18.20 -3.3X
1.2s 44.00nm 4.5mb
iPP 55 24.80
ePPP 55 38.20
iS 58 02.50
i 58 12.60
iSS 58 25.00
i 59 17.00
LQ 00 34.00
LPG 16.33 295 eP 55 35.00 5.7X
0.8s 10.75nm 4.0mb
LPL 16.35 295 eP 55 34.40 4.9X
1.0s 14.40nm 4.1mb
MOS 16.59 19 eP 55 29.00 -3.1X
CDF 16.77 305 eP 55 37.70 3.0X
1.4s 55.75nm 4.5mb
SMF 18.54 298 eP 55 56.30 -0.2
0.9s 6.90nm 3.8mb
LOR 18.65 299 eP 55 59.00 1.0
Z 18s 0.22um
SSF 18.85 299 eP 56 00.40 0.1
1.0s 11.20nm 4.0mb
AVF 18.90 298 eP 56 00.90 0.0
1.2s 21.40nm 4.2mb
BGF 19.20 297 eP 56 04.10 -0.5
0.7s 8.60nm 4.1mb
MAF 19.34 296 eP 56 05.70 -0.7
0.9s 11.95nm 4.2mb
CAF 19.55 292 eP 56 08.40 -0.4
1.3s 20.20nm 4.2mb
TCF 19.59 296 eP 56 08.80 -0.5
0.8s 7.40nm 4.0mb
RJF 19.96 293 eP 56 13.70 0.5
1.2s 18.45nm 4.3mb
LPO 20.16 291 eP 56 14.90 -0.3
0.9s 15.05nm 4.3mb
LFF 20.49 292 eP 56 18.30 -0.3
MFF 21.25 296 eP 56 25.50 -0.9
0.6s 5.95nm 4.2mb
LDF 21.55 302 eP 56 28.10 -1.4
1.0s 30.00nm 4.7mb
FLN 21.82 302 eP 56 30.80 -1.4
1.0s 15.60nm 4.4mb

18d 07h

Z 19s 0.28um 3.7Msz
GRR 21.99 301 eP 56 32.60 -1.3
1.0s 32.20nm 4.7mb
SLL 22.04 340 eP 56 33.50 -0.8
0.6s 1.80nm 3.7mb
LPF 22.05 300 eP 56 33.40 -1.1
1.0s 21.80nm 4.5mb
NB2 23.07 339 P 56 46.30 1.8
0.7s 4.30nm 4.1mb
MAIO 24.97 89 eP 57 04.00 0.7
SVE 26.75 41 ePc 57 31.50 12.1X
BCAO 36.83 196 iPd 58 47.00 -1.3
0.8s 14.00nm 4.8mb X
i 59 10.10
NRI 42.37 27 eP 59 39.00 5.4X
1.1s 15.00nm 4.6mb
e 59 53.00
ILT 70.13 10 eP 02 55.00 2.9
YKA 73.11 343 eP 03 08.60 -1.4
0.9s 2.70nm 4.3mb
YSS 75.37 40 eP 03 28.90 5.6X
S.D. = 1.0 on 103 of 127 obs.

% MAR 18, 1993 07h 55m 34.13± 2.34s
40.415 N ±12.8km 27.978 E ±17.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.1 (ISK).

KCT 0.33 120 iPg 55 41.20 0.1
CTT 0.81 25 ePg 55 50.20 0.4
ISK 1.05 51 iPg 55 53.70 -0.2
iSg 56 07.70
YLV 1.07 81 ePg 55 54.20 -0.2
DMK 1.41 353 ePn 55 59.70 -0.2
S.D. = 0.4 on 5 of 5 obs.

MAR 18, 1993 08h 01m 57.47± 0.69s
40.960 N ± 7.3km 142.036 E ±10.1km
DEPTH = 66.6 ± 6.6 km
4.6mb (16 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

AOMJ 1.32 253 P 02 21.60 1.3
MRRJ 1.63 334 eP 02 23.50 -1.0
S 02 43.10
HOOJ 1.70 33 P 02 26.30 0.8
eS 02 47.30
OFUJ 1.90 189 P 02 29.80 1.6
eS 02 53.10
KUSJ 2.92 42 P 02 41.30 -1.2
S 03 13.90
ASAJ 3.19 8 P 02 46.10 -0.1
eS 03 22.40
NIIJ 4.40 213 P 03 07.90 4.6X
KAKJ 4.97 198 P 03 10.00 -1.2
S 04 07.50
MAT 5.33 215 (P) 03 20.00 3.6X
0.6s 11.33nm 4.3mb
eS 04 39.00
CHJJ 5.45 207 P 03 24.00 5.9X
MTMJ 5.48 218 P 03 22.10 3.6X
BJI 19.67 276 eP 06 22.00 -1.6
IMA 43.09 33 (P) 09 52.70 0.4
0.7s 1.02nm 3.7mb
FBA 45.56 34 eP 10 12.60 0.7
0.9s 3.75nm 4.3mb
YKA 60.19 31 eP 11 59.30 -1.0
0.6s 0.20nm 3.4mb X
ASPA 64.74 188 eP 12 28.40 -2.4
0.7s 3.60nm 4.4mb
KAF 65.06 332 iP 12 31.40 -1.1
0.4s 1.80nm 4.4mb
NUR 66.73 331 iP 12 42.30 -0.9
0.4s 5.60nm 4.9mb
HFS 70.72 335 eP 13 06.80 -1.0
0.3s 1.40nm 4.3mb
NB2 70.76 337 P 13 07.40 -0.8
0.8s 5.20nm 4.5mb
GEC2 79.64 328 P 13 59.40 0.5
0.5s 1.04nm 4.0mb
e 14 08.60
e 14 11.70
LPL 85.08 330 eP 14 28.00 0.7
0.7s 4.65nm 4.7mb
LPG 85.09 330 eP 14 28.10 0.7
0.7s 7.60nm 4.9mb
AVF 85.21 333 eP 14 28.10 0.5
0.8s 6.05nm 4.7mb
MAF 85.97 333 eP 14 32.50 1.1
0.7s 6.15nm 4.8mb
LSF 86.30 334 eP 14 33.70 0.7
0.7s 7.95nm 4.9mb
MFF 86.53 335 eP 14 35.10 0.9
0.7s 5.30nm 4.8mb
CAF 87.27 333 eP 14 39.20 1.4
0.7s 3.95nm 4.7mb
LPO 87.79 333 eP 14 41.30 1.1
S.D. = 1.2 on 25 of 29 obs.

---

* MAR 18, 1993 08h 10m 15.89± 1.41s
46.058 N ± 8.9km 13.553 E ±13.7km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
MD 2.5 (LJU).

VOY 0.24 96 iPgc 10 20.60 -0.4
eSg 10 24.70
TRI 0.38 157 ePg 10 23.50 -0.2
eSg 10 29.20
CEY 0.69 117 ePg 10 29.50 0.0
iSg 10 38.90
KBA 1.03 352 iPgc 10 35.50 0.0
iSg 10 49.50
VBY 1.31 114 ePnd 10 40.80 0.6
eSn 11 00.40
S.D. = 0.6 on 5 of 5 obs.

? MAR 18, 1993 08h 20m 10.88± 4.85s
34.985 S ±44.7km 71.094 W ±16.9km
DEPTH = 100.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.7 (SAN).

CACH 0.96 25 iP 20 31.32 0.1
iS 20 48.13
LNV 1.06 346 iP 20 32.23 0.0
iS 20 49.45
CHCH 1.11 19 iP 20 32.87 0.0
iS 20 50.91
TACH 1.33 6 iP 20 35.40 -0.1
iS 20 54.65
PCH 1.44 20 iP 20 37.02 0.1
iS 20 58.00
LCCH 1.56 345 iP 20 38.08 -0.1
iS 20 58.79
FCH 1.78 22 iP 20 41.30 -0.2
iS 21 06.23
PEL 1.87 11 iP 20 42.49 0.2
iS 21 07.01
ROCH 2.01 2 iP 20 44.64 0.3
iS 21 10.72
JACH 2.33 10 iP 20 48.22 -0.3
iS 21 18.01
S.D. = 0.2 on 10 of 10 obs.

? MAR 18, 1993 08h 47m 53.30± 4.15s
41.634 N ±33.6km 7.488 E ±10.8km
DEPTH = 10.0km (geophysicist)
WESTERN MEDITERRANEAN SEA (387)
ML 3.4 (LDG).

PGF 1.45 50 Pn 48 19.87 0.2
LMR 1.85 337 Pn 48 24.80 -0.4
Sn 48 48.90
LRG 2.00 336 Pn 48 27.40 -0.1
Sn 48 53.00
FRF 2.02 342 Pn 48 27.60 -0.2
Sn 48 53.50
CALN 2.16 348 Pn 48 29.96 0.0
SBF 2.23 359 Pn 48 30.78 -0.1
AURF 2.25 357 Pn 48 31.26 0.0
Sn 48 59.45
IMI 2.29 7 P 48 31.56 -0.3
S 48 57.79
SAOF 2.35 1 Pn 48 31.99 -0.6
Sn 49 00.79
AUTN 2.36 359 Pn 48 32.82 -0.1
TOUF 2.38 356 Pn 48 33.40 0.2
Sn 49 02.44
CDR 2.40 329 ePg 48 59.70 26.4X
ENR 2.59 359 P 48 36.46 0.4
S 49 06.79
STV 2.61 357 P 48 37.00 0.7
S 49 09.05
FIN 2.63 11 P 48 36.24 -0.3
S 49 06.03
ROB 2.67 6 P 48 37.57 0.4
S 49 08.98
PZZ 2.88 354 P 48 41.35 1.1
S 49 15.23
PCP 3.01 15 P 48 41.00 -0.9
S 49 14.94
LPG 3.90 352 Pn 48 57.50 2.7X
LPL 3.92 352 Pn 48 57.90 2.9X
S.D. = 0.5 on 17 of 20 obs.

% MAR 18, 1993 08h 48m 15.48± 0.55s
40.400 N ± 5.5km 28.020 E ± 4.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

BNT 0.09 240 iPg 48 18.20 0.1
EDC 0.13 246 iPg 48 18.50 -0.1
iSg 48 19.50
KCT 0.30 120 iPg 48 21.50 -0.2
eSg 48 25.20
CTT 0.81 23 iPg 48 30.70 -0.5
DST 0.92 149 ePg 48 33.00 -0.1
YLV 1.05 80 ePg 48 35.20 -0.1
eSg 48 49.70
DMK 1.43 352 ePn 48 41.70 0.2
EYL 1.64 84 ePn 48 45.20 0.7
S.D. = 0.4 on 8 of 8 obs.

% MAR 18, 1993 09h 11m 01.03± 0.49s
40.429 N ± 4.6km 28.032 E ± 4.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.9 (ISK).

BNT 0.11 229 iPg 11 04.20 0.3
EDC 0.15 237 iPg 11 04.50 -0.1
KCT 0.31 126 iPg 11 07.50 0.1
CTT 0.78 23 iPg 11 16.10 -0.1
DST 0.94 151 iPg 11 18.50 -0.5
eSg 11 31.50
ISK 1.01 51 iPg 11 19.60 -0.5
iSg 11 33.10
YLV 1.03 82 ePn 11 20.90 0.3
HRT 1.31 72 ePn 11 25.10 -0.1
DMK 1.41 352 iPn 11 26.70 0.0
EYL 1.63 84 ePn 11 30.50 0.6
S.D. = 0.4 on 10 of 10 obs.

? MAR 18, 1993 09h 12m 29.81± 1.04s
39.096 N ± 9.0km 27.542 E ±17.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

IZM 0.73 198 iPg 12 44.20 0.0
iSg 12 56.70
DST 0.98 59 iPn 12 48.50 0.0
EDC 1.27 11 ePn 12 53.00 -0.4
BNT 1.29 13 ePn 12 54.20 0.5
S.D. = 0.6 on 4 of 4 obs.

MAR 18, 1993 09h 13m 25.78± 0.83s
26.656 S ± 5.6km 70.985 W ±13.4km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
NEAR COAST OF NORTHERN CHILE (122)

ANT 2.98 10 eP 14 12.00 0.1
iS 14 59.50
FSA 4.50 84 eP 14 38.90 5.5X
CYA 4.94 112 ePc 14 40.70 1.0
S 15 40.50
RTLL 5.15 155 ePc 14 42.20 -0.5
RTCB 5.18 159 ePd 14 42.70 -0.4
ZON 5.27 158 e(P) 14 48.00 3.6X
SLA 5.31 70 ePc 14 51.80 6.8X
RTPR 5.36 134 ePd 14 45.20 -0.3
CFA 5.49 155 e(P) 14 47.00 -0.4
RTCV 5.61 158 e(P) 14 50.00 0.9
HJA 6.11 57 ePc 15 03.50 7.3X
MRA 7.35 143 e(P) 15 12.00 -1.5
CNCB 10.18 16 P 15 54.00 0.7
LPB 10.42 15 eP 15 55.00 -1.5

ZOBO 10.65 15 P 15 58.00 -1.8
Z 20s 0.15um
LR 19 44.00
SIV 14.06 43 P 16 53.80 9.0X
LR 19 27.00
PPD 18.50 80 (P) 17 43.00 1.7
VAO 22.09 86 eP 18 19.80 -0.1
e 18 26.00
ALQ 69.86 329 eP 24 37.00 1.5
YKA 95.42 341 eP 26 48.20 0.6
0.8s 0.30nm 3.8mb
GBA 147.73 107 PKP 33 10.00 3.6X
S.D. = 1.1 on 15 of 21 obs.

% MAR 18, 1993 09h 42m 40.39± 0.72s
40.420 N ± 8.9km 28.039 E ± 5.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

BNT 0.11 235 iPg 42 43.70 0.4
EDC 0.15 241 iPg 42 43.50 -0.5
KCT 0.30 125 iPg 42 46.60 0.0
eSg 42 50.10
YLV 1.03 81 ePn 42 59.10 -0.8
DMK 1.42 351 ePn 43 06.20 0.0
EYL 1.62 84 ePn 43 10.00 0.8
S.D. = 0.7 on 6 of 6 obs.

% MAR 18, 1993 09h 52m 09.38± 1.02s
40.712 N ± 7.7km 22.872 E ± 6.7km
DEPTH = 5.0km (geophysicist)
GREECE (364)

THE 0.11 139 ePg 52 11.70 0.0
eSg 52 12.86
SOH 0.38 73 ePg 52 17.14 0.1
eSg 52 22.58
GRG 0.43 304 ePg 52 18.02 0.0
eSg 52 24.58
KNT 0.45 3 iPg 52 18.50 0.1
SRS 0.68 53 ePg 52 22.82 -0.2
S.D. = 0.1 on 5 of 5 obs.

% MAR 18, 1993 10h 54m 56.23± 0.87s
44.452 N ± 7.9km 8.281 E ± 6.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (GEN).

PCP 0.21 65 P 55 01.21 0.4
S 55 04.93
FIN 0.25 192 P 55 00.84 -0.7
S 55 04.23
ROB 0.33 242 P 55 03.35 0.2
S 55 07.77
IMI 0.61 208 P 55 08.47 -0.1
ENR 0.66 250 P 55 09.48 0.1
S 55 19.09
STV 0.72 253 P 55 11.16 0.7
S 55 20.72
BHB 0.82 299 P 55 10.53 -1.7
S 55 22.98
PZZ 0.85 274 P 55 13.77 1.1
S 55 25.08
S.D. = 1.0 on 8 of 8 obs.

& MAR 18, 1993 11h 02m 44.16s
37.553 N 118.833 W
DEPTH = 6.8km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.0 (GM). ML 3.1
(BRK), 2.8 (GS).

MEMM 0.14 323 iPd 02 47.48 0.3
BONR 0.58 46 (P) 02 55.55 -0.3
CMB 1.32 292 iPc 03 08.23 -0.7
iS 03 25.65
TNP 1.38 67 eP 03 08.99 -1.1
PKEM 1.81 215 (P) 03 16.96 1.0
ISA 1.91 171 eP 03 18.71 1.2
S 03 43.34
LLA 1.93 242 iPc 03 18.83 1.1
iS 03 42.61
PRI 2.04 227 iPc 03 20.65 1.3
iS 03 49.09
PHAM 2.13 217 eP 03 20.61 0.0
TPNV 2.15 106 eP 03 20.96 -0.1
ARN 2.16 265 eP 03 21.25 0.2
S 03 50.20
SAO 2.23 250 ePc 03 23.19 1.1
eS 03 52.03
MHC 2.25 265 ePd 03 23.41 1.0
iS 03 52.58
PRS 2.37 240 iPc 03 25.08 1.0
iS 03 55.61
BCH 2.57 204 eP 03 27.04 0.0
ARUT 4.29 85 ePn 03 50.93 -0.5
Pg 04 05.22
MSU 5.34 78 (P) 04 14.92 8.4
17 obs. associated

---

* MAR 18, 1993 11h 42m 35.69± 1.03s
17.898 N ± 9.1km 95.310 W ±10.3km
DEPTH = 27.4 ± 8.8 km
4.3mb (6 obs.)
OAXACA, MEXICO (60)

OXX 1.57 239 iP 43 02.50 0.2
iS 43 21.50
IISM 2.24 299 iP 43 10.50 -1.2
iS 43 34.50
SCX 2.80 114 eP 43 25.50 5.8X
iS 43 56.00
PPM 3.36 291 iP 43 28.75 0.7
IIA 3.41 292 (P) 43 19.50 -8.8X
UNM 3.94 292 (P) 43 38.50 2.4
III 3.98 278 iP 43 35.50 -1.1
TPX 4.17 135 iP 43 39.00 -0.2
CRX 4.41 291 (P) 43 46.00 3.2X
BUTX 13.86 353 iP 45 52.96 0.4
eS 48 10.10
WMOK 17.06 350 eP 46 33.50 -0.4
0.6s 12.30nm 4.2mb
S 49 27.71
MEO 17.07 351 iPc 46 33.70 -0.3
FNO 17.39 354 iPd 46 42.50 4.5X
OCO 17.66 354 iPd 46 47.50 6.1X
OLY 17.86 10 eP 46 45.97 2.0
ACO 19.03 351 iPd 46 56.10 -2.2
ALO 19.67 332 eP 47 04.36 -1.5
0.9s 4.46nm 3.8mb
TUC 20.02 319 eP 47 08.66 -0.8
0.9s 11.89nm 4.2mb
ELC 20.04 14 eP 47 09.85 0.4
FVM 20.46 11 eP 47 17.76 3.8X
0.5s 14.97nm 4.6mb
JSC 20.59 35 eP 47 20.24 5.1X
LHS 20.98 35 eP 47 24.36 5.1X
GLA 23.14 314 eP 47 41.97 1.2
MSU 25.27 328 eP 48 02.75 1.2
ARUT 25.40 325 eP 48 03.22 0.5
GSC 25.79 316 eP 48 06.04 -0.2
LCCM 31.08 337 eP 48 54.20 0.3
ZOBO 43.25 140 P 50 37.00 -0.4
YKA 46.54 348 eP 51 00.50 -2.0
0.8s 2.40nm 4.2mb
SIV 47.66 133 P 51 22.00 10.1X
i 51 33.00
NB2 82.24 28 P 54 56.90 1.2
0.8s 6.00nm 4.7mb
S.D. = 1.3 on 22 of 31 obs.

? MAR 18, 1993 11h 45m 18.21± 1.51s
31.281 S ±33.5km 68.751 W ±17.2km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.21 191 iPd 45 32.50 -0.5
S 45 42.50
RTLL 0.25 101 iPc 45 32.70 -0.4
S 45 42.50
ZON 0.27 167 iPd 45 33.50 0.3
eS 45 44.50
CFA 0.54 127 iPc 45 34.70 0.1
S 45 47.00
RTCV 0.61 163 eP 45 34.90 -0.2
S 45 47.00
MRA 2.82 114 ePc 46 02.20 -0.1
S.D. = 0.4 on 6 of 6 obs.

% MAR 18, 1993 12h 00m 15.28± 0.95s
39.089 N ± 8.7km 27.593 E ±16.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.74 201 iPg 00 29.80 0.0
iSg 00 41.80
DST 0.95 57 iPn 00 33.20 -0.3
EDC 1.27 9 ePn 00 38.50 -0.4
BNT 1.29 11 ePn 00 39.10 -0.1
KCT 1.30 27 ePn 00 40.10 0.8
S.D. = 0.6 on 5 of 5 obs.

? MAR 18, 1993 12h 19m 02.22± 1.57s
40.267 N ±16.0km 29.374 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

YLV 0.30 360 iPg 19 08.50 0.0
eSg 19 12.00
EYL 0.67 63 ePg 19 15.60 0.0
eSg 19 26.00
BNT 1.12 275 iPn 19 23.50 0.4
EDC 1.16 274 ePn 19 23.50 -0.4
S.D. = 0.5 on 4 of 4 obs.

% MAR 18, 1993 12h 25m 01.41± 0.96s
39.133 N ± 8.1km 27.518 E ±15.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

IZM 0.76 195 iPg 25 16.30 0.0
iSg 25 29.80
DST 0.98 61 ePn 25 20.20 0.1
EDC 1.24 12 ePn 25 24.50 0.0
BNT 1.26 14 iPn 25 25.00 0.2
KCT 1.29 30 ePn 25 25.00 -0.3
S.D. = 0.3 on 5 of 5 obs.

% MAR 18, 1993 12h 47m 58.93± 0.54s
40.427 N ± 5.6km 28.048 E ± 4.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.9 (ISK).

BNT 0.12 234 iPg 48 02.50 0.6
EDC 0.16 240 iPg 48 02.50 -0.2
iSg 48 04.50
KCT 0.30 127 iPg 48 05.10 0.0
DST 0.93 151 iPg 48 16.20 -0.6
eSg 48 31.00
ISK 1.00 50 iPg 48 17.60 -0.2
iSg 48 31.10
YLV 1.02 82 iPn 48 18.50 0.2
HRT 1.29 72 ePn 48 23.10 0.2
DMK 1.41 351 iPn 48 24.30 -0.3
EYL 1.61 84 ePn 48 28.00 0.4
S.D. = 0.4 on 9 of 9 obs.

% MAR 18, 1993 13h 06m 57.09± 0.50s
40.433 N ± 4.7km 28.041 E ± 4.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.1 (ISK).

BNT 0.12 230 iPg 07 01.00 0.9
EDC 0.16 238 iPg 07 00.50 -0.3
KCT 0.30 127 iPg 07 03.00 -0.4
CTT 0.77 22 iPg 07 12.60 0.4
eSg 07 22.00
DST 0.94 151 iPg 07 14.70 -0.4
eSg 07 28.00
YLV 1.02 82 iPn 07 16.70 0.2
HRT 1.30 72 iPn 07 21.00 -0.2
DMK 1.40 351 iPn 07 21.80 -0.9
EYL 1.62 85 ePn 07 26.50 0.6
ALT 2.11 130 ePn 07 33.00 0.1
IZM 2.12 197 ePn 07 33.00 -0.1
S.D. = 0.6 on 11 of 11 obs.

% MAR 18, 1993 13h 19m 01.80± 0.74s
26.245 S ± 7.4km 27.657 E ± 7.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

PRY 0.70 194 eP 19 15.30 -0.5

18d 13h

S 19 22.70
SLR 0.76 48 eP 19 16.30 -0.8
S 19 25.60
KSR 0.78 299 e(P) 19 17.30 -0.3
S 19 27.00
SEK 2.07 181 iP 19 37.60 -0.2
S 20 02.40
BFT 2.22 76 eP 19 41.00 1.0
S 20 07.00
SWZ 2.28 245 eP 19 41.70 0.8
S 20 09.70
S.D. = 0.9 on 6 of 6 obs.

MAR 18, 1993 14h 25m 04.63± 0.32s
39.441 S ± 4.8km 174.568 E ± 5.8km
DEPTH = 197.2 ± 4.8 km
4.5mb (4 obs.)
NORTH ISLAND, NEW ZEALAND (159)
Felt (IV) in southern North Island. Also felt at Nelson, South Island.

BSZ 0.45 142 P 25 31.90 0.7
NRZ 0.50 282 P 25 32.00 0.6
CNZ 0.80 73 Pc 25 33.60 0.4
NGZ 0.84 72 Pd 25 33.90 0.4
MOZ 0.95 11 P 25 33.40 -0.6
S 25 54.10
MNG 1.37 149 P 25 38.20 1.0
S 26 00.90
WAHZ 1.41 101 P 25 38.00 0.4
KIW 1.45 170 Pc 25 38.60 0.7
DIW 1.45 200 P 25 38.70 0.8
WHH 1.60 70 P 25 38.70 -0.7
PATZ 1.69 52 P 25 40.00 -0.3
CAW 1.71 167 Pc 25 41.10 0.8
TAHZ 1.71 80 P 25 41.40 0.9
TTH 1.75 94 P 25 41.40 0.7
PGZ 1.76 132 Pc 25 41.40 0.6
WLZ 1.76 27 Pc 25 40.80 -0.1
S 26 07.30
UTU 1.79 46 P 25 41.00 -0.1
MRW 1.79 177 Pc 25 41.80 0.7
TEHZ 1.81 108 P 25 42.10 0.7
WEL 1.85 175 Pd 25 42.20 0.5
MTW 1.86 158 Pc 25 42.20 0.4
SNZO 1.87 177 Pc 25 42.70 0.8
TAZ 1.94 52 Pc 25 42.30 -0.3
PAHZ 2.02 74 Pd 25 43.50 0.0
MOH 2.03 82 Pc 25 43.80 0.3
BLW 2.05 161 P 25 44.20 0.5
MOW 2.05 165 P 25 44.10 0.3
ORZ 2.09 228 Pc 25 43.90 -0.3
S 26 12.20
URZ 2.31 60 Pd 25 45.30 -1.3
S 26 14.10
MAHZ 2.58 85 Pc 25 49.90 0.2
THZ 2.64 208 Pc 25 50.40 0.0
S 26 24.30
NOZ 2.82 74 Pd 25 51.80 -0.6
KUZ 2.84 19 Pd 25 52.30 -0.3
S 26 28.30
KHZ 3.07 194 Pc 25 55.50 0.1
S 26 32.20
DSZ 3.12 222 Pc 25 55.30 -0.7
PUZ 3.19 66 Pd 25 55.40 -1.5
S 26 32.70
HBZ 3.46 59 P 25 58.60 -1.5
LTZ 3.76 207 P 26 03.00 -0.9
MQZ 4.50 198 P 26 11.00 -2.1
EWZ 4.93 213 eP 26 16.80 -1.8
BWZ 6.17 213 eP 26 30.80 -3.8X
ODZ 6.31 206 P 26 34.70 -1.8
LRCZ 6.82 213 eP 26 39.60 -3.8X
MHZ 6.85 213 eP 26 39.90 -3.8X
LSCZ 6.86 213 eP 26 40.10 -3.6X
SBCZ 6.86 213 eP 26 40.00 -3.8X
CMCZ 6.92 213 eP 26 41.00 -3.6X
MSZ 7.19 221 P 26 45.00 -3.1X
TUZ 7.46 208 eP 26 49.50 -2.1
SIZ 8.79 210 eP 27 05.50 -3.4X
DZM 18.65 336 iPd 29 14.50 4.4X
TOO 22.79 265 iPc 29 53.50 2.5
0.8s 18.00nm 4.7mb
BFD 25.16 265 iPc 30 14.90 1.6
0.7s 6.00nm 4.3mb
ASPA 37.71 282 iPc 32 03.00 0.3
0.7s 3.20nm 4.1mb
WB2 39.57 288 iPc 32 18.00 -0.1
0.3s 5.10nm 4.6mb
e 32 21.50
e 33 15.70
LIC 146.93 181 PKP 44 23.70 0.4
e 45 13.00
KIC 147.06 181 PKP 44 23.60 0.1
e 45 13.00
S.D. = 1.0 on 48 of 57 obs.

MAR 18, 1993 14h 50m 09.22± 1.02s
3.347 N ± 6.6km 128.206 E ± 8.6km
DEPTH = 152.8 ± 10.0 km
4.9mb (14 obs.)
NORTH OF HALMAHERA, INDONESIA (264)

SWI 5.18 144 ePc 51 27.00 1.1
iS 52 26.00
BIP 5.22 338 ePd 51 26.00 -0.5
eS 52 06.00
CGP 6.16 326 eP 51 39.00 0.0
PLP 8.40 338 ePc 52 19.50 10.4X
TRT 19.02 235 ePd 54 19.90 -2.0
LEM 22.90 244 iPc 55 02.30 1.5
WB2 23.92 166 iPd 55 09.40 -1.1
0.6s 28.50nm 5.0mb
e 55 44.60 179kmX
iS 59 16.40
KGM 24.89 268 ePd 55 22.10 2.5
0.8s 102.10nm 5.4mb
ASPA 27.42 169 iPc 55 40.90 -1.7
0.8s 7.40nm 4.4mb
e 56 05.80 115kmX
CHTO 32.48 300 eP 56 27.60 0.2
MAT 34.30 14 eP 56 41.00 -1.8
STK 37.27 161 iPd 57 07.50 -0.4
0.4s 5.90nm 4.7mb
BJI 38.12 345 eP 57 14.00 -0.9
1.0s 22.00nm 4.8mb
LZH 39.59 328 iPc 57 28.60 1.3
1.4s 68.00nm 5.2mb
pP 57 49.50 88kmX
BFD 42.47 163 eP 57 51.30 0.6
0.7s 10.00nm 4.5mb
HYB 50.63 290 iPc 58 55.00 0.0
1.0s 40.00nm 5.1mb
e 59 29.00 148kmX
GBA 51.14 285 P 58 59.00 0.2
NDI 54.56 303 iPc 59 23.00 -1.0
YAK 58.54 1 iPc 59 50.40 -1.1
0.9s 61.00nm 5.5mb
MAIO 70.91 307 eP 01 12.00 0.0
TTA 80.58 27 eP 02 06.73 0.9
0.8s 6.53nm 4.4mb
RSO 81.70 29 eP 02 11.72 -0.1
CP2 82.05 29 eP 02 14.23 0.6
CRP 82.09 29 (P) 02 14.01 0.2
IMA 82.14 24 iPc 02 15.25 1.3
0.7s 8.45nm 4.6mb
SLKM 82.95 30 iPc 02 18.10 0.0
PMR 83.58 29 iPd 02 21.27 0.1
0.7s 24.86nm 5.1mb
FBA 84.44 25 eP 02 26.50 1.1
KLU 85.10 29 iPc 02 30.01 1.1
BALM 86.83 29 eP 02 38.28 0.8
SLL 99.07 333 eP 03 31.20 -2.6
0.6s 2.30nm 4.9mb
YKA 99.23 25 eP 03 33.80 -0.7
0.6s 1.50nm 4.7mb
TIC 132.26 282 PKP 09 08.30 0.6
LIC 132.35 281 PKP 09 07.90 0.0
S.D. = 1.2 on 33 of 34 obs.

MAR 18, 1993 15h 47m 00.42± 0.14s
38.340 N ± 2.3km 22.155 E ± 1.6km
DEPTH = 59.2km (16 depth phases)
5.7mb (135 obs.)
GREECE (364)
Mw 5.8 (HRV). MD 5.6 (TTG), 5.6 (VIE), 5.3 (ATH). Ms 5.4 (BRK). Felt strongly at Aiyion, Amfissa, Itea, Korinthos, Patrai and Xilokastron. Also felt at Athens, Kalamai, Lamia, Larisa and Tripolis.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 39S, 94C
Centroid Location:
Origin Time 15:47: 6.5 0.3
Lat 38.05N 0.03 Lon 21.79E 0.03
Dep 49.0 BDY Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr= 3.46 0.09 Mtt=-2.52 0.14
Mff=-0.95 0.13 Mrt= 3.27 0.15
Mrf=-1.56 0.15 Mtf= 4.04 0.13
Principal Axes:
T Val= 4.92 Plg=65 Azm=353
N 2.12 17 122
P -7.04 19 218
Best Double Couple:Mo=6.0*10**17
NP1:Strike=333 Dip=30 Slip= 125
NP2: 114 66 72

AGG 0.69 11 ePg 47 16.34 1.6
eSg 47 25.26
ATH 1.28 106 ePb 47 22.40 0.0
VLI 1.73 159 ePn 47 27.30 -1.4
LIT 1.78 8 iPb 47 30.30 1.0
eSb 47 52.54
IGT 1.85 311 ePb 47 32.62 2.3
eSb 47 57.38
PAIG 1.98 36 iPb 47 32.66 0.6
eSb 47 56.10
KZN 1.99 351 ePn 47 34.20 1.9
LSK 2.17 327 iPnc 47 39.20 4.3X
iSn 48 13.60
SRN 2.27 313 iPnc 47 39.00 2.8X
iSn 48 12.00
KEK 2.29 307 ePn 47 38.50 2.0
THE 2.37 15 iPn 47 38.01 0.4
OUR 2.44 35 ePn 47 39.22 0.6
eSn 48 07.98
FNA 2.51 346 ePn 47 41.74 2.1
eSn 48 11.66
TPE 2.56 320 ePn 47 44.00 3.7X
GRG 2.62 4 ePn 47 41.90 0.8
eSn 48 13.02
SOH 2.65 20 iPn 47 42.82 1.3
eSn 48 13.10
KNT 2.88 11 iPn 47 45.86 1.1
eSn 48 18.62
OHR 2.96 340 iPnd 47 48.30 2.3
1.1s ********nm
i 47 51.60
i 47 54.30
i 48 19.00
i 48 24.00
i 48 33.00
Lg 48 37.10
VLO 2.96 317 iPnc 47 50.00 4.1X
iSn 48 33.50
SRS 2.99 21 ePn 47 47.14 0.8
iSn 48 21.34
VAY 2.99 6 iPnd 47 47.60 1.2
1.0s 7230.00nm
iSg 48 23.40
Lg 48 33.70
PRK 3.34 73 ePn 47 51.50 0.2
TIR 3.48 330 iPnc 47 55.00 1.7
iSn 48 47.00
SKO 3.67 352 iPn 47 57.50 1.6
1.3s 641.00nm
i 48 01.00
SKO 3.67 352 iPb 48 03.50 7.6X
iSn 48 39.50
i(Sb) 48 48.00
i(Sg) 48 56.50
i 49 12.00
LACI 3.79 331 iPnc 47 58.60 1.0
iSn 48 57.00
LCI 3.82 303 P 47 56.09 -1.9
RDO 3.83 42 ePn 47 58.00 -0.1
ALN 3.94 48 ePn 47 59.10 -0.7
IZM 4.01 88 iPn 48 00.40 -0.5
NPS 4.14 137 ePn 48 01.50 -1.1
SDA 4.23 332 iPnc 48 04.20 0.4
ULC 4.25 329 iPnc 48 03.70 -0.4
iSn 48 44.27
GRI 4.52 278 P 48 07.03 -0.9
PVY 4.56 339 iPnc 48 09.89 1.3
iSn 48 55.35
TTG 4.64 333 iPnc 48 09.69 0.1

			iSn	48	54.99	
BDV	4.69	328	iPnc	48	09.54	-0.7
			iSn	48	54.57	
ORI	4.75	293	P	48	10.18	-1.1
SOI	4.81	269	P	48	10.18	-1.8
IVA	4.84	340	iPnc	48	13.52	1.0
			iSn	49	02.48	
EDC	4.86	64	iP	48	12.50	-0.2
BNT	4.90	64	iP	48	12.90	-0.4
GMB	4.96	270	P	48	12.51	-1.7
HCY	4.96	327	iPnc	48	12.89	-1.2
			iSn	49	00.64	
YER	5.00	102	iP	48	16.00	1.2
NKY	5.07	333	iPnc	48	15.32	-0.5
			iSn	49	05.34	
KCT	5.17	66	iP	48	16.90	-0.3
DST	5.20	74	iP	48	18.00	0.4
BRY	5.32	330	iPnc	48	18.07	-1.2
			iSn	49	10.43	
JMB	5.33	38	iP	48	18.00	-1.3
PLE	5.41	338	iPnc	48	20.90	0.5
			iSn	49	15.30	
DMK	5.53	49	iP	48	20.80	-1.3
CTT	5.59	58	iP	48	20.90	-2.0
KHL	5.79	88	iP	48	26.00	0.1
PZI	5.89	259	P	48	22.01	-5.2X
ITU	5.97	60	iPd	48	28.00	-0.2
ISK	5.98	61	iP	48	28.00	-0.4
YLV	6.01	66	iP	48	28.50	-0.4
GBZT	6.14	64	eP	48	29.70	-0.9
ALT	6.26	81	iP	48	32.70	0.2
HRT	6.31	65	iP	48	31.90	-1.2
KSL	6.33	108	ePn	48	32.00	-1.2
ELL	6.36	102	iP	48	36.00	2.1
GIB	6.41	269	P	48	33.09	-1.5
DRA	6.53	13	ePc	48	36.00	0.1
EYL	6.58	68	eP	48	36.80	-0.1
GPA	6.62	70	eP	48	36.50	-0.8
BUC1	6.67	25	eP	48	39.40	1.4
BCK	6.73	95	eP	48	40.00	1.1
DUI	6.78	302	P	48	39.84	0.3
RFI	6.95	298	P	48	42.59	0.7
SDI	7.23	300	P	48	46.40	0.5
CMP	7.25	16	iPc	48	48.00	1.9
TIM	7.42	355	iPd	48	52.00	3.6X
ERC	7.54	271	P	48	49.18	-1.0
ISR	7.54	24	ePd	48	51.00	0.8
DEV	7.56	4	ePc	48	54.00	3.7X
MLR	7.68	20	iPd	48	53.50	1.3
AQU	7.79	304	P	48	54.20	0.5
RDP	8.00	298	P	48	57.18	0.6
RMP	8.03	299	P	48	57.34	0.4
BRD	8.04	25	eP	49	02.00	5.0X
CVO	8.05	20	ePd	48	58.50	1.4
CFR	8.18	31	eP	48	58.00	-0.8
VRI	8.25	23	ePd	49	01.50	1.6
MNS	8.28	302	P	49	00.65	0.2
ASS	8.62	306	P	49	04.38	-0.7
UZD	8.66	343	eP	49	03.50	-2.0
ARV	8.67	309	P	49	03.63	-2.1
ZAG	8.76	330	ePn	49	04.50	-2.4
			i	49	13.00	
			i(Sn)	50	35.00	
VBY	8.81	327	ePn	49	04.00	-3.6X
			i(Sn)	50	40.60	
PTJ	8.84	331	ePn	49	04.60	-3.5X
PPE	8.85	25	eP	49	09.50	1.4
PPCY	8.89	110	eP	49	10.20	1.5
			eS	50	46.70	
RIY	9.08	323	iPn	49	08.60	-2.7
			iSn	50	47.50	
PTT	9.14	19	eP	49	11.50	-0.5
RSM	9.20	310	P	49	11.56	-1.4
CEY	9.36	325	eP	49	12.50	-2.7
			eS	50	56.00	
KAS	9.43	68	eP	49	17.50	1.3
LJU	9.55	326	ePc	49	14.90	-2.8
			eS	50	59.00	
SFI	9.56	309	P	49	16.85	-1.0
CSS	9.59	107	eP	49	19.70	1.3
			eS	51	07.00	
PGD	9.62	308	P	49	17.75	-1.1
TRI	9.65	322	ePn	49	15.50	-3.5X
			iPgPg	49	57.90	
			iSn	51	00.00	
			iSgSg	52	04.20	
IAS	9.70	22	eP	49	25.00	5.3X
BZK	9.77	65	eP	49	20.00	-0.7
VOY	9.83	324	eP	49	18.30	-3.3X
			eS	51	10.70	
FIR	9.86	307	ePn	49	22.00	0.1
			iSn	51	05.00	
SRO	9.87	345	eP	49	20.20	-1.9
			iPP	49	30.30	
			i(S)	51	16.20	
KIS	9.98	27	iPd-	49	23.00	-0.5
	1.4s		300.00nm			6.2mb
	Z	14s	19.70um			4.8Msz
	N	12s	17.60um			
	E	12s	7.50um			
			iS	51	11.00	
FAM	10.08	106	eP	49	30.60	5.6X
RBL	10.28	325	P	49	25.29	-2.5
UZH	10.29	1	eP	49	28.50	0.7
	Z	11s	14.20um			
	N	11s	15.50um			
			i	51	26.00	
PII	10.30	305	P	49	28.50	0.6
BDI	10.41	307	P	49	29.77	0.2
ZST	10.51	341	eP	49	29.20	-1.6
			iPP	49	35.20	
			iS	51	27.50	
			i	51	39.80	
ADAT	10.54	93	eP	49	36.10	4.9X
BNN	10.75	83	iP	49	38.50	4.3X
VKA	10.79	339	iPd	49	33.40	-1.2
			i	51	21.80	
			LR	53	35.00	
KBA	10.87	326	iPd	49	33.10	-2.7
	1.2s		485.00nm			6.4mb X
			i	49	36.70	
			i	49	48.40	
			i	50	19.40	
			i	51	18.70	
			iS	51	33.80	
			i	52	07.90	
			e	02	33.00	
PGF	10.87	297	P	49	35.91	0.1
SPC	10.93	353	eP	49	36.40	-0.3
			i	49	41.30	
			i	49	48.40	
			i(S)	51	52.00	
			LR	56	00.00	
CTI	10.95	318	P	49	33.77	-3.1X
KVT	11.05	71	iP	49	40.00	1.8
SIM	11.12	50	iP-	49	38.00	-1.0
	Z	24s	7.00um			
SAL	11.29	314	P	49	40.52	-0.8
KMR	11.33	332	iP+	49	48.40	6.5X
HLW	11.38	135	ePn	49	43.50	0.9
			eSn	51	32.00	
BOB	11.48	308	P	49	44.31	0.3
LVV	11.55	6	iP	49	47.00	2.2
	Z	20s	13.50um			4.6Msz
	N	18s	14.00um			
	E	18s	11.00um			
			iS	51	56.00	
KOT	11.60	133	eP	49	40.00	-5.5X
VRAC	11.67	342	iPnd	49	44.90	-1.5
	1.9s		1395.90nm			6.6mb X
			e	49	51.90	
			e(Sn)	52	13.00	
			e	52	42.00	
BHL	11.78	108	P	49	47.00	-1.0
			S	51	51.00	
WTTA	11.79	323	iPd	49	46.30	-1.9
			iS	51	53.50	
OGA	11.82	320	eP	49	46.60	-2.0
ADI	11.85	112	eP	49	50.40	1.5
MDI	11.85	313	P	49	47.65	-1.2
WATA	11.87	323	iPd	49	47.60	-1.6
			iS	51	56.60	
PCP	11.94	306	P	49	49.21	-0.9
SQTA	11.97	321	iPd	49	49.00	-1.5
			i	51	55.60	
			iS	51	59.00	
GAZ	11.98	91	iP	49	52.50	1.9
ATZ	12.01	113	eP	49	52.40	1.3
			eS	51	56.80	
FIN	12.01	304	P	49	51.18	0.1
CKI	12.06	305	P	49	50.99	-0.7
MOTA	12.10	322	iPd	49	50.70	-1.7
			iS	52	01.90	
IMI	12.11	302	P	49	52.96	0.6
GEC2	12.15	333	Pn	49	51.10	-1.8
			Sn	52	05.30	
ZNT	12.15	116	eP	49	52.80	-0.1
			eS	51	58.40	
OSS	12.16	317	iPd	49	51.70	-1.4
ROB	12.27	304	P	49	55.43	0.9
SAOF	12.36	302	P	49	56.63	1.0
REVF	12.39	300	P	49	56.63	0.5
VDL	12.40	315	ePd	49	56.50	0.1
SHMJ	12.42	113	P	49	56.10	-0.3
KHC	12.43	333	P	49	55.20	-1.4
	1.2s		302.50nm			6.1mb
			e	50	05.00	
			e	50	15.00	
			e	50	25.20	
			e	50	38.60	
			e	51	02.00	
			eS	52	23.50	
			e	52	45.00	
			e	53	00.00	
AUTN	12.45	302	P	49	57.97	0.9
VAI	12.45	311	P	49	55.90	-0.9
AURF	12.47	301	P	49	57.36	0.1
TMA	12.52	313	P	49	56.60	-1.4
ENR	12.54	303	P	49	59.32	1.2
JVI	12.55	117	eP	49	54.20	-4.0X
TOUF	12.57	302	P	49	59.92	1.2
FUR	12.61	325	eP	49	57.30	-1.6
STV	12.61	303	P	50	00.28	1.2
WET	12.70	331	iPc	49	59.00	-1.1
DOI	12.76	304	P	50	01.56	0.5
ORX	12.81	309	P	49	59.96	-1.7
FRF	12.83	299	eP	50	01.70	-0.1
	1.2s		141.60nm			5.7mb
LMR	12.85	298	eP	50	01.80	-0.3
	1.4s		185.60nm			5.8mb
PRU	12.85	337	P	50	00.00	-2.1
	1.1s		92.90nm			5.6mb
	Z	26s	18.90um			5.8Msz
	N	26s	13.60um			
	E	26s	15.40um			
			e	50	08.70	
			e	50	28.00	
			S	52	28.00	
PZZ	12.86	303	P	50	03.81	1.4
BHB	12.89	305	P	50	03.58	0.9
LLS	12.89	316	eP	50	02.30	-0.6
MASJ	12.92	117	P	50	02.50	-0.6
MKT	12.99	121	eP	49	58.70	-5.3X
			eS	52	16.90	
LRG	12.99	298	eP	50	03.40	-0.6
	1.1s		158.25nm			5.8mb
	Z	22s	9.32um			4.1Msz
MMK	13.03	311	eP	50	04.80	0.1
RSP	13.03	306	P	50	05.41	0.8
SAGI	13.13	124	eP	50	01.30	-4.5X
			eS	52	17.00	
LSD	13.23	307	P	50	05.77	-1.6
RRL	13.23	305	P	50	09.30	1.9
BNI	13.36	305	P	50	10.80	1.8
DIX	13.37	310	ePd	50	08.50	-0.8
CDR	13.47	298	ePd	50	13.10	2.8X
LPG	13.50	307	eP	50	10.50	-0.5
	0.9s		136.95nm			5.7mb
LPL	13.52	307	eP	50	10.80	-0.4
	1.2s		201.15nm			5.7mb
SHWJ	13.57	122	P	50	07.40	-4.5X
ZLA	13.59	317	iPd	50	10.20	-1.7
EMS	13.66	309	ePd	50	13.70	0.8
AQBJ	13.70	125	P	50	11.50	-1.9
SLE	13.71	318	ePc	50	12.20	-1.2
GRF	13.79	329	ePc	50	11.00	-3.4X
	Z	22s	19.00um			
			e	50	22.80	
BRG	13.82	338	eP	50	11.60	-3.1X
	1.2s		170.00nm			5.6mb
			i	50	23.60	
TBZ	13.83	73	eP	50	17.00	2.0
WAR	13.92	357	e(P)	50	20.00	3.9X
			e	50	25.00	
			e	50	35.00	
			e	51	10.00	
			e	52	10.00	
			e	53	05.00	
HOF	14.03	332	eP	50	17.80	0.2
FEL	14.03	317	P	50	16.57	-1.2
BBS	14.06	315	P	50	17.25	-0.8

18d 15h

```
NSHJ   14.14 125 P      50 14.80  -4.3X
SOC    14.26  63 iPc+   50 22.00   1.4
       2.0s   450.00nm          5.6mb
     N  11s    2.50um
     E  15s    3.50um
LOMF   14.38 314 P      50 21.75  -0.5
MOX    14.40 332 iP     50 22.60   0.3
       1.4s   370.00nm          5.6mb X
     Z  20s   18.00um
LIBD   14.42 317 P      50 21.75  -0.9
CLL    14.49 336 ePc    50 21.00  -2.4
       1.5s    98.00nm          5.0mb
                 i      50 29.60
                 e(S)   53 17.00
MOF    14.50 316 P      50 22.44  -1.3
BADA   14.51 129 eP     50 22.00  -1.8
BSF    14.67 315 P      50 24.73  -1.3
ECH    14.70 317 P      50 25.25  -1.0
WLS    14.71 318 P      50 25.15  -1.3
HOFF   14.73 321 P      50 29.32   2.6X
CDF    14.75 318 P      50 25.66  -1.4
SRBF   14.77 320 P      50 28.64   1.5
SRBF   14.77 320 P      50 34.72   7.5X
AYN    14.89 125 ePc    50 25.30  -3.6X
HAU    15.02 315 eP     50 29.20  -1.2
       1.1s   572.40nm          5.7mb
     Z  22s    9.32um           4.4Msz
VITF   15.34 315 P      50 33.58  -1.0
BRNL   15.37 339 ePc    50 35.80   1.0
TNS    15.38 325 ePnc   50 34.40  -0.7
                 i      50 40.80
                 i      51 03.80
                 i      51 09.00
                 iS     53 17.10
                 e      54 06.90
COLF   15.48 303 P      50 37.40   1.0
PLDF   15.70 305 P      50 41.71   2.5
SMF    15.83 307 eP     50 39.40  -1.4
       1.3s   394.25nm          5.4mb
LBF    15.89 309 eP     50 41.30  -0.3
       1.1s   478.60nm          5.5mb
MNK    16.00  12 eP     50 49.00   6.2X
     Z  24s   20.10um
     N  24s   13.80um
                 eS     53 48.00
PYM    16.01 304 P      50 43.89   0.7
AGO    16.04 305 P      50 43.66   0.1
LOR    16.09 310 eP     50 43.40  -0.7
       1.2s   332.05nm          5.3mb
     Z  20s    4.50um
WLF    16.11 320 Pc     50 45.00   0.8
                 i      50 49.00
AVF    16.19 307 eP     50 44.00  -1.4
       1.3s   690.25nm          5.6mb
SSF    16.21 308 eP     50 44.80  -0.9
       1.1s  1047.10nm          5.9mb
CAF    16.38 300 eP     50 46.50  -1.3
       1.5s   518.15nm          5.5mb
BGF    16.42 306 eP     50 46.80  -1.4
       1.3s   944.45nm          5.8mb
KIV    16.44  64 eP     50 51.00   2.4
       1.7s   620.00nm          5.5mb
     Z  15s  2097.80um          6.7Msz
MAF    16.47 305 eP     50 48.70  -0.2
       1.3s   246.95nm          5.2mb
BNS    16.48 325 iPc    50 49.50   0.6
       1.3s   350.00nm          5.4mb
     Z  20s   27.00um
                 epPd   50 51.00
PYA    16.72  63 iPc    50 54.50   2.5
       2.0s   660.00nm          5.4mb
     Z  20s    3.00um           5.8Msz
     N  20s    4.00um
     E  20s    3.00um
TCF    16.72 305 eP     50 51.80  -0.3
       1.4s   210.85nm          5.1mb
MEM    16.78 322 iPc    50 53.39   0.7
       1.4s   116.00nm          4.8mb
                 id     51 33.90
HYF    16.84 308 eP     50 52.80  -0.7
RJF    16.86 301 eP     50 53.30  -0.5
       1.6s   483.85nm          5.4mb
     Z  18s    4.45um           7.2Msz
EBR    16.88 285 eP     50 58.00   4.0X
LPO    16.91 299 eP     50 53.30  -1.2
       1.1s    86.95nm          4.8mb
ENN    16.93 322 eP     50 55.00   0.5
```

```
       1.4s   540.50nm          5.5mb
                 e      53 53.50
LSF    17.15 304 eP     50 57.60   0.2
       0.7s    78.95nm          5.0mb
DOU    17.17 319 P      50 58.20   0.6
       0.9s   405.00nm          5.6mb
                 S      54 12.00
                 SSS    54 42.00
                 Lg     56 33.00
EPF    17.18 293 eP     50 56.90  -1.0
       1.1s    63.25nm          4.7mb
LFF    17.29 299 eP     50 58.30  -0.8
       1.3s   254.15nm          5.2mb
WTS    17.37 327 eP     51 01.50   1.5
       1.2s    18.20nm          4.1mb X
BSD    17.48 346 iPc    51 02.30   1.0
       0.9s   187.00nm          5.3mb
DOMF   17.57 318 P      51 03.27   0.7
SNF    17.58 320 Pc     51 03.80   1.2
MTA    17.66  72 iPc+   51 04.40   0.8
UCC    17.71 320 P+     51 03.00  -1.3
                 S      54 37.00
LHE    17.87 292 P      51 08.29   1.9
ISSF   18.01 292 P      51 09.20   1.1
WIT    18.02 328 eP     51 10.00   2.0
DBN    18.17 325 iP+    51 12.00   2.2
     Z  20s   10.50um
                 eS     54 45.00
MFF    18.36 304 eP     51 11.20  -1.1
       1.1s   402.45nm          5.5mb
GRO    18.47  67 eP     51 16.00   2.4
       2.0s   480.00nm          5.3mb
     Z  15s    4.50um           4.9Msz
     N  19s   10.00um
     E  12s    5.00um
COP    18.54 342 iPd    51 14.30   0.0
       1.2s   537.50nm          5.6mb
                 iS     54 40.00
                 e      54 53.00
TAB    18.99  83 eP     51 21.00   0.9
LDF    19.08 310 eP     51 19.10  -1.7
       1.2s   391.55nm          5.5mb
FLN    19.36 310 eP     51 22.90  -1.0
       1.2s   393.90nm          5.6mb
     Z  21s    3.10um
OBN    19.40  26 iPc+   51 22.00  -2.2
       2.0s  1424.00nm          5.9mb
     Z  22s   15.00um           4.6Msz
     N  22s   12.00um
                 iPP    51 30.00
                 iPPP   51 40.00
                 (S)    54 20.00
                 eSS    54 54.00
                 LQ     56 06.00
                 LR     57 00.00
LPF    19.43 307 eP     51 22.90  -1.6
       1.0s   260.00nm          5.5mb
GRR    19.45 308 eP     51 23.40  -1.3
       1.2s   440.35nm          5.6mb
MUD    20.08 339 iPc    51 30.30  -1.0
       0.9s   295.00nm          5.6mb
MOS    20.27  26 iP     51 33.00  -0.2
       2.0s  1800.00nm          6.1mb
     Z  18s   10.00um           5.2Msz
                 i      51 47.00  65km
                 e      51 55.00
                 eS     55 11.00
KER    20.47  94 ePd    51 35.20  -0.5
JLP    20.54 310 eP     51 35.00  -1.1
SHE    20.54  75 iPc    51 37.00   0.8
       1.2s  1000.00nm          6.0mb
     Z  14s    4.00um           4.9MszX
     N  14s    6.00um
     E  15s    7.00um
                 iS     55 26.00
                 i      55 36.00
                 iSS    56 08.00
JSA    20.55 310 eP     51 36.00  -0.3
JVM    20.59 310 eP     51 35.80  -0.8
PAB    20.63 282 iP     51 30.70  -6.6X
       1.4s   255.81nm          5.4mb
                 iS     55 21.00
MAL    21.11 274 iPc    51 44.00   2.0
                 iS     55 24.00
BAK    21.52  76 iPd    51 50.00   3.9X
                 iS     55 46.00
UPP    21.73 354 iPc    51 47.40  -0.6
```

```
       1.3s   600.00nm          5.8mb
                 i      51 49.90   9kmX
                 iPP    52 18.30
                 iS     55 42.40
QASM   21.77 118 ePc    51 49.30   0.6
LIJA   21.86 275 iP     51 52.00   2.4
HGH    21.96 315 eP     51 50.50   0.1
HAE    22.01 316 eP     51 51.30   0.4
ALJ    22.06 274 eP     51 55.00   3.4X
PUL    22.07  11 ePd    51 50.50  -0.9
       1.8s   840.00nm          5.9mb
     Z  24s   14.00um           5.3MszX
     N  20s   14.00um
     E  24s    4.80um
                 e      52 00.00  35kmX
                 e      52 06.00
                 e      52 22.00
                 ePPP   52 28.00
                 eS     55 45.00
                 i      55 52.00
                 e      56 34.00
CPS    22.24 272 eP     52 03.00   9.7X
NUR    22.25   3 iP     51 52.00  -1.1
       0.7s   103.00nm          5.4mb
PLAT   22.30 273 iP     51 58.00   4.0X
HTR    22.42 316 eP     51 55.00   0.0
HFS    22.47 349 eP     51 55.00  -0.3
       0.5s    45.20nm          5.2mb
     Z  18s    5.03um           5.0Msz
                 LR     58 46.00
CNIL   22.48 274 eP     52 00.00   4.4X
IFR    22.57 266 iPd    51 58.50   1.7
                 i      52 12.50  59km
SFS    22.57 274 eP     52 00.00   3.4X
RSA    22.69 270 eP     52 04.00   6.3X
CME    22.74 310 ePd    51 58.50   0.4
HCG    22.75 316 eP     51 57.90  -0.3
KONO   22.79 343 iPd    51 58.30  -0.1
CPZ    22.97 310 eP     52 02.80   2.5
MJMA   23.15 116 ePc    52 02.60   0.3
TEH    23.44  87 eP     52 07.00   1.8
NB2    23.73 347 P      52 06.70  -1.0
KAF    23.94   5 iP     52 09.80   0.2
       0.9s   131.30nm          5.4mb
EKA    24.05 323 P      52 11.00   0.2
       1.2s   605.10nm          6.0mb
ESK    24.07 323 iP     52 11.00   0.1
       1.5s   120.00nm          5.2mb
ESY    24.14 325 ePd    52 11.10  -0.5
       1.4s   112.00nm          5.2mb
ECP    24.19 314 eP     52 12.10   0.0
ECP    24.19 314 eP     52 13.20   1.1
       1.0s   325.00nm          5.8mb
EBL    24.25 324 eP     52 13.60   0.9
       1.1s   389.00nm          5.8mb
ETA    24.31 315 eP     52 13.20  -0.1
ETA    24.31 315 eP     52 14.40   1.1
EDI    24.41 324 ePd    52 14.80   0.6
       1.0s   442.00nm          5.9mb
EGD    24.42 339 eP     52 15.00   0.7
LIS    24.44 281 eP     52 15.90   1.3
                 eS     56 39.00
AVE    24.44 267 iP     52 17.00   2.2
                 i      52 33.00  69km
EAU    24.48 324 ePd    52 15.80   0.9
       1.1s   274.00nm          5.7mb
BER    24.49 340 eP     52 15.50   0.6
ASK    24.61 340 eP     52 18.10   2.0
EDU    24.70 326 ePd    52 17.90   0.9
       1.0s  2065.00nm          6.6mb
EBH    24.74 325 ePd    52 18.40   1.0
       1.1s  1098.00nm          6.3mb
DLF    24.75 316 eP     52 18.70   1.3
       1.1s  1392.00nm          6.4mb
RYD    24.78 116 iPc    52 18.60   0.5
                 iS     56 40.00
ELO    24.96 325 eP     52 19.80   0.3
       1.1s   718.00nm          6.1mb
EAB    25.09 324 ePd    52 21.10   0.4
       1.1s   504.00nm          5.9mb
DCN    25.17 316 eP     52 22.00   0.5
       1.0s   870.00nm          6.2mb
DMU    25.21 318 eP     52 24.10   2.2
TIO    25.24 262 iPc    52 23.50   1.0
                 i      52 39.00  66km
                 i      52 47.00
OUK    25.60 263 iP     52 43.50  17.9X
```

MOL 25.85 344 eP 52 30.00 2.3
KSB 26.16 325 eP 52 30.50 -0.1
KPL 26.34 325 eP 52 32.30 0.1
VAL 26.34 312 iP 52 32.50 0.2
1.0s 3.00nm 3.8mb X
DHR 26.41 109 eP 52 33.00 -0.2
iS 57 25.00
KAT 26.52 77 iP- 52 38.00 3.9X
e 52 52.00 57km
iS 57 13.00
ABHA 26.90 132 eP 52 38.60 0.6
KMTA 27.03 132 eP 52 40.00 0.8
DHJN 27.79 132 eP 52 47.00 0.8
ASH 28.36 79 eP 52 51.00 0.2
2.4s 780.00nm 5.9mb
e 53 35.00 220kmX
e 55 58.00
e 57 35.00
e 57 51.00
MAIO 29.64 82 eP 53 03.00 0.6
eS 57 56.00
ARU 30.10 41 eP 53 04.00 -2.1
1.8s 850.00nm 6.2mb
Z 13s 4.50um 5.3MszX
N 12s 2.00um
E 12s 2.00um
e 54 14.00 377kmX
SVE 31.30 41 ePc 53 16.00 -0.7
1.7s 600.00nm 6.1mb
Z 22s 4.00um 5.0Msz
N 21s 1.50um
E 21s 2.70um
eS 58 17.00
TRO 31.40 358 eP 53 16.50 -0.9
KEV 31.58 3 iP 53 18.00 -1.0
1.0s 54.00nm 5.3mb
eS 58 24.00
BCAO 33.91 186 iPd 53 37.80 -2.0
0.9s 189.00nm 6.0mb
i 53 52.80 60km
i 56 22.00
AKU 35.83 333 iP 53 58.30 2.7X
1.1s 91.14nm 5.6mb
QUE 37.60 89 eP 54 13.30 2.0
FRU 39.56 66 ePc 54 28.00 0.7
1.8s 920.00nm 6.3mb
Z 26s 3.00um 5.0MszX
E 26s 5.00um
i 54 40.00 44kmX
e 56 09.00
eS 00 20.00
KDS 39.89 239 iPd 54 30.50 0.4
TIC 40.01 225 P 54 30.00 -1.1
KIC 40.09 224 P 54 30.70 -1.1
S 00 29.60
LIC 40.36 225 P 54 32.90 -1.1
Z 20s 0.70um 4.5Msz
KBS 40.90 357 eP 54 41.00 3.2X
KSH 41.38 71 Pc 54 42.00 -0.3
1.0s 190.00nm 5.8mb
Z 30s 3.11um 5.0MszX
pP 54 54.00 44kmX
sP 55 00.00
eS 00 48.00
TLG 41.45 65 eP 54 42.00 -0.8
1.7s 180.00nm 5.6mb
Z 16s 0.50um 4.5MszX
N 20s 0.90um
ePPP 56 34.00
eS 00 51.00
NAI 41.67 158 iP 54 49.00 4.0X
Z 20s 3.79um 5.3Msz
S 01 00.00
MBO 41.94 246 eP 55 03.10 16.2X
PRZ 42.36 66 eP 54 51.50 1.1
1.4s 340.00nm 5.9mb
S 01 05.00
DAG 42.44 347 eP 54 51.00 0.6
1.8s 172.73nm 5.5mb
ELT 45.57 49 iPc 55 14.40 -1.4
1.4s 814.00nm 6.4mb
Z 18s 1.90um 5.1Msz
e 01 49.00
eSS 05 12.00
NRI 46.27 27 iPc+ 55 21.70 0.5
1.3s 263.00nm 6.0mb
Z 22s 5.30um 5.4Msz
N 22s 3.10um
E 24s 19.00um
e 55 39.00 69km
e 56 54.00
e 57 15.00
eSS 05 09.00
NDI 46.32 85 eP 55 20.80 -1.3
WMQ 48.55 62 P 55 39.30 -0.2
1.2s 140.00nm 5.9mb
Z 20s 3.21um 5.3Msz
pP 55 53.50 54km
UER 50.59 50 eP 55 53.50 -1.3
1.0s 250.00nm 6.2mb
eS 03 07.00
e 08 05.00
HYB 53.18 97 eP 56 12.00 -2.8
1.4s 150.00nm 5.8mb
e 56 28.00 61km
LSZ 53.63 173 iP 56 18.00 0.0
i 56 32.00 51km
GBA 54.56 101 P 56 22.00 -2.9
MOY 54.67 48 iPc 56 25.00 -0.3
1.3s 140.00nm 5.8mb
MTD 55.54 169 iPc 56 32.40 0.5
IRK 56.41 47 ePc 56 35.20 -2.6
Z 14s 3.49um 5.6MszX
N 12s 0.58um
e 56 42.20 23kmX
e 56 53.00
ePPP 00 08.00
eS 04 18.00
ePS 04 43.00
ZAK 56.48 49 iPc 56 37.20 -1.1
1.2s 120.00nm 5.8mb
Z 15s 1.48um 5.2MszX
E 18s 1.50um
e 58 47.00 725kmX
ePPP 00 10.00
eS 04 25.00
eSS 08 20.00
LSA 56.65 77 P 56 38.60 -1.8
1.8s 140.00nm 5.7mb
N 17s 1.70um
S 04 21.00
BUL 58.49 173 iPd 56 52.00 -0.8
GTA 58.61 62 P 56 51.50 -2.2
1.0s 76.00nm 5.8mb
Z 20s 2.60um 5.3Msz
E 10s 0.44um
PcP 57 45.00
S 04 51.00
TIK 59.06 21 iPc 56 55.00 -1.1
1.6s 96.00nm 5.7mb
Z 17s 6.50um 5.8MszX
e 57 01.00 20kmX
e 57 08.00
e 59 08.00
e 00 27.00
e 05 24.00
BOD 59.53 38 iPc 56 56.70 -2.9
1.3s 96.00nm 5.8mb
RES 59.97 344 eP 57 03.50 1.1
1.1s 25.00nm 5.3mb
WIN 60.77 185 eP 57 08.50 0.0
1.0s 92.00nm 5.9mb
CIT 61.75 45 eP 57 13.00 -1.9
Z 18s 1.61um 5.2Msz
eS 05 36.00
AVY 61.81 152 iPd 57 15.90 0.2
VTY 61.89 153 iPd 57 16.30 0.2
LMN 61.90 308 eP 57 18.50 2.6X
LZH 62.98 64 Pc 57 22.30 -1.0
1.6s 150.00nm 5.8mb
Z 30s 2.12um 5.1MszX
N 14s 0.95um
pP 57 34.00 40kmX
PcP 57 57.50
PP 59 41.50
S 05 43.00
CBM 63.43 310 P 57 26.20 0.2
1.1s 122.73nm 5.9mb
Z 19s 1.02um 5.0Msz
SLR 64.00 174 eP 57 30.00 0.1
1.2s 30.00nm 5.2mb
Z 18s 8.13um 6.0Msz
KSR 64.02 175 iP 57 28.00 -2.1
1.0s 70.00nm 5.6mb
BFT 64.12 172 eP 57 32.00 1.2
1.5s 64.00nm 5.4mb
JAO 64.31 319 ePd 57 31.70 0.0
YAK 64.35 30 iPc+ 57 29.20 -2.5
1.8s 656.00nm 6.3mb
Z 26s 2.80um 5.3MszX
N 15s 1.00um
E 24s 2.50um
i 57 39.00 31kmX
BTO 64.99 57 P 57 35.00 -1.4
1.2s 42.00nm 5.3mb
N 18s 1.09um
E 16s 0.63um
pP 57 47.00 41kmX
ePP 00 01.50
eS 06 14.50
eSS 10 30.00
PRY 65.12 175 eP 57 36.50 -0.7
0.6s 61.00nm 5.8mb
CD2 65.51 69 P 57 37.00 -2.8
1.4s 200.00nm 5.9mb
Z 33s 2.15um 5.1MszX
PP 00 03.00
ScP 02 08.00
eS 06 16.00
SS 10 30.20
HHC 65.88 56 Pd 57 41.40 -0.7
1.0s 140.00nm 5.9mb
Z 34s 4.83um 5.5MszX
N 14s 0.82um
E 14s 0.71um
S 06 24.00
BNH 66.50 309 eP 57 46.36 0.5
SEK 66.51 175 eP 57 45.50 -0.6
0.6s 19.00nm 5.3mb
BLF 67.20 176 eP 57 50.50 0.1
1.0s 40.00nm 5.4mb
POF 67.40 182 eP 57 53.50 2.1
0.6s 19.00nm 5.3mb
XAN 67.60 64 P 57 51.50 -1.5
1.2s 58.00nm 5.4mb
Z 32s 0.50um 4.5MszX
E 16s 0.97um
PcP 58 12.00
ePP 00 21.00
S 06 44.00
ScS 07 42.00
SS 11 08.00
KMI 67.83 75 Pc 57 53.00 -1.7
1.6s 110.00nm 5.6mb
Z 24s 1.80um 5.2MszX
E 11s 0.40um
pP 58 08.50 56km
sP 58 16.00
S 06 40.00
TIY 68.08 59 eP 57 54.40 -1.6
Z 30s 2.34um 5.2MszX
PP 00 27.00
S 06 51.00
SS 11 12.00
CHTO 68.39 83 ePc 57 55.50 -2.6
1.0s 23.75nm 5.1mb
RSNY 68.50 310 P 57 59.70 1.3
1.1s 78.66nm 5.6mb
Z 20s 0.90um 5.0Msz
BJI 69.30 55 eP 58 01.50 -1.8
1.5s 180.00nm 5.8mb
Z 36s 4.57um 5.5MszX
N 16s 1.38um
ePP 00 32.00
eS 07 00.00
BDT 69.33 84 eP 58 00.00 -3.8X
0.9s 6.00nm 4.5mb X
FCC 69.76 330 eP 58 09.00 3.3X
EEO 69.99 314 eP 58 11.50 4.0X
GYA 70.05 72 iPc 58 06.00 -2.3
1.0s 29.00nm 5.2mb
Z 30s 1.88um 5.2MszX
BRW 70.66 360 eP 58 11.78 0.7
NST 71.12 85 eP 58 13.00 -1.7
WLVO 71.16 311 P 58 16.29 1.7
LOE 71.37 82 eP 58 15.00 -1.2
CER 71.39 183 eP 58 12.00 -3.9X
1.5s 100.00nm 5.5mb
GRM 71.41 176 eP 58 06.00 -10.0X
1.0s 104.00nm
STCO 72.03 311 P 58 21.53 1.8

```
18d 15h

TIA      72.05  58 eP      58 18.50  -1.5
         1.2s    39.00nm           5.2mb
       Z 29s      1.58um           5.1MszX
       N 13s      0.54um
       E 13s      0.70um
ACTO     72.32 312 P       58 23.60   2.1
TYNO     72.51 311 P       58 24.40   1.8
CN2      72.83  48 Pc      58 23.00  -1.5
         1.0s    13.00nm           4.8mb
       N 12s      0.47um
       E 12s      0.57um
                    epP    58 36.00  45kmX
                    esP    58 44.50
                    eS     07 42.00
SNY      72.90  50 Pc      58 22.00  -2.9
         1.0s    55.00nm           5.4mb
       Z 29s      2.22um           5.3MszX
       N 18s      1.39um
       E 13s      0.87um
                    sP     58 44.00
ILT      72.92   8 iPc     58 24.00  -0.5
         1.2s   158.00nm           5.8mb
       Z 22s      1.50um           5.2Msz
       N 22s      1.30um
       E 22s      0.60um
                    i      58 40.30  59km
                    eS     07 44.00
MGD      73.23  24 ePc+    58 26.00  -0.5
         1.0s   140.00nm           5.8mb
       Z 18s      2.60um           5.6Msz
       N 18s      2.40um
       E 18s      1.40um
                    e      58 36.00  32kmX
                    e      01 08.00
                    ePPP   03 00.00
                    eS     07 44.00
                    eSS    12 40.00
ELF      73.30 312 P       58 29.10   1.8
LDN      73.32 312 P       58 29.10   1.8
WHN      73.36  64 P       58 22.00  -5.8X
       Z 22s      1.29um           5.2Msz
DLA      73.65 312 P       58 30.00   0.7
YKA      73.67 341 eP      58 29.40   0.4
         1.4s    51.00nm           5.3mb
CVL      74.69 306 (P)     58 34.97  -0.4
MDJ      74.69  45 eP      58 36.80   1.6
       Z 18s      2.40um           5.5Msz
                    S      08 04.00
SOB1     75.31 245 eP      58 40.50   1.3
NJ2      75.62  61 Pc      58 39.00  -1.8
         1.0s    19.00nm           5.0mb
       Z 20s      0.65um           4.9Msz
                    S      08 17.00
IMA      75.87 358 ePc     58 42.60   0.8
         1.9s   400.20nm           6.0mb
ULM      76.33 324 eP      58 47.50   3.1X
CEH      76.35 305 eP      58 46.52   1.7
         0.9s    77.48nm           5.7mb
       Z 20s      0.99um           5.1Msz
BLA      76.39 307 eP      58 46.93   1.8
         1.0s    36.23nm           5.3mb
NAV      76.56 307 eP      58 47.45   1.4
OIZ      76.69  76 eP      58 46.00  -1.0
FBA      76.79 356 ePc     58 47.00   0.2
         1.7s   164.20nm           5.7mb
VLA      76.92  45 iP      58 44.00  -3.9X
         2.0s   215.00nm           5.8mb
       N 14s      0.60um
       E 14s      1.50um
                    eS     09 28.00
SSE      77.79  60 Pc      58 46.00  -6.8X
         1.0s    21.00nm           5.1mb
       Z 22s      1.40um           5.2Msz
       E 10s      0.50um
                    pP     59 10.00  91kmX
LHS      78.32 305 eP      58 56.93   1.2
IPM      78.45  93 ePd     58 55.50  -1.2
JSC      78.74 305 eP      58 59.44   1.4
TTA      79.06 359 ePc     59 00.60   1.3
         1.8s   324.50nm           6.0mb
TKL      79.47 307 eP      59 02.11   0.1
GBTN     79.74 307 ePd     59 05.25   1.8
YSS      79.81  37 iPc-    59 03.00  -0.6
         1.1s   280.00nm           6.1mb
       Z 16s      1.70um           5.5MszX
       N 16s      1.70um
       E 16s      2.00um

                    e      59 19.90  61km
                    e      02 12.00
                    (S)    09 25.00
KLU      80.04 354 eP      59 06.16   1.5
PMR      80.17 356 P       59 05.30   0.2
         1.4s   142.04nm           5.7mb
       Z 21s      0.79um           5.0Msz
BALM     80.17 352 ePd     59 06.14   0.8
CRP      80.64 357 ePc     59 07.57  -0.3
CP2      80.64 357 eP      59 08.11   0.1
SVW      80.89 359 ePc     59 10.60   1.5
SLKM     81.31 356 ePc     59 11.83   0.6
RSO      81.46 357 eP      59 11.61  -0.7
ELC      81.72 311 eP      59 14.54   0.7
KGM      81.82  94 ePc     59 14.80   0.1
ASAJ     81.88  39 eP      59 14.70   0.2
FVM      81.95 313 eP      59 15.97   0.9
         1.3s   179.79nm           5.9mb
SES      82.52 332 ePc     59 18.00   0.2
         1.8s   287.00nm           6.0mb
SIT      83.08 348 (P)     59 22.79   2.3
         1.4s    80.74nm           5.5mb
HOOJ     83.47  40 eP      59 23.10   0.3
KUSJ     83.65  38 eP      59 22.20  -1.4
KDC      84.17 357 eP      59 26.20   0.3
TKSJ     84.26  51 P       59 27.20   0.3
OLY      84.26 311 (P)     59 27.32   0.4
RSSD     84.60 324 P       59 30.47   1.7
         1.0s    42.31nm           5.5mb
       Z 21s      1.56um           5.4Msz
BDF      84.69 245 eP      59 28.90  -0.4
BAO      84.73 246 eP      59 28.60  -0.9
                    e      59 43.70  52km
                    e      59 53.70
                    e      00 16.20
YAMJ     84.82  44 eP      59 28.80  -0.8
MAT      84.95  47 ePKP    59 29.00  -1.3
       Z 18s      0.69um           5.1Msz
WKYJ     85.03  50 P       59 30.90   0.1
OFUJ     85.05  43 eP      59 30.30  -0.4
CDCB     85.55 240 eP      59 49.30  15.8X
                    e      00 17.10 106kmX
                    e(S)   09 52.00
SMY      86.08  17 P       59 50.00  14.4X
       Z 21s      1.09um           5.2Msz
MIAR     86.16 312 P       59 37.70   1.3
         1.1s   103.44nm           5.9mb
       Z 20s      1.11um           5.3Msz
BAG      86.40  72 eP+     59 36.00  -2.0
NEW      86.48 334 ePd     59 38.42   0.6
         1.0s   139.11nm           6.1mb
CVP      86.51  70 eP      59 36.00  -2.3
PCO      86.57 315 iPc     59 42.40   4.0X
LCCM     86.58 330 ePc     59 39.50   1.0
SDN      86.66   2 eP      59 38.60   0.2
DPW      87.19 335 ePc     59 41.99   0.7
OCO      87.70 315 iPc     59 47.30   3.5X
SAW      87.74 335 P       59 45.34   1.5
ACO      87.75 317 e(P)    59 43.00  -1.1
WTV      87.92 335 P       59 45.74   1.0
JCW      88.11 337 P       59 45.86   0.2
BW06     88.12 327 ePc     59 45.79  -0.3
         1.6s    84.88nm           5.7mb
GOL      88.65 322 P       00 00.00  11.3X
       Z 20s      1.82um           5.5Msz
RMW      88.72 336 eP      59 48.62  -0.1
MEO      88.86 315 iPd     59 50.90   1.5
LNOR     88.95 334 P       59 50.53   0.8
GMW      88.95 337 eP      59 50.23   0.6
VAO      88.96 239 (P)     00 04.50  14.5X
WMOK     89.00 315 eP      59 50.87   0.8
         1.0s   119.94nm           6.1mb
       Z 19s      1.32um           5.4Msz
                    e      00 07.99  60km
FMW      89.15 336 P       59 51.78   0.9
LON      89.35 336 eP      59 52.61   1.0
ASR      89.82 336 P       59 55.11   1.2
JBO      89.84 334 P       59 56.63   2.7X
SHW      89.99 336 eP      59 56.89   2.2
VGB      90.11 335 eP      59 57.52   2.4
HVU      90.31 328 eP      59 57.10   0.8
LEM      90.64  98 ePc     00 00.00   1.9
CROR     90.65 335 P       59 59.13   1.4
DAU      90.79 326 ePc     59 59.42   0.7
EMUT     91.08 326 eP      00 00.50   0.5
PPD      91.30 243 (P)     00 18.00  17.2X
                    e      00 32.30  48km

SRU      91.53 325 eP      00 01.93   0.0
DUG      91.64 327 P       00 03.10   0.7
         1.1s    48.36nm           5.8mb
       Z 21s      1.92um           5.5Msz
MSU      92.75 326 eP      00 08.29   0.6
ALQ      92.92 320 P       00 09.00   0.5
         1.0s    11.79nm           5.3mb
       Z 21s      1.22um           5.3Msz
LBFM     94.17 334 eP      00 15.26   1.1
CGP      94.51  76 eP      00 14.00  -1.7
SIV      94.58 253 eP      00 27.00  11.0X
KVN      94.77 330 (P)     00 18.70   1.8
WDC      95.08 334 ePc     00 20.02   2.0
       Z 20s      1.20um           5.4Msz
                    eS     10 59.02
                    ePS    11 34.02
                    eLR    13 08.02
                    eSKKS  25 28.02
                    eLQ    28 27.02
                    eLR    33 32.02
WDC      95.08 334 P       00 30.00  12.0X
       Z 20s      1.21um           5.4Msz
BONR     95.80 330 eP      00 23.52   1.7
CMB      96.54 331 ePc     00 28.68   3.9X
       Z 20s      1.10um           5.3Msz
                    eS     11 06.68
                    ePS    11 47.68
                    e      13 17.68
                    ePKKP  17 57.68
                    eSKKS  25 37.68
                    eLQ    29 20.68
                    eLR    33 45.68
CMB      96.54 331 P       00 40.00  15.2X
       Z 21s      1.25um           5.4Msz
TUC      97.18 321 P       00 29.00   1.2
         1.1s    17.84nm           5.5mb
       Z 21s      1.54um           5.5Msz
GSC      97.46 327 eP      00 30.62   1.6
ISA      97.84 329 eP      00 31.93   1.2
         1.0s    22.33nm           5.6mb
       Z 21s      1.37um           5.4Msz
SAO      98.06 331 P       00 40.00   8.4X
       Z 20s      1.43um           5.5Msz
GLA      98.48 325 eP      00 35.50   1.9
ZOBO    100.13 257 Pdiff   00 55.00  12.9X
                    SKS    11 12.00
                    LR     36 20.00
LPB     100.26 257 ePdiff00 47.00   4.7X
                    LR     35 56.00
CNCB    100.33 257 ePdiff00 47.00   4.1X
PJG     105.61  58 e(Pdif00 51.00 -14.6X
GUMO    105.61  58 e(Pdif00 53.00 -12.6X
       Z 31s      0.99um           5.2MszX
                    e      01 05.00
WRA     119.26  93 PKP     05 37.50  -7.2X
         0.9s     1.30nm
WRA     119.26  93 PKP     05 44.00  -0.7
         0.4s     1.30nm
WB2     119.27  93 iPKPc 05 43.40  -1.3
         0.7s     6.90nm
ASPA    120.91  97 iPKPd 05 46.50  -1.3
         0.9s    15.90nm
SPA     128.15 180 iPKPd 05 59.80  -0.8
         0.9s    31.82nm
STK     130.80 102 ePKP    06 07.20   0.7
CMS     133.91  99 ePKP    06 10.50  -1.9
TOO     135.93 107 ePKP    06 16.00  -0.1
         0.3s     6.00nm
DZM     145.39  72 iPKPd 06 34.20   0.7
   S.D. = 1.3  on 457 of 534 obs.
------------------------------------------
% MAR  18, 1993  16h 00m 59.15± 1.49s
  38.576 S ±10.8km  175.572 E ±10.1km
  DEPTH = 192.6 ± 13.2 km
 NORTH ISLAND, NEW ZEALAND          (159)

NGZ       0.60 178 P       01 26.00  -0.3
CNZ       0.62 182 P       01 26.10  -0.2
PAHZ      1.19 104 P       01 29.70  -0.2
URZ       1.25  76 P       01 29.40  -0.9
                    S      01 48.60
WAHZ      1.28 152 Pc      01 30.70   0.1
BSZ       1.32 202 P       01 31.60   0.7
TTH       1.37 135 P       01 32.00   0.7
MAHZ      1.90 109 P       01 36.60   0.2
NOZ       1.93  92 P       01 37.10   0.4
MNG       2.04 182 Pc      01 38.00   0.1
```

S 02 02.90
PGZ 2.11 165 P 01 38.60 0.0
PUZ 2.17 77 P 01 39.10 -0.2
S 02 05.50
KIW 2.34 192 P 01 41.30 0.1
HBZ 2.36 66 P 01 41.80 0.4
CAW 2.56 189 P 01 43.70 0.1
DIW 2.56 209 P 01 44.00 0.3
MTW 2.58 181 P 01 43.50 -0.4
MRW 2.74 194 P 01 45.50 -0.2
S 02 17.40
BLW 2.79 182 P 01 45.90 -0.4
MOW 2.85 185 P 01 46.70 -0.4
KHZ 4.14 201 P 02 03.00 0.1
S 02 49.90
S.D. = 0.4 on 21 of 21 obs.

% MAR 18, 1993 16h 06m 15.64± 4.81s
43.823 N ±33.6km 7.819 E ± 6.3km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 1.1 (GEN).

IMI 0.10 30 P 06 18.11 0.2
S 06 19.21
ROB 0.47 5 P 06 25.12 0.0
S 06 31.36
FIN 0.48 36 P 06 25.14 -0.1
S 06 31.55
ENR 0.50 325 P 06 25.28 -0.3
S 06 30.93
STV 0.55 320 P 06 27.28 0.6
S 06 32.92
PZZ 0.86 323 P 06 32.37 -0.3
S 06 42.81
PCP 0.89 36 P 06 33.17 0.0
S 06 44.39
S.D. = 0.4 on 7 of 7 obs.

& MAR 18, 1993 16h 56m 56.51s
34.266 N 116.428 W
DEPTH = 0.1km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.5 (PAS). Felt.

PEC 0.71 239 ePc 57 10.07 -0.7
PLM 0.98 202 eP 57 14.78 -1.4
SSK 1.05 267 eP 57 16.18 -1.2
S 57 31.13
GSC 1.08 343 eP 57 16.96 -0.8
S 57 33.36
GLA 1.80 132 ePn 57 28.69 -0.4
ePg 57 30.35
S 57 54.49
5 obs. associated

---

* MAR 18, 1993 18h 05m 24.98± 0.93s
53.698 N ±16.9km 164.548 W ± 9.8km
DEPTH = 33.0km (normal)
4.6mb (16 obs.)
UNIMAK ISLAND REGION (10)

SDN 2.88 53 ePd 06 10.14 0.7
S 06 45.62
ADK 7.58 261 eP 07 13.52 -2.3
SVW 8.85 29 (P) 07 34.20 0.7
RSO 9.33 39 (P) 07 39.13 -1.1
CP2 10.05 36 eP 07 47.63 -2.7
CRP 10.09 36 eP 07 51.23 0.5
SLKM 10.34 43 eP 07 53.16 -0.9
PMR 11.41 40 (P) 08 11.51 3.0X
KLU 12.64 44 ePc 08 22.04 -3.1X
IMA 13.52 19 eP 08 37.60 0.8
0.7s 2.09nm 4.1mb
BALM 14.00 50 eP 08 40.87 -2.2
FBA 14.06 30 eP 08 42.30 -1.3
0.8s 4.46nm 4.2mb
MGD 24.80 303 eP 10 43.00 -1.9
MSU 38.43 92 eP 12 44.25 -1.0
MAT 42.63 270 (P) 13 19.00 -0.6
0.9s 7.56nm 4.4mb
BOD 43.31 310 iPd 13 20.00 -4.8X
0.8s 13.00nm 4.7mb
ZAK 52.90 307 eP 14 39.00 -0.5
1.1s 12.00nm 4.8mb
MOY 53.11 309 eP 14 41.00 0.0
LZH 62.74 294 eP 15 48.00 -1.1
pP 16 00.00 41kmX
KAF 64.22 354 iP 15 57.70 -0.5
0.4s 2.40nm 4.6mb
HFS 66.51 1 eP 16 12.20 -0.7
0.4s 2.80nm 4.7mb
OBN 70.17 347 eP 16 34.00 -1.7
FRU 71.31 318 eP 16 44.00 1.1
LDF 77.23 11 eP 17 17.20 0.3
0.8s 5.25nm 4.6mb
KHC 77.53 1 eP 17 20.00 1.4
e 17 33.00
GEC2 77.82 1 P 17 21.20 1.0
0.6s 0.89nm 4.0mb
SSF 79.10 8 eP 17 28.10 0.9
0.9s 5.40nm 4.5mb
MFF 79.20 11 eP 17 28.50 0.8
0.6s 2.00nm 4.3mb
LBF 79.22 8 eP 17 28.50 0.6
0.9s 4.60nm 4.5mb
AVF 79.36 8 eP 17 29.30 0.7
1.0s 5.40nm 4.5mb
SMF 79.55 8 eP 17 30.40 0.8
0.8s 7.10nm 4.7mb
PYA 79.82 340 eP 17 33.00 1.9
KIV 79.96 340 eP 17 32.70 0.7
VBY 81.17 0 e(P) 17 39.00 0.8
SBF 82.57 6 eP 17 47.00 1.4
0.9s 8.70nm 4.8mb
MAIO 82.61 326 eP 17 47.00 1.0
PGF 83.97 5 eP 17 54.30 1.4
0.9s 7.70nm 4.9mb
OHR 85.45 356 eP 18 01.70 1.4
HYB 91.01 302 eP 18 27.00 -0.2
e 18 39.00
WIN 148.89 357 ePKP 25 16.00 9.3X
0.5s 23.00nm
SLR 150.47 336 iPKPd 25 13.20 4.2X
0.7s 27.00nm
PRY 151.81 337 ePKP 25 15.50 4.5X
SEK 153.11 336 ePKP 25 20.50 7.7X
S.D. = 1.3 on 36 of 43 obs.

MAR 18, 1993 18h 11m 51.02± 0.54s
54.143 N ± 9.9km 169.408 E ± 5.7km
DEPTH = 33.0km (normal)
4.6mb (18 obs.)
KOMANDORSKY ISLANDS REGION (4)

SMY 3.14 115 eP 12 37.76 -1.6
PET 6.51 264 ePn 13 25.00 -1.9
Z 20s 1.50um
ADK 8.69 99 eP 13 55.95 -1.3
0.9s 51.56nm 5.7mb X
MGD 11.72 308 ePn 14 38.00 -0.7
SEY 12.45 322 ePn 14 51.00 2.5
ILT 14.91 18 eP 15 19.00 -1.8
1.0s 30.00nm 4.6mb
YSS 18.31 258 ePd 16 06.10 2.3
1.1s 20.00nm 4.2mb
Z 17s 0.40um 4.4Msz
TTA 19.84 50 eP 16 22.25 0.6
1.2s 16.43nm 4.2mb
RSO 21.16 57 eP 16 35.58 0.2
CRP 21.47 55 eP 16 39.44 0.9
IMA 21.54 42 eP 16 39.76 0.6
1.5s 19.41nm 4.3mb
YAK 22.10 307 iPc 16 42.70 -1.9
1.5s 66.00nm 4.9mb
eS 20 45.00
FBA 23.72 46 eP 17 01.94 1.5
0.8s 7.77nm 4.3mb
KLU 24.47 55 (P) 17 11.11 3.3X
TIK 24.68 330 iPd 17 09.00 -0.6
1.5s 36.00nm 4.7mb
e 17 21.00
BALM 26.23 55 eP 17 25.57 1.2
MAT 27.79 243 eP 17 39.00 0.2
0.8s 14.18nm 4.7mb
BOD 30.38 300 eP 18 01.40 -0.3
1.0s 9.00nm 4.5mb
NRI 38.03 325 iPc 19 05.90 -1.3
1.3s 18.00nm 4.8mb
YKA 38.53 46 eP 19 11.50 0.0
0.8s 0.70nm 3.5mb X
ZAK 39.32 292 eP 19 18.30 0.1
0.9s 6.00nm 4.4mb
ELT 46.49 305 eP 20 15.00 -1.3
1.0s 14.00nm 4.9mb
LZH 47.83 276 eP 20 28.50 1.1
1.5s 40.00nm 5.2mb
RSSD 54.10 63 (P) 21 15.17 0.4
0.8s 4.93nm 4.6mb
KAF 60.50 341 eP 22 01.10 1.6
NUR 62.30 341 eP 22 10.30 -1.3
CHTO 63.54 266 eP 22 30.00 9.6X
NB2 63.86 348 P 22 20.60 -1.5
0.7s 4.50nm 4.7mb
HFS 64.43 347 eP 22 26.90 1.2
0.4s 3.20nm 4.7mb
KHC 75.10 344 eP 23 35.40 4.4X
e 24 27.50
GEC2 75.36 344 P 23 31.50 -1.1
0.6s 1.20nm 4.1mb
e 23 32.90
e 23 35.80
KBA 77.13 343 e(P) 23 47.00 4.4X
VBY 78.32 342 e(P) 23 49.70 0.8
ASPA 83.32 212 eP 24 16.90 1.4
0.7s 3.40nm 4.6mb
S.D. = 1.3 on 30 of 34 obs.

MAR 18, 1993 18h 51m 06.49± 0.51s
17.540 N ± 7.5km 101.268 W ± 6.6km
DEPTH = 42.9km (4 depth phases)
4.7mb (24 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 1.50 116 iP 51 31.50 0.1
iS 51 52.50
III 1.90 64 iP 51 38.50 1.2
iS 52 04.50
MRX 2.15 2 iP 51 43.50 2.9
iS 52 15.00
CRX 2.39 39 (P) 51 43.50 -0.8
UNM 2.66 48 eP 51 50.50 2.3
(S) 52 29.00
PPM 2.93 58 iP 51 53.00 0.7
(S) 52 37.50
IIA 2.95 57 eP 51 52.50 0.5
(S) 52 37.00
CGX 2.99 316 (P) 51 53.00 0.2
(S) 52 35.50
IISM 3.97 68 eP 52 04.50 -1.9
OXX 4.36 95 iP 52 14.00 1.7
(S) 53 18.00
AGX 4.42 347 (P) 52 24.50 11.6X
MZX 7.42 320 (P) 53 32.00 37.0X
TUC 17.04 331 (P) 54 55.93 -7.4X
0.5s 8.27nm 4.1mb
e 55 31.42
WMOK 17.27 7 eP 55 04.00 -2.2
0.8s 9.99nm 4.0mb
MIAR 18.28 21 eP 55 16.00 -2.6
i 55 26.57
ACO 19.18 5 iPc 55 23.50 -6.0X
OLY 19.90 24 eP 55 33.48 -3.8X
i 55 45.99 58kmX
ELC 22.35 26 eP 56 00.12 -1.9
e 56 11.23 44km
FVM 22.48 23 (P) 55 58.07 -5.3X
0.5s 26.79nm 4.9mb
GOGA 22.48 42 eP 56 01.84 -1.6
0.5s 13.08nm 4.6mb
ARUT 22.83 334 eP 56 08.18 1.1
MSU 22.97 338 eP 56 08.67 0.2
TPNV 23.42 329 (P) 56 14.55 1.8
0.9s 23.79nm 4.7mb
DUG 24.69 338 iP 56 25.49 0.5
0.8s 6.31nm 4.2mb
i 56 40.60 64kmX
TNP 24.78 329 eP 56 26.10 0.1
0.8s 6.68nm 4.2mb
MEMM 25.36 326 eP 56 33.23 2.1
KVN 25.97 329 eP 56 37.19 0.1
HVU 26.09 340 eP 56 37.60 -0.6
BW06 26.13 346 eP 56 37.59 -1.0
1.1s 25.17nm 4.7mb
e 56 49.08 45km
RSSD 26.60 356 (P) 56 44.33 1.4
0.8s 2.63nm 3.9mb
NAV 26.70 38 eP 56 44.13 0.5
LCCM 29.57 345 eP 57 09.20 -0.5
ULM 32.92 6 eP 57 39.00 0.2
pP 57 50.00 40km

18d 18h

JAQ 41.26 23 eP 58 47.00 -2.0
YKA 45.87 351 eP 59 25.20 -0.9
0.8s 4.00nm 4.4mb
ZOBO 46.86 134 eP 59 34.00 -1.3
LPB 47.05 134 eP 59 38.00 1.5
CNCB 47.33 134 Pc 59 38.90 0.0
SIV 51.76 128 Pc 00 21.00 8.7X
RSO 56.32 332 (P) 00 38.92 -6.5X
FBA 56.57 338 eP 00 44.14 -2.8
0.9s 3.36nm 4.4mb
RES 57.27 2 eP 00 50.50 -1.2
BAO 62.00 119 eP 01 21.70 -3.6X
e 01 34.20 44km
BDF 62.09 119 eP 01 23.50 -2.3
SOB1 65.29 109 eP 01 46.30 -0.4
DAG 71.33 14 eP 02 22.80 -0.5
0.8s 9.70nm 4.8mb
LPF 83.78 42 eP 03 33.80 1.2
0.9s 7.20nm 4.8mb
FLN 83.89 41 eP 03 33.50 0.4
1.1s 12.95nm 4.9mb
LDF 84.17 41 eP 03 34.90 0.4
1.0s 10.40nm 4.9mb
TIK 84.82 346 iPc 03 37.00 -0.4
1.2s ********nm 8.1mb X
e 03 40.00 9kmX
e 04 05.00
e 04 15.00
NB2 85.18 27 P 03 55.10 15.7X
0.8s 3.20nm
LFF 85.99 44 iPd 03 44.70 1.0
1.0s 12.20nm 5.1mb
LSF 86.04 43 iPd 03 44.40 0.4
RJF 86.38 44 iPd 03 46.30 0.7
1.0s 7.60nm 4.9mb
LPO 86.38 44 eP 03 47.00 1.3
0.9s 3.75nm 4.6mb
EPF 86.39 46 iPd 03 46.60 0.8
1.0s 7.80nm 4.9mb
TCF 86.47 43 iPd 03 46.10 0.0
0.8s 4.45nm 4.7mb
APO 86.58 27 eP 03 59.70 13.4X
0.6s 4.00nm
MAF 86.72 42 eP 03 47.20 -0.1
1.0s 6.80nm 4.8mb
SSF 87.00 41 iPd 03 48.30 -0.3
1.0s 5.00nm 4.7mb
LOR 87.15 41 iPd 03 49.40 0.0
1.1s 8.80nm 4.9mb
LBF 87.33 41 eP 03 49.90 -0.4
0.9s 3.60nm 4.6mb
WB2 127.47 258 iPKPd 10 08.60 -0.7
0.7s 2.60nm
ASPA 128.26 253 ePKP 10 10.20 -0.5
1.0s 3.10nm
HYB 145.26 0 ePKPc 10 40.50 -1.6
1.0s 25.00nm
e 10 49.00
GBA 149.03 2 PKP 10 51.00 2.9
S.D. = 1.4 on 55 of 66 obs.

% MAR 18, 1993 19h 02m 20.77± 0.62s
26.368 S ± 5.5km 27.402 E ± 6.2km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.5 (PRE).

PRY 0.56 174 eP 02 31.00 -1.0
S 02 37.80
KSR 0.68 318 iPc 02 33.90 -0.4
S 02 41.90
BFS 0.76 226 iPd 02 36.50 0.3
S 02 46.10
SLR 1.01 52 iPd 02 39.90 -0.6
S 02 53.60
SEK 1.96 174 iPc 02 55.60 0.5
S 03 20.00
SWZ 2.03 246 eP 02 56.50 0.4
S 03 20.90
BFT 2.47 75 eP 03 03.50 0.9
S 03 33.00
BLF 2.94 201 eP 03 09.00 -0.1
S 03 42.50
S.D. = 0.8 on 8 of 8 obs.

% MAR 18, 1993 19h 23m 27.11± 3.45s
33.733 S ±14.3km 70.968 W ± 9.9km
DEPTH = 65.2 ± 34.3 km
CHILE-ARGENTINA BORDER REGION (127)

TACH 0.08 18 iP 23 36.83 -0.2
iS 23 45.10
CHCH 0.33 127 iP 23 38.22 0.0
iS 23 46.34
PCH 0.39 74 iP 23 38.86 0.1
iS 23 47.71
LNV 0.43 239 iP 23 38.99 0.0
iS 23 47.68
LCCH 0.56 297 iP 23 40.28 -0.1
iS 23 50.96
PEL 0.63 22 eP 23 41.25 0.1
iS 23 52.59
ROCH 0.76 357 eP 23 43.10 0.3
iS 23 55.32
JACH 1.09 17 iP 23 46.71 -0.3
iS 24 02.26
S.D. = 0.2 on 8 of 8 obs.

MAR 18, 1993 19h 28m 09.37± 0.45s
54.171 N ± 9.6km 169.324 E ± 5.2km
DEPTH = 20.0km (3 depth phases)
4.5mb (22 obs.)
KOMANDORSKY ISLANDS REGION (4)

SMY 3.20 115 eP 28 57.98 -1.6
PET 6.46 264 ePn 29 45.00 -0.7
Z 20s 1.00um
ADK 8.74 100 eP 30 13.66 -3.9X
S 31 49.00
SKR 8.81 252 ePn 30 15.60 -2.9
MGD 11.66 308 ePn 31 00.00 2.5
Z 11s 0.60um
N 11s 1.00um
E 11s 0.60um
SEY 12.40 322 ePn 31 11.70 4.3X
ILT 14.90 18 eP 31 40.00 -0.3
YSS 18.27 258 ePc 32 25.10 2.0
1.0s 30.00nm 4.4mb
Z 17s 0.30um 4.8MszX
SVW 19.81 55 eP 32 39.38 -1.8
0.8s 8.08nm 4.1mb
RSO 21.18 57 eP 32 56.19 0.5
CP2 21.45 55 eP 32 59.74 1.4
KDC 21.47 65 (P) 32 58.98 0.7
1.0s 6.61nm 4.0mb
CRP 21.49 55 eP 32 59.40 0.7
IMA 21.55 42 eP 33 00.12 0.9
0.8s 5.94nm 4.1mb
YAK 22.04 307 iPc 33 03.00 -1.0
0.8s 110.00nm 5.3mb
i 33 11.00 29km
eS 37 05.00
FBA 23.74 46 (P) 33 20.16 -0.4
0.8s 6.26nm 4.2mb
TIK 24.63 330 iP 33 29.50 0.3
1.6s 60.00nm 5.0mb
i 33 40.00 40kmX
e 34 05.00
e 34 15.00
MAT 27.76 243 eP 34 00.00 1.5
0.9s 22.69nm 4.9mb
BOD 30.32 300 eP 34 21.00 -0.2
1.2s 10.00nm 4.5mb
CIT 32.81 289 eP 34 44.00 0.8
NRI 37.98 325 iPd 35 25.70 -1.2
YKA 38.54 46 eP 35 31.70 0.0
0.6s 1.00nm 3.7mb
ZAK 39.26 292 eP 35 37.00 -0.8
2.0s 18.00nm 4.4mb
Z 17s 0.60um 4.5MszX
e 37 14.50 549kmX
MOY 39.82 295 eP 35 40.00 -2.4
RES 40.18 24 eP 35 35.00 -10.1X
ELT 46.43 305 eP 36 36.00 0.0
1.2s 14.00nm 4.8mb
LZH 47.78 276 eP 36 48.50 1.4
1.6s 39.00nm 5.2mb
pP 36 54.50 20km
TNP 51.03 77 eP 37 12.21 0.1
0.5s 2.64nm 4.4mb
BW06 52.11 67 eP 37 21.75 1.5
1.5s 14.50nm 4.7mb
GSC 53.21 79 (P) 37 28.08 -0.2
SRU 54.10 71 eP 37 35.40 0.5
RSSD 54.13 63 eP 37 34.91 -0.2
0.7s 5.01nm 4.7mb
NSD 58.84 346 eP 38 06.00 -2.2
0.5s 4.00nm 4.8mb
FRU 59.17 301 eP 38 09.00 -1.9
ALQ 59.35 72 (P) 38 11.24 -1.2
0.7s 1.78nm 4.3mb
CHTO 63.49 266 eP 38 46.60 6.3X
NB2 63.83 348 P 38 40.60 -1.4
0.7s 4.00nm 4.7mb
OLY 66.99 61 (P) 39 10.29 7.7X
QUE 72.81 298 eP 39 40.00 1.6
KHC 75.06 344 eP 39 52.00 1.0
e 40 27.00 141kmX
GEC2 75.32 344 P 39 53.00 0.4
1.2s 3.08nm 4.2mb
e 39 56.50 11km
e 40 00.50
VBY 78.28 342 e(P) 40 09.90 1.0
WB2 79.69 213 eP 40 18.60 1.7
0.8s 2.30nm 4.2mb
GBA 80.20 280 P 40 20.00 0.2
ASPA 83.31 212 eP 40 35.80 0.0
0.6s 2.50nm 4.6mb
S.D. = 1.3 on 40 of 45 obs.

% MAR 18, 1993 19h 31m 07.12± 1.61s
31.299 S ±11.2km 68.532 W ± 9.4km
DEPTH = 100.1 ± 18.5 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.06 120 iPc 31 21.30 -0.2
S 31 32.50
RTCB 0.30 231 iPd 31 22.00 0.0
S 31 32.80
CFA 0.40 141 ePc 31 22.80 0.3
S 31 34.90
RTCV 0.56 180 ePc 31 23.70 0.1
S 31 36.20
RTBS 0.87 245 ePc 31 26.20 -0.2
(S) 31 41.50
RTRS 1.38 324 ePd 31 32.40 0.2
S 31 51.80
RTPR 2.00 61 ePd 31 40.10 -0.1
S 32 05.90
MRA 2.65 116 ePc 31 48.80 0.0
S 32 20.00
S.D. = 0.2 on 8 of 8 obs.

& MAR 18, 1993 20h 07m 01.20s
49.072 N 129.245 W
DEPTH = 10.0km (geophysicist)
2.9mb (1 obs.)
VANCOUVER ISLAND REGION (25)
<PGC-P>. ML 3.1 (PGC).

BPBC 1.45 41 P 07 27.20 -0.3
EDB 1.60 59 P 07 27.53 -2.1
HOLB 1.73 24 Pd 07 30.83 -0.6
ETB 1.80 79 P 07 32.30 -0.2
PHC 2.01 35 P 07 35.27 -0.3
GDR 2.21 70 P 07 37.92 -0.6
BTB 2.47 79 Pc 07 41.95 -0.3
S 08 11.82
OZB 2.47 91 P 07 41.21 -1.0
S 08 10.29
CBB 2.70 68 P 07 45.61 0.1
S 08 17.78
MCW 4.25 93 eP 08 08.94 1.5
DPW 7.44 95 eP 08 52.11 -0.3
YKA 15.71 26 eP 10 41.70 -2.2
0.8s 0.70nm 2.9mb
RSSD 17.98 96 (P) 11 15.23 2.3
13 obs. associated

---

* MAR 18, 1993 20h 09m 20.19± 1.35s
36.741 N ± 9.4km 142.055 E ±11.4km
DEPTH = 15.1 ± 7.4 km
4.0mb (2 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

YAMJ 2.15 312 P 09 54.90 -1.1
S 10 19.80
OFUJ 2.36 353 P 09 58.60 -0.2
eS 10 26.30
NIIJ 2.50 282 P 10 00.10 -0.7
S 10 28.70

CHJJ 2.56 255 P 10 00.90 -0.9
S 10 27.40
MAT 3.10 267 eP 10 09.00 -0.4
eS 10 45.00
MTMJ 3.42 269 P 10 14.20 0.1
IIDJ 3.58 251 P 10 17.70 1.3
AOMJ 4.03 341 eP 10 23.10 0.5
TSRJ 5.06 258 P 10 39.80 2.6X
HOOJ 5.71 9 eP 10 46.90 0.5
eS 11 49.10
MRRJ 5.73 353 eP 10 47.80 1.2
eS 11 52.30
KUSJ 6.67 17 eP 10 58.00 -1.9
eS 12 09.00
TKSJ 7.10 250 P 11 06.60 0.7
YONJ 7.14 260 P 11 10.00 3.5X
ASAJ 7.38 3 eP 11 11.60 1.7
WB2 56.84 189 iPd 19 06.60 0.2
0.7s 1.80nm 4.2mb
YKA 63.80 30 eP 19 52.70 -0.8
0.6s 0.40nm 3.8mb
S.D. = 1.1 on 15 of 17 obs.

% MAR 18, 1993 20h 15m 31.83± 1.56s
33.146 S ± 5.5km 70.262 W ±12.2km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.6 (SAN).

FCH 0.18 187 iP 15 36.18 0.1
iS 15 38.89
PEL 0.35 270 iP 15 39.37 0.2
iS 15 44.48
PCH 0.52 204 iP 15 42.46 0.1
iS 15 51.20
JACH 0.54 329 iP 15 42.77 0.0
iS 15 50.72
ROCH 0.65 285 iP 15 44.95 -0.1
iS 15 54.34
TACH 0.76 228 iP 15 46.60 -0.1
iS 15 58.12
LCCH 1.14 253 iP 15 53.27 0.1
iS 16 08.75
LNV 1.25 230 iP 15 54.79 -0.3
S.D. = 0.2 on 8 of 8 obs.

MAR 18, 1993 22h 03m 37.42± 1.43s
17.784 S ±12.5km 179.027 W ±13.2km
DEPTH = 17.7 ± 7.9 km
4.4mb (5 obs.)
FIJI ISLANDS REGION (181)
MD 4.9 (SVA). Felt on the Lau Islands.

TVI 1.29 311 iPc 04 01.20 0.5
eS 04 20.30
KRO 1.58 287 iPc 04 04.70 0.0
UDU 1.87 330 ePc 04 08.00 -0.8
NDE 1.98 307 iPc 04 10.90 0.3
VUN 2.40 264 eP 04 15.30 -1.2
SVA 2.42 262 eP 04 15.90 -0.8
eS 04 47.50
DZM 14.31 250 iPd 07 11.70 10.3X
CTA 32.89 260 iP 10 12.50 -0.3
i 10 18.00
i 10 30.50
TOO 36.79 230 eP 10 46.50 0.3
STK 38.18 241 eP 10 58.00 0.2
0.2s 1.60nm 4.5mb
WB2 44.06 259 iPd 11 44.00 -2.4
0.8s 2.50nm 4.1mb
ASPA 44.26 254 eP 11 46.30 -1.7
0.8s 16.60nm 4.9mb
LEM 72.13 268 iPc 15 06.80 3.1X
ORV 78.29 42 (P) 15 37.06 -1.0
FBA 85.82 13 eP 16 14.32 -2.4
0.8s 4.75nm 4.7mb
e 16 22.61
LCCM 87.61 40 eP 16 25.90 -0.2
YKA 94.47 25 eP 16 55.10 -2.2
0.8s 0.50nm 4.0mb
CLL 145.21 347 iPKP 23 14.80 -0.7
0.9s 13.00nm
e 23 18.00
BRG 145.40 345 ePKP 23 14.00 -1.8
1.0s 20.00nm
i 23 19.40
PRU 146.07 344 PKP 23 17.00 0.0
MOX 146.13 348 e(PKP)23 17.40 0.3
KHC 147.10 345 ePKP 23 22.40 3.7X
1.0s 3.50nm
e 24 35.50
GRF 147.11 348 ePKP 23 23.00 4.3X
GEC2 147.34 344 PKP 23 19.80 0.6
0.8s 0.66nm
e 23 22.40
e 23 25.80
e 23 28.60
e 23 42.00
e 38 19.60
WLF 147.92 354 PKP 23 23.00 3.1X
CDF 149.02 352 ePKP 23 22.90 1.0
1.0s 5.40nm
FLN 149.08 2 ePKP 23 23.80 2.0
0.9s 11.45nm
GRR 149.44 2 ePKP 23 24.90 2.5X
1.3s 22.00nm
BSF 149.66 352 ePKP 23 26.40 3.5X
0.6s 2.00nm
LPF 149.79 3 ePKP 23 25.90 3.0X
1.0s 20.00nm
LOR 150.50 356 ePKP 23 28.50 4.4X
0.8s 7.40nm
SSF 150.73 356 ePKP 23 29.20 4.8X
0.9s 7.35nm
LBF 150.77 356 ePKP 23 29.90 5.4X
1.0s 7.60nm
OHR 151.18 328 e(PKP)23 30.50 5.2X
MFF 151.25 2 ePKP 23 30.10 4.9X
0.8s 5.65nm
S.D. = 1.2 on 22 of 35 obs.

MAR 18, 1993 23h 00m 45.10± 0.72s
23.930 N ± 4.1km 94.209 E ± 4.3km
DEPTH = 92.5 ± 7.6 km
4.6mb (48 obs.)
MYANMAR-INDIA BORDER REGION (294)
Felt at Shillong, India.

LSA 6.36 335 P 02 17.50 -0.9
CHTO 6.74 138 ePn 02 22.80 -0.4
eSg 04 05.70
KMI 7.86 80 Pc 02 41.50 2.7
1.2s 60.00nm 5.1mb
BDT 8.02 145 eP 02 39.00 -1.8
0.9s 20.00nm 4.8mb
LOE 9.57 131 ePn 03 03.50 1.5
ePg 03 11.00
eSg 04 46.50
NST 9.93 145 eP 03 07.00 0.3
KHT 9.99 155 eP 03 27.00 19.4X
CD2 10.96 49 eP 03 20.80 0.1
GYA 11.56 75 P 03 32.20 3.6X
LZH 14.70 32 eP 04 06.50 -3.2X
1.2s 28.00nm 4.4mb
HY8 16.01 249 eP 04 26.00 -0.3
0.8s 38.70nm 4.7mb
e 04 29.50
GTA 16.15 16 eP 04 25.00 -2.9
XAN 16.33 49 P 04 27.80 -2.3
0.7s 6.00nm 3.9mb
GBA 18.89 240 Pd 05 01.10 0.0
0.5s 4.00nm 4.0mb
WHN 19.07 65 eP 05 03.00 0.1
IPM 20.33 160 ePd 05 15.70 -0.5
0.5s 59.60nm 5.2mb
WMQ 20.55 346 P 05 18.30 0.0
1.0s 35.00nm 4.6mb
TIY 20.77 44 eP 05 22.80 2.2
BTO 21.27 35 eP 05 25.50 -0.1
KSH 21.85 319 P 05 33.50 2.1
0.9s 100.00nm 5.2mb
Z 20s 0.75um 4.1Msz
HHC 22.28 37 eP 05 37.00 1.4
PRZ 22.68 328 eP 05 41.00 1.5
1.0s 40.00nm 4.7mb
FRU 24.85 324 eP 06 02.00 1.6
1.2s 50.00nm 4.8mb
e 06 15.00
QUE 25.03 290 eP 06 04.10 1.8
eS 10 46.60
ZAK 27.34 13 eP 06 22.00 -1.0
1.0s 8.00nm 4.2mb
ELT 29.89 350 eP 06 46.20 0.4
1.3s 11.00nm 4.4mb
MAIO 32.29 301 eP 07 08.00 0.8
BOD 36.80 18 eP 07 45.00 -0.4
0.5s 6.00nm 4.8mb
SVE 40.87 332 iPc 08 27.80 8.6X
NRI 45.63 357 eP 09 16.00 18.5X
e 09 21.00
KIV 46.35 309 eP 09 04.30 0.6
MBL 51.29 149 eP 09 41.50 -0.3
HRI 51.60 294 eP 09 45.20 0.9
BGIO 52.32 292 eP 09 50.50 0.8
KAS 52.75 305 eP 09 53.00 0.3
RMN 52.87 291 eP 09 54.20 0.4
PPE 57.13 311 eP 10 24.50 0.2
VRI 57.77 310 iPc 10 30.00 1.3
MLR 58.33 310 iPc 10 38.80 6.0X
WRA 58.57 135 P 10 34.70 0.1
0.4s 0.50nm 4.0mb
WB2 58.58 135 iPd 10 34.10 -0.6
0.4s 4.50nm 4.9mb
KAF 58.81 329 eP 10 34.80 -1.0
NUR 59.43 327 eP 10 38.50 -1.5
UZH 60.64 314 ePc 10 47.00 -1.4
1.0s 29.00nm 5.3mb
ASPA 61.01 138 eP 10 50.80 -0.5
0.5s 4.20nm 4.8mb
VAY 61.16 305 iP 10 51.40 -0.7
SKO 61.91 306 iP 10 56.20 -1.0
OHR 62.51 305 eP 10 59.20 -2.0
VRAC 64.32 315 eP 11 13.40 0.6
0.8s 50.80nm 5.5mb
HFS 64.87 327 eP 11 15.00 -1.2
0.4s 4.10nm 4.7mb
HVAR 65.36 308 eP 11 19.10 -0.6
PRU 65.54 316 eP 11 21.40 0.7
VBY 65.79 311 iPd 11 23.00 0.6
NB2 66.00 328 P 11 21.50 -2.1
0.8s 4.80nm 4.5mb
GEC2 66.27 315 P 11 25.50 0.0
0.8s 10.37nm 4.8mb
e 11 28.10
PcP 11 37.20
GEC2 66.27 315 e(P) 11 25.70 0.2
0.6s 8.90nm 4.9mb
KHC 66.30 315 eP 11 25.60 0.0
KBA 66.81 313 iPd 11 28.70 -0.4
0.5s 5.60nm 4.7mb
GRF 67.71 316 eP 11 35.30 0.8
WTTA 67.92 313 iPd 11 35.50 -0.6
0.5s 6.40nm 4.8mb
SOTA 68.21 313 iPd 11 37.30 -0.5
0.4s 7.60nm 5.0mb
MOTA 68.26 313 iPd 11 37.40 -0.8
0.6s 7.90nm 4.8mb
OSS 69.04 313 iPd 11 43.00 0.0
VDL 69.54 313 ePd 11 46.30 0.2
LLS 69.77 313 ePd 11 47.40 -0.1
SLE 69.89 314 ePd 11 48.00 0.0
ZLA 70.02 314 Pd 11 48.70 -0.1
TMA 70.03 312 ePd 11 48.80 -0.3
CDF 70.52 315 eP 11 51.70 -0.2
0.7s 3.75nm 4.4mb
PCP 70.64 311 P 11 52.32 -0.4
PGF 70.84 309 iPc 11 53.80 -0.2
0.9s 12.60nm 4.8mb
FIN 70.96 311 P 11 54.38 -0.2
DIX 71.02 313 ePc 11 55.60 0.4
HAU 71.23 315 iPc 11 55.80 -0.3
0.8s 4.05nm 4.3mb
IMI 71.26 310 P 11 56.58 0.1
EMS 71.35 313 ePd 11 57.30 0.2
LSD 71.36 312 P 11 57.50 0.3
RSP 71.37 312 P 11 56.67 -0.4
BHB 71.45 311 P 11 56.85 -0.6
ENR 71.51 311 P 11 56.90 -1.0
STV 71.57 311 P 11 57.27 -1.0
SBF 71.59 310 iPc 11 58.20 -0.2
0.8s 7.40nm 4.6mb
LPG 71.62 312 iPc 11 59.00 0.2
0.9s 8.70nm 4.6mb
LPL 71.63 312 iPc 11 58.90 0.1
1.0s 20.40nm 4.9mb
RRL 71.76 312 P 12 00.06 0.5
FRF 72.23 310 iPc 12 01.90 -0.2
1.1s 15.65nm 4.8mb
LMR 72.39 310 iPc 12 03.00 0.0
0.9s 7.35nm 4.5mb

18d 23h

LRG 72.46 310 iPc 12 03.50 0.1
1.0s 14.60nm 4.8mb
LOR 73.05 315 eP 12 06.30 -0.5
LBF 73.06 314 iPc 12 06.60 -0.3
SMF 73.24 314 iPc 12 07.70 -0.3
0.7s 6.05nm 4.6mb
MTD 73.30 243 iPd 12 09.50 0.7
ipP 12 31.60 84kmX
SSF 73.34 314 iPc 12 08.40 -0.1
1.2s 14.00nm 4.7mb
AVF 73.52 314 iPc 12 09.40 -0.1
0.9s 6.90nm 4.5mb
MAF 74.21 314 iPc 12 13.90 0.3
TCF 74.43 314 iPc 12 15.30 0.5
0.5s 3.85nm 4.5mb
EKA 74.69 324 P 12 17.00 0.9
3.0s 338.90nm 5.7mb X
CAF 74.96 313 iPc 12 18.40 0.5
1.1s 8.05nm 4.5mb
BCAO 75.12 268 iPc 12 19.00 -0.4
0.2s 32.00nm 5.8mb X
LDF 75.18 317 iPc 12 18.80 -0.3
0.6s 3.70nm 4.4mb
RJF 75.20 313 iPc 12 20.00 0.7
0.8s 7.10nm 4.6mb
CIR 75.57 239 iPc 12 33.40 11.7X
LPO 75.63 313 iPc 12 22.30 0.6
0.6s 5.05nm 4.6mb
GRR 75.71 317 eP 12 22.10 0.0
0.6s 3.95nm 4.4mb
LFF 75.84 313 iPc 12 23.50 0.6
0.5s 3.80nm 4.5mb
LPF 75.95 316 eP 12 23.60 0.2
0.5s 2.05nm 4.2mb
FBA 79.54 23 eP 12 44.00 1.2
SLKM 81.08 27 (P) 12 50.81 -0.3
BALM 83.87 24 eP 13 06.80 1.2
YKA 90.86 13 eP 13 39.00 -0.2
0.8s 0.90nm 4.1mb
S.D. = 0.9 on 103 of 110 obs.

& MAR 18, 1993 23h 00m 53.05s
47.472 N 116.015 W
DEPTH = 9.6km
WESTERN IDAHO (33)
<BUT-P>. MD 3.1 (BUT). Felt (IV) at Wallace and (III) at Silverton. Also felt at Kellogg.

NCM 1.03 106 eP 01 11.10 -1.5
NEW 1.09 317 eP 01 12.92 -0.6
S 01 28.85
DPW 1.53 286 eP 01 20.30 -0.3
S 01 39.29
HBMT 2.89 124 P 01 39.29 -0.9
LRM 2.96 123 P 01 40.90 -0.3
MCMT 3.44 139 P 01 47.20 -0.9
6 obs. associated

% MAR 18, 1993 23h 18m 58.11± 0.58s
40.402 N ± 8.9km 26.232 E ± 4.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.1 (ISK).

ALN 0.51 344 ePg 19 09.00 0.5
eSg 19 15.84
EDC 1.25 92 iPn 19 20.00 -1.3
eSg 19 36.00
BNT 1.29 91 iPn 19 20.70 -1.3
KDZ 1.39 334 iP 19 24.00 0.5
KCT 1.63 95 ePn 19 27.70 0.7
OUR 1.72 268 ePb 19 27.74 -0.5
eSb 19 48.68
RZN 1.72 319 iP 19 29.00 0.5
CTT 1.83 65 ePn 19 29.20 -0.6
DST 2.00 113 iPn 19 34.90 2.5
PAIG 2.01 257 ePb 19 32.52 0.0
eSb 19 56.72
PLD 2.06 326 eP 19 38.00 4.9X
SRS 2.13 290 ePb 19 33.88 -0.3
eSb 19 59.36
SOH 2.23 282 iPn 19 35.24 -0.5
eSn 20 02.00
KNT 2.64 288 iPn 19 41.32 -0.2
eSn 20 12.28
S.D. = 1.1 on 13 of 14 obs.

? MAR 18, 1993 23h 31m 51.99± 0.70s
29.835 N ±12.2km 99.352 E ±11.8km
DEPTH = 33.0km (normal)
4.3mb (4 obs.)
SICHUAN, CHINA (307)

CD2 3.96 73 ePn 32 52.30 0.4
Pg 33 02.90
Sg 33 51.00
KMI 5.58 147 ePn 33 16.50 1.5
E 10s 0.50um
GYA 7.28 116 P 33 38.00 -0.8
LZH 7.29 30 eP 34 05.50 26.5X
1.5s 46.00nm
pP 34 16.00
i 35 56.00
XAN 9.15 60 eP 33 59.70 -5.0X
sP 34 06.50
WMQ 16.77 330 eP 35 46.60 0.7
WRA 59.88 141 P 41 56.70 -0.3
0.7s 0.30nm 3.5mb
WB2 59.88 141 iPd 41 56.30 -0.8
0.5s 3.10nm 4.7mb
LPG 71.09 312 eP 43 09.30 0.0
0.7s 2.45nm 4.4mb
LPL 71.09 312 eP 43 08.50 -0.7
0.4s 0.95nm 4.2mb
S.D. = 1.0 on 8 of 10 obs.

---

* MAR 18, 1993 23h 36m 53.98± 2.01s
26.910 S ± 8.8km 71.145 W ±24.1km
DEPTH = 76.5 ± 28.4 km
OFF COAST OF NORTHERN CHILE (121)

ANT 3.26 12 eP 37 42.00 -1.8
eS 38 23.00
FSA 4.67 81 e(P) 38 03.50 -0.1
CYA 4.99 109 ePd 38 06.50 -1.5
S 38 08.40
RTLL 4.99 153 eP 38 09.20 1.2
RTCB 5.00 156 eP 38 09.00 0.8
HJA 6.37 56 ePd 38 28.50 1.3
MRA 7.24 141 e(P) 38 38.30 -0.9
CNCB 10.47 17 eP 39 24.00 0.1
ZOBO 10.93 15 P 39 24.00 -6.3X
SIV 14.34 43 P 40 17.00 2.4
VAO 22.25 85 eP 41 44.30 -1.4
e 41 51.80
BAO 24.27 67 eP 42 00.10 -5.4X
S.D. = 1.7 on 10 of 12 obs.

MAR 18, 1993 23h 42m 24.66± 0.45s
39.379 N ± 4.7km 20.477 E ± 2.8km
DEPTH = 10.0km (geophysicist)
3.9mb (2 obs.)
GREECE-ALBANIA BORDER REGION (392)
ML 3.6 (TTG), 3.5 (TIR).

IGT 0.19 324 iPg 42 29.42 0.5
eSg 42 32.48
SRN 0.62 324 iPgc 42 37.80 0.7
iSg 42 48.00
LSK 0.78 7 iPg 42 41.60 1.8
iSg 42 51.80
TPE 0.98 339 ePg 42 48.50 5.2X
iSg 43 02.40
VLO 1.32 326 ePn 42 52.40 3.3X
iSn 43 12.00
AGG 1.48 103 iPb 42 51.50 0.1
eSb 43 11.04
FNA 1.56 26 ePb 42 53.00 0.4
eSb 43 12.70
LIT 1.71 64 iPb 42 55.40 0.7
eSb 43 16.86
OHR 1.75 8 iPn 42 56.50 1.3
1.0s 478.00nm
i 42 57.80
i 43 02.20
i 43 19.80
i 43 24.50
Lg 43 32.10
TIR 2.02 347 iPnc 43 00.00 0.9
iSn 43 29.00
GRG 2.16 42 ePn 43 01.24 0.1
LCI 2.16 297 P 43 00.22 -1.0
THE 2.28 56 ePn 43 02.96 0.0
LACI 2.33 346 ePn 43 03.90 0.3
iSn 43 34.40
VAY 2.51 39 iPn 43 06.50 0.3
0.8s 163.00nm
iSn 44 37.50
Lg 44 56.20
PAIG 2.53 77 ePn 43 05.68 -0.8
eSn 43 34.42
KNT 2.57 45 ePn 43 06.80 -0.2
SOH 2.64 56 ePn 43 08.20 0.2
SKO 2.69 15 iPn 43 09.00 0.2
1.0s 414.00nm
iPg 43 14.00
iSn 43 41.00
iSg 43 46.50
Lg 43 55.20
ULC 2.74 341 iPnc 43 09.03 -0.5
iSn 43 40.86
SDA 2.77 345 ePn 43 09.60 -0.3
iSn 43 45.60
OUR 2.86 69 ePn 43 10.96 -0.2
BRT 2.92 302 P 43 12.43 0.4
SRS 2.95 53 ePn 43 11.86 -0.6
BDV 3.16 337 iPnc 43 14.37 -1.0
iSn 43 50.16
KKB 3.18 38 iP 43 16.00 0.3
ORI 3.18 284 P 43 17.46 1.8
TTG 3.18 344 iPnd 43 15.46 -0.2
iSn 43 52.07
GRI 3.21 261 P 43 16.72 0.6
TDS 3.21 276 P 43 17.37 1.2
PVY 3.24 353 iPnd 43 16.97 0.4
iSn 43 55.16
MMB 3.32 47 iP 43 18.00 0.3
HCY 3.41 335 iPnc 43 17.26 -1.7
iSn 43 55.57
IVA 3.52 353 iPnc 43 20.84 0.3
iSn 44 01.66
NKY 3.61 342 iPnd 43 20.84 -1.0
iSn 44 01.98
SOI 3.70 251 P 43 22.69 -0.3
GMB 3.80 253 P 43 24.67 0.0
BRY 3.81 338 iPnd 43 23.47 -1.3
iSn 44 05.72
VTS 3.82 32 iP 43 25.00 0.1
MGR 3.87 283 P 43 26.19 0.7
RZN 3.97 53 iP 43 27.00 -0.1
PLE 4.03 349 iPnd 43 27.53 -0.3
iSn 44 13.07
ATN 4.10 254 P 43 29.87 1.1
SGO 4.14 288 P 43 30.35 1.1
ALN 4.53 69 ePn 43 33.66 -1.2
HVAR 4.86 323 iPn 43 37.60 -1.9
MEU 4.92 244 P 43 38.11 -2.4
PZI 4.97 244 P 43 37.63 -3.5X
SDI 5.58 297 P 43 51.31 1.5
VBY 7.24 329 iPn 44 10.50 -2.4
eSn 45 28.50
MLR 7.32 32 eP 44 15.00 0.7
CEY 7.77 327 ePn 44 18.00 -2.4
eSn 45 42.50
VRI 7.95 33 eP 44 24.00 1.0
TRI 8.03 324 e(P) 44 25.00 0.9
e 45 46.00
VOY 8.22 326 ePn 44 24.10 -2.8X
eSn 45 51.70
GEC2 10.64 335 P 44 56.20 -4.0X
0.7s 0.64nm 4.1mb
HFS 21.21 351 eP 47 08.40 -4.1X
0.4s 1.40nm 3.7mb
S.D. = 1.0 on 51 of 57 obs.

---

* MAR 18, 1993 23h 43m 27.34± 0.77s
6.549 S ±10.1km 130.322 E ± 9.5km
DEPTH = 117.4 ± 10.5 km
4.7mb (6 obs.)
BANDA SEA (280)

SWI 5.73 9 iPc 44 51.50 0.2
iS 45 54.00
MTN 6.31 173 eP 45 00.50 1.1
eS 45 59.00
WSI 10.40 252 e(P) 45 55.50 0.9
WB2 13.88 164 iPd 46 37.50 -2.7
i 46 45.50
eS 49 03.10
PMG 16.91 101 eP 47 20.00 1.7

ASPA 17.36 169 eP 47 24.20 0.3
0.3s 24.10nm 4.9mb
eS 50 29.60
MBL 17.72 214 eP 47 28.00 -0.2
0.3s 22.00nm 4.9mb
eS 50 35.00
WARB 19.84 190 eP 47 51.50 0.2
0.4s 10.00nm 4.5mb
eS 51 26.00
CTA 20.50 133 iPd 47 58.00 -0.1
1.0s 15.00nm 4.3mb
NANU 21.38 220 eP 48 07.00 0.2
0.4s 22.00nm 4.9mb
eS 52 03.00
MEEK 22.88 208 eP 48 22.00 0.5
eS 52 37.00
OLP 23.93 148 iPd 48 31.80 0.1
STK 27.31 159 iPd 49 02.30 -0.6
0.7s 6.00nm 4.3mb
BWA 32.39 151 iPd 49 48.80 0.9
CAN 33.39 152 iPd 49 56.60 0.0
YKA 107.21 26 ePKP 01 38.60 -2.2
0.7s 0.40nm
VAO 150.51 185 ePKP 03 07.30 5.4X
S.D. = 1.3 on 16 of 17 obs.

MAR 19, 1993 00h 20m 47.59± 0.41s
19.615 N ± 7.8km 38.752 E ± 5.3km
DEPTH = 10.0km (geophysicist)
4.6mb (34 obs.)
RED SEA (554)
MD 4.0 (RYD).

ABHA 4.02 109 eP 21 48.60 -2.2
eS 22 30.60
KMTA 4.15 110 eP 21 53.00 0.3
eS 22 33.00
DHJN 4.89 113 eP 22 04.07 0.8
eS 22 58.00
GRS 20.87 17 eP 25 35.00 2.6
Z 12s 0.51um 4.1MszX
GRO 24.37 12 eP 26 26.00 19.2X
KIV 24.49 7 (P) 26 07.90 -0.3
2.3s 48.00nm 4.7mb
Z 13s 249.50um 6.9MszX
PYA 24.61 7 iP 26 20.00 10.8X
MAIO 24.65 43 eP 26 13.00 3.2X
BCAO 24.82 235 iPc 26 12.90 1.4
1.2s 28.00nm 4.8mb
i 26 28.00
ASH 24.98 39 eP 26 15.20 2.4
OHR 26.34 328 eP 26 25.20 -0.3
SKO 26.69 330 eP 26 29.00 0.3
QUE 27.59 62 eP 26 41.10 3.8X
VBY 32.31 328 e(P) 27 19.50 0.7
SRO 32.66 334 eP 27 24.00 2.2
ZST 33.46 333 eP 27 28.60 -0.3
GEC2 35.44 331 P 27 46.10 0.1
1.3s 6.65nm 4.4mb
e 27 50.20
OBN 35.46 358 iPc 27 46.20 0.3
1.0s 24.00nm 5.0mb
SBF 35.62 320 eP 27 47.30 -0.2
1.0s 11.00nm 4.7mb
LMR 35.91 318 iPd 27 49.60 -0.3
1.1s 9.50nm 4.6mb
FRF 35.94 319 iPd 27 50.00 -0.2
1.1s 11.50nm 4.7mb
LRG 36.06 318 eP 27 51.10 -0.1
1.0s 7.60nm 4.5mb
GRF 37.19 330 eP 28 00.00 -0.6
GBA 37.49 93 P 28 05.00 1.5
FRU 38.00 44 eP 28 11.00 3.5X
BSF 38.24 325 iPd 28 09.20 -0.3
1.0s 8.80nm 4.5mb
HAU 38.58 325 iPd 28 11.90 -0.4
1.3s 15.15nm 4.5mb
LBF 39.34 322 iPd 28 18.30 -0.5
1.0s 16.80nm 4.7mb
CAF 39.48 318 iPd 28 20.40 0.5
1.0s 11.00nm 4.5mb
LOR 39.56 322 iPd 28 20.10 -0.4
1.0s 9.00nm 4.4mb
AVF 39.61 321 iPd 28 20.40 -0.5
0.8s 5.25nm 4.3mb
SSF 39.66 322 iPd 28 20.80 -0.5
1.0s 6.00nm 4.2mb
BGF 39.79 321 iPd 28 22.50 0.1
1.1s 36.65nm 5.0mb
MAF 39.79 320 iPd 28 22.50 0.1
1.0s 11.80nm 4.5mb
LPO 39.92 317 iPd 28 24.20 0.7
0.8s 10.50nm 4.6mb
RJF 40.00 318 iPd 28 24.60 0.5
1.0s 10.60nm 4.5mb
TCF 40.04 320 iPd 28 24.70 0.2
1.0s 4.60nm 4.1mb
LFF 40.32 317 iPd 28 27.50 0.7
0.8s 10.35nm 4.6mb
LSF 40.43 320 iPd 28 28.00 0.3
1.0s 16.00nm 4.7mb
MFF 41.62 319 iPd 28 37.20 -0.2
0.9s 6.40nm 4.4mb
LDF 42.54 322 iPd 28 44.10 -0.9
0.8s 12.75nm 4.7mb
LPF 42.82 321 iPd 28 46.40 -0.8
1.0s 24.00nm 4.9mb
FLN 42.83 322 iPd 28 46.50 -0.8
0.8s 17.35nm 4.8mb
GRR 42.87 321 iPd 28 46.70 -1.0
1.0s 14.00nm 4.6mb
KIC 44.24 259 P 28 58.84 -0.3
LIC 44.55 259 P 29 02.60 0.9
Z 20s 0.08um 3.6Msz
ELT 49.51 36 iPd 29 40.00 -0.1
1.2s 34.00nm 5.2mb
NRI 58.03 18 iPd 30 42.70 0.0
1.2s 15.00nm 4.9mb
LZH 58.85 59 eP 30 45.00 -4.2X
1.4s 39.00nm 5.3mb
ZAK 58.94 42 eP 30 49.00 -0.3
1.8s 17.00nm 4.9mb
Z 16s 0.60um 4.8MszX
E 16s 0.68um
BOD 65.87 35 iPd 31 33.10 -2.3
1.1s 20.00nm 5.2mb
YAK 73.34 29 eP 32 20.00 -1.0
1.9s 39.00nm 5.2mb
MGD 83.60 28 eP 33 16.00 -1.2
YKA 95.49 348 eP 34 13.10 -0.6
0.8s 0.80nm 4.2mb
S.D. = 1.0 on 48 of 54 obs.

---

* MAR 19, 1993 00h 37m 35.09± 1.07s
36.474 N ± 9.2km 141.566 E ±10.1km
DEPTH = 33.0km (normal)
4.5mb (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 1.16 257 P 37 54.30 -0.7
S 38 06.40
YAMJ 2.09 325 P 38 08.20 -0.3
S 38 31.00
CHJJ 2.12 259 P 38 08.10 -0.8
S 38 30.30
NIIJ 2.19 291 P 38 09.10 -0.8
S 38 33.30
OFUJ 2.60 2 P 38 16.70 1.0
S 38 46.80
MAT 2.71 272 iPd 38 17.10 -0.1
eS 38 49.00
MTMJ 3.03 273 P 38 22.00 0.0
IIDJ 3.13 253 P 38 24.20 1.0
eS 38 59.10
TSRJ 4.62 260 eP 38 45.40 1.0
WKYJ 5.37 247 P 38 57.60 2.5X
MRRJ 5.95 356 eP 39 03.70 0.5
HOOJ 6.05 12 eP 39 06.00 1.5
eS 40 08.20
TKSJ 6.63 250 P 39 12.50 -0.3
YONJ 6.71 261 P 39 14.20 0.4
KUSJ 7.04 19 eP 39 16.10 -2.4
eS 40 30.70
ASAJ 7.68 6 eP 39 23.80 -3.6X
WB2 56.52 188 eP 47 16.60 0.1
0.5s 2.40nm 4.5mb
NB2 74.75 337 P 49 23.80 10.6X
0.9s 5.30nm
ZOBO 146.87 61 PKP 57 18.00 3.1X
CNCB 147.33 61 PKP 57 20.40 4.9X
S.D. = 1.0 on 15 of 20 obs.

MAR 19, 1993 01h 01m 35.01± 0.42s
19.956 N ±11.5km 39.252 E ± 9.0km
DEPTH = 10.0km (geophysicist)
4.1mb (11 obs.)
RED SEA (554)
MD 3.8 (RYD).

ABHA 3.72 117 eP 02 33.00 -1.0
eS 03 13.30
KMTA 3.85 117 eP 02 37.00 1.1
eS 03 20.60
DHJN 4.62 119 eP 02 46.60 -0.2
eS 03 38.60
MAIO 24.08 43 eP 07 03.00 11.4X
BCAO 25.40 235 ePc 07 04.50 0.1
0.2s 4.00nm 4.8mb
GEC2 35.38 331 PKP 08 33.40 0.5
1.5s 3.23nm 4.0mb
LBF 39.37 321 eP 09 06.30 -0.1
0.8s 4.15nm 4.2mb
LOR 39.58 322 eP 09 08.00 -0.1
0.7s 2.45nm 4.0mb
AVF 39.64 321 eP 09 08.20 -0.3
1.1s 4.65nm 4.1mb
SSF 39.69 321 eP 09 09.40 0.5
1.0s 4.60nm 4.1mb
BGF 39.83 320 eP 09 10.50 0.4
1.0s 13.20nm 4.6mb
MAF 39.83 320 eP 09 10.40 0.2
0.9s 3.30nm 4.0mb
LPF 42.85 320 eP 09 34.30 -0.6
0.7s 3.40nm 4.2mb
FLN 42.86 322 eP 09 34.40 -0.5
0.6s 4.35nm 4.4mb
YKA 95.26 348 eP 15 00.20 0.1
0.7s 0.30nm 3.8mb
S.D. = 0.6 on 14 of 15 obs.

MAR 19, 1993 01h 39m 09.81± 0.19s
26.854 S ± 3.4km 70.842 W ± 5.5km
DEPTH = 28.4km (19 depth phases)
5.3mb (36 obs.)
NEAR COAST OF NORTHERN CHILE (122)
Felt (III) at Copiapo.

ANT 3.16 7 iP 39 54.20 -4.6X
iS 40 39.00
FSA 4.40 81 iPc 40 22.20 5.9X
RTBS 4.94 166 e(P)c 40 29.50 5.5X
ZON 5.04 158 eP 40 29.80 4.2X
RTPR 5.13 133 e(P) 40 30.80 4.1X
CFA 5.25 155 e(P) 40 32.00 3.5X
SLA 5.27 67 ePd 40 34.00 5.2X
(S) 40 46.30
JACH 5.81 178 eP 40 36.66 0.2
ROCH 6.10 181 eP 40 39.25 -1.4
HJA 6.12 55 ePc 40 43.80 3.1X
IHA 6.19 186 ePn 40 40.00 -1.7
e(Pg) 40 56.50
i(S) 41 54.50
MDZ 6.25 164 iP 40 47.60 5.0X
iS 42 24.20
PEL 6.27 179 eP 40 41.91 -1.0
FCH 6.47 176 eP 40 46.60 0.7
SAN 6.58 179 eP 40 46.70 -0.5
LCCH 6.63 185 eP 40 44.29 -3.6X
YJA 6.74 47 e(P) 40 51.30 1.5
e 40 53.80
(S) 41 40.00
e 42 22.00
PCH 6.75 178 eP 40 50.03 0.4
TACH 6.78 181 eP 40 48.32 -1.6
CHCH 7.06 179 eP 40 53.25 -0.7
LNV 7.10 184 eP 40 51.58 -2.8
MRA 7.11 142 eP 40 56.80 2.2
CNCB 10.34 15 P 41 37.20 -2.7
ARE 10.36 357 iPd 41 34.50 -5.4X
CCH 10.38 26 P 41 40.30 0.0
LPB 10.58 14 P 41 39.10 -4.0X
Z 15s 24.67um
LR 45 12.00
ZOBO 10.81 14 P 41 43.20 -3.2X
Z 20s 5.26um
LR 45 14.00
LPA 13.68 129 eP+ 42 24.00 -0.2
SIV 14.12 42 P 42 36.00 5.9X
NNA 15.83 338 eP 42 51.00 -1.4
0.6s 16.67nm 4.4mb
eS 45 52.00

19d 01h

```
PPD     18.41  79 eP      43 24.10   -0.7
                  e       43 36.50
                  eS      46 57.50
VAO     21.98  85 iPc     44 03.80    0.4
                  i       44 12.60   32km
BAO     24.00  67 iPd     44 20.50   -2.8
BDF     24.06  67 iPd     44 21.50   -2.4
                  e       44 29.60   29km
CDCB    24.81  80 iPc     44 31.90    0.8
                  i       44 43.10  43kmX
                  eS      49 02.60
BOG     31.45 354 e(P)    45 32.00    0.5
SOB1    33.31  64 eP      45 44.90   -2.6
SDV     35.53   0 eP      46 07.10    0.5
TOV     36.44   2 eP      46 12.70   -1.5
CAR     37.33   6 iPd     46 20.00   -1.7
SNA     57.75 158 e(P)    49 00.10   -0.1
        0.7s    27.00nm          5.4mb
NVL     62.51 158 iPc     49 32.40   -0.3
        2.0s   174.00nm          5.8mb
                  e       49 40.00   25km
                  e       49 55.00
CEH     62.89 352 eP      49 33.50   -2.0
        0.8s    26.96nm          5.4mb
SPA     63.31 180 iPd     49 39.20    0.9
        0.9s    72.73nm          5.8mb
UYO     64.69 338 iPd     49 46.80   -0.6
MIAR    64.75 339 eP      49 46.32   -1.5
        1.1s    23.01nm          5.2mb
                  e       51 20.26 441kmX
CVL     64.89 353 (P)     49 44.44   -4.1X
                  epP     49 54.26   32km
OLY     65.01 342 eP      49 47.50   -1.9
                  epP     49 56.65   29km
                  e       50 10.99
ELC     66.10 344 eP      49 54.30   -2.1
MEO     66.69 335 iPc     49 59.20   -1.1
OCO     66.95 337 iPc     50 02.50    0.6
FVM     67.06 343 eP      50 00.80   -1.7
        1.3s   116.56nm          5.8mb
ACO     68.60 336 iPc     50 11.00   -1.3
KDS     69.09  63 eP      50 15.00   -0.6
TUC     70.06 325 eP      50 21.87    0.5
        1.4s    21.41nm          5.1mb
ALQ     70.09 329 eP      50 21.58   -0.1
        1.2s    18.17nm          5.1mb
RSNY    71.13 357 eP      50 25.80   -1.7
        1.5s    93.21nm          5.7mb
LIC     71.61  73 P       50 30.74   -0.3
    Z  20s       0.06um          3.9Msz
TIC     71.83  73 P       50 32.26   -0.1
KIC     71.92  73 Pc      50 32.86    0.0
        0.5s     8.50nm          5.0mb
LMN     72.57   4 eP      50 39.00    3.0X
GLA     72.78 322 eP      50 37.23   -0.4
EEO     73.53 354 eP      50 44.00    2.4X
PEC     74.70 321 eP      50 49.64    0.9
        1.0s    28.25nm          5.2mb
SSK     75.23 321 eP      50 53.28    1.3
                  epP     51 00.70   24km
SRU     75.37 329 eP      50 51.79   -0.9
                  epP     51 01.44   31km
GSC     75.55 323 eP      50 54.00    0.3
MSU     75.66 328 iPd     50 55.44    1.0
                  epP     51 03.92   27km
ARUT    75.71 326 eP      50 55.30    0.7
CER     75.87 120 iPd     50 56.00    0.4
        0.5s    25.00nm          5.5mb
EMUT    76.07 329 eP      50 57.01    0.3
TPNV    76.49 324 eP      51 00.49    1.4
        0.9s    24.89nm          5.2mb
                  epP     51 08.64   26km
ISA     76.73 322 eP      51 01.35    1.1
        0.9s    21.95nm          5.2mb
                  ipP     51 09.60   26km
DAU     76.75 329 eP      51 00.82    0.2
                  epP     51 10.98   33km
RSSD    76.89 336 eP      51 00.52   -0.7
        0.8s    13.84nm          5.0mb
                  epP     51 10.60   32km
DUG     77.29 328 eP      51 03.41    0.0
        0.9s    24.75nm          5.2mb
TNP     77.85 324 eP      51 06.68    0.1
        1.0s    18.04nm          5.1mb
                  epP     51 15.86   29km
BW06    77.92 332 eP      51 06.03   -0.9
        1.3s    28.30nm          5.1mb
```

```
PHAM    77.93 321 eP      51 08.04    1.2
                  epP     51 16.99   29km
POF     77.96 117 iPc     51 09.00    1.8
        1.0s    40.00nm          5.4mb
WIN     78.40 109 iPd     51 12.00    2.0
        1.0s    44.00nm          5.4mb
MEMM    78.46 323 ePd     51 11.29    1.7
                  epP     51 20.61   30km
HVU     78.53 329 eP      51 10.55    0.4
KVN     79.03 324 (P)     51 13.86    0.8
                  epP     51 22.15   26km
HHAI    79.56 331 (P)     51 16.77    1.1
MAW     79.72 164 P       51 18.79    2.7X
ULM     79.91 344 eP      51 20.00    2.7X
JAQ     80.43 357 eP      51 19.50   -0.4
ORV     81.21 323 eP      51 25.30    0.9
                  epP     51 33.19   25km
LCCM    81.38 332 eP      51 25.90    0.5
LBFM    82.69 324 eP      51 32.93    0.6
                  epP     51 40.68   25km
BLF     83.01 119 iPc     51 35.00    0.7
        0.6s    47.00nm          5.8mb
SEK     84.49 119 iPc     51 42.60    0.8
        1.1s    60.00nm          5.7mb
SES     84.75 335 ePd     51 42.20   -0.1
PRY     85.01 118 eP      51 30.00  -14.4X
        1.4s    48.00nm
NEW     85.51 331 eP      51 45.82   -0.3
        0.8s    16.68nm          5.3mb
DPW     85.68 330 ePd     51 47.90    0.8
SLR     86.20 117 eP      51 49.00   -1.4
LON     86.52 328 (P)     51 51.87    0.6
BMW     87.01 327 eP      51 54.33    0.7
RMW     87.03 328 eP      51 53.93    0.2
FCC     87.46 348 ePd     51 58.90    3.5X
GMW     87.56 328 (P)     51 58.31    2.1
MCW     88.38 329 (P)     52 04.43    4.3X
BUL     89.09 112 iPd     52 05.40    1.0
                  iPP     55 35.00
BCAO    91.42  86 iPc     52 16.00    0.9
        0.9s    23.00nm          5.6mb
                  i       52 26.10   31km
YKA     95.64 341 eP      52 31.70   -1.7
        0.8s     3.40nm          4.8mb
MFF     97.00  41 eP      52 40.20    0.4
        0.9s     7.35nm          5.2mb
LPF     97.24  39 eP      52 40.70   -0.2
        1.2s    19.65nm          5.5mb
GRR     97.53  39 eP      52 41.70   -0.5
        1.0s     9.40nm          5.3mb
LDF     98.06  39 eP      52 45.20    0.7
        0.9s     5.40nm          5.1mb
LRG     99.43  46 eP      52 52.10    1.2
        1.1s    16.10nm          5.5mb
LMR     99.47  46 eP      52 52.00    0.9
        1.2s    10.70nm          5.3mb
FRF     99.66  46 eP      52 53.10    1.1
        1.3s    11.90nm          5.3mb
SBF    100.31  46 ePdiff52 56.00    0.9
        0.9s     8.20nm          5.3mb
LPL    100.62  44 ePdiff52 57.70    1.0
        0.8s     2.55nm          4.8mb
LPG    100.63  44 ePdiff52 58.00    1.2
        1.1s     7.35nm          5.1mb
OBN    121.44  40 ePKP    58 01.00   -0.6
        1.5s    28.00nm
ASPA   124.37 208 ePKP    58 08.40    0.1
        0.5s     3.60nm
KIV    124.64  54 ePKP    58 07.70   -0.6
        1.2s    17.00nm
WB2    127.46 210 ePKP    58 14.50    0.2
        0.5s     4.40nm
WRA    127.46 210 PKP     58 15.60    1.3
        0.6s     2.50nm
TIK    133.85 351 ePKP    58 24.00   -0.9
        2.0s    33.00nm
                  e       58 31.00
SVE    134.48  35 ePKP    58 28.00    1.5
NRI    135.67  10 iPKPd   58 29.00    0.6
        2.0s    51.00nm
                  e       58 36.00
                  e       01 16.00
MAIO   137.05  65 ePKP    58 33.00    0.8
YAK    142.25 344 ePKP    58 40.40   -0.2
        1.9s    62.00nm
QUE    142.92  75 ePKP    58 41.60   -1.5
GUA    144.06 256 ePKP    58 43.70   -1.4
```

```
        1.2s   175.00nm
GUMO   144.12 256 ePKP    58 43.60   -1.6
        1.3s   279.60nm
                  e       58 49.60
PJG    144.12 256 ePKP    58 43.20   -2.0
AAI    144.50 214 ePKPd   58 44.50   -1.4
SWI    145.18 221 ePKPc   58 47.50    0.4
LEM    146.49 177 ePKPd   58 51.00    1.5
                  e       02 03.00
FRU    147.75  51 ePKPc   58 52.00    1.5
        2.2s   440.00nm
ELT    148.62  27 iPKPc   58 50.30   -1.1
        2.4s   113.00nm
BOD    148.82 355 ePKP    58 51.50   -0.2
        2.1s   149.00nm
NDI    151.72  79 iPKP    59 04.00    7.0X
MAT    153.55 299 ePKP    59 13.00   13.6X
        1.5s    36.11nm
IRK    154.35   7 iPKP    59 01.50    1.6
        2.3s    85.00nm
                  e       59 08.00
                  e       59 15.50
MOY    154.44  12 ePKP    59 02.20    2.2
        2.0s    77.00nm
CIT    154.66 354 ePKP    59 02.00    1.6
ZAK    156.08   9 ePKP    59 04.20    2.0
        2.0s    44.00nm
                  e       03 07.00
SNG    158.81 156 ePKP    59 07.90    1.3
                  e       08 03.00
BJI    165.61 338 ePKP    59 13.00    0.4
     Z  24s      2.23um
TIA    168.46 326 ePKP    59 31.80   17.0X
        1.1s   200.00nm
LZH    169.74  25 ePKP    59 15.00   -0.8
                  pPKP    59 25.00
KMI    173.97 105 PKPd-   59 20.50    2.4X
        2.5s   110.00nm
     Z  20s      3.50um
     N  18s      1.70um
                  pPKP    59 27.50
                  PP      04 44.00
    S.D. = 1.2  on 122 of 148 obs.
-------------------------------------------
 * MAR 19, 1993  01h 48m 05.19± 0.16s
   26.742 S ± 3.2km     70.966 W ± 5.3km
   DEPTH =  29.3km  (  3 depth phases)
   5.6mb ( 63 obs.)  5.7Msz ( 23 obs.)
 NEAR COAST OF NORTHERN CHILE      (122)
      Mw 6.0 (HRV). Felt (IV) at
      Copiapo.
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 46S, **C
      Centroid Location:
      Origin Time         01:48:12.0 0.2
      Lat 27.04S 0.03 Lon  71.58W 0.02
      Dep  15.0 FIX Half-duration  2.4
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 5.69 0.12  Mtt= 0.48 0.13
        Mff=-6.17 0.15  Mrt= 1.32 0.34
        Mrf=-7.49 0.39  Mtf= 1.18 0.13
       Principal Axes:
        T  Val=  9.36   Plg=64  Azm= 80
        N        0.68      0        170
        P      -10.04     26        260
      Best Double Couple:Mo=9.7*10**17
       NP1:Strike=351 Dip=19 Slip=  91
       NP2:       170     71        90

ANT      3.06   9 eP      48 49.30   -3.4
FSA      4.49  83 iPd     49 17.50    4.5X
RTLL     5.07 155 ePd     49 22.30    1.1
RTBS     5.08 165 ePd     49 23.10    1.8X
RTCB     5.09 159 ePd     49 23.00    1.4
ZON      5.19 158 eP      49 23.80    0.9
RTPR     5.29 133 ePd     49 25.90    1.7
SLA      5.33  69 ePc     49 30.80    5.8X
                  S       50 43.00
CFA      5.40 154 eP      49 27.00    1.1
JACH     5.93 177 eP      49 31.14   -2.3
HJA      6.15  56 eP      49 39.80    3.4X
ROCH     6.21 180 eP      49 34.11   -3.4
IHA      6.29 185 eP      49 34.00   -4.4X
                  e(Pg)   49 49.50
                  i(S)    51 08.20
PEL      6.38 178 iP      49 36.79   -3.0
```

MDZ	6.39	164	iP	49 23.90	-16.0X
			iS	50 54.80	
FCH	6.59	175	eP	49 42.03	-0.9
SAN	6.69	178	iP	49 41.37	-2.7
LCCH	6.73	184	iP	49 39.51	-5.1X
YJA	6.74	49	ePc	49 49.20	4.0X
			(S)	50 30.20	
			e	51 21.00	
PCH	6.87	177	eP	49 43.90	-2.7
TACH	6.89	180	iP	49 42.73	-4.1X
CHCH	7.17	178	iP	49 48.44	-2.4
LNV	7.20	183	iP	49 44.58	-6.5X
MRA	7.27	142	e(P)	49 52.30	0.2
ARE	10.24	357	eP	50 29.00	-4.6X
CNCB	10.26	16	P	50 32.80	-1.3
CCH	10.33	27	eP	50 32.00	-2.9X
LPB	10.50	15	P	50 36.00	-1.3
			LR	53 16.00	
ZOBO	10.75	15	P	50 38.20	-2.6
			LR	52 55.00	
LPA	13.84	129	iP+	51 31.50	10.0X
	1.0s		720.00nm		6.4mb
			eS	54 13.00	
SIV	14.11	43	P	51 31.00	5.7X
PPD	18.50	80	eP	52 19.00	-2.1
			e	52 29.90	
			eS	55 49.80	
VAO	22.08	86	iPc	52 58.50	-1.2
			i	53 07.50	32km
			i	53 11.80	
CDCB	24.90	81	e(P)	53 26.00	-1.2
			i	53 37.30	44kmX
			e	01 15.40	
SOB1	33.36	64	eP	54 41.80	-1.4
SDV	35.42	1	eP	54 59.30	-1.7
TOV	36.33	2	eP	55 07.40	-1.1
CAR	37.23	7	iPd	55 32.00	15.8X
SNA	57.90	158	iPc	57 56.60	0.2
	1.0s		172.00nm		6.1mb
GOGA	60.99	348	P	58 20.03	1.9
PRM	61.45	349	eP	58 20.18	-1.1
JSC	61.47	350	eP	58 18.22	-3.1X
NVL	62.65	158	eP	58 26.00	-2.9
	1.1s		174.00nm		6.1mb
	Z 19s		7.00um		5.8Msz
	N 20s		1.40um		
	E 20s		5.30um		
			e	59 14.00	207kmX
			e	59 59.00	
			eS	06 54.00	
			e	07 06.00	
			e	07 54.00	
			eSS	09 58.00	
			eSSS	14 32.00	
CEH	62.77	353	eP	58 28.63	-1.3
	1.2s		76.35nm		5.7mb
TKL	63.23	348	eP	58 31.06	-2.0
GBTN	63.32	348	eP	58 31.93	-1.7
SPA	63.42	180	iPd	58 34.00	-0.3
	1.0s		485.00nm		6.6mb X
	Z 21s		2.12um		5.3Msz
			i	24 01.80	
NAV	64.38	351	eP	58 37.82	-2.8
UYO	64.54	339	iPc	58 40.60	-1.1
MIAR	64.61	339	eP	58 40.67	-1.4
	1.2s		49.71nm		5.5mb
	Z 18s		1.63um		5.3Msz
CVL	64.76	353	eP	58 41.72	-1.3
OLY	64.87	342	eP	58 41.68	-2.1
CBN	64.88	354	eP	58 44.00	0.2
ELC	65.96	344	eP	58 48.99	-1.7
MBO	66.50	59	iPc	58 55.00	0.4
MEO	66.54	335	iPd	58 53.10	-1.5
MCWV	66.57	353	P	59 00.00	5.4X
	Z 19s		2.37um		5.4Msz
WMOK	66.58	335	eP	58 53.28	-1.5
	1.2s		29.89nm		5.3mb
	Z 19s		1.74um		5.3Msz
			S	07 50.84	
OCO	66.80	337	iPd	58 56.30	0.1
FVM	66.92	343	ePc	58 55.60	-1.3
	1.1s		142.83nm		6.0mb
GPD	67.49	357	(P)	58 59.62	-0.8
SLM	67.49	344	P	59 00.86	0.4
	Z 18s		5.29um		5.8Msz
ACO	68.45	336	iPd	59 05.90	-0.7
KDS	69.14	63	iPc	59 10.00	-1.2
TUC	69.91	325	eP	59 15.89	0.2
	1.3s		33.28nm		5.3mb
			S	08 30.72	
DLA	69.94	352	P	59 14.45	-1.1
ALQ	69.94	329	eP	59 15.84	-0.1
	1.5s		57.29nm		5.4mb
			S	08 24.13	
LDN	70.07	352	P	59 15.50	-0.8
ELF	70.24	352	P	59 16.50	-0.8
SBA	70.35	191	iPc	59 19.00	1.3
RSNY	71.02	357	eP	59 21.95	-0.1
	1.1s		91.01nm		5.8mb
	Z 20s		2.59um		5.5Msz
LIC	71.68	73	P	59 25.56	-1.1
	0.7s		19.00nm		5.2mb
TIC	71.90	73	P	59 26.96	-1.1
	1.0s		49.00nm		5.5mb
KIC	72.00	73	P	59 27.52	-1.0
	1.0s		71.50nm		5.7mb
TVO	72.01	259	eP	59 32.40	3.7X
	1.3s		226.70nm		6.0mb
PAE	72.34	259	eP	59 33.00	2.4X
	1.1s		110.40nm		5.8mb
LMN	72.46	5	eP	59 34.00	3.4X
HNME	72.60	2	(P)	59 32.98	1.6
GLA	72.63	322	(P)	59 32.15	0.2
CBM	73.37	2	eP	59 36.01	0.1
	0.8s		32.63nm		5.4mb
	Z 19s		2.09um		5.4Msz
EEO	73.40	354	eP	59 38.50	2.4X
GOL	73.47	333	eP	59 36.35	-0.7
	1.2s		40.29nm		5.3mb
			S	09 13.91	
PEC	74.54	321	eP	59 43.22	0.1
	1.1s		87.44nm		5.7mb
SSK	75.08	321	eP	59 47.25	0.9
SRU	75.21	329	eP	59 47.43	0.4
GSC	75.40	323	eP	59 49.12	1.1
MSU	75.51	328	ePc	59 49.65	0.9
ARUT	75.55	326	ePc	59 50.05	1.1
			e	59 57.36	23km
EMUT	75.91	329	eP	59 51.71	0.6
CER	76.02	120	iPd	59 50.30	-1.4
	1.0s		140.00nm		5.9mb
TPNV	76.34	324	eP	59 54.91	1.5
	1.1s		61.67nm		5.5mb
	Z 21s		2.71um		5.5Msz
ISA	76.58	322	eP	59 55.65	1.0
	1.1s		50.55nm		5.5mb
			PP	02 49.34	
			S	09 45.65	
DAU	76.60	329	eP	59 55.46	0.5
RSSD	76.75	336	ePd	59 55.72	0.1
	1.0s		34.01nm		5.3mb
	Z 21s		1.83um		5.4Msz
			S	09 42.28	
DUG	77.14	328	eP	59 57.91	0.1
	1.2s		74.61nm		5.6mb
	Z 20s		3.25um		5.6Msz
			S	09 47.38	
			SS	15 00.58	
TNP	77.70	324	eP	00 02.05	1.1
	1.2s		37.18nm		5.3mb
BW06	77.77	332	eP	00 00.39	-1.0
	1.5s		57.09nm		5.4mb
POF	78.11	117	iPc	00 03.50	0.2
	1.0s		70.00nm		5.6mb
MEMM	78.30	323	eP	00 05.61	1.6
			e	00 18.10	42kmX
HVU	78.38	329	eP	00 04.90	0.3
WIN	78.54	110	iPc	00 06.00	0.0
	1.4s		130.00nm		5.8mb
KVN	78.88	324	eP	00 08.03	0.6
SAO	79.03	321	P	00 12.03	3.9X
	Z 19s		2.13um		5.5Msz
			S	09 53.39	
			SKS	10 15.08	
			e	15 27.01	
CMB	79.35	322	eP	00 10.56	0.7
	1.1s		13.02nm		4.9mb
			e	00 28.41	65kmX
			e	00 41.28	
			S	10 13.33	
ARN	79.50	321	eP	00 12.00	1.4
ULM	79.77	344	ePc	00 14.60	2.8X
MAW	79.86	164	iP	00 12.70	0.6
	1.0s		83.33nm		5.7mb
JAO	80.31	357	ePc	00 13.50	-1.0
ORV	81.05	323	eP	00 19.67	0.9
LCCM	81.23	332	eP	00 20.50	0.7
GRM	81.58	123	iPc	00 22.00	0.1
	1.2s		180.00nm		6.0mb
WDC	82.34	323	P+	00 28.56	3.1X
			S	10 42.62	
LBFM	82.54	324	eP	00 25.91	-0.9
BLF	83.16	119	iPd	00 31.70	1.4
	0.8s		200.00nm		6.3mb
SWZ	83.34	117	iPc	00 30.90	-0.4
	0.9s		116.00nm		6.0mb
DRV	83.97	192	eP	00 39.00	5.5X
			S	11 06.00	
			S	16 39.00	
SES	84.60	336	eP	00 36.00	-0.9
	1.2s		58.00nm		5.7mb
SEK	84.64	119	iPc	00 37.50	-0.3
	0.8s		146.00nm		6.2mb
AVE	84.89	49	iP	00 40.50	1.9
			i	01 02.00	79kmX
VGB	84.98	327	eP	00 39.48	0.6
PRY	85.16	118	iPc	00 39.60	-0.8
	1.0s		50.00nm		5.7mb
NEW	85.36	331	eP	00 40.08	-0.6
	1.1s		36.49nm		5.5mb
	Z 21s		3.12um		5.7Msz
DPW	85.53	330	eP	00 41.78	0.2
SHW	86.17	327	eP	00 46.59	1.7
			e	00 58.56	39kmX
SLR	86.35	117	eP	00 45.00	-1.4
	0.6s		33.00nm		5.7mb
	Z 18s		28.40um		6.7MszX
LON	86.37	328	eP	00 45.74	0.0
			S	11 16.71	
IFR	86.57	50	iPd	00 49.00	1.8
BMW	86.86	327	eP	00 48.65	0.5
RMW	86.88	328	eP	00 47.54	-0.7
			e	00 57.80	32km
CSY	87.26	181	iPc	00 51.50	1.7
	0.9s		63.80nm		5.9mb
FCC	87.33	348	eP	00 53.50	3.5X
GMW	87.41	328	eP	00 50.66	0.0
BFT	87.77	118	eP	00 54.00	0.6
EVAL	87.87	46	eP	00 54.50	1.4
EJIF	88.04	47	eP	00 56.50	2.6X
MCW	88.23	329	eP	00 54.05	-0.6
EPRU	88.49	47	eP	00 59.00	2.8X
PGC	88.50	328	eP	00 56.50	0.7
EHOR	88.97	46	eP	01 01.00	2.6X
BUL	89.23	112	iPd	01 00.00	-0.3
			iS	12 04.00	
ELUQ	89.46	47	eP	01 02.00	1.2
EGUA	89.51	48	eP	01 04.00	3.0X
EPLA	89.75	44	eP	01 03.00	0.9
ECOG	89.76	47	eP	01 03.50	1.2
STS	89.95	41	eP	01 01.00	-1.9
EBAN	90.12	47	eP	01 05.00	1.2
ENIJ	90.49	48	eP	01 07.50	2.0
PAB	90.54	45	iPd	01 06.20	0.4
			ePP	04 58.00	
			eS	11 43.00	
CRZF	90.69	144	eP	01 12.00	5.6X
			ePP	04 42.00	
			eS	12 36.00	
			eSS	17 45.00	
LSZ	91.15	108	iPd	01 10.70	1.5
EVIA	91.22	47	eP	01 10.00	1.1
GUD	91.29	44	eP	01 10.00	0.8
BCAO	91.52	86	iPc	01 11.00	0.2
	1.0s		50.00nm		5.9mb
			i	01 29.00	64kmX
			i	01 54.00	
ACU	92.52	48	eP	01 16.50	1.6
ETOR	92.71	45	eP	01 16.50	0.8
ECHE	92.74	47	eP	01 17.00	1.2
MTD	93.31	111	iPd	01 20.00	0.9
ECRI	93.41	43	eP	01 20.00	1.1
EROQ	94.28	46	eP	01 25.00	2.1
ELIZ	94.32	43	eP	01 23.00	0.0
EGRA	94.55	45	eP	01 26.50	2.5X
ESEL	95.37	48	eP	01 30.00	2.1
EPF	95.40	44	eP	01 28.30	0.3
	0.9s		4.60nm		4.9mb
YKA	95.50	341	eP	01 26.20	-1.8
	1.0s		9.40nm		5.2mb
ETER	96.62	46	eP	01 36.00	2.5X

19d 02h

```
LFF      96.64   43 eP      01 33.20  -0.3
         1.2s     24.10nm          5.6mb
PAF      96.72  156 eP      01 36.00   1.9
                    ePP     05 33.00
                    eS      13 12.00
                    eSP     14 09.00
                    eSS     19 45.00
LPO      96.78   43 eP      01 34.10  -0.1
         1.0s     6.00nm           5.1mb
HON      96.81  290 P       01 40.90   6.1X
     Z  19s     4.28um             5.9Msz
                    e       11 15.80
                    SP      13 25.20
                    e       14 38.55
                    SS      19 46.49
MFF      96.98   41 eP      01 34.70  -0.3
         1.0s     20.00nm          5.6mb
LPF      97.22   39 eP      01 35.10  -0.9
         1.1s     15.15nm          5.4mb
RJF      97.30   43 eP      01 37.20   0.7
         1.2s     13.40nm          5.3mb
CAF      97.45   43 eP      01 37.90   0.7
         1.1s     7.35nm           5.1mb
GRR      97.52   39 eP      01 37.30  -0.1
         1.0s     18.40nm          5.6mb
LSF      97.79   42 eP      01 38.20  -0.5
         1.3s     13.00nm          5.3mb
FLN      97.93   39 eP      01 38.50  -0.7
         1.1s     21.00nm          5.6mb
LDF      98.04   39 eP      01 40.00   0.3
         1.0s     17.60nm          5.5mb
MAF      98.40   42 eP      01 41.10  -0.3
         1.2s     8.05nm           5.1mb
BGF      98.74   42 eP      01 43.50   0.6
         1.3s     28.15nm          5.6mb
AVF      99.15   42 eP      01 44.10  -0.7
         1.3s     14.10nm          5.3mb
SMF      99.38   42 eP      01 45.50  -0.4
         1.2s     15.45nm          5.4mb
SSF      99.38   42 eP      01 45.90   0.1
         1.0s     6.20nm           5.1mb
SIT      99.40  330 P       02 00.00  14.4X
     Z  18s     1.80um             5.6Msz
LRG      99.43   46 eP      01 46.60   0.5
         1.1s     30.05nm          5.7mb
LMR      99.47   46 eP      01 46.50   0.2
         1.0s     17.80nm          5.6mb
LBF      99.62   42 eP      01 47.10   0.1
FRF      99.66   46 eP      01 47.50   0.3
         1.1s     13.45nm          5.4mb
SBF     100.31   46 ePdiff01 50.40   0.0
         1.1s     29.30nm          5.7mb
LPL     100.62   44 ePdiff01 52.20   0.3
         1.1s     16.35nm          5.5mb
LPG     100.62   44 ePdiff01 52.40   0.4
         1.2s     19.05nm          5.5mb
PGF     100.74   48 ePdiff01 53.20   0.8
         1.1s     17.85nm          5.5mb
GRF     105.15   42 e(Pdif02 15.00   3.3X
     Z  23s     2.00um             5.6MszX
                    e(PP) 06 32.00
GEC2    106.33   43 PKP     06 25.20  -3.2X
        0.9s      2.23nm
                    e       06 34.70
                    e       06 39.90
PMR     107.78  331 PKP     06 37.27   6.7X
     Z  19s     1.48um             5.6Msz
                    SP      16 22.00
ILT     121.15  335 iPKPd 06 56.40   0.5
        2.8s    108.00nm
                    i       08 29.00
                    ePPP    11 08.00
                    e       13 50.00
                    ePS     18 16.00
                    iSS     25 00.00
OBN     121.42   40 iPKPd 06 56.20  -0.6
        1.2s     35.00nm
     Z  18s     4.40um             6.1Msz
     N  18s     2.00um
     E  18s     4.90um
                    i       07 04.20
                    e       19 49.00
                    eSS     25 16.00
ASPA    124.42  208 iPKPc 07 03.50  -0.1
        0.7s     17.30nm
KIV     124.66   54 ePKP    07 04.10   0.5
        1.2s     43.00nm

                         ePS     18 48.40
PYA     124.93   53 ePKP    07 04.00   0.0
WB2     127.50  210 iPKPd 07 08.90  -0.7
         1.0s     21.80nm
WRA     127.50  210 PKP     07 09.80   0.2
         0.7s     6.80nm
WRA     127.50  210 PKP     07 27.00  17.4X
         1.1s     3.10nm
ARU     133.53   36 ePKP    07 21.00   1.0
TIK     133.72  351 ePKP    07 19.00  -0.9
         1.2s     20.00nm
                    e       07 26.00
SVE     134.46   35 iPKPc 07 21.00  -0.7
     Z  21s     2.50um             5.9Msz
     N  20s     0.80um
     E  20s     2.00um
                    e       20 16.00
NRI     135.58   10 iPKPd 07 23.80   0.3
         2.0s     77.00nm
     Z  20s     1.50um             5.7Msz
     N  18s     1.10um
     E  20s     3.90um
                    e       07 38.00
                    e       14 31.00
MGD     136.18  331 ePdiff04 24.00  -5.4X
MGD     136.18  331 ePKP    07 24.00  -0.9
                    i       07 32.00
                    e       10 05.00
MAIO    137.10   65 ePKP    07 28.00   0.5
YAK     142.12  344 ePKP    07 29.60  -6.0X
         1.0s     50.00nm
                    e       10 40.00
                    e       23 09.00
                    e       29 08.00
GUA     143.98  256 ePKP    07 35.00  -5.2X
         0.8s     77.61nm
GUMO    144.04  256 ePKP    07 35.70  -4.6X
         1.2s    284.50nm
                    e       07 39.40
AAI     144.53  214 ePKPc 07 39.30  -1.9
SWI     145.19  221 ePKPc 07 42.00  -0.3
BOM     145.81   96 ePKP    07 40.00  -3.2X
MKS     146.66  199 iPKPc 07 46.60   1.8
YSS     146.67  316 PKP     07 45.00   1.2
         0.9s     30.00nm
KUSJ    146.80  309 ePKP    07 45.10   1.0
GBA     147.69  108 PKPd    07 47.00   0.7
FRU     147.76   51 iPKPc 07 46.00   0.2
         2.0s    420.00nm
                    i       07 48.80
ASAJ    147.88  311 ePKP    07 48.30   2.5X
HOOJ    148.02  308 ePKP    07 49.30   3.2X
ELT     148.57   26 ePKP    07 46.00  -0.6
         2.8s    235.00nm
BOD     148.70  355 ePKP    07 46.10  -0.6
         1.5s     78.00nm
KSH     149.72   57 PKP     07 51.00   1.9
     Z  20s     7.46um             6.5Msz
     N  18s     2.89um
     E  18s     4.88um
                    sPKP    08 06.40
                    PP      11 26.00
OFUJ    150.13  303 ePKP    07 49.80   0.3
PRZ     150.50   50 ePKP    07 51.00   0.8
                    i       07 56.50
                    e       11 32.00
MNI     150.62  214 ePKP    07 58.00   7.0X
MAT     153.40  299 ePKP    07 52.00  -2.4
     Z  20s     2.48um             6.0Msz
KGM     154.81  166 ePKP    08 06.30   9.4X
MDJ     155.68  322 ePKP    07 55.60  -1.6
     Z  24s     2.91um             6.0MszX
                    PKPab   08 25.00
                    PP      12 04.00
WMQ     155.74   40 PKP     07 57.50   0.1
     Z  20s     3.48um             6.2Msz
                    PKPab   08 25.00
                    PP      12 09.00
ZAK     155.98    9 iPKP    07 59.00   1.6
         2.6s    152.00nm
                    e       12 02.60
IPM     156.67  159 ePKP    08 00.00   0.6
CN2     158.40  326 ePKP    08 00.50  -0.1
     Z  20s     1.83um             5.9Msz
     N  17s     1.04um
     E  17s     0.74um
                    esPKP   08 18.00

                    ePKPab08 36.00
                    PP      12 14.00
SNY     160.78  325 PKPc    08 03.00  -0.2
     Z  20s     2.42um
                    PP      12 30.00
                    eSS     32 38.00
DL2     163.92  322 PKPc    08 08.00   1.6
     Z  20s     1.66um
     E  20s     2.41um
                    PP      12 46.00
                    SKKS    19 33.00
LSA     163.96   75 PKP     08 08.90   1.5
     Z  26s     3.47um
     N  21s     4.10um
                    pPKP    08 18.00
                    PKPab   09 03.50
                    PP      12 49.50
                    SKKS    19 34.00
BAG     165.14  229 ePKP+   08 08.00  -0.4
GTA     165.20   29 PKP     08 09.00   1.2
     Z  22s     2.94um
     E  16s     0.97um
                    pPKP    08 17.00
                    sPKP    08 21.00
                    PKPab   09 05.50
                    SS      33 28.00
BJI     165.47  338 ePKP    08 09.00   1.3
     Z  20s     3.00um
     N  20s     2.22um
     E  20s     2.35um
                    PKPab   09 07.00
                    ePP     12 54.00
                    eSKKS   19 40.00
                    eSS     33 26.00
HHC     165.77  352 PKP     08 09.00   0.9
     Z  28s     3.26um
     N  18s     1.51um
     E  18s     1.29um
                    PKPab   09 09.00
                    PP      12 54.00
                    SS      33 28.00
BTO     166.16  357 PKP     08 09.00   0.6
     N  20s     1.66um
     E  20s     1.82um
TIA     168.31  326 PKP     08 11.50   1.5
     Z  26s     2.82um
                    PP      13 08.00
SSE     168.51  295 PKP     08 12.00   1.8
     Z  20s     2.74um
     N  20s     1.90um
     E  20s     2.00um
LOE     168.51  142 ePKP    08 12.90   2.3X
TIY     168.69  346 ePKP    08 11.30   1.0
     Z  22s     3.88um
     N  18s     1.90um
                    PP      13 06.00
                    SS      34 04.00
LZH     169.69   24 PKP     08 12.00   0.9
     Z  22s     2.76um
     E  20s     2.12um
                    sPKP    08 22.50
                    PKPab   09 22.00
                    PP      13 12.00
NJ2     169.94  304 PKPc    08 11.50   0.4
     Z  20s     1.42um
     N  18s     1.33um
     E  15s     0.77um
                    PKPab   09 27.00
QZH     171.20  260 ePKP    08 12.00   0.1
XAN     172.73    1 PKP     08 13.00   0.7
     Z  24s     2.19um
     N  22s     3.46um
                    sPKP    08 24.00
                    PP      13 27.00
CD2     173.78   47 PKP     08 11.00  -1.8
     Z  20s     2.81um
     E  20s     3.24um
                    pPKP    08 22.40
                    ePKPab09 40.50
WHN     173.99  310 PKP     08 14.50   1.7
     Z  20s     3.73um
     E  20s     2.63um
KMI     174.11  104 PKPc    08 15.00   1.7
     E  20s     3.70um
                    pPKP    08 25.00
                    PKPab   09 45.50
                    PP      13 39.00
```

SKKS 20 24.00
GYA 177.86 97 PKP 08 14.00 0.1
Z 24s 3.10um
N 20s 1.51um
E 20s 2.90um
PKPab 10 02.00
PP 13 57.00
SKKS 20 40.00
S.D. = 1.2 on 206 of 255 obs.

? MAR 19, 1993 03h 49m 39.90± 0.95s
11.529 S ±10.4km 117.957 E ±15.1km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
SOUTH OF SUMBAWA, INDONESIA (291)

KHKI 3.90 323 iPd 50 39.10 0.0
iS 51 21.00
e 53 42.10
MBL 9.74 170 eP 52 00.20 -0.7
0.2s 34.00nm 6.2mb X
eS 53 40.00
NANU 11.21 192 eP 52 20.70 -0.3
0.3s 15.00nm 5.7mb X
eS 54 15.00
MEEK 15.04 178 eP 53 12.20 0.4
0.2s 15.00nm 4.9mb X
eS 55 44.00
WARB 16.72 152 eP 53 34.50 1.1
0.4s 15.00nm 4.5mb
eS 56 30.00
WB2 17.85 120 eP 53 47.00 -0.5
eS 56 54.70
ASPA 19.38 131 iPd 54 11.00 4.9X
0.6s 10.50nm 4.3mb
S.D. = 0.9 on 6 of 7 obs.

? MAR 19, 1993 04h 07m 41.84± 0.68s
14.004 S ±34.4km 178.421 W ±23.6km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
FIJI ISLANDS REGION (181)

STK 40.62 237 eP 15 19.50 -0.9
1.0s 1.60nm 3.7mb
WB2 45.44 256 eP 15 47.60 -12.2X
0.8s 1.90nm
WRA 45.45 256 P 16 00.40 0.5
1.8s 0.40nm 3.0mb X
ASPA 45.96 251 eP 16 03.30 -0.5
1.0s 7.30nm 4.6mb
CRP 77.87 13 eP 19 37.20 -0.5
RMW 79.29 35 (P) 19 45.67 0.0
MSU 80.93 47 eP 19 54.65 -0.2
FBA 82.02 13 eP 19 59.17 -0.5
1.1s 5.46nm 4.5mb
SRU 82.35 47 eP 20 01.59 -0.6
DAU 82.39 45 eP 20 03.03 0.5
LTX 83.93 58 P 20 10.55 0.2
LCCM 84.36 40 eP 20 07.20 -5.1X
RSSD 88.78 44 eP 20 32.97 -1.0
1.2s 8.94nm 5.0mb
FLN 145.30 2 ePKP 27 17.00 -0.9
1.3s 35.00nm
CDF 145.37 353 ePKP 27 18.20 0.1
1.4s 24.40nm
GRR 145.66 3 ePKP 27 18.50 0.0
1.3s 23.10nm
LPF 146.00 3 ePKP 27 20.00 0.9
1.2s 15.45nm
LJU 146.25 344 e(PKP)27 21.00 1.4
VBY 146.53 342 e(PKP)27 22.00 2.0X
CEY 146.55 344 e(PKP)27 21.50 1.4
LOR 146.78 357 ePKP 27 22.20 1.8X
0.9s 4.10nm
SSF 147.01 358 ePKP 27 23.00 2.3X
1.3s 16.25nm
LBF 147.06 357 ePKP 27 22.90 2.0X
1.1s 8.05nm
OHR 148.22 332 ePKP 27 24.80 1.9X
LPL 148.29 353 ePKP 27 25.90 2.8X
LPG 148.30 353 ePKP 27 26.30 3.0X
1.4s 8.70nm
S.D. = 0.8 on 17 of 26 obs.

? MAR 19, 1993 04h 19m 37.93± 8.46s
30.875 S ±18.9km 71.137 W ±66.6km
DEPTH = 138.4 ± 41.2 km
NEAR COAST OF CENTRAL CHILE (135)

RTRS 1.61 65 ePc 20 07.90 -0.2
S 20 32.00
RTBS 1.64 119 ePd 20 07.50 -1.0
(S) 20 32.90
RTCB 2.09 108 iPd 20 14.10 0.1
ZON 2.21 108 eP 20 16.20 0.8
RTLL 2.33 102 iPc 20 16.70 -0.2
RTCV 2.43 115 e(P) 20 18.80 0.6
CFA 2.59 107 e(P) 20 20.20 0.0
MDZ 2.79 136 eP 20 23.40 0.6
RTPR 4.03 83 e(P)d 20 39.70 0.7
MRA 4.88 110 e(P) 20 49.00 -1.4
S.D. = 0.9 on 10 of 10 obs.

& MAR 19, 1993 05h 02m 55.83s
34.000 N 116.308 W
DEPTH = 5.4km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS).

PEC 0.72 262 ePc 03 08.90 -1.3
S 03 17.79
PLM 0.79 216 ePd 03 10.60 -1.2
S 03 20.41
SSK 1.17 281 ePc 03 17.07 -1.1
S 03 32.87
GSC 1.36 343 eP 03 19.63 -1.8
S 03 37.78
GLA 1.56 127 ePn 03 21.80 -2.4
ePg 03 24.41
S 03 41.66
ISA 2.43 314 ePn 03 34.70 -2.2
TPNV 2.94 1 eP 03 42.91 -1.3
7 obs. associated

MAR 19, 1993 05h 15m 58.97± 0.84s
43.845 N ± 6.5km 7.846 E ± 5.7km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 1.8 (LDG), 1.5 (GEN).

IMI 0.07 26 P 16 00.90 0.1
S 16 02.00
SBF 0.30 274 Pg 16 05.30 0.3
Sg 16 09.90
FIN 0.45 36 P 16 07.77 -0.2
S 16 14.31
ROB 0.45 2 P 16 07.77 -0.2
S 16 13.72
ENR 0.49 321 P 16 08.36 -0.4
S 16 14.86
STV 0.55 317 P 16 10.33 0.4
S 16 15.92
PCP 0.86 36 P 16 16.37 0.4
S 16 27.54
FRF 0.92 252 Pg 16 17.40 0.5
Sg 16 29.20
LMR 1.10 243 Pg 16 19.70 -0.3
Sg 16 34.80
LRG 1.15 251 Pg 16 20.50 -0.4
Sg 16 36.70
S.D. = 0.4 on 10 of 10 obs.

MAR 19, 1993 05h 37m 19.95± 0.77s
43.425 N ± 4.8km 5.427 E ± 5.9km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.7 (STR).

GELF 0.04 179 Pg 37 21.68 -0.4
TREF 0.20 351 Pg 37 23.94 -0.4
BERF 0.22 120 Pg 37 24.68 -0.1
PUYF 0.23 62 Pg 37 24.16 -0.7
CDR 0.35 45 ePgd 37 25.70 -1.5
PRAF 0.42 334 Pg 37 28.89 0.3
VILF 0.48 26 Pg 37 29.35 -0.3
TAVF 0.50 67 Pg 37 29.49 -0.6
GANF 0.67 31 Pg 37 32.93 -0.4
CALN 1.11 72 Pg 37 41.70 0.8
REVF 1.44 77 Pn 37 47.53 1.3
Sg 38 07.14
TOUF 1.45 65 Pn 37 46.98 0.6
Sg 38 07.55
AURF 1.45 71 Pn 37 46.51 0.2
Sg 38 06.64
SURF 1.45 43 Pg 37 47.89 1.4
Sg 38 08.37
SBF 1.52 73 Pn 37 47.37 0.1
Sg 38 08.70
AUTN 1.56 68 Pn 37 48.52 0.6
Sg 38 10.43
SAOF 1.64 69 Pn 37 49.09 0.1
PGF 2.76 107 Pn 38 04.12 -1.1
S.D. = 0.8 on 18 of 18 obs.

& MAR 19, 1993 05h 39m 47.94s
62.090 N 150.445 W
DEPTH = 4.0km
CENTRAL ALASKA (1)
<AEIC>. ML 2.5 (AEIC), 2.9 (PMR).

PWA 0.52 148 P 39 59.00 0.7
SKT 0.52 258 iP 39 58.78 0.4
eS 40 06.59
eS 40 06.63
SUA 0.64 193 eP 40 01.61 0.8
eS 40 11.80
GHO 0.79 113 iP 40 02.97 -0.7
eS 40 14.00
PLRM 0.80 128 eP 40 03.42 -0.5
PMR 0.80 128 iP 40 03.29 -0.6
eS 40 14.73
PMS 0.95 153 P 40 06.00 -0.6
HUR 0.97 22 eP 40 05.68 -1.2
eS 40 18.72
SML 1.04 105 iP 40 07.15 -1.0
CGLM 1.08 224 eP 40 09.41 0.5
S 40 24.24
CRP 1.16 225 eP 40 10.20 -0.1
S 40 26.23
CPAM 1.17 225 eP 40 09.65 -0.7
S 40 26.29
CP2 1.19 227 eP 40 10.64 -0.2
SPU 1.19 221 eP 40 09.99 -0.8
eS 40 27.27
CKN 1.20 224 eP 40 11.26 0.4
CKT 1.23 224 eP 40 11.29 -0.1
eS 40 28.49
BGL 1.24 229 eP 40 11.41 -0.3
CKL 1.27 226 eP 40 12.06 -0.1
TRF 1.37 3 eP 40 12.94 -1.0
eS 40 30.32
NKA 1.40 196 eP 40 15.97 1.7
PTE 1.41 150 eP 40 14.31 0.0
eS 40 32.35
SCM 1.50 99 eP 40 14.35 -1.3
RND 1.51 28 eP 40 14.24 -1.6
eS 40 34.30
SLKM 1.59 176 eP 40 16.16 -0.8
S 40 38.02
MPA 1.69 161 eP 40 18.48 0.1
eS 40 41.02
MCK 1.79 22 eP 40 18.53 -1.3
DFR 1.85 217 eP 40 19.41 -1.4
REF 1.94 215 eP 40 20.79 -1.4
S 40 46.46
NCT 1.95 219 eP 40 21.69 -0.5
RDW 1.98 216 eP 40 22.15 -0.6
RS2 1.98 215 eP 40 22.84 0.1
RSO 1.98 215 eP 40 21.98 -0.8
RS1 1.98 215 eP 40 22.96 0.2
SEW 2.05 166 P 40 25.30 1.7
SEW 2.05 166 eP 40 21.36 -2.2
VLZ 2.19 114 eP 40 25.12 -0.4
eS 40 54.14
KLU 2.23 104 eP 40 25.91 -0.4
SDG 2.33 77 eP 40 27.00 -0.7
TZL 2.36 89 eP 40 27.19 -1.0
INW 2.41 214 eP 40 27.79 -1.2
PAX 2.47 67 eP 40 29.01 -0.7
HIN 2.55 130 eP 40 30.57 -0.3
CNPM 2.60 189 eP 40 32.59 1.1
SVW 2.66 251 (P) 40 33.12 0.7
eS 41 12.03
TTA 2.72 291 eP 40 32.84 -0.4
(S) 41 16.23
CVA 2.74 122 eP 40 33.67 0.2
HDA 2.81 33 eP 40 34.16 -0.3
PDB 2.95 220 eP 40 35.69 -0.7
SGAM 2.99 120 eP 40 36.26 -0.7

19d 05h

FBA 3.06 22 eP 40 37.63 -0.4
(S) 41 20.18
GLB 3.22 99 eP 40 39.50 -0.8
RAGM 3.27 119 eP 40 41.45 0.4
CRQM 3.76 108 eP 40 48.95 0.8
TGL 3.90 107 eP 40 49.58 -0.4
BALM 4.02 102 eP 40 50.67 -1.0
IMA 4.24 342 eP 40 52.30 -2.5
56 obs. associated

? MAR 19, 1993 05h 50m 07.94± 8.92s
41.536 N ±61.0km 23.482 E ±26.7km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

SRS 0.43 169 iPg 50 16.48 -0.2
eSg 50 26.04
KNT 0.58 230 ePg 50 19.24 -0.4
eSg 50 30.60
SOH 0.72 188 ePg 50 22.46 0.3
iSg 50 35.70
OUR 1.26 162 iPb 50 31.10 -0.2
eSb 50 50.80
LIT 1.62 208 ePb 50 37.16 0.5
eSb 51 02.78
S.D. = 0.6 on 5 of 5 obs.

? MAR 19, 1993 05h 51m 48.09± 1.72s
26.811 S ± 9.6km 70.735 W ±26.5km
DEPTH = 33.0km (normal)
NEAR COAST OF NORTHERN CHILE (122)

ANT 3.11 5 eP 52 36.00 0.1
iS 53 16.00
CYA 4.68 111 ePd 52 59.70 1.5
i 53 03.20
RTLL 4.92 157 eP 53 02.00 0.3
RTCB 4.96 160 eP 53 02.00 -0.3
MDZ 6.27 165 e(P) 53 26.60 5.8X
CNCB 10.27 15 P 54 31.00 14.2X
LPB 10.52 14 P 54 31.00 10.9X
ZOBO 10.75 14 eP 54 24.00 0.6
SIV 14.02 42 eP 55 13.00 6.3X
VAO 21.88 85 eP 56 37.90 -2.2
e 56 45.90
S.D. = 1.6 on 6 of 10 obs.

MAR 19, 1993 05h 59m 43.17± 0.15s
36.038 N ± 3.1km 141.550 E ± 2.7km
DEPTH = 34.4km (59 depth phases)
5.5mb (93 obs.) 5.6Msz (18 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 34S, 69C
Centroid Location:
Origin Time 05:59:45.0 0.3
Lat 35.93N 0.04 Lon 141.83E 0.04
Dep 30.3 2.2 Half-duration 1.5
Moment Tensor; Scale 10**17 Nm
Mrr= 1.40 0.05 Mtt=-0.19 0.07
Mff=-1.21 0.07 Mrt= 1.25 0.15
Mrf= 1.71 0.17 Mtf=-0.86 0.06
Principal Axes:
T Val= 2.48 Plg=63 Azm=313
N 0.28 4 214
P -2.76 27 122
Best Double Couple:Mo=2.6*10**17
NP1:Strike=201 Dip=19 Slip= 76
NP2: 36 72 95

KAKJ 1.13 279 iPd 00 02.90 0.2
CHJJ 2.07 271 iPd 00 16.30 0.0
NIIJ 2.38 301 iPd 00 21.80 1.2
S 00 55.40
YAMJ 2.45 331 P 00 22.20 0.6
S 00 58.90
MAT 2.75 282 iPc 00 27.40 1.5
(S) 01 05.00
IIDJ 3.01 260 iP+ 00 32.10 2.4
OFUJ 3.04 2 P 00 28.30 -1.7
eS 01 10.80
MTMJ 3.07 281 iPd 00 32.10 1.5
TSRJ 4.55 265 P 00 53.50 2.0
AOMJ 4.61 349 eP 00 54.00 1.8
WKYJ 5.21 251 iPd 01 01.60 0.8
MRRJ 6.39 357 eP 01 15.20 -2.1
eS 02 28.40
HOOJ 6.48 11 eP 01 15.40 -3.2X
TKSJ 6.49 254 P 01 19.70 0.9
YONJ 6.64 265 P 01 22.80 1.8
SHK 7.41 261 eP 01 31.80 0.1
KUSJ 7.46 18 eP 01 26.80 -5.6X
eS 02 46.30
ASAJ 8.11 6 eP 01 38.00 -3.5X
SHNJ 8.77 260 eP 01 51.90 1.3
KUMJ 9.53 252 eP 02 02.10 1.0
KAGJ 10.12 244 eP 02 09.60 0.4
VLA 10.27 316 iP 02 11.00 -0.2
1.8s 430.00nm 6.4mb
iS 04 12.00
KUR 10.36 26 eP 02 20.00 7.6X
0.5s 210.00nm 6.6mb X
eS 04 05.00
YSS 11.00 4 eP 02 16.00 -5.2X
Z 15s 10.30um
N 15s 8.60um
E 15s 13.50um
eS 04 15.00
SSE 17.66 260 P+ 03 44.00 -4.1X
1.5s 53.00nm 4.4mb X
Z 20s 6.90um 4.1MszX
N 14s 7.20um
E 12s 4.50um
S 07 08.00
sS 07 20.00
SS 07 40.00
SKR 18.00 31 eP 03 56.50 4.4X
1.0s 120.00nm 5.0mb
BJI 20.36 289 eP 04 14.00 -5.3X
1.4s 286.00nm 5.4mb
Z 18s 7.00um 5.1Msz
N 15s 4.00um
E 13s 3.83um
eS 08 08.00
PET 20.81 30 eP 04 22.00 -1.8
1.0s 70.00nm 5.0mb
Z 20s 4.80um 4.9Msz
eS 08 12.00
eSS 09 00.00
GUMO 22.55 172 eP 04 40.50 -1.1
1.1s 339.20nm 5.7mb
Z 22s 2.91um 4.7Msz
e 04 45.40 18kmX
e 04 57.10
PJG 22.55 172 eP 04 41.50 -0.1
GUA 22.61 171 eP 04 41.30 -0.8
1.0s 288.00nm 5.7mb
e 04 46.40 18kmX
e 04 58.00
MGD 24.81 11 iPc+ 05 02.50 -0.7
1.5s 300.00nm 5.7mb
Z 15s 4.20um 5.1MszX
N 15s 6.70um
E 16s 3.50um
i 05 13.00 40km
i 05 48.00
iS 09 23.00
i 09 42.00
CVP 25.27 229 eP 05 01.00 -6.9X
CIT 25.44 318 eP 05 07.00 -2.3
Z 15s 101.00um 6.5MszX
N 15s 5.10um
E 16s 11.70um
BAG 27.02 229 eP 05 18.00 -6.3X
YAK 27.04 348 iPc+ 05 22.10 -1.8
1.5s 447.00nm 5.9mb
Z 15s 6.60um 5.3MszX
N 14s 6.60um
E 16s 4.40um
e 06 15.00 277kmX
e 16 09.00
BOD 28.38 329 iPc 05 35.10 -0.9
1.4s 233.00nm 5.7mb
PLP 28.95 215 ePc 05 38.20 -3.3X
LZH 30.36 281 Pc 05 52.50 -1.6
1.5s 242.00nm 5.8mb
Z 18s 13.48um 5.6Msz
E 14s 8.59um
pP 06 00.00 26km
eS 10 50.00
PcS 12 37.50
IRK 30.84 313 eP+ 05 55.00 -3.0X
1.3s 137.00nm 5.6mb
Z 17s 8.17um 5.5MszX
N 19s 1.71um
E 16s 6.47um
e 06 08.00 51kmX
e 06 18.50
e 07 07.00
ZAK 30.98 310 iPc 05 59.50 0.3
1.3s 76.00nm 5.3mb
Z 16s 12.00um 5.7MszX
E 17s 12.80um
e 07 12.00 390kmX
eS 11 05.00
eSS 13 07.00
MOY 32.68 311 iPc 06 13.80 -0.3
1.2s 120.00nm 5.7mb
KMI 34.93 263 Pc+ 06 32.50 -1.7
2.0s 300.00nm 5.9mb
Z 16s 6.60um 5.5MszX
N 14s 4.00um
E 14s 3.90um
pP 06 40.50 27km
TIK 36.27 353 iPc+ 06 43.00 -1.7
1.4s 77.00nm 5.4mb
Z 16s 8.00um 5.6MszX
i 06 53.50 36km
e 08 05.00
ePPP 08 32.00
eS 12 23.00
UER 36.91 310 iPc 06 50.00 -0.2
1.2s 250.00nm 6.0mb
i 08 41.00
ILT 38.92 23 iPc 07 05.20 -1.7
1.1s 60.00nm 5.3mb
Z 14s 1.40um 4.9MszX
N 16s 1.80um
E 16s 1.00um
i 07 16.30 40km
e 08 44.00
ePPP 09 22.00
eS 13 00.00
LOE 39.78 253 eP 07 14.00 -0.6
CHTO 41.16 257 iPc 07 25.50 -0.5
1.7s 108.99nm 5.3mb
AAI 41.45 200 eP 07 30.00 1.7
ELT 41.79 312 iPc 07 30.80 0.1
1.7s 371.00nm 5.8mb
Z 14s 4.70um 5.5MszX
N 14s 3.00um
E 14s 2.20um
eS 13 51.00
BDT 42.00 255 eP 07 30.20 -2.6
NST 42.03 252 eP 07 33.50 0.4
KHT 43.75 252 eP 07 47.00 -0.2
NRI 44.06 336 iPc+ 07 46.80 -2.2
1.6s 98.00nm 5.4mb
Z 16s 6.30um 5.6MszX
E 18s 11.00um
e 07 57.00 35km
ePPP 10 09.00
eSS 17 44.00
NNT 44.23 249 eP 07 49.00 -2.0
PMG 45.51 172 eP 08 01.00 -0.1
MKS 45.97 211 ePd 08 06.00 1.2
TTA 46.18 34 eP 08 06.70 0.6
SVW 46.23 37 eP 08 07.01 0.5
1.2s 51.02nm 5.3mb
epP 08 17.77 37km
SNG 47.13 242 eP 08 13.00 -1.1
BRW 47.29 23 eP 08 14.90 0.3
epP 08 25.68 37km
IMA 47.49 30 eP 08 15.65 -0.9
1.3s 22.70nm 5.0mb
epP 08 27.12 41km
RSO 47.62 38 eP 08 17.89 0.2
CP2 47.87 37 eP 08 20.48 0.8
CRP 47.91 37 eP 08 19.50 -0.4
PRZ 48.32 298 iPd- 08 24.50 1.1
Z 17s 11.80um 5.9MszX
N 17s 3.10um
E 17s 13.30um
e 10 20.00 661kmX
IPM 48.65 240 ePd 08 26.00 0.0
TLG 48.85 299 eP 08 28.00 0.7
2.0s 140.00nm 5.6mb
Z 16s 8.20um 5.8MszX
N 15s 4.90um

				eS	15 41.00	
KGM		48.95	235	ePd	08 28.30	0.1
PMR		49.36	36	eP	08 30.40	-0.4
MTN		49.61	193	eP	08 31.00	-2.2
FBA		49.89	32	eP	08 35.30	0.4
KHKI		50.47	214	ePd	08 39.00	-0.8
FRU		50.92	299	iP	08 43.60	0.5
		1.8s	300.00nm			6.0mb
	Z	18s	11.00um			5.9Msz
	N	18s	10.50um			
	E	18s	8.50um			
				i	08 53.40	33km
LEM		53.23	224	ePc	09 02.00	1.2
NDI		53.98	282	iP	09 05.50	-0.5
		1.0s	60.00nm			5.6mb
				ePP	11 10.50	
				eS	16 40.00	
SVE		55.97	319	iPc	09 20.00	-0.2
		1.2s	420.00nm			6.3mb
	Z	16s	9.50um			6.0MszX
	N	16s	3.00um			
	E	16s	6.00um			
				i	09 43.00	93kmX
				e	10 20.50	
WB2		56.09	188	eP	09 19.40	-1.9
		0.8s	11.30nm			4.9mb
WRA		56.09	188	P	09 19.80	-1.5
		0.8s	5.70nm			4.7mb
WRA		56.09	188	P	09 31.10	9.8X
		0.9s	8.70nm			4.8mb
ARU		57.17	319	eP	09 27.00	-1.7
		1.5s	600.00nm			6.4mb
	Z	16s	8.50um			5.9MszX
	N	16s	3.00um			
	E	18s	6.00um			
				e	09 50.00	92kmX
				e	11 39.00	
				eS	17 23.00	
				ePS	17 32.00	
HYB		58.29	269	eP	09 36.50	-0.7
		1.0s	90.00nm			5.8mb
				e	09 46.50	33km
ASPA		59.82	188	eP	09 46.20	-1.3
		0.5s	6.70nm			5.0mb
				e	11 49.00	646kmX
MBL		60.49	203	eP	09 50.50	-1.5
GBA		61.25	266	Pc	09 57.00	-0.5
KBS		61.66	350	eP	10 01.60	2.1
QLP		62.34	177	eP	10 02.00	-2.4
DZM		62.41	154	iPc	10 05.50	0.4
RMQ		62.56	173	eP	10 02.00	-3.9X
WARB		63.47	195	iPc	10 11.50	-0.4
		0.8s	43.00nm			5.6mb
RES		63.54	14	eP	10 12.00	0.1
		1.0s	9.00nm			4.8mb
MAIO		64.17	297	iPc	10 17.00	0.3
				eS	19 07.00	
ASH		64.24	299	eP	10 16.00	-1.0
KEV		64.41	339	iP	10 17.50	-0.2
		1.4s	104.30nm			5.7mb
	Z	19s	6.60um			5.8Msz
				i	10 27.10	31km
				LR	42 30.00	
YKA		64.61	30	eP	10 18.20	-0.9
		0.9s	5.70nm			4.7mb
KAT		65.14	301	eP	10 25.00	2.2
				e	10 35.00	32km
				e	12 48.00	
DAG		66.78	355	eP	10 31.80	-1.0
		1.2s	67.19nm			5.6mb
OSR		67.20	47	P	10 37.28	1.3
OSD		67.20	47	P	10 37.12	1.0
STK		67.56	180	eP	10 37.30	-0.8
		0.4s	1.80nm			4.5mb
				eS	19 39.60	
HDW		67.67	47	P	10 39.93	1.0
GMW		67.87	47	eP	10 41.19	1.1
				epP	10 51.13	32km
JCW		68.06	46	P	10 41.77	0.5
MOS		68.12	324	eP	10 41.00	-0.4
		1.4s	300.00nm			6.2mb
	Z	16s	4.10um			5.8MszX
				e	11 07.00	103kmX
				e	13 18.00	
KMOR		68.40	49	P	10 51.00	7.5X
RMW		68.49	46	eP	10 44.71	0.6
				epP	10 55.13	34km
FMW		68.84	47	P	10 46.62	0.3
LON		68.85	47	eP	10 46.49	0.2
				ipP	10 56.58	32km
SHW		68.88	48	eP	10 47.77	1.2
				e	10 56.91	29km
BAK		68.89	305	iPc	10 49.00	2.5
	Z	15s	15.20um			6.4MszX
	N	13s	9.60um			
	E	15s	8.36um			
				eS	20 26.00	
OBN		68.95	323	iPc	10 46.00	-0.6
		1.5s	175.00nm			5.9mb
	Z	18s	5.60um			5.8Msz
	N	14s	2.60um			
	E	16s	4.80um			
				i	10 56.00	32km
				i	11 18.00	
				eS	19 48.00	
PUL		69.11	330	ePd	10 47.50	0.0
	Z	18s	4.00um			5.7Msz
	N	18s	2.20um			
	E	18s	4.00um			
				i	10 58.00	34km
				e	20 18.00	
KAF		69.24	333	iP	10 47.20	-1.1
		0.5s	13.40nm			5.3mb
SSOR		69.42	49	P	10 53.60	3.8X
WTV		69.45	46	P	10 49.92	0.0
EBG		69.50	46	P	10 50.49	0.3
SAW		69.77	45	P	10 51.49	-0.3
MXC		69.83	47	P	10 53.00	0.8
GRO		70.11	309	iPd	10 55.00	1.1
		1.5s	160.00nm			5.9mb
	Z	14s	9.00um			6.2MszX
	N	18s	6.00um			
	E	18s	5.50um			
CRF		70.24	46	P	10 54.63	0.0
GBL		70.31	46	P	10 55.61	0.5
DPW		70.37	45	eP	10 55.46	-0.1
				epP	11 06.66	37km
BWA		70.39	174	eP	10 55.50	-0.1
				e	11 00.80	17kmX
ADE		70.69	182	e(P)	11 02.50	5.1X
NEW		70.77	44	eP	10 57.50	-0.4
		0.8s	23.44nm			5.3mb
NUR		70.88	332	eP	10 57.00	-1.3
		0.6s	23.80nm			5.4mb
	Z	21s	4.00um			5.7Msz
				i	11 08.10	37km
				LR	44 30.00	
CAN		71.33	174	eP	11 06.70	5.4X
PYA		71.37	311	eP	11 01.00	-0.6
				i	11 12.00	36km
LNOR		71.39	47	P	11 02.63	0.9
MTA		71.53	308	iP	11 02.20	-0.3
				i	11 13.00	35km
KIV		71.64	311	iPc	11 03.30	0.0
		1.3s	258.00nm			6.1mb
GRS		71.70	306	iPc	11 03.80	0.0
		1.5s	120.00nm			5.7mb
	Z	18s	3.69um			5.7Msz
	N	18s	1.53um			
	E	18s	2.84um			
				e	11 14.00	33km
				eS	20 50.00	
ORV		72.80	53	eP	11 09.26	-0.9
				epP	11 20.28	36km
SES		72.85	40	eP	11 10.00	-0.3
TOO		73.33	177	eP	11 14.00	1.0
SOC		73.64	312	eP	11 13.00	-1.9
		2.0s	210.00nm			5.8mb
	Z	19s	4.50um			5.8Msz
	N	17s	3.30um			
	E	19s	1.50um			
				e	11 34.00	79kmX
				ePPP	15 42.00	
				eS	20 30.00	
				e	21 30.00	
UPP		73.90	334	iP	11 15.30	-0.8
				i	11 26.40	37km
MNK		73.91	326	eP	11 14.00	-2.2
KER		73.92	301	iPc	11 16.60	-0.3
ANN		74.33	314	eP	11 18.00	-0.9
CMB		74.36	54	eP	11 19.55	0.3
		1.5s	47.04nm			5.3mb
				epP	11 30.55	36km
				esP	11 35.93	
CMB		74.36	54	e(P)	11 29.68	10.4X
	Z	20s	0.70um			5.0Msz
				iS	21 03.68	
				e	22 13.68	
				iSS	25 51.68	
				e	29 15.68	
				eLQ	30 54.68	
				eLR	34 15.68	
GDH		74.43	6	iPd	11 19.20	0.2
		0.9s	33.61nm			5.3mb
FCC		74.84	26	eP	11 24.50	2.9
LCCM		75.10	44	ePc	11 23.40	-0.1
				i	13 11.80	503kmX
NB2		75.15	337	P	11 22.00	-1.4
		1.1s	46.60nm			5.4mb
KVN		75.28	52	eP	11 25.59	0.8
NAO		75.43	337	P	11 21.70	-3.3X
TNP		76.40	53	eP	11 31.45	0.3
		1.3s	32.04nm			5.2mb
HVU		77.00	48	eP	11 34.98	0.7
				epP	11 46.09	36km
KVT		77.31	312	iP	11 35.90	0.0
TPNV		77.68	53	(P)	11 38.94	0.8
				(pP)	11 50.81	40km
KIS		77.69	320	eP	11 38.00	0.3
	Z	16s	10.70um			6.3MszX
	N	17s	6.20um			
	E	16s	7.10um			
				i	11 53.00	53kmX
				e	21 36.00	
DUG		77.92	49	eP	11 40.06	0.6
		0.9s	17.77nm			5.1mb
				epP	11 51.49	38km
GSC		78.28	55	eP	11 41.91	0.5
				e	11 53.74	39km
BW06		78.28	45	eP	11 41.00	-0.5
		0.8s	8.36nm			4.8mb
DAU		78.74	48	eP	11 44.54	0.4
				epP	11 55.33	35km
ARUT		78.98	51	eP	11 45.52	0.2
				epP	11 55.52	32km
MSU		79.34	50	eP	11 48.24	0.9
				epP	11 58.99	35km
EMUT		79.37	48	eP	11 48.30	0.8
VRI		79.56	320	ePd	11 47.00	-1.0
UZH		79.89	324	eP	11 49.00	-0.7
		1.5s	117.00nm			5.7mb
	Z	16s	6.70um			6.1MszX
	E	16s	7.50um			
				i	12 00.50	38km
SRU		79.99	49	eP	11 51.31	0.6
				epP	12 02.20	35km
MLR		80.22	320	ePd	11 50.00	-1.7
ULM		80.27	33	eP	11 55.00	3.2X
				pP	12 05.00	32km
SPC		80.46	325	eP	11 53.70	0.7
RSSD		80.50	42	eP	11 53.19	-0.2
		1.3s	25.15nm			5.0mb
				epP	12 04.30	36km
CMP		80.84	320	ePc	11 55.00	0.1
GLA		80.93	56	eP	11 55.92	0.3
				epP	12 06.67	34km
EYL		81.13	314	eP	11 54.00	-2.6
DEV		81.51	322	ePd	12 10.00	11.7X
JMB		81.90	317	eP	12 01.00	0.6
BHL		81.92	306	P	12 00.00	-0.8
BRG		81.96	330	eP	12 00.40	-0.2
		1.5s	80.00nm			5.5mb
				i	12 11.10	34km
CLL		82.01	330	iPc	12 00.70	-0.1
		1.6s	75.00nm			5.5mb
				ipP	12 10.80	32km
VRAC		82.02	327	iPc	12 12.20	11.4X
		1.7s	505.80nm			
HRI		82.25	306	iPc	12 03.10	0.5
SRO		82.34	325	eP	12 03.90	1.3
				i	12 14.70	35km
PRU		82.39	329	Pc	12 04.40	1.6
		1.4s	59.60nm			5.5mb
	Z	17s	4.00um			5.9MszX
	N	16s	2.00um			
	E	16s	3.10um			
				e	12 13.60	29km
				e	14 01.90	
ZST		82.61	326	eP	12 04.70	0.7
				i	12 15.40	34km
CSS		82.76	308	eP	12 07.00	1.9

19d 06h

```
MOX    83.08 331 iPc    12 06.50   0.1
       2.2s   107.00nm          5.6mb
     Z 18s      3.80um          5.8Msz
                 i      12 17.20  34km
KDZ    83.09 317 eP     12 08.00   1.3
PGB    83.16 319 eP     12 08.00   1.0
PLD    83.17 318 eP     12 08.00   1.0
HOF    83.24 330 iPc    12 07.20  -0.1
                 i      12 18.00  34km
ALN    83.26 316 eP     12 05.62  -1.9
JVI    83.34 305 iPc    12 09.00   0.8
PPCY   83.44 309 eP     12 08.70   0.2
KHC    83.45 329 Pc     12 09.00   0.6
       1.3s    24.00nm          5.2mb
     Z 16s      4.00um          5.9MszX
     N 18s      2.30um
     E 16s      2.80um
                 i      12 19.50  33km
                 e      12 30.00
                 e      12 44.40
                 e      14 08.00
RZN    83.45 318 iPc    12 09.00   0.3
GEC2   83.62 328 e(P)   12 14.20   4.9X
       0.8s     3.00nm          4.5mb X
GEC2   83.62 328 e(P)   12 20.00  10.7X
       1.1s    27.70nm
GEC2   83.62 328 Pd     12 08.50  -0.8
       0.9s     5.80nm          4.7mb
                 e      12 15.30  21kmX
                 e      12 20.70
                 e      12 26.50
                 e      12 30.70
                 e      13 57.90
VTS    83.64 319 iPc    12 10.00   0.4
WET    83.73 329 iPd    12 11.00   1.2
                 i      12 20.90  31km
WTS    83.82 334 e(P)   12 21.50  11.4X
       0.8s    16.70nm
GRF    83.99 330 ePc    12 11.90   0.8
       1.7s   180.00nm          5.9mb
     Z 17s      3.00um          5.7MszX
                 e      12 22.60  34km
MMB    84.06 318 iPc    12 12.00   0.4
TUC    84.07  54 eP     12 12.40   0.5
       1.0s     4.70nm          4.6mb
                 epP    12 23.66  36km
KKB    84.21 319 iPc    12 13.00   0.7
IZM    84.24 314 iP     12 12.50  -0.1
SRS    84.46 318 eP     12 12.86  -0.7
TNS    84.65 332 ePd    12 15.20   0.7
OUR    84.79 317 eP     12 14.90  -0.3
SOH    84.79 318 eP     12 14.54  -0.8
KNT    84.80 318 eP     12 14.50  -0.8
PTJ    84.85 325 eP     12 13.60  -1.9
VAY    84.87 319 iP     12 16.30   0.7
       1.2s   109.00nm          5.9mb
                 i      12 27.00  34km
JAQ    84.90  21 eP     12 16.00   0.5
MBH    85.00 303 iPc    12 16.80   0.2
SKO    85.01 320 iPc    12 17.00   0.7
       1.5s   201.00nm          6.1mb
     Z 19s      0.26um          4.6Msz
                 i      12 28.00  35km
                 LR     53 28.00
PLE    85.08 322 iPc    12 17.81   1.0
KBA    85.13 327 iPd    12 17.30   0.3
                 i      12 28.30  35km
                 e      14 18.00
                 e      16 25.00
ALQ    85.15  50 eP     12 18.06   0.7
       0.8s     8.93nm          5.0mb
                 epP    12 29.67  38km
IVA    85.16 321 iPc    12 17.98   0.8
PAIG   85.23 317 eP     12 15.82  -1.6
PVY    85.32 321 iPc    12 18.51   0.5
LJU    85.39 326 e(P)   12 17.50  -0.7
VBY    85.47 325 eP     12 18.40  -0.1
                 ePP    12 29.70
NKY    85.66 322 iPc    12 19.57  -0.1
CEY    85.67 326 eP     12 18.50  -1.1
VOY    85.69 326 eP     12 19.20  -0.6
                 e      12 29.20  31km
WTTA   85.72 328 iPc    12 19.00  -1.0
LIT    85.77 318 eP     12 18.78  -1.4
TTG    85.80 321 iPc    12 20.24   0.0
BRY    85.82 322 iPc    12 20.33  -0.2
SNF    85.95 334 P      12 21.30   0.5
OHR    85.96 319 iPc    12 21.00  -0.2
       1.3s    83.00nm          5.8mb
                 i      12 32.20  36km
                 i      12 44.70
WLF    85.97 333 P      12 21.00   0.1
                 e      12 32.00  35km
TRI    85.99 326 eP     12 20.30  -0.8
                 e      12 30.10  31km
                 e      17 44.00
DHJN   86.09 289 eP     12 23.30   0.9
BDV    86.13 321 iPc    12 21.23  -0.7
ULC    86.15 321 iPc    12 20.97  -1.1
HCY    86.18 322 iPc    12 21.39  -0.7
DOU    86.18 334 P      12 23.10   1.1
KMTA   86.27 290 eP     12 24.30   1.1
OGA    86.29 328 eP     12 23.50   0.6
ABHA   86.30 290 ePc    12 25.20   1.8
CDF    86.57 331 eP     12 23.90  -0.2
       1.2s    52.05nm          5.6mb
BSF    87.23 331 eP     12 26.80  -0.5
       1.1s    14.90nm          5.1mb
HAU    87.26 332 eP     12 27.10  -0.3
       1.4s    33.55nm          5.4mb
     Z 19s      1.60um          5.4Msz
ACO    88.30  45 iPc    12 33.20   0.6
FIR    88.62 326 e(P)   12 45.00  11.1X
LOR    88.81 333 eP     12 34.50  -0.3
       1.3s    33.20nm          5.5mb
     Z 19s      1.33um          5.4Msz
LBF    89.01 332 eP     12 35.40  -0.4
       1.3s    21.30nm          5.3mb
LDF    89.09 336 eP     12 36.00  -0.1
       1.5s    56.95nm          5.7mb
SSF    89.12 333 eP     12 36.00  -0.3
       1.3s    23.10nm          5.3mb
LPL    89.15 330 eP     12 36.20  -0.5
       1.1s     9.30nm          5.0mb
LPG    89.16 330 eP     12 36.50  -0.3
       1.4s    21.80nm          5.3mb
SMF    89.34 332 eP     12 37.20  -0.1
       1.5s    44.90nm          5.6mb
AVF    89.40 333 eP     12 37.40  -0.2
       1.2s    27.95nm          5.4mb
GRR    89.51 336 eP     12 37.90  -0.2
       1.6s    79.00nm          5.8mb
LPF    89.88 336 eP     12 39.90   0.1
       1.3s    45.85nm          5.6mb
EEO    89.96  27 eP     12 42.00   1.8
MAF    90.18 333 eP     12 41.30   0.1
       1.5s    44.90nm          5.5mb
TCF    90.25 333 eP     12 41.70   0.1
       1.3s    19.85nm          5.2mb
LSF    90.53 334 eP     12 42.80  -0.1
       1.1s    25.90nm          5.5mb
PGF    90.60 327 eP     12 42.30  -1.0
       1.5s    34.45nm          5.5mb
FRF    90.79 329 eP     12 43.50  -0.6
       1.4s    43.55nm          5.6mb
MFF    90.82 335 eP     12 44.20   0.0
       1.3s    42.95nm          5.6mb
LRG    90.99 329 eP     12 44.40  -0.6
       1.3s    57.40nm          5.8mb
LMR    91.03 329 eP     12 44.60  -0.6
       1.3s    55.25nm          5.8mb
RJF    91.34 333 eP     12 46.80   0.2
       1.3s    32.15nm          5.6mb
     Z 19s      1.98um          5.6Msz
CAF    91.46 333 eP     12 47.60   0.4
       1.4s    35.30nm          5.6mb
LFF    91.94 333 eP     12 49.70   0.4
       1.3s    45.85nm          5.7mb
LPO    91.99 333 eP     12 50.00   0.4
       1.3s    32.15nm          5.6mb
MIAR   92.98  43 eP     12 54.62   0.3
       1.0s    16.84nm          5.4mb
                 e      13 05.83  36km
OLY    93.39  41 eP     12 56.69   0.5
BCAO  113.29 294 iPKPd  18 30.50  11.0X
       0.7s     6.00nm
                 i      19 11.00
                 i      19 23.00
BFT   121.37 259 e(PKP) 18 46.00  11.1X
SLR   122.80 260 ePKP   18 36.10  -1.4
     Z 20s      2.48um          5.9Msz
KSR   123.97 261 ePKP   18 39.00  -0.9
PRY   123.99 259 ePKP   18 30.00  -9.8X
SEK   124.49 258 e(PKP) 18 40.50  -0.3
SLF   125.96 258 e(PKP) 18 43.50  -0.1
WIN   130.34 270 e(PKP) 19 03.50  11.3X
POF   131.04 260 e(PKP) 18 47.00  -6.0X
ARE   144.77  65 e(PKP) 19 21.00   2.1
ZOBO  147.09  61 PKP    19 24.90   1.8
                 i      21 13.10
LPB   147.28  61 PKP    19 24.70   1.5
CNCB  147.55  62 PKP    19 25.80   2.0
                 i      21 16.90
SIV   151.63  51 ePKP   19 46.00  16.6X
SOB1  153.20   5 ePKP   19 33.20   1.5
    S.D. = 1.0  on 251 of 284 obs.
```

```
* MAR  19, 1993  06h 01m 31.69± 0.66s
  35.942 N ±16.0km   141.585 E ± 7.7km
  DEPTH =  33.8km  ( 19 depth phases)
  5.0mb ( 10 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ    1.17 283 P      01 51.80  -0.1
NIIJ    2.45 303 P      02 11.60   1.4
                 S      02 43.50
B8P    23.12 233 ePc    06 22.50 -13.1X
SVW    46.29  37 eP     09 55.87   0.3
       1.0s    33.67nm          5.2mb
                 ipP    10 05.81  33km
BRW    47.36  23 iP     10 03.65  -0.2
                 epP    10 14.85  39km
IMA    47.56  30 (P)    10 14.07   8.4X
       1.8s    39.06nm          5.1mb
CRP    47.97  37 eP     10 10.53   1.5
                 epP    10 19.49  30km
KHKI   50.40 214 e(P)   10 28.00   0.1
                 e      14 39.10
GBA    61.27 266 P      11 47.00   0.8
GMW    67.92  47 (P)    12 30.69   1.7
                 epP    12 40.50  31km
RMW    68.54  46 (P)    12 33.90   0.9
                 epP    12 44.04  33km
LON    68.89  47 (P)    12 35.63   0.5
SHW    68.92  48 (P)    12 35.88   0.5
                 epP    12 44.97  29km
KAF    69.34 333 iP     12 36.00  -1.5
       0.4s     6.50nm          5.0mb
DPW    70.42  45 eP     12 43.13  -1.3
                 epP    12 54.42  37km
NEW    70.82  44 eP     12 46.09  -0.7
       1.1s    25.90nm          5.2mb
                 epP    12 56.56  34km
NUR    70.98 332 iP     12 46.00  -1.4
       0.4s     9.00nm          5.2mb
                 i      12 56.90  36km
ORV    72.84  53 eP     12 58.16  -0.8
                 epP    13 08.06  32km
SES    72.91  40 eP     13 09.00   9.8X
FCC    74.92  26 eP     13 12.50   1.9
NB2    75.25 337 P      13 10.20  -2.4
       0.7s     6.80nm          4.8mb
HVU    77.04  48 eP     13 22.81  -0.3
                 epP    13 33.96  37km
DUG    77.97  49 eP     13 28.21   0.0
       0.9s    13.16nm          5.0mb
                 epP    13 39.17  36km
BW06   78.33  45 eP     13 29.13  -1.2
       0.6s     4.40nm          4.7mb
                 epP    13 40.24  36km
DAU    78.78  48 eP     13 32.86  -0.1
                 epP    13 43.79  35km
ARUT   79.02  51 (P)    13 32.93  -1.2
                 epP    13 43.74  35km
MSU    79.38  50 eP     13 36.40   0.3
                 epP    13 47.15  35km
EMUT   79.42  48 eP     13 36.06  -0.3
                 epP    13 45.61  30km
ULM    80.34  33 eP     13 44.00   3.3X
TUC    84.10  54 (P)    14 07.28   6.6X
       1.5s    22.87nm          5.1mb
ALQ    85.19  50 eP     14 07.27   1.1
       1.0s     6.12nm          4.8mb
                 ipP    14 17.94  34km
VBY    85.56 325 ePd    14 08.00   0.4
                 epP    14 18.10  32km
     S.D. = 1.1  on  27 of  32 obs.
```

```
% MAR  19, 1993  06h 04m 06.31± 0.40s
  41.487 S ± 5.5km   174.178 E ± 4.9km
  DEPTH =  33.0km  (normal)
```

COOK STRAIT, NEW ZEALAND (163)
ML 3.9 (WEL). Felt (III) at Wellington.

TCW 0.28 15 Pd 04 14.20 0.3
MRW 0.47 58 Pd 04 17.00 0.5
S 04 23.80
WEL 0.49 66 P 04 17.60 0.9
eS 04 24.90
DIW 0.71 344 Pd 04 19.10 -0.8
CAW 0.77 61 P 04 21.40 0.7
MOW 0.81 86 P 04 22.20 0.9
KIW 0.83 42 P 04 21.70 0.1
BLW 0.98 84 P 04 24.20 0.4
THZ 0.99 253 P 04 25.30 1.3
eS 04 38.30
KHZ 1.04 207 P 04 27.00 2.4
S 04 40.00
MTW 1.05 72 P 04 24.90 0.2
MNG 1.31 49 Pc 04 28.40 -0.1
QRZ 1.41 297 P 04 30.50 0.6
BSZ 1.78 19 eP 04 35.70 0.4
DSZ 1.80 261 P 04 36.70 1.1
PGZ 1.81 62 P 04 34.00 -1.6
LTZ 1.92 227 P 04 38.40 1.1
NRZ 2.16 355 P 04 40.80 0.2
WAHZ 2.44 44 eP 04 42.90 -1.8
MQZ 2.49 206 P 04 44.20 -1.1
eS 05 11.90
NGZ 2.55 26 eP 04 46.00 -0.4
MOZ 3.02 9 eP 04 52.60 -0.3
LMZ 4.25 237 eP 05 09.00 -1.4
BWZ 4.38 225 eP 05 10.50 -1.7
ODZ 4.39 215 P 05 10.50 -1.9
eS 05 58.00
S.D. = 1.2 on 25 of 25 obs.

---

* MAR 19, 1993 07h 37m 03.48± 0.68s
26.548 S ± 5.9km 70.689 W ±15.3km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
NEAR COAST OF NORTHERN CHILE (122)
Felt at Copiapo.

ANT 2.84 5 eP 37 46.50 -1.0
iS 38 30.00
RTRS 3.77 164 e(P) 38 02.00 1.4
CYA 4.74 115 eP 38 17.60 3.1X
RTLL 5.15 158 eP 38 18.70 -1.6
S 38 56.50
RTCB 5.19 162 eP 38 21.20 0.2
S 39 01.00
ZON 5.28 161 eP 38 27.90 5.7X
RTCV 5.62 161 e(P) 38 27.60 0.7
MDZ 6.51 166 e(P) 38 41.40 1.8
i 40 04.80
MRA 7.28 145 e(P) 38 48.80 -1.4
CNCB 10.01 15 P 39 30.00 1.4
ARE 10.06 356 eP 39 28.00 -1.1
LPB 10.25 14 P 39 34.00 2.2
LR 43 34.00
ZOBO 10.48 14 P 39 35.90 0.7
SIV 13.80 42 P 40 29.00 9.9X
VAO 21.82 86 ePc 41 56.30 1.4
e 42 02.80
e 42 12.00
BAO 23.76 67 eP 42 11.70 -2.3
e 42 47.90
e 42 55.30
e 43 06.80
BDF 23.82 68 eP 42 13.50 -1.1
e 42 49.50
KIC 71.70 73 P 48 25.30 0.7
SRU 75.17 329 eP 48 44.64 0.1
RSSD 76.67 336 (P) 48 53.50 0.5
LCCM 81.17 332 eP 49 18.20 0.9
YKA 95.40 341 eP 50 23.10 -2.1
1.0s 0.70nm 4.1mb
WRA 127.79 210 PKP 56 06.40 -1.5
0.5s 0.80nm
GBA 147.51 107 PKP 56 47.00 3.2X
S.D. = 1.5 on 20 of 24 obs.

? MAR 19, 1993 08h 32m 29.22±11.01s
40.074 N ±37.1km 24.123 E ±82.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

OUR 0.28 337 iPg 32 34.84 -0.3
PAIG 0.37 247 ePg 32 36.80 0.0
iSg 32 41.40
SOH 0.95 322 ePg 32 47.52 0.2
eSg 33 00.52
SRS 1.12 339 ePg 32 50.34 0.2
S.D. = 0.4 on 4 of 4 obs.

---

* MAR 19, 1993 08h 50m 44.57± 0.82s
26.487 S ± 6.9km 70.712 W ±15.1km
DEPTH = 28.0km (3 depth phases)
4.0mb (2 obs.)
NEAR COAST OF NORTHERN CHILE (122)
Felt at Copiapo.

ANT 2.78 6 eP 51 28.00 -0.2
iS 52 12.50
RTRS 3.83 164 e(P) 52 01.90 18.9X
S 52 40.00
CYA 4.78 115 e(P) 51 58.90 2.2
S 52 59.60
RTLL 5.21 158 eP 52 02.00 -0.7
RTCB 5.26 162 eP 52 02.10 -1.3
ZON 5.35 161 eP 52 06.90 2.3
HJA 5.82 57 ePd 52 20.40 9.2X
MDZ 6.58 166 e(P) 52 24.80 2.8X
i 53 47.20
MRA 7.34 145 e(P) 52 30.90 -1.7
CNCB 9.96 15 P 53 10.80 1.4
ARE 10.00 356 eP 53 09.00 -0.8
LPB 10.20 14 eP 53 13.00 0.4
ZOBO 10.43 14 P 53 16.60 0.6
Z 20s 0.20um
LR 57 00.00
SIV 13.77 43 P 54 09.00 8.7X
LR 56 49.00
VAO 21.83 86 eP 55 37.00 0.2
e 55 43.70 24km
e 55 47.80
BAO 23.75 67 iPc 55 53.80 -1.9
e 56 02.20 30km
BDF 23.81 68 iPc 55 54.50 -1.8
e 56 03.00 30km
ALQ 69.84 329 eP 01 55.30 0.4
0.9s 1.05nm 3.9mb
PV09 73.98 330 (P) 02 19.20 -0.4
YKA 95.34 341 eP 04 05.70 -1.1
0.8s 0.50nm 4.0mb
GBA 147.55 107 PKP 10 28.00 2.3
S.D. = 1.5 on 17 of 21 obs.

MAR 19, 1993 09h 33m 14.92± 0.35s
6.111 S ± 5.5km 152.360 E ± 9.3km
DEPTH = 33.0km (normal)
4.7mb (10 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 1.92 354 iPd 33 46.00 0.2
0.5s 845.07nm
iS 34 11.00
PMG 6.10 237 eP 34 45.00 -0.3
eS 35 55.00
CTA 15.11 203 eP 36 46.00 -1.7
RMQ 20.55 189 eP 37 52.90 -0.6
0.9s 48.00nm 4.9mb
DZM 20.91 141 iPd 37 57.10 -0.1
GUMO 20.94 339 e(P) 37 50.50 -7.0X
PJG 20.94 339 e(P) 37 50.70 -6.8X
BRS 21.17 179 iPc 37 59.50 -0.3
QLP 21.78 200 eP 38 00.50 -5.4X
WB2 22.25 230 eP 38 10.40 -0.3
0.7s 11.20nm 4.4mb
WRA 22.26 230 P 38 11.19 0.4
ASPA 24.90 224 iPd 38 37.10 0.6
0.9s 15.60nm 4.6mb
CMS 25.98 193 eP 38 46.80 0.4
1.0s 8.00nm 4.3mb
STK 27.54 200 eP 39 03.20 2.4
0.7s 2.80nm 4.0mb
YAK 70.15 349 iPc 44 25.20 -0.7
1.4s 53.00nm 5.4mb
HYB 76.51 289 ePc 45 03.50 -0.5
GBA 76.89 285 P 45 06.00 -0.1
SVW 78.18 23 eP 45 13.11 0.6
0.9s 25.62nm 5.2mb
TIK 79.12 353 iPc 45 16.00 -1.3
1.2s *******nm 7.9mb X
e 45 34.00
TTA 79.14 21 eP 45 18.80 1.0
SLKM 80.03 25 ePd 45 22.42 -0.1
PMS 80.70 25 eP 45 25.30 -0.7
PMR 81.05 24 ePc 45 27.85 0.0
1.4s 27.41nm 5.1mb
IMA 81.83 19 eP 45 32.63 0.6
0.7s 3.13nm 4.4mb
KLU 82.34 25 eP 45 34.80 0.1
FBA 83.26 22 eP 45 38.38 -0.9
1.0s 14.29nm 5.0mb
QUE 89.08 300 eP 46 10.00 1.1
SIV 140.28 124 PKP 52 37.60 -5.7X
S.D. = 0.9 on 24 of 28 obs.

MAR 19, 1993 09h 53m 05.42± 0.76s
43.215 N ± 7.9km 1.171 W ± 4.6km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 2.5 (LDG). mbLg 2.5 (MDD).

ELYF 0.14 109 Pg 53 09.22 0.5
BOH 0.16 134 Pg 53 08.37 -0.8
ELIZ 0.27 259 ePg 53 11.00 -0.1
eSg 53 14.00
MADF 0.27 105 Pg 53 11.40 0.3
Sg 53 16.08
ISSF 0.33 124 Pg 53 11.40 -1.0
Sg 53 16.04
ATE 0.37 110 Pg 53 13.33 0.3
Sg 53 17.81
ESCF 0.46 107 Pg 53 14.69 0.0
Sg 53 20.41
LHE 0.50 127 Pg 53 13.96 -1.7
Sg 53 19.84
OGE 0.51 95 Pg 53 16.20 0.4
JAU 0.61 106 Pg 53 17.27 -0.6
Sg 53 25.92
BTH 0.71 97 iPgd 53 20.10 0.7
i(Sg) 53 30.00
EPF 1.12 99 Pg 53 28.70 2.2
Sg 53 41.30
ECRI 1.16 239 ePg 53 27.50 0.4
eSg 53 41.50
EGRA 1.20 148 ePn 53 33.20 5.5X
eSn 53 55.00
LPO 2.25 48 Pg 53 47.30 4.1X
Sg 54 16.90
ETOR 2.48 196 ePn 53 46.00 -0.6
eSn 54 15.00
EROQ 2.66 153 ePn 53 50.80 1.7
eSn 54 22.00
RJF 2.84 42 Pn 53 52.30 0.6
Sg 54 38.50
CAF 2.89 53 Pn 53 50.10 -2.3
Sg 54 39.40
S.D. = 1.2 on 17 of 19 obs.

---

* MAR 19, 1993 09h 59m 50.75± 2.11s
40.632 N ±19.8km 23.028 E ± 8.9km
DEPTH = 5.0km (geophysicist)
GREECE (364)

THE 0.05 271 iP 59 51.46 -0.7
eS 59 52.30
SOH 0.31 52 eP 59 56.78 -0.3
eS 00 02.54
GRG 0.58 305 eP 00 01.26 -1.0
VAY 0.77 333 ePn 00 06.70 0.5
OHR 1.76 287 ePn 00 23.20 1.1
S.D. = 1.2 on 5 of 5 obs.

MAR 19, 1993 10h 07m 40.86± 0.91s
57.399 N ± 8.3km 149.797 W ± 2.4km
DEPTH = 10.0km (geophysicist)
2.9mb (1 obs.)
GULF OF ALASKA (15)
ML 3.0 (AEIC).

KDC 1.49 285 eP 08 06.84 -0.8
SYI 1.84 312 iP 08 13.03 0.3
CNPM 2.26 341 iP 08 19.35 0.5
eS 08 46.98
BRLK 2.44 347 iP 08 21.78 0.4
eS 08 50.20
CDD 2.55 309 eP 08 23.07 0.1
SEW 2.72 4 eP 08 25.22 -0.1

19d 10h

Sta	Dist	Az	Phase	Time		Res
			eS	08	54.84	
AUI	2.73	317	eP	08	26.20	0.8
AUH	2.75	317	eP	08	26.70	0.8
AUL	2.76	318	eP	08	26.89	0.9
AUW	2.77	317	eP	08	27.13	1.1
OPT	2.89	323	eP	08	28.29	0.5
MCNL	2.99	309	iP	08	29.31	0.1
MPA	3.11	4	eP	08	30.79	0.0
			eS	09	04.77	
SLKM	3.13	356	eP	08	31.12	0.0
			S	09	07.30	
INE	3.17	329	eP	08	31.21	-0.6
INW	3.19	328	eP	08	33.53	1.4
PDB	3.32	318	eP	08	33.28	-0.6
RS1	3.43	335	eP	08	35.13	-0.5
RSO	3.43	335	iP	08	35.13	-0.5
RS2	3.43	335	eP	08	35.36	-0.3
NKA	3.44	348	eP	08	37.11	1.6
REF	3.45	335	eP	08	35.13	-0.7
			eS	09	15.99	
HIN	3.46	28	iP	08	35.77	-0.1
RDW	3.46	334	eP	08	35.70	-0.4
PTE	3.50	6	iP	08	36.61	0.3
			eS	09	14.72	
DFR	3.53	336	eP	08	36.49	-0.5
NCT	3.56	334	eP	08	36.75	-0.6
KAIM	3.78	46	eP	08	41.15	0.7
CVA	3.79	32	iP	08	40.50	0.0
PMS	3.86	2	P	08	41.50	-0.1
SGAM	3.92	35	eP	08	42.68	0.4
SPU	3.97	344	iP	08	42.35	-0.7
RAGM	4.00	39	eP	08	42.70	-0.9
CKT	4.01	343	eP	08	42.82	-0.9
CKL	4.03	342	eP	08	43.05	-0.9
CKN	4.03	343	eP	08	43.40	-0.5
CPAM	4.05	344	eP	08	44.29	0.0
CRP	4.06	344	eP	08	42.48	-2.0X
CP2	4.07	343	eP	08	44.25	-0.5
BGL	4.10	342	iP	08	44.76	-0.2
VLZ	4.14	24	iP	08	46.01	0.5
			eS	09	31.28	
GHO	4.41	5	eP	08	49.76	0.4
SML	4.49	9	iP	08	50.93	0.5
KLU	4.56	24	iP	08	51.60	0.1
SNH	4.57	49	eP	08	52.00	0.4
SCM	4.62	15	eP	08	52.91	0.5
SKT	4.68	350	eP	08	52.91	-0.3
SVW	4.77	324	P	08	53.90	-0.6
CROM	4.81	43	eP	08	54.96	-0.2
TGL	4.92	44	eP	08	56.46	-0.3
GLB	5.08	34	iP	08	58.85	0.0
YAH	5.13	51	eP	08	59.48	-0.2
BALM	5.29	43	iP	09	01.47	-0.4
CTGM	5.63	47	eP	09	06.63	-0.1
FBA	7.59	6	eP	09	33.99	-0.1
YKA	18.18	59	eP	11	57.80	3.2X
	0.7s		0.60nm			2.9mb

S.D. = 0.6 on 54 of 56 obs.

MAR 19, 1993 11h 23m 38.65± 0.34s
40.775 N ± 4.6km 27.455 E ± 3.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.3 (ISK).

Sta	Dist	Az	Phase	Time		Res
EDC	0.53	144	iPg	23	49.50	0.2
BNT	0.55	140	iPg	23	49.70	0.0
KCT	0.86	127	iPg	23	55.20	-0.1
			eSg	24	06.20	
DMK	1.07	12	iPg	23	59.10	0.3
			iSg	24	13.10	
ALN	1.08	277	ePg	23	59.42	0.5
			eSg	24	02.42	
ISK	1.25	76	iPn	24	01.70	-0.1
DST	1.47	142	iPn	24	05.90	0.6
YLV	1.47	97	ePn	24	04.20	-1.1
GBZT	1.51	89	ePg	24	06.40	0.7
			iSg	24	23.00	
HRT	1.68	88	iPn	24	07.20	-1.1
KDZ	1.77	300	eP	24	10.00	0.5
JMB	1.81	339	eP	24	12.00	1.9
EYL	2.07	95	ePn	24	13.40	-0.5
RZN	2.26	295	iPc	24	16.00	-0.8
IZM	2.38	184	ePn	24	20.00	1.7
ALT	2.67	129	ePn	24	22.00	-0.5
OUR	2.68	262	ePb	24	21.54	-1.1
KHL	2.92	146	ePn	24	27.00	0.9
MMB	2.93	287	eP	24	33.00	6.9X
SRS	2.95	278	ePb	24	25.82	-0.5
			eSb	24	48.38	
PAIG	3.01	255	ePb	24	26.74	-0.4
PGB	3.04	307	iPc	24	35.00	7.3X
SOH	3.11	272	ePb	24	27.70	-1.0
KKB	3.47	290	iPc	24	42.00	8.2X
VTS	3.66	301	eP	24	37.00	0.3
VAY	3.73	280	ePn	24	47.50	9.9X

S.D. = 0.9 on 22 of 26 obs.

% MAR 19, 1993 11h 28m 43.92± 2.94s
34.057 S ±14.4km 70.153 W ±16.4km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.9 (SAN).

Sta	Dist	Az	Phase	Time		Res
CACH	0.38	261	iP	28	51.64	0.0
			iS	28	57.67	
CHCH	0.43	286	iP	28	52.88	0.1
			iS	29	00.16	
PCH	0.53	325	iP	28	54.54	-0.1
			iS	29	03.28	
FCH	0.74	351	iP	28	57.88	-0.7
			iS	29	09.31	
TACH	0.77	301	iP	28	58.91	0.0
			iS	29	10.15	
PEL	1.01	334	iP	29	03.51	0.4
			iS	29	17.63	
LNV	1.05	275	iP	29	03.70	0.0
			iS	29	17.63	
ROCH	1.30	326	iP	29	08.34	0.2
			iS	29	26.16	
LCCH	1.31	296	iP	29	07.85	-0.4
			iS	29	26.16	
JACH	1.42	345	iP	29	10.35	0.5
			iS	29	29.07	

S.D. = 0.4 on 10 of 10 obs.

---

* MAR 19, 1993 12h 02m 08.49± 0.76s
2.659 S ± 9.8km 102.222 E ±14.9km
DEPTH = 171.4 ± 8.0 km
4.3mb (2 obs.)
SOUTHERN SUMATERA, INDONESIA (274)

Sta	Dist	Az	Phase	Time		Res
KSI	1.04	159	ePd	02	35.90	0.0
			eS	02	56.50	
			e	05	10.00	
KGM	4.77	13	ePc	03	20.40	0.4
IPM	7.29	351	ePd	03	52.90	-0.5
	0.9s		126.40nm			5.3mb X
GBA	29.42	304	P	07	58.00	-0.1
WB2	35.76	121	eP	08	52.60	-0.3
	0.3s		7.90nm			4.9mb X
			i	08	54.10	
ASPA	37.08	127	eP	09	03.60	-0.4
	0.5s		8.50nm			4.7mb
NDI	39.34	324	iPd	09	23.00	0.4
STK	47.06	133	iPd	10	25.40	0.5
	0.8s		3.10nm			3.9mb
			e	11	01.30	

S.D. = 0.5 on 8 of 8 obs.

---

* MAR 19, 1993 12h 11m 49.88± 1.02s
20.026 N ±14.4km 38.927 E ±14.8km
DEPTH = 10.0km (geophysicist)
4.4mb (11 obs.)
RED SEA (554)

Sta	Dist	Az	Phase	Time		Res
BCAO	25.19	235	iPd	17	17.40	0.1
	0.9s		9.00nm			4.5mb
GEC2	35.17	331	P	18	47.20	1.3
	1.1s		1.73nm			3.8mb
			e	19	01.70	
LBF	39.12	322	eP	19	18.70	-0.5
	0.8s		5.10nm			4.2mb
LOR	39.34	322	eP	19	20.50	-0.5
	0.9s		4.40nm			4.1mb
BGF	39.58	320	eP	19	22.80	-0.1
	0.8s		9.25nm			4.5mb
MAF	39.58	320	eP	19	22.80	-0.2
	0.6s		1.55nm			3.9mb
LFF	40.13	317	eP	19	28.60	1.1
	0.9s		9.00nm			4.4mb
LDF	42.32	322	eP	19	45.10	-0.3
	0.9s		6.90nm			4.4mb
LPF	42.61	320	eP	19	47.40	-0.4
	0.9s		6.90nm			4.4mb
FLN	42.61	322	eP	19	47.50	-0.3
	0.7s		7.40nm			4.5mb
LZH	58.50	59	eP	21	49.00	0.0
	1.6s		28.00nm			5.1mb

S.D. = 0.7 on 11 of 11 obs.

% MAR 19, 1993 12h 18m 13.50± 2.67s
33.610 S ± 7.8km 71.115 W ± 8.9km
DEPTH = 67.1 ± 28.6 km
NEAR COAST OF CENTRAL CHILE (135)
MD 3.6 (SAN).

Sta	Dist	Az	Phase	Time		Res
TACH	0.15	106	iP	18	23.89	0.0
			iS	18	30.95	
LCCH	0.40	289	iP	18	25.34	0.0
			iS	18	34.91	
LNV	0.42	215	iP	18	25.27	-0.2
			iS	18	34.16	
PCH	0.50	91	iP	18	26.05	-0.3
			iS	18	35.99	
CHCH	0.50	130	iP	18	26.31	0.0
			iS	18	36.10	
PEL	0.59	38	iP	18	27.57	0.4
			iS	18	37.61	
ROCH	0.64	8	iP	18	28.04	0.0
			iS	18	39.06	
CACH	0.66	140	iP	18	28.47	0.3
			iS	18	40.19	
FCH	0.74	68	iP	18	29.13	-0.2
			iS	18	41.20	
JACH	1.02	25	iP	18	32.41	-0.1
			iS	18	46.76	

S.D. = 0.3 on 10 of 10 obs.

& MAR 19, 1993 12h 20m 51.10s
59.539 N 152.874 W
DEPTH = 104.1km
5.2mb (78 obs.)
SOUTHERN ALASKA (2)
<AEIC>. Felt (IV) at Homer, (II) at Port Graham and (I) at Eagle River.

Sta	Dist	Az	Phase	Time		Res
OPT	0.21	302	iPc	21	05.31	0.8
AUE	0.31	235	ePd	21	05.67	-0.7
AUL	0.33	241	ePd	21	05.85	-0.7
AUH	0.34	239	ePd	21	05.94	-0.7
AUI	0.35	234	ePd	21	05.75	-0.9
AUW	0.35	241	iPd	21	05.98	-0.6
INE	0.53	350	ePc	21	07.05	-0.9
INW	0.55	346	ePc	21	07.02	-1.0
XLV	0.59	98	iPc	21	07.57	-0.7
PDB	0.71	291	ePc	21	08.37	-0.9
CDD	0.73	213	iPd	21	08.46	-1.0
MCNL	0.83	245	iPd	21	09.44	-0.9
CNPM	0.83	90	iPc	21	09.59	-0.8
			eS	21	23.73	
RS1	0.93	4	iPc	21	10.63	-0.9
RSO	0.93	4	iPc	21	10.64	-1.0
RS2	0.93	4	iPc	21	10.69	-0.9
RDW	0.95	2	iPc	21	10.81	-1.0
SYI	0.96	165	iPd	21	10.76	-0.9
RDN	0.98	3	ePc	21	11.28	-0.8
			eS	21	26.80	
NCT	1.03	358	iPc	21	11.54	-1.0
			eS	21	27.55	
BRLK	1.03	77	ePc	21	11.53	-1.0
			eS	21	26.87	
DFR	1.06	5	iPc	21	12.01	-0.9
NKA	1.46	33	iPc	21	18.32	0.9
SLKM	1.65	53	iPc	21	18.27	-1.6
CKL	1.68	9	ePd	21	19.64	-0.7
SPU	1.70	14	ePc	21	19.58	-0.9
			eS	21	41.34	
CKT	1.70	11	ePc	21	19.68	-0.9
CKN	1.73	11	iPd	21	20.27	-0.6
BGL	1.75	8	iPd	21	20.58	-0.6
CP2	1.76	10	iPd	21	20.81	-0.6
CPAM	1.76	12	iPd	21	20.72	-0.6
CRP	1.77	11	iPd	21	20.57	-1.0
KDC	1.81	173	P	21	20.00	-1.8
			S	21	42.30	
SEW	1.82	70	iPc	21	20.26	-1.7
CGLM	1.83	13	eP	21	21.66	-0.5
MPA	2.01	60	iPc	21	23.14	-1.2
SVW	2.09	320	P	21	24.70	-0.8

S 21 48.90
SUA 2.20 28 ePd 21 26.49 -0.6
eS 21 53.90
PTE 2.34 54 iPc 21 27.30 -1.4
PMS 2.37 42 P 21 28.20 -1.1
SKT 2.54 14 iPd 21 30.21 -1.3
eS 22 01.00
PWA 2.58 34 P 21 31.10 -0.9
PLRM 2.77 40 iPc 21 32.62 -1.9
PMR 2.77 40 iPc 21 32.60 -1.9
GHO 2.97 39 iPc 21 35.45 -1.9
eS 22 08.33
SML 3.19 43 iPc 21 38.36 -2.0
HIN 3.32 72 iPc 21 39.61 -2.4
eS 22 17.99
MID 3.34 89 P 21 40.50 -1.7
SCM 3.57 47 iPc 21 43.56 -2.0
VLZ 3.62 61 ePc 21 43.80 -2.3
eS 22 24.42
CVA 3.71 71 P 21 44.90 -2.5
TTA 3.73 337 P 21 46.20 -1.5
HUR 3.79 23 ePd 21 47.31 -1.1
KLU 3.96 57 iPc 21 48.72 -2.1
SGAM 3.97 73 iPc 21 48.15 -2.7
TRF 4.12 16 eP 21 50.91 -2.2
RAGM 4.21 75 iPc 21 51.55 -2.7
KAIM 4.30 81 iPc 21 53.54 -1.9
RND 4.33 25 ePd 21 54.07 -1.9
TZL 4.43 52 eP 21 55.42 -1.8
MCK 4.61 22 ePd 21 58.04 -1.7
SDG 4.66 47 ePc 21 58.23 -2.1
GLB 4.87 63 iPc 22 00.87 -2.5
PAX 4.96 43 ePc 22 02.66 -2.0
CRQM 5.02 72 ePc 22 02.82 -2.7
eS 22 57.78
SNH 5.10 78 ePc 22 04.14 -2.4
TGL 5.17 72 ePc 22 04.70 -2.8
THY 5.17 38 eP 22 06.04 -1.5
CYK 5.27 80 iPc 22 06.87 -1.9
NEA 5.36 18 ePd 22 07.15 -2.9
eS 23 06.71
BALM 5.45 69 ePc 22 08.59 -2.8
HDA 5.62 27 ePd 22 10.85 -2.9
CCB 5.65 23 ePd 22 10.82 -3.2
YAH 5.65 77 ePc 22 12.01 -2.3
MDM 5.86 20 ePd 22 14.26 -2.6
FBA 5.88 22 P 22 14.60 -2.6
S 23 19.10
SDN 5.88 228 P 22 14.80 -2.4
DOT 5.89 42 eP 22 15.06 -2.3
CTGM 5.92 71 ePc 22 15.45 -2.5
GLM 6.04 23 ePd 22 16.22 -3.2
TMW 6.07 47 eP 22 18.82 -1.0
IMA 6.57 357 P 22 24.30 -2.4
YKU 6.69 84 P 22 27.00 -1.2
FYU 7.85 23 eP 22 40.70 -3.5
SIT 9.56 97 P 23 03.70 -3.7
BRW 11.92 354 eP 23 33.87 -4.7
ILT 14.06 317 eP 24 07.00 0.5
ADK 15.39 251 ePd 24 21.70 -1.6
0.8s 510.90nm 5.8mb X
YKA 18.59 64 eP 24 59.70 -2.8
0.5s 29.90nm 4.8mb
SMY 19.46 264 eP 25 09.40 -2.2
GMW 21.32 111 eP 25 31.65 1.0
pP 25 54.52 113kmX
sP 26 07.13
RMW 21.85 110 eP 25 37.40 1.4
pP 26 00.61 113kmX
sP 26 15.60
BMW 21.89 113 eP 25 37.78 1.5
pP 26 00.70 111kmX
sP 26 09.34
FMW 22.29 111 P 25 42.24 1.8
LON 22.35 111 eP 25 42.55 1.7
pP 26 04.25 103kmX
SHW 22.56 113 (P) 25 42.77 -0.2
pP 26 09.25 131kmX
WTV 22.58 107 P 25 44.61 1.6
SAW 22.84 106 P 25 46.72 1.1
ASR 22.89 112 P 25 47.77 1.6
DPW 23.32 105 eP 25 50.46 0.2
pP 26 12.85 105kmX
WAH2 23.43 108 P 25 52.08 0.9
SSOR 23.46 115 P 25 52.94 1.3
NEW 23.59 103 ePc 25 53.37 0.6
0.8s 43.30nm 4.9mb

pP 26 15.87 105kmX
VGB 23.75 112 eP 25 55.49 1.1
pP 26 17.68 103kmX
CROR 24.04 113 P 25 58.24 0.9
JBO 24.23 111 P 25 59.71 0.7
DBO 24.45 119 P 26 03.34 2.1
LNOR 24.68 108 P 26 03.77 0.5
SES 25.30 93 ePd 26 08.00 -1.0
1.0s 54.00nm 5.0mb
RES 25.67 31 ePd 26 11.00 -1.1
0.8s 16.00nm 4.6mb
LBFM 26.47 120 eP 26 21.07 1.0
pP 26 43.69 103kmX
MGD 27.60 296 eP 26 28.50 -1.3
1.3s 50.00nm 5.0mb
e 26 52.00
e 27 04.00
e 37 00.00
LCCM 27.86 101 eP 26 32.00 -0.6
e 26 56.10
FCC 29.31 66 ePd 26 46.70 1.5
pP 27 12.50 118kmX
KVN 30.03 117 eP 26 52.39 0.4
pP 27 16.16 107kmX
HVU 30.38 108 eP 26 55.49 0.4
pP 27 17.19 96kmX
BW06 31.22 103 ePd 27 01.71 -0.8
0.8s 6.67nm 4.4mb
pP 27 24.65 102kmX
DUG 31.59 110 ePc 27 05.37 -0.3
0.7s 8.66nm 4.6mb
pP 27 29.04 106kmX
TIK 31.90 324 iPd 27 04.00 -3.8
1.2s 14.00nm 4.6mb
e 27 29.00
e 28 22.00
e 37 21.00
DAU 32.17 108 eP 27 10.29 -0.6
TPNV 32.59 117 eP 27 14.87 0.5
0.5s 15.36nm 5.0mb
EMUT 32.85 108 eP 27 16.01 -0.7
RSSD 33.02 96 ePc 27 17.24 -0.9
0.8s 31.78nm 5.2mb
pP 27 40.78 104kmX
PcP 29 56.48
ScP 33 30.67
ULM 33.08 81 ePd 27 20.30 2.0
ARUT 33.20 113 eP 27 19.00 -0.7
pP 27 42.99 106kmX
MSU 33.21 111 eP 27 20.20 0.3
pP 27 43.56 103kmX
PcP 29 58.23
SRU 33.54 108 eP 27 22.71 0.1
pP 27 46.37 104kmX
GSC 33.71 120 eP 27 24.13 0.1
pP 27 48.02 106kmX
PEC 34.74 122 (P) 27 31.91 -0.9
pP 27 56.91 111kmX
GLA 36.48 119 eP 27 47.64 0.2
pP 28 11.72 103kmX
YSS 38.91 281 ePd 28 05.80 -1.8
0.8s 30.00nm 5.2mb
TUC 38.93 115 ePd 28 08.71 0.6
0.7s 6.07nm 4.5mb
pP 28 32.79 104kmX
GDH 39.24 34 iPc 28 09.10 -1.0
1.2s 131.25nm 5.6mb
JAO 40.54 63 ePd 28 19.20 -1.7
pP 28 44.00 107kmX
KUSJ 40.66 275 eP 28 18.10 -3.9
DAG 40.92 15 eP 28 21.00 -2.7
0.8s 23.88nm 5.1mb
ASAJ 40.97 278 eP 28 22.70 -1.9
ACO 41.04 99 iPd 28 24.70 -0.6
WMOK 42.76 101 ePd 28 38.76 -0.6
0.7s 21.63nm 5.1mb
pP 29 03.43 106kmX
EEO 43.82 73 eP 28 48.50 0.7
NRI 44.17 334 ePc 28 47.00 -3.3
e 29 09.00
e 29 25.00
e 30 37.00
FVM 44.47 90 eP 28 51.32 -1.8
1.0s 38.29nm 5.2mb
e 30 57.88
BOD 44.51 310 iPc 28 50.30 -2.9
0.7s 24.00nm 5.1mb

OFUJ 45.17 273 eP 28 57.20 -1.5
UYO 45.39 97 iPd 28 58.70 -1.7
MIAR 45.54 96 eP 28 59.71 -1.9
0.8s 15.03nm 4.9mb
ScP 34 19.04
ELC 45.62 90 eP 29 00.78 -1.4
e 30 36.24
RSNY 47.53 72 eP 29 14.40 -2.8
0.7s 10.69nm 4.8mb
pP 29 40.63 112kmX
CBM 48.81 65 ePc 29 24.53 -2.5
0.6s 22.10nm 5.2mb
MAT 48.88 274 iPd 29 25.50 -2.2
1.0s 15.00nm 4.8mb
CIT 48.93 305 eP 29 26.50 -1.5
GBTN 49.43 87 (P) 29 29.77 -2.1
CN2 49.69 290 eP 29 31.20 -2.6
0.8s 18.00nm 5.1mb
epP 29 55.00 99kmX
NAV 49.88 83 eP 29 33.30 -2.1
pP 29 58.88 108kmX
CVL 50.54 80 eP 29 38.93 -1.4
AKU 50.60 22 iP 29 39.80 -0.6
0.7s 52.05nm 5.6mb
LMN 51.14 64 ePd 29 45.40 0.6
pP 30 11.50 110kmX
SNY 52.09 290 eP 29 48.80 -3.2
SDF 53.35 0 iP 29 57.40 -3.5
BJI 56.98 294 eP 30 18.00 -9.5
HHC 58.45 298 eP 30 35.20 -2.8
KAF 58.68 0 eP 30 35.30 -3.8
0.2s 2.60nm 5.0mb
NB2 59.12 9 P 30 38.60 -3.7
0.9s 19.80nm 5.2mb
NUR 60.27 1 iP 30 46.40 -3.6
0.3s 8.20nm 5.3mb
TIY 60.59 295 eP 30 49.20 -3.4
Z 20s 0.75um 4.8Msz
EDR 61.53 18 ePd 30 55.30 -3.3
ELO 61.77 19 eP 30 56.90 -3.4
EDU 61.81 18 eP 30 57.30 -3.2
EAB 61.93 19 ePd 30 58.40 -2.9
1.2s 38.00nm 5.3mb
EBH 62.01 19 ePd 30 58.80 -3.1
EDI 62.38 19 eP 31 01.40 -2.8
1.4s 25.00nm 5.0mb
EAU 62.41 19 ePd 31 01.70 -2.8
1.2s 35.00nm 5.2mb
ESY 62.48 18 eP 31 01.60 -3.3
EBL 62.55 19 eP 31 02.70 -2.7
EKA 62.95 19 Pc 31 05.40 -2.6
0.7s 52.70nm 5.6mb
DMU 63.66 22 eP 31 09.80 -2.9
DCN 64.11 22 eP 31 12.80 -2.9
0.7s 146.00nm 6.0mb
DLF 64.30 22 eP 31 14.00 -2.9
WME 64.61 20 eP 31 15.90 -3.0
1.2s 22.00nm 5.0mb
YRC 64.70 20 eP 31 16.30 -3.1
GTA 64.75 305 P 31 18.50 -1.6
1.0s 5.00nm 4.4mb
ETA 64.93 22 iPd 31 18.40 -2.5
YRH 65.09 21 eP 31 19.00 -3.0
XAN 65.23 295 P 31 19.60 -3.6
0.6s 3.00nm 4.4mb
ECP 65.39 22 iPd 31 21.20 -2.7
0.7s 152.00nm 6.0mb
WMQ 65.64 316 eP 31 25.00 -0.7
HCG 65.75 20 ePd 31 23.10 -3.1
LZH 65.81 300 eP 31 22.50 -4.5
0.8s 27.00nm 5.2mb
HTR 66.06 20 eP 31 25.30 -2.8
HAE 66.22 20 ePd 31 26.70 -2.5
HGH 66.56 20 ePd 31 28.70 -2.6
WTS 67.61 13 eP 31 35.50 -2.4
1.0s 64.10nm 5.5mb
ENN 68.71 14 eP 31 42.50 -2.3
1.0s 55.00nm 5.4mb
e 32 05.50
SNF 68.75 15 P 31 43.40 -1.6
CLL 68.92 9 iP 31 43.30 -2.7
1.3s 29.00nm 5.0mb
DOU 69.20 15 P 31 45.60 -2.1
1.0s 88.90nm 5.5mb
BRG 69.43 9 iPc 31 46.90 -2.2
1.0s 32.00nm 5.1mb
MOX 69.45 10 iPc 31 47.50 -1.8

19d 12h

```
         1.1s    64.00nm            5.4mb
KSP      69.62    7 iP      31 47.60  -2.7
FLN      69.73   19 iPd     31 48.30  -2.7
         1.1s    65.95nm            5.4mb
HOF      69.81   10 iPc     31 49.50  -2.0
         0.8s    24.00nm            5.1mb
WLF      69.82   14 iPc     31 49.97  -1.5
LDF      69.95   19 iPd     31 49.60  -2.8
         0.6s    20.00nm            5.1mb
GRR      70.03   19 iPd     31 50.50  -2.3
         0.8s    29.95nm            5.2mb
CD2      70.21  297 eP      31 51.60  -2.7
LPF      70.34   20 iPd     31 52.60  -2.1
         0.7s    34.30nm            5.3mb
PRU      70.35    9 eP      31 52.50  -2.3
         1.2s    12.60nm            4.6mb
                    e       32 13.50
GRF      70.36   11 iPd     31 53.10  -1.8
         1.2s    73.00nm            5.4mb
LANF     70.70   13 P       31 54.69  -2.2
WET      71.05   10 iPc     31 57.40  -1.7
         1.2s    29.00nm            5.0mb
KHC      71.13    9 eP      31 58.10  -1.4
         1.0s    17.10nm            4.8mb
                    e       32 17.50
                    e       32 45.50
CDF      71.19   14 P       31 57.67  -2.3
WLS      71.20   14 P       31 57.58  -2.4
VITF     71.22   15 P       31 57.67  -2.4
ECH      71.37   14 P       31 58.52  -2.5
GEC2     71.42    9 P       31 58.60  -2.8
         0.7s     8.33nm            4.7mb
HAU      71.48   15 iPd     31 59.30  -2.3
         0.7s    50.05nm            5.5mb
LIBD     71.49   14 P       31 59.63  -2.0
HYF      71.68   17 iPd     32 00.80  -2.0
BSF      71.70   14 P       32 00.39  -2.7
MOF      71.73   14 P       32 00.65  -2.6
FEL      71.81   13 P       32 00.99  -2.7
LOR      71.86   16 iPd     32 01.50  -2.4
         0.8s    64.75nm            5.5mb
FUR      71.88   11 iPc     32 02.20  -1.8
         0.8s    80.00nm            5.6mb
MFF      71.88   19 iPd     32 01.80  -2.2
         0.8s    67.70nm            5.5mb
SLE      71.97   13 ePd     32 02.00  -2.6
SSF      72.01   17 iPd     32 02.60  -2.2
         0.9s   116.30nm            5.7mb
UZH      72.12    3 eP      32 00.00  -5.3
BBS      72.15   14 P       32 03.28  -2.4
LBF      72.16   16 iPd     32 03.10  -2.6
         0.8s    43.90nm            5.3mb
LOMF     72.18   14 P       32 03.72  -2.2
AVF      72.25   17 iPd     32 03.80  -2.4
         0.8s    84.10nm            5.6mb
ZST      72.31    7 iP      32 04.00  -2.5
BGF      72.41   17 iPd     32 04.70  -2.4
         0.7s    67.25nm            5.6mb
SMF      72.47   17 iPd     32 05.00  -2.5
         1.0s    79.60nm            5.5mb
LSF      72.50   18 iPd     32 05.20  -2.5
         0.8s    73.35nm            5.6mb
TCF      72.57   18 iPd     32 05.60  -2.5
         0.7s    28.10nm            5.2mb
MAF      72.69   18 iPd     32 06.40  -2.4
         0.9s    29.65nm            5.1mb
WATA     72.73   11 iPc     32 07.30  -1.9
SRO      72.77    6 iP      32 07.70  -1.4
SQTA     72.81   11 iPd     32 07.30  -2.3
         0.9s    59.10nm            5.4mb
                    i       32 07.90
WTTA     72.80   11 iPd     32 07.50  -2.2
                    i       32 08.00
LLS      72.92   13 ePd     32 08.50  -1.8
AGO      72.94   17 P       32 08.14  -2.1
PLDF     73.10   17 P       32 09.33  -1.9
OGA      73.14   11 iPc     32 10.10  -1.5
         1.0s    27.00nm            5.0mb
KBA      73.15   10 iPd     32 09.70  -1.9
         0.9s    59.40nm            5.4mb
                    i       32 10.20
PYM      73.22   17 P       32 09.86  -2.1
OSS      73.22   12 ePd     32 10.20  -1.9
VDL      73.35   13 ePd     32 11.30  -1.5
RJF      73.42   19 iPd     32 10.50  -2.5
         1.0s    27.60nm            5.0mb
EMS      73.45   15 ePd     32 11.70  -1.8
```

```
DIX      73.50   14 ePc     32 12.20  -1.6
EMON     73.53   25 iPc     32 11.19  -2.5
COLF     73.55   17 P       32 11.90  -1.9
FVI      73.58   10 Pd      32 11.80  -2.0
MMK      73.60   14 ePd     32 13.00  -1.4
LFF      73.65   19 iPd     32 12.40  -1.9
         0.8s    88.40nm            5.6mb
TMA      73.66   13 ePd     32 13.50  -1.1
RSL      73.79   15 P       32 13.65  -1.7
RBL      73.80   10 P       32 12.50  -2.8
CAF      73.88   18 iPd     32 13.50  -2.2
         1.0s    56.00nm            5.3mb
VAI      73.88   13 Pd      32 13.70  -1.9
LPO      73.97   19 iPd     32 14.10  -2.1
         0.7s    71.45nm            5.6mb
LPL      73.97   15 iPd     32 15.10  -1.4
         1.0s    35.60nm            5.1mb
LPG      73.99   15 iPd     32 15.40  -1.3
         1.0s    31.20nm            5.1mb
CTI      74.01   11 P       32 13.50  -3.1
ORX      74.02   14 P       32 14.95  -1.7
ORO      74.02   14 P       32 15.20  -1.4
LSD      74.08   14 P       32 15.78  -1.4
RSP      74.40   14 P       32 17.33  -1.5
BNI      74.42   15 Pd      32 17.90  -1.1
ERUA     74.57   26 iPd     32 18.36  -1.4
BHB      74.70   15 P       32 18.20  -2.3
VBY      74.86    9 ePc     32 19.00  -2.3
DEV      74.88    3 ePd     32 12.00  -9.4
PZZ      75.01   15 P       32 20.22  -2.2
DOI      75.03   15 P       32 20.00  -2.5
BOB      75.04   13 Pd      32 20.80  -1.7
PCP      75.16   14 P       32 20.58  -2.6
CKI      75.24   14 P       32 21.10  -2.4
ECRI     75.32   22 eP      32 22.44  -1.6
ROB      75.32   14 P       32 21.27  -2.8
ENR      75.33   15 P       32 21.00  -3.2
EPF      75.43   20 iPd     32 22.10  -2.6
         0.9s    19.65nm            4.9mb
FIN      75.45   14 P       32 21.41  -3.3
TOUF     75.52   15 P       32 23.82  -1.5
AUTN     75.56   15 P       32 23.82  -1.8
SAOF     75.58   14 P       32 22.98  -2.5
LESF     75.59   19 P       32 23.55  -2.0
ENSF     75.65   20 P       32 24.29  -1.7
CDR      75.65   16 ePd     32 24.40  -1.5
AURF     75.65   15 P       32 23.99  -2.0
IMI      75.70   14 P       32 23.65  -2.6
CALN     75.73   15 P       32 24.32  -2.2
LSPF     75.78   19 P       32 24.61  -2.0
REVF     75.80   15 P       32 24.49  -2.3
GRBF     75.82   19 P       32 24.76  -2.2
SALF     75.84   19 P       32 27.59   0.6
BDI      75.87   12 Pd      32 24.70  -2.5
FRF      75.88   15 eP      32 25.20  -2.0
         0.9s    36.35nm            5.2mb
MTHF     75.89   18 P       32 25.45  -1.8
LRG      75.95   15 eP      32 25.90  -1.6
         0.5s    17.05nm            5.1mb
LMR      76.09   15 iPd     32 26.60  -1.7
         0.6s    18.85nm            5.1mb
EGRA     76.13   21 iPd     32 27.47  -1.0
PAND     76.13   19 P       32 26.94  -1.9
SFI      76.14   11 P       32 27.50  -1.0
PGD      76.17   11 P       32 27.60  -1.4
PII      76.20   12 P       32 26.20  -2.7
FIR      76.22   12 eP      32 28.00  -1.0
TRGS     76.22   19 P       32 27.30  -2.0
PERF     76.38   18 P       32 27.91  -2.1
ETER     76.56   18 eP      32 29.14  -1.8
GUD      76.88   24 iPd     32 31.30  -1.6
EPLA     77.03   26 iPd     32 32.54  -1.1
ASS      77.06   11 P       32 31.70  -2.1
ETOR     77.13   22 iPd     32 32.54  -1.7
PGF      77.18   14 P       32 32.49  -2.0
HVAR     77.27    8 eP      32 31.50  -3.3
MNS      77.74   11 Pd      32 34.90  -2.6
PAB      77.90   24 iPd     32 36.80  -1.7
         1.1s    31.65nm            5.1mb
ECHE     78.53   22 iPd     32 40.52  -1.4
DUI      78.62   10 P       32 40.10  -2.3
SKO      78.74    4 iP      32 41.00  -1.9
ESEL     79.04   19 iPd     32 43.07  -1.5
EVIA     79.15   23 iPd     32 44.01  -1.3
EVAL     79.25   27 iPd     32 44.74  -1.0
EBAN     79.34   24 iPd     32 45.55  -0.7
EHOR     79.36   26 iPd     32 45.14  -1.2
```

```
OHR      79.57    5 iP      32 44.80  -2.7
ACU      79.68   22 iPd     32 47.05  -1.1
EHUE     79.93   24 eP      32 48.58  -0.9
EALH     80.12   23 iPd     32 49.62  -0.8
MGR      80.22    9 P       32 48.50  -2.4
ECOG     80.24   24 iPd     32 50.62  -0.6
MAL      80.59   25 iPc     32 52.20  -0.7
EJIF     80.62   26 iPc     32 52.84  -0.2
EGUA     80.67   25 iPd     32 52.63  -0.7
WRA      98.62  245 P       34 17.00  -2.0
         0.7s     0.30nm            4.0mb X
BFT     146.10  355 iPKPc   40 18.20  -1.0
         1.0s    44.00nm
BFT     146.10  355 iPKPc   40 12.00  -7.2
         1.0s    44.00nm
SLR     146.20  358 iPKPd   40 18.10  -1.1
         0.8s    80.00nm
KSR     146.34    0 iPKPc   40 16.00  -3.5
PRY     147.40  359 iPKPc   40 20.00  -1.1
         0.6s    20.00nm
SEK     148.79  359 iPKPd   40 25.00   1.7
         0.8s    93.00nm
POF     149.45   12 iPKPc   40 27.00   2.9
         0.4s     7.00nm
BLF     149.57    2 iPKPc   40 26.70   2.2
         0.7s    33.00nm
FRS     150.19    3 iPKPc   40 29.00   3.9
         1.0s    80.00nm
CER     153.30   15 ePKP    40 33.00   3.4
         0.5s    25.00nm
        349 obs. associated
------------------------------------------
? MAR 19, 1993  12h 25m 05.83± 3.44s
  31.674 S ±40.2km  179.855 W ±39.1km
  DEPTH = 423.7 ± 35.1 km
  4.2mb (  1 obs.)
 KERMADEC ISLANDS REGION            (177)

HBZ       6.10  194 eP      26 41.90   0.8
PUZ       6.57  193 eP      26 45.40  -0.8
URZ       7.03  200 eP      26 50.40  -0.7
                    eS      28 21.00
NOZ       7.14  193 eP      26 51.90  -0.5
CNZ       8.39  205 eP      27 09.00   2.4
WAHZ      8.58  200 eP      27 08.30  -0.4
PGZ       9.46  198 eP      27 20.20   1.6
MNG       9.69  202 eP      27 19.10  -2.2
MRW      10.49  203 eP      27 29.60  -0.8
KHZ      11.95  204 eP      27 47.10   0.5
WB2      42.57  275 eP      32 23.80  -0.3
         0.3s     3.10nm            4.2mb
KAF     145.18  339 ePKP    43 52.90  -1.5
         0.3s     3.20nm
NUR     146.92  338 ePKP    43 58.90   1.7
         0.4s     4.20nm
NB2     149.74  349 PKP     44 05.40   3.7X
         0.5s     1.30nm
     S.D. = 1.5  on  13 of  14 obs.
------------------------------------------
• MAR 19, 1993  12h 37m 05.48± 0.84s
  15.291 N ±16.2km   93.882 W ± 8.0km
  DEPTH =  86.7 ± 13.9 km
  3.8mb (  2 obs.)
 NEAR COAST OF CHIAPAS, MEXICO      ( 69)

TPX       1.61  104 eP      37 40.00   7.1X
SCX       1.87   40 iP      37 36.50   0.1
                    iS      38 00.00
BVA       3.20  101 ePd     37 55.35   0.6
OXX       3.26  303 eP      37 54.50  -1.1
IXG       3.50  108 eP      37 59.13   0.3
                    eS      38 38.82
MRL       4.05   93 ePd     38 05.99  -0.6
YUP       4.09  105 ePc     38 06.86  -0.3
IISM      4.97  318 eP      38 18.50  -0.6
PPM       5.89  310 eP      38 34.00   1.6
III       6.17  301 eP      38 36.00   0.0
MRX       8.24  303 (P)     39 04.50   0.2
ALQ      22.60  332 (P)     42 04.50   4.7X
         1.0s     1.25nm            3.3mb
DAG      71.81   14 eP      48 20.00  -0.1
         0.8s     3.73nm            4.3mb
     S.D. = 0.8  on  11 of  13 obs.
------------------------------------------
% MAR 19, 1993  12h 46m 28.03± 1.20s
  34.244 S ±13.8km   70.580 W ±13.0km
  DEPTH = 100.0km  (geophysicist)
```

CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).

CACH 0.13 353 iP 46 42.32 -0.2
iS 46 54.17
CHCH 0.32 349 iP 46 42.73 -0.2
iS 46 54.80
PCH 0.62 5 iP 46 45.22 0.1
iS 46 58.74
TACH 0.66 333 iP 46 45.43 0.1
iS 46 59.37
LNV 0.75 292 iP 46 46.27 0.2
iS 46 59.79
SAN 0.79 355 iP 46 47.00 0.4
iS 47 01.45
FCH 0.94 15 iP 46 48.56 0.1
iS 47 04.98
PEL 1.10 355 iP 46 50.21 0.3
iS 47 07.07
LCCH 1.12 313 iP 46 50.00 -0.1
iS 47 07.48
ROCH 1.32 344 eP 46 52.30 -0.4
iS 47 11.43
JACH 1.56 360 iP 46 55.21 -0.3
iS 47 17.25
S.D. = 0.3 on 11 of 11 obs.

% MAR 19, 1993 12h 56m 39.86± 0.59s
40.389 S ± 5.5km 173.210 E ± 5.3km
DEPTH = 209.4 ± 7.7 km
COOK STRAIT, NEW ZEALAND (163)

ORZ 0.68 230 Pc 57 08.60 -0.4
eS 57 26.00
DIW 0.68 127 Pd 57 08.30 -0.8
KIW 1.38 111 P 57 13.40 -0.3
THZ 1.39 189 P 57 13.90 0.1
S 57 35.40
MRW 1.41 127 Pc 57 13.90 0.0
eS 57 34.30
BSZ 1.45 66 P 57 14.30 0.1
WEL 1.48 128 P 57 14.50 0.0
eS 57 35.00
CAW 1.58 118 P 57 15.20 -0.2
DSZ 1.72 218 Pd 57 17.30 0.5
MNG 1.75 98 P 57 17.00 0.0
eS 57 39.50
MOW 1.86 124 P 57 18.00 0.0
MTW 1.90 115 P 57 18.50 0.1
BLW 1.98 120 P 57 19.40 0.2
KHZ 2.04 173 P 57 20.30 0.5
CNZ 2.16 57 P 57 21.00 -0.2
NGZ 2.20 57 P 57 21.90 0.2
MOZ 2.25 34 P 57 22.30 0.3
PGZ 2.35 97 eP 57 23.50 0.5
LTZ 2.49 196 eP 57 25.30 0.6
WAHZ 2.51 75 eP 57 24.60 -0.3
MQZ 3.34 187 eP 57 34.10 -0.3
NOZ 4.13 66 eP 57 44.00 -0.1
LMZ 4.43 220 eP 57 48.70 0.8
PUZ 4.55 61 eP 57 48.20 -1.2X
ODZ 5.02 201 eP 57 55.80 0.5
LRCZ 5.47 210 eP 58 00.70 -0.5
MHZ 5.49 210 eP 58 01.20 -0.3
LSCZ 5.51 210 eP 58 01.10 -0.5
SBCZ 5.51 210 eP 58 01.40 -0.2
TLC 5.68 211 eP 58 03.50 -0.4
S.D. = 0.4 on 29 of 30 obs.

? MAR 19, 1993 12h 56m 56.20± 4.50s
42.448 N ±39.7km 24.127 E ±11.2km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS 1.39 197 ePb 57 22.44 0.8
eSb 57 44.08
KNT 1.58 216 ePb 57 24.32 0.0
eSb 57 47.06
VAY 1.62 226 eP 57 24.60 -0.2
SOH 1.73 200 ePb 57 26.88 0.4
eSb 57 51.54
ALN 2.11 137 ePn 57 32.12 0.1
OUR 2.11 183 iPn 57 31.92 -0.1
PAIG 2.54 188 ePn 57 37.16 -1.0
S.D. = 0.7 on 7 of 7 obs.

? MAR 19, 1993 13h 00m 03.35± 2.07s
23.448 S ±65.9km 175.018 W ±25.9km
DEPTH = 35.8km (3 depth phases)
4.9mb (4 obs.)
TONGA ISLANDS REGION (174)

DZM 17.15 271 iPc 04 04.90 2.8
CTA 36.05 268 eP 07 04.00 0.4
PMG 38.73 285 eP 07 25.00 -1.1
ASPA 46.61 259 eP 08 29.90 -0.3
0.8s 9.60nm 4.8mb
WB2 46.98 264 eP 08 31.50 -1.6
0.5s 15.30nm 5.2mb
ARUT 83.98 44 (P) 12 32.65 1.1
e 12 45.42 43km
RMW 85.26 33 (P) 12 38.33 0.7
e 12 49.62 36km
BJI 89.92 314 ePKP 12 58.00 -2.1
F8A 90.55 11 eP 13 01.95 -0.5
1.5s 10.45nm 4.9mb
e 13 11.07 28km
SES 92.64 35 eP 13 13.00 0.5
YKA 98.04 24 eP 13 36.90 0.2
0.6s 0.30nm 4.0mb
KSP 151.27 345 ePKP 19 51.30 3.1X
CLL 151.50 349 ePKP 19 56.00 7.5X
i 20 08.50
BRG 151.75 348 ePKP 19 56.00 7.1X
1.2s 19.00nm
i 20 09.00
i 20 31.50
S.D. = 1.5 on 11 of 14 obs.

? MAR 19, 1993 13h 03m 15.04± 1.27s
26.647 S ±10.9km 29.310 E ±11.1km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

BFT 1.16 35 eP 03 37.50 0.1
S 03 50.50
SLR 1.30 314 Pc 03 39.10 -0.5
S 03 50.90
PRY 1.67 260 eP 03 46.00 0.8
S 04 03.50
SEK 2.24 221 eP 03 53.00 -0.5
KSR 2.30 289 eP 03 54.50 0.1
S 04 22.50
S.D. = 0.8 on 5 of 5 obs.

? MAR 19, 1993 13h 12m 40.10± 0.97s
60.636 N ± 8.9km 5.862 E ±10.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

ASK 0.36 245 eP 12 47.50 -0.1
eS 12 52.06
EGD 0.48 221 eP 12 49.98 0.1
HYA 0.56 17 eP 12 51.36 0.0
eS 12 59.39
NRA0 2.80 85 ePg 13 31.16 5.5X
eLg 14 09.83
KHC 12.34 156 eP 15 38.60 0.0
1.1s 25.00nm 5.4mb
e 15 41.00
S.D. = 0.1 on 4 of 5 obs.

• MAR 19, 1993 13h 39m 53.82± 1.24s
26.095 S ± 8.9km 29.274 E ±15.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.3 (BUL).

SLR 0.96 292 iPc 40 12.50 -0.2
S 40 25.00
BLF 4.06 222 iPc 40 58.00 -0.1
S 41 56.50
FRS 5.05 223 iPc 41 12.20 0.2
BUL 5.95 354 iPn 41 26.00 1.1
iSn 42 33.10
iSg 42 59.60
MTD 9.51 14 iPn 42 14.20 -0.4
iSn 43 57.60
iSg 44 46.20
LSZ 10.81 354 iPn 42 32.00 -0.5
iSn 44 29.00
S.D. = 0.8 on 6 of 6 obs.

? MAR 19, 1993 14h 04m 42.59± 6.20s
37.475 S ±50.4km 175.824 E ±40.9km
DEPTH = 260.7 ± 50.3 km
NORTH ISLAND, NEW ZEALAND (159)

URZ 1.28 128 P 05 20.20 -0.5
eS 05 44.00
PAHZ 1.69 145 eP 05 23.90 0.2
MOH 1.96 148 eP 05 26.20 0.3
NOZ 2.09 124 P 05 26.90 -0.1
TTH 2.21 159 P 05 28.60 0.5
WAHZ 2.26 170 P 05 28.80 0.1
MNG 3.15 185 P 05 37.70 0.0
S 06 14.00
CAW 3.68 189 P 05 43.50 -0.1
MTW 3.69 184 P 05 43.00 -0.7
MRW 3.85 193 P 05 45.50 -0.1
eS 06 29.30
MOW 3.97 186 P 05 46.40 -0.5
KHZ 5.24 199 P 06 02.80 0.7
S.D. = 0.5 on 12 of 12 obs.

• MAR 19, 1993 15h 50m 32.50± 1.40s
31.576 S ±17.3km 70.123 W ±13.6km
DEPTH = 130.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.9 (SAN).

JACH 1.17 200 iP 50 57.65 0.1
iS 51 15.28
ZON 1.23 89 iP 50 58.50 0.4
eS 51 16.50
ROCH 1.58 208 iP 51 01.92 -0.2
iS 51 22.91
CFA 1.61 92 e(P) 51 01.50 -0.7
S 51 23.00
PEL 1.63 197 iP 51 03.51 1.0
iS 51 23.81
FCH 1.75 185 iP 51 04.88 0.6
iS 51 28.38
PCH 2.07 189 iP 51 08.14 0.3
iS 51 34.55
TACH 2.18 198 iP 51 08.62 -0.6
iS 51 35.87
LCCH 2.25 212 iP 51 09.93 -0.1
iS 51 37.35
CHCH 2.39 191 iP 51 11.87 0.0
iS 51 41.18
CACH 2.57 189 iP 51 14.45 0.2
iS 51 45.44
LNV 2.61 204 iP 51 13.60 -1.0
iS 51 44.49
RTPR 3.35 69 ePd 51 24.80 0.4
MRA 3.84 104 e(P) 51 30.50 -0.4
S.D. = 0.6 on 14 of 14 obs.

MAR 19, 1993 15h 53m 52.84± 0.13s
12.147 N ± 3.3km 95.082 E ± 2.5km
DEPTH = 24.7km (24 depth phases)
5.4mb (113 obs.) 5.0Msz (13 obs.)
ANDAMAN ISLANDS, INDIA (703)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 29S, 47C
Centroid Location:
Origin Time 15:53:57.6 0.3
Lat 12.62N 0.06 Lon 95.75E 0.05
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-6.32 0.39 Mtt= 1.54 0.48
Mff= 4.78 0.47 Mrt=-1.20 0.94
Mrf= 0.79 0.89 Mtf= 7.63 0.42
Principal Axes:
T Val= 10.96 Plg= 0 Azm=129
N -3.82 30 219
P -7.14 60 38
Best Double Couple:Mo=9.1*10**16
NP1:Strike=192 Dip=52 Slip=-129
NP2: 65 52 -51

KHT 4.31 52 eP 54 57.20 -1.2
NNT 4.57 84 eP 54 57.00 -5.2X
NST 6.03 54 eP 55 21.00 -1.8
BDT 6.33 36 eP 55 23.70 -3.3X
1.0s 207.00nm 5.9mb X
SNG 7.36 132 eP 55 38.00 -3.5X

19d 15h

```
           1.8s   609.09nm            6.4mb X
                  eS      57 38.00
CHTO   7.60  29 ePc       55 44.90   0.0
                  e       58 04.20
LOE    8.29  50 eP        55 52.90  -1.6
IPM    9.54 141 ePc       56 08.10  -3.7X
       0.4s    12.50nm            5.6mb
                  e       57 44.10
                  e       01 28.80
KGM   12.96 140 ePc       56 57.80  -0.4
       1.2s   219.80nm            6.2mb
                  e       01 14.00
KMI   14.80  28 Pd-       57 25.00   2.4
       2.0s   130.00nm            5.0mb
    Z 11s     9.90um              3.5Msz
    N 10s     6.30um
    E 10s     7.10um
                  pP      57 31.50
                  sP      57 37.00
                  S       00 18.00
HYB   16.82 290 ePc       57 48.00  -0.4
       1.2s   214.30nm            5.2mb
GBA   17.26 277 P         57 55.00   1.0
HKC   20.82  58 eP        58 35.30   0.1
                  S       02 34.00
BOM   22.47 290 ePd       58 53.60   1.9
                  eS      02 51.60
LEM   22.60 146 ePc       58 56.50   3.3X
       1.5s   111.11nm            5.1mb
    Z 20s     7.09um              5.1Msz
                  eS      03 08.00
                  eLR     06 40.00
NDI   23.42 317 iPd       59 03.00   2.0
       1.5s   805.56nm            6.0mb
                  iS      03 13.00
TSM   23.85 107 ePd       59 05.90   0.6
BAG   25.06  77 eP        59 16.00  -1.2
LZH   25.11  17 iPd       59 18.40   0.9
       1.5s   490.00nm            5.9mb
    Z 16s     3.42um              5.0MszX
    N 10s     4.43um
                  pP      59 31.00  51kmX
                  sP      59 35.00
                  PP      00 04.00
                  eS      03 54.00
                  sS      04 14.00
TGY   25.25  83 eP        59 21.00   2.2
PGP   25.26  84 ePc       59 19.00   0.1
CVP   26.41  75 ePc       59 30.00   0.5
MAP   28.40  91 eP        59 36.00 -11.7X
CGP   29.36  94 eP        59 55.00  -1.3
DAV   30.47  97 eP        00 07.20   1.0
MNI   31.36 108 ePc       00 15.00   0.9
QUE   31.65 309 eP        00 18.60   1.9
                  eS      06 11.10
BJI   33.44  30 eP        00 32.50   0.6
       1.8s   239.00nm            5.8mb
    Z 16s     1.81um              4.9MszX
    N 12s     1.83um
                  ePP     01 52.00
                  eS      06 20.00
PRZ   33.53 337 iPc       00 34.50   1.6
FRU   35.36 334 iPd       00 50.00   1.6
                  e       02 11.00 423kmX
SWI   38.17 107 ePd       01 11.50  -0.9
KUMJ  38.53  52 P         01 15.20   0.0
ZAK   38.72   8 iPd       01 17.50   1.0
       1.3s   112.00nm            5.5mb
    Z 13s     0.88um              4.8MszX
    N 11s     0.77um
                  e       02 48.50 499kmX
                  e       03 28.50
                  eS      07 15.00
SHNJ  39.39  50 P         01 24.00   1.6
MAIO  40.03 313 iPd       01 28.40   0.6
                  eS      07 36.00
IRK   40.70   9 eP-       01 33.00   0.0
       1.6s    77.00nm            5.2mb
    Z 12s     0.83um              4.8MszX
                  e       01 39.00  20km
                  e       01 47.00
                  e       03 13.00
                  ePPP    03 30.00
                  eS      07 45.00
MBL   41.07 144 iPc       01 35.90  -0.4
       0.7s    65.00nm            5.5mb
                  e       01 43.00  24km
```

```
TKSJ  41.57  52 eP        01 41.10   0.7
ELT   41.60 352 eP        01 40.70   0.4
       1.9s    71.00nm            5.1mb
    Z 11s     1.00um              4.9MszX
                  e       03 27.00
                  eSS     11 42.00
ASH   41.62 315 eP        01 41.00   0.3
       1.2s   100.00nm            5.4mb
CIT   42.47  17 eP        01 48.00   0.4
WKYJ  42.85  52 eP        01 51.50   0.6
TSRJ  43.63  51 P         01 58.00   0.9
MEEK  44.83 150 eP        02 06.40  -0.5
MTMJ  45.39  50 P         02 11.80   0.4
MAT   45.68  50 iPd       02 13.00  -0.6
       1.5s   144.44nm            5.7mb
                  eS      08 58.00
CHJJ  46.10  51 P         02 16.60  -0.3
YAMJ  47.62  49 eP        02 28.70  -0.2
BOD   47.87  14 iPd       02 29.70  -0.9
       1.3s   155.00nm            5.9mb
KER   48.77 305 iPc       02 37.70  -0.4
MRRJ  49.94  44 eP        02 46.50  -0.2
WRA   50.10 129 P         02 47.50  -0.8
WB2   50.11 129 iPc       02 47.20  -1.1
       1.0s    22.80nm            5.1mb
                  i       02 55.50  28km
GRS   50.85 311 eP        02 54.00   0.1
ASAJ  51.66  43 eP        02 59.70  -0.1
SVE   51.82 337 iP        03 00.00  -0.8
       1.5s   160.00nm            5.7mb
    Z 18s     1.00um              4.9Msz
    N 19s     0.60um
    E 19s     1.00um
                  e       04 13.30 351kmX
                  e       05 03.00
                  eS      10 27.00
ASPA  52.04 133 iPc       03 02.10  -0.9
       1.1s    21.60nm            5.0mb
                  epP     03 09.70  25km
GRO   52.61 316 eP        03 08.00   1.0
                  i       05 04.00 636kmX
KUSJ  52.68  45 eP        03 07.20  -0.3
YSS   52.89  39 ePd-      03 08.50  -0.5
       1.2s   120.00nm            5.7mb
                  e       03 16.60  27km
                  e       04 17.00
                  e       05 09.00
PYA   54.63 316 eP        03 21.00  -0.9
                  i       04 27.00 306kmX
                  i       05 30.00
KIV   54.86 316 eP        03 22.80  -0.9
       1.4s    69.00nm            5.5mb
    Z 18s   751.30um              7.8MszX
                  e       04 30.40 314kmX
YAK   55.68  19 iPd-      03 27.20  -1.9
       1.8s   210.00nm            5.9mb
    Z 12s     1.60um              5.3MszX
    N 11s     1.10um
    E 12s     1.20um
                  i       04 27.00 272kmX
                  e       13 13.00
AVY   55.96 237 iPc       03 32.00   0.0
PMG   56.01 110 eP        03 31.00  -1.2
VTY   56.19 237 iPc       03 33.70   0.0
NRI   57.38 357 iPd       03 39.10  -2.1
       1.3s    62.00nm            5.5mb
                  e       03 47.00  26km
DSI   57.99 300 eP        03 45.10  -1.0
PRNI  58.22 298 eP        03 46.50  -1.2
RMN   58.55 298 eP        03 48.90  -1.3
CTA   59.68 122 iPc       03 56.00  -1.9
KAS   60.60 311 eP        04 03.00  -1.1
QLP   61.34 129 eP        04 09.30   0.2
MOS   61.97 327 eP        04 12.00  -1.0
                  e       04 29.00  64kmX
                  e       04 49.00
OBN   62.30 326 iPc       04 14.50  -0.7
       1.4s   120.00nm            5.8mb
    Z 18s     1.80um              5.3Msz
    N 20s     0.70um
                  e       19 30.00
STK   62.44 136 iPd       04 15.80  -0.7
       1.0s    10.90nm            4.9mb
                  i       04 23.60  25km
ADE   62.48 140 iPd       04 17.00   0.3
MGD   62.81  28 iPd       04 17.00  -1.5
       1.1s   110.00nm            5.9mb
```

```
    Z 12s     1.70um              5.4MszX
    E 12s     1.20um
                  e       04 26.00  29km
                  e       04 55.00
                  eS      12 48.00
                  e       14 00.00
TIK   62.87  11 iPd-      04 17.00  -1.7
       1.2s   184.00nm            6.1mb
    Z 12s     1.10um              5.2MszX
                  ipP     04 25.00  26km
                  i       04 55.00
                  i       06 37.00
                  ePPP    08 15.00
                  iS      12 45.00
                  ePS     13 05.00
                  e       14 01.00
ELL   62.98 305 eP        04 19.00  -1.2
RMQ   64.76 127 iPd       04 32.70   0.9
       0.6s    43.00nm            5.8mb
CMS   65.17 133 iPc       04 34.30   0.0
       1.0s    27.00nm            5.3mb
PPE   65.75 315 eP        04 43.00   5.1X
BFD   66.28 140 iPc       04 41.20  -0.1
       1.0s    30.00nm            5.4mb
VRI   66.32 315 ePd       04 42.00   0.4
MLR   66.82 314 ePd       04 44.50  -0.5
PUL   66.96 330 (P)       04 59.00  13.7X
                  e       05 12.00  45kmX
HNR   67.93 105 eP        04 52.00  -0.2
BRS   68.34 126 iPd       04 54.40  -0.3
       1.5s    10.00nm            4.7mb
                  ipP     05 03.00  28km
TOO   68.39 139 iPd       04 55.60   0.8
       1.1s   105.00nm            5.9mb
BWA   68.59 135 iPd       04 56.80   0.7
                  ipP     05 04.50  25km
ARMA  68.88 129 iPd       04 59.10   1.1
       0.9s    37.00nm            5.5mb
VAY   68.97 310 iP        04 56.40  -1.9
KAF   69.45 332 eP        05 00.40  -0.4
       1.6s    90.70nm            5.7mb
CAN   69.47 135 iPd       05 01.20  -0.3
                  ipP     05 08.60  24km
UZH   69.61 317 ePc       05 01.20  -0.8
       1.4s    77.00nm            5.6mb
                  i       05 09.40  26km
CNB   69.72 135 iPd       05 03.10   0.1
       1.0s    16.00nm            5.1mb
SKO   69.84 310 iP        05 01.00  -2.6
NUR   69.89 330 eP        05 02.00  -1.5
       1.3s    53.20nm            5.5mb
OHR   70.30 309 iP        05 03.50  -3.0
SDF   70.72 338 iP        05 08.80   0.3
SPC   71.00 318 eP        05 11.50   0.7
KEV   71.15 340 eP        05 20.00   9.0X
OJC   71.35 319 eP        05 12.00  -0.6
                  e       05 19.80  25km
LSZ   71.60 249 iP        05 15.00   0.2
                  i       05 22.10  23km
SRO   72.22 316 eP        05 17.20  -0.6
BUL   72.83 244 iPc       05 21.80  -0.3
       0.9s    10.50nm            4.9mb
ZST   73.04 317 eP        05 22.00  -0.7
UPP   73.28 329 iP        05 23.60  -0.2
BFT   73.61 239 iPc       05 27.00   0.4
       1.0s    30.00nm            5.3mb
KSP   73.61 320 iP        05 25.70  -0.2
       0.9s    36.00nm            5.4mb
                  i       05 32.60  22km
ZAG   73.81 314 eP        05 27.00  -0.2
PTJ   73.83 314 eP        05 27.00  -0.4
VBY   74.33 314 iPc       05 30.10  -0.1
PRU   74.73 319 eP        05 32.50   0.1
       2.0s    60.10nm            5.3mb
                  e       05 39.50  22km
LJU   74.82 315 eP        05 33.00   0.0
CEY   74.90 314 eP        05 32.50  -1.1
BRG   75.09 320 iPd       05 34.50   0.0
       1.1s    42.00nm            5.4mb
SLR   75.10 239 iPd       05 34.00  -1.2
       0.8s    20.00nm            5.2mb
    Z 18s     5.42um              5.9Msz
VOY   75.27 315 ePd       05 35.20  -0.5
                  e       05 43.20  26km
GEC2  75.30 318 P         05 35.30  -0.6
       0.8s    20.53nm            5.2mb
                  e       05 43.40  26km
```

```
GEC2   75.30 318 e(P)   05 43.40   7.5X
       0.8s    16.00nm          5.1mb
TRI    75.37 314 eP     05 35.50  -0.7
KHC    75.37 318 Pc     05 36.50   0.3
       1.2s    13.00nm          4.8mb
                 e      05 43.50  22km
                 e      05 52.50
                 e      06 28.00
RBL    75.47 315 P      05 36.61  -0.3
       1.5s    75.90nm          5.5mb
KBA    75.60 316 iPd    05 36.40  -1.3
       1.1s    17.00nm          5.0mb
                 i      05 40.80  14kmX
CLL    75.68 320 iPd    05 37.60  -0.2
       1.7s    52.00nm          5.3mb
WET    75.83 318 iPc    05 39.20   0.4
       1.0s    26.00nm          5.2mb
BCAO   75.94 272 iPc    05 39.00  -1.1
       1.1s    22.00nm          5.1mb
                 i      05 46.30  23km
                 i      06 14.50
FVI    76.01 315 P      05 40.29   0.5
       1.4s    30.80nm          5.1mb
ARV    76.07 312 P      05 40.29   0.0
       1.4s    56.30nm          5.4mb
PRY    76.21 238 eP     05 40.00  -1.5
       1.5s    50.00nm          5.3mb
KSR    76.31 239 eP     05 39.50  -2.6
NB2    76.50 330 P      05 41.30  -1.0
       1.2s    26.80nm          5.2mb
MOX    76.58 319 iP     05 42.70  -0.3
       1.6s    41.00nm          5.2mb
SEK    76.59 237 iPc    05 44.50   0.9
       0.8s    26.00nm          5.3mb
WTTA   76.76 316 iPd    05 42.60  -1.6
       0.8s    18.20nm          5.2mb
CRE    76.78 312 P      05 44.33   0.0
       2.2s   118.10nm          5.5mb
CTI    76.82 315 P      05 44.81   0.3
       2.4s   354.20nm          6.0mb
SFI    76.83 313 P      05 45.47   1.0
       1.9s   265.80nm          5.9mb
GRF    76.89 318 iPd    05 45.30   0.6
       1.6s    89.00nm          5.5mb
    Z  22s     0.50um           4.8Msz
                 e      05 52.50  23km
PGD    76.93 312 P      05 45.61   0.4
       1.1s    77.40nm          5.6mb
FUR    76.94 317 iPc    05 45.00   0.0
OGA    77.20 316 iPc    05 46.30  -0.4
       1.0s    24.00nm          5.2mb
ILT    77.41  23 iPd    05 46.70  -0.5
       1.1s   110.00nm          5.8mb
    Z  12s     1.00um           5.4MszX
    E  14s     1.40um
                 i      05 54.00  23km
SAL    77.64 314 P      05 49.88   1.0
       1.5s   356.60nm          6.2mb
DZM    77.77 116 iPc    05 51.90   1.8
OSS    77.82 315 ePd    05 49.90  -0.2
BLF    78.06 237 iPc    05 52.20   0.5
       1.0s    40.00nm          5.4mb
VDL    78.30 315 ePd    05 52.60  -0.2
BOB    78.48 314 P      05 54.43   0.8
       2.0s   162.90nm          5.7mb
LLS    78.59 316 ePd    05 54.20  -0.1
TNS    78.63 319 ePd    05 52.40  -1.9
TMA    78.75 315 iPd    05 54.50  -0.7
SLE    78.84 317 ePd    05 55.00  -0.5
VAI    78.84 315 P      05 54.99  -0.5
       1.1s    34.40nm          5.3mb
ZLA    78.94 316 Pd     05 55.60  -0.5
FRS    78.99 236 iPc    05 58.10   1.6
       1.0s    20.00nm          5.1mb
PGF    79.03 311 iPd    05 56.40  -0.4
       1.0s    11.60nm          4.9mb
GRM    79.30 232 e(P)   05 46.00 -12.2X
MMK    79.38 315 ePc    05 58.70   0.0
WTS    79.48 321 eP     05 59.00   0.2
       1.0s    28.20nm          5.2mb
CDF    79.58 317 eP     05 59.20  -0.4
       1.1s    12.20nm          4.8mb
DIX    79.76 315 ePd    06 01.30   0.5
BSF    79.97 317 eP     06 01.30  -0.4
       1.0s    12.40nm          4.9mb
SBF    80.01 313 iPd    06 01.70  -0.3
       1.0s    39.00nm          5.4mb

EMS    80.09 315 ePd    06 02.60   0.1
WLF    80.17 319 P      06 04.00   1.5
ENN    80.18 320 eP     06 03.00   0.4
       1.6s    58.30nm          5.4mb
HAU    80.25 317 iPd    06 02.70  -0.4
       0.9s    19.15nm          5.1mb
    Z  22s     0.40um           4.7Msz
LPG    80.29 314 iPd    06 03.80   0.1
       0.9s    25.55nm          5.3mb
LPL    80.30 315 iPd    06 03.70   0.0
       0.9s    34.05nm          5.4mb
BNI    80.40 314 P      06 03.99  -0.1
       1.4s    35.80nm          5.2mb
FRF    80.62 313 iPd    06 05.20   0.1
       0.9s    29.50nm          5.3mb
LMR    80.75 312 iPd    06 05.80   0.0
       1.1s    25.90nm          5.2mb
LRG    80.84 312 iPd    06 06.60   0.4
       0.9s    38.65nm          5.4mb
DOU    81.11 319 Pc     06 08.00   0.5
       1.0s    27.80nm          5.2mb
CDR    81.24 313 ePc    06 08.90   0.5
SNF    81.24 320 P      06 08.30   0.1
LBF    81.98 316 iPd    06 12.10  -0.1
       1.1s    36.15nm          5.3mb
LOR    82.02 317 iPd    06 12.10  -0.3
       1.3s    42.25nm          5.3mb
    Z  23s     0.45um           4.8MszX
SMF    82.13 316 iPd    06 12.80  -0.1
       0.9s    15.40nm          5.0mb
SSF    82.29 316 iPd    06 13.70   0.0
       1.4s    38.75nm          5.3mb
AVF    82.44 316 iPd    06 14.30  -0.2
       1.4s    32.65nm          5.2mb
BGF    82.82 316 eP     06 16.80   0.3
       1.0s    22.40nm          5.2mb
HYF    82.84 317 eP     06 17.20   0.6
MAW    82.88 192 eP     06 17.00   0.7
       0.6s    23.26nm          5.5mb
MAF    83.07 316 eP     06 18.10   0.3
       1.1s    22.20nm          5.2mb
POF    83.28 238 eP     06 21.00   1.8
TCF    83.30 316 iPd    06 19.40   0.4
       1.2s    25.00nm          5.2mb
CAF    83.65 314 iPd    06 21.30   0.4
       1.0s    12.20nm          5.1mb
LSF    83.77 316 iPd    06 21.40   0.0
       1.1s    23.70nm          5.3mb
WIN    83.77 245 iPd    06 24.00   1.9
       1.0s    50.00nm          5.7mb
RJF    83.96 315 iPd    06 23.10   0.7
       1.3s    35.40nm          5.4mb
    Z  22s     0.70um           5.0Msz
ESEL   84.01 309 eP     06 24.00   1.3
BRW    84.29  18 iPc    06 24.63   1.1
                 e      06 32.38  24km
LPO    84.31 314 iPd    06 24.70   0.6
       1.1s    27.10nm          5.4mb
LDF    84.41 318 iPd    06 24.90   0.4
       1.1s    26.60nm          5.4mb
FLN    84.61 319 iPd    06 25.80   0.3
       1.2s    38.10nm          5.5mb
    Z  23s     0.60um           4.9MszX
EKA    84.75 325 Pd     06 33.40   7.3X
       1.2s    30.30nm          5.4mb
MFF    84.84 316 iPd    06 27.00   0.3
       1.1s    27.35nm          5.4mb
GRR    84.93 318 eP     06 27.60   0.5
       1.4s    43.55nm          5.5mb
CER    85.04 235 iPc    06 28.00   0.0
       1.0s    80.00nm          5.9mb
LPF    85.13 318 iPd    06 28.70   0.6
       1.3s    53.45nm          5.6mb
EPF    85.25 313 eP     06 28.60  -0.3
       0.8s     4.15nm          4.7mb
EBR    85.60 311 eP     06 41.00  10.4X
EROQ   85.66 311 eP     06 31.00   0.0
EGRA   85.90 312 eP     06 30.00  -2.1
ECHE   86.96 310 eP     06 38.50   1.1
IMA    87.34  22 iPd    06 39.75   0.8
       0.8s    32.19nm          5.6mb
ETOR   87.48 311 eP     06 40.00   0.0
TTA    87.65  26 ePd    06 41.20   0.8
       1.1s    61.40nm          5.8mb
EVIA   88.34 309 eP     06 45.00   0.8
SVW    88.52  27 ePd    06 45.69   1.2
       1.4s   123.12nm          6.0mb

EHUE   88.61 308 eP     06 46.00   0.5
GUD    89.07 311 eP     06 48.00   0.3
PAB    89.50 310 eP     06 50.00   0.3
EGUA   89.61 308 eP     06 50.50   0.4
CRP    89.99  26 ePc    06 52.02   0.4
FBA    90.06  22 ePd    06 51.63  -0.1
       1.0s    15.21nm          5.2mb
EHOR   90.64 309 eP     06 55.30   0.4
EPLA   90.64 311 eP     06 56.00   1.1
EPRU   90.86 308 eP     06 56.00   0.0
PMR    91.14  26 iPc    06 56.90   0.3
       1.3s   192.40nm          6.3mb
    Z  18s     0.40um           4.9Msz
SLKM   91.17  27 eP     06 56.93   0.0
EJIF   91.19 308 eP     06 58.00   0.6
KDC    91.35  30 eP     06 58.26   0.6
       1.1s    44.05nm          5.7mb
EVAL   91.85 309 eP     07 01.50   1.1
KLU    92.52  25 eP     07 04.44   1.3
RES    93.12   3 eP     07 07.00   1.5
       1.0s     6.00nm          5.0mb
BALM   94.22  24 eP     07 12.12   1.0
HON   100.94  65 Pdiff  07 50.00   7.9X
    Z  20s     0.74um           5.2Msz
YKA   102.08  14 ePdiff07 45.50   -0.7
       1.0s     2.20nm          4.8mb
ORV   118.33  32 ePKP   12 35.69  -4.4X
CBM   119.30 347 ePKP   12 41.78   0.1
       0.7s    13.52nm
LMN   119.49 344 ePKP   12 39.50  -2.6
HVU   120.52  24 ePKP   12 44.61   0.2
BW06  120.86  21 ePKP   12 43.91  -1.2
MEMM  121.06  31 (PKP)  12 51.90   6.6X
EEO   121.25 355 ePKP   12 45.00  -0.4
RSSD  121.36  16 ePKP   12 45.68  -0.3
    Z  21s     0.30um           4.9Msz
DUG   121.85  25 ePKP   12 47.28   0.3
    Z  19s     0.28um           4.9Msz
                 e      13 01.48
DAU   122.29  24 ePKP   12 48.37   0.3
ISA   122.84  32 ePKP   12 49.38   0.5
TPNV  122.96  30 (PKP)  13 01.54  12.3X
MSU   123.53  26 ePKP   12 51.37   1.0
ARUT  123.58  27 ePKP   12 50.75   0.3
SRU   123.69  24 iPKP   12 50.71   0.1
GSC   123.98  31 ePKP   12 51.31   0.1
SSK   124.36  33 ePKP   12 53.58   1.5
                 e      12 59.71
PEC   124.89  33 ePKP   12 50.60  -2.3
       0.9s    21.97nm
GOL   125.02  19 ePKP   12 43.12 -10.2X
       0.8s    11.14nm
    Z  20s     0.21um           4.8Msz
PLM   125.46  33 ePKP   12 53.77  -0.5
TUC   129.34  29 ePKP   13 02.41   0.9
MIAR  132.84  10 PKP    13 20.00  12.0X
    Z  21s     0.29um           5.0Msz
MRX   144.52  27 (PKP)  13 29.00  -0.7
CRX   145.44  25 (PKP)  13 33.00   1.3
UNM   145.71  24 (PKP)  13 32.00  -0.1
PPM   146.17  24 (PKP)  13 34.50   1.3
III   146.45  26 (PKP)  13 34.50   1.3
IISM  146.71  22 (PKP)  13 36.00   2.7
ACX   147.61  27 (PKP)  13 33.00  -1.8
        S.D. = 1.0  on 243 of 262 obs.
-----------------------------------------
    MAR 19, 1993  16h 01m 10.29± 0.23s
    26.674 S ± 3.9km   70.954 W ± 5.8km
    DEPTH =  20.4km  ( 15 depth phases)
    5.4mb ( 30 obs.)  4.8Msz ( 13 obs.)
  NEAR COAST OF NORTHERN CHILE     (122)
       Mw 5.3 (HRV). Felt at Copiapo.
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 23S, 35C
       Centroid Location:
       Origin Time         16:01:14.9 0.4
       Lat 27.02S 0.07 Lon  71.56W 0.05
       Dep  15.0 FIX Half-duration   1.1
       Moment Tensor;    Scale 10**16 Nm
         Mrr= 8.20 0.38  Mtt= 1.41 0.34
         Mff=-9.61 0.44  Mrt=-0.70 0.98
         Mrf=-5.03 1.02  Mtf= 1.82 0.45
        Principal Axes:
         T  Val=  9.68   Plg=73  Azm=118
         N        1.45     10       355
         P      -11.13     14       263
```

19d 16h

Best Double Couple:Mo=1.0*10**17
NP1:Strike=339 Dip=32 Slip= 72
NP2: 181 60 101

ANT 3.00 9 iPc 01 56.50 -1.1
iS 02 34.70
CYA 4.91 112 iPc 02 27.30 2.5
S 03 27.00
RTLL 5.12 155 ePd 02 27.80 0.0
RTBS 5.14 166 ePd 02 29.00 1.0
RTCB 5.15 159 iPc 02 28.50 0.2
ZON 5.25 158 eP 02 30.00 0.4
SLA 5.29 70 ePd 02 30.00 -0.4
S 03 44.00
RTPR 5.32 134 e(P) 02 31.80 1.2
CFA 5.46 155 ePd 02 32.30 -0.3
RTCV 5.58 158 ePd 02 34.30 0.0
HJA 6.10 57 ePc 02 46.00 4.5X
IHA 6.36 185 eP 02 45.30 0.1
iS 04 19.80
MDZ 6.45 164 e(P) 02 46.60 0.0
i(S) 04 28.40
FCH 6.66 175 iP 02 56.41 6.7X
YJA 6.69 49 ePd 02 55.00 4.6X
(S) 03 20.00
PCH 6.93 177 iP 02 57.88 4.5X
CHCH 7.24 178 iP 03 02.51 4.9X
iS 04 37.51
MRA 7.32 143 ePc 02 58.00 -0.6
ARE 10.17 357 eP 03 36.00 -2.6
eS 05 31.00
CNCB 10.19 16 P 03 39.20 0.1
CCH 10.27 27 P 03 50.60 10.7X
LPB 10.43 15 P 03 42.90 0.6
1.0s 170.00nm 6.3mb
Z 15s 15.33um 4.9MszX
LR 07 30.00
ZOBO 10.66 15 P 03 44.80 -0.8
1.2s 97.97nm 6.0mb
Z 20s 3.07um 4.5MszX
LR 07 15.00
SIV 14.05 43 P 04 37.00 6.5X
NNA 15.63 338 eP 04 52.50 1.4
1.1s 50.63nm 4.7mb
eS 07 39.50
PPD 18.48 80 eP 05 28.90 2.0
e 05 30.70
eS 08 56.70
VAO 22.06 86 eP 06 05.60 -0.1
i 06 07.10 5kmX
e 06 09.40
e 06 14.40
BAO 24.03 67 iPd 06 24.00 -1.0
e 06 30.50 23km
e 13 26.10
BDF 24.08 68 iPd 06 23.80 -1.8
e 06 31.00 26km
e 13 26.90
CDCB 24.88 81 iPc 06 33.40 0.2
e 06 40.90 27km
SOB1 33.32 64 eP 07 49.00 -0.1
SNA 57.96 158 iPc 11 03.10 -0.1
0.8s 37.00nm 5.5mb
GOGA 60.93 348 P 11 30.00 6.0X
Z 19s 0.55um 4.7Msz
CEH 62.70 353 eP 11 33.69 -2.2
Z 21s 0.66um 4.8Msz
NVL 62.71 158 eP 11 34.00 -1.6
1.2s 63.00nm 5.6mb
e 11 38.00 13km
e 11 48.00
GBTN 63.26 348 eP 11 35.70 -3.9X
SPA 63.48 180 iPc 11 39.80 -1.3
1.1s 148.81nm 6.0mb
UYO 64.48 339 iPc 11 47.10 -0.6
MIAR 64.55 339 eP 11 47.73 -0.4
1.1s 31.62nm 5.4mb
Z 19s 0.26um 4.4Msz
i 11 54.30 21km
e 11 59.48
OLY 64.81 342 eP 11 49.03 -0.7
ELC 65.90 344 eP 11 55.74 -1.0
e 12 06.10 33kmX
WMOK 66.52 335 eP 11 59.06 -1.7
1.4s 31.25nm 5.3mb
e 12 06.56 24km
e 12 11.58

OCO 66.75 337 iPc 12 03.60 1.4
FVM 66.86 343 ePc 12 02.09 -0.8
1.2s 112.61nm 5.9mb
e 12 08.09 19km
e 12 13.42
ACO 68.40 336 iPc 12 12.50 -0.1
KDS 69.10 63 iPc 12 16.80 -0.5
TUC 69.86 325 eP 12 22.17 0.4
1.3s 21.03nm 5.1mb
Z 20s 0.54um 4.8Msz
e 12 28.26 20km
ALQ 69.89 329 ePc 12 22.81 0.8
1.3s 29.04nm 5.3mb
Z 20s 0.68um 4.9Msz
i 13 01.96 162kmX
RSNY 70.95 357 eP 12 27.72 -0.3
0.8s 25.90nm 5.4mb
LIC 71.65 73 P 12 32.44 -0.4
Z 21s 1.25um 5.2Msz
TIC 71.87 73 P 12 33.60 -0.6
KIC 71.97 73 Pc 12 34.52 -0.2
0.7s 22.50nm 5.3mb
ARUT 75.50 326 ePc 12 56.64 1.6
CER 76.05 120 eP 12 56.60 -1.7
1.0s 60.00nm 5.6mb
ISA 76.53 322 ePc 13 02.02 1.2
Z 21s 0.48um 4.8Msz
DAU 76.54 329 ePc 13 02.31 1.2
e 13 08.31 19km
RSSD 76.69 336 eP 13 02.41 0.7
0.8s 16.06nm 5.1mb
Z 21s 0.28um 4.6Msz
DUG 77.09 328 eP 13 05.42 1.5
1.3s 39.20nm 5.3mb
Z 20s 0.49um 4.8Msz
POF 78.13 117 iPc 13 09.00 -0.8
0.5s 8.00nm 5.0mb
MEMM 78.25 323 eP 13 11.95 1.8
HVU 78.32 329 eP 13 11.36 0.7
e 13 17.54 20km
e 13 23.41
WIN 78.55 110 iPc 13 16.00 3.5X
1.0s 40.00nm 5.4mb
CMB 79.31 322 P 13 30.00 14.0X
Z 19s 0.28um 4.6Msz
ARN 79.45 321 eP 13 16.95 0.1
ULM 79.71 344 eP 13 21.50 3.7X
MAW 79.92 164 P 13 19.10 0.3
JAQ 80.24 357 ePc 13 21.10 0.5
ORV 81.00 323 eP 13 26.24 1.3
i 13 31.97 18km
LCCM 81.18 332 ePc 13 27.20 1.3
FRS 82.22 119 iPc 13 32.20 0.6
1.2s 50.00nm 5.5mb
LBFM 82.49 324 eP 13 32.21 -0.7
BLF 83.18 119 iPc 13 36.00 -0.9
0.7s 77.00nm 6.0mb
TIO 83.54 51 iPc 13 40.00 1.5
SES 84.54 336 ePc 13 43.10 0.1
SEK 84.66 119 iPc 13 44.40 0.0
1.1s 70.00nm 5.8mb
AVE 84.84 49 iP 13 46.50 1.7
VGB 84.93 327 eP 13 46.02 1.0
PRY 85.18 118 eP 13 45.00 -2.0
0.5s 12.00nm 5.4mb
KSR 85.20 116 iPc 13 44.00 -3.1X
1.0s 50.00nm 5.7mb
NEW 85.30 331 eP 13 47.10 0.3
1.0s 19.82nm 5.3mb
e 13 52.61 17km
DPW 85.48 330 eP 13 48.32 0.6
e 13 54.50 19km
LON 86.32 328 eP 13 52.04 0.1
SLR 86.37 117 iPc 13 51.20 -1.7
0.8s 20.00nm 5.4mb
BMW 86.81 327 eP 13 55.08 0.8
e 14 01.31 20km
e 14 06.60
RMW 86.83 328 eP 13 54.03 -0.4
e 14 00.66 21km
FCC 87.26 348 eP 14 00.00 3.9X
BUL 89.25 112 iPd 14 06.70 -0.1
0.9s 16.81nm 5.3mb
LSZ 91.16 108 iP 14 17.20 1.5
BCAO 91.51 86 iPc 14 17.70 0.5
0.6s 20.00nm 5.7mb
YKA 95.44 341 eP 14 33.50 -0.6

1.1s 5.40nm 4.9mb
HON 96.80 290 P 14 50.00 8.9X
Z 20s 0.61um 5.1Msz
SIT 99.35 330 P 15 00.00 8.2X
Z 20s 1.23um 5.4Msz
LPL 100.56 44 ePdiff14 59.10 1.0
1.0s 5.00nm 5.0mb
LPG 100.57 44 ePdiff14 59.40 1.2
0.8s 4.45nm 5.1mb
PMR 107.73 331 PKP 19 50.00 13.1X
Z 20s 0.50um 5.1Msz
ASPA 124.49 208 ePKP 20 08.60 -1.6
0.4s 5.40nm
KIV 124.61 53 ePKP 20 10.00 0.1
1.5s 16.00nm
WB2 127.56 210 ePKP 20 14.80 -1.4
0.6s 8.20nm
WRA 127.57 210 PKP 20 03.00 -13.2X
NRI 135.51 10 ePKP 20 30.00 0.2
e 20 37.00
e 23 19.00
MAIO 137.06 64 ePKP 20 34.00 0.1
YAK 142.05 344 ePKP 20 38.70 -3.3X
1.0s 30.00nm
QUE 142.96 75 ePKP 20 42.90 -2.0
GUA 144.01 256 ePKP 20 43.90 -2.8
0.8s 41.79nm
PJG 144.07 256 ePKP 20 44.00 -2.8
LEM 146.67 177 ePKPc 20 53.50 2.0
GBA 147.70 107 PKP 20 53.00 0.2
FRU 147.71 51 ePKP 20 53.00 0.8
2.0s 240.00nm
i 20 56.60
i 21 02.00
ELT 148.50 26 ePKP 20 53.00 0.0
2.4s 68.00nm
BOD 148.63 355 ePKP 20 54.90 1.8
1.2s 47.00nm
HYB 150.34 102 ePKP 20 57.50 0.6
1.0s 70.00nm
i 21 03.00
PRZ 150.45 50 iPKPd 21 03.50 6.9X
MNI 150.68 214 ePKP 21 02.70 5.2X
NDI 151.78 79 iPKPc 21 06.00 7.2X
MAT 153.37 299 ePKP 20 58.00 -2.8
ZAK 155.92 9 ePKP 21 05.60 1.9
2.6s 53.00nm
e 21 32.00
e 25 09.00

S.D. = 1.2 on 94 of 116 obs.

MAR 19, 1993 16h 25m 22.61± 0.26s
0.409 N ± 4.2km 126.262 E ± 6.7km
DEPTH = 33.0km (normal)
5.0mb (19 obs.)
NORTHERN MOLUCCA SEA (266)

AAI 4.50 155 ePc 26 31.70 1.4
eS 27 32.00
SWI 5.15 104 ePc 26 40.50 1.0
eS 27 37.00
CGP 8.14 349 eP 27 28.00 6.5X
TSM 9.23 295 ePd 27 37.90 1.4
MTN 14.03 160 eP 28 40.00 -1.3
CVP 17.73 346 eP 29 30.00 1.2
LEM 19.94 249 ePc 29 55.00 0.0
WB2 21.73 159 iPd 30 11.90 -1.2
0.3s 63.50nm 5.5mb
eS 34 09.20
MBL 22.34 196 eP 30 18.70 -0.5
PMG 22.98 116 eP 30 27.00 1.5
ASPA 25.06 163 iPd 30 45.40 -0.2
0.5s 160.80nm 5.9mb
WARB 26.44 179 eP 30 58.50 0.0
0.4s 8.00nm 4.7mb
CTA 28.26 137 iP 31 15.00 -0.1
FORT 31.06 177 iPd 31 39.30 -0.6
QLP 31.94 149 iPd 31 46.70 -1.0
TKSJ 34.19 12 eP 32 07.20 0.1
RMQ 34.42 143 iPd 32 08.10 -1.2
WKYJ 34.75 14 eP 32 11.40 -0.7
HNR 34.93 107 eP 32 12.00 -1.8
STK 35.24 157 iPd 32 15.70 -0.5
0.7s 21.00nm 5.2mb
YONJ 35.25 10 eP 32 16.10 -0.1
CMS 36.75 151 eP 32 29.00 0.1
MAT 37.62 16 (P) 32 35.00 -1.2

ARMA 39.02 144 iPd 32 48.30 0.2
0.9s 56.00nm 5.3mb
BFD 40.32 160 iPd 32 58.40 -0.3
0.6s 5.00nm 4.4mb
BWA 40.40 151 eP 33 00.90 1.5
BJI 40.50 348 eP 32 59.00 -1.1
1.4s 33.00nm 4.9mb
LZH 41.15 332 eP 33 06.00 0.3
1.2s 25.00nm 4.8mb
CAN 41.40 151 eP 33 08.10 0.5
CNB 41.57 151 eP 33 10.40 1.4
0.8s 12.00nm 4.7mb
TOO 41.76 157 eP 33 12.30 1.8
1.0s 31.00nm 5.0mb
VLA 42.82 6 eP 33 21.00 1.9
KUSJ 45.60 19 eP 33 40.40 -1.1
ASAJ 45.90 16 eP 33 43.50 -0.3
GBA 50.08 287 P 34 16.00 -0.8
e 35 37.00
CIT 52.50 350 eP 34 36.50 1.8
ZAK 53.50 342 eP 34 42.00 0.0
1.3s 8.00nm 4.6mb
e 35 51.50
IRK 54.86 344 eP 34 53.20 1.1
BOD 58.07 352 eP 35 13.70 -1.1
1.3s 20.00nm 5.0mb
YAK 61.51 2 eP 35 37.00 -1.3
MGD 62.49 14 eP 35 44.00 -1.0
1.0s 40.00nm 5.5mb
MAIO 71.17 308 eP 36 40.00 -0.5
NRI 73.45 347 eP 36 51.00 -2.2
0.6s 9.00nm 4.9mb
e 37 13.00
SVE 76.53 329 ePd 37 11.00 -0.1
ARU 77.46 328 eP 37 16.00 -0.2
SDN 80.18 34 eP 37 31.16 0.1
0.6s 111.42nm 6.0mb X
GRS 81.96 310 iPc 37 41.00 0.0
1.2s 60.00nm 5.5mb
SVW 83.90 29 iPc 37 52.00 1.6
0.6s 11.08nm 5.2mb
TTA 84.06 27 ePd 37 52.41 1.2
0.8s 4.99nm 4.7mb
KIV 85.08 314 eP 37 57.50 0.8
1.3s 21.00nm 5.2mb
FBA 87.90 25 (P) 38 10.00 0.0
KAF 94.30 332 eP 38 45.00 5.3X
YKA 102.69 25 ePdiff39 16.80 -0.8
0.5s 0.30nm 4.2mb
CNCB 158.49 140 PKP 45 26.00 6.6X
ZOBO 158.78 139 ePKP 45 13.00 -6.8X
SIV 162.91 155 (PKP) 45 35.00 11.7X
i 46 24.00
S.D. = 1.1 on 51 of 56 obs.

? MAR 19, 1993 16h 26m 43.78± 0.88s
6.571 N ±26.4km 72.719 W ±23.6km
DEPTH = 195.0 ± 18.0 km
3.9mb (1 obs.)
NORTHERN COLOMBIA (99)

BOG 2.35 215 eP 27 26.50 0.0
eS 28 59.00
SDV 3.09 42 iPnd 27 34.80 -0.1
eSn 28 13.30
TOV 4.31 42 ePnc 27 50.20 0.2
iPP 27 50.40
iSn 28 40.10
CEOS 4.98 60 iP 27 58.30 -0.3
iS 28 56.50
OLLA 6.78 59 iP 28 22.30 0.3
YKA 63.63 340 eP 36 55.80 0.0
0.6s 1.30nm 3.9mb
ASPA 149.29 234 ePKP 46 14.60 7.6X
0.7s 3.60nm
WB2 150.55 241 iPKPd 46 17.50 8.6X
0.4s 5.50nm
S.D. = 0.3 on 6 of 8 obs.

MAR 19, 1993 16h 34m 16.64± 0.61s
26.890 S ± 6.3km 26.678 E ± 5.7km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.2 (PRE). mbLg 3.1 (BUL).

BFS 0.10 95 iPd 34 19.50 0.6
S 34 20.30
PRY 0.71 93 eP 34 30.00 -0.9
S 34 38.50
KSR 1.04 11 iPc 34 37.50 0.7
S 34 50.00
SWZ 1.24 256 iPd 34 39.60 -0.7
S 34 56.00
BPI 1.40 60 iPc 34 43.40 0.3
SEK 1.66 150 iPd 34 47.20 0.6
S 35 08.60
SLR 1.84 52 iPd 34 49.80 0.5
S 35 12.50
BLF 2.25 191 iPd 34 55.50 0.2
S 35 22.00
FRS 3.09 202 e(P) 35 07.10 0.1
S 35 43.60
BFT 3.25 69 eP 35 08.00 -1.5
S 35 45.90
BUL 6.95 15 iPn 35 56.00 -5.7X
SUR 7.48 222 e(P) 36 05.00 -4.3X
S 37 25.50
MTD 11.04 25 iPn 36 50.80 -7.6X
iSb 39 12.00
iLg 39 52.20
S.D. = 0.8 on 10 of 13 obs.

MAR 19, 1993 16h 51m 19.92± 2.38s
18.639 S ±13.4km 175.363 W ±19.4km
DEPTH = 292.4 ± 19.5 km
4.4mb (6 obs.)
TONGA ISLANDS (173)

SVA 5.89 274 iPd 52 48.10 -0.2
KUZ 19.67 202 P 55 29.50 0.8
URZ 20.62 197 P 55 36.60 -1.4
NOZ 20.72 195 P 55 40.70 1.8
WLZ 20.73 201 P 55 40.40 1.4
TAZ 20.77 198 eP 55 41.30 1.9
PATZ 20.98 199 eP 55 42.20 0.6
NGZ 21.92 199 P 55 50.30 -0.4
MNG 23.28 198 P 56 01.00 -2.5
QRZ 24.44 203 P 56 14.20 0.1
THZ 25.13 201 P 56 19.70 -0.8
DSZ 25.50 203 eP 56 24.20 0.3
LTZ 26.25 201 P 56 27.90 -2.7
MQZ 26.95 199 P 56 40.80 3.9X
CNB 35.32 235 eP 57 50.40 0.8
0.9s 11.00nm 4.4mb
CMS 37.22 242 iPd 58 05.90 0.4
0.5s 5.00nm 4.2mb
STK 40.84 243 iPc 58 35.90 0.6
0.7s 1.80nm 3.5mb
WB2 47.34 260 iPd 59 26.60 -0.3
0.3s 53.60nm 5.4mb
ASPA 47.39 255 iPd 59 27.80 0.5
0.8s 52.40nm 4.9mb
WARB 53.77 251 eP 00 14.50 -0.6
0.4s 3.00nm 4.1mb
MBL 60.61 256 eP 01 02.00 -0.8
NANU 64.29 253 eP 01 27.00 0.2
PV09 84.09 46 eP 03 20.00 0.3
GEC2 148.99 348 PKP 10 35.90 5.6X
0.6s 0.86nm
S.D. = 1.3 on 22 of 24 obs.

MAR 19, 1993 17h 47m 52.24± 0.30s
83.748 N ± 6.4km 113.721 E ± 5.2km
DEPTH = 10.0km (geophysicist)
4.7mb (27 obs.)
NORTH OF SEVERNAYA ZEMLYA (651)

TIK 12.51 158 iPc 50 52.50 -0.3
2.0s 21.00nm 5.0mb
NRI 15.29 215 eP 51 25.00 -4.2X
DAG 18.16 327 eP 52 04.00 -1.4
1.0s 13.00nm 4.0mb
BRW 19.75 73 ePc 52 26.31 1.8
e 52 33.10
ILT 20.63 97 iPc 52 33.50 -0.2
1.0s 10.00nm 4.1mb
i 53 00.50
RES 21.15 21 eP 52 46.00 7.1X
1.0s 4.00nm 3.8mb
YAK 22.16 160 eP 52 48.30 -0.9
1.2s 40.00nm 4.7mb
SDF 23.24 282 iP 53 08.00 8.2X
IMA 25.11 74 eP 53 19.02 0.9
MGD 25.31 135 eP 53 20.00 0.2
e 54 05.00
BOD 26.03 179 eP 53 25.70 -0.9
1.5s 27.00nm 4.7mb
FBA 26.86 69 eP 53 37.59 3.4X
0.6s 3.68nm 4.2mb
KAF 28.41 279 eP 53 47.50 -0.7
0.3s 2.50nm 4.5mb
SVE 29.96 242 ePd 54 10.00 7.8X
e 55 07.00
NB2 31.05 293 P 54 12.40 0.6
0.7s 2.60nm 4.2mb
IRK 31.72 191 eP 54 24.20 6.5X
e 55 19.40
CIT 31.89 180 eP 54 15.00 -4.3X
YKA 32.17 41 eP 54 19.20 -2.3
1.1s 1.90nm 3.9mb
ZAK 33.63 192 eP 54 44.00 9.7X
1.8s 14.00nm 4.6mb
OBN 34.16 266 eP 54 47.00 8.1X
e 55 53.00
e 56 15.00
e 57 12.00
YSS 37.77 147 (P) 55 10.50 1.0
CLL 40.45 288 e(P) 55 31.00 -0.8
GRF 42.23 289 eP 55 50.00 3.6X
DOU 42.50 296 P 55 49.70 1.1
e 55 57.10
GEC2 42.81 287 P 55 51.90 0.6
0.9s 1.27nm 3.7mb X
e 55 59.70
e 56 08.10
BJI 43.86 177 eP 56 00.00 0.3
2.0s 62.00nm 5.1mb
CDF 43.90 293 eP 56 00.40 0.3
1.0s 10.40nm 4.6mb
HAU 44.40 294 eP 56 04.30 0.2
1.1s 17.85nm 4.8mb
KIV 44.50 257 (P) 56 05.90 0.8
1.1s 24.00nm 5.0mb
LOR 45.37 296 eP 56 11.40 -0.5
1.0s 6.80nm 4.6mb
SSF 45.61 296 eP 56 13.30 -0.5
1.1s 13.45nm 4.8mb
LBF 45.64 296 eP 56 13.50 -0.6
1.1s 16.10nm 4.9mb
AVF 45.90 296 eP 56 15.80 -0.2
1.3s 13.00nm 4.8mb
SMF 45.99 296 eP 56 16.20 -0.6
0.8s 5.10nm 4.6mb
BGF 46.18 297 eP 56 18.00 -0.2
1.1s 18.30nm 5.0mb
TCF 46.51 297 eP 56 20.40 -0.5
1.0s 9.60nm 4.8mb
MAF 46.54 297 eP 56 20.80 -0.3
1.2s 13.10nm 4.9mb
LPL 46.82 293 eP 56 25.80 2.2
1.0s 5.60nm 4.6mb
LPG 46.84 293 eP 56 25.50 1.7
1.0s 6.20nm 4.6mb
LZH 47.91 191 eP 56 37.00 4.8X
VGB 48.55 50 ePc 56 37.35 0.5
MAIO 50.38 238 eP 56 52.00 0.9
RSSD 51.16 34 ePd 56 56.52 -0.6
0.9s 8.05nm 4.7mb
PAB 53.81 302 eP 57 17.00 0.2
DUG 54.46 43 (P) 57 21.32 -0.4
e 57 31.54
GBA 71.44 217 P 59 12.00 -2.3
BCAO 86.19 276 iPc 00 34.00 -0.6
0.6s 6.00nm 5.0mb
i 00 43.00
KIC 86.71 299 P 00 37.60 0.5
LIC 86.87 299 P 00 38.50 0.6
S.D. = 1.0 on 38 of 49 obs.

---

* MAR 19, 1993 18h 21m 33.85± 0.94s
37.356 N ±13.1km 72.455 E ±14.0km
DEPTH = 33.0km (normal)
4.4mb (4 obs.)
TAJIKISTAN (715)

QUE 8.49 214 eP 23 38.90 1.2
eS 25 06.40
NDI 9.53 154 iPc 23 50.00 -1.8
eS 25 38.50
MAIO 10.44 268 iPnc 24 03.40 -1.1
eSn 25 43.00

HYB 20.58 163 eP 26 16.00 3.4X
GBA 24.07 168 P 26 48.00 0.9
S 31 16.00
LZH 25.14 83 eP 27 06.00 8.5X
1.2s 20.00nm 4.6mb
FBA 73.32 17 eP 33 04.90 1.4
1.0s 6.00nm 4.5mb
YKA 80.33 3 eP 33 41.50 -1.1
0.6s 0.70nm 3.8mb
WB2 81.47 123 eP 33 49.80 0.5
0.7s 2.20nm 4.3mb
S.D. = 1.6 on 7 of 9 obs.

& MAR 19, 1993 18h 23m 50.66s
34.875 N 116.947 W
DEPTH = 8.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.6 (PAS), 3.4 (GS). Felt (IV) at Daggett. Also felt at Barstow and Yermo.

SSK 0.90 223 ePd 24 07.19 -1.1
S 24 18.92
PEC 1.00 190 iPd 24 08.79 -1.0
S 24 21.27
ISA 1.48 303 ePc 24 15.91 -1.7
S 24 37.06
PLM 1.52 177 ePd 24 17.27 -1.1
S 24 37.94
TPNV 2.15 15 ePn 24 26.10 -1.3
ePg 24 29.97
GLA 2.53 135 ePn 24 29.57 -3.2
BCH 2.59 278 ePnd 24 31.63 -2.1
PKEM 2.84 296 eP 24 35.68 -1.5
PHAM 2.98 290 ePn 24 37.26 -1.8
ePg 24 44.07
TNP 3.21 356 ePnc 24 41.23 -1.3
ePg 24 49.46
S 25 33.64
MEMM 3.22 331 (Pn) 24 41.07 -1.3
ePg 24 49.70
BONR 3.26 341 ePn 24 42.50 -0.9
ARUT 4.06 43 eP 24 53.11 -1.4
CMB 4.20 320 ePn 24 54.31 -2.1
KVN 4.27 348 ePg 25 10.56 13.0
ARN 4.46 305 ePnc 24 58.38 -1.7
MSU 5.28 45 ePn 25 10.75 -1.2
ePg 25 27.12
DUG 6.24 31 (Pn) 25 23.93 -1.5
ePg 25 46.34
HVU 7.63 24 (Pn) 25 47.18 2.2
ePg 26 12.54
19 obs. associated

MAR 19, 1993 18h 41m 32.01± 0.59s
40.582 N ± 4.7km 23.482 E ± 5.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH 0.26 338 ePg 41 37.66 0.2
eSg 41 41.42
THE 0.40 277 ePg 41 39.86 -0.3
eSg 41 44.90
OUR 0.45 123 ePg 41 41.58 0.3
eSg 41 47.92
SRS 0.54 9 ePg 41 42.86 -0.1
eSg 41 50.72
PAIG 0.67 167 ePg 41 44.82 -0.5
eSg 41 54.82
KNT 0.73 323 ePg 41 45.70 -0.6
eSg 41 56.48
LIT 0.90 238 ePg 41 49.70 0.5
eSg 42 02.10
VAY 1.01 317 ePn 41 51.70 0.6
S.D. = 0.5 on 8 of 8 obs.

• MAR 19, 1993 19h 15m 02.46± 1.39s
50.457 N ±16.3km 18.924 E ± 7.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.4 (WAR).

RAC 0.60 232 iPc 15 13.20 -1.4
i 15 15.00
iS 15 20.00
OJC 0.61 113 iPg 15 14.70 0.0
iSg 15 23.00
SPC 1.53 146 iPn 15 29.50 -0.5
i 15 47.00
i(Sg) 15 50.30
Lg 15 53.00
KSP 1.72 284 ePn 15 32.80 0.2
0.5s 89.00nm
iPg 15 35.60
iSg 15 59.40
VRAC 1.90 234 ePn 15 34.60 -0.5
0.7s 167.70nm
e 15 36.30
eSg 15 58.00
ZST 2.56 208 eP 15 46.90 2.3
i 16 22.10
Lg 16 26.50
PSZ 2.62 166 ePn 15 49.70 4.1X
SRO 2.68 189 e(Pn) 15 49.30 2.9X
i 16 01.50
i 16 18.30
i 16 33.80
VKA 2.78 219 ePn 15 54.00 6.2X
i 16 17.70
i 16 36.80
PRU 2.85 262 eP 15 49.30 0.5
0.9s 32.90nm
Pg 15 55.50
e 15 57.70
Sg 16 31.70
BRG 3.20 279 iPg 16 04.00 10.3X
iSg 16 42.00
KHC 3.71 251 ePn 16 06.00 4.9X
e 16 10.00
GEC2 3.76 247 Pn 16 01.30 -0.5
Pg 16 09.30
Sg 16 55.30
MOX 4.66 275 (Pn) 16 31.00 16.4X
(Sg) 17 28.00
KBA 5.00 230 eP 16 33.00 13.5X
0.8s 22.20nm
i 17 30.10
i 17 37.50
i 17 44.10
GRF 5.02 264 e(Pg) 16 39.00 19.4X
eSg 17 41.20
S.D. = 1.3 on 8 of 16 obs.

MAR 19, 1993 19h 54m 17.54± 0.51s
23.965 S ± 6.6km 66.692 W ± 8.9km
DEPTH = 214.8 ± 6.3 km
4.2mb (5 obs.)
JUJUY PROVINCE, ARGENTINA (128)

SLA 1.33 125 iPd 54 53.20 1.5
S 55 19.60
HJA 1.40 58 iPd 54 53.00 1.0
YJA 2.10 32 iPd 54 59.50 0.5
S 55 28.20
FSA 2.20 164 iPd 55 01.00 1.5
(S) 55 32.50
ANT 3.42 274 iP 55 11.60 -1.7
iS 55 50.20
CYA 4.53 170 ePc 55 28.30 1.3
S 56 21.20
CNCB 7.22 350 P 56 02.50 0.5
S 57 23.00
RTLL 7.50 192 ePd 56 04.40 -0.8
S 57 26.00
LPB 7.51 350 P 56 06.00 0.3
eS 57 22.00
RTCB 7.72 194 eP 56 07.50 -0.6
S 57 29.70
CFA 7.73 190 e(P) 56 07.30 -0.9
ZOBO 7.76 350 iPc 56 08.60 -0.5
S 57 34.30
MRA 8.46 174 eP 56 16.00 -1.6
ARE 8.72 328 eP 56 19.00 -2.3
eS 57 53.00
PPD 14.29 85 eP 57 32.90 1.1
VAO 18.12 91 eP 58 14.70 -1.5
e 58 16.10
BAO 19.43 68 iPd 58 27.30 -2.5
BDF 19.49 68 eP 58 28.00 -2.4
MIAR 63.54 335 (P) 04 24.96 -2.2
0.8s 3.71nm 4.2mb
LIC 67.16 72 P 04 50.90 0.3
KIC 67.47 72 P 04 50.80 -1.8
LMN 69.50 1 eP 05 07.00 2.6
ALQ 69.67 326 eP 05 06.70 0.8
EEO 71.16 351 eP 05 17.50 3.1X
ARUT 75.51 323 eP 05 42.06 2.1
RSSD 75.90 333 eP 05 41.20 -0.9
1.0s 4.61nm 4.2mb
BW06 77.27 329 eP 05 50.00 0.3
1.4s 5.59nm 4.1mb
JAO 77.83 355 eP 05 51.50 -0.7
ULM 78.28 341 eP 05 58.00 3.2X
MCMT 80.38 329 eP 06 07.90 1.5
ORV 81.29 320 eP 06 12.69 1.7
DPW 85.14 328 eP 06 31.63 1.2
FCC 85.49 346 eP 06 35.50 3.7X
BUL 86.63 110 iPd 06 40.10 1.7
0.8s 4.10nm 4.3mb
YKA 94.19 340 eP 07 07.90 -4.5X
0.6s 1.20nm 4.2mb
WB2 131.78 207 ePKP 13 08.50 1.3
0.2s 4.60nm
GBA 144.60 100 PKP 13 30.00 -0.6
BOD 146.14 359 iPKPc 13 23.80 -8.2X
0.7s 22.00nm
HYB 146.90 95 ePKP 13 38.00 3.6X
S.D. = 1.6 on 33 of 39 obs.

MAR 19, 1993 20h 05m 20.53± 0.72s
41.931 N ± 6.8km 46.693 E ± 5.4km
DEPTH = 67.0 ± 8.7 km
4.5mb (23 obs.)
EASTERN CAUCASUS (337)

MAK 1.22 27 iPd- 05 42.40 0.5
MTA 1.43 261 iPd- 05 42.40 -2.5
GRO 1.60 333 iP 05 50.00 2.8X
i 06 16.00
SHE 1.95 131 iPc 05 51.50 -0.5
GRS 2.44 187 iPd- 05 54.20 -4.9X
BAK 2.87 122 iP 06 04.00 -0.9
iS 06 38.00
PYA 3.40 309 ePd 06 12.00 -0.2
i 06 57.00
TAB 3.87 184 eP 06 21.00 2.0
TBZ 5.28 262 eP 06 40.00 1.3
TEH 7.19 148 eP 07 05.00 -0.3
KER 7.57 177 e(P) 07 12.00 1.3
ASH 9.79 110 eP 07 34.40 -6.6X
S 09 27.60
MAIO 11.42 115 eP 08 03.00 -0.1
eS 09 59.00
OBN 14.76 337 iPd 08 42.50 -4.2X
1.0s 32.00nm 4.6mb
i 11 25.00
VRI 14.92 292 eP 08 52.00 3.1X
MOS 15.03 340 eP 08 55.00 4.8X
MLR 15.41 290 eP 09 00.00 4.6X
CMP 16.03 289 ePc 09 10.00 6.9X
ARU 16.40 24 eP 09 06.00 -1.6
eS 12 04.00
SVE 17.39 26 ePc 09 15.00 -4.8X
1.1s 60.00nm 4.7mb
Z 17s 1.00um 4.1Msz
N 18s 0.50um
E 18s 0.70um
UZH 18.38 300 eP 09 38.50 6.4X
OHR 19.39 276 eP 09 43.50 -0.3
SPC 19.82 300 eP 09 48.50 0.1
i 10 11.10
QUE 20.08 119 eP 09 53.40 2.2
OJC 20.33 303 eP 09 57.00 3.6X
PUL 20.53 336 (P) 09 54.00 -1.3
1.2s 90.00nm 5.0mb
FRU 20.61 78 eP 09 55.00 -1.5
1.6s 40.00nm 4.5mb
e 14 13.00
SRO 20.89 296 iP 10 06.00 6.9X
ZST 21.73 297 eP 10 08.90 1.3
KSP 22.65 304 eP 10 19.30 2.7
VBY 22.92 290 e(P) 10 23.30 4.0X
NUR 22.96 332 eP 10 21.00 1.5
0.3s 2.20nm 4.1mb
i 10 27.50
PRZ 23.43 78 iPc 10 25.50 1.1
1.0s 50.00nm 4.9mb
KAF 23.59 336 eP 10 25.70 0.1
0.3s 1.20nm 3.8mb
GEC2 24.04 298 Pd 10 32.60 2.3
0.7s 1.81nm 3.7mb

```
                 e      10 34.30
                 e      10 37.20
                 e      10 38.90
BRG    24.12 303 e(P)   10 28.50   -2.4
KHC    24.15 299 eP     10 33.00    1.8
                 e      12 12.50
KBA    24.22 294 iPd    10 33.40    1.3
       0.9s    13.10nm           4.4mb
                 i      10 36.80
CLL    24.77 304 iPd    10 39.30    2.2
       1.1s    14.00nm           4.3mb
GRF    25.72 300 e(P)   10 45.00   -1.1
SDF    27.83 343 eP     11 11.00    6.0X
SBF    28.64 287 eP     11 12.80    0.1
       0.7s     5.85nm           4.3mb
NB2    28.68 324 P      11 10.00   -2.8
       0.4s     0.60nm           3.6mb
LPG    28.88 291 eP     11 15.40    0.3
       0.6s     1.45nm           3.8mb
LPL    28.89 291 eP     11 14.40   -0.7
       0.7s     3.30nm           4.1mb
FRF    29.26 287 eP     11 18.00   -0.2
       0.8s     8.35nm           4.4mb
NRI    34.84  24 iPd    12 07.90    1.3
       1.0s    15.00nm           4.9mb
                 e      13 19.00
GBA    38.82 128 P      12 40.00   -0.5
ZAK    39.24  58 eP     12 43.00   -0.7
       1.0s     4.00nm           4.3mb
LZH    44.09  78 iPc    13 24.50    0.7
       1.2s    23.00nm           4.9mb
BCAO   45.00 222 iPc    13 29.00   -2.1
       0.6s     6.00nm           4.6mb
TIK    48.42  25 eP     13 57.00   -0.3
       2.0s    20.00nm           4.8mb
TIC    57.60 247 P      15 04.20   -1.7
KIC    57.61 247 P      15 04.40   -1.6
LIC    57.91 247 P      15 06.60   -1.4
       0.5s    10.00nm           5.2mb
ILT    65.29  17 iPd    15 56.00   -0.9
       1.0s    13.00nm           4.8mb
FBA    72.90   6 (P)    16 43.52   -0.2
YKA    74.84 351 eP     16 54.70   -0.3
       0.6s     1.10nm           4.0mb
KLU    76.42   6 ePc    17 06.08    2.0
                 e      17 13.76
     S.D. = 1.5  on  45 of  59 obs.
----------------------------------------
    MAR 19, 1993  20h 09m 57.33± 0.51s
    26.360 S ± 4.8km   27.398 E ± 5.8km
    DEPTH =   5.0km  (geophysicist)
  REPUBLIC OF SOUTH AFRICA       (584)
       ML 3.3 (PRE). mbLg 3.2 (BUL).

PRY     0.57 173 eP     10 08.60   -0.2
                 S      10 15.00
BPI     0.60  72 eP     10 09.40    0.1
                 S      10 20.00
KSR     0.67 317 iPd    10 12.00    1.3
                 S      10 20.00
BFS     0.77 226 iPc    10 13.00    0.2
                 S      10 22.70
SLR     1.01  52 iPd    10 18.00    1.0
                 S      10 30.50
SEK     1.97 174 iPd    10 32.60    0.8
                 S      10 57.00
SWZ     2.03 246 eP     10 33.20    0.5
                 S      10 56.80
BFT     2.47  75 eP     10 40.00    0.8
                 S      11 16.50
BLF     2.94 201 eP     10 45.60   -0.1
                 S      11 11.00
FRS     3.84 208 eP     10 57.00   -1.4
                 S      11 39.50
BUL     6.29  10 iPn    11 33.40    0.2
                 iSn    12 39.90
                 iSg    13 16.00
GRM     6.97 186 eP     11 49.10    6.5X
SUR     8.30 222 e(P)   11 57.00   -4.5X
CER     9.91 223 e(P)   12 19.60   -3.9X
                 (S)    14 10.00
MTD    10.30  23 iPn    12 27.00   -1.9
                 iSn    14 24.40
                 iLg    15 25.10
LSZ    11.05   4 ePn    12 38.00   -1.3
     S.D. = 1.1  on  13 of  16 obs.
----------------------------------------
```

```
*  MAR 19, 1993  22h 11m 52.93± 1.27s
   29.066 N ±14.5km  129.379 E ±12.3km
   DEPTH =  33.0km  (normal)
   4.3mb (  7 obs.)
 RYUKYU ISLANDS                   (238)

KAGJ     2.49  31 P      12 30.50   -1.5
KUMJ     3.68  19 P      12 50.70    1.9
SSE      7.38 288 eP     14 07.50   26.4X
NJ2      9.55 291 eP     14 09.00   -2.1
     Z  11s      0.63um
CN2     15.04 349 eP     15 30.60    6.0X
        1.2s    26.00nm           4.4mb
     Z  10s      1.28um           3.8Msz
     N  10s      1.00um
     E  10s      0.49um
BJI     15.41 319 eP     15 30.50    1.0
     Z  13s      0.71um
                  sS     18 32.00
MDJ     15.52   1 eP     15 33.10    2.2
TIY     16.55 306 eP     15 48.30    4.1X
     Z  13s      0.96um
     N  17s      0.97um
XAN     18.12 291 P      16 05.60    1.9
                  pP     16 10.00
                  sP     16 13.50
HHC     18.71 314 Pc     16 10.80   -0.1
        1.2s    16.00nm           4.1mb
     Z  11s      1.11um           3.5Msz
     E  10s      0.63um
                  sS     19 53.00
BTO     19.57 311 eP     16 20.00   -1.1
     N  12s      0.19um
     E  12s      0.28um
                  sS     20 10.00
GYA     20.26 268 P      16 29.40    0.9
     Z  14s      0.83um           4.2MszX
     N  12s      0.85um
     E  12s      0.58um
                  sS     20 18.00
CD2     22.26 281 Pc     16 49.30    0.7
        1.2s    51.00nm           4.8mb
LZH     22.59 295 eP     16 53.00    1.0
        1.5s    40.00nm           4.7mb
     Z  14s      0.44um           4.0MszX
                  pP     17 02.50   35kmX
GTA     26.42 301 eP     17 27.00   -1.6
     Z  15s      0.57um           4.2MszX
     E  10s      0.44um
IRK     29.71 328 eP     17 55.70   -2.3
        1.4s    14.00nm           4.5mb
     Z  12s      0.50um           4.4MszX
     N  11s      0.29um
     E  10s      0.34um
                  e      18 27.40
                  LR     30 46.00
WRA     48.96 174 P      20 39.00    0.8
        0.6s     0.50nm           3.7mb
YKA     75.54  26 eP     23 33.70   -1.8
        0.8s     0.90nm           3.8mb
      S.D. = 1.7  on  15 of  18 obs.
----------------------------------------
%  MAR 19, 1993  23h 00m 57.30± 2.39s
   39.344 N ±18.4km   20.462 E ±14.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION     (392)

IGT      0.21 332 ePg    01 01.72   -0.2
                  eSg    01 06.28
AGG      1.49 102 ePb    01 24.12    0.0
                  eSb    01 47.28
FNA      1.60  26 ePb    01 25.11   -0.6
                  eSb    01 47.80
LIT      1.74  64 ePn    01 27.44   -0.3
                  eSn    01 53.64
OHR      1.78   8 iPn    01 29.30    0.9
GRG      2.19  42 ePn    01 33.98   -0.3
                  eSn    02 03.98
SOH      2.66  55 ePn    01 41.68    0.6
      S.D. = 0.7  on   7 of   7 obs.
----------------------------------------
&  MAR 19, 1993  23h 16m 35.31s
   33.999 N             116.307 W
   DEPTH =   5.4km
 SOUTHERN CALIFORNIA              ( 43)
      <PAS-P>. ML 2.8 (PAS).
```

```
PEC      0.72 262 ePc    16 48.41   -1.3
                  S      16 57.10
PLM      0.79 216 eP     16 50.02   -1.3
                  S      16 59.92
SSK      1.17 281 eP     16 56.50   -1.2
                  S      17 12.60
GSC      1.36 343 ePc    16 59.73   -1.2
                  S      17 17.70
GLA      1.56 127 eP     17 03.63   -0.1
ISA      2.44 314 ePn    17 14.74   -1.7
                  ePg    17 19.56
BCH      3.33 292 (P)    17 25.13   -4.1
         7 obs. associated
----------------------------------------
    MAR 20, 1993  00h 17m 29.45± 0.83s
    18.942 N ± 4.7km  145.251 E ±12.1km
    DEPTH = 252.7 ±  9.9 km
    4.4mb ( 15 obs.)
 MARIANA ISLANDS                  (216)

GUMO     5.34 184 Pg     18 50.20    0.2
                  e(S)   19 50.20
PJG      5.34 184 Pn     18 49.40   -0.6
GUA      5.38 184 Pg     18 50.80    0.2
         0.3s   197.40nm          5.5mb X
                  e(S)   19 48.30
WKYJ    17.48 332 eP     21 19.40    0.7
IIDJ    17.71 340 P      21 21.70    0.6
KAKJ    17.77 346 P      21 19.00   -2.7
                  eS     24 33.30
CHJJ    17.91 343 P      21 23.50    0.3
                  eS     24 34.70
TKSJ    18.01 329 eP     21 29.50    5.4X
MAT     18.60 342 eP     21 29.00   -1.3
         0.8s    22.39nm          4.7mb
                  eS     24 49.00
MTMJ    18.76 341 P      21 31.70   -0.3
NIIJ    19.03 345 P      21 35.70    1.0
YAMJ    19.69 348 eP     21 42.80    1.5
                  eS     25 22.40
OFUJ    20.31 352 eP     21 48.70    1.3
                  eS     25 42.80
MRRJ    23.68 352 eP     22 20.70    0.9
KUSJ    24.09 359 eP     22 23.30   -0.3
ASAJ    25.20 356 P      22 35.10    1.3
WB2     40.10 196 iPc    24 42.90    0.7
         0.3s    44.70nm          5.4mb
WRA     40.10 196 P      24 43.20    0.9
ASPA    43.77 195 iPc    25 12.50    0.4
         0.4s    25.00nm          4.9mb
YAK     44.38 350 iPd    25 15.80   -0.6
         0.9s    61.00nm          4.9mb
DZM     45.73 152 iPc    25 27.00   -0.6
WARB    48.36 203 eP     25 49.00    1.1
         0.3s     9.00nm          4.6mb
STK     50.65 184 eP     26 04.00   -1.2
         0.3s     3.20nm          4.2mb
BWA     53.15 177 eP     26 23.00   -0.7
TIK     53.57 354 eP     26 24.00   -2.2
CAN     54.08 176 eP     26 29.50   -0.9
SVW     58.81  29 eP     27 03.70    0.2
TTA     59.23  27 eP     27 05.25   -1.1
         1.1s     8.28nm          4.3mb
RSO     59.97  30 eP     27 11.11   -0.4
SLKM    61.20  31 eP     27 18.58   -1.0
IMA     61.23  24 eP     27 19.90    0.0
         0.8s     7.60nm          4.4mb
PMR     61.95  30 eP     27 23.00   -1.5
FBA     63.26  26 eP     27 31.57   -1.5
         0.6s     3.93nm          4.3mb
GMW     77.56  44 eP     29 00.02    1.0
YKA     77.97  28 eP     28 59.80   -1.1
         0.4s     2.70nm          4.3mb
LON     78.41  45 eP     29 04.26    0.5
RES     79.29  14 eP     29 09.50    1.7
VGB     79.44  46 eP     29 10.38    1.2
LBFM    79.82  50 eP     29 12.16    0.6
ORV     80.61  51 eP     29 15.60    0.2
NEW     81.02  42 ePc    29 18.29    0.8
         1.1s    14.81nm          4.6mb
CMB     81.89  53 eP     29 22.92    0.7
         0.6s     3.13nm          4.2mb
SES     84.01  39 eP     29 33.00    0.3
LCCM    85.22  43 eP     29 40.00    1.0
KAF     86.02 336 eP     29 41.80   -0.5
         0.5s     4.30nm          4.5mb
DUG     86.71  49 eP     29 46.70    0.4
```

```
20d  00h

      0.4s     1.62nm            4.2mb
NUR   87.59 335 eP    29 48.40   -1.5
      0.3s     1.10nm            4.2mb
FCC   88.64  27 eP    29 58.00    3.1X
ZOBO 148.10  91 PKP   36 49.00    4.3X
CNCB 148.33  91 PKP   36 50.00    5.1X
    S.D. = 1.1  on  46 of  50 obs.
---------------------------------------
   MAR  20, 1993  01h 02m 46.05± 0.23s
   36.078 N ± 4.4km  141.587 E ± 3.6km
    DEPTH =  33.5km  ( 33 depth phases)
   5.1mb ( 61 obs.)  4.9Msz (  4 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ    1.15 277 iPd   03 06.30    0.4
                 S     03 25.00
CHJJ    2.10 270 iPd   03 19.80    0.2
NIIJ    2.38 300 P     03 25.00    1.4
YAMJ    2.43 330 P     03 25.00    0.7
                 eS    04 02.70
MAT     2.77 281 iPc   03 30.10    1.1
                 eS    04 05.00
OFUJ    3.00   1 eP    03 30.40   -1.9
IIDJ    3.05 260 P     03 35.30    2.2
MTMJ    3.10 281 P     03 35.50    1.7
TSRJ    4.59 265 P     03 57.20    2.3
WKYJ    5.25 251 P     04 04.90    0.6
MRRJ    6.35 357 eP    04 17.60   -2.1
                 eS    05 31.80
HOOJ    6.43  11 eP    04 17.00   -3.9X
                 eS    05 27.80
TKSJ    6.53 254 P     04 23.20    0.9
YONJ    6.68 265 P     04 25.00    0.7
KUSJ    7.41  18 eP    04 28.80   -5.8X
                 eS    05 46.60
ASAJ    8.07   5 eP    04 39.80   -4.0X
SHNJ    8.81 260 P     04 57.10    3.1X
KUMJ    9.58 251 P     05 05.30    0.7
KAGJ   10.16 244 P     05 13.00    0.3
VLA    10.26 316 iPc   05 14.00    0.0
       1.1s    136.00nm          6.1mb X
     N  13s      1.20um
     E  14s      0.70um
                 e     07 06.00
KUR    10.31  26 eP    05 15.00    0.4
       0.8s    110.00nm          6.1mb X
     Z  12s      2.60um          3.6MszX
     N  12s      2.60um
     E  12s      3.20um
YSS    10.96   4 iPd   05 18.00   -5.5X
       0.9s     10.00nm          5.0mb
     Z  15s      0.90um          4.9MszX
     N  15s      0.70um
     E  15s      1.40um
                 eS    07 13.00
SSE    17.70 260 P     06 50.50   -1.0
     Z  20s      0.90um
     N  14s      1.10um
     E  12s      0.60um
                 eS    10 14.00
                 SS    10 46.00
BJI    20.37 289 eP    07 18.50   -3.9X
       1.5s    104.00nm          5.0mb
     Z  16s      0.88um          4.2MszX
     E  16s      0.93um
                 eS    11 10.00
PET    20.76  30 eP    07 26.00   -0.2
       1.0s     40.00nm          4.8mb
     Z  16s      0.50um          4.0MszX
MGD    24.76  11 ePc+  08 05.00   -0.7
       1.2s     50.00nm          5.0mb
     Z  14s      0.70um          4.3MszX
     N  15s      0.90um
                 e     08 15.00  37km
                 e     08 47.00
                 ePPP  08 52.00
                 e     12 26.00
                 eSS   13 10.00
CIT    25.43 318 eP    08 12.00   -0.2
YAK    27.01 348 iPc+  08 24.70   -1.8
       1.2s    161.00nm          5.5mb
     Z  15s      0.80um          4.4MszX
     N  16s      0.80um
     E  18s      0.80um
                 i     08 34.00  33km
                 eS    13 00.00
BOD    28.36 329 iPc   08 38.40   -0.4

       1.1s     65.00nm          5.2mb
LZH    30.38 281 eP    08 56.00   -1.3
       1.5s     73.00nm          5.3mb
     Z  16s      1.61um          4.8MszX
     E  14s      0.87um
                 pP    09 05.00  31km
ZAK    30.98 310 iPc   09 02.00   -0.1
       1.1s     50.00nm          5.2mb
     Z  15s      1.37um          4.7MszX
     E  16s      1.36um
KMI    34.97 263 Pd-   09 36.00   -1.4
       1.5s     90.00nm          5.5mb
TIK    36.24 353 iP    09 46.00   -1.3
       1.5s     24.00nm          4.9mb
     Z  14s      1.00um          4.7MszX
                 e     11 33.00
ILT    38.88  23 iPc   10 07.60   -1.9
       1.0s     24.00nm          4.9mb
                 i     10 23.00  61kmX
                 i     12 09.00
LOE    39.82 253 eP    10 17.20   -0.8
CHTO   41.20 257 iPc   10 28.80   -0.5
       1.2s     17.01nm          4.7mb
ELT    41.79 312 iPc   10 33.90    0.2
       1.9s    125.00nm          5.3mb
NRI    44.03 336 iPc   10 49.80   -2.0
       1.0s     16.00nm          4.8mb
                 e     12 31.00 560kmX
                 e     13 16.00
TTA    46.13  34 eP    11 18.90   10.2X
SVW    46.18  37 eP    11 10.20    1.1
IMA    47.44  30 eP    11 18.30   -0.8
       1.1s      7.50nm          4.6mb
PRZ    48.33 298 iPd   11 27.50    1.1
       1.2s     90.00nm          5.7mb
                 e     11 38.00  36km
MTN    49.65 193 eP    11 35.20   -1.3
FBA    49.84  32 eP    11 37.40   -0.1
KHKI   50.52 214 ePc   11 42.00   -1.1
                 e     13 08.80 436kmX
FRU    50.93 299 eP    11 46.40    0.3
       1.6s     80.00nm          5.4mb
                 i     11 56.00  32km
LEM    53.28 224 iPd   12 03.50   -0.6
NDI    54.00 282 iPc   12 08.80   -0.3
SVE    55.96 319 ePd   12 21.50   -1.6
       1.1s    100.00nm          5.8mb
     Z  18s      1.00um          4.9Msz
     N  17s      0.50um
     E  17s      1.00um
WB2    56.14 188 iPd   12 22.50   -2.1
       0.6s      6.30nm          4.8mb
                 e     12 29.10  22kmX
WRA    56.14 188 P     12 22.89   -1.8
ARU    57.16 319 iPc   12 30.30   -1.3
       1.3s    140.00nm          5.8mb
                 e     12 40.80  35km
HYB    58.32 269 iP    12 39.50   -0.9
       1.0s     50.00nm          5.6mb
                 e     12 49.00  31km
ASPA   59.86 188 eP    12 49.40   -1.4
       0.5s      4.90nm          4.9mb
GBA    61.29 266 P     13 00.00   -0.7
RES    63.49  14 eP    13 15.00    0.4
       0.9s      3.00nm          4.4mb
WARB   63.51 195 eP    13 14.50   -0.7
       0.6s     13.00nm          5.2mb
MAIO   64.18 297 iPc   13 19.80    0.1
ASH    64.25 299 eP    13 20.00    0.0
KEV    64.38 339 eP    13 19.00   -1.5
SDF    65.94 338 iP    13 30.00   -0.5
STK    67.60 180 eP    13 40.00   -1.3
       0.4s      1.20nm          4.3mb
                 i     13 50.50  34km
GMW    67.82  47 eP    13 43.85    1.0
                 e     13 53.70  32km
MOS    68.10 324 eP    13 44.00   -0.3
                 e     13 54.00  32km
LON    68.80  47 (P)   13 50.06    1.1
OBN    68.94 323 iPc   13 48.60   -0.9
       1.0s     35.00nm          5.4mb
     Z  20s      0.60um          4.8Msz
     E  18s      0.80um
                 e     13 59.00  33km
KAF    69.22 333 iP    13 50.30   -0.8
       0.6s     14.60nm          5.2mb
DPW    70.32  45 eP    13 58.20    0.0

                 i     14 08.32  32km
BWA    70.43 174 eP    13 58.60   -0.2
                 i     14 09.00  33km
NEW    70.72  44 eP    14 00.50   -0.1
       1.0s      9.20nm          4.8mb
                 e     14 10.71  33km
NUR    70.86 332 iP    14 00.30   -0.8
       0.5s     15.90nm          5.3mb
CAN    71.37 174 e(P)  14 10.50    6.0X
LBFM   71.54  52 (P)   14 08.80    2.9
KIV    71.64 311 iPc   14 06.20   -0.1
       1.3s     68.00nm          5.5mb
                 e     14 17.20  36km
                 eS    23 18.90
GRS    71.70 306 eP    14 06.00   -0.8
       1.4s     50.00nm          5.3mb
ORV    72.75  53 eP    14 13.34    0.5
                 e     14 22.71  30km
SES    72.80  40 eP    14 13.00    0.0
KER    73.92 301 iPc   14 19.70   -0.2
FCC    74.79  26 eP    14 26.50    2.2
LCCM   75.05  44 eP    14 26.00   -0.2
NB2    75.12 337 P     14 23.60   -2.6
       0.9s     17.30nm          5.0mb
TNP    76.35  53 eP    14 35.55    1.7
       1.2s     17.24nm          4.9mb
                 e     14 45.09  31km
HVU    76.95  48 eP    14 37.89    0.9
                 e     14 47.97  32km
DUG    77.88  49 eP    14 42.85    0.7
       1.2s     21.67nm          5.1mb
                 i     14 53.20  33km
BW06   78.23  45 eP    14 43.95   -0.2
       0.6s      3.76nm          4.6mb
                 i     14 54.43  34km
DAU    78.69  48 eP    14 47.49    0.7
                 i     14 58.02  34km
MSU    79.29  50 eP    14 51.00    1.0
                 i     15 01.30  33km
VRI    79.54 320 eP    14 53.50    2.5
UZH    79.87 324 eP    14 54.00    1.4
OJC    79.91 326 eP    14 53.20    0.4
                 e     14 57.30  13kmX
SRU    79.94  49 eP    14 53.67    0.2
                 e     15 03.97  33km
MLR    80.21 320 eP    14 55.00    0.3
ULM    80.22  33 eP    14 56.50    2.0
RSSD   80.45  42 eP    14 56.23    0.1
       0.8s      7.21nm          4.7mb
                 e     15 06.13  31km
KSP    80.99 328 iP    14 58.80    0.3
                 i     15 10.00  36km
BRG    81.94 330 e(P)  15 04.00    0.5
CLL    81.99 330 iPc   15 03.40   -0.3
       0.9s     19.00nm          5.1mb
                 i     15 14.60  36km
HRI    82.25 306 eP    15 06.00    0.4
SRO    82.33 325 e(P)  15 06.60    1.1
PRU    82.37 329 eP    15 06.30    0.6
                 e     15 17.50  36km
ZST    82.60 326 eP    15 09.20    2.3
                 i     15 18.70  30km
GOL    82.62  46 (P)   15 09.31    1.7
       0.9s      5.81nm          4.7mb
MOX    83.06 331 eP    15 21.30   12.0X
                 e     15 26.00  15kmX
KHC    83.43 329 eP    15 11.50    0.2
       1.0s      5.70nm          4.7mb
                 e     15 23.00  37km
                 e     18 04.50
DSI    83.54 304 eP    15 12.70    0.6
GEC2   83.60 328 Pc    15 12.00   -0.2
       0.9s      3.98nm          4.6mb
                 e     15 16.90  15kmX
                 e     15 22.60
                 e     15 29.40
                 e     15 33.00
GRF    83.97 330 ePc   15 14.80    0.8
       1.4s     50.00nm          5.5mb
     Z  18s      0.20um          4.5Msz
                 epP   15 26.10  37km
                 esP   15 31.10
TUC    84.02  54 eP    15 15.75    1.1
       0.9s      4.67nm          4.6mb
PTJ    84.83 325 eP    15 26.10    7.7X
VAY    84.86 319 iP    15 19.00    0.5
       0.8s     48.00nm          5.7mb
```

```
                  i       15 30.40   37km
SKO     85.00 320 iP      15 20.30    1.1
  Z  18s     0.55um            5.0Msz
                  i       15 31.60   36km
                  i       15 36.80
                  LR      56 30.00
MBH     85.00 303 eP      15 19.80    0.2
PLE     85.07 322 iPc     15 20.63    0.9
ALQ     85.10  50 eP      15 21.41    1.3
        0.9s     7.70nm           4.9mb
                  e       15 31.53   32km
IVA     85.15 321 iPc     15 20.89    0.8
PVY     85.31 321 iPc     15 21.21    0.3
VBY     85.45 325 eP      15 21.30   -0.1
NKY     85.65 322 iPc     15 22.44   -0.2
TTG     85.79 321 iPc     15 23.24    0.1
BRY     85.81 322 iPc     15 23.00   -0.5
OHR     85.95 319 iP      15 24.00   -0.1
TRI     85.97 326 e(P)    15 23.00   -1.0
BDV     86.12 321 iPc     15 24.55   -0.3
ULC     86.14 321 iPc     15 24.55   -0.4
HCY     86.16 322 iPc     15 24.55   -0.5
CDF     86.55 331 eP      15 26.30   -0.7
        1.1s    16.35nm           5.2mb
SSF     89.10 333 eP      15 38.60   -0.5
        1.1s     9.30nm           5.0mb
LPL     89.13 330 eP      15 38.80   -0.8
        0.9s     4.90nm           4.8mb
LPG     89.14 330 eP      15 38.90   -0.8
        0.9s     4.90nm           4.8mb
SMF     89.32 332 eP      15 39.80   -0.4
        1.0s     6.60nm           4.9mb
AVF     89.38 333 eP      15 40.00   -0.5
        1.0s    11.00nm           5.1mb
GRR     89.49 336 eP      15 40.60   -0.3
        1.2s    17.55nm           5.2mb
MAF     90.15 333 eP      15 44.00   -0.1
        0.9s     4.90nm           4.8mb
TCF     90.23 333 eP      15 44.20   -0.3
        1.2s    12.50nm           5.1mb
LSF     90.51 334 eP      15 45.20   -0.5
        1.4s    29.20nm           5.4mb
FRF     90.77 329 eP      15 45.70   -1.3
        1.4s    20.50nm           5.3mb
MFF     90.80 335 eP      15 46.80   -0.2
        1.0s     7.80nm           5.0mb
LMR     91.01 329 eP      15 47.00   -1.1
        0.8s     4.45nm           4.9mb
RJF     91.32 333 eP      15 49.20   -0.3
        0.9s     5.40nm           4.9mb
CAF     91.44 333 eP      15 50.20    0.1
        1.0s     8.40nm           5.1mb
LFF     91.92 333 eP      15 52.30    0.1
        0.9s     9.65nm           5.2mb
LPO     91.97 333 eP      15 52.50    0.0
MIAR    92.93  43 eP      15 57.64    0.6
        1.2s    14.35nm           5.3mb
ZOBO   147.04  61 PKP     22 27.00    1.0
LPB    147.23  61 ePKP    22 28.00    1.9
CNCB   147.50  62 PKP     22 30.00    3.3X
SIV    151.58  51 PKPc    22 48.60   16.3X
     S.D. = 1.1  on 135 of 147 obs.
-----------------------------------------
* MAR 20, 1993  01h 20m 28.59± 1.16s
  36.101 N ±10.0km  141.890 E ±10.6km
  DEPTH =  33.0km  (normal)
  4.4mb (  2 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ     1.39 275 iPd     20 50.40   -1.5
                  S       21 06.20
CHJJ     2.35 270 P       21 04.10   -1.5
YAMJ     2.54 325 eP      21 09.60    1.2
                  eS      21 41.80
NIIJ     2.59 297 P       21 09.50    0.5
OFUJ     2.98 357 eP      21 15.20    0.6
MAT      3.00 279 eP      21 15.00    0.0
                  eS      21 43.00
IIDJ     3.29 260 P       21 20.00    0.9
MTMJ     3.33 280 P       21 19.60   -0.1
TSRJ     4.83 265 P       21 43.10    2.2
WKYJ     5.49 252 P       21 49.20   -1.0
MRRJ     6.35 355 eP      22 10.80    8.6X
                  eS      23 33.30
HOOJ     6.37   9 eP      22 01.80   -0.7
                  eS      23 15.30
TKSJ     6.77 254 P       22 07.10   -1.1
```

```
YONJ     6.92 265 P       22 21.00   10.7X
KUSJ     7.32  16 eP      22 14.80   -1.0
                  eS      23 32.40
ASAJ     8.03   4 eP      22 35.10    9.3X
WRA     56.19 189 P       30 08.20    0.5
        0.9s     0.80nm           3.7mb
ASPA    59.92 188 eP      30 39.10    5.4X
        0.3s     3.60nm           5.0mb
GBA     61.53 266 P       30 46.00    1.1
YKA     64.42  30 eP      31 20.50   17.1X
        0.8s     1.00nm
KAF     69.31 333 eP      31 57.00   22.7X
ZOBO   146.82  61 PKP     40 23.00   14.7X
CNCB   147.27  62 PKP     40 17.00    8.1X
     S.D. = 1.2  on  15 of  23 obs.
-----------------------------------------
% MAR 20, 1993  01h 26m 19.41± 1.43s
  34.350 S ±15.8km   70.591 W ±13.3km
  DEPTH = 100.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION   (127)
     MD 3.6 (SAN).

CACH     0.23 358 iP      26 34.03   -0.1
                  iS      26 47.01
CHCH     0.42 353 iP      26 34.89    0.0
                  iS      26 48.44
PCH      0.73   5 iP      26 37.65    0.2
                  iS      26 52.98
TACH     0.75 337 iP      26 37.78    0.2
                  iS      26 53.50
LNV      0.79 300 iP      26 37.84    0.0
                  iS      26 53.71
SAN      0.90 356 eP      26 39.31    0.3
                  iS      26 55.74
FCH      1.05  14 iP      26 40.88   -0.2
                  iS      26 59.82
LCCH     1.19 317 iP      26 42.18   -0.1
                  iS      27 01.02
PEL      1.21 356 eP      26 42.53    0.0
                  iS      27 02.12
ROCH     1.42 346 iP      26 45.17   -0.1
                  iS      27 06.50
JACH     1.66 360 iP      26 48.06   -0.2
                  iS      27 10.89
     S.D. = 0.2  on  11 of  11 obs.
-----------------------------------------
% MAR 20, 1993  02h 29m 28.85± 1.60s
  48.446 N ±15.4km    6.127 E ± 7.4km
  DEPTH =  10.0km  (geophysicist)
 FRANCE                          (538)
     ML 1.8 (LDG).

HAU      0.46 161 Pg      29 38.00   -0.3
                  Sg      29 45.70
BSF      0.76 144 Pg      29 43.80    0.0
                  Sg      29 54.80
CDF      0.77  92 Pg      29 43.90    0.0
                  Sg      29 56.00
LOR      1.93 233 Pg      30 00.80   -1.2
                  Sg      30 24.10
SSF      2.25 233 Pg      30 06.60    0.0
                  Sg      30 34.60
SMF      2.38 222 Pg      30 09.90    1.4
     S.D. = 1.1  on   6 of   6 obs.
-----------------------------------------
? MAR 20, 1993  02h 30m 56.32± 3.00s
  21.579 N ±14.7km  143.850 E ±23.2km
  DEPTH = 259.6 ± 26.8 km
  4.2mb (  3 obs.)
 MARIANA ISLANDS REGION          (215)

WKYJ    14.55 332 P       34 12.80    0.8
CHJJ    15.03 345 P       34 17.30   -0.5
TKSJ    15.08 327 P       34 19.00    0.5
MAT     15.70 343 eP      34 25.00   -0.8
KUMJ    15.91 316 P       34 29.40    1.1
NIIJ    16.16 346 P       34 29.60   -1.5
YONJ    16.33 328 P       34 32.70   -0.2
SHNJ    16.81 321 P       34 38.50    0.6
WB2     42.30 193 iPd     38 26.30   -0.1
        0.4s     4.40nm           4.2mb
GBA     63.41 275 P       41 00.00   -0.9
YKA     76.27  28 eP      42 19.10    1.5
        0.5s     4.60nm           4.5mb
KAF     83.09 335 eP      42 53.20   -0.6
        0.4s     1.70nm           4.2mb
NUR     84.66 334 eP      43 02.00    0.3
```

```
     S.D. = 1.0  on  13 of  13 obs.
-----------------------------------------
& MAR 20, 1993  02h 44m 37.43s
  59.744 N              152.955 W
  DEPTH = 104.6km
 SOUTHERN ALASKA                  (  2)
     <AEIC>.

OPT      0.17 237 iPc     44 51.61    0.8
                  eS      45 03.03
INE      0.32 350 ePc     44 52.33   -0.8
                  eS      45 04.32
INW      0.34 345 ePc     44 52.17   -0.9
                  eS      45 04.17
AUL      0.44 214 ePc     44 52.89   -0.6
                  eS      45 05.29
AUE      0.44 209 eP      44 52.51   -1.0
AUH      0.46 213 eP      44 52.93   -0.8
AUI      0.48 211 eP      44 52.79   -1.0
                  eS      45 05.02
PDB      0.63 275 ePc     44 54.00   -0.9
                  eS      45 07.25
XLV      0.69 114 eP      44 54.45   -1.0
                  eS      45 08.33
RS1      0.73   8 iPc     44 55.25   -0.7
RS2      0.73   8 iPc     44 55.22   -0.8
RSO      0.73   8 iPc     44 55.22   -0.8
                  eS      45 08.66
RDW      0.74   6 iPc     44 55.40   -0.8
                  eS      45 09.19
RDN      0.78   7 eP      44 55.83   -0.6
NCT      0.82   1 iPd     44 55.92   -0.8
                  eS      45 10.09
DFR      0.86   9 iPd     44 56.33   -0.8
                  eS      45 10.99
RDT      0.88  18 eP      44 56.49   -0.8
CNPM     0.90 103 iPc     44 56.48   -1.0
                  eS      45 11.06
MCNL     0.90 232 iPd     44 56.36   -1.1
                  eS      45 10.54
BRLK     1.05  88 eP      44 58.08   -1.0
                  eS      45 13.73
SYI      1.17 165 ePd     44 59.51   -0.9
                  eS      45 16.52
NKA      1.32  40 iPc     45 03.00    0.9
CKL      1.49  12 ePd     45 03.42   -0.9
CKT      1.51  14 iPd     45 03.50   -1.0
SPU      1.51  17 iPd     45 03.48   -1.0
                  eS      45 24.29
CKN      1.53  14 iPd     45 04.01   -0.8
BGL      1.55  10 iPd     45 04.33   -0.7
CP2      1.57  13 iPd     45 04.61   -0.7
CPAM     1.57  15 iPd     45 04.46   -0.8
SLKM     1.57  60 eP      45 03.64   -1.6
CRP      1.58  14 iPd     45 04.65   -0.8
SEW      1.80  77 ePc     45 06.52   -1.6
SVW      1.90 317 P       45 08.10   -1.4
MPA      1.95  66 iPc     45 08.70   -1.3
                  eS      45 32.96
KDC      2.02 173 P       45 08.80   -2.0
                  S       45 33.00
SUA      2.04  31 ePd     45 10.54   -0.8
                  eS      45 35.87
PTE      2.26  58 ePc     45 12.72   -1.3
SKT      2.35  17 iPd     45 13.91   -1.4
                  eS      45 42.64
PWA      2.44  37 P       45 15.10   -1.3
PLRM     2.64  44 eP      45 18.11   -1.1
GHO      2.84  42 eP      45 19.62   -2.3
SML      3.07  46 eP      45 22.60   -2.4
HIN      3.30  76 eP      45 25.25   -2.9
MID      3.38  93 P       45 27.60   -1.5
SCM      3.46  50 eP      45 28.48   -1.9
TTA      3.52 337 P       45 29.20   -2.0
VLZ      3.57  64 eP      45 29.18   -2.5
                  S       46 08.04
HUR      3.62  25 eP      45 31.04   -1.4
CVA      3.69  74 eP      45 30.50   -2.9
KLU      3.89  60 ePc     45 33.51   -2.7
                  eS      46 15.73
TRF      3.93  18 eP      45 34.90   -2.0
SGAM     3.95  76 eP      45 33.60   -3.4
RND      4.16  26 eP      45 37.97   -2.0
RAGM     4.20  78 eP      45 37.52   -2.9
KAIM     4.31  84 eP      45 40.04   -1.9
TZL      4.34  55 eP      45 40.67   -1.7
MCK      4.43  24 eP      45 41.38   -2.3
```

20d 02h

SDG 4.55 49 eP 45 45.00 -0.2
GLB 4.82 65 eP 45 46.12 -2.8
PAX 4.84 45 eP 45 48.94 -0.4
CROM 4.99 74 eP 45 49.12 -2.4
SNH 5.10 81 eP 45 50.59 -2.3
TGL 5.15 74 eP 45 50.82 -2.7
NEA 5.18 19 eP 45 50.96 -2.9
BALM 5.42 72 eP 45 54.76 -2.6
HDA 5.46 29 eP 45 54.83 -3.0
CCB 5.48 24 eP 45 54.90 -3.1
YAH 5.65 79 iPc 45 58.65 -2.0
FBA 5.71 23 eP 45 58.27 -2.9
GLM 5.86 24 eP 46 00.24 -3.1
CTGM 5.90 73 eP 46 02.00 -1.9
71 abs. associated

% MAR 20, 1993 02h 46m 25.85± 3.76s
33.634 S ± 7.8km 71.949 W ±27.2km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.6 (SAN).

LCCH 0.35 64 iP 46 34.07 0.9
iS 46 39.82
LNV 0.55 126 iP 46 37.29 0.3
iS 46 45.18
TACH 0.84 92 iP 46 41.40 -0.7
iS 46 52.41
ROCH 1.03 50 iP 46 45.26 -0.1
iS 46 59.65
CHCH 1.12 106 iP 46 46.89 0.0
iS 47 01.64
PEL 1.16 66 iP 46 47.75 0.1
iS 47 02.77
PCH 1.20 90 iP 46 47.41 -0.8
iS 47 03.05
CACH 1.22 114 iP 46 49.15 0.5
iS 47 05.42
FCH 1.42 78 iP 46 52.11 0.1
iS 47 10.54
JACH 1.48 51 iP 46 52.45 -0.2
iS 47 11.57
S.D. = 0.6 on 10 of 10 obs.

MAR 20, 1993 05h 02m 25.17± 0.40s
42.870 N ± 4.5km 18.338 E ± 3.7km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.4 (LJU), 2.8 (TTG).

BRY 0.15 79 iPgc 02 29.59 0.7
iSg 02 33.38
HCY 0.44 164 iPgd 02 34.28 0.2
iSg 02 42.51
NKY 0.49 97 iPgd 02 34.95 -0.2
iSg 02 42.84
BDV 0.69 148 iPgd 02 38.65 -0.2
iSg 02 50.48
TTG 0.81 123 iPgc 02 40.51 -0.4
iSg 02 53.89
PLE 0.90 59 iPgc 02 41.69 -0.8
iSg 02 54.70
ULC 1.13 143 iPgc 02 46.58 0.2
iSg 03 04.20
IVA 1.15 89 iPgc 02 46.66 0.0
iSg 03 03.80
PVY 1.24 102 iPgd 02 48.39 0.2
iSg 03 06.89
HVAR 1.42 283 iPnc 02 50.50 -0.5
iSn 03 10.30
SKO 2.47 110 ePn 03 06.10 0.1
OHR 2.54 133 ePn 03 13.30 6.1X
VBY 3.44 321 ePn 03 20.80 0.9
e(Sn) 04 03.30
CEY 4.01 317 e(Pn) 03 28.00 0.0
e(Sn) 04 19.00
VOY 4.48 316 ePn 03 34.50 -0.3
e(Sn) 04 22.50
S.D. = 0.5 on 14 of 15 obs.

& MAR 20, 1993 05h 14m 06.59s
59.954 N 153.177 W
DEPTH = 129.1km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.12 11 iP 14 23.64 0.7
eS 14 37.00
INE 0.12 28 iP 14 23.72 0.7
eS 14 37.73
OPT 0.30 185 iP 14 24.03 0.7
eS 14 37.97
PDB 0.54 252 iP 14 24.99 -1.0
eS 14 39.34
RS1 0.55 22 eP 14 25.58 -0.8
eS 14 39.88
RS2 0.55 22 eP 14 25.70 -0.7
eS 14 40.69
RSO 0.55 22 eP 14 25.65 -0.7
eS 14 40.52
RDW 0.56 19 eP 14 25.74 -0.7
eS 14 39.96
REF 0.59 24 eP 14 25.82 -0.8
eS 14 40.19
eS 14 40.24
AUL 0.59 193 iP 14 25.63 -0.7
eS 14 40.29
AUE 0.61 190 eP 14 25.42 -1.0
NCT 0.62 11 eP 14 25.72 -1.0
eS 14 40.55
DFR 0.69 21 eP 14 26.23 -0.9
eS 14 41.86
CNPM 1.07 113 iP 14 29.35 -1.1
eS 14 46.76
BRLK 1.17 98 eP 14 30.49 -1.0
eS 14 48.17
NKA 1.25 50 eP 14 33.27 1.1
CKL 1.31 18 iP 14 32.51 -0.5
eS 14 52.90
CKT 1.34 21 iP 14 32.59 -0.7
SPU 1.35 24 iP 14 32.59 -0.8
S 14 53.15
CKN 1.37 21 eP 14 33.15 -0.4
BGL 1.37 16 iP 14 33.29 -0.3
CP2 1.39 19 iP 14 33.67 -0.3
CPAM 1.40 21 eP 14 33.47 -0.5
CRP 1.41 20 eP 14 33.67 -0.5
eS 14 54.79
SLKM 1.58 68 iP 14 34.98 -0.9
MPA 1.98 73 iP 14 39.65 -1.0
SKT 2.19 21 eP 14 42.51 -0.8
PMS 2.20 52 iP 14 42.32 -1.2
PTE 2.25 64 P 14 43.53 -0.6
SML 3.01 50 eP 14 51.39 -2.6
30 obs. associated

MAR 20, 1993 05h 17m 11.98± 0.64s
40.366 N ± 5.2km 21.346 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.42 3 iPg 17 20.56 0.0
eSg 17 26.72
OHR 0.85 331 iPg 17 28.00 -0.4
0.5s 142.00nm
iSg 17 42.40
Lg 17 44.10
LIT 0.92 106 ePg 17 29.68 0.2
eSg 17 42.58
GRG 1.00 53 ePg 17 30.54 -0.3
IGT 1.14 223 ePg 17 32.90 -0.4
eSg 17 48.30
VAY 1.33 44 ePn 17 35.40 -1.1
KNT 1.42 56 ePb 17 37.72 -0.1
eSb 17 56.78
AGG 1.54 150 ePb 17 39.92 0.3
eSb 18 00.72
SOH 1.60 73 ePb 17 40.68 0.3
SKO 1.61 2 ePn 17 42.00 1.6
1.2s 70.00nm
i 18 01.50
Lg 18 08.50
S.D. = 0.8 on 10 of 10 obs.

MAR 20, 1993 05h 49m 35.36± 0.26s
19.593 N ± 4.3km 38.777 E ± 3.5km
DEPTH = 10.0km (geophysicist)
4.9mb (61 obs.) 4.6Msz (9 obs.)
RED SEA (554)
MD 4.5 (RYD).

ABHA 3.99 109 eP 50 36.00 -2.2
eS 51 16.00
KMTA 4.12 109 eP 50 40.60 0.6
eS 51 19.00
DHJN 4.86 113 eP 50 47.00 -3.6X
eS 51 31.00
SHWJ 11.15 345 P 52 18.50 0.5
SAGI 11.22 341 eP 52 18.00 -0.8
RMN 11.49 342 eP 52 22.50 -0.1
DHLJ 11.59 345 P 52 24.00 0.2
MZDA 12.09 346 eP 52 30.30 -0.3
BHL 14.52 350 P 53 03.00 0.1
S 56 04.00
CSS 16.05 344 eP 53 27.00 4.2X
NAI 20.83 186 iP 54 28.00 8.0X
Z 18s 1.82um 4.5Msz
S 58 38.00
GRS 20.88 17 eP 54 17.00 -3.3X
1.6s 80.00nm 4.8mb
Z 11s 1.68um 4.7MszX
eS 58 22.00
MTA 22.62 12 eP 54 40.00 2.4
e 58 54.00
ALN 23.86 336 eP 54 49.70 0.1
AGG 24.02 327 eP 54 50.10 -1.2
GRO 24.39 12 eP 54 57.00 2.3
Z 14s 3.00um 4.9MszX
N 16s 3.00um
E 16s 3.00um
MAK 24.47 15 eP 55 02.00 6.5X
KIV 24.51 7 (P) 54 58.00 1.9
1.8s 39.00nm 4.7mb
Z 16s 796.20um 7.3MszX
MAIO 24.65 43 iPc 55 01.60 4.1X
eS 59 38.00
KDZ 24.75 336 iP 55 00.00 1.7
LIT 24.77 329 eP 54 57.62 -0.9
BCAO 24.83 235 iPd 55 01.50 2.2
1.2s 56.00nm 5.1mb
i 55 10.10
ASH 24.99 39 eP 55 03.00 2.4
e 55 45.00
e 59 34.00
SRS 25.06 332 iP 55 00.46 -0.9
MMB 25.39 333 iP 55 05.00 0.6
KNT 25.41 331 eP 55 03.14 -1.5
PLD 25.42 335 iP 55 07.00 2.4
GRG 25.48 330 eP 55 03.34 -1.9
VAY 25.69 331 eP 55 08.30 1.2
KKB 25.90 332 iP 55 10.00 0.9
OHR 26.37 328 eP 55 09.00 -4.6X
i 55 14.10
VTS 26.43 334 iP 55 16.00 1.7
SKO 26.72 330 iP 55 16.80 0.1
QUE 27.58 62 eP 55 42.50 17.6X
CMP 28.02 339 ePc 55 31.00 2.4
PTJ 32.28 330 eP 56 06.40 -0.1
VBY 32.34 328 e(P)c 56 07.30 0.5
SRO 32.69 334 eP 56 11.00 1.1
e 11 39.30
CEY 32.91 328 e(P) 56 12.00 0.1
SPC 33.06 338 eP 56 14.80 1.4
LJU 33.07 328 e(P) 56 13.50 0.2
TRI 33.23 327 eP 56 15.20 0.6
VOY 33.39 328 e(P) 56 16.00 -0.1
ZST 33.49 333 eP 56 16.70 -0.2
e 11 45.10
OJC 34.09 338 eP 56 22.30 0.3
VRAC 34.57 334 eP 56 26.60 0.5
2.5s 524.40nm 6.0mb X
OGA 35.41 327 eP 56 34.90 1.2
GEC2 35.47 331 e(P) 56 33.50 -0.6
1.1s 7.80nm 4.5mb
GEC2 35.47 331 e(P) 56 42.70 8.6X
1.5s 17.20nm 4.7mb
OBN 35.49 358 iPc 56 33.00 -0.9
1.6s 104.00nm 5.5mb
SBF 35.65 320 eP 56 35.10 -0.5
1.1s 15.65nm 4.8mb
KHC 35.74 331 Pc 56 36.00 -0.2
1.6s 21.50nm 4.8mb
e 56 42.50
e 57 16.00
OSS 35.76 326 ePc 56 37.70 1.1
KSP 35.90 336 ePc 56 36.80 -0.7
LMR 35.94 318 eP 56 37.20 -0.7
1.1s 21.00nm 4.9mb
PRU 35.95 333 eP 56 37.00 -0.9
FRF 35.97 319 eP 56 37.60 -0.6
1.0s 21.60nm 5.0mb

TMA 36.09 324 ePc 56 39.60 0.2
LRG 36.10 318 eP 56 38.60 -0.6
1.4s 46.20nm 5.1mb
Z 25s 0.15um 3.6MszX
MOS 36.10 359 eP 56 38.00 -1.1
LLS 36.49 325 Pc 56 42.80 0.0
ESEL 36.76 311 eP 56 45.00 0.1
MTD 36.83 192 iPd 56 46.80 1.1
BRG 36.87 334 iPc 56 45.60 0.0
1.4s 24.00nm 4.8mb
DIX 36.90 323 ePc 56 46.30 0.0
LPG 36.95 322 eP 56 45.80 -1.0
1.1s 11.50nm 4.6mb
LPL 36.97 322 eP 56 45.80 -1.1
1.1s 11.00nm 4.5mb
EMS 37.17 323 ePc 56 48.00 -0.5
GRF 37.22 330 ePd 56 48.50 -0.1
1.4s 20.00nm 4.7mb
Z 16s 0.30um 4.2MszX
SLE 37.32 326 P 56 49.70 0.2
GBA 37.46 93 P 56 52.00 1.0
CLL 37.59 333 iPc 56 51.20 -0.5
1.6s 29.00nm 4.8mb
KSH 37.59 50 eP 56 52.00 -0.1
Z 16s 2.98um 5.2MszX
N 10s 1.36um
E 12s 1.24um
PP 58 18.00
eS 02 39.00
MOX 37.71 332 iPc 56 52.70 0.0
1.9s 57.00nm 5.0mb
i 56 58.80
HYB 37.72 87 eP 56 54.50 1.2
ETER 37.82 315 eP 56 51.50 -2.3
FRU 38.00 44 eP 56 56.00 0.7
2.0s 50.00nm 4.9mb
Z 20s 0.50um 4.3Msz
e 58 25.00
e 59 04.00
BSF 38.27 325 eP 56 57.00 -0.6
1.4s 40.95nm 5.0mb
CDF 38.36 326 eP 56 57.60 -0.7
1.4s 18.30nm 4.6mb
SMF 39.28 321 eP 57 05.00 -0.9
0.9s 8.70nm 4.4mb
LBF 39.38 322 eP 57 06.00 -0.8
1.0s 28.40nm 4.9mb
ECHE 39.49 309 eP 57 09.00 1.2
CAF 39.51 318 eP 57 08.00 0.1
1.2s 33.30nm 4.9mb
LOR 39.59 322 eP 57 07.70 -0.9
1.2s 34.80nm 4.9mb
Z 21s 0.17um 3.9Msz
ARU 39.63 17 ePc 57 09.50 0.8
2.0s 200.00nm 5.4mb
AVF 39.64 321 eP 57 07.90 -1.0
1.2s 26.20nm 4.8mb
SSF 39.69 322 eP 57 08.60 -0.7
1.2s 26.50nm 4.8mb
EPF 39.81 315 eP 57 09.60 -0.9
0.9s 7.70nm 4.4mb
BGF 39.82 321 eP 57 10.30 -0.1
1.1s 60.55nm 5.2mb
MAF 39.82 320 eP 57 10.30 -0.2
1.0s 17.60nm 4.7mb
EGRA 39.93 313 eP 57 07.50 -3.9X
LPO 39.96 317 eP 57 11.90 0.3
1.1s 31.50nm 4.9mb
RJF 40.03 318 eP 57 12.30 0.1
1.0s 16.60nm 4.7mb
Z 23s 0.10um 3.6MszX
TCF 40.07 320 eP 57 12.40 -0.1
1.0s 8.80nm 4.4mb
EVIA 40.35 307 eP 57 15.70 0.7
LFF 40.35 317 eP 57 15.20 0.4
1.1s 40.80nm 5.0mb
PRZ 40.40 47 eP 57 17.00 1.5
1.3s 30.00nm 4.8mb
Z 16s 1.60um 5.0MszX
E 16s 2.00um
LSF 40.46 320 eP 57 15.80 0.1
0.9s 17.85nm 4.8mb
SVE 40.57 18 ePc 57 18.00 1.6
3.9s 350.00nm 5.4mb X
Z 17s 1.00um 4.7MszX
N 17s 0.50um
E 17s 0.50um

ETOR 40.67 310 eP 57 18.50 0.9
EGUA 40.71 304 eP 57 19.00 1.1
BUL 40.73 195 eP 57 18.50 0.2
DOU 40.77 326 P 57 18.00 -0.2
ECOG 40.81 305 eP 57 19.00 0.2
SNF 41.18 327 P 57 21.80 0.3
ECRI 41.60 313 eP 57 26.00 0.9
MFF 41.65 319 eP 57 24.70 -0.8
0.9s 14.60nm 4.7mb
PAB 41.97 308 iPc 57 29.00 0.7
EPRU 42.04 304 eP 57 30.00 1.2
EJIF 42.12 303 eP 57 30.00 0.5
GUD 42.14 309 eP 57 30.30 0.6
LDF 42.57 322 eP 57 31.70 -1.3
0.9s 20.95nm 4.9mb
LPF 42.85 321 eP 57 34.10 -1.1
0.9s 31.45nm 5.0mb
FLN 42.86 322 eP 57 34.00 -1.4
0.9s 36.35nm 5.1mb
Z 18s 0.10um 3.7Msz
GRR 42.91 321 eP 57 34.30 -1.4
1.0s 23.80nm 4.9mb
EVAL 43.35 304 eP 57 39.50 0.0
EPLA 43.40 308 eP 57 40.30 0.4
KIC 44.26 259 P 57 46.38 -0.7
0.9s 17.50nm 4.9mb
TIC 44.41 259 P 57 47.58 -0.8
LIC 44.57 259 P 57 48.94 -0.7
0.9s 15.00nm 4.9mb
Z 20s 0.30um 4.2Msz
NB2 45.73 342 P 57 54.10 -4.3X
1.0s 9.20nm 4.7mb
SLR 46.20 193 eP 58 03.50 1.0
Z 22s 6.61um 5.5Msz
WMQ 47.28 48 P 58 10.20 -0.7
1.5s 19.00nm 5.0mb
Z 24s 1.27um 4.8MszX
sP 58 22.00
PRY 47.53 194 eP 58 13.50 0.5
EKA 47.60 329 P 58 13.00 -0.1
0.9s 8.60nm 4.8mb
ELT 49.51 36 eP 58 27.00 -0.9
1.5s 29.00nm 5.1mb
GTA 55.63 55 eP 59 12.50 -1.6
2.0s 40.00nm 5.1mb
NRI 58.04 18 ePc 59 30.00 -0.5
2.0s 63.00nm 5.3mb
Z 17s 2.20um 5.3MszX
N 17s 0.60um
E 17s 1.00um
LZH 58.84 59 eP 59 37.00 0.1
2.0s 84.00nm 5.5mb
Z 18s 1.03um 5.0Msz
E 14s 0.43um
pP 59 46.00 30kmX
ZAK 58.94 42 eP 59 36.00 -1.1
1.8s 24.00nm 5.0mb
Z 16s 1.98um 5.3MszX
E 17s 2.47um
eS 07 55.00
eSS 11 42.00
IRK 59.81 40 ePc 59 41.00 -2.1
2.0s 35.00nm 5.1mb
Z 16s 0.60um 4.8MszX
GYA 62.23 70 P 59 58.60 -1.5
XAN 63.15 61 P 00 09.30 3.3X
1.0s 5.00nm 4.7mb
pP 00 15.50 20kmX
BTO 63.45 54 eP 00 08.20 0.2
HHC 64.61 53 Pc 00 15.80 0.3
1.0s 8.50nm 4.9mb
CIT 65.51 41 eP 00 21.00 0.0
TIY 65.58 57 eP 00 20.50 -1.3
BOD 65.88 35 eP 00 19.60 -3.6X
1.0s 18.00nm 5.2mb
BJI 68.19 54 eP 00 38.00 -0.2
Z 22s 1.36um 5.1Msz
TIA 69.51 58 eP 00 45.90 -0.5
TIK 71.60 20 iPc 00 58.00 -0.4
2.0s 41.00nm 5.2mb
Z 14s 0.50um 4.9MszX
DL2 72.54 54 eP 01 05.00 0.4
YAK 73.34 29 eP 01 07.10 -1.7
2.0s 51.00nm 5.2mb
CN2 74.36 49 eP 01 15.20 0.0
1.0s 9.30nm 4.8mb
Z 20s 0.92um 5.1Msz

N 15s 0.37um
E 15s 0.38um
epP 01 25.50 33kmX
MGD 83.61 28 eP 02 05.00 0.0
YSS 84.97 42 (P) 02 12.20 0.1
ILT 88.54 13 iPc 02 29.00 -0.2
1.4s 12.00nm 5.0mb
YKA 95.52 348 eP 03 00.30 -1.3
0.8s 1.50nm 4.5mb
WARB 96.59 115 eP 03 13.00 5.9X
0.3s 4.00nm 5.4mb
S.D. = 1.0 on 135 of 149 obs.

? MAR 20, 1993 05h 54m 33.16± 4.10s
23.199 S ±19.2km 176.639 W ±16.0km
DEPTH = 259.0 ± 41.7 km
4.1mb (7 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM 15.66 271 iPc 58 02.30 -0.1
URZ 15.94 198 P 58 06.00 0.6
MNG 18.60 199 P 58 32.10 -1.3
THZ 20.48 203 P 58 58.30 6.0X
DSZ 20.87 205 P 59 02.40 6.3X
LTZ 21.60 203 P 59 07.00 3.9X
CTA 34.57 268 iPc 00 59.50 0.0
0.7s 6.85nm 4.3mb
STK 37.84 247 eP 01 28.80 2.0
0.8s 1.70nm 3.6mb
ASPA 45.20 259 eP 02 26.30 -0.2
0.5s 15.80nm 4.6mb
WB2 45.53 264 iPc 02 28.20 -0.9
0.3s 17.40nm 4.9mb
TUC 83.66 51 eP 06 35.11 0.9
0.8s 3.00nm 4.1mb
ALQ 88.11 51 eP 06 56.90 0.9
1.1s 1.58nm 3.8mb
pP 07 33.90 145kmX
RSSD 94.22 44 (P) 07 23.66 -0.4
YKA 98.43 24 eP 07 40.90 -1.4
0.8s 0.30nm 3.7mb
S.D. = 1.2 on 11 of 14 obs.

---

* MAR 20, 1993 06h 05m 02.99± 0.67s
19.567 N ±10.8km 38.814 E ± 7.4km
DEPTH = 10.0km (geophysicist)
4.7mb (30 obs.) 5.0Msz (1 obs.)
RED SEA (554)

KIV 24.53 7 eP 10 24.40 0.4
1.7s 37.00nm 4.8mb
MAIO 24.65 43 eP 10 28.00 2.9
BCAO 24.84 235 iPc 10 29.00 1.9
0.9s 9.00nm 4.4mb
OHR 26.41 328 eP 10 41.00 -0.6
SKO 26.76 330 eP 10 45.50 0.8
SPC 33.10 338 eP 11 42.80 1.5
TRI 33.27 327 e(P) 11 43.80 1.2
OBN 35.51 358 eP 12 00.00 -1.7
1.5s 70.00nm 5.3mb
GEC2 35.51 331 P 12 01.50 -0.5
1.5s 8.45nm 4.4mb
BRG 36.91 334 eP 12 12.80 -0.8
1.4s 14.00nm 4.5mb
GRF 37.26 330 eP 12 16.50 -0.1
Z 24s 0.10um 3.5MszX
CLL 37.63 333 eP 12 20.00 0.4
1.4s 16.00nm 4.6mb
MOX 37.75 332 ePd 12 21.30 0.6
2.0s 31.00nm 4.7mb
FRU 37.99 44 eP 12 26.00 3.1X
BSF 38.31 325 eP 12 25.30 -0.3
1.3s 20.20nm 4.7mb
SMF 39.32 321 eP 12 33.30 -0.6
1.1s 6.85nm 4.2mb
LBF 39.42 322 eP 12 34.30 -0.5
1.1s 12.95nm 4.5mb
CAF 39.55 318 eP 12 36.30 0.4
1.4s 23.95nm 4.7mb
LOR 39.64 322 eP 12 36.00 -0.5
1.4s 21.80nm 4.6mb
ARU 39.64 17 eP 12 38.00 1.6
2.0s 150.00nm 5.3mb
AVF 39.68 321 eP 12 36.30 -0.6
1.4s 20.50nm 4.6mb
SSF 39.73 322 eP 12 36.80 -0.5
1.4s 16.55nm 4.5mb

20d 06h

BGF 39.86 321 eP 12 38.50 0.1
1.4s 52.30nm 5.0mb
MAF 39.86 320 eP 12 38.50 0.1
1.3s 12.25nm 4.4mb
LPO 40.00 317 eP 12 40.20 0.6
1.2s 14.90nm 4.5mb
LFF 40.40 317 eP 12 43.30 0.5
1.2s 24.10nm 4.8mb
LSF 40.51 320 eP 12 43.90 0.2
1.4s 18.30nm 4.6mb
SVE 40.58 18 ePd 12 47.00 2.9
MFF 41.70 319 eP 12 53.10 -0.3
PAB 42.02 308 eP 12 58.00 1.7
LPF 42.89 321 eP 13 02.20 -1.0
1.2s 22.30nm 4.8mb
FLN 42.91 322 eP 13 02.30 -1.0
0.9s 11.80nm 4.6mb
GRR 42.95 321 eP 13 02.60 -1.1
1.1s 12.20nm 4.5mb
KIC 44.29 259 P 13 14.82 -0.1
TIC 44.44 259 P 13 15.94 -0.3
LIC 44.60 259 P 13 17.28 -0.2
NRI 58.06 18 ePc 14 59.00 0.7
1.4s 22.00nm 5.0mb
LZH 58.83 59 eP 15 05.00 0.6
1.8s 48.00nm 5.3mb
Z 18s 1.03um 5.0Msz
E 14s 0.43um
pP 15 16.00 37kmX
ZAK 58.94 42 eP 15 03.50 -1.2
2.2s 34.00nm 5.1mb
IRK 59.80 40 eP 15 09.30 -1.4
CIT 65.50 41 eP 15 47.00 -1.6
BOD 65.88 35 eP 15 47.80 -3.0X
0.9s 1.00nm 4.0mb
BJI 68.18 54 eP 16 05.00 -0.8
Z 16s 0.58um 4.9MszX
TIK 71.61 20 eP 16 26.00 -0.1
2.0s 21.00nm 4.9mb
YAK 73.35 29 eP 16 35.00 -1.5
1.2s 25.00nm 5.2mb
MGD 83.61 28 eP 17 32.00 -0.7
YKA 95.55 348 eP 18 28.70 -0.7
0.9s 0.70nm 4.1mb
S.D. = 1.1 on 45 of 47 obs.

? MAR 20, 1993 06h 05m 42.04± 6.12s
32.456 S ±40.9km 71.613 W ±30.3km
DEPTH = 30.5 ± 5.9 km
NEAR COAST OF CENTRAL CHILE (135)
MD 3.9 (SAN).

ROCH 0.72 136 iP 05 56.68 0.4
iS 06 07.55
JACH 0.89 105 iP 05 58.46 0.0
iS 06 10.72
LCCH 1.02 178 iP 06 00.75 0.5
iS 06 13.99
PEL 1.04 132 iP 06 00.85 0.3
iS 06 14.47
SAN 1.28 141 iP 06 03.77 -0.1
iS 06 20.35
TACH 1.32 155 iP 06 04.85 0.3
iS 06 21.86
FCH 1.41 128 iP 06 05.78 -0.4
iS 06 23.38
PCH 1.48 142 iP 06 06.63 -0.3
iS 06 24.73
LNV 1.51 174 iP 06 06.42 -0.7
iS 06 24.65
CHCH 1.68 152 iP 06 09.59 -0.2
iS 06 30.59
CACH 1.86 153 iP 06 12.61 0.1
iS 06 36.10
MDZ 2.37 101 eP 06 23.50 3.8X
S.D. = 0.5 on 11 of 12 obs.

MAR 20, 1993 06h 06m 10.96± 1.07s
39.718 N ± 8.4km 23.411 E ± 7.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.29 45 ePg 06 17.30 0.2
eSg 06 22.34
OUR 0.76 35 ePg 06 25.66 0.0
eSg 06 36.64
LIT 0.80 299 iPg 06 25.94 -0.7
eSg 06 37.96
THE 0.97 340 ePg 06 29.78 0.3
eSg 06 42.18
AGG 1.09 231 ePg 06 31.34 -0.1
eSg 06 45.76
SOH 1.10 358 iPg 06 31.64 0.0
eSg 06 46.56
SRS 1.40 6 ePb 06 36.18 -0.4
eSb 06 55.52
GRG 1.46 328 ePb 06 36.10 -1.2
eSb 06 55.56
KNT 1.49 345 ePb 06 37.90 0.1
eSb 06 57.70
VAY 1.72 338 ePn 06 41.50 0.4
OHR 2.43 306 ePn 06 53.00 1.6
S.D. = 0.8 on 11 of 11 obs.

---

* MAR 20, 1993 06h 19m 31.86± 1.05s
26.377 N ±11.4km 142.559 E ±20.8km
DEPTH = 33.0km (normal)
4.9mb (8 obs.) 5.0Msz (1 obs.)
BONIN ISLANDS REGION (212)

KAKJ 10.01 349 P 21 56.30 -0.1
CHJJ 10.11 343 P 21 57.90 0.1
MAT 10.79 341 eP 22 08.00 0.9
0.7s 4.79nm 4.8mb
(S) 24 04.00
NIIJ 11.24 345 P 22 12.50 -0.8
OFUJ 12.69 357 eP 22 29.80 -2.9
eS 24 47.00
LZH 34.30 296 eP 26 18.00 0.5
0.8s 25.00nm 5.2mb
CHTO 40.81 269 eP 27 14.20 2.1
WB2 46.73 191 iPc 27 57.90 -1.8
0.6s 19.60nm 5.3mb
i 28 04.20
HYB 59.55 275 eP 29 32.50 -2.4
GBA 61.95 272 P 29 50.00 -1.2
YKA 72.61 28 eP 30 57.00 -0.6
0.8s 1.10nm 3.9mb
KAF 78.26 334 eP 31 31.20 1.6
0.5s 12.20nm 5.2mb
NUR 79.85 334 eP 31 40.00 1.7
0.6s 7.50nm 4.9mb
NB2 84.40 338 P 32 02.40 0.4
0.7s 3.70nm 4.7mb
MSU 84.91 49 eP 32 06.70 1.5
GEC2 92.30 329 P 32 41.10 1.0
0.8s 0.71nm 4.2mb
BUL 119.56 261 iPKPc 38 14.50 -6.1X
1.2s 15.63nm
ZOBO 149.77 77 PKP 39 22.00 5.5X
Z 20s 0.25um 5.0Msz
LR 43 32.00
LPB 149.90 77 PKP 39 23.00 6.6X
CNCB 150.12 78 PKPc 39 23.30 6.4X
S.D. = 1.6 on 16 of 20 obs.

MAR 20, 1993 06h 30m 25.90± 0.33s
9.763 N ± 6.1km 57.858 E ± 5.3km
DEPTH = 10.0km (geophysicist)
5.1mb (53 obs.) 4.9Msz (8 obs.)
CARLSBERG RIDGE (421)
Mw 5.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 21S, 29C
Centroid Location:
Origin Time 06:30:27.3 0.5
Lat 9.62N 0.06 Lon 57.77E 0.05
Dep 15.0 FIX Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr=-6.76 0.56 Mtt= 3.87 0.47
Mff= 2.89 0.60 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-2.53 0.69
Principal Axes:
T Val= 5.96 Plg= 0 Azm=220
N 0.80 0 130
P -6.76 90 180
Best Double Couple:Mo=6.4*10**16
NP1:Strike=310 Dip=45 Slip= -90
NP2: 130 45 -90

BOM 17.09 56 eP 34 22.80 -3.8X
e(S) 36 35.30
POO 17.78 59 iP 34 36.00 0.7
iS 36 33.00
AAE 18.85 269 eP 34 51.00 2.2
GBA 19.55 77 P 34 56.00 -0.9
e 36 06.00
e 36 33.00
HYB 21.49 67 eP 35 18.00 0.9
1.0s 80.00nm 5.1mb
QUE 22.02 21 eP 35 35.50 13.0X
NAI 23.66 244 iP 35 41.00 2.3
S 40 06.00
NDI 26.16 41 iPd 36 07.00 4.7X
eS 40 44.00
MAIO 26.46 3 iPd 36 07.30 2.3
1.0s 25.00nm 4.9mb
eS 40 40.00
ASH 28.07 1 eP 36 20.50 0.9
2.0s 230.00nm 5.6mb
VTY 30.41 200 iPd 36 42.00 1.1
GRS 31.35 343 eP 36 44.00 -5.0X
1.5s 40.00nm 5.1mb
Z 19s 2.17um 4.8Msz
N 14s 0.58um
E 14s 0.58um
MTA 33.83 342 eP 37 13.00 2.6
N 20s 1.50um
E 20s 1.50um
e 38 21.00
MAK 34.36 346 eP 37 18.00 3.0X
FRU 36.06 21 eP 37 33.00 3.4X
2.0s 120.00nm 5.4mb
Z 20s 1.50um 4.8Msz
PYA 36.48 342 eP 37 36.00 2.9X
KIV 36.52 341 eP 37 37.50 3.9X
1.4s 36.00nm 5.0mb
Z 17s 1055.50um 7.7MszX
e 38 54.10
PRZ 37.24 25 eP 37 42.00 2.4
2.0s 60.00nm 5.0mb
LSZ 38.51 230 iPd 37 51.00 0.4
BCAO 39.36 265 iPd 37 56.30 -1.3
0.9s 23.00nm 4.8mb
i 38 14.90
CHTO 40.73 73 ePc 38 10.40 1.5
1.2s 26.39nm 4.8mb
SNG 42.35 90 eP 38 18.50 -3.7X
LOE 43.24 75 eP 38 30.20 0.8
VAY 44.20 321 eP 38 38.00 1.1
ISR 44.35 328 eP 38 43.00 4.9X
KIS 44.54 332 eP 38 41.00 1.5
VRI 44.76 329 eP 38 43.50 2.1
MLR 44.90 328 eP 38 45.00 2.3
OHR 45.19 320 eP 38 44.00 -1.0
KMI 45.23 64 Pc+ 38 46.50 0.8
1.8s 100.00nm 5.5mb
Z 28s 1.70um 4.8MszX
pP 38 52.50 20kmX
eS 45 13.00
SS 48 35.00
SKO 45.27 321 iP 38 44.50 -1.0
i 38 47.50
i 40 38.60
KSR 46.49 220 eP 38 53.00 -2.5
PRY 46.90 218 eP 38 58.00 -0.7
1.0s 30.00nm 5.3mb
SVE 46.98 2 ePd 38 59.00 0.2
1.9s 60.00nm 5.4mb
Z 17s 1.00um 4.8MszX
N 17s 0.60um
E 17s 0.50um
eS 46 02.00
SEK 47.83 217 iPd 39 06.30 0.2
0.8s 26.00nm 5.4mb
OBN 48.25 344 ePc 39 10.00 1.2
1.6s 80.00nm 5.5mb
Z 20s 1.10um 4.8Msz
N 20s 0.70um
e 40 33.00
e 41 02.00
(S) 46 12.00
MOS 48.55 345 eP 39 13.00 2.0
e 41 11.00
UZH 48.85 329 eP 39 13.20 -0.3
i 39 16.00
ELT 49.03 22 iPd 39 13.40 -1.4
2.0s 66.00nm 5.3mb
Z 18s 0.80um 4.8Msz
LZH 49.19 50 eP 39 16.00 -0.5

```
  Z  26s      1.47um             4.9MszX
  E  16s      0.61um
                i       39 42.00
BLF     49.26 217 eP    39 16.70  -0.4
        0.6s    19.00nm           5.3mb
UZD     49.59 325 e(P)  39 19.00  -0.2
FRS     50.25 217 eP    39 24.00  -0.4
        0.7s    11.00nm           4.9mb
MNK     50.25 337 eP    39 28.00   3.9X
SPC     50.25 329 eP    39 24.10  -0.4
SRO     50.45 326 eP    39 25.60  -0.1
VBY     50.95 322 eP    39 29.30  -0.3
ZST     51.33 326 eP    39 31.80  -0.7
CEY     51.57 322 e(P)  39 33.50  -0.9
LJU     51.66 322 eP    39 35.20   0.2
TRI     51.96 322 eP    39 36.50  -0.7
TRI     51.96 322 eP    39 36.70  -0.5
VOY     52.04 322 e(P)  39 35.00  -3.0X
GRM     52.17 213 e(P)  39 40.00   0.9
LEM     52.24 106 ePc   39 40.60   0.6
KSP     53.28 328 eP    39 46.20  -0.9
                e       41 48.00
GEC2    53.58 325 P     39 47.50  -1.9
        0.7s    0.47nm            3.6mb X
                e       39 54.20
                e       40 00.90
PRU     53.73 327 eP    39 51.50   1.2
KHC     53.80 325 eP    39 52.00   1.1
        1.2s    6.00nm            4.5mb
                e       40 15.50
BRG     54.53 327 eP    39 57.60   1.4
OSS     54.64 321 P     39 57.06  -0.3
ZAK     55.09  34 eP    40 00.50   0.2
        2.2s    45.00nm           5.1mb
  Z  20s      1.11um             4.9Msz
  E  20s      1.40um
CLL     55.27 327 eP    40 01.00  -0.6
        1.6s    29.00nm           5.1mb
LLS     55.42 321 P     40 05.19   2.1
FRF     55.63 317 eP    40 03.50  -0.8
        1.2s    19.05nm           5.0mb
LMR     55.64 316 eP    40 03.40  -1.0
        1.0s    11.60nm           4.9mb
MOX     55.67 326 eP    40 06.00   1.4
LRG     55.78 316 eP    40 04.60  -0.8
        1.3s    23.85nm           5.1mb
ZLA     56.06 322 P     40 09.47   2.0
DIX     56.09 320 P     40 08.88   0.9
SLE     56.12 322 P     40 09.32   1.4
LPG     56.29 319 eP    40 08.20  -1.2
        1.1s    13.45nm           4.9mb
LPL     56.31 319 eP    40 07.80  -1.7
        1.2s    24.10nm           5.1mb
NUR     56.32 341 eP    40 08.00  -1.1
EMS     56.39 320 P     40 09.00  -1.1
IRK     56.62  32 ePc   40 11.00  -0.3
        2.0s    35.00nm           5.0mb
  Z  16s      0.55um             4.7MszX
KAF     57.07 343 eP    40 19.60   5.2X
        1.4s    37.50nm           5.2mb
CDF     57.14 322 eP    40 13.90  -1.3
        1.4s    38.35nm           5.2mb
BSF     57.19 321 eP    40 14.10  -1.5
        1.2s    14.90nm           4.9mb
HAU     57.53 321 eP    40 16.30  -1.6
        0.9s    5.90nm            4.6mb
WLF     58.33 323 P     40 25.00   1.6
SMF     58.59 319 eP    40 23.90  -1.4
        1.3s    15.15nm           4.9mb
LBF     58.63 320 eP    40 24.30  -1.3
        1.3s    30.35nm           5.2mb
LOR     58.81 320 eP    40 25.50  -1.3
        1.0s    14.40nm           5.0mb
ENN     58.93 324 eP    40 28.00   0.4
        1.3s    17.40nm           5.0mb
SSF     58.96 320 eP    40 26.50  -1.4
        0.7s    6.70nm            4.9mb
BGF     59.21 319 eP    40 28.60  -1.0
        1.2s    26.50nm           5.2mb
MAF     59.27 318 eP    40 29.00  -1.1
        1.4s    14.40nm           4.9mb
DOU     59.43 323 P     40 34.00   2.9X
        0.8s    11.70nm           5.1mb
BJI     59.64  49 eP    40 32.50  -0.2
        2.0s    124.00nm          5.7mb
  Z  28s      1.10um             4.8MszX
CIT     61.61  36 eP    40 46.00   0.0
```

```
LDF     61.77 320 eP    40 45.60  -1.5
        1.2s    27.05nm           5.3mb
KIC     62.00 272 P     40 49.90   0.7
        1.3s    52.50nm           5.6mb
LPF     62.18 319 eP    40 48.30  -1.5
        0.9s    9.50nm            5.0mb
SSE     62.22  60 P     40 49.00  -1.4
        1.0s    17.00nm           5.2mb
   Z  20s     0.90um             4.9Msz
TIC     62.24 272 P     40 51.52   0.7
        0.9s    16.50nm           5.2mb
LIC     62.30 272 P     40 51.88   0.7
        1.2s    28.50nm           5.4mb
PAB     62.47 310 eP    40 53.00   1.0
NRI     62.68  12 eP    40 52.00  -0.8
        2.0s    31.00nm           5.2mb
                e       41 33.00
BOD     64.24  30 eP    41 00.50  -2.7
        1.8s    17.00nm           4.9mb
YAK     72.94  28 eP    41 55.80  -1.3
        1.3s    71.00nm           5.6mb
   Z  18s     0.50um             4.8Msz
   E  19s     0.40um
                e       44 35.00
TIK     74.84  18 iPc   42 07.00  -1.0
        1.5s    26.00nm           5.0mb
   Z  20s     0.70um             5.0Msz
DAG     77.50 347 eP    42 25.60   2.7X
        1.0s    10.00nm           4.9mb
YSS     79.44  44 eP    42 34.00   0.0
        1.2s    20.00nm           5.0mb
                e       42 40.70
                e       53 37.00
WB2     80.83 112 iPc   42 41.00  -1.0
        0.5s    5.30nm            4.8mb
                i       42 48.60
MGD     83.08  30 eP    42 52.00  -0.9
SNA     89.57 197 e(P)  43 28.70   4.2X
        1.2s    192.00nm          6.2mb X
ILT     92.84  18 iPc   43 40.00   0.2
        1.4s    16.00nm           5.2mb
YKA    107.73 356 ePKP  49 17.20  22.6X
        0.9s    0.80nm
CNCB   126.96 256 PKP   49 36.00   2.5
LPB    127.07 257 PKP   49 33.00  -0.5
ZOBO   127.10 257 ePKP  49 29.00  -4.8X
     S.D. = 1.3  on  94 of 112 obs.
------------------------------------
* MAR  20, 1993  06h 51m 48.19± 1.48s
   6.981 N ±11.2km   72.827 W ±16.4km
   DEPTH = 193.0 ± 14.4 km
   4.2mb (  3 obs.)
 NORTHERN COLOMBIA                ( 99)

SDV      2.88  49 iPnd  52 37.10   0.4
                  iSn   53 15.30
TOV      4.10  47 iPnd  52 52.30   0.7
                  iPP   52 52.90
                  iSn   53 41.60
CEOS     4.89  65 iP    53 00.60  -1.2
                  iS    53 56.00
ZOBO    23.58 169 eP    56 44.00   0.5
    Z  24s    0.24um             3.6MszX
                  LR    34 48.00
CNCB    24.12 169 P     56 48.00  -0.5
ALQ     41.59 317 eP    59 19.00   0.0
YKA     63.21 340 eP    01 57.30  -0.4
        0.5s    2.80nm            4.4mb
LIC     67.30  86 P     02 25.00   0.3
        0.6s    2.50nm            4.1mb
KIC     67.57  86 P     02 26.70   0.3
        0.6s    2.50nm            4.1mb
WB2    150.66 241 iPKPc 11 19.30   5.6X
        0.3s    7.10nm
     S.D. = 0.8  on   9 of  10 obs.
------------------------------------
& MAR  20, 1993  06h 56m 55.36s
   34.012 N          117.220 W
   DEPTH =   9.1km
 SOUTHERN CALIFORNIA              ( 43)
     &lt;PAS-P&gt;. ML 3.8 (PAS), 4.0
     (BRK), 3.5 (GS). Felt (V) at
     Fontana; (IV) at Loma Linda,
     March Air Force Base and
     Redlands; (III) at Blue Jay,
     Colton, Highland, Perris,
     Rialto, Riverside and Yucaipa.
```

```
PEC      0.13 158 iPc   56 58.28  -0.2
SSK      0.44 297 iPc   57 03.59  -0.8
PLM      0.72 155 iPc   57 08.50  -1.3
GSC      1.33  15 eP    57 18.36  -1.7
ISA      1.94 328 eP    57 27.87  -1.0
GLA      2.22 115 eP    57 30.87  -2.0
BCH      2.64 297 eP    57 38.43  -0.5
TPNV     3.04  15 eP    57 44.44  -0.1
PKEM     3.13 312 eP    57 44.62  -1.1
PHAM     3.18 306 eP    57 45.20  -1.3
PRI      3.53 308 ePc   57 49.33  -2.3
FRI      3.60 326 eP    57 54.40   2.0
                  eS    58 34.78
MEMM     3.90 340 eP    57 58.26   1.5
                  S     59 01.76
LLA      4.00 312 iPc   57 56.30  -1.9
BONR     4.03 348 eP    57 58.99   0.2
                  Pg    58 10.50
                  S     59 04.96
TNP      4.06   0 eP    57 58.72  -0.5
                  Pg    58 10.59
                  S     59 04.17
PRS      4.11 305 iPc   57 56.53  -3.2
SAO      4.41 310 eP    58 01.17  -2.8
CMB      4.76 328 ePc   58 07.70  -1.4
                  eS    59 05.22
ARN      4.84 315 eP    58 07.82  -2.3
ARUT     4.86  38 iPd   58 09.56  -1.0
MHC      4.90 314 ePc   58 08.94  -2.1
GCC      4.92 309 eP    58 07.76  -3.5
KVN      5.08 352 eP    58 12.07  -1.5
BKS      5.60 315 iPc   58 18.62  -2.3
TUC      5.66 106 eP    58 18.40  -3.3
                  S     59 49.73
ZSP      5.66 315 eP    58 18.57  -3.1
MSU      6.07  41 iPc   58 27.03  -0.5
NTYM     6.20 316 eP    58 26.58  -2.6
DUG      7.10  28 (P)   58 41.13  -1.0
ALQ      8.94  81 eP    59 15.09   7.4
BW06    10.61  32 eP    59 32.45   1.6
        32 obs. associated
------------------------------------
& MAR  20, 1993  07h 11m 49.20s
   59.917 N          153.229 W
   DEPTH = 126.9km
   2.7mb (  1 obs.)
 SOUTHERN ALASKA                  (  2)
     &lt;AEIC&gt;.

INW      0.16  18 iPc   12 06.11   0.8
                  eS    12 19.32
INE      0.17  30 ePc   12 06.05   0.6
                  eS    12 20.08
OPT      0.27 180 iPc   12 06.35   0.8
                  eS    12 19.66
PDB      0.50 255 iPc   12 07.22  -1.0
                  eS    12 21.31
AUL      0.55 191 ePc   12 07.71  -0.7
                  eS    12 22.22
AUW      0.56 193 iPc   12 07.80  -0.7
AUE      0.56 187 iPc   12 07.67  -0.9
AUH      0.57 191 ePc   12 07.78  -0.9
AUI      0.59 190 ePc   12 07.82  -0.9
                  eS    12 22.03
                  eS    12 22.28
RS1      0.59  23 ePd   12 08.12  -0.9
RS2      0.60  23 ePd   12 08.21  -0.8
RSO      0.60  23 ePd   12 08.22  -0.8
                  eS    12 22.72
RDW      0.61  20 iPd   12 08.18  -0.9
                  eS    12 23.73
NCT      0.66  13 iPd   12 08.50  -0.9
                  eS    12 23.36
DFR      0.73  22 iPd   12 08.85  -1.0
RDT      0.78  32 eP    12 09.18  -1.0
MCNL     0.93 218 ePd   12 10.29  -1.1
                  eS    12 26.60
CNPM     1.08 110 iPc   12 11.86  -1.1
                  eS    12 28.99
BRLK     1.19  96 ePc   12 13.04  -1.1
                  eS    12 30.93
NKA      1.29  49 ePd   12 15.80   0.7
CKL      1.36  19 ePd   12 15.22  -0.7
SYI      1.38 161 eP    12 14.96  -1.1
                  eS    12 34.99
CKT      1.38  21 iPd   12 15.36  -0.9
SPU      1.40  24 iPd   12 15.34  -1.0
```

eS 12 36.48
CKN 1.41 21 iPd 12 15.81 -0.7
BGL 1.41 17 iPd 12 16.02 -0.6
CP2 1.44 19 iPd 12 16.41 -0.5
CPAM 1.45 21 iPd 12 16.26 -0.7
CRP 1.45 21 iPd 12 16.45 -0.7
SLKM 1.61 67 ePc 12 17.29 -1.5
SVW 1.68 316 P 12 18.60 -1.0
SEW 1.91 83 ePc 12 20.94 -1.3
SUA 1.98 37 ePd 12 22.30 -1.0
MPA 2.02 72 ePd 12 22.15 -1.5
SKT 2.23 21 ePd 12 25.12 -1.2
PMS 2.25 52 P 12 25.20 -1.4
PTE 2.29 64 eP 12 25.07 -2.0
PWA 2.39 42 P 12 27.20 -1.2
PLRM 2.62 48 eP 12 29.85 -1.5
GHO 2.81 47 eP 12 31.39 -2.6
SML 3.06 50 ePd 12 34.44 -2.7
HIN 3.40 79 eP 12 39.59 -2.1
SCM 3.47 54 ePd 12 39.95 -2.7
VLZ 3.62 67 eP 12 41.76 -2.8
eS 13 23.63
CVA 3.78 77 eP 12 44.55 -2.2
TRF 3.81 20 eP 12 45.60 -1.8
KLU 3.92 63 ePd 12 45.94 -2.8
SGAM 4.05 78 eP 12 47.80 -2.5
RND 4.08 29 eP 12 48.65 -2.1
RAGM 4.30 80 eP 12 53.33 -0.5
G[illegible]B 4.88 68 eP 12 59.45 -2.2
CROM 5.08 76 eP 13 02.97 -1.6
TGL 5.24 76 eP 13 04.56 -2.0
CCB 5.38 26 eP 13 05.49 -2.8
HDA 5.38 30 eP 13 05.71 -2.6
BALM 5.50 74 eP 13 08.22 -1.9
YAH 5.76 81 eP 13 12.56 -1.2
CTGM 5.98 75 eP 13 15.79 -1.0
YKA 18.59 65 eP 15 56.20 -2.6
0.7s 0.30nm 2.7mb
59 obs. associated

? MAR 20, 1993 07h 57m 43.40± 1.09s
39.713 N ± 8.3km 27.911 E ±12.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

DST 0.56 101 iPg 57 54.50 -0.4
eSg 58 03.50
EDC 0.63 357 iPg 57 55.50 -0.6
eSg 58 04.00
KCT 0.64 32 iPg 57 57.00 0.8
IZM 1.41 201 ePn 58 09.30 0.2
S.D. = 1.1 on 4 of 4 obs.

MAR 20, 1993 08h 22m 13.56± 1.03s
39.737 N ± 8.3km 23.360 E ± 7.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.31 52 ePg 22 20.04 0.0
eSg 22 24.92
LIT 0.76 299 ePg 22 28.56 0.1
eSg 22 39.78
OUR 0.76 38 ePg 22 28.16 -0.3
eSg 22 38.92
THE 0.94 341 ePg 22 32.00 0.5
eSg 22 45.02
AGG 1.07 228 ePg 22 34.00 0.3
eSg 22 48.32
SOH 1.08 360 ePg 22 35.26 1.3
eSg 22 49.14
SRS 1.39 7 ePb 22 38.88 -0.1
eSb 22 58.18
GRG 1.42 329 ePb 22 38.98 -0.5
eSb 22 59.30
KNT 1.47 346 ePb 22 40.40 0.4
eSb 23 00.54
VAY 1.69 339 ePn 22 41.60 -1.7
S.D. = 0.9 on 10 of 10 obs.

MAR 20, 1993 09h 20m 32.59± 0.10s
56.084 S ± 3.6km 27.803 W ± 3.8km
DEPTH = 115.9km (geophysicist)
6.0mb (53 obs.)
SOUTH SANDWICH ISLANDS REGION (153)
Mw 6.3 (GS), 6.3 (HRV).
Mo=7.6*10**18 Nm (PPT). Depth
from broadband displacement
seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=140 Dip=55 Slip= 90
NP2: 320 35 90
Principal Axes:
T Plg=80 Azm= 50
P 10 230
Comment: The focal mechanism is
poorly controlled and
corresponds to reverse
faulting. The preferred fault
plane is NP2.
RADIATED ENERGY
No. of sta: 4 Focal mech. M
Energy 6.6±2.7*10**13 Nm
MOMENT TENSOR SOLUTION
Dep 112 No. of sta: 7
Moment Tensor; Scale 10**18 Nm
Mrr= 2.27 Mtt=-1.27
Mff=-1.00 Mrt= 1.10
Mrf=-1.63 Mtf= 1.16
Principal axes:
T Val= 3.04 Plg=69 Azm= 66
N -0.03 7 318
P -3.01 20 225
Best Double Couple:Mo=3.0*10**18
NP1:Strike=303 Dip=26 Slip= 73
NP2: 141 65 98
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 47S, **C
Centroid Location:
Origin Time 09:20:39.9 0.1
Lat 56.11S 0.01 Lon 27.70W 0.02
Dep 127.9 0.6 Half-duration 3.6
Moment Tensor; Scale 10**18 Nm
Mrr= 2.85 0.04 Mtt=-2.72 0.06
Mff=-0.13 0.06 Mrt=-0.15 0.03
Mrf=-1.68 0.04 Mtf= 1.11 0.05
Principal Axes:
T Val= 3.66 Plg=64 Azm=103
N -0.49 25 295
P -3.17 5 203
Best Double Couple:Mo=3.4*10**18
NP1:Strike=268 Dip=46 Slip= 53
NP2: 134 55 122

SNA 18.08 152 iPc 24 40.00 2.7
0.8s 1060.00nm 6.2mb
e 32 28.20
PMSA 19.77 229 ePd 24 56.08 0.8
eS 28 34.56
i 29 07.99
AIA 19.79 228 eP 25 00.40 4.9X
NVL 22.43 146 iPc+ 25 24.00 2.2
1.8s 1680.00nm 6.1mb
i 26 03.00
iS 29 22.00
SPA 34.10 180 iP 27 08.10 0.5
SPA 34.10 180 iPc 27 09.40 1.8
0.6s 512.20nm 6.5mb
Z 20s 5.86um 5.3Msz
i 32 27.50
MRA 35.33 296 ePc 27 17.00 -1.1
VAO 35.94 329 eP 27 24.40 1.0
e 27 28.30 13kmX
e 27 55.90
e 28 06.30
MDZ 36.56 292 i(P) 27 27.60 -1.0
RTCV 37.21 293 e(P) 27 38.30 4.3X
CFA 37.26 294 ePd 27 33.00 -1.4
RTPR 37.43 297 ePc 27 35.00 -0.8
RTLL 37.60 294 eP 27 36.50 -0.7
RT8S 37.84 293 ePd 27 40.20 1.0
CDCB 37.97 334 iPc 27 41.20 0.7
e 28 04.50 100kmX
e 29 09.90
iS 33 22.50
e 36 19.00
PPD 38.21 323 eP 27 42.80 0.4
e 28 07.10 105kmX
e 29 23.00
eS 33 24.50
CYA 38.61 300 ePc 27 43.80 -1.9
i 33 25.00
RTRS 39.03 294 ePd 27 50.00 0.9
CER 39.41 75 iPc 27 51.00 -1.3
1.4s 400.00nm 6.0mb
e 33 30.00
MAW 40.33 144 iPc 28 01.10 1.8
0.9s 453.33nm 6.3mb
Z 18s 20.00um 6.0Msz
e 33 36.00
FSA 40.69 301 iPd 28 01.60 -1.2
SUR 40.98 75 iPc 28 06.50 1.1
iScP 33 57.33
iS 34 07.43
isS 34 53.45
SLA 41.59 303 ePc 28 09.30 -1.1
HJA 42.85 304 ePc 28 20.50 0.1
i 30 11.00 653kmX
POF 42.85 72 iPc 28 21.00 0.6
0.6s 57.00nm 5.5mb
e 33 50.00
BDF 43.17 331 iPc 28 25.05 1.8
ipPd 28 49.71 106kmX
esPd 29 03.62
e 33 50.00
eS 34 40.39
isS 35 22.77
eSS 37 40.83
BAO 43.22 331 iPd 28 23.00 -0.7
e 33 49.20
GRM 43.44 82 iPc 28 25.20 -0.1
1.0s 720.00nm 6.4mb
e 33 51.00
ANT 44.83 298 iPc 28 34.00 -2.4
FRS 45.46 77 iPc 28 41.80 0.5
0.7s 283.00nm 6.1mb
BLF 46.44 78 iPc 28 48.10 -1.2
0.9s 166.00nm 5.8mb
SIV 47.35 314 iPc 29 06.60 10.2X
SWZ 47.48 75 iPd 28 56.80 -0.7
SEK 47.83 78 iPc 29 00.30 0.1
0.9s 575.00nm 6.4mb
SO81 47.88 342 eP 29 00.40 -0.1
e 29 04.00 12kmX
e 29 30.20
CRZF 48.12 114 iPc 29 09.00 7.0X
eS 36 03.00
BFS 48.49 76 iPc 29 04.40 -0.9
1.0s 200.00nm 5.9mb
PRY 48.84 77 iPd 29 07.00 -1.0
1.0s 600.00nm 6.4mb
e 33 57.00
KSR 49.37 76 iPc 29 08.50 -3.6X
e 34 14.00
BPI 49.74 77 iPc 29 14.20 -0.8
0.9s 592.00nm 6.5mb
ZOBO 50.12 306 iPc 29 18.62 0.3
ipPd 29 44.12 107kmX
esP 29 57.53
SLR 50.23 77 iPc 29 17.20 -1.4
0.9s 425.00nm 6.4mb
Z 18s 49.40um 6.6Msz
e 40 08.00
BFT 51.23 78 iPc 29 25.50 -0.8
ARE 51.53 302 iPc 29 29.30 0.6
CSY 53.98 161 eP 29 46.30 0.4
0.9s 862.80nm 6.7mb
PAF 54.87 128 iP 29 54.50 1.9
eS 37 35.00
BUL 54.91 73 iPd+ 29 51.90 -1.5
1.0s 460.00nm 6.4mb
ipP 30 22.40 129kmX
iPP 31 40.00
iS 38 14.00
iSS 43 32.00
DRV 57.23 174 iP 30 09.50 0.3
S 38 06.00
SS 41 54.00
LR 47 36.00
NNA 57.96 299 iPc 30 14.07 -0.9
1.0s 155.00nm 6.0mb
Z 20s 2.13um 5.3Msz
ipPd 30 41.72 114kmX
esPc 30 56.61
iS 38 02.98
isS 38 48.34
iScS 39 46.94
isScS 40 36.27
LSZ 58.71 69 iPd 30 19.50 -0.8
1.0s 17.50nm 5.1mb

LIC 64.87 25 P 31 00.50 -0.6
0.5s 126.00nm 6.1mb
Z 20s 6.00um 5.8Msz
KIC 65.07 25 P 31 01.72 -0.7
1.1s 259.00nm 6.1mb
S 39 32.00
TIC 65.28 25 P 31 03.10 -0.7
VTY 66.22 89 iPc 31 11.50 1.4
AVY 66.46 89 iPc 31 12.10 0.5
KDS 69.63 16 iP 31 30.50 -0.4
PSO 69.71 306 eP 31 33.50 1.5
MBO 70.79 11 iPc 31 39.00 1.0
iS 40 44.00
BCAO 71.20 50 iPc 31 39.90 -0.7
0.5s 150.00nm 6.1mb
i 31 53.00 45kmX
i 32 52.00
BOG 71.34 311 eP 31 23.00 -18.8X
iS 40 46.00
TPP 71.83 325 eP 31 44.65 0.4
TBH 71.86 325 eP 31 45.59 1.2
TRN 72.12 325 eP 31 46.02 0.1
TCE 72.28 325 eP 31 45.92 -1.0
OLLA 73.38 320 iP 31 52.90 -0.5
GUAC 73.71 319 iP 31 55.10 -0.3
SDV 73.79 316 iPc 31 55.60 -0.3
LLAV 73.81 320 iP 31 55.20 -0.7
CAR 73.88 320 iP 31 56.00 -0.3
TOV 74.29 317 ePc 31 58.00 -0.6
iPP 31 59.40
SVB 74.54 326 P 32 00.00 0.0
MORO 74.73 319 iP 32 00.00 -1.2
SLB 75.00 327 P 32 03.50 0.8
NAI 75.01 69 P 32 06.00 2.9
Z 18s 6.05um 5.9Msz
PS 40 28.00
ScS 41 36.00
LQ 47 20.00
MVM 75.64 327 eP 32 06.70 0.4
BIM 75.66 327 eP 32 06.70 0.3
CRM 75.84 327 eP 32 06.90 -0.4
FDF 75.89 327 eP 32 07.70 0.0
S 41 40.50
MGG 77.06 327 eP 32 14.00 -0.1
PAG 77.27 327 eP 32 15.00 -0.4
TUZ 77.28 192 P 32 15.10 0.1
0.9s 228.00nm 6.0mb
e 32 48.90 135kmX
SEG 77.57 327 eP 32 18.00 1.1
UPA 77.61 307 iP+ 32 16.96 -0.3
pP 32 45.17 110kmX
UPA 77.61 307 ePc 32 17.22 0.0
ODZ 78.05 193 Pc 32 19.70 0.4
MGH 78.09 326 eP 32 19.00 -0.8
BPA 78.29 327 eP 32 20.00 -0.9
BWZ 78.65 193 P 32 22.50 -0.1
0.9s 152.00nm 5.8mb
e 32 56.60 136kmX
MSZ 78.74 191 P 32 22.70 -0.4
MQZ 79.09 195 P 32 24.70 -0.3
0.9s 174.00nm 5.9mb
LTZ 80.05 195 Pc 32 30.40 0.2
1.0s 543.00nm 6.3mb
e 33 02.80 128kmX
KHZ 80.22 196 P 32 30.80 -0.2
1.0s 225.00nm 5.9mb
MOW 80.92 197 P 32 35.00 0.2
BLW 80.93 198 P 32 35.20 0.4
THZ 80.95 196 P 32 35.20 0.2
SNZO 81.12 197 iPc 32 36.27 0.5
epPd 33 07.06 120kmX
S 42 35.60
MTW 81.13 198 P 32 36.00 0.1
DSZ 81.13 195 P 32 34.70 -1.2
MRW 81.19 197 P 32 36.60 0.4
TAU 81.29 176 (P) 32 36.08 -0.6
(pP) 33 06.53 119kmX
PGZ 81.52 198 P 32 38.50 0.6
0.9s 293.00nm 6.1mb
MNG 81.66 198 P 32 38.70 0.1
DIW 81.74 196 P 32 39.30 0.2
ORZ 81.93 195 P 32 38.10 -1.9
TEHZ 82.04 199 P 32 42.00 1.4
WAHZ 82.40 199 P 32 43.30 0.7
BSZ 82.55 197 P 32 44.60 1.3
CNZ 83.03 198 P 32 46.60 0.7
NGZ 83.04 198 P 32 46.10 0.1

e 33 19.80 133kmX
NRZ 83.17 197 P 32 45.00 -1.4
0.9s 1100.00nm 6.8mb
e 33 19.00 134kmX
URZ 83.66 199 P 32 48.80 -0.1
MOZ 83.83 198 P 32 48.80 -1.0
0.9s 271.00nm 6.1mb
WLZ 84.31 198 P 32 52.00 -0.2
RKG 84.86 151 iPc 32 55.70 0.7
0.5s 48.00nm 5.7mb
KUZ 85.38 199 P 32 56.60 -1.0
TOO 86.54 175 iPc 33 03.90 0.6
0.7s 116.00nm 6.0mb
e 33 36.70 127kmX
e 36 26.40
BFD 86.74 172 iPc 33 04.80 0.5
0.6s 135.00nm 6.1mb
i 33 37.30 126kmX
TIO 88.42 18 iPc 33 14.60 2.3
i 33 59.50 180kmX
ADE 88.58 169 iPc 33 14.80 1.5
e 33 20.00 16kmX
TPX 88.74 299 (P) 33 15.00 1.0
CAN 88.92 177 iPc 33 15.30 0.5
iPP 33 49.30 187kmX
e 34 01.90
CNB 88.93 178 iPd 33 15.60 0.7
0.5s 41.00nm 5.8mb
e 33 50.00 134kmX
ARO 88.99 68 iP+ 33 19.00 3.7X
BWA 89.79 177 iPc 33 19.20 0.3
ePP 33 53.50
RIV 90.44 179 iPc 33 22.20 0.4
1.0s 4840.00nm 7.6mb X
SCX 90.49 300 (P) 33 27.00 4.9X
AVE 90.71 17 iP 33 24.00 1.2
i 33 54.00 114kmX
IFR 91.32 19 iPd 33 29.00 3.2X
TVO 91.56 234 iPc 33 28.00 0.7
0.9s 188.70nm 6.3mb
PPN 91.87 234 iPc 33 29.30 0.7
STK 91.92 171 eP 33 29.00 0.3
0.6s 30.60nm 5.7mb
epP 34 02.80 130kmX
eS 43 45.30
eScS 44 17.70
AFR 92.02 234 iPc 33 29.80 0.5
1.2s 121.40nm 6.0mb
CMS 92.61 175 iPc 33 32.00 0.1
0.9s 16.00nm 5.3mb
MEEK 92.79 150 iPc 33 33.00 0.2
0.6s 71.00nm 6.1mb
OXX 92.80 297 (P) 33 35.00 2.0
RUV 92.96 237 iPc 33 34.10 0.5
1.8s 160.50nm 6.0mb
VAH 93.03 237 iPc 33 34.30 0.3
1.6s 93.30nm 5.8mb
TPT 93.24 237 iPc 33 35.60 0.6
1.7s 182.30nm 6.1mb
PMO 93.36 237 iPc 33 36.00 0.5
1.6s 110.70nm 5.9mb
PLAT 93.75 18 eP 33 33.00 -3.7X
EJIF 94.12 18 iPc 33 41.13 2.8
ACX 94.21 294 (P) 33 42.00 2.8
ALJ 94.31 18 iP 33 41.00 1.6
LIJA 94.56 18 iP 33 42.00 1.5
MAL 94.57 19 iPd 33 42.50 2.1
iS 44 46.00
iPS 45 58.00
EPRU 94.66 18 iPc 33 42.77 1.9
EGUA 94.83 19 iPd 33 43.18 1.5
EVAL 95.01 17 iPc 33 44.26 1.8
ENIJ 95.22 20 eP 33 45.92 2.5
WARB 95.22 157 iPc 33 44.20 0.2
0.7s 63.00nm 6.1mb
ECOG 95.26 19 eP 33 45.36 1.6
III 95.28 295 (P) 33 45.00 0.6
PPM 95.44 296 (P) 33 46.50 1.0
EHOR 95.49 18 iPc 33 46.48 1.9
IIA 95.52 296 (P) 33 47.00 1.8
NANU 95.72 146 eP 33 47.00 0.7
0.5s 16.00nm 5.7mb
UNM 95.94 296 (P) 33 49.00 1.5
EHUE 95.96 20 eP 33 46.65 -0.3
EBAN 96.08 19 iPc 33 47.99 0.7
CRX 96.25 296 (P) 33 51.00 2.1
EVIA 96.78 20 iPc 33 51.85 1.3

MRX 97.27 294 (P) 33 54.00 1.0
PAB 97.33 18 ePc 33 54.57 1.6
2.2s 192.31nm 6.2mb
epPd 34 28.67 131kmX
eSKS 44 44.61
eS 45 11.04
esS 45 59.88
iPS 46 23.38
ePP 47 52.00
QLP 97.39 173 iPc 33 54.00 0.2
EPLA 97.54 17 iPd 33 56.86 3.0X
RMQ 97.71 177 eP 33 55.50 0.2
0.6s 31.00nm 6.0mb
e 34 29.00 129kmX
ECHE 98.00 21 iPd 33 58.20 2.3
MBL 98.32 150 eP 33 57.50 -0.6
0.5s 21.00nm 5.9mb
GUD 98.43 18 iPd 34 01.03 3.1X
ASPA 99.06 163 iPc 34 01.60 0.1
0.9s 113.40nm 6.5mb
eS 38 01.70
HLW 99.23 49 e(P) 34 05.00 3.3X
GOGA 100.92 315 Pdiff 34 20.00 10.7X
Z 19s 2.97um 5.8Msz
CEH 101.46 320 Pdiff 34 20.00 8.3X
Z 19s 1.74um 5.6Msz
EPF 101.57 21 ePdiff34 20.70 8.6X
0.7s 2.20nm 5.0mb X
WRA 102.78 163 Pdiff 34 18.00 0.1
0.6s 16.10nm 6.0mb
LPO 103.33 21 ePdiff34 27.40 7.6X
0.8s 5.65nm 5.5mb
CAF 103.74 21 ePdiff34 32.90 11.2X
0.6s 1.80nm
CTA 103.96 174 iPdiff34 23.00 -0.2
e 34 38.00
e 38 00.00
eSKS 44 05.00
eSKKS 47 06.00
e 53 15.00
CTAO 103.96 174 Pdiffc34 22.90 -0.3
iSKS 44 45.13
eS 45 43.90
FIR 104.81 28 ePdiff34 30.00 3.6X
MFF 104.92 19 ePdiff34 35.80 9.0X
0.8s 4.15nm 5.5mb
HRV 104.96 328 ePdiff34 27.59 0.5
Z 18s 2.54um 5.8Msz
epPd 34 57.72
ePP 38 48.45
eSKS 44 50.46
eHSKKS45 32.50
iSKKS 45 33.17
iSDIF 46 09.36
e 46 24.48
esS 47 00.96
iPS 47 42.62
OHR 105.21 36 ePdiff34 29.70 1.4
LPG 105.30 24 ePdiff34 38.40 9.5X
0.6s 3.50nm 5.6mb
LPL 105.32 24 ePdiff34 37.50 8.6X
0.3s 0.70nm 5.2mb
VAY 105.99 37 ePdiff34 34.00 2.3
OLY 106.01 310 ePKP 38 42.79 -0.8
MIAR 106.11 308 Pdiff 34 35.04 2.6
Z 19s 1.91um 5.6Msz
SP 48 03.23
UYO 106.18 308 iPKPc 38 46.60 2.7
SKO 106.19 36 ePdiff34 34.50 1.9
Z 19s 1.79um 5.6Msz
i 38 42.00
i 38 58.00
i 39 42.00
i 40 14.00
i 48 08.00
i 50 04.00
LR 22 41.00
LMN 106.22 334 ePKP 38 46.00 2.3
LTX 106.50 298 Pdiff 34 35.84 1.4
ELC 106.60 313 ePKP 38 44.47 -0.1
e 39 35.39
OSS 107.24 26 PKP 39 05.07 19.3X
TRI 107.27 29 e(PKP)39 06.00 20.4X
e(PP) 39 44.00
e(PPP)42 12.00
e(SP) 48 16.00
e 49 04.00

20d 09h

```
                 e(SS) 54 20.00
                 e     05 44.00
                 eLR   12 00.00
VBY   107.50  30 e(PKP)38 46.70   0.6
VOY   107.61  29 e(PKP)38 42.70  -3.7X
                 e(PP) 39 08.00
FVM   107.69 313 ePKP  38 46.18  -0.5
   Z  19s     10.79um          6.4Msz
                 ePP   39 06.43
                 e     39 36.98
RSNY  107.71 327 PKP   38 50.00   3.5X
   Z  21s      1.72um          5.6Msz
LJU   107.79  30 ePKP  38 44.00  -2.6
                 e(PP) 39 06.00
CBM   108.07 332 Pdiff 34 42.78   2.0
   Z  19s      2.12um          5.7Msz
                 PP    39 10.24
                 SP    48 22.25
CCM   108.09 312 ePdiff34 41.93   0.8
                 ipPd  35 11.89
                 ePP   39 09.08
                 iSKS  45 05.12
                 e     45 56.44
                 eSDIF 46 30.09
                 esS   47 26.10
                 ePS   48 05.89
ITU   108.09  42 ePdiff34 40.00  -1.0
SLM   108.16 313 PKP   39 00.00  12.5X
   Z  19s      1.71um          5.6Msz
KBA   108.42  28 e(PKP)38 48.00   0.0
MEO   108.57 305 iPKPc 38 47.80  -0.7
WMOK  108.62 305 ePKP  38 46.05  -2.5
   Z  18s      1.53um          5.6Msz
                 SP    48 31.46
                 ePKKP349 57.68
                 iPKKP 50 11.12
WMOK  108.62 305 ePdiff34 41.88  -1.7
                 e     35 01.48
GBA   109.68  95 Pdiff 35 01.00  12.4X
                 e     38 50.00
GBA   109.68  95 PKP   38 50.00  -1.0
GEC2  110.14  28 e(PKP)38 50.90  -0.2
   0.7s        5.10nm
GEC2  110.14  28 PKP   38 44.50  -6.6X
   0.6s        0.65nm
                 e     38 49.80
                 e     38 55.80
                 e     38 58.80
                 e     39 15.20
                 e     39 17.90
                 e     39 22.90
                 e     39 27.40
                 e     39 34.20
GRF   110.30  26 ePdiff34 55.50   4.9X
   Z  29s      3.00um          5.7MszX
                 ePP   39 07.00
ACO   110.40 306 iPKPd 38 51.30  -0.6
SRO   110.48  31 ePKP  39 05.30  13.7X
                 e     39 17.10
EEO   111.01 325 ePKP  38 55.00   2.3
PRU   111.41  28 ePKP  38 52.70  -0.6
   Z  20s      4.60um          6.1Msz
   N  20s      2.90um
   E  22s      1.00um
                 e     39 35.40
                 e     40 42.00
                 e     49 00.00
                 e     50 16.00
                 e     55 00.00
VRI   111.42  38 ePKP  38 51.00  -2.5
SPC   112.28  32 ePKP  39 16.30  21.1X
                 e     39 27.90
                 i     39 40.70
UZH   112.40  33 ePKP  38 50.00  -5.2X
   Z  19s      1.70um          5.7Msz
   E  19s      1.60um
                 e     49 07.00
ALQ   112.43 299 Pdiff 35 04.86   4.1X
ALQ   112.43 299 ePKP  38 55.00  -1.0
   Z  19s      0.25um          4.8Msz
                 eSKP  42 17.80
                 e     45 26.97
                 SP    49 07.65
                 e     49 20.19
                 iPKKP249 47.13
                 e     49 55.46
                 eSKKP 53 18.53
```

```
                 e     53 50.01
ANMO  112.43 299 Pdiffc35 05.19   4.5X
                 eSKS  45 25.19
                 e     46 21.06
                 iSDIF 47 10.99
                 esS   48 02.86
                 iPS   48 59.14
TUC   112.49 295 ePKP  38 55.44  -0.6
   Z  18s      1.44um          5.6Msz
                 PP    39 49.21
                 iSKP  42 19.76
                 e     49 08.85
                 ePKKP 49 46.64
                 e     49 55.02
                 e     50 13.28
KSP   112.65  29 ePKP  38 55.20  -0.4
                 e     39 21.50
EKA   112.86  15 PKP   38 56.00   0.1
   1.2s       21.00nm
OJC   113.07  31 ePKP  38 55.60  -0.9
HYB   113.40  93 ePKP  38 57.00  -1.1
   1.0s       70.00nm
                 e     39 47.00
GRS   113.96  55 ePKP  38 58.00  -0.8
   Z  16s      2.34um          5.9MszX
   N  17s      1.68um
   E  17s      2.05um
IPM   114.58 121 ePKPc 38 59.50  -1.0
   0.9s       48.60nm
GLA   115.15 292 ePKP  39 00.49  -0.6
                 ePKKP 49 37.73
                 e     49 43.46
GOL   115.71 303 ePKPd 39 00.82  -1.5
                 epP'df39 32.60
SHE   115.92  55 iPKPc 39 03.50   1.3
   Z  18s      5.00um          6.2Msz
   N  18s     10.00um
   E  20s     12.00um
KIV   115.95  49 (Pdiff35 28.90  12.9X
   1.6s       53.00nm
KIV   115.95  49 ePKP  39 01.18  -1.2
                 ePP   40 05.58
PLM   116.45 291 ePKP  39 03.52  -0.3
                 e     40 24.28
                 eSKP  42 27.71
SNG   116.64 120 ePKP  39 03.00  -1.4
GRO   116.76  52 ePKP  39 04.00   0.2
   2.0s      240.00nm
                 i     40 16.00
PEC   117.03 291 ePKP  39 03.30  -1.4
                 eSKP  42 27.31
QUE   117.03  76 ePKP  39 06.00   1.0
MAK   117.27  53 ePKP  39 07.00   2.3
   Z  17s      3.50um          6.0MszX
   N  17s      2.00um
                 ePS   50 04.00
SSK   117.55 291 ePKP  39 06.32   0.5
SRU   117.71 299 ePKP  38 59.15  -6.9X
SRU   117.71 299 iPKPc 39 04.93  -1.1
                 ePP   40 22.45
                 eSKP  42 26.70
                 ePKKP 49 28.18
PAS   117.75 290 Pdiffc35 25.93   1.8
                 eSKS  45 45.61
MAIO  117.82  66 ePKP  39 05.00  -1.2
GSC   117.93 292 ePKP  39 02.27  -4.1X
GSC   117.93 292 ePKP  39 06.30  -0.1
                 eSKP  42 28.92
                 ePKKP 49 26.62
MSU   118.06 298 ePKPc 39 06.77   0.0
                 e     39 41.66
                 ePP   40 26.30
                 eSKP  42 28.66
                 eSKS  45 40.02
                 ePKKP 49 27.78
ARUT  118.13 296 ePKP  39 06.84   0.0
                 ePP   40 24.24
                 eSKP  42 30.68
                 ePKKP 49 27.38
EMUT  118.40 300 ePKP  39 06.66  -0.7
                 eSKP  42 30.18
KAT   118.44  62 ePKP  39 08.00   0.9
                 i     40 26.00
                 e     50 17.00
ASH   118.52  64 ePKP  39 07.00  -0.3
                 e     40 27.00
                 e     50 23.00
```

```
RSSD  118.58 307 ePKPd 39 05.79  -1.8
   Z  21s      4.43um          6.1Msz
                 ePKKP 49 24.35
MNK   118.62  34 iPKP  39 06.60  -0.3
   Z  20s      3.30um          6.0Msz
TPNV  118.91 294 ePKP  39 08.45   0.1
                 eSKP  42 30.67
                 (PKKP)49 24.52
DAU   119.07 300 ePKP  39 08.36  -0.4
                 eSKP  42 30.56
                 e     45 43.09
ISA   119.08 291 ePKPc 39 08.48  -0.1
   Z  18s      1.18um          5.6Msz
                 e     39 42.45
                 eSKP  42 32.78
                 e     49 59.54
                 e     50 49.18
DUG   119.67 299 ePKP  39 02.02  -7.6X
DUG   119.67 299 ePKP  39 09.20  -0.4
   Z  18s      1.65um          5.7Msz
ULM   120.03 317 ePKPc 39 10.70   0.9
BW06  120.08 303 ePKPc 39 08.63  -1.8
                 ePP   40 35.48
                 eSKP  42 31.29
                 iPKKP 49 18.70
PKEM  120.24 290 (PKP) 39 11.94   1.3
TNP   120.27 294 ePKPc 39 10.95   0.0
                 eSKP  42 33.40
                 ePKKP 49 19.02
NAO   120.49  21 PKP   39 06.80  -3.5X
PRI   120.59 290 iPKP  39 11.65   0.2
FRI   120.73 291 iPKPc 39 11.47   0.0
NB2   120.76  21 PKP   39 06.00  -4.9X
   0.7s       24.60nm
MEMM  120.84 292 ePKP  39 12.94   1.3
                 eSKP  42 36.41
                 iPKKP 49 17.96
HVU   120.86 300 ePKP  39 10.99  -0.9
                 eSKP  42 33.77
UPP   121.09  25 iPKP  39 10.10  -1.3
LLA   121.10 290 iPKP  39 12.88   0.6
PRS   121.11 290 iPKPc 39 12.96   0.7
KVN   121.46 294 ePKP  39 13.73   0.6
                 eSKP  42 37.16
                 ePKKP 49 15.05
SAO   121.47 290 ePKPc 39 13.37   0.4
   2.1s      290.00nm
SAO   121.47 290 PKP   39 20.00   7.0X
   Z  18s      1.08um          5.5Msz
NDI   121.54  85 iPKPc 39 12.60  -0.7
   0.5s       84.51nm
CMB   121.87 292 iPKPc 39 13.91   0.2
   0.9s       40.00nm
                 ed    39 41.68
                 ic    41 12.68
ARN   121.96 290 ePKPc 39 14.64   0.7
                 e     39 47.50
                 eSKP  42 36.95
GCC   121.96 290 iPKPc 39 14.26   0.4
MHC   122.01 290 iPKPc 39 14.34   0.2
   2.0s      670.00nm
                 ec    39 47.84
STAN  122.34 290 ePKPc 39 16.43   1.9
PCC   122.52 290 iPKPc 39 13.87  -1.0
OBN   122.58  38 iPKPc 39 13.60  -0.8
   0.8s       87.00nm
   Z  20s      2.50um          5.9Msz
   N  20s      1.10um
   E  20s      1.30um
                 e     39 26.00
                 e     46 24.00
                 i     57 58.00
VIP   122.68 294 PKP   39 23.24   7.7X
BKS   122.72 290 iPKPc 39 15.87   0.6
   0.8s      260.00nm
   Z  18s      0.80um          5.4Msz
ZSP   122.78 290 iPKPc 39 16.06   0.7
NTYM  123.33 290 ePKP  39 16.59   0.2
                 eSKP  42 40.28
NUR   123.41  28 iPKP  39 14.70  -1.2
   0.5s       43.50nm
                 e     51 40.00
                 e     57 30.00
                 e     58 10.00
LCCM  123.48 304 ePKPc 39 16.90   0.1
                 e     42 39.50
ORV   123.59 292 iPKPc 39 17.14   0.2
```

NST 123.66 114 ePKP 39 17.50 -0.2
MIN 124.22 293 iPKPc 39 17.60 -0.8
1.1s 80.00nm
WDC 124.88 292 ePKP 39 18.49 -0.9
Z 18s 1.05um 5.5Msz
eSKP 42 42.54
LBFM 125.10 293 ePKPc 39 20.09 0.0
eSKP 42 42.71
KAF 125.19 28 iPKP 39 18.10 -1.2
0.6s 180.90nm
FOX 125.59 291 iPKPc 39 21.06 0.3
CHTO 125.67 111 iPKPc 39 20.52 -1.1
epP'df39 48.66
ePP 41 04.26
eHPP 41 07.29
eSKS 46 12.86
eSKKS 47 53.56
eHSKKS47 54.94
eSDIF 48 59.60
ePS 51 06.88
CHTO 125.67 111 ePdiff36 01.40 1.8
FHC 125.79 291 iPKPc 39 21.70 0.4
LOE 125.94 115 ePKP 39 07.10 -15.0X
FCC 126.10 324 ePKPc 39 22.60 1.4
GDH 126.42 349 iPKPc 39 24.20 2.7
0.9s 157.98nm
e 42 28.00
e 06 20.00
SES 126.44 308 ePKPc 39 20.80 -1.4
0.6s 32.00nm
LNOR 126.57 300 PKP 39 22.20 -0.4
DAV 126.79 146 ePKP- 39 22.00 -1.9
1.0s 160.00nm
JBO 127.03 298 PKP 39 23.39 -0.1
DBO 127.08 294 PKP 39 23.76 0.0
CROR 127.27 297 PKP 39 24.22 0.2
VGB 127.54 298 ePKP 39 24.18 -0.3
e 42 32.18
eSKP 42 46.30
NEW 127.71 302 ePKP 39 23.00 -1.7
e 42 27.52
eSKP 42 46.20
CGP 127.80 145 iPKPc 39 24.50 -1.3
WAH2 127.82 300 PKP 39 25.22 0.3
RNO 127.90 294 PKP 39 26.78 1.5
SSOR 127.91 296 PKP 39 24.83 -0.5
DPW 127.95 301 ePKP 39 24.11 -1.1
i 42 29.77
eSKP 42 48.85
SAW 128.40 301 PKP 39 25.42 -0.6
WTV 128.67 300 PKP 39 26.02 -0.6
SHW 128.74 297 ePKP 39 28.13 1.3
e 42 33.36
KSH 128.87 75 PKP 39 26.40 -0.9
PP 41 34.00
LON 128.92 298 (PKP) 39 26.21 -0.9
eHPP 41 39.86
ePP 41 40.53
epPPP 42 08.34
eSKP 42 49.84
FMW 128.97 298 PKP 39 27.01 -0.4
KMOR 128.98 296 PKP 39 27.24 0.0
RMW 129.41 299 ePKPc 39 27.14 -0.9
e 42 35.21
eSKP 42 50.76
BMW 129.43 297 ePKP 39 27.84 -0.2
e 42 33.55
HON 129.55 247 PKP 39 40.00 11.1X
Z 20s 1.23um 5.6Msz
SDF 129.59 24 iPKP 39 27.00 -0.6
i 42 34.40
GMW 129.95 298 ePKP 39 28.53 -0.4
e 42 36.83
JCW 129.97 299 PKP 39 29.03 0.0
LSA 130.11 95 iPKPc 39 29.78 -0.6
ePP 41 39.47
eHPP 41 39.96
iSKP 42 40.71
eSKS 46 19.55
eSKKS 48 22.87
eHSKKS48 23.70
PLP 130.43 144 ePKPc 39 28.00 -2.8
FRU 130.52 71 iPKPc+39 30.00 -0.2
2.2s 640.00nm
i 41 50.00
e 52 00.00
e 59 14.00
MCW 130.74 299 iPKPd 39 31.11 0.7
- eSKP 42 40.64
STW 130.80 298 PKP 39 31.60 1.1
PGC 131.03 299 ePKP 39 31.50 0.6
1.5s 125.00nm
QIZ 131.32 122 PKP 39 30.00 -2.3
N 16s 6.39um
E 16s 5.15um
PP 41 48.50
KEV 131.60 22 iPKP 39 31.10 -0.2
1.0s 60.00nm
Z 18s 2.70um 6.0Msz
e 42 39.00
e 54 30.00
e 59 16.00
LR 37 50.00
TGY 131.71 138 ePKP 39 38.50 5.2X
ARU 131.97 48 ePdiff36 28.91 2.4
ARU 131.97 48 iPKP 39 31.89 -0.6
eSKS 46 28.27
PRZ 132.29 74 iPKP 39 33.00 -0.8
1.0s 130.00nm
DAG 132.71 3 ePKP 39 21.00 -12.3X
0.8s 2.99nm
DAG 132.71 3 ePKP 39 31.20 -2.1
KMI 132.84 110 ePKPc 39 33.55 -1.8
3.0s 690.00nm
Z 18s 3.10um 6.1Msz
N 15s 1.20um
E 16s 2.00um
sPKP 40 11.00
PP 41 55.00
PKS 43 04.00
SVE 133.10 49 iPKPc 39 34.50 -0.1
2.1s 840.00nm
Z 19s 3.00um 6.0Msz
N 19s 1.50um
E 19s 1.00um
i 42 02.00
e 53 59.00
e 00 25.00
BAG 133.68 136 ePKPc+39 36.00 -1.1
e 42 04.00
e 42 53.40
YKA 135.96 318 ePKP 39 21.50 -18.3X
0.6s 3.40nm
GYA 135.97 113 iPKPc 39 40.00 -1.2
Z 30s 2.73um 5.8MszX
N 18s 6.65um
E 18s 14.50um
PP 42 18.00
SS 00 08.00
HKC 136.17 125 iPKP 39 43.00 1.6
GZH 136.46 123 PKP 39 42.00 0.0
Z 16s 17.20um 6.9MszX
N 12s 12.10um
PP 42 22.00
PKS 43 18.00
GUMO 137.22 169 ePKP 39 27.10 -16.5X
e 39 41.80
e 43 03.10
PJG 137.22 169 ePKP 39 27.50 -16.1X
RES 137.76 339 ePKP 39 32.50 -10.4X
1.0s 36.00nm
pP 39 42.00
CD2 137.98 106 PKP 39 34.10 -10.7X
Z 20s 7.86um 6.4Msz
E 15s 13.20um
iPKS 43 19.80
WMQ 138.25 79 iPKPc 39 43.86 -1.0
epP'df40 17.80
eHPP 42 36.00
ePP 42 36.50
iSKP 43 05.64
eSKS 46 39.49
WMQ 138.25 79 PKP 39 40.00 -4.9X
Z 18s 3.40um 6.1Msz
N 10s 1.66um
PP 42 42.00
SKKS 49 16.00
ENH 140.51 113 ePKPc 39 47.92 -1.3
eHPP 42 40.73
ePP 42 41.22
SIT 141.79 303 PKP 40 00.00 9.3X
Z 19s 1.80um 5.8Msz
LZH 141.94 101 ePKP 39 45.50 -6.4X
Z 14s 7.45um 6.6MszX
N 12s 9.09um
PP 42 57.00
PKS 43 20.00
GTA 142.06 93 PKP 39 46.00 -5.9X
Z 12s 7.21um 6.7MszX
E 15s 6.16um
PP 42 54.00
SKKS 49 36.00
ELT 143.06 66 iPKPc 39 48.50 -4.4X
2.8s 892.00nm
i 43 04.00
XAN 143.16 108 PKP 39 49.50 -4.4X
Z 16s 19.70um 7.0MszX
N 16s 5.05um
E 16s 13.60um
PP 43 04.00
SKKS 49 46.00
WHN 143.19 118 iPKPc 39 46.00 -7.9X
Z 16s 8.29um 6.6MszX
N 16s 3.50um
E 17s 10.30um
PKPab 39 50.00
PP 43 04.00
UER 146.29 73 iPKPc 39 55.00 -3.4X
0.8s 760.00nm
NJ2 146.62 122 PKPc 39 59.00 -0.6
N 13s 7.14um
E 13s 7.23um
pPKP 40 33.00
PP 43 28.00
BALM 146.79 306 ePKP 39 56.88 -2.3
ePKPbc40 01.41
e 43 19.28
eSKP 43 26.00
SSE 146.90 126 PKP 40 02.50 2.4
6.0s 2.00nm
Z 20s 9.20um 6.6Msz
N 14s 9.70um
E 13s 1.90um
pPKP 40 20.00
sPKP 40 35.00
PP 43 25.00
i 48 54.00
i 53 34.00
SS 02 16.00
SSE 146.90 126 iPKPc 39 59.45 -0.6
6.0s 2.00nm
Z 20s 9.20um 6.6Msz
N 14s 9.70um
E 13s 1.90um
iPKPab40 02.26
pPKP 40 20.00
epP'df40 33.05
sPKP 40 35.00
PP 43 25.60
i 48 54.00
i 53 34.00
SS 02 16.00
TIY 147.80 108 iPKPc 40 00.50 -1.0
Z 16s 9.51um 6.7MszX
N 12s 5.74um
E 14s 4.15um
8TO 148.55 101 PKP 40 01.50 -1.1
N 13s 8.52um
E 14s 6.39um
KLU 148.58 306 ePKP 39 59.48 -2.5
iPKPbc40 06.38
eSKP 43 30.69
TIA 149.10 115 PKPc 40 02.70 -0.8
Z 16s 12.70um 6.8MszX
E 16s 7.72um
NRI 149.45 39 iPKP 40 00.00 -2.9
2.3s 1600.00nm
i 43 44.00
e 47 00.00
HHC 149.57 103 PKPc 40 03.80 -0.4
Z 16s 16.60um 6.9MszX
N 14s 5.10um
E 12s 1.67um
PP 43 40.00
PMR 150.07 305 ePKP 40 01.03 -3.0X
Z 18s 1.57um 5.8Msz
ePKPbc40 09.36
eSKP 43 34.21
PMS 150.17 304 ePKPc 40 01.60 -2.7
SLKM 150.26 303 ePKP 40 00.70 -3.8X
iPKPbc40 09.98

20d 09h

```
                     eSKP   43 34.72
FBA    150.29 312 ePKPc 40 00.55   -3.8X
                     iPKPbc40 09.01
                     e      44 07.02
PWA    150.43 305 ePKP  40 01.70   -2.9
                     e      40 10.40
KDC    150.47 297 ePKP  40 05.10    0.3
KDC    150.47 297 iPKP  40 10.35    5.6X
ZAK    150.69  80 iPKPc+40 05.00   -0.4
   1.5s     743.00nm
                     e      43 50.00
KAGJ   150.96 140 ePKP  40 06.80    0.4
CRP    151.39 304 ePKP  40 02.27   -4.1X
                     ePKPbc40 11.81
CP2    151.42 304 ePKPc 40 02.72   -3.7X
                     ePKPbc40 12.31
RSO    151.45 302 ePKP  40 02.19   -4.3X
                     ePKPbc40 12.31
BJI    151.49 109 iPKPc 40 06.27   -0.6
     Z  20s      6.29um          6.4Msz
                     iPKPbc40 13.14
                     ePKPab40 21.50
                     ePP    43 44.00
                     ePP    43 52.96
                     e      54 00.00
                     eSS    02 53.20
TLY    151.52  78 iPKPc 40 05.94   -0.7
                     iPKPbc40 13.14
                     iPKPab40 21.75
KUMJ   152.15 139 PKP   40 07.20   -0.9
IRK    152.17  78 ePKP+ 40 06.00   -1.6
   2.4s     290.00nm
                     i      40 13.60
                     i      40 15.30
                     i      40 25.30
IMA    152.88 314 ePKPc 40 05.03   -3.3X
                     iPKPbc40 16.05
SVW    152.98 302 ePKP  40 04.74   -3.7X
                     ePKPbc40 15.13
DL2    153.45 117 ePKP  40 09.00   -0.7
     Z  18s      1.21um          5.8Msz
                     PP     44 03.00
TTA    153.51 306 ePKPc 40 06.00   -3.2X
                     ePKPbc40 17.47
SHNJ   153.68 138 PKP   40 10.00   -0.2
SDN    153.74 288 ePKP  40 08.90   -0.7
SDN    153.74 288 ePKP  40 17.15    7.6X
BRW    153.83 325 ePKPd 40 05.98   -3.3X
                     iPKPbc40 17.54
                     ePKPab40 31.58
TKSJ   154.60 143 PKP   40 12.10    0.7
WKYJ   155.33 145 ePKP  40 12.70    0.2
YONJ   155.49 141 PKP   40 12.20   -0.4
SNY    156.63 116 iPKPc 40 12.80   -1.1
     Z  14s     10.70um          6.8MszX
     N  17s      4.71um
     E  16s      8.30um
                     iPKPab40 42.00
                     iPP    44 18.00
TSRJ   156.66 145 ePKP  40 15.60    1.4
CIT    157.18  84 ePKP  40 14.00   -0.4
                     e      40 47.00
                     e      44 26.00
IIDJ   157.20 149 ePKP  40 14.90    0.0
CHJJ   158.04 150 ePKP  40 15.70   -0.1
MTMJ   158.20 147 ePKP  40 15.80   -0.3
MAJO   158.28 148 iPKPc 40 15.59   -0.5
                     epP'df40 47.70
                     eSKP   43 37.11
                     iPP    44 26.44
                     eHPP   44 27.76
MAT    158.28 148 ePKP  40 15.00   -1.1
KAKJ   158.50 153 ePKP  40 16.80    0.5
CN2    159.01 115 PKPc  40 16.00   -0.6
     Z  15s      9.71um          6.8MszX
     N  15s      7.73um
     E  15s      3.02um
                     PKPab  40 50.00
                     PP     44 29.00
NIIJ   159.16 149 ePKP  40 16.70   -0.3
HIA    159.32  96 iPKPc 40 15.63   -1.2
                     e      40 27.72
                     epP'df40 47.58
                     ePKPab40 55.36
                     ePP    44 34.84
                     iHPP   44 36.16
BOD    159.38  69 iPKPc 40 14.10   -2.5
```

```
        1.4s     133.00nm
YAMJ   160.32 150 PKP   40 18.00   -0.3
ADK    161.32 270 ePKP  40 14.09   -4.7X
                     iPKPab41 03.55
TIK    161.55  23 iPKPc+40 14.00   -4.4X
        2.5s     850.00nm
                     i      41 05.00
                     i      44 45.00
                     ePPP   48 33.00
OFUJ   161.60 153 PKP   40 19.00   -0.5
MDJ    161.66 119 iPKPc 40 19.08   -0.3
                     epP'df40 49.70
                     ePKPab41 04.93
                     eHPP   44 42.92
ILT    162.15 323 iPKPc 40 14.00   -5.1X
        1.6s     257.00nm
                     i      44 52.00
                     i      48 32.00
AOMJ   162.63 148 ePKP  40 22.60    2.2
ERM    164.74 154 iPKPc 40 23.45    1.0
                     epP'df40 54.73
                     eHP'ab41 13.27
                     ePKPab41 13.94
HOOJ   165.12 153 ePKP  40 23.00    0.3
KUSJ   166.14 157 iPKP+ 40 22.90   -0.6
ASAJ   166.56 149 iPKP+ 40 23.90    0.0
SMY    166.82 264 PKP   40 30.00    6.3X
     Z  20s      2.60um
YAK    167.04  54 iPKPc+40 21.00   -2.6
        2.5s     596.00nm
                     ipP    41 29.00
                     e      45 20.00
KUR    168.80 164 iPKPc 40 25.00   -0.3
YSS    169.18 143 iPKPc 40 25.58    0.1
        1.8s     720.00nm
                     epP'df40 55.38
                     e      41 18.05
                     iPKPab41 38.16
                     eHP'ab41 38.99
                     eSKP   43 45.58
                     iPP    45 21.87
                     eHPP   45 23.53
PET    175.15 233 ePKP  40 26.00   -1.8
        1.5s     180.00nm
                     e      45 57.00
MGD    175.90  10 ePKPc+40 25.00   -2.7
        2.5s     710.00nm
     S.D. = 1.2  on 355 of 431 obs.
-----------------------------------------
   MAR 20, 1993  10h 08m 10.81± 0.17s
   1.556 S ± 3.9km   99.007 E ± 3.5km
   DEPTH = 22.7km  (  8 depth phases)
   5.4mb ( 52 obs.)  5.4Msz ( 11 obs.)
 SOUTHERN SUMATERA, INDONESIA     (274)
KGM      5.58  51 iPc     09 37.50    2.8
                  i       09 46.10
                  iS      11 21.40
IPM      6.42  18 ePc     09 46.90    0.4
                  eS      11 44.90
SNG      8.82  10 eP      10 18.20   -1.8
         0.9s     80.67nm          6.0mb X
                  eS      12 41.20
LEM     10.06 122 ePd     10 35.60   -1.6
         1.0s     60.00nm          5.9mb
     Z  18s      11.68um          4.3MszX
                  eS      13 18.00
                  eLR     14 40.00
KHT     16.24 359 eP      12 00.00    0.7
NST     17.15   4 eP      12 05.50   -5.3X
KHKI    17.86 113 eP      12 19.60    0.0
                  eS      12 37.60
                  e       18 13.00
LOE     19.03   8 eP      12 35.40    1.4
                  e       16 15.00
TSM     19.73  73 ePc     12 42.50    0.4
         0.8s    430.60nm          5.8mb
CHTO    20.24 360 ePc     12 45.70   -1.8
         0.9s     53.92nm          4.9mb
GBA     26.16 306 P       13 46.00    0.5
PGP     26.41  55 ePd     13 48.20    0.4
TGY     26.72  54 ePc     13 55.00    4.3X
KMI     26.77   8 Pc+     13 52.50    1.3
         2.0s    370.00nm          5.7mb
     Z  14s      14.20um          5.7MszX
     N  11s       8.90um
     E  10s       4.30um
```

```
                  sP      14 15.00
                  S       18 27.00
                  sS      18 40.00
CGP     27.47  68 iPd     13 58.00    0.5
HYB     27.60 314 eP      13 59.00    0.3
BAG     27.79  49 ePc     14 00.00   -0.6
DAV     27.87  72 eP      14 02.00    0.9
PLP     28.75  63 ePc     14 08.00   -1.1
WARB    36.14 135 eP      15 13.00   -0.5
         0.6s      9.00nm          4.9mb
LZH     37.72   6 iPc     15 27.50    0.7
         1.8s    495.00nm          6.0mb
     Z  12s       0.77um          4.7MszX
     N  21s       0.54um
                  sP      15 35.00
                  PP      15 45.00
SSE     38.72  31 iPc     15 36.00    1.0
         1.0s     63.00nm          5.3mb
                  i       17 47.00
WRA     39.07 120 P       15 37.50   -0.7
WB2     39.08 120 iPc     15 37.10   -1.2
         0.8s     59.40nm          5.4mb
                  e       15 47.90  38kmX
                  i       17 48.50
                  eS      21 32.30
ASPA    40.31 126 P       15 47.79   -0.7
BJI     44.28  19 eP      16 21.00    0.5
         1.0s     55.00nm          5.4mb
     Z  16s      10.00um          5.8MszX
     N  16s      10.60um
                  i       18 05.00 583kmX
KUMJ    45.33  39 P       16 29.40    0.3
SHNJ    46.57  37 P       16 39.60    0.7
PRZ     47.62 339 iPd     16 49.00    1.7
         1.0s    130.00nm          5.9mb
     Z  19s       2.70um          5.2Msz
     E  19s       2.00um
TKSJ    48.31  40 eP      16 52.90    0.3
PMG     48.51 101 eP      16 52.00   -2.4
TLG     48.67 339 iP      16 56.00    0.7
     Z  20s       1.80um          5.1Msz
     N  18s       2.00um
                  e       18 49.00 636kmX
                  iS      24 00.00
YONJ    48.73  38 P       16 54.90   -0.9
FRU     49.35 336 iPc     17 00.00   -0.5
         2.2s    280.00nm          5.9mb
                  e       17 15.00  57kmX
                  e       24 09.00
                  e       24 22.00
WKYJ    49.46  41 eP      17 01.40   -0.1
ADE     49.68 137 eP      17 04.20    1.0
CTA     49.68 115 iPc     17 02.50   -0.9
         1.0s     27.50nm          5.2mb
                  i       17 09.00  22km
                  e       17 19.00
QLP     50.03 124 iPd     17 06.10    0.2
STK     50.18 131 P       17 06.30   -0.7
IIDJ    51.73  41 eP      17 17.90   -0.9
ZAK     51.87   3 iPc     17 20.00    0.6
         2.3s    202.00nm          5.6mb
     Z  14s       8.91um          6.0MszX
     N  13s       4.94um
                  eS      24 43.00
MTMJ    52.33  40 P       17 23.00   -0.4
MAT     52.56  40 iPc     17 23.60   -1.4
         1.2s     34.38nm          5.2mb
MAIO    52.62 320 iPc     17 24.00   -1.5
CHJJ    52.78  41 eP      17 25.20   -1.4
CMS     53.24 129 iPd     17 30.10    0.0
         0.5s      5.00nm          4.7mb
VTY     53.29 247 eP      17 30.40   -0.4
BFD     53.48 137 eP      17 31.70   -0.1
         1.1s     19.00nm          5.0mb
RMQ     53.78 122 iPd     17 34.50    0.4
         0.3s      7.00nm          5.1mb
IRK     53.82   4 eP+     17 33.00   -0.9
         2.3s    187.00nm          5.7mb
     Z  13s       4.15um          5.7MszX
     N  13s       2.57um
     E  14s       2.90um
                  e       17 50.00  65kmX
                  eS      25 10.00
ASH     54.34 321 eP      17 37.00   -1.0
YAMJ    54.71  39 eP      17 40.50   -0.2
CIT     54.77  11 eP      17 46.30    5.3X
ELT     55.64 351 iPc     17 46.80   -0.4
```

e 18 45.00 264kmX
eS 25 33.00
e 25 50.00
TOO 55.72 136 eP 17 49.30 1.2
0.8s 16.00nm 5.1mb
OFUJ 56.27 39 eP 17 51.50 -0.5
BWA 56.44 131 iPc 17 54.50 1.1
ipP 18 01.20 22km
CAN 57.24 132 iPc 17 59.20 0.1
ipP 18 05.20 20km
i 18 17.50
ARMA 57.47 125 iPc 18 01.60 0.8
0.5s 12.00nm 5.2mb
MRRJ 57.90 36 eP 18 03.20 -0.3
HOOJ 59.19 37 P 18 13.00 0.5
ASAJ 59.84 35 P 18 16.50 -0.5
BOD 60.46 9 iPc 18 19.80 -1.1
1.7s 165.00nm 5.9mb
KUSJ 60.46 37 eP 18 21.10 -0.1
YSS 61.66 32 iPc 18 28.70 -0.5
0.8s 240.00nm 6.4mb
Z 17s 2.40um 5.4MszX
N 17s 2.50um
E 17s 1.30um
e 18 43.50 54kmX
(S) 26 52.00
KUR 63.54 36 iPc 18 42.00 0.3
GRO 65.35 320 eP 18 53.00 -0.6
SVE 65.89 338 iPc 18 56.00 -0.8
2.1s 160.00nm 5.8mb
e 19 23.00 108kmX
ARU 66.37 337 ePc 18 59.00 -0.9
1.4s 140.00nm 5.9mb
e 19 16.00 63kmX
e 19 32.00
PYA 67.35 320 iPc 19 05.00 -1.4
1.0s 100.00nm 5.9mb
i 19 17.00 40kmX
KIV 67.56 319 eP 19 06.40 -1.5
1.2s 63.00nm 5.6mb
YAK 67.57 15 iPc+ 19 06.00 -1.4
i 19 22.00 58kmX
eS 29 00.00
MBH 68.53 303 eP 19 13.70 -0.5
DZM 68.54 113 iPc 19 13.90 -0.4
JVI 68.72 305 eP 19 14.70 -0.5
HRI 68.78 307 eP 19 15.50 -0.2
BFT 70.40 243 e(P) 19 25.00 -0.9
MAW 70.47 194 P 19 26.20 1.0
SKR 71.05 34 eP 19 29.00 0.0
1.0s 120.00nm 6.0mb
BUL 71.07 249 iPd 19 29.00 -0.9
NRI 71.20 356 iPc 19 28.10 -1.5
1.0s 94.00nm 5.9mb
Z 18s 5.00um 5.8Msz
N 18s 2.00um
E 18s 7.00um
i 19 53.00 97kmX
eS 28 42.00
SLR 71.98 244 eP 19 33.80 -1.5
0.7s 16.00nm 5.2mb
PRY 72.85 242 eP 19 35.50 -5.0X
SEK 72.90 241 eP 19 43.50 2.8
KSR 73.24 244 eP 19 40.00 -2.8
MGD 73.36 24 iPc+ 19 42.00 -0.5
1.9s 230.00nm 5.9mb
Z 16s 3.80um 5.8MszX
N 16s 3.20um
E 16s 2.20um
GRM 74.49 236 e(P) 19 42.50 -7.2X
TIK 75.57 9 iPc+ 19 54.00 -1.1
2.0s 185.00nm 5.8mb
Z 16s 6.00um 6.0MszX
i 20 12.00 66kmX
i 20 17.00
eS 29 32.00
ePS 30 25.00
MOS 75.61 329 eP 19 55.00 -0.6
Z 23s 3.80um 5.6MszX
OBN 75.87 328 iPc 19 56.70 -0.4
e 20 06.00 30km
ISR 78.80 317 eP 20 16.50 2.8
VRI 78.86 317 ePc 20 14.50 0.6
PVL 79.22 314 eP 20 17.00 1.1
MLR 79.30 317 ePc 20 16.50 0.0
POF 79.70 241 e(P) 20 29.00 10.2X
MMB 80.05 313 eP 20 26.00 5.5X
MNK 80.41 325 eP 20 22.00 0.0
BCAO 80.62 275 iPd 20 24.00 0.0
0.8s 7.00nm 4.7mb
i 21 03.20 158kmX
i 22 52.00
VTS 80.62 313 iP 20 23.00 -0.6
VAY 80.86 312 eP 20 23.60 -1.1
SKO 81.81 313 eP 20 27.50 -2.1
OHR 82.14 312 iP 20 29.50 -2.0
SMY 82.24 36 P 20 40.00 8.4X
Z 20s 2.60um 5.6Msz
UZH 82.40 319 eP 20 33.00 0.5
e 20 55.50 84kmX
KAF 83.34 333 iP 20 37.50 0.4
0.6s 47.30nm 5.8mb
NUR 83.69 331 iP 20 39.00 0.1
0.8s 23.00nm 5.4mb
SPC 83.83 320 eP 20 40.90 0.8
OJC 84.29 321 eP 20 42.40 0.2
SDF 84.81 338 iP 20 45.20 0.8
SRO 84.89 318 iP 20 46.40 1.2
KEV 85.28 341 eP 20 47.00 0.2
ZST 85.75 318 iP 20 49.30 -0.2
PTJ 86.26 316 eP 20 52.00 -0.2
KSP 86.59 321 ePc 20 53.50 -0.1
VBY 86.71 316 ePc 20 54.50 0.2
UPP 87.00 330 iP 20 55.70 0.4
LJU 87.27 316 eP 20 57.00 0.0
CEY 87.31 316 e(P) 20 57.20 -0.1
PRU 87.61 320 P 20 59.00 0.4
e 21 06.50 23km
e 21 36.50
VOY 87.71 316 e(P) 20 59.00 -0.2
GEC2 88.06 319 e(P) 21 08.50 7.6X
1.0s 10.20nm 5.1mb
GEC2 88.06 319 P 21 00.90 0.0
1.2s 13.13nm 5.1mb
e 21 07.90 22km
e 21 18.50
BRG 88.07 321 iPc 21 02.20 1.5
1.2s 22.00nm 5.4mb
KHC 88.17 319 eP 21 01.50 0.2
e 21 40.00 152kmX
ILT 88.52 22 iPc 21 02.00 -0.6
1.2s 25.00nm 5.4mb
CLL 88.70 321 iPc 21 03.80 0.1
1.2s 16.00nm 5.2mb
MOX 89.53 321 eP 21 08.60 0.9
GRF 89.74 320 ePc 21 09.50 0.8
1.0s 30.00nm 5.5mb
e 21 16.90 23km
e 21 26.90
e 21 37.30
NB2 90.28 331 P 21 06.00 -5.0X
0.9s 6.60nm 4.9mb
OSS 90.34 317 iPc 21 12.40 0.6
VDL 90.80 316 ePd 21 15.77 1.8
PGF 91.05 312 eP 21 15.20 0.2
1.2s 19.05nm 5.3mb
LLS 91.13 317 ePc 21 15.40 -0.1
TMA 91.20 316 ePc 21 15.30 -0.5
PCP 91.41 314 P 21 16.26 -0.3
SLE 91.49 318 Pc 21 16.80 -0.1
TNS 91.54 320 ePc 21 17.70 0.6
ZLA 91.55 317 ePc 21 17.20 0.0
FIN 91.65 314 P 21 17.40 -0.3
MMK 91.83 316 ePd 21 19.30 0.5
IMI 91.88 314 P 21 18.41 -0.4
SBF 92.20 314 eP 21 20.40 0.1
0.9s 19.00nm 5.5mb
DIX 92.22 316 iPc 21 21.30 0.7
STV 92.28 314 P 21 20.01 -0.7
CDF 92.31 318 eP 21 20.60 -0.1
1.1s 9.50nm 5.1mb
BHB 92.33 315 P 21 18.82 -1.9
LSD 92.40 315 P 21 21.11 -0.3
EMS 92.55 316 ePc 21 22.30 0.3
BSF 92.63 318 eP 21 22.70 0.5
LPG 92.68 315 eP 21 22.90 0.1
1.0s 16.00nm 5.4mb
LPL 92.70 315 eP 21 22.90 0.2
1.1s 17.10nm 5.4mb
FRF 92.78 313 eP 21 23.10 0.3
1.0s 10.40nm 5.2mb
LMR 92.88 313 eP 21 22.60 -0.7
LRG 92.99 313 eP 21 24.20 0.4
1.3s 21.30nm 5.4mb
LBF 94.57 317 eP 21 30.90 -0.2
0.9s 5.90nm 5.0mb
LOR 94.64 317 eP 21 31.30 0.0
1.1s 11.00nm 5.2mb
SMF 94.68 316 eP 21 31.30 -0.2
SSF 94.89 317 eP 21 31.70 -0.8
1.0s 4.60nm 4.9mb
AVF 95.01 317 eP 21 33.00 0.0
IMA 98.39 23 ePc 21 48.81 0.6
0.6s 3.45nm 5.1mb
e 21 55.35 20km
HON 102.67 69 Pdiff 22 20.00 11.9X
Z 18s 0.60um 5.1Msz
YKA 114.23 16 ePdiff22 59.50 0.9
0.5s 0.10nm
YKA 114.23 16 ePKP 26 47.90 -2.0
0.8s 0.70nm
FCC 122.03 8 ePKP 27 07.50 2.7
RMW 122.22 32 (PKP) 27 05.90 0.2
JAQ 127.75 356 ePKP 27 15.00 -1.1
LCCM 128.25 27 ePKP 27 18.20 0.7
ULM 129.86 12 ePKP 27 23.00 2.8
HVU 130.80 31 ePKP 27 23.25 0.7
DUG 131.91 33 ePKP 27 25.44 0.8
Z 21s 0.81um 5.4Msz
eSKP 30 51.05
DAU 132.58 32 ePKP 27 26.89 0.7
GSC 132.73 41 (PKP) 27 24.60 -1.7
RSSD 132.94 23 ePKP 27 26.93 0.4
Z 20s 0.77um 5.4Msz
ePP 29 51.83
eSKP 30 52.42
EMUT 133.25 32 ePKP 27 26.10 -1.2
PEC 133.33 42 ePKP 27 28.23 0.8
MSU 133.44 34 ePKP 27 29.11 1.4
eSKP 30 56.04
SRU 133.92 32 ePKP 27 28.41 -0.1
GOL 136.02 27 PKP 27 40.00 7.4X
Z 21s 1.08um 5.6Msz
ALQ 139.19 33 PKP 27 50.00 11.4X
Z 18s 0.57um 5.4Msz
PPD 142.73 229 (PKP) 27 51.00 6.0X
WMOK 143.05 25 PKP 27 41.05 -4.1X
MEO 143.10 24 iPKPc 27 41.20 -4.1X
BAO 143.18 241 (PKP) 27 48.00 2.0
ELC 143.64 11 ePKP 27 43.02 -3.0X
GRT 144.59 12 ePKP 27 46.68 -1.0
OLY 144.85 15 ePKP 27 46.50 -1.7
MIAR 145.14 18 ePKP 27 48.23 -0.5
Z 20s 0.75um 5.4Msz
iPKPbc27 48.86
UYO 145.20 20 iPKPc 27 47.70 -1.1
CEH 145.79 357 ePKP 27 49.82 0.1
Z 20s 0.88um 5.5Msz
GBTN 145.93 5 ePKP 27 49.91 -0.1
TKL 145.97 4 ePKP 27 50.11 0.0
LHS 147.25 360 ePKP 27 54.30 2.2
MZX 147.27 47 (PKP) 27 56.00 3.5X
GOGA 148.23 4 (PKP) 27 56.36 2.6
ePKPbc28 00.12
MRX 153.24 46 (PKP) 28 03.50 1.9
SIV 153.71 228 PKP 28 13.60 11.2X
CNC8 157.69 215 ePKP 28 16.00 7.7X
LPB 157.98 215 ePKP 28 11.00 2.6
ZOBO 158.19 215 ePKP 28 10.00 1.1
S.D. = 1.0 on 179 of 199 obs.

MAR 20, 1993 11h 02m 20.44± 1.74s
27.041 N ± 8.9km 140.057 E ± 5.7km
DEPTH = 276.6 ± 16.5 km
5.0mb (55 obs.)
BONIN ISLANDS REGION (212)

MAT 9.60 351 eP 04 40.00 5.3X
0.8s 33.58nm 4.5mb
eS 06 22.00
GUMO 14.12 160 eP 05 27.40 -3.1
SSE 16.98 288 P 06 06.00 3.2X
1.0s 21.00nm 4.5mb
KUR 19.20 17 iPc 06 27.50 2.0
0.9s 200.00nm 5.5mb
Z 16s 2.80um 4.3MszX
N 16s 2.80um
E 16s 2.80um
eS 09 42.00
YSS 20.05 5 iPd 06 34.70 0.8
0.9s 60.00nm 5.0mb

```
20d  11h

     Z  18s     0.90um            4.2Msz
     N  18s     0.80um
                   eS    09 54.00
BJI    23.67 309 eP    07 10.00   1.2
       1.2s    49.00nm           4.9mb
CIT    31.89 329 eP    08 23.50   1.5
LZH    32.00 295 iPd   08 25.80   2.5
       1.4s   157.00nm           5.4mb
                   pP    08 42.00  67kmX
KMI    33.49 275 Pc    08 40.50   4.2X
       1.5s   100.00nm           5.2mb
MGD    33.86  10 iPd   08 38.50  -0.2
       0.9s   130.00nm           5.5mb
YAK    35.65 352 iPd   08 52.90  -0.8
       1.0s   151.00nm           5.5mb
BOD    35.78 336 iPd   08 54.70  -0.2
       1.1s    78.00nm           5.2mb
ZAK    36.41 320 iPd   09 01.70   1.5
       1.0s    38.00nm           4.9mb
                   e     11 17.00
CHTO   38.60 267 eP    09 23.50   4.6X
TIK    45.07 355 iPd   10 09.80  -0.6
       1.0s    57.00nm           4.9mb
                   e     11 44.00
CTA    47.23 172 iP    10 22.00  -5.9X
                   i     10 34.00
ELT    47.31 319 eP    10 28.40   0.3
       1.3s    20.00nm           4.3mb
ILT    47.75  20 iPd   10 29.00  -2.3
       1.0s    50.00nm           4.8mb
MBL    51.76 204 eP    11 06.50   4.3X
NRI    51.87 339 iPc   11 01.50  -0.9
       1.0s    50.00nm           4.9mb
                   e     12 14.00
                   e     17 53.00
                   e     18 18.00
SVW    54.34  33 eP    11 20.53  -0.1
       0.8s    34.33nm           4.9mb
TTA    54.45  30 eP    11 21.32  -0.1
       1.2s    13.23nm           4.3mb
FRU    54.62 305 eP    11 24.80   1.9
       1.2s    50.00nm           4.9mb
NDI    55.00 287 eP    11 28.00   2.2
RSO    55.66  34 eP    11 29.28  -1.1
CP2    55.98  33 eP    11 32.54  -0.1
                   ePcP  12 25.89
IMA    55.99  27 eP    11 32.18  -0.3
       0.8s     3.47nm           3.9mb X
                   ePcP  12 26.42
BRW    56.10  20 iPc   11 32.96   0.0
                   iPcP  12 27.11
SLKM   56.91  34 eP    11 38.02  -0.9
                   ePcP  12 30.06
HYB    57.26 274 ePc   11 44.50   2.6X
PMR    57.50  32 eP    11 41.74  -1.1
       1.0s    62.50nm           5.1mb
FBA    58.29  29 eP    11 47.15  -1.2
       1.1s    18.91nm           4.6mb
KLU    59.03  33 iPd   11 53.02  -0.6
GBA    59.70 270 P     12 01.00   2.3
BALM   60.77  33 iPc   12 04.46  -1.0
POO    61.04 277 iP    12 09.00   1.3
SVE    62.11 322 ePd   12 13.70  -0.4
       1.1s    60.00nm           5.1mb
QUE    63.21 292 eP    12 23.40   1.4
ARU    63.29 322 ePd   12 21.50  -0.3
       1.2s   100.00nm           5.4mb
MAIO   67.38 300 eP    12 50.00   1.7
KEV    72.40 340 iP    13 17.50  -0.3
       1.1s    64.80nm           5.3mb
RES    72.55  13 eP    13 19.00   0.4
       1.0s     9.00nm           4.5mb
YKA    73.08  28 eP    13 20.90  -0.9
       1.0s    27.00nm           4.9mb
SDF    73.81 338 iP    13 25.00  -1.0
JCW    75.35  43 P     13 36.00   0.8
RMW    75.73  44 eP    13 37.79   0.4
FMW    76.03  44 P     13 39.63   0.5
KAF    76.69 334 iP    13 41.50  -0.7
       0.4s    25.80nm           5.3mb
KIV    76.69 313 eP    13 44.90   2.1
       1.1s    43.00nm           5.1mb
WTV    76.77  43 P     13 43.17   0.1
SAW    77.10  43 P     13 45.09   0.3
VGB    77.19  45 eP    13 45.84   0.4
CROR   77.29  46 P     13 46.71   0.7
WAH2   77.42  44 P     13 47.20   0.7
DPW    77.75  42 iPd   13 48.71   0.3
JBO    77.81  45 P     13 49.31   0.5
NEW    78.22  42 iPc   13 51.16   0.2
       0.9s    44.41nm           5.2mb
NUR    78.25 333 iP    13 50.00  -0.8
       0.4s    22.40nm           5.3mb
LBFM   78.26  50 iPc   13 52.47   1.0
LNOR   78.60  44 P     13 55.38   2.3
ORV    79.31  51 eP    13 56.91   0.0
MNK    80.64 326 eP    14 01.00  -2.5
SES    80.65  38 ePd   14 03.90   0.1
CMB    80.76  52 eP    14 04.89   0.3
       1.1s    17.41nm           4.8mb
UPP    81.43 334 iP    14 05.40  -2.1
KVN    81.88  50 iPd   14 11.27   0.6
LCCM   82.53  42 iPd   14 14.20   0.4
NB2    82.95 338 P     14 09.40  -6.0X
       0.7s    20.10nm           5.0mb
TNP    82.95  51 iPc   14 16.99   0.9
       1.0s    27.28nm           5.0mb
NAO    83.23 338 P     14 10.30  -6.5X
FCC    83.47  25 ePc   14 20.30   2.3
HVU    84.07  46 ePd   14 22.58   1.0
                   epP   14 47.13  92kmX
TPNV   84.17  51 eP    14 22.89   0.7
       0.9s    54.30nm           5.4mb
GSC    84.59  53 ePd   14 24.99   0.8
DUG    84.87  47 iPc   14 25.87   0.3
       1.0s    19.38nm           4.9mb
PEC    85.02  55 ePd   14 26.63   0.3
       0.8s    29.35nm           5.2mb
PLM    85.50  55 eP    14 29.20   0.3
8W06   85.57  44 eP    14 28.88  -0.3
       1.0s    16.04nm           4.8mb
ARUT   85.69  50 eP    14 30.32   0.6
DAU    85.77  46 eP    14 30.86   0.6
MSU    86.16  48 eP    14 32.25   0.1
EMUT   86.37  47 eP    14 34.13   1.0
OJC    86.68 326 eP    14 33.00  -1.1
SRU    86.94  47 eP    14 35.68  -0.1
SPC    87.11 325 e(P)  14 36.10  -0.3
GLA    87.13  54 ePc   14 37.60   1.0
KSP    87.97 328 iPc   14 39.50  -0.7
       1.2s    34.00nm           5.1mb
                   e     18 11.00
RSSD   88.11  40 eP    14 40.59  -0.7
       1.0s    12.94nm           4.8mb
ULM    88.51  32 ePc   14 44.90   2.1
BRG    89.04 329 iP    14 44.60  -0.6
CLL    89.16 330 eP    14 45.00  -0.8
       1.2s    19.00nm           4.9mb
ZST    89.34 326 eP    14 46.30  -0.4
                   e     26 49.10
PRU    89.37 328 eP    14 46.00  -0.8
GOL    89.91  45 eP    14 50.63   0.8
       0.9s     4.41nm           4.4mb
MOX    90.25 330 eP    14 50.30  -0.6
       1.3s    10.00nm           4.6mb
TUC    90.42  53 iPc   14 53.38   1.3
       1.0s     7.97nm           4.6mb
KHC    90.42 328 Pc    14 51.50  -0.2
       1.1s    12.50nm           4.8mb
                   e     17 24.00
GEC2   90.56 328 P     14 51.20  -1.3
       1.2s    13.77nm           4.8mb
VAY    90.72 318 eP    14 53.00  -0.2
GRF    91.11 330 iPd   14 54.50  -0.3
       1.1s    29.00nm           5.1mb
KBA    91.97 327 e(P)  14 57.00  -2.1
VBY    92.09 325 iP    14 58.90  -0.5
EKA    92.12 340 P     14 59.00  -0.4
       1.1s    14.70nm           4.9mb
JAQ    93.74  20 eP    15 05.50  -1.4
CDF    93.81 331 eP    15 06.40  -1.0
       1.3s    20.95nm           5.1mb
BSF    94.46 331 eP    15 09.10  -1.3
       1.1s    10.75nm           4.9mb
HAU    94.52 331 eP    15 09.30  -1.3
       1.0s     7.60nm           4.8mb
LOR    96.16 332 eP    15 17.00  -1.1
       1.2s    15.45nm           5.1mb
LPL    96.24 329 eP    15 17.50  -1.2
LPG    96.25 329 eP    15 17.70  -1.1
LBF    96.33 331 eP    15 17.60  -1.3
       1.1s     8.80nm           4.9mb
SSF    96.47 332 eP    15 18.50  -0.9
       1.0s    10.40nm           5.0mb
SMF    96.65 331 eP    15 19.00  -1.3
       1.0s     7.20nm           4.9mb
AVF    96.75 332 eP    15 19.80  -0.9
       1.1s    12.20nm           5.1mb
MAF    97.53 332 eP    15 22.70  -1.5
       1.1s     8.05nm           4.9mb
TIC   132.41 310 PKP   21 04.00  -0.1
                   e     23 55.50
KIC   132.42 309 PKP   21 04.30   0.2
                   e     23 55.50
LIC   132.72 309 PKP   21 04.80   0.2
                   e     23 56.50
LPB   151.90  74 ePKP  21 40.00   1.9
SIV   157.51  65 PKP   21 52.00   6.8X
     S.D. = 1.1  on 110 of 120 obs.
```

```
  MAR  20, 1993  11h 13m 25.55± 0.46s
  16.834 N ± 8.0km    94.645 W ± 6.0km
  DEPTH = 118.9 ±  6.0 km
  4.6mb ( 21 obs.)
 OAXACA, MEXICO                        ( 60)
       Felt in the state of Oaxaco.

SCX     1.93  93 iP    14 00.39   1.9
                 iS    14 23.85
OXX     2.00 277 iP    13 58.50  -1.2
                 iS    14 23.10
TPX     2.99 130 iP    14 13.27   0.9
                 (S)   14 39.52
IISM    3.37 310 iP    14 16.00  -1.4
                 (S)   14 57.19
PPM     4.39 301 iP    14 32.50   0.7
                 (S)   15 06.53
BVA     4.42 119 iPc   14 31.82  -0.1
IIA     4.46 302 iP    14 34.42   2.2
IXG     4.83 123 iP    14 38.48   1.1
                 iS    15 17.59
III     4.85 289 iP    14 37.00  -0.8
                 (S)   15 37.20
UNM     4.98 301 (P)   14 51.00  11.4X
ACX     4.99 271 iP    14 36.88  -2.6
                 (S)   15 30.30
MRL     5.08 110 eP    14 39.55  -1.3
                 eS    15 35.90
YUP     5.35 119 eP    14 42.84  -1.7
CRX     5.43 299 (P)   14 48.50   2.7
MRX     6.84 296 iP    15 06.50   1.7
CGX     8.85 290 (P)   15 32.00  -0.2
UYO    17.26   1 iPd   17 20.50  -0.1
MIAR   17.66   3 ePc   17 24.60  -0.9
       0.5s    10.94nm           4.4mb
WMOK   18.21 349 eP    17 30.62  -1.5
       0.6s    10.71nm           4.3mb
MEO    18.22 350 iPc   17 31.20  -1.0
OCO    18.78 353 iPc   17 39.20   0.9
OLY    18.81   8 eP    17 37.39  -1.1
ACO    20.18 349 iPc   17 52.50  -0.4
ALQ    20.90 332 ePd   18 01.66   1.4
       0.6s     2.35nm           3.7mb
                 e     18 06.00
                 e     18 21.18
ULM    33.35 359 ePd   19 54.90   0.9
JAO    39.73  18 eP    20 45.00  -2.7
                 pP    21 10.50 111kmX
ZOBO   42.03 140 P     21 07.00  -0.7
       0.9s    19.46nm           4.9mb
                 i     21 45.90
CNCB   42.52 141 eP    21 11.00  -0.7
                 i     21 46.20
YKA    47.71 348 eP    21 50.60  -1.2
       0.7s     0.90nm           3.7mb
LPF    80.04  43 iPc   25 23.10  -0.2
       0.7s    12.90nm           4.8mb
GRR    80.07  42 iPc   25 23.40  -0.1
       0.7s    17.85nm           5.0mb
FLN    80.22  42 iPc   25 24.30   0.0
       0.8s    19.90nm           5.0mb
LDF    80.50  42 iPc   25 25.60  -0.1
       0.7s    10.15nm           4.7mb
MFF    80.99  44 eP    25 28.10  -0.2
       1.1s    10.75nm           4.6mb
LFF    82.02  46 iPc   25 33.80   0.1
       1.1s    22.45nm           4.9mb
LPO    82.40  46 eP    25 35.80   0.1
       0.8s     7.00nm           4.5mb
RJF    82.45  45 iPc   25 35.90  -0.1
SSF    83.27  43 iPc   25 40.00  -0.1
```

0.8s 7.95nm 4.7mb
LOR 83.44 43 iPc 25 41.00 0.0
1.0s 10.00nm 4.7mb
LBF 83.60 43 iPc 25 41.50 -0.4
1.0s 5.40nm 4.4mb
HAU 84.80 41 iPc 25 48.20 0.4
0.8s 13.70nm 4.9mb
BSF 85.14 42 iPc 25 49.80 0.1
0.9s 7.70nm 4.6mb
CDF 85.25 41 iPc 25 50.50 0.3
1.1s 10.75nm 4.7mb
LPL 85.88 44 eP 25 54.60 1.1
LPG 85.90 44 iPc 25 54.80 1.1
LMR 86.47 46 iPc 25 56.70 0.6
1.0s 9.00nm 4.7mb
FRF 86.48 46 iPc 25 56.80 0.6
1.2s 13.40nm 4.8mb
LIC 87.86 84 P 26 03.70 0.4
KIC 88.09 84 P 26 04.30 -0.2
GEC2 89.03 39 P 26 10.40 1.9
1.2s 2.48nm 4.2mb
S.D. = 1.2 on 49 of 50 obs.

MAR 20, 1993 11h 21m 39.52± 0.27s
53.545 N ± 5.3km 166.049 W ± 3.4km
DEPTH = 33.0km (normal)
5.0mb (69 obs.) 4.3Msz (1 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

SDN 3.71 59 eP 22 36.39 0.6
ADK 6.67 260 eP 23 19.74 2.0
S 24 48.45
KDC 8.74 56 eP 23 46.80 0.3
SVW 9.44 32 eP 23 56.92 0.7
RSO 10.02 41 eP 24 05.99 1.7
CP2 10.72 38 eP 24 15.88 2.0
CRP 10.75 38 eP 24 16.05 1.7
TTA 10.78 25 eP 24 14.44 -0.1
SLKM 11.07 45 eP 24 18.25 -0.3
PMS 11.74 42 eP 24 25.50 -2.1
PMR 12.11 42 eP 24 31.92 -0.5
KLU 13.38 46 eP 24 46.40 -3.0X
IMA 13.98 21 eP 24 58.37 1.1
0.8s 7.18nm 4.5mb
FBA 14.65 32 eP 25 07.86 1.9
0.9s 10.01nm 4.3mb
BALM 14.78 50 eP 25 05.45 -2.3X
ILT 15.62 342 iPd 25 20.00 1.6
BRW 18.29 10 eP 25 51.29 -0.6
PET 20.99 283 eP 26 32.00 10.0X
Z 20s 1.20um 4.3Msz
e 30 36.00
MGD 24.14 303 eP 26 55.00 2.0
1.0s 30.00nm 4.8mb
e 27 07.00
e 32 02.00
YKA 27.95 51 eP 27 31.80 3.4X
0.4s 3.00nm 4.3mb
NEW 30.80 80 eP 27 53.86 -0.2
0.8s 15.70nm 4.9mb
LBFM 31.74 94 eP 28 03.46 0.8
YSS 32.77 280 eP 28 12.00 0.8
TIK 32.78 328 eP 28 10.00 -1.1
e 29 39.00
SES 33.32 73 eP 28 16.00 -0.1
YAK 33.91 310 eP 28 19.50 -1.5
1.0s 35.00nm 5.2mb
e 30 52.00
RES 34.43 26 eP 28 25.50 0.2
0.7s 3.00nm 4.3mb
KVN 35.44 94 (P) 28 35.92 1.3
MEMM 35.85 97 (P) 28 39.12 1.3
HVU 36.92 86 (P) 28 47.86 0.9
DUG 37.87 89 eP 28 54.39 -0.6
0.9s 4.46nm 4.3mb
TPNV 37.92 95 (P) 28 56.58 1.1
0.6s 8.56nm 4.8mb
BW06 38.23 83 eP 28 58.57 0.5
0.8s 4.99nm 4.4mb
FCC 38.64 53 eP 29 04.00 3.1X
GSC 38.71 98 eP 29 02.52 0.5
MSU 39.32 90 (P) 29 06.36 -0.9
PcP 31 14.62
SRU 39.92 88 eP 29 12.14 0.0
PLM 40.04 100 eP 29 13.40 0.2
RSSD 40.68 77 eP 29 17.99 -0.3
0.9s 7.64nm 4.4mb
GLA 41.46 99 (P) 29 25.23 0.6
MAT 41.74 269 eP 29 27.00 0.2
1.1s 22.78nm 4.8mb
ULM 41.83 65 eP 29 29.50 2.1
GOL 42.61 84 eP 29 34.40 0.1
0.6s 6.81nm 4.6mb
BOD 42.71 309 iPc 29 33.60 -0.9
0.9s 17.00nm 4.8mb
TUC 44.38 96 eP 29 49.18 0.7
1.0s 5.72nm 4.4mb
e 30 01.82
NRI 46.15 332 eP 30 03.10 1.2
e 31 37.20
DAG 48.30 10 eP 30 20.00 1.2
0.4s 6.78nm 5.0mb
WMOK 49.83 84 eP 30 29.22 -1.9
0.6s 6.42nm 4.8mb
JAO 49.91 51 eP 30 30.50 -1.0
ZAK 52.27 306 eP 30 48.50 -0.9
1.2s 12.00nm 4.7mb
e 32 00.50
FVM 52.49 75 eP 30 48.72 -2.5
0.8s 10.24nm 4.8mb
EEO 52.90 60 eP 30 55.50 1.3
MIAR 53.04 80 eP 30 52.38 -2.9
0.9s 6.12nm 4.6mb
e 31 05.78
SSE 55.66 277 iPc 31 14.70 0.2
1.0s 53.00nm 5.5mb
KEV 56.64 355 eP 31 19.00 -2.1
RSNY 56.66 59 eP 31 19.04 -2.5
0.6s 7.02nm 4.9mb
CBM 58.13 53 ePc 31 29.86 -2.0
0.6s 7.47nm 4.9mb
SDF 59.00 354 iP 31 36.50 -1.1
LMN 60.49 52 eP 31 49.50 1.3
KAF 64.27 354 iP 32 11.20 -1.9
0.4s 6.80nm 5.1mb
NB2 65.74 1 P 32 21.20 -1.4
0.9s 10.60nm 4.9mb
NUR 65.97 354 iP 32 22.40 -1.6
0.3s 5.20nm 5.1mb
EKA 70.57 10 P 32 52.00 -0.7
0.9s 16.60nm 5.1mb
FRU 70.82 317 eP 32 55.00 0.5
KMI 70.89 286 Pd 32 55.00 -0.4
1.5s 80.00nm 5.6mb
WTS 74.66 5 eP 33 16.50 -0.3
0.9s 14.20nm 5.0mb
CLL 75.52 1 iPd 33 21.20 -0.5
1.0s 15.00nm 4.9mb
ENN 75.84 5 eP 33 23.50 -0.1
1.0s 28.00nm 5.2mb
e 33 35.50
BRG 75.96 0 eP 33 23.70 -0.5
0.8s 10.00nm 4.9mb
e 33 35.00
KSP 75.97 358 eP 33 23.30 -1.0
MOX 76.16 2 iPd 33 25.60 0.1
0.9s 18.00nm 5.1mb
DOU 76.43 6 P 33 26.70 -0.3
0.9s 32.50nm 5.3mb
PRU 76.84 360 eP 33 29.20 0.0
WLF 76.96 5 P 33 31.00 1.2
GRF 77.11 2 ePc 33 31.00 0.2
1.1s 24.00nm 5.1mb
FLN 77.34 10 eP 33 31.30 -0.7
1.1s 19.05nm 5.0mb
VRAC 77.50 358 P 33 33.00 0.2
SPC 77.50 356 eP 33 33.60 0.4
0.8s 23.80nm 5.3mb
LDF 77.54 10 eP 33 32.30 -0.8
0.8s 13.95nm 5.0mb
GRR 77.67 10 eP 33 33.30 -0.5
1.0s 13.80nm 4.9mb
KHC 77.70 0 eP 33 34.50 0.5
1.0s 7.00nm 4.6mb
e 34 21.50
GEC2 77.99 0 P 33 34.00 -1.7
0.7s 4.74nm 4.6mb
CHTO 78.00 285 ePc 33 35.80 -0.3
1.1s 21.79nm 5.1mb
LPF 78.00 10 eP 33 35.30 -0.3
0.9s 13.10nm 5.0mb
CDF 78.26 5 eP 33 36.80 -0.4
1.0s 10.00nm 4.8mb
ZST 78.60 358 eP 33 39.20 0.3
0.7s 10.20nm 4.9mb
HAU 78.62 5 eP 33 38.70 -0.4
0.8s 10.90nm 4.9mb
BSF 78.82 5 eP 33 39.80 -0.5
1.1s 21.50nm 5.1mb
HYF 79.10 8 eP 33 41.70 0.0
LOR 79.20 7 eP 33 41.90 -0.4
1.0s 18.20nm 5.0mb
SSF 79.38 7 eP 33 43.00 -0.2
0.9s 22.75nm 5.2mb
LBF 79.49 7 eP 33 43.30 -0.6
0.9s 14.40nm 5.0mb
MFF 79.51 10 eP 33 43.80 -0.1
1.0s 30.60nm 5.3mb
WTTA 79.55 2 iPc 33 44.30 -0.1
AVF 79.63 7 eP 33 44.20 -0.4
0.9s 19.00nm 5.1mb
KBA 79.75 0 iPc 33 45.90 0.5
0.8s 24.90nm 5.3mb
i 33 46.40
e 34 14.00
NST 79.80 282 eP 33 47.00 1.1
SMF 79.82 7 eP 33 45.20 -0.4
0.9s 22.30nm 5.2mb
LSF 80.02 9 eP 33 46.40 -0.3
0.9s 28.35nm 5.3mb
TCF 80.04 8 eP 33 46.40 -0.4
1.0s 17.80nm 5.0mb
MAF 80.14 8 eP 33 47.30 0.0
0.8s 9.65nm 4.8mb
RJF 80.96 9 eP 33 51.20 -0.5
1.3s 24.20nm 5.0mb
LFF 81.24 9 eP 33 53.20 0.1
VBY 81.32 359 iPd 33 54.10 0.6
CAF 81.38 9 eP 33 54.00 0.1
1.0s 18.80nm 5.1mb
NDI 81.53 307 iPc 33 55.00 0.1
LPO 81.54 9 eP 33 54.70 0.0
0.9s 13.75nm 5.0mb
MAIO 82.22 324 iPc 33 59.00 0.5
SBF 82.81 5 eP 34 01.60 0.2
0.9s 21.45nm 5.2mb
FRF 83.07 5 eP 34 02.90 0.2
1.0s 9.00nm 4.8mb
EPF 83.09 10 eP 34 02.50 -0.4
0.9s 6.40nm 4.7mb
LRG 83.16 6 eP 34 03.70 0.6
0.9s 9.00nm 4.9mb
LESF 83.19 9 P 34 04.10 0.8
LMR 83.29 5 eP 34 04.30 0.5
0.7s 3.65nm 4.6mb
ENSF 83.32 10 P 34 05.28 1.2
MTHF 83.39 8 P 34 05.38 1.0
GRBF 83.40 9 P 34 04.96 0.5
HVAR 83.63 358 eP 34 04.90 -0.6
PAND 83.72 9 P 34 07.13 0.9
PGF 84.19 4 eP 34 08.90 0.4
1.1s 31.25nm 5.4mb
SKO 84.64 354 iP 34 11.30 0.6
1.0s 25.00nm 5.4mb
QUE 84.81 316 eP 34 11.40 -0.5
VAY 85.22 353 eP 34 14.00 0.5
OHR 85.53 355 eP 34 15.00 -0.2
SNG 86.26 277 eP 34 21.00 1.9
IPM 88.09 275 ePd 34 29.30 1.3
WB2 89.31 234 iPd 34 33.00 -0.5
1.0s 2.80nm 4.5mb
HYB 90.32 300 ePc 34 38.00 -0.5
1.0s 70.00nm 5.9mb
POO 91.75 305 iPd 34 45.00 -0.1
GBA 94.10 299 P 34 56.00 0.2
BCAO 122.11 355 iPKPc 40 32.00 -0.3X
0.8s 7.00nm
i 42 05.00
BUL 144.80 336 iPKPd 41 13.30 -1.3
1.0s 78.00nm
WIN 148.98 354 iPKPd 41 26.00 4.6X
1.0s 32.00nm
BFT 149.69 330 iPKPd 41 28.00 5.6X
0.5s 12.00nm
SLR 150.23 333 ePKP 41 22.10 -1.1
1.3s 80.00nm
i 41 28.00
KSR 150.71 336 iPKPd 41 27.00 3.1X
PRY 151.58 334 iPKPc 41 31.00 5.8X
0.6s 19.00nm
i 41 40.00

```
SEK    152.86 333 iPKPd 41 35.00   8.0X
        0.8s     40.00nm
    S.D. = 1.0  on 127 of 138 obs.
---------------------------------------
? MAR 20, 1993  11h 51m 05.38± 3.83s
  38.665 N ± 8.4km    7.544 W ±36.8km
   DEPTH =  10.0km  (geophysicist)
 PORTUGAL                          (376)
      mbLg 2.9 (MDD).

EVAL     1.25 150 ePn   51 28.50  -0.1
                  eSn   51 45.90
EPLA     1.80  39 ePn   51 36.30  -0.4
EHOR     1.99 114 ePn   51 40.00   0.5
                  eSn   52 04.20
GUD      3.28  52 ePn   51 58.50   0.6
                  eSn   52 37.00
EVIA     3.95  89 ePn   52 06.60  -0.8
                  eSn   52 52.70
ETOR     4.75  61 ePn   52 19.00   0.2
    S.D. = 0.7  on    6 of   6 obs.
---------------------------------------
* MAR 20, 1993  12h 12m 18.20± 0.60s
  11.748 N ± 8.3km  143.183 E ±13.3km
   DEPTH =  33.0km  (normal)
   4.6mb (  5 obs.)
 SOUTH OF MARIANA ISLANDS          (210)

GUA      2.45  43 eP    12 57.10   0.3
                  eS    13 24.00
GUMO     2.46  42 eP    12 56.20  -0.7
                  eS    13 24.40
PJG      2.46  42 eP    12 56.40  -0.5
CHJJ    24.49 352 P     17 35.50  -0.1
KAKJ    24.50 354 eP    17 35.90   0.2
MAT     25.09 351 eP    17 41.00  -0.4
        0.8s    10.45nm        4.5mb
MTMJ    25.20 350 eP    17 42.40  -0.1
NIIJ    25.66 352 P     17 46.40  -0.3
WB2     32.67 196 iPd   18 50.80   1.1
        0.5s     8.10nm        4.9mb
BRS     40.00 167 iPc   19 49.00  -2.8
DZM     40.62 146 iPc   19 58.10   1.1
FBA     70.58  25 eP    23 31.28  -0.5
        0.6s     3.64nm        4.6mb
YKA     85.24  27 eP    24 51.70  -0.8
        0.8s     1.90nm        4.4mb
RES     86.71  13 eP    25 01.00   1.4
        1.0s     4.00nm        4.6mb
NEW     87.69  41 eP    25 06.50   1.6
LCCM    91.82  43 eP    25 26.00   1.5
FCC     95.93  26 eP    25 47.00   4.1X
LIC    143.69 298 PKP   31 51.60  -0.9
ZOBO   149.31 102 PKP   32 10.00   7.6X
CNCB   149.40 103 ePKP  32 12.00   9.5X
    S.D. = 1.2  on   17 of  20 obs.
---------------------------------------
% MAR 20, 1993  12h 17m 57.47± 0.69s
  40.184 N ± 5.8km   23.449 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

PAIG     0.31 145 ePg   18 03.66  -0.3
                  eSg   18 09.24
OUR      0.43  70 ePg   18 06.70   0.4
                  eSg   18 12.40
THE      0.58 321 ePg   18 09.04  -0.2
                  eSg   18 16.96
SOH      0.64 354 ePg   18 09.78  -0.6
                  iSg   18 19.62
LIT      0.74 264 iPg   18 12.32   0.3
                  eSg   18 23.06
SRS      0.94   7 ePg   18 15.52   0.2
                  eSg   18 28.18
KNT      1.06 337 ePg   18 17.66   0.2
                  eSg   18 31.82
    S.D. = 0.4  on    7 of   7 obs.
---------------------------------------
% MAR 20, 1993  12h 26m 32.45± 0.47s
  42.753 N ± 4.2km   19.155 E ± 4.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.5 (TTG).

NKY      0.13 297 iPgd  26 36.10   0.4
                  iSg   26 39.02
TTG      0.33 166 iPgc  26 39.34   0.0
                  iSg   26 44.70
BRY      0.47 288 iPgc  26 41.83  -0.3
                  iSg   26 49.20
BDV      0.53 207 iPgd  26 43.08  -0.1
                  iSg   26 51.04
IVA      0.56  78 iPgd  26 43.70  -0.2
                  iSg   26 52.50
HCY      0.57 238 iPgd  26 44.00  -0.1
                  iSg   26 52.58
PLE      0.60  17 iPgd  26 44.70   0.0
                  iSg   26 53.89
PVY      0.62 104 iPgc  26 45.19   0.1
                  iSg   26 54.29
ULC      0.79 175 ePg   26 47.95   0.1
                  iSg   26 59.98
    S.D. = 0.2  on    9 of   9 obs.
---------------------------------------
* MAR 20, 1993  12h 38m 19.28± 0.83s
  10.330 S ±11.1km  161.641 E ±15.4km
   DEPTH =  59.3km  (  3 depth phases)
   4.5mb (  8 obs.)
 SOLOMON ISLANDS                   (193)

HNR      1.89 298 eP    38 51.00   1.3
                  iS    39 12.00
CTA     17.72 235 iPd   42 25.00   1.4
BRS     18.92 205 iPc   42 38.50   0.4
RMQ     20.17 215 iPd   42 52.80   1.3
        0.4s     7.00nm        4.3mb
ARMA    22.06 204 eP    43 11.10   0.4
        0.3s     5.00nm        4.4mb
QLP     23.06 223 eP    43 20.50   0.1
WB2     27.98 247 iPd   44 04.80  -1.8
        0.6s     8.00nm        4.5mb
ASPA    29.58 240 eP    44 18.20  -2.9
        0.6s     3.00nm        4.2mb
TOO     30.78 206 eP    44 31.70   0.3
        0.6s    10.00nm        4.7mb
NANU    45.69 249 eP    46 35.70  -0.6
SVW     78.74  20 eP    50 18.12   1.4
        0.9s    35.38nm        5.3mb
                  pP    50 33.97  56km
FBA     83.95  19 iPc   50 43.62  -0.2
        0.8s     7.94nm        4.8mb
                  pP    51 00.82  61km
TIK     84.64 350 eP    50 47.00  -0.2
                  e     51 04.00  60km
YKA     96.20  28 eP    51 41.00  -0.8
        0.9s     1.40nm        4.5mb
BCAO   142.97 264 iPKPc 57 44.00  -5.1X
        0.7s     6.00nm
    S.D. = 1.4  on   14 of  15 obs.
---------------------------------------
? MAR 20, 1993  12h 39m 01.37± 1.17s
  15.553 N ± 9.1km  119.841 E ±15.6km
   DEPTH =  33.0km  (normal)
 LUZON, PHILIPPINE ISLANDS         (249)

BCP      1.13  41 eP    39 22.00   0.8
                  eS    39 36.00
QVP      1.45 129 ePc   39 26.00   0.4
                  eS    39 46.00
TGY      1.79 144 ePd   39 36.00   5.5X
                  eS    40 05.00
SZP      2.07  16 ePd   39 36.00   1.5
                  eS    39 46.00
PGP      2.31 152 ePd   39 38.00   0.1
PIP      2.86  15 eP    39 46.00   0.4
CVP      2.86  41 ePc   39 43.00  -2.7
                  eS    40 35.00
GBA     41.04 273 P     46 43.00  -0.6
    S.D. = 1.6  on    7 of   8 obs.
---------------------------------------
% MAR 20, 1993  12h 48m 51.34± 0.95s
  39.243 N ± 8.3km   27.731 E ±14.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

DST      0.78  62 ePg   49 06.30  -0.3
IZM      0.92 204 iPg   49 09.00   0.0
                  iSg   49 23.50
EDC      1.11   5 ePn   49 11.50  -0.6
KCT      1.11  25 iPn   49 13.10   0.8
BNT      1.12   7 iPn   49 12.40   0.0
    S.D. = 0.8  on    5 of   5 obs.
---------------------------------------
% MAR 20, 1993  12h 59m 58.93± 0.70s
  26.795 S ± 6.6km   26.838 E ± 7.1km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.7 (PRE).

BFS      0.11 205 iPd   00 02.30   0.9
                  S     00 03.90
PRY      0.58 103 eP    00 10.00  -0.6
                  S     00 17.50
KSR      0.93   3 eP    00 16.50  -0.7
                  S     00 28.50
SWZ      1.40 254 eP    00 25.00  -0.3
                  S     00 43.90
SLR      1.67  51 iPd   00 30.90   1.8
                  S     00 52.00
SEK      1.68 156 iPc   00 29.00  -0.2
                  S     00 49.00
BLF      2.38 194 eP    00 38.90  -0.4
                  S     01 06.50
BFT      3.08  70 eP    00 49.00  -0.4
                  S     01 24.50
    S.D. = 1.0  on    8 of   8 obs.
---------------------------------------
% MAR 20, 1993  13h 25m 25.92± 1.08s
  44.459 S ± 4.7km  167.648 E ± 9.1km
   DEPTH =   7.0 ±  4.5 km
 SOUTH ISLAND, NEW ZEALAND         (162)

MSZ      0.29 138 Pc    25 32.10   0.3
                  S     25 34.80
TLC      1.25 126 P     25 48.90  -0.6
MHZ      1.31 118 P     25 50.50   0.0
SBCZ     1.34 119 P     25 50.70  -0.3
CMCZ     1.35 121 P     25 50.80  -0.3
LRCZ     1.35 117 P     25 51.30   0.0
LMZ      1.38  58 eP    25 53.10   1.5
LSCZ     1.39 119 P     25 51.90   0.1
MSCZ     1.41 117 Pd    25 52.40   0.4
BCZ      1.55 175 P     25 53.80  -0.2
TUZ      2.05 138 P     26 01.20   0.0
ODZ      2.21 106 P     26 03.60   0.0
SIZ      2.44 172 eP    26 07.10   0.3
MQZ      3.68  80 eP    26 24.70   0.2
LTZ      3.75  65 P     26 25.30  -0.2
                  S     27 10.80
DSZ      4.07  50 eP    26 29.70  -0.3
THZ      4.70  57 eP    26 38.60  -0.3
ORZ      5.11  46 eP    26 44.10  -0.6
MNG      6.94  59 eP    27 07.60  -2.9X
MOZ      8.01  45 eP    27 23.70  -1.8X
    S.D. = 0.5  on   18 of  20 obs.
---------------------------------------
% MAR 20, 1993  14h 27m 29.17± 2.51s
  41.272 N ±21.5km   23.328 E ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION     (363)

SRS      0.25 128 ePg   27 34.20  -0.3
                  eSg   27 38.00
KNT      0.34 251 ePg   27 36.16  -0.1
                  eSg   27 40.80
SOH      0.45 178 ePg   27 38.04  -0.3
                  eSg   27 44.36
GRG      0.77 246 ePg   27 44.28   0.1
                  eSg   27 54.84
OUR      1.06 152 ePg   27 49.72   0.6
                  eSg   28 04.16
    S.D. = 0.5  on    5 of   5 obs.
---------------------------------------
? MAR 20, 1993  14h 32m 07.05± 0.91s
  40.425 N ± 9.1km   28.046 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.4 (ISK).

BNT      0.12 235 iPg   32 10.30   0.3
                  iSg   32 12.80
EDC      0.16 241 iPg   32 10.50  -0.2
                  iSg   32 13.00
KCT      0.30 126 iPg   32 13.20   0.0
                  eSg   32 17.70
CTT      0.78  22 ePg   32 22.20   0.0
    S.D. = 0.4  on    4 of   4 obs.
---------------------------------------
% MAR 20, 1993  14h 33m 57.73± 0.66s
  37.684 N ± 6.2km    3.383 W ± 6.0km
```

DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.3 (MDD).

ECOG 0.43 200 ePg 34 05.40 -1.2
eSg 34 13.00
EBAN 0.58 326 ePg 34 08.70 -0.7
EHUE 0.64 78 ePg 34 10.20 -0.4
eSg 34 21.00
ELUQ 0.71 260 ePg 34 12.00 0.2
eSg 34 21.40
EGUA 0.86 190 ePg 34 14.00 -0.3
ENIJ 1.18 127 ePg 34 21.00 1.3
EVIA 1.18 36 ePg 34 19.50 -0.3
eSg 34 36.00
EHOR 1.48 276 ePn 34 25.90 1.4
S.D. = 1.1 on 8 of 8 obs.

% MAR 20, 1993 14h 36m 13.50± 1.69s
44.497 S ± 6.3km 167.579 E ±14.9km
DEPTH = 10.0km (geophysicist)
SOUTH ISLAND, NEW ZEALAND (162)
ML 3.8 (WEL).

MSZ 0.30 126 Pc 36 19.90 0.2
S 36 22.60
TLC 1.27 124 P 36 36.80 -0.4
MHZ 1.34 116 P 36 38.30 0.1
SBCZ 1.37 116 P 36 38.90 0.2
CMCZ 1.37 119 eP 36 37.70 -1.0
LRCZ 1.38 115 P 36 39.10 0.2
LSCZ 1.42 117 P 36 39.70 0.3
LMZ 1.45 58 P 36 41.60 1.9
BCZ 1.52 173 P 36 40.90 0.2
S 37 01.00
LTZ 3.81 65 eP 37 13.10 -0.4
DSZ 4.14 50 P 37 17.60 -0.5
QRZ 5.17 47 eP 37 32.00 -0.8
S.D. = 0.8 on 12 of 12 obs.

MAR 20, 1993 14h 46m 32.11± 0.53s
12.887 N ± 8.3km 88.264 W ± 5.7km
DEPTH = 79.0km (6 depth phases)
4.4mb (7 obs.)
OFF COAST OF CENTRAL AMERICA (76)
MD 4.5 (GCG), 4.2 (APY). Felt (II) at San Salvador, El Salvador.

SJAS 1.17 312 iPc 46 52.60 -1.0
PYN 1.31 112 eP 46 54.24 -1.0
eS 47 12.53
TME 1.55 317 iP 46 58.00 -0.4
YPE 1.85 312 iP 47 02.60 0.0
CUSS 1.93 302 iPd 47 02.90 -0.7
YUP 1.99 311 iPc 47 04.23 -0.3
PYT 2.18 99 eP 47 06.27 -0.7
IXG 2.49 301 iPd 47 10.43 -1.0
iS 47 42.26
MRL 2.57 328 iPd 47 12.89 0.3
TER 2.74 301 ePc 47 13.82 -1.0
eS 47 47.41
GCG 2.78 308 ePc 47 15.28 -0.2
SSN 2.84 124 eP 47 16.65 0.6
BVA 2.91 308 iPc 47 19.84 2.5
TPX 4.37 298 iP 47 36.50 -1.0
iS 48 22.00
SCX 5.70 313 (P) 47 47.50 -8.6X
OXX 9.18 298 iP 48 46.00 1.9
IISM 10.66 306 (P) 49 04.00 0.0
PPM 11.70 303 iP 49 20.00 1.5
III 12.09 298 iP 49 23.50 0.1
GOGA 20.89 11 eP 51 11.44 1.4
e 51 26.28 67km
PRM 21.77 13 (P) 51 16.90 -1.9
UYO 21.92 346 iPd 51 21.10 0.8
MIAR 22.10 348 eP 51 21.74 -0.2
0.9s 18.77nm 4.5mb
e 51 39.81 83km
JSC 22.23 15 eP 51 24.98 1.7
LHS 22.54 16 eP 51 27.89 1.6
OLY 22.70 353 (P) 51 26.67 -1.2
e 51 47.88 99kmX
TKL 23.03 9 eP 51 30.25 -0.9
e 51 49.70 89km
MEO 23.72 338 iPd 51 38.20 0.4
WMOK 23.75 338 eP 51 37.81 -0.3
0.7s 8.88nm 4.3mb
e 51 56.06 81km
FNO 23.76 341 iPd 51 39.00 0.8
ELC 24.31 358 eP 51 43.17 -0.3
CEH 24.35 18 eP 51 43.97 0.1
0.6s 21.87nm 4.8mb
e 52 04.00 91kmX
ACO 25.64 339 iPc 51 55.80 -0.3
SRU 32.72 327 (P) 52 59.63 0.2
e 53 17.51 75km
RSSD 33.94 339 eP 53 09.98 -0.1
0.6s 3.55nm 4.5mb
e 53 28.99 80km
EEO 34.53 11 eP 53 16.50 1.7
BW06 35.02 332 eP 53 16.99 -2.3
0.9s 3.22nm 4.3mb
ZOBO 35.16 145 P 53 22.00 0.8
CNCB 35.67 145 P 53 26.00 0.6
ULM 37.78 352 eP 53 43.00 0.9
LMN 38.40 27 eP 53 50.00 2.6X
LCCM 38.46 333 iPc 53 48.60 0.5
SIV 39.33 136 Pc 54 05.80 10.4X
e 56 14.00
JAQ 42.01 11 eP 54 15.00 -2.0
FCC 46.00 356 eP 54 50.50 1.6
YKA 52.99 345 eP 55 41.90 -0.6
0.7s 3.60nm 4.5mb
FBA 65.71 336 (P) 57 07.71 -2.4
1.0s 3.19nm 4.2mb
S.D. = 1.2 on 44 of 47 obs.

MAR 20, 1993 14h 51m 59.77± 0.11s
29.084 N ± 3.0km 87.333 E ± 2.0km
DEPTH = 12.2km (geophysicist)
5.8mb (132 obs.) 6.0Msz (45 obs.)
XIZANG (306)
Mw 6.2 (HRV). Ms 5.8 (BRK). Mo=4.1*10**18 Nm (PPT). At least two people killed, 3 seriously injured and damage in Ngamring County. Felt at Xigaze. Also felt at Kathmandu, Nepal. Depth from broadband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=355 Dip=70 Slip= -90
NP2: 175 20 -90
Principal Axes:
T Plg=25 Azm= 85
P 65 265
Comment: The focal mechanism is poorly controlled and corresponds to normal faulting. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sta: 9 Focal mech. F
Energy 6.0±1.3*10**12 Nm
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 41S, **C M.W.: 30S, 49C
Centroid Location:
Origin Time 14:52:10.8 0.2
Lat 28.87N 0.02 Lon 87.64E 0.01
Dep 15.0 BDY Half-duration 3.3
Moment Tensor; Scale 10**18 Nm
Mrr=-2.09 0.02 Mtt=-0.39 0.03
Mff= 2.48 0.02 Mrt=-0.83 0.06
Mrf=-0.21 0.07 Mtf= 0.09 0.02
Principal Axes:
T Val= 2.50 Plg= 3 Azm= 93
N -0.06 22 184
P -2.44 68 355
Best Double Couple:Mo=2.5*10**18
NP1:Strike=161 Dip=46 Slip=-121
NP2: 22 52 -62

LSA 3.39 79 iPnc 52 57.20 3.3X
NDI 8.88 270 iPnc 54 11.50 0.8
0.6s 473.33nm 7.0mb X
eS 55 53.00
KSH 13.96 321 P 55 20.00 0.4
0.7s 240.00nm 6.1mb
Z 12s 71.90um
N 12s 322.00um
S 58 00.00
sS 58 08.00
HYB 14.13 217 iPd 55 18.60 -3.3X
1.6s 2333.00nm 6.7mb
e 57 46.00
e 58 06.00
e 58 24.00
KMI 14.28 102 ePc 55 20.45 -3.5X
CD2 14.35 79 iPc 55 22.30 -2.5
2.0s 1650.00nm 6.3mb
Z 10s 68.50um 5.3Msz
E 10s 55.80um
iS 58 02.00
isS 58 14.00
GTA 14.57 42 iPc 55 25.50 -2.1
1.2s 160.00nm 5.5mb
Z 15s 172.00um 4.4Msz
E 12s 125.00um
pP 55 34.00
sP 55 39.00
PP 55 40.00
S 58 04.00
SS 58 30.00
PcP 00 38.00
ScP 04 14.00
ScS 07 50.00
WMQ 14.71 1 ePd 55 29.52 0.1
eS 58 11.24
CHTO 14.73 131 ePc 55 27.70 -2.0
1.4s 288.46nm 5.6mb
eS 58 20.00
PRZ 15.19 334 eP 55 38.00 2.2
2.0s 260.00nm 5.3mb
eS 58 25.00
LZH 15.56 59 ePc 55 37.89 -2.8
eS 58 44.30
POO 16.19 233 iPd 55 45.00 -3.7X
1.0s 350.00nm 5.4mb
iS 58 32.00
TLG 16.25 333 eP 55 50.00 0.6
1.9s 680.00nm 5.5mb
eS 58 50.00
AAA 16.43 332 eP 55 52.00 0.3
iS 58 59.00
BOM 16.68 236 e(P) 55 48.00 -6.9X
iS 58 41.50
FRU 17.12 327 iPc 56 06.00 5.6X
iS 59 24.00
FRU 17.12 327 ePc 56 00.00 -0.4
Z 12s 52.00um
N 12s 57.00um
E 12s 28.00um
iS 59 18.00
GYA 17.31 94 iPc 55 59.00 -3.9X
1.0s 380.00nm 5.5mb
Z 20s 85.00um 7.3MszX
N 12s 58.10um
E 12s 32.90um
PP 56 13.00
S 59 08.00
SS 59 28.00
LOE 17.59 128 iPc 56 07.00 0.7
KHT 17.63 141 eP 56 05.10 -1.8
NST 17.82 136 eP 56 09.50 0.4
GBA 17.93 213 P 56 07.00 -3.6X
S 59 23.00
XAN 19.04 69 Pc 56 20.60 -3.5X
1.0s 55.00nm 4.7mb X
Z 16s 55.90um 4.5MszX
pP 56 32.00 50kmX
sP 56 37.00
PP 56 41.00
S 59 54.00
SS 00 22.00
ENH 19.29 81 ePc 56 23.27 -3.9X
eS 59 54.65
e 01 06.82
BTO 21.81 52 iPd 56 52.00 -1.7
1.0s 96.00nm 5.2mb
N 11s 33.80um
E 12s 57.50um
sP 57 06.00
PP 57 20.00
S 00 53.00
TIY 22.60 61 Pc 57 01.00 -0.5
2.0s 2510.00nm 6.4mb
Z 14s 66.10um 6.2MszX
N 14s 121.00um
S 01 06.50

20d 14h

```
                        sS    01 18.00
QIZ     22.83 111 ePc     57 07.14    3.4X
                        eS    01 12.59
HHC     22.99  53 Pc      57 05.70    0.4
        1.6s   490.00nm           5.8mb
     Z  13s     82.10um          6.4MszX
     N  11s     48.70um
     E  12s     45.40um
                        S     01 10.00
UER     23.02  11 iP      57 05.80    0.5
        1.5s   390.00nm           5.7mb
                        e     57 44.00 201kmX
                        iS    01 18.00
                        SS    02 08.00
WHN     23.47  80 iPc     57 10.00    0.1
        1.0s   140.00nm           5.5mb
     Z  20s    101.00um           6.3Msz
                        iS    01 20.00
GZH     24.09  98 P       57 16.60    0.6
     Z  14s     36.70um          6.0MszX
     E  11s     47.30um
                        PP    57 50.00
                        iS    01 33.00
ELT     24.16 358 iPd     57 17.50    1.2
        2.4s  1045.00nm           6.0mb
                        iS    01 36.00
MAIO    24.45 294 iPd-    57 22.50    2.9X
        1.3s   245.10nm           5.7mb
                        eS    01 44.00
ZAK     24.46  25 iPd-    57 20.60    1.3
        2.0s  1100.00nm           6.1mb
     Z  18s     67.46um           6.2Msz
     N  13s     34.48um
     E  17s     45.54um
MCO     24.61 100 eP      57 22.30    1.2
HKC     25.08  99 iP      57 25.80    0.3
                        S     01 44.00
TLY     25.65  24 iPd     57 32.43    1.7
                        eS    02 02.58
ASH     25.65 298 eP      57 33.00    2.2
        2.0s   690.00nm           6.0mb
                        i     57 41.50  30kmX
                        i     57 50.00
                        i     58 14.00
                        i     58 19.50
                        e     00 56.00
                        eS    02 00.00
                        i     02 14.00
                        e     02 58.00
                        eSS   03 18.00
TIA     26.00  66 P       57 35.20    1.0
        1.6s   760.00nm           6.1mb
     N  10s     14.30um
     E  13s     31.80um
                        sP    57 49.00
                        S     02 04.00
BJI     26.04  58 ePd     57 35.75    1.3
IRK     26.37  24 ePd     57 38.00    0.6
        2.0s   359.00nm           5.7mb
     Z  15s     34.86um          6.0MszX
     N  10s     22.68um
                        e     57 46.80  31kmX
                        ePP   58 10.00
                        ePPP  58 49.10
                        ePcP  01 48.00
                        eS    02 12.00
                        e     02 35.00
                        eSSS  04 19.00
                        LR    07 42.00
NJ2     27.25  76 Pd      57 47.60    2.0
        1.8s   320.00nm           5.7mb
     Z  16s     46.60um          6.1MszX
     N  10s     28.40um
     E  10s     40.40um
                        S     02 21.00
KAT     27.50 300 iP-     57 49.50    1.6
                        i     58 38.00 249kmX
                        e     58 43.00
                        eS    02 33.00
IPM     27.61 149 ePd     57 49.40    0.3
        1.2s   156.40nm           5.6mb
QZH     28.11  91 iPc     57 56.00    2.5
     Z  23s     47.80um          6.0MszX
     N  11s     35.60um
                        S     02 35.00
SSE     29.30  78 (P)     58 03.69   -0.4
                        eS    02 55.45
DL2     29.92  62 eP      58 10.00    0.3
        0.8s    91.00nm           5.7mb
     Z  18s     35.00um           6.0Msz
     N  12s     11.70um
     E  10s     33.10um
                        S     03 04.00
CIT     30.08  33 eP      58 12.00    1.0
     Z  12s     63.87um          6.5MszX
                        e     59 04.00 264kmX
                        eS    03 10.00
TATO    30.64  90 ePc     58 19.38    3.3X
                        eS    03 17.90
                        ePS   03 39.42
                        eS    03 52.50
KGM     30.93 148 ePd     58 19.40    0.7
TEH     30.94 292 e(P)    58 27.00    8.1X
HIA     31.85  42 ePd     58 26.34   -0.2
                        ic    58 33.79  26kmX
                        ec    58 35.45
                        eS    03 35.45
                        ePS   04 02.10
SNY     31.91  57 Pc      58 27.00   -0.1
        1.6s   340.00nm           6.0mb
     Z  14s     34.30um          6.2MszX
     N  13s     31.30um
     E  10s     11.50um
                        pP    58 35.00  28kmX
                        sP    58 41.00
                        PP    59 32.00
BAK     32.54 300 iPc     58 38.00    5.4X
                        iS    03 53.00
DHR     32.96 274 ePc     58 35.76   -0.7
BAG     33.03 105 eP+     58 33.00   -4.4X
                        eS    03 40.00
BCP     33.06 105 eP      58 40.00    2.4
SVE     33.49 333 iPd     58 42.50    1.8
     Z  11s     31.00um          6.3MszX
     N  11s     19.00um
     E  11s     18.50um
                        e     00 12.00 510kmX
                        iS    04 03.00
                        eSS   06 00.00
CVP     33.50 102 eP      58 41.40    0.2
SHE     33.53 301 iPd     58 43.00    1.7
        1.0s    60.00nm           5.5mb
     Z  12s      7.00um          5.6MszX
     N  12s     10.00um
     E  12s     12.00um
                        i     00 12.00 505kmX
                        iS    04 08.00
                        iSS   06 12.00
CN2     33.68  54 Pd      58 42.00   -0.5
        1.4s   310.00nm           6.0mb
     Z  12s     57.40um          6.5MszX
     N  12s     40.60um
     E  12s      7.19um
                        epP   58 52.00  35kmX
ARU     34.04 331 ePd     58 46.16    0.7
                        epPc  58 50.05  13kmX
                        ec    58 54.93
                        eS    04 16.87
BOD     34.29  25 eP      58 46.00   -1.6
        1.7s   300.00nm           5.9mb
QCP     34.32 107 eP      58 30.00  -18.3X
KER     34.46 289 iPd     58 50.70    1.1
TGY     34.47 108 eP      58 59.00    9.3X
MAK     34.79 304 eP      58 48.00   -4.1X
     Z  15s     24.50um          6.1MszX
     N  15s     33.00um
     E  15s     26.10um
                        ePPP  00 29.00
                        eS    04 25.00
PGP     34.80 109 ePd     58 51.80   -0.7
TAB     35.09 296 eP      58 58.00    3.1X
GRS     35.17 298 iPd     58 57.00    1.4
        1.8s   240.00nm           5.8mb
                        iS    04 31.00
                        eSS   06 50.00
GRO     36.11 305 iP-     59 04.00    0.7
        1.5s   240.00nm           5.8mb
                        i     00 22.00 402kmX
                        i     01 30.00
RYD     36.45 273 ePc     59 06.14   -0.3
MTA     36.53 302 iP      59 09.40    2.5
                        i     59 22.40  49kmX
MDJ     36.76  53 (P)     59 07.58   -1.2
                        epPc  59 11.39  13kmX
                        ec    59 17.02
                        ePP   00 35.48
                        eS    04 52.57
MJMA    37.30 275 ePc     59 12.74   -0.9
KUMJ    37.33  74 eP      59 16.80    3.1X
SHNJ    37.41  71 eP      59 15.30    1.0
TSM     38.02 125 ePc     59 19.40   -0.3
PYA     38.09 305 iP      59 21.00    0.9
     Z  18s     26.00um           6.1Msz
     N  18s      9.50um
     E  18s     26.00um
                        i     59 28.00  24kmX
                        i     00 52.00
                        eS    05 12.00
VLA     38.19  56 iPc     59 20.00   -0.8
        3.1s   144.00nm         5.2mb X
     N  13s     15.10um
     E  12s     48.20um
                        i     59 36.00  64kmX
                        iS    05 08.00
                        iSSS  08 16.00
                        i     09 32.00
KIV     38.35 305 iPd     59 23.32    1.0
                        epPc  59 27.46  14kmX
                        esPc  59 30.11
                        ec    59 33.34
                        iHPP  00 56.01
                        iPP   00 56.35
                        eS    05 18.73
                        eSS   08 01.62
QASM    38.77 276 ePc     59 25.27   -0.7
MAP     39.00 111 ePc     59 22.00   -5.9X
YONJ    39.26  69 P       59 30.70    0.8
PLP     39.36 109 ePd     59 30.80   -0.1
TKSJ    39.85  71 eP      59 35.80    1.0
NRI     40.35   0 iPd-    59 38.10   -0.3
        2.2s   521.00nm           5.8mb
     Z  18s     32.00um           6.2Msz
     N  16s     18.00um
     E  20s     31.00um
                        e     59 48.00  34kmX
                        i     01 14.00
                        ePPP  01 44.00
                        iS    05 46.00
                        eSSS  09 10.00
SOC     40.45 304 eP      59 39.00   -0.6
        2.1s   300.00nm           5.6mb
     Z  16s     18.20um          6.0MszX
     N  17s      9.00um
     E  18s     10.50um
                        e     01 24.00
                        eS    05 50.00
                        eSS   08 40.00
CGP     40.63 113 iPc     59 41.50    0.1
WKYJ    41.10  70 eP      59 45.20    0.1
TSRJ    41.28  68 eP      59 47.70    1.2
DHJN    41.61 264 iPc     59 49.06   -0.7
KMTA    41.95 265 iPc     59 52.30   -0.2
ABHA    42.01 265 iPc     59 54.70    1.7
BIP     42.03 112 ePd     59 55.80    3.0X
DAV     42.14 114 ePc+    59 54.00    0.3
        1.8s   727.27nm           6.1mb
ANN     42.28 306 eP      59 55.00    0.4
        1.4s   130.00nm           5.5mb
     Z  25s     12.50um          5.7MszX
     N  25s     17.00um
     E  25s     12.50um
                        i     01 45.00
                        iS    06 15.00
                        eSS   09 20.00
GAZ     42.33 294 iP      59 57.10    2.0
MTMJ    42.66  66 eP      59 58.40    0.4
IIDJ    42.86  68 eP      00 02.00    2.5
MAJO    42.99  66 ePd     59 59.76   -0.8
                        epPc  00 02.91  11kmX
                        ec    00 04.31
                        ec    00 06.55
                        ePP   01 41.81
                        eS    06 29.73
                        eSS   09 35.69
YAK     43.00  28 iPc+    00 03.20    3.0X
        1.5s   330.00nm           5.8mb
     Z  18s     28.00um           6.2Msz
     N  16s     11.50um
     E  17s     22.00um
                        i     01 45.00 570kmX
                        iS    06 25.00
```

e 09 54.00
BNN 43.29 297 eP 00 05.00 1.9
NIIJ 43.56 65 eP 00 04.30 -0.8
CHJJ 43.67 67 eP 00 05.90 -0.2
BHL 43.95 290 P 00 08.00 -0.5
PP 01 53.00
S 06 43.00
HRI 43.98 289 eP 00 10.30 1.6
MOS 44.03 322 iPd 00 09.00 0.3
2.0s 960.00nm 6.3mb
Z 11s 12.00um 6.1MszX
N 12s 4.20um
E 12s 8.40um
i 00 17.00 27kmX
e 01 51.00
e 01 57.00
eS 06 46.00
YAMJ 44.30 64 P 00 10.60 -0.6
AOMJ 44.42 60 eP 00 15.60 3.5X
OBN 44.43 321 iPd 00 12.30 0.4
1.8s 540.00nm 6.1mb
Z 20s 19.00um 6.0Msz
N 20s 5.00um
E 20s 18.00um
i 02 03.00 643kmX
iS 06 48.00
iSS 10 12.00
SIM 44.55 306 iP 00 14.00 1.0
Z 20s 15.00um 5.9Msz
iS 06 50.00
KAKJ 44.60 67 eP 00 09.60 -4.0X
AYN 44.61 283 iPc 00 13.67 0.0
ZNT 44.74 288 eP 00 17.00 2.2
KAS 44.79 301 eP 00 16.50 1.3
MRRJ 44.90 58 eP 00 15.90 0.0
ARO 44.92 257 eP 00 18.00 1.5
SAGI 45.45 285 eP 00 22.10 1.6
OFUJ 45.51 62 P 00 20.00 -0.8
BADA 45.54 283 eP 00 14.30 -6.8X
ANTO 45.61 299 eP 00 33.00 11.3X
CSS 45.70 292 eP 00 23.90 1.5
ASAJ 46.03 55 eP 00 24.30 -0.5
YSS 46.14 51 ePd 00 24.83 -0.8
esPc 00 30.37 25kmX
ec 00 32.28
e 01 31.86
eHPP 02 21.03
iPP 02 21.69
eS 07 14.30
eScS 10 23.02
eSS 10 39.57
KHKI 46.14 139 ePc 00 25.00 -0.9
e 07 40.50
ERM 46.46 58 (P) 00 29.65 1.4
ec 00 32.46 9kmX
PPCY 46.51 292 eP 00 34.20 5.4X
HOOJ 46.54 58 eP 00 29.30 0.4
KUSJ 47.56 57 eP 00 37.10 0.2
EYL 47.57 300 eP 00 37.20 0.0
ALT 47.75 298 eP 00 38.00 -0.6
KOT 47.90 285 eP 00 40.50 0.7
HRT 47.92 300 iP 00 40.70 0.8
YLV 48.16 300 eP 00 41.70 -0.1
ELL 48.19 295 iP 00 42.50 0.3
TIK 48.21 16 iPd- 00 41.00 -0.6
2.0s 740.00nm 6.4mb
i 00 52.00 38kmX
i 00 56.00
i 02 09.00
i 02 33.00
ePPP 03 22.00
iS 07 38.00
i 07 50.00
KIS 48.25 309 iPd- 00 43.00 0.7
2.0s 700.00nm 6.4mb
Z 20s 9.30um 5.8Msz
N 18s 22.80um
E 20s 11.20um
iS 07 41.00
KHL 48.29 297 iP 00 43.00 0.2
HLW 48.33 285 e(P) 00 40.00 -3.1X
ISK 48.36 301 iP 00 44.20 1.0
ITU 48.39 301 iPd 00 44.00 0.6
CFR 48.77 306 eP 00 47.00 0.7
PSN 48.82 304 iPd 00 49.00 2.3
CTT 48.82 301 iP 00 47.20 0.4
PUL 48.83 326 ePc 00 48.00 1.5
1.4s 460.00nm 6.3mb
Z 34s 23.00um 5.9MszX
N 16s 6.00um
E 20s 20.00um
e 02 10.00 410kmX
e 02 44.00
eS 07 54.00
KCT 48.97 300 eP 00 48.20 0.3
PPE 49.12 308 ePc 00 50.00 1.0
DMK 49.26 302 eP 00 45.50 -4.7X
BNT 49.29 300 eP 00 51.20 0.8
MNK 49.41 318 eP 00 50.00 -1.1
Z 20s 20.00um 6.1Msz
e 02 40.00 604kmX
eS 08 00.00
eSS 11 28.00
AAE 49.64 256 P 00 55.40 1.6
KUR 49.73 54 eP 00 51.00 -2.6
Z 16s 16.80um 6.1MszX
N 16s 16.80um
E 16s 16.80um
eS 07 58.00
VRI 49.75 307 ePd 00 56.00 2.1
ISR 49.91 306 ePd 00 58.00 2.8X
PTT 49.95 309 eP 00 53.00 -2.4
IZM 50.04 297 iP 00 55.60 -0.6
JMB 50.08 303 iPd 00 58.00 1.6
BUC 50.27 305 iPd 01 00.00 2.2
MLR 50.32 307 ePc 01 00.00 1.6
BUC1 50.33 305 eP 00 58.00 -0.2
ALN 50.64 301 eP 01 00.70 0.0
PVL 50.92 304 iPd 01 05.00 2.2
CMP 50.97 306 ePc 01 06.00 2.8X
KDZ 51.02 302 iP 01 05.00 1.4
KAF 51.23 328 iP 01 05.30 0.4
0.5s 9.20nm 5.0mb
LVV 51.45 312 iP 01 06.00 -0.7
Z 24s 34.00um 6.3MszX
N 15s 13.00um
E 22s 15.00um
eS 08 32.00
PLD 51.50 302 iP 01 08.00 0.8
RZN 51.54 302 iPd 01 09.00 1.2
DRA 51.57 306 ePc 01 09.00 1.3
NUR 51.76 326 eP 01 09.00 0.1
0.5s 21.90nm 5.3mb
Z 13s 18.00um 6.3MszX
eS 08 27.00
eScS 11 05.00
e 12 30.00
e 14 15.00
LR 24 00.00
PGB 51.84 303 iP 01 11.00 1.1
MGD 52.09 35 ePd- 01 10.00 -1.4
2.5s 510.00nm 6.0mb
Z 16s 27.00um 6.4MszX
N 16s 20.00um
E 16s 20.00um
e 01 24.00 52kmX
i 02 24.00
iS 08 32.00
e 10 54.00
OUR 52.27 300 eP 01 12.34 -0.7
MMB 52.29 302 iPd 01 14.00 0.8
SDF 52.39 335 iP 01 13.00 -0.6
DEV 52.41 307 ePc 01 16.00 1.9
SRS 52.45 301 eP 01 13.74 -0.7
VTS 52.54 303 iPd 01 16.00 0.7
PAIG 52.56 300 eP 01 14.86 -0.4
UZH 52.63 311 ePd 01 15.80 0.2
Z 16s 15.00um 6.1MszX
N 16s 14.00um
E 16s 20.60um
i 01 22.50 22kmX
i 01 31.20
i 02 23.00
e 03 22.00
iPPP 04 23.00
iS 08 41.00
iSP 08 54.00
SOH 52.68 301 eP 01 15.22 -0.9
KKB 52.73 302 iPd 01 17.00 0.5
KEV 52.83 338 eP 01 17.00 0.2
0.9s 30.40nm 5.2mb
Z 15s 10.00um 6.0MszX
eS 08 17.00
LR 25 30.00
KNT 52.97 301 eP 01 17.18 -1.1
THE 53.00 301 eP 01 17.02 -1.4
VAY 53.19 302 iP 01 19.30 -0.6
1.0s 90.00nm 5.7mb
SSR 53.33 306 ePc 01 22.00 1.1
SKO 53.93 303 iP 01 25.50 0.2
1.3s 141.00nm 5.8mb
Z 20s 8.32um 5.8Msz
IPcP 02 52.00
iPPP 03 36.00
i 03 40.00
iSP 08 57.00
iPSP 09 49.00
iSSS 13 13.00
LR 28 30.00
SPC 53.95 312 iP 01 26.10 0.6
0.6s 170.00nm 6.2mb
OJC 54.16 313 eP 01 26.90 0.0
0.8s 117.00nm 6.0mb
Z 18s 7.90um 5.8Msz
E 18s 5.20um
i 01 27.70 3kmX
i 01 32.70
eS 08 51.00
FNA 54.16 301 eP 01 25.66 -1.4
OHR 54.54 302 iP 01 28.50 -1.4
1.3s 165.00nm 5.9mb
LSK 54.86 301 eP 01 33.00 0.8
BUD 54.92 310 eP 01 31.70 -0.8
TIR 55.19 302 eP 01 34.00 -0.6
UPP 55.20 325 iP 01 41.20 6.9X
iS 09 22.00
LACI 55.26 302 eP 01 34.00 -1.0
GUMO 55.27 93 eP 01 33.95 -1.5
eS 09 12.81
TPE 55.27 301 eP 01 38.20 3.1X
UZD 55.32 309 eP 01 35.00 -0.4
SDA 55.34 303 eP 01 34.80 -0.8
SRO 55.36 310 iP 01 36.30 0.7
SRN 55.36 300 eP 01 35.30 -0.4
TRO 55.54 337 eP 01 37.00 0.3
VLO 55.63 301 eP 01 35.30 -2.4
ZST 56.12 311 eP 01 40.20 -0.9
PET 56.31 43 eP 01 43.00 0.6
Z 20s 13.50um 6.0Msz
e 02 41.00 262kmX
eS 09 28.00
e 11 28.00
eSS 13 10.00
VRAC 56.32 312 iPd 01 43.20 0.7
1.5s 1233.20nm 6.7mb
i 01 50.40 24kmX
e 02 53.60
e 03 09.60
KSP 56.34 314 iPd 01 42.50 -0.2
1.3s 220.00nm 6.0mb
i 01 50.00 25kmX
e 07 47.50
VKA 56.63 311 iPc 01 45.50 0.7
Z 18s 9.40um 5.9Msz
i 02 33.10 210kmX
i 02 42.90
LR 29 00.00
MOR7 56.76 333 eP 01 44.43 -1.1
BSD 56.79 319 iPc 01 46.10 0.2
0.7s 36.00nm 5.5mb
LCI 56.81 301 P 01 44.50 -1.6
NAI 56.93 247 iP 01 48.00 0.3
Z 18s 6.77um 5.8Msz
PS 09 36.00
SS 13 44.00
ZAG 57.22 308 iPd 01 49.00 0.0
PTJ 57.22 308 eP 01 47.90 -1.3
BRT 57.26 302 P 01 48.50 -0.8
LOF 57.32 335 eP 01 49.58 0.1
HVAR 57.36 305 iPc 01 48.70 -1.3
PRU 57.55 313 Pd 01 51.20 -0.1
1.2s 158.60nm 5.9mb
Z 16s 11.80um 6.1MszX
N 30s 58.60um
E 30s 23.30um
i 01 58.70 25kmX
e 04 04.80
S 09 56.00
e 11 43.00
SS 14 20.00
VBY 57.78 308 iPd 01 53.00 0.1

20d 15h

			ePcP	02 39.50	
BRG	57.81	314	iPd	01 52.40	-0.7
	0.8s	80.00nm			5.8mb
Z	18s	8.50um			5.9Msz
N	18s	28.50um			
E	18s	7.50um			
			iS	09 52.00	
BRNL	57.98	316	eP	01 53.00	-1.2
ORI	57.99	301	P	01 55.00	0.5
ROI	58.01	301	P	01 55.20	0.5
NANU	58.09	149	eP	01 55.00	-0.3
	0.6s	52.00nm			5.7mb
KMR	58.11	311	iP-	01 55.20	0.0
COP	58.15	320	eP	02 00.00	4.6X
Z	21s	12.19um			6.0Msz
			iS	10 04.00	
TDS	58.17	301	Pd	01 56.00	0.3
CSI	58.18	301	P	01 54.20	-1.6
LJU	58.18	308	ePd	01 56.00	0.3
			i(PcP)	02 39.00	
			ePP	04 01.00	
			eS	09 56.50	
GEC2	58.26	312	e(P)	01 56.10	-0.3
	0.7s	49.20nm			5.7mb
GEC2	58.26	312	e(P)	02 04.20	7.8X
	0.8s	132.50nm			6.0mb
GEC2	58.26	312	e(P)	02 08.40	12.0X
	0.8s	69.20nm			
KHC	58.30	312	Pd	01 56.60	0.0
	1.0s	75.00nm			5.7mb
Z	24s	16.40um			6.1MszX
N	28s	43.80um			
E	26s	15.10um			
			e	02 04.00	24kmX
			e	02 30.00	
			e	04 14.00	
			S	10 00.00	
CEY	58.31	308	eP	01 56.20	-0.5
			i(PcP)	02 44.50	
			eS	09 58.50	
CLL	58.34	315	iPd	01 56.00	-0.8
	1.7s	140.00nm			5.7mb
Z	22s	8.00um			5.8Msz
			eS	10 00.00	
			P'P'	31 46.00	
NB2	58.35	326	P	01 55.40	-1.4
	0.9s	53.00nm			5.6mb
MMN	58.38	301	P	01 56.00	-1.1
RIY	58.41	308	eP	01 56.30	-1.0
VOY	58.62	309	iPd	01 58.50	-0.4
			ipP	02 01.50	10kmX
			e(PcS)	02 56.30	
			ePP	04 08.50	
			eS	10 02.00	
MGR	58.64	301	Pd	01 58.20	-0.8
SGO	58.73	302	P	01 59.60	0.0
WET	58.75	312	iPd	01 59.90	0.2
SOI	58.75	299	P	02 00.50	0.7
RBL	58.76	309	P	02 00.00	0.1
TRI	58.77	308	ePd	01 59.30	-0.5
			ePP	04 12.00	
			ePPP	05 36.00	
			eS	10 03.00	
			e	15 04.00	
			eSSS	16 48.00	
			eLR	20 00.00	
KBA	58.80	310	iPc	01 58.80	-1.5
	1.2s	92.90nm			5.8mb
			i	02 00.20	5kmX
			i	02 07.50	
KBS	58.86	347	eP	02 02.00	1.9
MBL	58.97	144	eP	02 00.20	-1.3
	0.7s	306.00nm			6.5mb
DUI	59.11	303	P	02 02.80	0.4
ATN	59.19	299	P	02 03.00	0.2
HOF	59.20	314	iPd	02 03.00	0.2
	1.2s	72.00nm			5.7mb
KONO	59.27	325	P	02 05.03	1.9
			eS	10 12.91	
			eScS	11 54.30	
			eSS	14 02.18	
MOX	59.31	314	ePd	02 03.60	0.0
	2.0s	258.00nm			6.0mb
Z	21s	6.60um			5.7Msz
			iS	10 12.00	
SDI	59.57	304	Pd	02 04.50	-1.0
AQU	59.72	304	Pd	02 06.00	-0.5
GRF	59.72	313	ePd	02 07.20	0.8
	1.8s	334.00nm			6.2mb
Z	25s	18.00um			6.1MszX
			ed	02 11.30	13kmX
			e	02 14.10	
			e	02 25.60	
ARV	59.80	306	P	02 07.00	0.0
MUD	59.87	321	iPc	02 04.90	-2.4
	1.1s	112.00nm			5.9mb
WTTA	59.91	310	iPc	02 05.70	-2.2
	0.8s	85.80nm			5.9mb
			i	02 07.60	6kmX
WATA	59.93	310	i(P)	02 07.60	-0.5
MOL	59.97	328	eP	02 07.90	0.0
FUR	59.97	311	iPd	02 08.40	0.2
Z	21s	13.00um			6.0Msz
RSM	60.05	306	Pd	02 09.50	0.9
ASS	60.09	305	P	02 12.00	2.9X
CTI	60.15	309	Pd	02 09.00	-0.5
SOTA	60.20	310	iPc	02 08.20	-1.7
	0.9s	107.00nm			6.0mb
			i	02 09.60	5kmX
MNS	60.24	305	P	02 09.00	-1.0
MOTA	60.25	310	iPc	02 08.40	-1.8
	1.0s	214.00nm			6.2mb
			i	02 09.90	5kmX
			i	02 16.70	
GIB	60.32	299	P	02 08.50	-2.3
RMP	60.36	304	P	02 09.50	-1.3
RDP	60.36	304	P	02 10.00	-0.9
CRE	60.47	306	Pd	02 11.60	-0.1
SFI	60.47	306	Pd	02 12.50	1.0
PGD	60.57	306	Pd	02 13.20	0.7
FIR	60.92	306	eP	02 16.00	1.4
			iS	10 33.00	
SAL	61.01	309	P	02 15.00	-0.2
OSS	61.03	310	iPd	02 14.70	-0.9
AVY	61.15	224	iPd	02 16.20	-0.5
BDI	61.32	307	P	02 16.00	-1.5
TNS	61.38	314	ePd	02 17.70	-0.1
			e	02 24.60	23kmX
VTY	61.38	224	iPd	02 17.80	-0.5
PII	61.45	307	P	02 21.50	3.3X
VDL	61.53	310	ePd	02 18.30	-0.7
LLS	61.76	310	iPd	02 19.70	-0.9
SLE	61.88	311	ePd	02 20.20	-1.0
WIT	61.93	317	eP	02 22.50	1.1
BOB	61.95	308	P	02 22.00	0.3
BNS	62.01	315	iPd	02 21.50	-0.5
Z	28s	28.00um			6.3MszX
TMA	62.02	309	iPd	02 21.20	-1.1
WTS	62.02	316	iPd	02 22.30	0.3
	0.9s	86.80nm			5.9mb
			e	02 29.50	23kmX
ZLA	62.02	311	ePd	02 21.20	-0.9
LANF	62.06	313	P	02 22.40	0.1
VAI	62.14	309	P	02 23.50	0.6
FEL	62.17	312	P	02 22.40	-0.9
STR	62.17	312	P	02 23.33	0.3
LIBD	62.38	312	P	02 24.18	-0.2
WLS	62.48	312	P	02 24.52	-0.7
CDF	62.53	312	P	02 24.87	-0.7
BBS	62.60	311	P	02 25.37	-0.6
PCP	62.63	308	P	02 25.02	-1.2
MMK	62.64	310	iPd	02 25.70	-0.8
ECH	62.65	312	P	02 25.62	-0.7
ORX	62.74	309	P	02 24.47	-2.5
ORO	62.74	309	P	02 31.00	4.0X
MOF	62.75	312	P	02 26.65	-0.4
PGF	62.83	306	P	02 27.09	-0.5
ENN	62.83	315	ePd	02 27.00	-0.4
	0.9s	29.90nm			5.5mb
			e	02 34.50	24kmX
			e	03 52.50	
CKI	62.84	308	P	02 26.50	-1.1
FIN	62.95	308	P	02 26.81	-1.5
WLF	62.95	314	iPd	02 28.63	0.5
	1.5s	214.00nm			6.1mb
			i	02 36.56	26kmX
DBN	62.98	317	eP	02 30.00	1.7
Z	20s	7.50um			5.9Msz
			eSS	16 05.00	
BSF	62.98	312	P	02 28.09	-0.5
MEEK	63.01	149	iPd	02 27.30	-1.5
DIX	63.01	310	iPd	02 28.80	-0.2
LOMF	63.08	311	P	02 28.35	-0.8
ROB	63.16	308	P	02 28.91	-0.8
HAU	63.23	312	eP	02 28.80	-1.3
	1.3s	183.40nm			6.1mb
Z	25s	15.55um			6.1MszX
IMI	63.25	307	P	02 30.06	-0.3
EMS	63.34	310	iPd	02 30.90	-0.1
LSD	63.34	309	P	02 30.65	-0.5
RSP	63.36	309	P	02 28.64	-2.5
VITF	63.41	312	P	02 30.74	-0.5
BHB	63.43	308	P	02 29.51	-2.0
SAOF	63.46	307	P	02 31.62	-0.1
ENR	63.49	308	P	02 30.51	-1.4
DOI	63.54	308	P	02 30.00	-2.3
STV	63.55	308	P	02 30.60	-1.8
SBF	63.58	307	P	02 32.23	-0.3
LPG	63.61	309	eP	02 32.20	-0.8
	1.6s	547.25nm			6.5mb
LPL	63.62	309	eP	02 32.20	-0.7
	1.0s	168.00nm			6.2mb
PZZ	63.64	308	P	02 30.97	-2.0
RSL	63.64	309	P	02 32.58	-0.5
AURF	63.65	307	P	02 32.71	-0.3
REVF	63.66	307	P	02 32.60	-0.4
TOUF	63.67	308	P	02 33.31	0.0
RRL	63.74	309	P	02 32.85	-0.9
MVIF	63.77	307	P	02 32.60	-1.3
BNI	63.78	309	P	02 33.50	-0.4
UCC	63.79	315	P	02 35.00	1.3
DOU	63.82	315	Pc	02 34.40	0.5
			e	02 41.70	24kmX
			S	11 13.00	
SNF	63.91	315	iPd	02 34.33	-0.1
CALN	63.99	307	P	02 35.15	-0.2
FRF	64.21	307	eP	02 35.30	-1.3
	1.3s	171.85nm			6.1mb
GRN	64.36	309	P	02 37.46	-0.2
LMR	64.37	307	eP	02 36.50	-1.1
	1.4s	197.80nm			6.1mb
LRG	64.44	307	eP	02 37.00	-1.1
	1.6s	429.10nm			6.4mb
CDR	64.79	308	iPc	02 41.00	0.6
ILT	64.87	25	iPd	02 39.00	-1.5
	2.0s	138.00nm			5.8mb
Z	12s	13.00um			6.3MszX
N	12s	7.00um			
E	12s	14.00um			
			i	03 18.00	164kmX
			i	05 00.50	
			iS	11 20.00	
			eSS	15 32.00	
LOR	65.05	312	eP	02 40.40	-1.6
	1.3s	113.35nm			5.9mb
Z	24s	15.55um			6.1MszX
LBF	65.05	311	eP	02 40.40	-1.7
	1.5s	216.25nm			6.1mb
SSF	65.34	312	eP	02 42.50	-1.3
	1.3s	227.45nm			6.2mb
DAG	65.50	346	eP	02 44.20	-0.3
	1.0s	88.00nm			5.9mb
PLDF	65.58	310	P	02 45.00	-0.5
COLF	65.66	310	P	02 45.72	-0.3
AGO	65.88	311	P	02 47.18	-0.2
PYM	66.05	310	P	02 48.23	-0.3
ESY	66.41	322	ePc	02 50.80	0.2
	1.4s	29.00nm			5.3mb
WRA	66.58	131	P	02 51.50	-0.6
	0.6s	11.70nm			5.2mb
WB2	66.58	131	iPc	02 51.10	-1.1
	0.8s	5.60nm			4.8mb X
			eP'P'	31 23.70	
WARB	66.65	142	iPd	02 52.00	-0.5
	0.6s	36.00nm			5.7mb
EBL	66.69	322	ePc	02 52.60	0.2
EDI	66.72	322	ePc	02 53.00	0.5
	1.1s	68.00nm			5.7mb
LSF	66.88	311	eP	02 52.50	-1.3
	1.5s	153.55nm			6.0mb
EAU	66.88	322	ePc	02 54.20	0.6
EKA	66.89	322	P	02 53.00	-0.6
	0.9s	55.70nm			5.7mb
ESK	66.92	322	(P)	02 52.13	-1.7
	1.0s	80.00nm			5.9mb
			eS	11 48.40	
CAF	66.94	310	eP	02 53.50	-0.7
	1.4s	152.50nm			6.0mb
RJF	67.19	310	eP	02 55.20	-0.5
	1.4s	262.25nm			6.2mb
Z	27s	13.48um			6.0MszX

```
LDF     67.20 314 eP      02 54.40  -1.4
        1.1s   147.50nm          6.1mb
EAB     67.25 323 eP      02 56.30   0.4
MTHF    67.26 308 P       02 56.69   0.4
FLN     67.38 314 eP      02 55.40  -1.4
        1.5s   194.80nm          6.1mb
    Z  26s    17.13um           6.2MszX
HAE     67.58 318 iPc     02 58.50   0.5
LPO     67.61 310 eP      02 57.80  -0.6
        1.4s   142.45nm          6.0mb
LSPF    67.70 308 P       03 02.59   3.6X
GRR     67.73 314 eP      02 57.80  -1.3
        1.1s   116.25nm          6.0mb
LFF     67.83 310 eP      02 59.10  -0.6
        1.3s   185.55nm          6.1mb
HGH     67.86 318 eP      03 00.00   0.2
MFF     67.86 312 eP      02 58.80  -1.1
        1.5s   188.55nm          6.1mb
LPF     67.97 314 eP      02 59.40  -1.1
        1.5s   172.90nm          6.0mb
GRBF    67.99 308 P       03 00.90   0.0
ESEL    68.07 304 iPc     03 02.95   1.6
PAND    68.09 307 P       03 02.14   0.5
LESF    68.10 308 P       03 01.70   0.2
YRC     68.34 320 ePc     03 03.50   0.7
EPF     68.75 308 eP      03 03.90  -1.7
        1.0s    11.60nm          5.0mb
ASPA    68.98 134 iPd     03 06.80  -0.4
        1.2s     7.60nm          4.8mb X
                  P'P'    31 19.80
PMG     69.17 114 eP      03 08.00  -0.5
BCAO    69.34 263 iPd     03 09.00  -0.6
        1.0s   225.00nm          6.3mb
                  i       03 20.00  36kmX
                  i       04 19.10
EBR     69.42 306 eP      03 10.00   0.4
DMU     69.42 321 eP      03 10.40   1.0
        0.8s    63.00nm          5.8mb
DLF     69.43 320 eP      03 10.20   0.7
        0.9s    58.00nm          5.7mb
EROQ    69.48 306 iPc     03 10.74   0.7
EGRA    69.49 308 iPc     03 08.15  -1.9
ECP     69.74 319 eP      03 09.00  -2.4
DCN     69.83 320 eP      03 13.00   1.1
ECB     69.91 319 eP      03 13.00   0.6
ELIZ    69.98 309 eP      03 13.83   0.7
RAB     70.36 107 e(P)    03 16.00   0.2
BRW     70.47  18 eP      03 13.96  -1.6
MTD     70.54 237 iPd     03 15.60  -1.3
ECRI    70.85 309 iPc     03 19.68   1.2
ECHE    70.91 305 iPc     03 20.18   1.3
ACU     70.92 304 eP      03 19.73   0.8
FORT    71.05 144 eP      03 17.00  -2.6
ETOR    71.22 307 iPc     03 21.13   0.4
EALH    71.90 304 eP      03 25.92   1.1
VAL     72.04 320 eP      03 25.00  -0.3
LSZ     72.14 241 iPc     03 26.10  -0.5
EVIA    72.38 305 iPd     03 28.07   0.3
GUD     72.75 307 iPc     03 30.93   1.0
EHUE    72.77 304 iPd     03 30.16   0.1
ENIJ    72.83 303 iPc     03 31.01   0.7
PAB     73.33 306 ePd     03 33.07  -0.2
                  epPc    03 36.13  10kmX
                  ec      03 36.79
EBAN    73.49 305 eP      03 34.97   0.8
ECOG    73.70 304 iPd     03 35.31  -0.2
EMON    73.77 311 iPc     03 36.89   1.2
EGUA    73.88 303 iPd     03 36.04  -0.4
ERUA    74.08 310 eP      03 38.69   1.2
ELUQ    74.09 304 eP      03 38.10   0.4
EPLA    74.33 307 iPc     03 40.27   1.2
IMA     74.43  22 eP      03 38.46  -0.8
        1.8s    88.10nm          5.5mb
MAL     74.54 304 iPc     03 40.00  -0.2
                  iPP     08 06.00
                  iS      13 08.00
                  iPS     14 16.00
EHOR    74.69 305 iPd     03 41.08   0.0
STS     74.81 311 eP      03 43.00   1.3
BUL     74.84 236 iPc-    03 41.40  -0.9
        0.8s    39.55nm          5.5mb
    Z  18s    39.86um           6.8Msz
    N  18s    20.62um
                  ipP     03 48.00  21kmX
                  iS      13 20.00
CTA     74.96 124 iPd-    03 43.00   0.2
        1.5s   250.00nm          6.0mb
                  i       03 47.00  13kmX
                  i       04 10.00
                  e       09 47.00
                  iS      13 20.00
CTAO    74.96 124 ePd     03 42.01  -0.8
                  epPc    03 45.07  10kmX
                  ec      03 45.90
                  esPc    03 47.63
                  eS      13 15.12
                  eSKS    13 44.09
                  eSS     18 02.96
EPRU    75.04 304 iPc     03 43.23   0.1
LIJA    75.20 304 iP      03 43.00  -1.1
EJIF    75.43 304 iPc     03 45.45   0.1
ALJ     75.43 304 iP      03 44.00  -1.5
TTA     75.50  25 eP      03 44.30  -1.1
        1.9s    85.34nm          5.5mb
PLAT    75.78 303 eP      03 48.00   0.6
EVAL    75.86 305 iPc     03 48.63   0.8
CNIL    75.89 304 iP      03 47.00  -0.9
TSY     76.26 303 iP      03 51.00   0.9
IFR     76.44 301 iPd     03 53.00   1.6
RES     76.48   1 ePc     03 52.50   2.0
        0.9s     6.00nm          4.7mb X
SVW     76.74  26 eP      03 53.49   1.2
        1.1s    60.40nm          5.6mb
FBA     77.06  21 eP      03 53.52  -0.5
        1.2s    70.92nm          5.6mb
BFT     77.39 231 iPc     03 56.00  -0.7
        1.0s    90.00nm          5.8mb
OLP     77.72 130 iPd     03 58.60   0.4
GDH     77.89 347 ePd     04 03.00   4.6X
        0.9s   117.65nm          6.0mb
                  i       04 10.00  22kmX
                  e       13 58.00
CRP     77.96  25 eP      03 59.24   0.1
RSO     78.24  26 eP      04 01.21   0.4
AVE     78.25 302 iP      04 01.00  -0.2
                  i       04 29.50 111kmX
SLR     78.63 232 iPd     04 02.80  -0.6
        1.3s    70.00nm          5.6mb
    Z  18s    72.50um           7.1MszX
PMR     78.85  24 eP      04 03.86   0.1
        1.2s   104.67nm          5.7mb
    Z  18s     6.72um           6.0Msz
                  S       13 59.49
                  SP      14 41.49
SLKM    79.17  25 eP      04 05.21  -0.5
TIO     79.22 299 iP      04 08.00   1.3
PAF     79.56 191 iP      04 03.00  -4.7X
                  ePP     07 15.00
                  eS      14 03.00
STK     79.58 135 iPd     04 07.70  -0.6
        1.4s    26.90nm          5.1mb
                  eS      14 08.00
HNR     79.67 107 eP      04 08.00  -1.1
KSR     79.67 233 iPc     04 06.00  -3.1X
        1.3s    60.00nm          5.4mb
PRY     79.95 232 iPc     04 09.00  -1.5
        1.2s    72.00nm          5.5mb
KLU     80.03  23 eP      04 10.61   0.2
ADE     80.05 139 iPd     04 11.20   0.4
SEK     80.73 230 iPd     04 14.70   0.0
        0.4s    39.00nm          5.8mb
RMQ     80.75 127 iPd     04 15.80   1.2
        0.6s   112.00nm          6.1mb
YBT     81.43 299 iP      04 20.00   1.8
BALM    81.56  22 eP      04 19.40   0.9
CRZF    81.73 204 iPd     04 25.00   5.7X
                  ePP     07 35.00
                  eS      14 25.00
                  eSS     20 15.00
CMS     81.99 133 eP      04 20.40  -0.5
        1.2s    65.00nm          5.6mb
ANTZ    82.36 298 iPd     04 24.50   1.4
BFD     83.80 139 eP      04 30.40   0.2
        0.8s    43.00nm          5.7mb
BRS     84.14 126 iPc+    04 33.00   0.9
        1.0s     8.00nm          4.9mb
                  ipP     04 40.00  22kmX
                  i       04 57.00
                  eSKS    14 56.00
GRM     84.62 227 eP      04 35.00   0.5
        1.0s    80.00nm          5.9mb
WIN     84.89 241 iPd     04 37.50   1.3
        1.5s   100.00nm          5.8mb
ARMA    85.16 129 iPc     04 38.60   1.3
        1.0s    63.00nm          5.8mb
BWA     85.54 133 eP      04 40.00   1.0
TOO     85.80 137 eP      04 40.90   0.7
        1.1s   184.00nm          6.2mb
CAN     86.48 134 eP      04 43.90   0.2
POF     86.69 234 iPd     04 46.00   1.3
        0.5s    30.00nm          5.8mb
CNB     86.71 134 iPd     04 45.60   0.8
        0.6s    46.00nm          5.9mb
RIV     86.94 132 eP      04 46.50   0.7
SIT     86.94  22 (P)     04 45.49  -0.1
        1.0s    52.08nm          5.7mb
    Z  20s     4.91um           5.9Msz
SUR     87.86 231 ePd     04 50.99   0.4
                  epPc    04 54.79  12kmX
                  esPc    04 56.53
                  eSKS    15 14.36
                  eS      15 27.11
KIC     88.75 277 P       04 55.58   0.5
                  PP      08 22.00
                  S       15 24.00
TIC     88.86 277 P       04 56.02   0.4
        1.1s    50.50nm          5.7mb
LIC     89.07 277 P       04 57.32   0.8
    Z  20s     4.50um           5.9Msz
CER     89.47 231 eP      04 53.00  -5.0X
        1.5s   100.00nm          5.8mb
TUH     89.53 231 iPc     04 56.00  -2.2
        0.5s     8.00nm          5.2mb
DZM     91.56 114 iPc     05 09.90   1.9
FCC     92.48   1 eP      05 15.00   3.5X
MBO     95.16 289 eP      05 22.00  -2.6
JAO     96.16 350 eP      05 29.00   0.3
SES     99.21  12 eP      05 45.00   2.4
KIP     99.47  59 eP      05 44.77   0.6
HON     99.54  59 P       05 50.00   5.6X
    Z  21s     3.68um           5.9Msz
DPW    100.03  17 (Pdiff05 46.49   0.3
ULM    100.97   2 ePdiff05 56.50   6.3X
CBM    101.16 343 (Pdiff05 44.42  -6.7X
        1.0s     6.29nm          5.2mb
    Z  20s     5.15um           6.0Msz
COR    101.53  22 Pdiffc06 06.56  13.8X
                  eSKS    16 36.73
                  eSDIF   17 35.74
RSNY   104.87 347 Pdiff   06 20.00  12.3X
    Z  21s     2.97um           5.8Msz
WDC    105.35  23 PKP     10 30.00   6.1X
    Z  22s     3.62um           5.9Msz
HRV    106.16 344 PKP     10 40.00  14.6X
    Z  20s     3.43um           5.9Msz
RSSD   106.41   9 (Pdiff06 13.47  -1.4
        1.4s    10.37nm          5.7mb
    Z  20s     5.90um           6.1Msz
                  PP      10 50.84
                  SP      19 50.29
CRNY   107.76 345 (PKP)   10 21.44  -6.9X
                  e       10 33.90
CMB    108.37  23 PKP     10 40.00  10.2X
    Z  20s     4.01um           6.0Msz
DUG    108.58  16 ePKP    10 30.61   0.4
    Z  18s     2.98um           5.9Msz
SAO    109.14  24 PKP     10 40.00   8.8X
    Z  18s     3.32um           5.9Msz
TNP    109.35  20 (Pdiff06 29.30   1.2
MSU    110.33  16 PKP     10 34.54   0.8
GOL    110.55  10 PKP     10 33.58  -0.6
    Z  22s     4.44um           6.0Msz
                  PP      11 12.28
                  SP      20 28.77
MCWV   110.58 349 PKP     10 40.00   6.2X
    Z  19s     3.84um           6.0Msz
TPNV   110.68  20 PKP     10 40.00   5.7X
    Z  19s     4.52um           6.1Msz
ISA    111.16  22 PKP     10 50.00  14.8X
    Z  20s     2.77um           5.8Msz
SLM    112.59 358 PKP     10 50.00  12.4X
    Z  19s     4.83um           6.1Msz
PAS    112.64  23 Pdiffd06 53.34  10.8X
                  eSKS    17 20.50
CCM    113.20 359 ePdiff06 42.69  -2.2
FVM    113.25 358 (PKP)   10 39.12   0.2
    Z  21s    29.67um           6.9Msz
                  SP      21 02.09
GLA    114.73  20 PKP     10 43.41   1.3
ALQ    115.00  12 PKP     10 42.91   0.2
    Z  20s     0.56um           5.2Msz
```

```
                PP     11 42.70
                SP     21 22.09
OLY   115.75 359 PKP    10 43.99    0.1
MEO   116.23   5 iPKPd 10 44.60   -0.2
WMOK  116.26   6 PKP    10 43.71   -1.2
   Z  19s      6.41um           6.3Msz
                PP     11 51.23
                SP     21 31.95
TUC   116.57  17 ePKP  10 46.41    0.8
   Z  21s      3.79um           6.0Msz
                ePP    11 58.79
                SP     21 29.15
MIAR  116.71   1 ePKP  10 46.12    0.4
   Z  21s      4.96um           6.1Msz
                SP     21 27.49
UYO   117.07   2 iPKPc 10 45.70   -0.7
GOGA  117.24 351 PKP   11 00.00   13.3X
   Z  19s      4.81um           6.1Msz
SPA   118.92 180 iPKPd 10 47.70   -1.4
      0.6s     16.67nm
PAE   126.97  91 ePKP  11 07.00    1.2
TVO   127.31  91 ePKP  11 08.00    1.4
PMO   127.36  87 ePKP  11 08.30    1.7
      1.7s    150.00nm
TPT   127.59  87 ePKP  11 08.90    1.9
      1.9s    257.70nm
VAH   127.69  87 ePKP  11 08.80    1.6
      1.6s    115.70nm
SOB1  127.71 281 ePKP  11 08.50    1.1
RUV   127.88  87 ePKP  11 09.20    1.6
      1.8s    176.10nm
MRX   130.80  11 (PKP) 11 15.00    2.0
PPM   131.79   8 (PKP) 11 16.00    0.4
IISM  131.99   6 (PKP) 11 17.00    1.7
III   132.36   9 (PKP) 11 17.00    0.6
CAR   133.46 324 iPKPc 11 20.00    1.6
OXX   133.94   5 (PKP) 11 21.00    1.6
TOV   135.50 327 ePKP  11 23.30    1.1
SDV   136.68 327 ePKP  11 14.80   -9.9X
BDF   136.76 278 ePKPc 11 22.97   -1.7
                eHPP   14 06.59
                ePP    14 07.08
                eSKP   15 01.04
BOG   142.02 329 e(PKP)11 30.00   -4.6X
PPD   142.18 271 ePKP  11 32.30   -1.9
PSO   146.50 331 ePKP  11 46.00    3.7X
SIV   148.15 287 PKPd  11 55.60   11.3X
ZOBO  154.07 294 ePKP  11 53.60   -0.2
                ePP    15 46.98
LPB   154.20 294 PKP   11 54.30    0.6
                LR     10 28.00
CNCB  154.26 293 PKP   11 56.00    2.0
FSA   156.20 271 e(PKP)11 57.60    2.0
ARE   156.83 298 ePKP  12 00.00    2.9X
NNA   157.49 316 ePKP  11 57.38   -0.3
      1.7s    120.64nm
                epP'df12 01.85
                ePKPob12 30.99
                LR     07 08.00
     S.D. = 1.1  on 482 of 551 obs.
---------------------------------------
  MAR 20, 1993  15h 32m 21.70± 0.41s
  43.897 N ± 3.5km   7.209 E ± 3.2km
  DEPTH = 10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE       (379)
    ML 2.1 (GEN).

AURF    0.09  97 Pg    32 24.06   -0.3
TOUF    0.12  14 Pg    32 24.80   -0.1
                 Sg    32 27.20
SBF     0.17 102 Pg    32 25.62    0.1
AUTN    0.19  58 Pg    32 26.12    0.1
                 Sg    32 29.61
REVF    0.19 144 Pg    32 25.97   -0.1
SAOF    0.27  70 Pg    32 27.40    0.1
                 Sg    32 31.69
CALN    0.27 238 Pg    32 27.29   -0.2
                 Sg    32 31.15
STV     0.36  13 P     32 29.13    0.1
                 S     32 34.35
ENR     0.36  25 P     32 29.51    0.3
                 S     32 34.70
IMI     0.49  88 P     32 31.69    0.0
                 S     32 39.06
PZZ     0.61 353 P     32 33.61   -0.5
                 S     32 42.13
ROB     0.62  50 P     32 34.25    0.0
```

```
                 S     32 43.22
CDR     1.07 258 ePgd  32 42.30    0.5
                 e     32 56.70
    S.D. = 0.3  on  13 of  13 obs.
---------------------------------------
  MAR 20, 1993  15h 56m 30.32± 0.61s
  43.893 N ± 4.9km   7.193 E ± 4.3km
  DEPTH = 10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE       (379)
    ML 1.8 (GEN).

AURF    0.10  93 Pg    56 32.75   -0.3
                 Sg    56 34.89
TOUF    0.13  18 Pg    56 33.50   -0.1
SBF     0.18  99 Pg    56 34.68    0.3
AUTN    0.20  59 Pg    56 34.78    0.0
CALN    0.26 238 Pg    56 35.98    0.1
                 Sg    56 40.03
SAOF    0.28  70 Pg    56 36.25    0.1
                 Sg    56 40.40
STV     0.36  15 P     56 37.93    0.1
                 S     56 43.15
ENR     0.37  26 P     56 38.25    0.3
                 S     56 43.59
IMI     0.50  88 P     56 40.40   -0.1
                 S     56 48.00
PZZ     0.62 354 P     56 42.63   -0.2
                 S     56 51.66
    S.D. = 0.2  on  10 of  10 obs.
---------------------------------------
  MAR 20, 1993  16h 01m 26.29± 0.57s
  41.168 N ± 6.2km  22.022 E ± 4.2km
  DEPTH = 10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
    ML 2.0 (SKO).

GRG     0.36 126 iPg   01 34.40    0.8
                 eSg   01 40.68
VAY     0.44  70 iPg   01 36.00    0.7
                 iSg   01 43.40
FNA     0.62 232 ePg   01 38.64   -0.2
                 eSg   01 48.32
KNT     0.66  90 ePg   01 38.56   -0.9
                 eSg   01 47.88
THE     0.89 127 ePg   01 43.28   -0.1
                 eSg   01 57.70
SKO     0.91 332 iPg   01 44.40    0.6
      0.2s      32.00nm
                 iSg   01 56.00
                 Lg    01 57.00
OHR     0.93 267 ePg   01 43.50   -0.5
                 eSg   01 57.60
SOH     1.07 109 ePg   01 46.18   -0.2
                 eSg   02 01.14
LIT     1.12 161 ePb   01 48.08    0.7
                 eSb   02 05.20
SRS     1.19  92 ePb   01 47.58   -0.9
                 eSb   02 03.74
    S.D. = 0.7  on  10 of  10 obs.
---------------------------------------
? MAR 20, 1993  16h 38m 36.74± 7.52s
  33.865 S ±26.0km  72.273 W ±51.1km
  DEPTH = 10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE       (134)
    MD 3.5 (SAN).

LCCH    0.70  57 iP    38 51.02    0.4
                 iS    38 59.29
LNV     0.72  97 iP    38 51.41    0.5
                 iS    39 00.47
TACH    1.13  80 iP    38 57.42   -0.5
CHCH    1.35  93 iP    39 01.79    0.2
                 iS    39 18.69
ROCH    1.38  50 iP    39 02.59    0.4
PCH     1.49  81 iP    39 03.28   -0.3
PEL     1.51  62 iP    39 03.32   -0.6
                 iS    39 23.18
    S.D. = 0.6  on   7 of   7 obs.
---------------------------------------
  MAR 20, 1993  17h 41m 48.21± 0.32s
  18.696 N ± 5.1km 103.327 W ± 4.1km
  DEPTH =  58.8km  (  6 depth phases)
  5.1mb ( 50 obs.)
 NEAR COAST OF MICHOACAN, MEXICO ( 56)
     Felt along the coast of
     Michoacan.
```

```
CGX     1.01 353 iPd   42 07.48    0.8
MNZ     1.01 291 (P)   42 04.00   -2.5
                 (S)   42 24.00
MRX     2.25  63 iP    42 26.00    2.3
AGX     3.31  17 iP    42 41.46    2.8X
                 (S)   43 36.32
CRX     3.52  78 (P)   42 44.50    2.5X
III     3.68  94 iP    42 44.50    0.4
                 (S)   43 23.00
ACX     3.77 118 iP    42 44.33   -0.9
                 (S)   43 41.99
UNM     3.97  80 iP    42 50.00    1.7
                 (S)   43 51.00
TAC     3.97  79 (P)   42 48.00   -0.3
IIA     4.44  83 iP    42 51.71   -2.9
PPM     4.47  85 iPc   42 56.50    1.1
                 iS    43 49.54
MZX     5.34 328 iP    43 06.64   -0.5
IISM    5.64  86 iP    43 17.08    5.6X
OXX     6.49 103 iP    43 23.77    0.2
TPX    11.25 108 (P)   44 15.00  -13.7X
TUC    15.13 335 iPd   45 21.24    1.4
                 epP   45 34.32
                 S     50 07.70
                 epS   50 16.26
ALQ    16.42 351 iPd   45 38.46    2.0
       1.3s    82.11nm          4.7mb
                 pP    45 51.32
WMOK   16.48  13 iPc   45 37.08    0.1
       0.8s    73.45nm          4.9mb
                 epP   45 48.01
                 eS    50 33.16
MEO    16.57  14 iPd   45 38.10    0.0
FNO    17.31  16 iPd   45 49.30    1.9
UYO    17.32  25 iPd   45 47.40    0.0
OCO    17.55  16 iPd   45 52.20    1.9
GLA    17.63 326 eP    45 50.11   -1.2
MIAR   18.01  27 iPd   45 55.11   -0.9
       1.3s     6.26nm          3.6mb X
ACO    18.31  11 iPc   46 01.10    1.4
PLM    18.97 323 eP    46 08.37    0.5
PEC    19.53 323 eP    46 13.52   -0.3
       1.0s    48.02nm          4.7mb
OLY    19.76  30 iPd   46 14.43   -1.7
SSK    20.07 323 eP    46 19.87    0.3
GSC    20.40 327 iPd   46 23.15    0.2
ARUT   20.98 337 iPd   46 28.81   -0.1
GOL    21.01 356 eP    46 29.24    0.0
       1.0s    30.65nm          4.6mb
    Z  19s      4.28um          4.8Msz
MSU    21.20 341 iPd   46 31.48    0.3
SRU    21.28 344 iPd   46 31.35   -0.6
GRT    21.37  32 (P)   46 31.11   -1.4
TPNV   21.44 331 eP    46 34.55    1.1
       1.1s    90.85nm          5.1mb
ISA    21.57 325 iPc   46 35.53    0.9
    Z  20s      0.58um          4.0Msz
EMUT   22.02 344 eP    46 41.63    2.3
ELC    22.27  31 iPd   46 40.06   -1.4
FVM    22.28  28 iPd   46 40.18   -1.4
       0.6s    60.04nm          5.2mb
    Z  16s      1.78um          4.6MszX
DAU    22.69 344 eP    46 46.38    0.3
PHAM   22.78 322 eP    46 48.52    1.9
DUG    22.93 341 ePd   46 47.60   -0.6
       0.9s     8.03nm          4.2mb
    Z  21s      0.60um          4.0Msz
GOGA   23.03  47 iPc   46 47.88   -1.1
    Z  20s      0.55um          4.0Msz
MEMM   23.32 327 eP    46 54.56    2.8X
                 e     47 00.52   21kmX
GBTN   23.90  41 eP    46 56.20   -1.3
KVN    23.99 331 eP    47 00.49    1.9
TKL    24.17  42 iPc   46 59.34   -0.8
CMB    24.35 326 iPd   47 02.19    0.3
       0.9s    11.91nm          4.4mb
    Z  19s      0.36um          3.9Msz
HVU    24.38 343 eP    47 02.16   -0.1
ARN    24.49 323 iPd   47 04.05    0.8
BW06   24.58 349 iPd   47 01.49   -2.8
JSC    25.04  47 ePd   47 06.35   -2.0
RSSD   25.36 359 iPc   47 10.22   -1.3
       1.0s    17.51nm          4.5mb
    Z  20s      2.01um          4.6Msz
LHS    25.46  47 eP    47 10.68   -1.7
ORV    26.06 327 ePd   47 18.86    1.0
NAV    27.08  42 eP    47 25.43   -1.9
```

BLA 27.26 43 ePc 47 27.9B -0.9
0.8s 19.45nm 4.8mb
LBFM 27.60 329 eP 47 31.9B -0.1
LCCM 27.98 347 eP 47 34.90 -0.6
ULM 32.04 9 ePc 48 11.60 0.4
SDV 33.16 103 eP 48 22.30 0.7
TOV 33.64 101 eP 48 26.50 0.9
EEO 34.27 30 eP 48 31.00 0.3
pP 48 47.50 67km
RSNY 35.25 37 eP 48 36.14 -2.9
1.0s 12.57nm 4.8mb
Z 22s 0.47um 4.2Msz
HRV 35.86 42 P 48 50.00 5.8X
Z 21s 0.30um 4.0Msz
BNH 37.17 39 eP 48 53.88 -1.4
CBM 40.29 38 iPc 49 17.81 -3.3X
1.0s 12.31nm 4.7mb
Z 19s 0.43um 4.3Msz
FCC 40.58 7 eP 49 25.50 2.2
JAO 41.00 25 ePc 49 25.30 -1.6
pP 49 41.00 62km
LMN 41.74 41 eP 49 34.50 1.4
YKA 44.46 353 eP 49 52.30 -2.6
0.9s 2.50nm 4.0mb X
ZOBO 49.07 133 P 50 32.00 -0.5
Z 20s 0.26um 4.2Msz
LR 07 16.00
LPB 49.26 133 P 50 34.00 0.3
CNCB 49.54 133 P 50 36.10 0.1
KDC 53.04 329 eP 51 01.50 0.3
SLKM 53.32 333 eP 51 02.95 -0.4
PMR 53.43 335 iPc 51 03.82 -0.2
0.7s 33.79nm 5.5mb
Z 20s 0.34um 4.4Msz
SIV 54.02 127 P 51 18.80 9.8X
i 51 29.40 35kmX
RSO 54.39 332 iPd 51 11.07 -0.4
CRP 54.52 333 iPd 51 11.50 -0.8
CP2 54.55 333 iPd 51 12.30 -0.3
FBA 54.78 339 iPd 51 12.92 -1.1
1.2s 31.07nm 5.2mb
iPcP 52 14.71
SVW 55.94 332 iPd 51 21.47 -1.0
0.8s 89.87nm 5.9mb
RES 56.20 3 eP 51 22.50 -1.5
TTA 56.89 334 iPd 51 27.92 -1.4
0.9s 44.18nm 5.5mb
IMA 57.48 338 iPd 51 31.89 -1.5
0.9s 7.93nm 4.8mb
e 51 47.60 59km
ePcP 52 24.49
BAO 64.27 118 eP 52 18.00 -2.1
e 52 29.90 40kmX
BDF 64.36 118 eP 52 19.00 -1.7
ILT 67.33 337 iPd 52 38.80 0.1
1.0s 16.00nm 5.0mb
i 52 53.00 50km
SOB1 67.52 109 (P) 52 42.00 1.2
DCN 78.75 37 eP 53 45.60 -0.2
DMU 78.81 37 eP 53 45.30 -0.9
DLF 79.19 37 eP 53 48.40 0.2
EKA 80.45 35 P 53 55.00 0.0
0.7s 5.80nm 4.6mb
EMON 81.60 47 eP 54 01.50 0.2
MGD 81.61 331 ePd 54 02.00 1.1
1.0s 30.00nm 5.2mb
e 54 18.00 57km
ERUA 82.05 48 eP 54 04.50 0.9
TIK 83.22 345 iPd 54 08.60 -0.5
1.2s 80.00nm 5.6mb
i 54 25.00 58km
EPLA 83.54 50 eP 54 12.00 0.6
EVAL 83.85 53 eP 54 13.50 0.6
GRR 84.20 41 eP 54 15.30 0.8
0.9s 30.45nm 5.3mb
LPF 84.22 41 eP 54 15.30 0.8
1.1s 46.90nm 5.4mb
FLN 84.29 40 eP 54 16.00 1.1
0.9s 59.80nm 5.6mb
LDF 84.58 40 eP 54 17.40 1.0
1.0s 33.20nm 5.4mb
GUD 84.74 49 eP 54 18.70 1.2
EHOR 84.89 52 eP 54 19.00 0.9
PAB 84.97 50 iPd 54 19.50 0.9
1.2s 31.25nm 5.3mb
NB2 85.03 26 P 54 18.40 0.0
0.9s 7.10nm 4.8mb

KEV 85.12 15 eP 54 20.00 1.3
0.8s 27.90nm 5.4mb
EJIF 85.18 53 eP 54 21.50 1.8
ECRI 85.21 47 eP 54 21.00 1.3
MFF 85.31 42 eP 54 20.90 0.8
1.1s 16.85nm 5.1mb
ELUQ 85.71 52 eP 54 23.00 0.6
ETOR 86.17 48 eP 54 25.00 0.4
ECOG 86.33 52 eP 54 26.50 1.0
EGUA 86.49 52 eP 54 27.00 0.9
LSF 86.52 42 eP 54 26.60 0.5
0.8s 11.30nm 5.1mb
LFF 86.52 44 eP 54 26.40 0.3
1.0s 33.20nm 5.5mb
SDF 86.56 17 iP 54 25.40 -0.5
EVIA 86.63 50 eP 54 28.00 1.1
EHUE 86.87 51 eP 54 29.00 0.9
EGRA 86.87 46 eP 54 30.50 2.7X
RJF 86.88 43 eP 54 27.80 -0.1
0.9s 21.95nm 5.3mb
LPO 86.92 44 eP 54 28.10 0.1
0.8s 9.40nm 5.0mb
TCF 86.93 42 eP 54 27.80 -0.3
0.8s 13.70nm 5.2mb
EPF 87.00 46 eP 54 28.70 0.2
0.7s 5.30nm 4.8mb
MAF 87.19 42 eP 54 29.00 -0.3
1.1s 13.45nm 5.1mb
WTS 87.21 36 eP 54 30.50 1.2
0.9s 8.50nm 4.9mb
BGF 87.23 42 eP 54 29.00 -0.5
1.1s 14.90nm 5.1mb
ENN 87.27 37 eP 54 30.00 0.4
1.0s 15.00nm 5.1mb
ECHE 87.39 49 eP 54 32.50 2.0
SSF 87.43 41 eP 54 30.00 -0.5
0.9s 9.00nm 5.0mb
AVF 87.45 41 eP 54 29.80 -0.7
0.7s 2.75nm 4.6mb
LOR 87.56 41 eP 54 30.90 -0.2
0.8s 8.35nm 5.0mb
LBF 87.75 41 eP 54 31.50 -0.6
1.0s 6.60nm 4.8mb
EROQ 87.90 48 eP 54 33.00 0.2
HAU 88.75 39 eP 54 36.50 -0.3
0.9s 7.35nm 5.0mb
KAF 90.18 21 eP 54 42.30 -0.9
0.9s 19.30nm 5.4mb
NUR 90.67 23 eP 54 45.70 0.2
GRF 90.77 36 eP 54 47.50 1.3
NRI 91.77 356 iPd 54 50.00 -0.3
1.4s 36.00nm 5.6mb
e 55 04.00 47kmX
YSS 91.78 321 iPd 54 51.00 0.2
0.9s 20.00nm 5.5mb
e 55 03.00 39kmX
KHC 92.38 36 eP 54 53.50 -0.1
e 25 17.00
e 25 25.50
eSg 26 01.40
e 26 10.00
GEC2 92.60 36 P 54 54.20 -0.5
1.1s 2.73nm 4.6mb
e 54 57.00 9kmX
e 55 10.60
ZST 94.84 35 eP 55 05.80 0.9
SRO 95.73 35 iP 55 09.70 0.7
LIC 95.84 81 PKP 55 10.40 0.3
KIC 96.06 81 PKP 55 11.20 0.1
BOD 97.63 341 eP 55 16.70 -0.7
0.7s 9.00nm 5.4mb
OBN 98.98 22 ePc 55 23.00 -0.6
0.8s 20.00nm 5.7mb
WB2 125.79 259 iPKPc 00 45.60 -0.1
0.6s 6.20nm
WRA 125.80 259 PKP 00 46.00 0.3
0.5s 1.10nm
HYB 144.07 357 ePKPd 01 17.00 -2.7
1.0s 60.00nm
SNG 145.09 315 ePKP 01 22.20 0.7
IPM 146.67 312 ePKPd 01 26.80 2.6X
LEM 147.66 287 ePKPc 01 28.50 2.6X
GBA 147.90 359 PKP 01 26.00 0.0
S.D. = 1.1 on 147 of 158 obs.

? MAR 20, 1993 18h 19m 27.74±12.49s
18.194 N ±17.3km 76.544 W ±83.8km
DEPTH = 10.0km (geophysicist)
JAMAICA REGION (86)
MD 2.4 (HOJ). Felt at Cherry Gardens.

GWJ 0.22 237 iPc 19 32.78 0.2
S 19 35.00
HOJ 0.27 226 iPd 19 33.38 -0.1
STH 0.28 246 iPd 19 33.58 -0.1
S 19 36.84
BBJ 0.71 285 P 19 41.80 0.0
S.D. = 0.3 on 4 of 4 obs.

MAR 20, 1993 19h 08m 50.90± 0.17s
0.147 N ± 3.5km 123.432 E ± 5.0km
DEPTH = 151.6km (7 depth phases)
5.2mb (60 obs.)
MINAHASSA PENINSULA, SULAWESI (265)

TSM 6.91 307 ePd 10 33.50 2.5
0.3s 523.60nm 6.4mb X
e 11 46.00
DAV 7.22 17 eP 10 40.00 5.0X
1.5s 777.78nm 6.0mb
CGP 8.35 9 eP 10 56.00 5.9X
BIP 8.50 19 iPc 10 56.00 3.8X
eS 11 20.90
MAP 10.12 3 eP 11 13.00 -0.6
PLP 11.05 8 ePc 11 30.20 4.4X
PGP 13.49 350 ePd 12 02.00 4.5X
TGY 14.08 350 ePc 12 15.00 10.0X
QVP 14.58 351 iPd 12 17.00 5.8X
MTN 15.00 150 eP 12 16.00 -0.5
0.4s 113.00nm 5.6mb
BAG 16.40 350 ePc+ 12 35.90 1.8
0.9s 134.45nm 5.3mb
eS 15 36.00
CVP 17.52 355 ePd 12 49.80 2.4
PIP 18.27 351 eP 12 56.00 0.2
KGM 20.19 275 eP 13 18.20 2.5
MBL 21.47 189 eP 13 28.00 -0.4
WRA 22.65 152 P 13 39.70 -0.2
WB2 22.65 152 iPd 13 39.30 -0.7
0.6s 63.00nm 5.2mb
epP 14 09.10 150km
i 17 28.20
e 17 32.20
e 20 50.80
e 24 33.50
IPM 22.81 281 ePd 13 43.90 2.3
MDG 22.95 104 iPd 13 44.60 1.7
HKC 23.80 338 iP 13 54.40 3.4X
SNG 23.80 288 eP 13 53.00 1.9
NANU 23.85 198 eP 13 51.30 -0.2
0.4s 18.00nm 4.9mb
GZH 24.82 337 iPd 14 03.20 2.6
QZH 25.09 350 P 14 04.20 1.1
1.0s 120.00nm 5.4mb
PMG 25.46 113 eP 14 06.00 -0.6
ASPA 25.76 157 P 14 08.89 -0.5
WARB 26.36 173 eP 14 14.00 -0.8
0.4s 6.00nm 4.6mb
MEEK 27.03 190 eP 14 19.50 -1.4
LOE 27.39 310 eP 14 25.00 0.8
NST 27.70 305 eP 14 28.50 1.6
KHT 28.54 302 eP 14 36.00 1.4
CTA 30.07 133 iPc 14 49.20 1.1
1.0s 12.50nm 4.6mb
i 21 13.00
CHTO 30.36 309 ePc 14 51.70 1.0
1.0s 43.00nm 5.1mb
e 17 46.90
GYA 30.74 330 iPc 14 56.40 2.3
1.0s 100.00nm 5.5mb
PcP 17 47.80
SSE 30.85 356 Pc 14 56.00 1.2
1.0s 53.00nm 5.2mb
FORT 31.07 172 eP 14 55.70 -1.0
WHN 31.44 345 eP 15 01.50 1.6
KMI 31.89 323 Pc 15 05.50 1.3
1.5s 70.00nm 5.3mb
NJ2 32.03 353 Pd 15 06.00 1.0
1.0s 39.00nm 5.2mb
TKSJ 35.10 15 P 15 31.40 0.0
WKYJ 35.76 17 P 15 37.10 0.1
CD2 35.84 330 eP 15 38.30 0.5
1.0s 290.00nm 6.0mb

20d 19h

YONJ 36.10 14 P 15 39.90 0.1
STK 36.20 153 eP 15 40.10 -0.6
0.7s 12.00nm 4.7mb
epP 16 12.80 147km
iPcP 18 02.50
eS 21 06.00
iScP 21 33.60
TIA 36.36 351 eP 15 41.50 -0.5
1.0s 30.00nm 5.0mb
XAN 36.36 339 P 15 42.50 0.4
0.8s 84.00nm 5.5mb
TSRJ 37.10 17 P 15 48.20 0.0
ADE 37.74 159 eP 15 55.00 1.3
CHJJ 38.54 20 P 15 58.90 -1.4
DL2 38.61 358 eP 16 00.00 -0.7
1.0s 120.00nm 5.6mb
MTMJ 38.63 19 P 16 00.80 -0.3
MAT 38.72 19 iPc 16 00.60 -1.2
1.0s 35.00nm 5.0mb
TIY 38.73 346 iPc 16 02.40 0.4
0.8s 95.00nm 5.6mb
BRS 39.30 137 iPd 16 06.50 -0.2
1.0s 7.00nm 4.3mb
e 16 34.00 121kmX
e 17 40.00
LZH 40.13 335 iPd 16 15.70 2.2
1.5s 220.00nm 5.6mb
BJI 40.25 351 eP 16 13.50 -0.8
1.1s 82.00nm 5.3mb
ARMA 40.53 141 iPd 16 18.10 1.2
0.4s 30.00nm 5.3mb
e 16 53.10 159km
YAMJ 40.81 20 P 16 19.10 0.2
BFD 41.13 157 eP 16 22.00 0.4
SNY 41.49 0 eP 16 23.40 -1.0
BWA 41.60 148 eP 16 27.20 1.7
e 17 01.30 154km
iPcP 17 07.00
HHC 41.92 346 eP 16 27.00 -1.1
1.0s 31.00nm 4.9mb
BTO 42.07 345 eP 16 30.00 0.7
OFUJ 42.20 21 P 16 30.60 0.4
LSA 42.54 317 P 16 35.70 2.0
1.0s 27.00nm 4.8mb
CAN 42.59 149 eP 16 34.60 1.0
e 17 08.80 154km
iPcP 17 14.00
i 18 23.50
TOO 42.70 154 eP 16 36.30 1.8
e 17 08.50 144km
CNB 42.78 148 iPc 16 37.50 2.4
0.7s 11.00nm 4.6mb
AOMJ 43.07 19 P 16 38.50 1.2
CN2 43.50 2 eP 16 40.10 -0.6
MDJ 44.61 6 eP 16 49.70 0.0
GTA 44.65 334 P 16 50.00 -0.2
1.0s 70.00nm 5.2mb
PcP 18 30.50
MRRJ 44.98 19 P 16 52.80 0.2
HOOJ 45.69 21 eP 16 58.20 0.1
KUSJ 46.82 21 eP 17 07.10 0.0
ASAJ 47.01 19 eP 17 08.60 0.0
DZM 47.37 121 iPc 17 12.50 0.6
HYB 47.37 294 iP 17 11.00 -0.8
1.0s 120.00nm 5.5mb
GBA 47.46 288 P 17 11.00 -1.5
YSS 49.63 17 iPc 17 27.30 -1.4
1.0s 50.00nm 5.2mb
e 18 46.60 392kmX
POO 51.98 294 eP 17 44.50 -2.5
NDI 52.47 307 eP 17 48.50 -1.9
ZAK 52.92 344 iPc 17 52.20 -1.1
0.9s 29.00nm 5.1mb
e 18 59.50 316kmX
WMQ 53.89 328 P 18 00.80 0.1
1.0s 59.00nm 5.4mb
PcP 19 03.00
eS 25 19.00
IRK 54.37 346 eP 18 03.20 -0.8
2.0s 40.00nm 4.9mb
MOY 54.73 343 iPc 18 06.20 -0.4
0.8s 72.00nm 5.6mb
BOD 58.00 354 iPc 18 27.80 -1.9
0.9s 75.00nm 5.6mb
KSH 58.32 318 P 18 33.00 0.6
1.0s 50.00nm 5.4mb
PRZ 58.37 322 iPd 18 33.00 0.3
0.7s 90.00nm 5.8mb
PET 60.29 24 eP 18 45.00 -0.4
FRU 60.91 321 eP 18 47.00 -3.0X
2.0s 40.00nm 5.0mb
ELT 61.26 336 iPc 18 50.00 -2.0
1.0s 106.00nm 5.7mb
e 19 31.00 175kmX
eS 26 54.00
QUE 61.35 305 eP 18 52.20 -1.2
YAK 61.89 3 iPc 18 54.70 -1.4
0.8s 313.00nm 6.3mb X
eS 28 26.00
MGD 63.44 15 ePc 19 06.00 -0.3
1.0s 70.00nm 5.5mb
MAIO 69.12 309 iPc 19 41.30 -1.6
TIK 71.46 2 iPc 19 54.50 -1.6
1.0s 135.00nm 5.7mb
e 20 32.00 154km
e 20 43.00
eS 28 55.00
ePS 29 40.00
NRI 73.07 348 iPc 20 03.70 -2.0
1.0s 60.00nm 5.3mb
e 20 20.00 59kmX
e 20 38.00
SVE 75.31 330 iPc 20 17.50 -1.3
2.0s 60.00nm 5.0mb
ARU 76.20 329 ePc 20 22.00 -1.8
1.0s 80.00nm 5.4mb
AVY 76.53 251 eP 20 25.70 -0.9
VTY 76.72 250 iPc 20 26.80 -0.9
ILT 78.25 19 iPc 20 35.00 0.1
1.0s 40.00nm 5.1mb
MAW 79.28 200 P 20 41.40 0.9
GRS 79.96 310 iPc 20 44.00 -0.9
1.2s 50.00nm 5.1mb
SDN 81.97 34 ePc 20 55.10 0.3
KIV 83.23 314 eP 21 03.00 1.2
0.9s 17.00nm 4.9mb
SVW 85.49 29 ePc 21 13.70 1.1
0.8s 27.50nm 5.1mb
TTA 85.56 27 eP 21 13.52 0.5
0.7s 6.48nm 4.6mb
BRW 86.59 19 iPd 21 18.91 1.1
KDC 86.70 32 eP 21 18.80 0.3
RSO 86.81 30 eP 21 18.75 -0.5
IMA 86.97 24 iPc 21 20.23 0.3
0.6s 12.82nm 5.0mb
CP2 87.13 29 (P) 21 20.60 -0.2
CRP 87.17 29 eP 21 20.30 -0.7
HRI 87.99 303 eP 21 25.20 -0.2
OBN 88.06 325 iPd 21 24.00 -1.1
1.4s 90.00nm 5.6mb
SLKM 88.07 30 eP 21 24.44 -0.7
DSI 88.26 301 eP 21 26.40 -0.2
PMR 88.65 29 eP 21 27.00 -0.8
MBH 88.67 300 eP 21 28.10 -0.6
FBA 89.34 25 eP 21 32.06 1.0
0.6s 4.22nm 4.6mb
SPA 90.14 180 iPc 21 35.00 0.1
0.4s 13.16nm 5.3mb
KLU 90.18 29 ePc 21 35.18 0.1
BALM 91.93 29 iPd 21 43.71 0.6
KEV 92.09 340 eP 21 42.00 -1.6
KAF 93.21 332 eP 21 46.70 -2.2
0.4s 3.80nm 5.0mb
NUR 94.20 331 eP 21 51.30 -2.1
0.7s 5.10nm 4.9mb
BUL 94.58 250 iPd 21 55.20 -1.0
0.8s 69.40nm 6.0mb
UZH 97.25 319 eP 22 07.00 -0.6
1.3s 52.00nm 5.8mb
e 26 13.00
NB2 100.47 333 Pdiff 22 18.60 -3.3X
0.8s 2.80nm 4.9mb
GEC2 102.77 320 Pdiff 22 30.20 -2.3
1.3s 2.83nm 4.9mb
YKA 104.09 24 ePdiff22 37.70 -0.2
0.6s 1.00nm 4.9mb
BSF 107.47 321 ePKP 27 00.10 -1.2
1.0s 4.60nm
LOR 109.53 321 ePKP 27 03.30 -1.8
1.1s 4.15nm
LBF 109.56 321 ePKP 27 03.40 -1.8
0.8s 2.30nm
SSF 109.83 321 ePKP 27 04.00 -1.7
0.9s 5.55nm
BGF 110.44 321 ePKP 27 05.20 -1.6
0.6s 3.50nm
FCC 114.28 20 ePKPd 27 16.00 2.2
HVU 114.48 43 ePKPc 27 15.39 0.4
DUG 115.09 45 ePKP 27 16.62 0.5
BW06 116.20 41 ePKP 27 17.74 -0.6
MSU 116.20 46 ePKPc 27 19.53 1.1
SRU 117.14 45 ePKPc 27 20.15 0.0
RSSD 119.02 37 iPKPd 27 22.68 -0.9
ULM 119.66 28 ePKP 27 26.00 1.7
GOL 120.43 42 ePKPd 27 26.71 0.2
ALQ 121.86 48 ePKPc 27 30.03 0.8
e 27 42.98
e 28 13.36
JAQ 123.94 14 ePKPd 27 31.00 -1.4
WMOK 127.48 44 ePKP 27 39.44 -0.5
eSKP 30 42.15
MEO 127.60 44 iPKPc 27 40.30 0.2
KIC 127.88 278 PKP 27 40.82 -0.4
0.9s 14.00nm
TIC 128.13 279 PKP 27 41.06 -0.6
LIC 128.18 278 PKP 27 41.34 -0.4
0.8s 10.50nm
EEO 129.40 20 ePKP 27 45.50 2.4
FVM 130.89 36 ePKP 27 45.88 -0.4
eSKP 30 54.08
MIAR 131.13 41 PKP 27 47.37 0.6
ELF 131.49 24 PKP 27 47.10 -0.1
ACTO 131.64 23 PKP 27 47.52 0.0
DLA 131.66 25 PKP 27 47.30 -0.2
LDN 131.67 24 PKP 27 47.30 -0.3
WLVO 131.99 21 PKP 27 48.11 0.0
CBM 132.03 11 ePKP 27 47.17 -0.9
TYNO 132.15 23 PKP 27 48.21 -0.2
RSNY 132.72 17 ePKPc 27 49.03 -0.5
eSKP 30 59.79
LMN 133.62 8 ePKP 27 41.50 -9.7X
pP 27 54.00
EMM 134.27 11 ePKP 27 53.09 0.7
NAV 136.51 28 ePKP 27 56.28 -0.7
CVL 137.03 26 ePKP 27 59.36 1.5
MRA 146.77 166 e(PKP)28 16.00 0.9
CNCB 159.98 146 PKP 28 36.00 1.6
LPB 160.14 146 ePKP 28 36.00 1.6
ZOBO 160.32 145 PKP 28 36.20 1.4
SOB1 161.98 240 ePKP 28 35.60 -0.2
e 29 35.10
BDF 162.37 209 (PKP) 28 35.00 -1.3
BAO 162.43 208 (PKP) 28 36.00 -0.3
SIV 163.64 164 PKP 28 49.40 12.0X
e 29 36.00
S.D. = 1.2 on 165 of 177 obs.

• MAR 20, 1993 19h 33m 21.23± 0.87s
43.226 N ± 8.8km 10.840 E ± 5.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

PII 0.55 335 P 33 32.20 -0.1
eSg 33 39.40
BDI 0.85 348 P 33 38.20 0.5
CRE 0.90 63 Pc 33 38.50 -0.1
eSg 33 48.00
PGD 0.91 44 Pc 33 39.00 0.2
eSg 33 48.50
SFI 1.01 46 P 33 40.10 -0.2
eSg 33 50.00
PGF 1.51 244 Pn 33 48.80 0.3
Sn 34 08.40
SBF 2.56 286 Pn 34 02.40 -1.1
LRG 3.28 276 Pn 34 14.10 0.5
LPG 3.71 309 Pn 34 14.20 -5.9X
LPL 3.73 309 Pn 34 15.50 -4.8X
S.D. = 0.6 on 8 of 10 obs.

• MAR 20, 1993 19h 44m 11.64± 0.87s
15.219 N ±18.9km 92.735 W ±10.4km
DEPTH = 132.2 ± 11.4 km
3.7mb (1 obs.)
MEXICO-GUATEMALA BORDER REGION (62)
MD 4.4 (GCG).

TPX 0.55 124 iP 44 30.17 -1.3
iS 44 42.69
SCX 1.51 4 iP 44 40.48 0.2
iS 45 00.64
TER 2.18 114 eP 44 48.81 0.3

eS 45 22.56
GCG 2.22 106 iP 44 50.24 1.1
iS 45 19.90
MRL 2.94 93 ePc 44 58.24 -0.2
eS 45 35.47
OXX 4.26 296 iP 45 16.04 0.1
iS 45 59.19
IISM 5.81 311 (P) 45 35.88 -0.8
iS 46 38.62
PPM 6.81 305 iP 45 52.12 1.2
III 7.17 297 iP 45 55.50 0.0
ALQ 23.19 330 (P) 49 08.80 1.1
YKA 49.68 347 eP 52 49.90 -1.7
0.6s 0.80nm 3.7mb
S.D. = 1.2 on 11 of 11 obs.

% MAR 20, 1993 19h 44m 45.17± 2.20s
39.449 N ±14.2km 23.673 E ±15.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.48 1 iPg 44 55.42 0.6
eSg 45 04.08
OUR 0.92 15 ePg 45 03.28 0.6
eSg 45 15.08
LIT 1.12 306 ePg 45 06.52 0.3
eSg 45 20.94
AGG 1.13 248 ePg 45 06.48 0.2
eSg 45 21.74
SOH 1.39 350 ePb 45 10.00 -0.7
eSb 45 27.78
SRS 1.67 358 iPb 45 13.96 -0.6
eSb 45 34.94
GRG 1.79 328 ePb 45 16.20 -0.2
iSb 45 38.92
KNT 1.81 341 ePb 45 16.36 -0.3
eSb 45 38.82
S.D. = 0.6 on 8 of 8 obs.

% MAR 20, 1993 20h 23m 04.86± 2.35s
31.248 S ±15.6km 68.276 W ±10.0km
DEPTH = 93.1 ± 28.2 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.18 244 eP 23 18.50 -0.2
CFA 0.36 175 ePd 23 19.70 0.5
S 23 31.00
RTCB 0.51 242 iPd 23 20.20 -0.1
RTCV 0.65 200 e(P) 23 21.10 -0.4
S 23 33.40
RTBS 1.09 247 e(P) 23 26.20 0.2
RTRS 1.48 316 ePc 23 30.90 0.0
S 23 50.80
RTPR 1.79 59 ePd 23 34.80 0.0
S.D. = 0.4 on 7 of 7 obs.

MAR 20, 1993 20h 48m 26.99± 0.38s
43.259 N ± 4.2km 10.890 E ± 2.7km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.6 (TRI), 3.4 (ROM). ML 3.2 (LDG).

PII 0.53 330 P 48 38.08 0.3
FIR 0.58 27 iPgc 48 38.50 -0.3
iSg 48 47.00
BDI 0.83 345 P 48 43.38 0.3
CRE 0.86 64 P 48 43.74 0.2
SFI 0.96 46 P 48 45.41 0.1
ASS 1.31 98 P 48 51.29 0.0
RSM 1.32 59 P 48 52.40 1.1
ARV 1.52 80 P 48 54.45 0.3
PGF 1.56 244 Pn 48 54.80 -0.1
Sn 49 13.50
MNS 1.58 123 P 48 55.38 0.2
BOB 1.83 326 P 49 00.44 1.6
RMP 1.97 137 P 49 01.20 0.4
RDP 2.02 137 P 49 02.96 1.4
AOU 2.06 115 P 49 03.64 1.5
PCP 2.13 308 P 49 03.04 0.0
FIN 2.16 297 P 49 03.27 -0.3
CKI 2.22 303 P 49 03.78 -0.6
IMI 2.28 288 P 49 03.87 -1.4
ROB 2.42 296 P 49 06.57 -0.7
MDI 2.66 342 P 49 10.92 0.4
SDI 2.66 125 P 49 12.03 1.3
STV 2.76 292 P 49 11.55 -0.7
CTI 2.84 11 P 49 12.61 -0.7
DOI 2.91 297 P 49 14.93 0.6
PZZ 3.01 296 P 49 14.62 -1.1
VAI 3.02 331 P 49 18.60 3.0
BHB 3.06 302 P 49 16.22 0.0
FRF 3.11 277 Pn 49 15.10 -1.8
Sn 49 47.80
ORO 3.15 320 P 49 18.34 0.6
ORX 3.16 320 P 49 19.20 1.4
TMA 3.19 334 ePd 49 18.80 0.5
TRI 3.20 39 e(Pn) 49 16.40 -1.8
e 49 20.90
TRI 3.20 39 e(Pg) 49 23.90 5.7X
e(PgPg 49 28.20
e(Sn) 49 53.20
e 49 57.00
LMR 3.20 273 Pn 49 16.20 -2.1
Sn 49 52.60
RSP 3.23 307 P 49 19.65 0.9
RIY 3.26 49 eP 49 17.80 -1.4
LRG 3.31 275 Pn 49 18.50 -1.3
VDL 3.38 343 iPd 49 22.00 0.9
RRL 3.39 301 P 49 21.81 0.6
LSD 3.46 311 P 49 21.49 -0.8
OSS 3.47 351 ePd 49 23.70 1.5
MMK 3.49 324 Pd 49 24.20 1.6
VOY 3.50 37 ePn 49 20.80 -1.9
e 49 25.70
e(Sn) 50 04.70
BNI 3.52 302 P 49 25.05 2.0
CEY 3.54 44 ePn 49 21.50 -1.7
e 49 34.00
FVI 3.59 21 P 49 23.31 -0.5
RBL 3.71 30 P 49 24.31 -1.3
LPG 3.72 308 Pn 49 27.90 2.0
LPL 3.74 309 Pn 49 28.00 1.8
CDR 3.75 278 ePn 49 26.00 -0.2
e 49 26.90
e 50 10.30
e 50 11.30
DIX 3.76 320 ePc 49 29.30 2.8
LJU 3.81 42 ePn 49 25.50 -1.5
e 49 39.40
e(Sn) 50 10.00
LLS 3.85 340 ePd 49 28.90 1.2
VBY 3.85 53 ePn 49 27.40 -0.2
iPg 49 41.30
SQTA 3.97 3 iPnc 49 30.10 0.8
iSn 50 17.80
EMS 3.98 316 ePc 49 32.50 2.9
WTTA 4.04 7 iPnc 49 30.70 0.4
id 49 30.90
i 50 13.50
i 50 24.40
KBA 4.19 24 iPnd 49 32.20 -0.4
i 50 21.00
i 50 27.20
PTJ 4.48 52 eP 49 37.60 1.1
SLE 4.81 340 ePd 49 40.70 -0.5
FEL 5.04 337 eP 49 44.13 -0.4
BSF 5.40 329 Pn 49 49.70 0.1
Sn 50 49.20
HAU 5.72 328 Pn 49 54.20 0.2
Sn 50 55.30
CDF 5.74 335 Pn 49 53.20 -1.1
Sn 50 54.20
GEC2 5.92 18 Pn 49 54.50 -2.4
Pg 50 06.80
SMF 6.04 307 Pn 49 56.70 -1.8
Sn 51 05.90
LBF 6.15 310 Pn 49 58.80 -1.2
Sn 51 09.40
KHC 6.16 17 eP 49 58.00 -2.2
e 50 26.50
e 51 08.50
LOR 6.38 311 Pn 50 03.00 -0.3
AVF 6.40 306 Pn 50 03.60 0.0
GRF 6.44 2 ePn 50 04.60 0.5
ePg 50 20.60
e(Sg) 51 09.30
SSF 6.46 309 Pn 50 04.60 0.2
CAF 6.57 288 Pn 50 04.30 -1.8
BGF 6.59 303 Pn 50 06.30 -0.1
LPO 7.14 285 Pn 50 13.10 -1.0
PRU 7.18 19 eP 50 06.00 -8.6X
e 50 43.50
e 52 25.70
LFF 7.50 286 Pn 50 17.00 -2.0
OHR 7.67 103 e(P) 50 21.50 0.1
EPF 7.72 272 Pn 50 19.00 -3.2X
S.D. = 1.3 on 76 of 79 obs.

• MAR 20, 1993 21h 13m 57.06± 0.48s
14.620 S ± 9.2km 167.184 E ±19.3km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
VANUATU ISLANDS (186)

BKM 3.20 162 iPd 14 46.70 0.5
iS 15 16.00
DZM 7.44 185 iPc 15 45.60 -0.6
iS 16 59.10
WRA 31.77 256 P 20 21.10 0.4
0.5s 1.40nm 4.1mb
FLN 144.47 346 ePKP 33 30.40 -1.2
0.8s 5.50nm
LDF 144.54 345 ePKP 33 30.50 -1.3
0.8s 5.50nm
LBF 144.82 340 ePKP 33 32.30 -0.1
0.5s 1.45nm
SSF 144.90 340 ePKP 33 32.40 -0.1
0.8s 3.75nm
GRR 144.91 346 ePKP 33 32.10 -0.3
0.4s 1.80nm
AVF 145.19 340 ePKP 33 32.90 0.0
0.8s 2.95nm
LPF 145.29 346 ePKP 33 33.30 0.3
0.5s 3.05nm
LSF 146.24 342 ePKP 33 35.80 1.0
0.6s 2.45nm
MFF 146.40 344 ePKP 33 36.30 1.3
0.8s 3.75nm
BCAD 147.51 255 iPKPd 33 37.90 0.1
1.0s 5.00nm
S.D. = 0.8 on 13 of 13 obs.

% MAR 20, 1993 21h 14m 11.98± 2.22s
31.330 S ±13.7km 68.466 W ±11.8km
DEPTH = 110.0 ± 28.7 km
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.34 145 iPc 14 28.20 0.0
S 14 40.00
RTCV 0.53 187 ePd 14 29.00 -0.3
S 14 41.20
RTBS 0.91 248 e(P)c 14 32.20 -0.2
RTRS 1.44 323 ePc 14 39.00 0.6
S 14 58.80
RTPR 1.97 59 ePc 14 45.40 0.4
S 15 11.80
MRA 2.58 115 ePc 14 53.50 0.4
CYA 3.70 40 eP 15 07.30 -0.9
S.D. = 0.7 on 7 of 7 obs.

% MAR 20, 1993 21h 20m 39.13± 2.13s
39.493 N ±13.6km 23.659 E ±15.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.43 2 ePg 20 48.50 0.5
eSg 20 56.72
OUR 0.88 16 iPg 20 56.29 0.4
eSg 21 07.46
LIT 1.09 304 iPg 20 59.92 0.4
eSg 21 13.66
AGG 1.13 246 ePg 21 00.52 0.1
eSg 21 15.86
SOH 1.35 350 ePb 21 03.84 -0.1
eSb 21 20.30
SRS 1.62 358 ePb 21 07.20 -0.7
eSb 21 27.34
GRG 1.75 327 ePb 21 09.10 -0.6
eSb 21 31.10
S.D. = 0.6 on 7 of 7 obs.

MAR 20, 1993 21h 26m 39.45± 0.24s
28.994 N ± 4.8km 87.383 E ± 3.2km
DEPTH = 21.1km (4 depth phases)
5.0mb (70 obs.) 4.6Msz (3 obs.)
XIZANG (306)
Mw 5.2 (HRV). Felt at Xigaze.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 18C

20d 21h

```
Centroid Location:
Origin Time       21:26:49.1 0.9
Lat 29.03N  FIX;Lon  87.35E  FIX
Dep  26.6 7.8 Half-duration  1.0
Moment Tensor;   Scale 10**16 Nm
  Mrr=-3.03 0.37  Mtt= 0.00 0.67
  Mff= 3.03 0.57  Mrt= 0.19 1.24
  Mrf=-5.14 1.29  Mtf=-0.64 0.44
 Principal Axes:
  T  Val=  6.03  Plg=30  Azm= 83
  N       -0.06      4       175
  P       -5.97     60       273
Best Double Couple:Mo=6.0*10**16
 NP1:Strike=160 Dip=16 Slip=-106
 NP2:       357     75       -86
LSA     3.36  77 iPgc  27 36.90   4.6X
   Z  10s     22.30um
               Sg      28 19.50
NDI     8.92 270 iPc   28 51.50   1.4
    0.6s    33.33nm           5.8mb
               eS      30 28.00
KSH    14.05 321 P     29 59.00  -0.6
    0.9s    40.00nm           5.1mb
   Z  12s      4.31um
   N  14s      5.81um
   E  10s      3.18um
               S       32 33.00
HYB    14.09 217 eP    29 56.00  -4.0X
    1.0s    40.00nm           5.1mb
KMI    14.21 102 Pd    29 58.00  -3.9X
    2.0s    80.00nm           5.0mb
   Z  19s      4.70um         4.2Msz
   N  12s      1.10um
   E  12s      1.30um
               pP      30 03.50
CD2    14.33  78 Pd    30 02.10  -1.0
    1.6s   110.00nm           5.2mb
   Z  10s      3.33um         5.3Msz
   N  10s      1.81um
               S       32 46.20
GTA    14.60  41 eP    30 04.50  -2.3
    1.0s    13.00nm           4.4mb
   Z  16s      1.26um         4.4Msz
   E  10s      1.10um
CHTO   14.63 131 eP    30 12.10   5.0X
WMQ    14.80   1 eP    30 10.00   0.7
    1.5s    40.00nm           4.6mb
PRZ    15.29 334 eP    30 17.00   1.2
    1.6s    30.00nm           4.3mb
LZH    15.57  59 eP    30 18.50  -1.0
    2.0s   150.00nm           4.9mb
               PP      30 35.00
POO    16.17 233 iPc   30 25.00  -2.1
               iS      33 16.00
BOM    16.67 236 eP    30 32.70  -0.6
               eS      33 22.20
FRU    17.22 327 eP    30 41.00   0.7
    2.4s   220.00nm           4.9mb
GYA    17.26  94 P     30 39.80  -1.1
    1.2s    41.00nm           4.4mb
   Z  24s      2.11um         4.8Msz
   N  10s      0.71um
   E  18s      0.68um
               S       33 46.00
KHT    17.54 141 eP    30 47.00   2.7
NST    17.72 136 eP    30 50.00   3.4X
QUE    17.81 279 eP    30 49.00   1.1
               e(S)    34 10.00
GBA    17.88 213 P     30 49.00   0.4
               S       34 06.00
XAN    19.03  69 P     31 00.00  -2.7
    1.0s    11.00nm           4.0mb
   Z  24s      1.67um         6.0Msz
   E  10s      0.65um
               pP      31 06.00  23km
               sP      31 09.30
               PP      31 17.00
               S       34 28.00
               sS      34 42.00
               SS      34 56.00
               ScS     42 35.00
BTO    21.83  52 eP    31 31.80  -0.6
   N  13s      1.27um
   E  13s      1.03um
TIY    22.61  61 eP    31 40.00  -0.1
   Z  26s      1.98um         4.4MszX
   N  14s      2.14um
HHC    23.01  53 Pc    31 45.00   1.0
    1.4s    80.00nm           5.1mb
   Z  16s      1.30um         4.5MszX
   N  16s      2.16um
   E  14s      1.19um
WHN    23.44  80 eP    31 50.00   1.9
   Z  24s      2.69um         4.6MszX
   N  14s      1.06um
   E  12s      0.49um
ELT    24.25 358 iPc   31 57.20   1.5
    2.0s    42.00nm           4.7mb
ZAK    24.52  25 eP    32 00.50   2.1
    1.2s    32.00nm           4.8mb
MAIO   24.53 294 iPd   32 01.20   2.4
    1.2s    27.78nm           4.7mb
               eS      36 26.00
MOY    24.84  20 eP    32 03.30   1.8
ASH    25.73 298 eP    32 10.00  -0.1
TIA    26.00  66 eP    32 13.10   0.5
   Z  20s      1.82um         4.6Msz
   E  12s      0.89um
               eS      36 42.00
BJI    26.05  57 eP    32 14.00   1.0
    2.0s    62.00nm           4.9mb
   Z  20s      1.08um         4.4Msz
   N  11s      1.10um
IRK    26.44  24 ePc   32 18.00   1.6
    1.2s    22.00nm           4.7mb
               e       32 23.00  18km
NJ2    27.23  76 Pc    32 26.00   2.1
   Z  24s      0.94um         4.3MszX
SSE    29.27  77 P     32 43.00   0.6
   Z  20s      1.80um         4.7Msz
   N  13s      1.20um
               S       37 36.00
DL2    29.93  62 eP    32 48.00  -0.2
CN2    33.69  54 eP    33 20.60  -0.5
    1.0s    15.00nm           4.9mb
ARU    34.14 332 eP    33 26.00   1.3
BOD    34.35  25 iPd   33 25.80  -0.8
KIV    38.44 305 eP    34 06.00   4.5X
    1.0s    14.00nm           4.7mb
NRI    40.44   0 (P)   34 17.30  -0.3
    1.2s    21.00nm           4.7mb
               e       36 20.00
MAT    42.99  66 eP    34 39.00   0.1
    1.1s    16.46nm           4.7mb
YAK    43.06  28 eP    34 38.80  -0.3
    1.0s    40.00nm           5.1mb
OBN    44.52 321 iPc   34 52.00   0.9
    1.5s    63.00nm           5.3mb
               e       35 00.00  27km
YSS    46.16  51 eP    35 04.00  -0.2
    1.0s    20.00nm           5.0mb
   Z  16s      0.40um         4.5MszX
   E  16s      0.40um
               e       36 34.00 469kmX
TIK    48.29  16 iPd   35 20.00  -0.6
    1.2s    30.00nm           5.2mb
VRI    49.84 307 ePd   35 34.50   1.6
MLR    50.40 307 ePd   35 39.00   1.6
PVL    51.01 304 iP    35 44.00   2.2
KAF    51.33 328 eP    35 44.70   0.7
PLD    51.59 302 eP    35 48.00   1.8
RZN    51.63 302 iP    35 48.00   1.2
NUR    51.86 326 eP    35 48.10   0.1
PGB    51.93 303 iP    35 50.00   1.1
VTS    52.63 303 iP    35 56.00   1.7
UZH    52.72 311 iPc   35 56.20   1.5
    1.0s    30.00nm           5.2mb
KKB    52.81 302 iP    35 56.00   0.5
VAY    53.27 302 eP    35 58.00  -0.8
SKO    54.01 303 iP    36 04.50   0.2
SPC    54.04 312 eP    36 05.80   1.2
OHR    54.63 302 eP    36 07.00  -1.9
UPP    55.30 325 iP    36 12.70  -0.7
SRO    55.45 310 iP    36 15.10   0.5
ZST    56.21 311 eP    36 19.00  -1.1
VRAC   56.41 312 iPc   36 22.50   1.0
    1.6s   182.50nm           5.9mb
KSP    56.43 314 ePd   36 21.30  -0.4
HVAR   57.44 305 eP    36 27.90  -1.1
PRU    57.65 313 P     36 30.60   0.3
    1.2s    11.50nm           4.8mb
VBY    57.87 308 eP    36 32.00   0.1
BRG    57.91 314 eP    36 31.80  -0.3
    1.1s    21.00nm           5.1mb
LJU    58.27 309 eP    36 35.00   0.3
GEC2   58.36 312 Pd    36 35.30  -0.1
    1.1s    15.42nm           5.0mb
               e       36 40.60  17km
               e       36 44.30
KHC    58.39 312 P     36 36.00   0.4
    1.3s    15.00nm           4.9mb
               e       37 19.00 187kmX
CEY    58.40 308 ePd   36 35.60   0.0
CLL    58.44 315 eP    36 35.00  -0.8
    1.3s    15.00nm           4.9mb
NB2    58.45 326 P     36 33.60  -2.3
    1.0s    12.80nm           5.0mb
VOY    58.71 309 ePd   36 37.50  -0.4
WET    58.84 312 iPd   36 38.90   0.2
    1.2s    17.00nm           5.0mb
TRI    58.86 308 eP    36 38.30  -0.5
KBA    58.89 310 eP    36 38.00  -1.3
HOF    59.29 314 eP    36 42.00   0.2
MOX    59.40 314 eP    36 42.70   0.1
    1.4s    23.00nm           5.1mb
GRF    59.82 313 iPd   36 46.30   0.9
    1.4s    44.00nm           5.4mb
   Z  25s      0.40um         4.5MszX
FUR    60.06 311 iPc   36 47.70   0.6
    1.2s    49.00nm           5.5mb
OGA    60.49 310 iPc   36 49.50  -0.8
AVY    61.11 224 eP    36 55.10   0.3
OSS    61.12 310 ePd   36 53.70  -0.8
VTY    61.35 224 eP    36 56.90   0.5
LLS    61.85 310 ePd   36 58.50  -1.0
TMA    62.11 310 ePd   37 00.20  -1.1
ZLA    62.11 311 ePd   37 00.30  -0.8
WTS    62.11 316 eP    37 01.50   0.6
CDF    62.62 312 eP    37 03.50  -1.0
    1.2s    20.85nm           5.2mb
PGF    62.92 306 eP    37 05.50  -1.1
    1.4s    22.65nm           5.1mb
ENN    62.93 315 eP    37 09.00   2.7
    0.7s     4.20nm           4.7mb
WLF    63.04 314 Pc    37 07.00  -0.1
BSF    63.08 312 eP    37 06.70  -0.8
    1.2s    32.65nm           5.4mb
DIX    63.10 310 iPd   37 07.90   0.0
HAU    63.32 312 eP    37 08.30  -0.8
    1.2s    19.65nm           5.1mb
   Z  25s      0.20um         4.2MszX
EMS    63.43 310 ePd   37 09.80  -0.2
SBF    63.67 307 eP    37 10.70  -0.7
    1.2s    45.20nm           5.5mb
LPG    63.70 309 eP    37 11.40  -0.5
    1.3s    28.15nm           5.3mb
LPL    63.71 309 eP    37 11.50  -0.4
    1.0s    28.80nm           5.4mb
FRF    64.30 307 eP    37 14.70  -0.8
    1.3s    16.95nm           5.0mb
LMR    64.46 307 eP    37 15.70  -0.8
    1.3s    13.70nm           4.9mb
LRG    64.53 307 eP    37 16.50  -0.5
    1.4s    25.25nm           5.2mb
ILT    64.93  25 eP    37 18.00  -1.2
LOR    65.14 312 eP    37 19.70  -1.2
    1.3s    12.25nm           4.9mb
   Z  23s      2.00um         5.3MszX
LBF    65.14 311 eP    37 20.00  -1.0
SMF    65.33 311 eP    37 21.20  -1.0
    1.2s    21.70nm           5.2mb
SSF    65.43 312 eP    37 21.90  -0.9
    1.2s    25.00nm           5.2mb
AVF    65.61 311 eP    37 22.90  -1.0
    1.3s    17.35nm           5.0mb
HYF    65.94 312 eP    37 25.80  -0.2
MAF    66.30 311 eP    37 28.10  -0.3
    1.3s    24.90nm           5.2mb
WRA    66.48 131 P     37 30.40   0.5
    0.5s     1.90nm           4.5mb
WB2    66.49 131 iPd   37 30.00   0.1
    0.5s    31.70nm           5.7mb
TCF    66.51 311 eP    37 29.30  -0.5
    1.2s    27.05nm           5.3mb
LSF    66.97 311 eP    37 31.90  -0.8
    1.2s    12.20nm           4.9mb
CAF    67.03 310 eP    37 32.80  -0.3
    1.4s    17.85nm           5.0mb
RJF    67.28 310 eP    37 34.50  -0.2
    1.3s    18.05nm           5.1mb
```

LDF 67.30 314 eP 37 33.80 -0.9
1.3s 26.35nm 5.2mb
FLN 67.47 314 eP 37 35.00 -0.8
1.2s 12.20nm 4.9mb
Z 23s 4.00um 5.6MszX
LPO 67.70 310 eP 37 36.90 -0.4
1.5s 19.85nm 5.0mb
GRR 67.83 314 eP 37 37.20 -0.8
1.4s 24.40nm 5.2mb
LFF 67.92 310 eP 37 38.50 -0.1
1.4s 25.70nm 5.2mb
LPF 68.06 314 eP 37 38.90 -0.6
ASPA 68.88 135 iPd 37 45.20 0.3
0.7s 25.70nm 5.5mb
BCAO 69.38 263 iPd 37 47.00 -1.2
0.8s 14.00nm 5.2mb
i 38 05.50 69kmX
BUL 74.83 236 eP 38 20.80 0.2
CTA 74.87 124 iPc 38 22.00 1.4
1.0s 12.50nm 4.9mb
FBA 77.13 21 eP 38 32.95 0.3
1.2s 9.17nm 4.7mb
STK 79.49 135 eP 38 43.70 -2.4
YKA 87.14 10 eP 39 23.80 -1.0
1.0s 2.60nm 4.4mb
SIV 148.22 287 PKP 46 35.00 12.3X
i 46 38.60
ZOBO 154.17 294 PKP 46 34.00 1.8
CNCB 154.33 293 PKP 46 42.00 9.7X
S.D. = 1.1 on 127 of 135 obs.

• MAR 20, 1993 22h 11m 27.15± 1.90s
25.266 S ±13.4km 179.835 E ±10.9km
DEPTH = 532.5 ± 25.6 km
4.6mb (6 obs.)
SOUTH OF FIJI ISLANDS (171)

KUZ 11.97 196 eP 14 07.50 1.5
HBZ 12.36 186 eP 14 09.20 -0.8
DZM 12.68 282 iPd 14 14.00 0.6
WLZ 13.07 195 P 14 18.60 1.4
URZ 13.16 189 eP 14 15.50 -2.6
NOZ 13.40 186 eP 14 20.40 -0.1
MOZ 13.87 197 eP 14 27.40 2.1
PGZ 15.60 190 eP 14 42.00 -0.5
MNG 15.74 192 eP 14 42.30 -1.6
DIW 16.26 196 P 14 50.80 1.8
CAW 16.29 193 eP 14 47.30 -2.0
TCW 16.56 195 eP 14 51.00 -0.9
QRZ 16.67 200 eP 14 53.80 0.8
THZ 17.43 198 eP 15 01.20 0.8
DSZ 17.73 200 eP 15 04.20 0.8
KHZ 17.88 195 eP 15 05.10 0.4
LTZ 18.55 198 eP 15 10.60 -0.6
BRS 24.33 259 eP 16 03.50 -1.0
CTA 31.36 273 iPd 17 16.00 10.3X
0.7s 17.12nm
STK 34.10 250 eP 17 28.70 0.1
0.5s 5.80nm 4.4mb
WB2 42.17 268 iPd 18 34.00 -0.5
0.4s 48.10nm 5.4mb
i 23 21.90
eS 24 15.60
WARB 47.64 257 iPd 19 16.10 -0.7
0.4s 7.00nm 4.5mb
NANU 58.34 258 eP 20 33.30 0.0
ARN 83.16 43 ePc 22 57.85 -0.2
ISA 84.07 46 eP 23 02.58 -0.1
0.9s 19.34nm 4.7mb
CMB 84.29 43 ePc 23 03.08 -0.6
0.9s 9.09nm 4.4mb
ORV 84.56 42 eP 23 04.54 -0.4
TPNV 86.28 46 eP 23 13.49 0.0
TUC 87.47 52 ePc 23 20.02 0.9
0.8s 9.76nm 4.6mb
SHW 88.36 36 eP 23 23.13 0.1
RMW 89.40 35 ePc 23 27.42 -0.3
HVU 91.23 44 ePc 23 36.17 -0.2
SRU 91.24 47 ePc 23 36.17 -0.3
YKA 101.65 26 ePdiff24 33.30 10.5X
0.7s 0.10nm
LMN 125.07 51 ePKP 29 30.00 1.9
KAF 139.09 341 ePKP 29 54.00 0.0
0.6s 2.00nm
UPP 143.28 345 iPKP 29 57.60 -3.8X
NB2 143.40 351 PKP 29 57.20 -4.5X
0.8s 10.30nm
KSP 151.50 338 iPKPc 30 21.60 6.9X
CLL 152.11 342 iPKP 30 22.90 7.3X
0.8s 13.00nm
BRG 152.22 341 iPKP 30 21.00 5.2X
GRF 154.06 343 ePKP 30 43.40 25.1X
GEC2 154.08 339 PKP 30 26.90 8.4X
0.7s 0.59nm
e 30 43.10
CDF 156.17 348 ePKP 30 51.00 29.7X
0.6s 2.25nm
FLN 156.54 1 ePKP 30 51.10 29.5X
0.7s 2.20nm
LDF 156.71 360 ePKP 30 51.80 29.9X
0.6s 1.45nm
HAU 156.73 349 ePKP 30 53.40 31.4X
0.6s 3.45nm
BSF 156.81 348 ePKP 30 53.60 31.4X
0.6s 1.80nm
GRR 156.91 1 ePKP 30 53.40 31.3X
1.0s 6.00nm
LOR 157.81 353 ePKP 30 58.00 34.8X
0.6s 1.10nm
SSF 158.05 353 ePKP 30 59.10 35.6X
0.8s 6.70nm
LBF 158.08 352 ePKP 30 59.00 35.4X
AVF 158.34 353 ePKP 31 00.30 36.5X
0.7s 2.75nm
SMF 158.43 352 iPKPd 31 00.80 36.9X
0.9s 9.00nm
MFF 158.71 360 ePKP 31 02.30 38.1X
0.9s 1.80nm
MAF 158.97 355 ePKP 31 03.40 38.9X
1.1s 8.05nm
LSF 159.02 357 ePKP 31 03.10 38.5X
0.7s 2.45nm
LPL 159.04 346 ePKP 31 04.60 39.7X
0.6s 2.05nm
LPG 159.06 346 ePKP 31 04.80 39.8X
0.9s 4.60nm
SBF 160.44 343 ePKP 31 09.80 43.6X
0.6s 5.30nm
FRF 160.92 345 ePKP 31 11.90 45.3X
0.8s 2.95nm
LRG 161.08 345 ePKP 31 12.70 46.0X
1.2s 12.50nm
LMR 161.16 345 ePKP 31 13.10 46.3X
0.7s 1.85nm
S.D. = 1.1 on 34 of 63 obs.

? MAR 20, 1993 22h 31m 05.09± 1.18s
34.778 S ±10.5km 68.026 W ± 6.8km
DEPTH = 28.1 ± 4.9 km
MENDOZA PROVINCE, ARGENTINA (139)
MD 4.7 (SAN).

MDZ 2.01 340 iP 31 36.10 -1.7
i(S) 32 51.90
CACH 2.23 286 iP 31 40.65 -0.3
(S) 32 09.21
CHCH 2.33 290 eP 31 42.32 0.0
(S) 32 14.17
PCH 2.36 299 eP 31 42.93 0.1
iS 32 16.46
FCH 2.37 307 iP 31 43.36 0.1
(S) 32 14.38
SAN 2.56 300 (P) 31 47.57 2.0X
iS 32 21.99
TACH 2.66 294 (P) 31 47.88 0.9
iS 32 24.05
PEL 2.75 306 iP 31 48.33 0.1
iS 32 27.61
LNV 2.92 285 iP 31 49.04 -1.5
(S) 32 30.53
RTCV 2.94 351 ePc 31 50.80 -0.2
S 32 35.00
JACH 2.99 314 iP 31 53.43 1.6
(S) 32 36.15
MRA 3.05 40 ePc 31 54.10 1.6
CFA 3.17 357 e(P) 31 53.20 -1.0
S 32 47.00
LCCH 3.21 293 eP 31 54.90 0.1
(S) 32 39.81
ZON 3.27 350 iPc 32 03.50 7.8X
RTBS 3.33 339 ePc 31 57.30 0.8
RTCB 3.35 349 ePc 31 56.70 -0.1
RTLL 3.46 354 ePd 31 58.30 -0.1
IHA 3.48 299 eP 32 02.50 3.9X
iS 32 49.10
RTPR 4.64 16 e(P) 32 03.00 -12.1X
RTRS 4.75 345 ePd 32 17.60 1.0
CYA 6.59 17 ePc 32 41.40 -1.3
S 34 33.20
FSA 8.84 12 e(P) 33 12.00 -1.9
SLA 10.25 13 eP 33 34.20 0.6
CNCB 17.89 0 P 35 16.00 1.8
LPB 18.17 360 P 35 17.00 -0.5
ZOBO 18.41 360 P 35 21.20 0.5
Z 20s 0.12um
LR 41 52.00
SIV 19.72 20 P 35 44.80 9.2X
LIC 71.92 69 P 42 27.70 -0.3
KIC 72.22 69 P 42 29.80 0.0
S.D. = 1.1 on 25 of 30 obs.

• MAR 20, 1993 22h 46m 45.26± 0.71s
1.190 N ±10.4km 122.874 E ±15.4km
DEPTH = 33.0km (normal)
4.6mb (4 obs.)
MINAHASSA PENINSULA, SULAWESI (265)

DAV 6.45 25 eP 48 20.50 0.1
IPM 22.08 279 ePd 51 48.30 9.0X
WB2 23.83 152 iPd 51 56.40 0.0
0.5s 39.20nm 5.2mb
epP 52 04.80 30kmX
NANU 24.67 196 eP 52 03.40 -1.1
STK 37.37 153 eP 53 56.40 -0.4
0.5s 3.60nm 4.5mb
BJI 39.15 352 eP 54 10.50 -1.1
1.0s 9.00nm 4.5mb
BRS 40.43 137 iP 54 22.50 0.1
ARMA 41.69 141 iPc 54 34.00 1.2
0.4s 6.00nm 4.7mb
HYB 46.45 293 eP 55 10.00 -1.2
GBA 46.61 288 P 55 15.00 2.5
S.D. = 1.4 on 9 of 10 obs.

? MAR 20, 1993 23h 20m 24.29± 0.98s
40.304 N ± 9.3km 0.494 W ± 9.7km
DEPTH = 10.0km (geophysicist)
SPAIN (377)

ECHE 0.80 207 eP 20 39.80 -0.1
eS 20 49.80
EROQ 0.86 53 eP 20 41.00 0.1
eS 20 51.00
ETOR 1.30 294 eP 20 48.50 0.1
eS 21 06.00
EGRA 1.89 4 eP 20 56.70 -0.2
eS 21 20.50
S.D. = 0.3 on 4 of 4 obs.

• MAR 20, 1993 23h 21m 51.05± 0.73s
16.307 N ±18.6km 94.051 W ± 9.2km
DEPTH = 146.4 ± 13.2 km
3.9mb (1 obs.)
OAXACA, MEXICO (60)

SCX 1.42 72 iP 22 19.73 -0.1
iS 22 38.65
TPX 2.22 129 iP 22 30.32 1.3
iS 22 56.26
OXX 2.67 287 iP 22 34.94 0.0
iS 23 06.37
IXG 4.07 121 iPc 22 53.21 0.2
iS 23 32.60
IISM 4.14 311 iP 22 52.12 -1.7
MRL 4.38 106 ePc 22 55.62 -1.5
eS 23 46.55
YUP 4.60 116 ePc 22 53.47 -6.7X
eS 23 37.90
PPM 5.15 303 iP 23 09.00 1.2
(S) 23 53.73
IIA 5.22 303 (P) 23 09.58 1.3
III 5.57 292 iP 23 13.96 0.8
ACX 5.60 277 (P) 23 11.50 -1.8
UNM 5.74 302 (P) 23 05.00 -10.5X
MRX 7.59 298 (P) 23 36.00 -4.2X
MEO 18.84 348 iPc 26 01.80 -0.5
ULM 33.89 358 eP 28 21.50 -0.1
FCC 42.39 360 eP 29 34.00 1.9
YKA 48.35 347 eP 30 18.20 -1.1
0.6s 1.40nm 3.9mb
S.D. = 1.4 on 14 of 17 obs.

• MAR 20, 1993 23h 30m 18.51± 1.10s
46.158 N ±12.5km 16.717 E ±10.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)

PTJ 0.59 244 iPgc 30 29.00 -1.5
iSg 30 38.10
ZAG 0.61 236 iPgc 30 30.00 -0.9
iSg 30 39.70
VBY 1.21 238 iPg 30 40.90 -0.2
iSg 30 59.40
UZD 1.36 71 ePn 30 42.50 -1.0
LJU 1.52 266 ePn 30 46.50 0.7
eSg 31 10.00
CEY 1.65 256 e(Pn) 30 49.50 1.8
eSg 31 13.50
VOY 1.97 267 ePn 30 54.10 1.8
e(Sn) 31 19.00
SRO 1.98 33 iP 30 54.30 1.9
GEC2 3.38 324 Pn 31 11.10 -1.3
Pg 31 21.70
Sn 31 48.80
Sg 32 07.00
KHC 3.65 326 ePn 31 15.00 -1.3
e 31 30.00
eSg 32 17.00
S.D. = 1.6 on 10 of 10 obs.

• MAR 20, 1993 23h 32m 35.16± 1.51s
46.207 N ±11.3km 16.567 E ±15.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.7 (BRA), 2.6 (VIE), 2.0 (LJU).

PTJ 0.52 234 iPgc 32 44.50 -1.3
iSg 32 53.60
ZAG 0.56 226 iPgc 32 45.30 -1.3
iSg 32 55.20
VBY 1.15 233 iPg 32 57.00 0.3
iSg 33 14.30
LJU 1.42 264 ePn 33 02.50 1.4
eSg 33 24.00
CEY 1.56 253 ePn 33 04.00 0.9
eSn 33 29.50
VOY 1.87 266 ePnc 33 09.10 1.6
eSg 33 37.80
SRO 2.00 36 i(Pn) 33 09.90 0.5
i 33 45.50
TRI 2.02 257 e(Pg) 33 14.50 4.9X
e 33 37.00
e(Sg) 33 45.00
ZST 2.02 10 e(Pn) 33 05.70 -4.0X
i 33 09.60
e(Sn) 33 39.70
Lg 33 44.00
KBA 2.38 293 iPgc 33 20.10 5.0X
i 33 25.50
i 33 48.10
iSg 33 57.00
GEC2 3.28 325 Pn 33 26.60 -1.1
Sg 34 22.60
KHC 3.55 326 Pn 33 30.40 -1.1
e 33 42.50
e 34 09.00
eSg 34 26.40
e 34 38.50
S.D. = 1.4 on 9 of 12 obs.

MAR 20, 1993 23h 32m 58.72± 0.47s
42.068 N ± 4.1km 19.283 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (TTG), 1.8 (TIR).

ULC 0.11 193 iPgd 33 01.07 -0.5
iSg 33 03.00
SDA 0.16 96 iPgc 33 02.00 -0.4
iSg 33 04.50
TTG 0.36 357 iPgc 33 06.04 -0.1
iSg 33 12.24
BDV 0.40 303 iPgd 33 07.08 0.1
iSg 33 13.93
LACI 0.54 143 ePg 33 11.10 1.5
HCY 0.69 303 iPgd 33 12.53 0.1
iSg 33 23.59
PVY 0.73 44 iPgd 33 12.45 -0.8
iSg 33 23.45
NKY 0.77 344 iPgd 33 13.75 -0.1
iSg 33 25.89
TIR 0.84 149 ePg 33 13.50 -1.5
IVA 0.92 29 ePg 33 16.10 -0.3
iSg 33 29.95
BRY 1.00 327 iPgd 33 17.95 0.3
iSg 33 33.45
PLE 1.26 4 iPgc 33 22.79 0.5
iSg 33 41.82
OHR 1.49 130 iPn 33 25.50 0.0
SKO 1.61 93 iPn 33 28.50 1.2
iSg 33 54.30
S.D. = 0.8 on 14 of 14 obs.

% MAR 20, 1993 23h 51m 51.98± 0.64s
41.227 N ± 6.0km 7.483 W ± 7.6km
DEPTH = 10.0km (geophysicist)
PORTUGAL (376)
mbLg 3.0 (MDD).

ERUA 1.19 12 iPgd 52 14.48 0.3
eSg 52 30.10
EZAM 1.29 316 iPnd 52 16.31 0.4
eSn 52 33.00
EPLA 1.58 137 iPnd 52 20.88 0.8
eSn 52 41.40
STS 1.84 335 ePn 52 23.47 -0.4
eSn 52 45.40
GUD 2.59 102 ePn 52 34.89 0.2
eSn 53 05.50
PAB 2.92 124 ePn 52 44.00 4.6X
iPg 52 48.00
iSg 53 26.00
EVAL 3.68 171 iPn+ 52 49.89 -0.3
eSn 53 31.50
EHOR 3.81 152 iPnd 52 51.43 -0.6
eSn 53 35.10
ECRI 3.96 68 ePn 52 53.01 -1.1
ETOR 4.13 94 ePn 52 57.21 0.7
S.D. = 0.7 on 9 of 10 obs.

? MAR 20, 1993 23h 58m 41.83± 1.29s
15.899 N ±17.4km 95.696 W ± 9.2km
DEPTH = 10.0km (geophysicist)
3.3mb (3 obs.)
NEAR COAST OF OAXACA, MEXICO (66)

OXX 1.53 320 iP 59 06.50 -3.0
iS 59 25.50
SCX 3.05 74 iP 59 30.02 -1.0
TPX 3.46 106 iP 59 36.89 0.1
(S) 00 12.22
IISM 3.47 333 iP 59 37.23 0.3
(S) 00 22.80
ACX 4.11 284 (P) 59 46.00 -0.1
PPM 4.21 319 eP 59 48.42 0.4
IIA 4.29 319 (P) 00 03.07 14.4X
III 4.37 305 (P) 59 50.00 0.0
UNM 4.77 316 (P) 59 45.50 -10.2X
CRX 5.16 313 (P) 00 04.00 2.8X
MRX 6.46 307 (P) 00 25.00 5.7X
MIAR 18.67 5 (P) 03 02.04 0.1
0.5s 0.99nm 3.3mb
OLY 19.89 10 eP 03 16.52 0.2
ALQ 21.28 335 eP 03 32.80 1.8
1.0s 2.50nm 3.6mb
pP 03 38.50 21kmX
YKA 48.41 348 eP 07 26.80 1.0
0.4s 0.10nm 3.2mb
S.D. = 1.4 on 11 of 15 obs.

MAR 21, 1993 00h 13m 38.29± 0.87s
38.601 N ± 6.1km 72.567 E ± 4.0km
DEPTH = 51.7 ± 9.1 km
4.6mb (30 obs.)
TAJIKISTAN (715)

KSH 2.79 71 Pn 14 22.80 1.2
Sg 15 02.00
FRU 4.51 20 ePn 14 49.40 3.7X
i 15 00.50
iS 15 43.00
PRZ 5.90 47 ePn 15 06.00 0.6
eS 16 40.00
QUE 9.59 211 eP 15 56.20 -0.4
eS 17 54.60
MAIO 10.64 262 eP 16 07.00 -4.0X
eS 18 03.00
ASH 11.20 271 eP 16 17.00 -1.3
e 18 18.30
WMQ 12.52 61 eP 16 32.00 -4.2X
Z 20s 0.64um
pP 16 40.00
KAT 12.72 278 eP 16 38.00 -0.6
iS 18 53.00
ELT 17.43 28 eP 17 37.80 -1.3
1.4s 25.00nm 4.2mb
eS 20 56.00
LSA 17.74 114 P 17 42.40 -1.1
SVE 19.86 340 ePc 18 06.50 -1.0
ARU 20.08 337 eP 18 13.00 3.1X
GRS 20.38 281 eP 18 15.00 1.7
e 18 32.00
GRO 20.80 292 iPc 18 17.50 0.1
i 18 28.90
GTA 21.17 79 P 18 21.00 -0.3
1.0s 10.00nm 4.1mb
pP 18 25.00 15kmX
HYB 21.75 164 eP 18 35.00 7.8X
PYA 22.75 293 iP 18 40.00 3.1X
i 18 49.00
KIV 23.01 293 eP 18 44.30 4.8X
0.6s 6.00nm 4.2mb
(S) 22 52.60
MOY 23.76 47 eP 18 48.20 1.7
ZAK 24.69 52 eP 18 59.70 4.1X
0.9s 15.00nm 4.5mb
LZH 24.93 86 eP 18 58.50 0.3
2.0s 30.00nm 4.5mb
Z 15s 0.29um 3.9MszX
GBA 25.27 169 P 19 02.00 0.7
OBN 29.20 316 iPc 19 36.00 -0.8
1.0s 17.00nm 4.7mb
e 20 52.00
XAN 29.52 88 P 19 41.00 1.1
1.0s 6.40nm 4.3mb
pP 19 50.00 31kmX
BOD 33.04 41 eP 20 08.00 -2.5X
1.1s 13.00nm 4.7mb
KAF 36.58 325 eP 20 42.30 1.7
NUR 36.89 322 eP 20 43.60 0.3
OJC 38.67 305 eP 20 59.20 0.8
PRU 42.07 305 P 21 27.50 1.2
BRG 42.34 307 iP 21 29.20 0.7
GEC2 42.77 304 P 21 33.10 0.9
1.0s 2.49nm 3.9mb
e 21 36.20
e 21 38.90
e 21 44.90
KHC 42.81 304 eP 21 33.50 1.0
TIK 43.36 23 eP 21 35.00 -1.5
0.8s 9.00nm 4.6mb
e 21 46.00
e 21 52.00
NB2 43.48 322 P 21 36.60 -1.2
0.4s 0.70nm 3.7mb
GRF 44.24 305 ePd 21 45.70 1.7
1.1s 9.00nm 4.4mb
e 21 50.80
e 21 57.00
COF 47.03 304 eP 22 06.40 0.1
BSF 47.49 304 eP 22 09.70 -0.2
1.2s 10.70nm 4.7mb
LPG 48.13 301 eP 22 15.50 0.3
0.8s 7.00nm 4.7mb
LPL 48.14 301 eP 22 15.50 0.3
0.6s 3.00nm 4.5mb
FRF 48.77 298 eP 22 19.90 0.1
1.0s 6.80nm 4.6mb
LRG 49.00 298 eP 22 21.90 0.4
1.0s 6.00nm 4.6mb
SMF 49.74 303 eP 22 26.80 -0.4
1.0s 3.40nm 4.3mb
AVF 50.02 303 eP 22 29.10 -0.2
1.1s 9.30nm 4.7mb
BGF 50.42 303 eP 22 32.10 -0.3
0.9s 5.10nm 4.6mb
MAF 50.71 303 eP 22 34.70 0.1
1.0s 7.60nm 4.7mb
TCF 50.93 303 eP 22 36.30 0.0
1.2s 12.50nm 4.8mb
CAF 51.46 301 eP 22 40.50 0.2

```
        1.1s      8.05nm              4.7mb
RJF     51.70 302 eP      22 42.50    0.4
        0.8s      3.75nm              4.5mb
LDF     51.73 306 eP      22 41.70   -0.6
        1.0s     10.40nm              4.8mb
FLN     51.90 306 eP      22 42.80   -0.8
        1.0s      5.40nm              4.5mb
GRR     52.25 306 eP      22 45.40   -0.8
        0.9s      5.90nm              4.6mb
BCAO    59.56 249 iPc     23 38.50   -0.6
        0.8s     14.00nm              5.1mb
ILT     61.32  24 eP      23 49.00   -1.4
KIC     76.14 267 P       25 25.40    2.6X
YKA     79.09   3 eP      25 36.50   -1.6
        0.8s      2.50nm              4.2mb
WRA     82.07 123 P       25 54.80    0.2
        1.5s      0.60nm              3.4mb X
WB2     82.08 123 eP      25 53.90   -0.7
        0.3s      3.70nm              4.9mb
     S.D. = 0.9  on  47 of  57 obs.
---------------------------------------------
? MAR 21, 1993  01h 43m 43.27± 2.72s
   11.002 S ±29.5km  163.960 E ±26.0km
   DEPTH =  33.0km  (normal)
   4.2mb (  2 obs.)
 SOLOMON ISLANDS                      (193)

HNR       4.25 291 eP      44 47.00   -0.3
                   eS      45 42.00
BKM       7.82 148 iPc     45 38.40    0.7
                   iS      47 02.20
DZM      11.26 168 iPc     46 23.90   -1.2
                   iS      48 27.90
RMO      21.05 221 eP      48 28.30    1.4
ARMA     22.47 209 iPd     48 43.50    2.3X
CMS      26.40 217 eP      49 18.00   -0.7
STK      29.30 221 eP      49 45.00    0.1
         0.7s      1.90nm             3.9mb
WB2      29.84 249 iPc     49 47.40   -2.6X
         0.5s      4.00nm             4.5mb
BCAO    145.15 262 iPKPd 03 14.00   -6.1X
         1.6s     13.00nm
     S.D. = 1.2  on   6 of   9 obs.
---------------------------------------------
* MAR 21, 1993  03h 05m 43.50± 3.56s
   33.572 S ± 8.5km   71.983 W ±25.9km
   DEPTH =  12.9 ±  5.5 km
 NEAR COAST OF CENTRAL CHILE          (135)
      MD 3.5 (SAN).

LCCH      0.36  74 iPd     05 51.83    0.8
                   iS      05 56.80
LNV       0.61 129 iPd     05 55.90    0.4
                   iS      06 04.49
TACH      0.88  96 iP+     05 59.74   -0.3
                   iS      06 11.49
ROCH      1.01  54 iP      06 02.47    0.0
                   iS      06 16.46
CHCH      1.17 108 iPd     06 04.14   -0.9
                   iS      06 20.32
PEL       1.17  69 iP      06 05.47    0.4
                   iS      06 20.80
PCH       1.23  93 iPd     06 05.55   -0.6
                   iS      06 21.82
CACH      1.27 116 eP      06 07.80    0.8
                   iS      06 23.81
FCH       1.44  81 iPd     06 09.32   -0.2
                   iS      06 28.91
JACH      1.47  53 iP-     06 09.51   -0.2
GEC2    111.82  45 PKP     24 27.00    7.5X
        1.1s      1.22nm
                   e       24 35.60
     S.D. = 0.7  on  10 of  11 obs.
---------------------------------------------
% MAR 21, 1993  03h 10m 31.20± 1.45s
   42.758 N ± 5.1km   18.452 E ±12.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION           (383)
      ML 1.4 (TTG).

BRY       0.16  25 iPgd    10 34.80   -0.1
                   iSg     10 37.33
HCY       0.31 174 iPgc    10 37.66    0.0
                   iSg     10 43.35
NKY       0.41  82 iPgc    10 39.06   -0.5
                   iSg     10 44.85
BDV       0.55 149 iPgd    10 41.85   -0.5
```

```
                   iSg     10 50.85
TTG       0.68 118 ePg     10 44.65    0.0
                   iSg     10 54.40
PLE       0.90  50 iPgd    10 48.39   -0.1
                   iSg     11 01.55
ULC       0.99 143 iPgc    10 50.44    0.4
                   iSg     11 05.13
IVA       1.07  83 iPgc    10 52.01    0.6
                   iSg     11 06.91
     S.D. = 0.5  on   8 of   8 obs.
---------------------------------------------
   MAR 21, 1993  03h 42m 20.72± 0.59s
   38.722 N ± 5.4km   26.497 E ± 4.9km
   DEPTH =   5.0km  (geophysicist)
 AEGEAN SEA                           (365)
      MD 3.7 (ISK).

IZM       0.68 118 iPg     42 34.00   -0.4
                   iSg     42 44.50
EDC       1.94  33 iPn     42 54.00   -0.6
BNT       1.97  34 iPn     42 54.80   -0.3
KCT       2.10  43 iPn     42 57.30    0.3
YER       2.12 138 iPn     42 57.00   -0.4
KHL       2.41  99 iPn     43 01.40   -0.1
ALT       2.84  82 ePn     43 08.00    0.3
CTT       2.84  31 ePn     43 06.80   -0.8
YLV       2.89  49 ePn     43 09.00    0.7
DMK       3.24  17 ePn     43 12.70   -0.5
EYL       3.37  56 ePn     43 16.00    0.8
BCK       3.46 110 ePn     43 16.90    0.4
PLD       3.65 339 iP      43 19.00    0.0
VAY       3.98 312 ePn     43 24.00    0.3
KKB       4.08 321 iP      43 25.00   -0.2
VTS       4.60 328 iP      43 33.00    0.3
     S.D. = 0.5  on  16 of  16 obs.
---------------------------------------------
* MAR 21, 1993  03h 48m 56.43± 1.62s
   11.682 S ± 8.0km  111.674 E ±28.6km
   DEPTH =  33.0km  (normal)
   5.0mb (  2 obs.)
 SOUTH OF JAWA, INDONESIA             (282)

SJI       3.92   1 ePd     49 56.60    0.7
                   eS      50 25.00
TRT       4.07  14 iPc     49 56.40   -1.5
                   iS      50 45.40
KHKI      5.09  50 eP      50 13.40    1.0
                   eS      51 05.00
                   e       52 52.00
NANU     11.43 162 eP      51 40.50    0.1
         0.3s      3.00nm             5.0mb
                   eS      53 38.00
MBL      12.25 141 eP      51 50.10   -1.4
         0.3s      3.00nm             5.0mb
                   eS      53 52.00
MEEK     16.25 157 eP      52 45.00    1.1
                   eS      55 30.00
     S.D. = 1.5  on   6 of   6 obs.
---------------------------------------------
? MAR 21, 1993  04h 11m 04.11± 7.16s
   55.277 N ±140.km  168.047 E ±24.2km
   DEPTH =  33.0km  (normal)
   4.2mb ( 13 obs.)
 KOMANDORSKY ISLANDS REGION           (  4)

IMA      21.25  44 eP      15 51.20    1.9
FBA      23.53  48 eP      16 11.70    0.1
         1.0s     11.00nm             4.3mb
YKA      38.32  47 eP      18 20.70   -2.2
         0.6s      1.20nm             3.9mb
NB2      62.59 348 P       21 24.20   -2.5
         0.5s      1.30nm             4.3mb
KHC      73.79 343 eP      22 37.50    1.0
GEC2     74.04 343 P       22 38.50    0.5
         0.4s      0.77nm             4.0mb
                   e       22 49.80
FLN      75.89 352 eP      22 48.10   -0.4
         1.0s      3.80nm             4.3mb
LDF      76.03 352 eP      22 48.80   -0.5
         0.7s      3.00nm             4.4mb
GRR      76.29 352 eP      22 50.60   -0.1
LOR      76.96 349 eP      22 54.20   -0.4
         0.6s      1.10nm             4.1mb
SSF      77.21 349 eP      22 55.80   -0.1
         0.5s      0.80nm             4.0mb
AVF      77.49 349 eP      22 57.40    0.0
         0.5s      1.00nm             4.1mb
```

```
LPL      78.34 347 eP      23 03.40    1.0
         0.6s      1.70nm             4.2mb
LPG      78.36 347 eP      23 03.60    1.0
         0.6s      1.55nm             4.2mb
CAF      79.47 350 eP      23 08.80    0.5
         0.6s      0.70nm             3.8mb
LPO      79.79 351 eP      23 10.30    0.3
         0.5s      1.45nm             4.2mb
     S.D. = 1.2  on  16 of  16 obs.
---------------------------------------------
? MAR 21, 1993  04h 31m 07.73± 2.47s
   37.432 N ±20.1km   27.706 E ±24.1km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                               (366)

YER       0.55 123 iPg     31 18.00   -0.7
                   iSg     31 26.00
IZM       1.03 340 iPn     31 27.50   -0.1
KHL       1.69  58 ePn     31 38.00   -0.1
ELL       1.89 111 ePn     31 42.00    0.9
     S.D. = 1.2  on   4 of   4 obs.
---------------------------------------------
? MAR 21, 1993  04h 56m 20.86±16.90s
   38.566 N ±64.8km   25.946 E ±127.km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                           (365)
      MD 3.5 (ISK).

IZM       1.05  99 iPg     56 40.50   -0.1
                   iSg     56 54.50
EDC       2.32  39 ePn     56 59.50   -0.1
BNT       2.35  40 ePn     57 00.00   -0.1
KCT       2.51  47 ePn     57 02.70    0.3
KHL       2.82  94 ePn     57 07.00    0.1
     S.D. = 0.3  on   5 of   5 obs.
---------------------------------------------
* MAR 21, 1993  04h 58m 59.63± 1.25s
   43.385 N ±16.5km   10.705 E ± 9.9km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                        (381)
      MD 3.2 (FIR). ML 2.8 (LDG).

FIR       0.56  45 iPgc    59 11.00    0.0
                   iSg     59 19.50
PGF       1.51 237 Pn      59 26.80    0.0
                   Sn      59 45.90
SBF       2.42 283 Pn      59 40.30    0.3
                   Sn      00 09.00
FRF       2.96 275 Pn      59 47.60    0.1
LMR       3.06 270 Pn      59 48.40   -0.5
LRG       3.17 273 Pn      59 50.70    0.3
TRI       3.19  42 eP      00 29.70   38.9X
LPG       3.53 308 Pn      59 59.80    3.9X
LPL       3.55 308 Pn      00 00.10    3.9X
BSF       5.23 330 Pn      00 23.10    3.4X
                   Sn      01 22.40
HAU       5.54 328 Pn      00 25.50    1.4X
                   Sn      01 27.60
CDF       5.57 336 Pn      00 26.00    1.4X
                   Sn      01 28.70
LBF       5.96 309 Pn      00 32.60    2.5X
LOR       6.19 311 Pn      00 35.10    1.8X
CAF       6.40 287 Pn      00 36.10   -0.3
     S.D. = 0.4  on   7 of  15 obs.
---------------------------------------------
   MAR 21, 1993  05h 04m 59.19± 0.07s
   18.042 S ± 2.5km  178.528 W ± 2.3km
   DEPTH = 588.9km  (geophysicist)
   6.1mb ( 90 obs.)
 FIJI ISLANDS REGION                  (181)
      Mw 6.3 (GS), 6.3 (HRV). mb 6.5
      (BRK). Depth from broadband
      displacement seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=342 Dip=90 Slip= -55
       NP2:        72     35     -180
       Principal Axes:
       T                 Plg=35  Azm= 42
       P                     35      282
      Comment: The focal mechanism is
        poorly controlled and
        corresponds to normal faulting
        with a large strike-slip
        component. The preferred fault
        plane is not determined.
      RADIATED ENERGY
       No. of sta:  21  Focal mech.  F
```

21d 05h

```
        Energy         2.8±0.4•10••13 Nm
      MOMENT TENSOR SOLUTION
      Dep 609             No. of sta: 25
      Moment Tensor;   Scale 10••18 Nm
        Mrr=-0.19        Mtt= 2.71
        Mff=-2.52        Mrt= 0.65
        Mrf=-1.66        Mtf=-0.83
       Principal axes:
        T  Val=  3.11   Plg=17   Azm= 14
        N        0.30       58       133
        P       -3.41       26       275
      Best Double Couple:Mo=3.3•10••18
       NP1:Strike= 56 Dip=59 Slip=-173
       NP2:        323      84       -32
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 43S, ••C  M.W.: 22S, 28C
      Centroid Location:
      Origin Time         05:05: 7.5 0.1
      Lat 17.71S 0.01 Lon 178.42W 0.01
      Dep 607.6 0.9 Half-duration  3.5
      Moment Tensor;   Scale 10••18 Nm
        Mrr=-0.14 0.02  Mtt= 1.72 0.03
        Mff=-1.58 0.03  Mrt= 1.00 0.03
        Mrf=-2.26 0.03  Mtf=-1.41 0.03
       Principal Axes:
        T  Val=  3.29   Plg=31   Azm= 32
        N        0.01       41       153
        P       -3.30       33       278
      Best Double Couple:Mo=3.3•10••18
       NP1:Strike= 66 Dip=41 Slip=-177
       NP2:        334      88       -49

PVC     12.53 269 iPd    07 45.10     1.9
BKM     12.60 270 iPc    07 45.50     1.6
                  iS     10 03.00
DZM     14.68 252 iPd    08 06.10     1.7
                  iS     10 38.00
                  ScP    15 15.00
RAR     17.95 103 Pd     08 36.93     1.2
                  eS     11 31.26
KUZ     19.31 194 eP     08 49.10     0.8
        0.7s   961.00nm          6.5mb
HBZ     19.68 187 eP     08 50.60    -1.1
WLZ     20.41 193 eP     08 59.80     1.3
URZ     20.50 190 P      08 56.90    -2.4
                  eS     12 05.10
NOZ     20.72 188 eP     09 01.00    -0.2
MOZ     21.20 195 eP     09 06.80     1.1
HNR     22.57 289 eP     09 18.00    -0.2
PGZ     22.94 190 eP     09 19.20    -2.1
MNG     23.08 192 eP     09 20.30    -2.3
CAW     23.64 192 eP     09 26.20    -1.4
MRW     23.83 193 eP     09 28.60    -0.7
                  e      12 31.70
TCW     23.91 193 eP     09 29.50    -0.4
SNZO    23.91 193 ePc    09 29.39    -0.5
ORZ     23.98 197 eP     09 30.60     0.0
THZ     24.75 195 eP     09 37.70     0.2
DSZ     25.03 197 eP     09 39.80    -0.1
KHZ     25.22 194 eP     09 40.20    -1.3
                  e      11 04.20
                  e      11 09.00
                  eS     13 20.20
LTZ     25.87 196 eP     09 46.00    -1.3
MOZ     26.65 194 eP     09 53.40    -0.6
AFR     27.37  93 iPc    09 59.60    -0.9
        0.6s   295.80nm          6.1mb
PAE     27.55  94 iPc    10 01.20    -0.8
        0.9s   482.20nm          6.1mb
PPT     27.56  94 iPc    10 01.50    -0.7
        0.8s   586.70nm          6.3mb
     Z  34s  6375.00um           8.0MszX
PPN     27.70  93 iPc    10 02.60    -0.8
        0.9s   205.70nm          5.8mb
TVO     27.85  94 iPc    10 04.10    -0.6
        0.7s   423.30nm          6.2mb
BRS     28.00 245 iPc+   10 07.00     1.0
        0.7s    94.00nm          5.5mb
     Z  18s     91.00um          6.4MszX
                  ipP    10 21.00   57kmX
                  isP    10 37.50
                  i      11 36.00
                  i      12 43.00
                  iPcP   13 02.00
                  iS     14 06.50
                  iScP   15 48.50
```

```
                         iScS    19 47.00
BWZ     28.14 198 P      10 05.80    -1.2
ODZ     28.41 196 eP     10 08.30    -1.0
                  e      11 39.10
LRCZ    28.79 198 eP     10 11.90    -0.8
MSCZ    28.79 198 eP     10 12.00    -0.7
MHZ     28.80 198 eP     10 11.90    -0.9
SBCZ    28.82 198 eP     10 12.00    -0.9
PMO     29.50  89 iPc    10 18.30    -0.6
        1.5s  3510.00nm          6.8mb
TUZ     29.52 197 eP     10 18.30    -0.5
        0.7s   444.00nm          6.2mb
VAH     29.72  89 iPc    10 19.80    -0.9
        1.7s  2340.90nm          6.5mb
TPT     29.77  89 iPc    10 20.60    -0.6
        1.7s  3658.50nm          6.7mb
ARMA    29.78 240 iPd    10 22.60     1.3
        0.7s   401.00nm          6.2mb
                  iS     14 40.60
                  iScP   15 56.10
RUV     29.96  89 iPc    10 22.10    -0.7
        1.6s  3164.20nm          6.7mb
BCZ     30.09 199 eP     10 24.80     1.1
SIZ     30.79 198 eP     10 30.60     1.1
                  e      12 04.90
RIV     31.32 234 iPd-   10 35.50     1.4
        1.0s  ••••••••nm         8.0mb X
                  i      15 00.00
                  e      18 10.00
RMQ     31.35 249 iPd    10 35.80     1.3
        0.8s   404.00nm          6.1mb
                  ipP    12 04.70 519kmX
                  i      12 13.00
                  iPcP   13 11.10
                  iScP   16 01.00
CNB     33.26 232 iPc    10 52.10     1.6
                  iS     15 34.50
                  iScP   16 08.10
CTA     33.31 261 iPd-   10 51.30     0.2
        1.0s   175.00nm          5.6mb
                  ipP    11 13.00   94kmX
                  isP    11 42.00
                  i(PP)  12 28.00
                  i      13 14.00
                  iS     14 33.00
                  i(PcS)15 27.00
                  iScP   16 06.00
CTAO    33.31 261 iPd    10 51.75     0.7
                  ePP    12 25.46
                  ePcP   13 13.04
CAN     33.53 233 iPd    10 54.10     1.3
BWA     33.65 234 iPd    10 53.00    -0.8
PMG     34.37 280 iPd-   11 00.30     0.4
FINC    34.68 285 iPd    10 56.20    -6.2X
QLP     35.38 249 iPd    11 09.00     0.9
                  eS     16 00.50
                  iScP   16 15.00
YYYY    36.56 284 iPd    11 19.00     0.9
TOO     37.00 231 iPd    11 23.10     1.8
                  iScP   16 21.10
                  eS     16 27.00
MDG     37.11 286 iPd    11 23.40     1.0
TAU     38.07 222 iPd    11 31.20     1.3
                  eS     16 42.00
STK     38.47 241 iPd    11 35.10     1.8
        0.9s  1142.70nm          6.4mb
                  ePcP   13 28.60
                  eScP   16 26.40
                  eS     16 48.30
                  eScS   20 40.90
BFD     39.07 233 iPd    11 39.10     1.0
        0.9s   522.00nm          6.1mb
                  iScP   16 28.10
                  eS     16 58.60
ADE     41.47 237 iPd    11 58.40     1.0
                  e      12 08.00   32kmX
HPO     43.25  33 iPc    12 10.59    -0.9
KKH     43.49  32 iPd    12 12.55    -0.8
HON     43.99  28 P      12 30.00    12.9X
     Z  22s      1.01um          4.7Msz
MHA     44.00  31 iPd    12 16.80    -0.4
DHH     44.03  28 iPd    12 16.32    -1.1
KIP     44.07  28 iPc    12 17.07    -0.7
                  e      14 31.16
                  eS     18 09.40
                  iScS   21 18.12
HKL     44.27  31 iPd    12 18.79    -1.0
```

```
OPA     44.30  28 iPd    12 18.20    -1.3
WB2     44.48 260 iPc    12 20.40    -0.7
        0.9s     4.40nm          4.0mb X
                  iPcP   13 28.50
                  ipPcP  13 37.40
                  eS     18 09.50
                  eScS   21 11.10
                  e      41 00.80
                  i      44 11.50
                  ipPKP  44 58.50
WRA     44.49 260 P      12 20.80    -0.4
        0.8s    56.40nm          5.1mb
GUA     47.80 309 e(P)   12 46.20    -0.2
                  e      17 02.70
GUMO    47.87 309 iPd    12 46.69    -0.2
                  iS     19 02.36
PJG     47.87 309 e(P)   12 46.80    -0.1
                  e      17 02.20
NMCC    48.27 311 eP     12 51.00     1.2
MTN     48.68 269 iPd    12 52.50    -0.5
FORT    49.85 245 eP     13 00.50    -0.9
                  eS     19 25.00
WARB    51.13 251 iPd    13 10.20    -0.7
DRV     55.50 199 iP     13 41.60     0.4
                  PP     15 36.00
                  S      20 51.00
TNE     56.42 283 eP     13 47.40    -0.8
KUG     56.49 270 iPd    13 51.00     2.3
                  i(S)   14 32.50
MBL     57.84 256 iPd    13 57.00    -0.8
MEEK    58.28 249 iPd    14 00.00    -0.8
RKG     59.18 240 iPd    14 06.70     0.0
        0.6s   346.00nm          5.8mb
WSI     59.76 269 ePd    14 10.30    -0.4
        0.9s    43.00nm          4.7mb X
BIP     60.43 291 iPd    14 12.60    -2.5
DAV     60.55 289 eP+    14 14.00    -1.8
        1.1s  5043.04nm          6.7mb
NANU    61.58 254 iPd    14 22.50     0.0
CTB     61.83 289 ePd    14 26.00     1.8
CGP     61.92 290 iPc    14 24.00    -0.7
PCI     62.82 278 ePd    14 34.00     3.5X
PLP     62.86 293 iPc    14 29.30    -1.4
                  iS     14 43.30
MAP     63.36 292 ePc    14 34.00     0.0
KHKI    64.57 269 iPc    14 40.00    -1.7
                  iS     17 04.00
CSY     65.97 205 iPc    14 50.00     0.5
        0.9s   352.90nm          5.8mb
                  e      16 45.30 567kmX
TSM     66.48 283 eP     14 54.00     0.5
KAKJ    66.60 324 P      14 53.40    -0.3
CHJJ    67.15 324 P      14 56.60    -0.5
IIDJ    67.37 322 P      14 58.00    -0.5
PGP     67.42 293 iPd    14 58.00    -1.1
TRT     67.58 269 iPc    14 57.60    -2.6X
        0.7s   111.40nm          5.5mb
                  eS     17 22.50
TGY     67.70 294 iPd    15 06.00     5.1X
PPR     67.81 289 eP     15 00.00    -1.5
OVP     67.87 295 iPc    15 02.00     0.2
                  iS     15 14.00
WKYJ    67.88 320 P      15 01.80     0.1
OFUJ    67.94 327 P      15 01.00    -0.8
MAJO    67.94 323 iPd    15 00.74    -1.2
                  e      17 35.02
                  ePP    17 35.34
                  iS     23 14.54
MAT     67.94 323 iPd    15 01.10    -0.9
                  eS     23 13.00
NIIJ    68.00 324 P      15 01.70    -0.5
YAMJ    68.12 326 P      15 02.70    -0.2
MTMJ    68.20 323 P      15 03.20    -0.4
TSRJ    68.54 321 P      15 05.50     0.0
CVP     68.58 298 ePc    15 06.20     0.1
TKSJ    68.68 319 P      15 06.60     0.2
KAGJ    68.95 315 P      15 08.30     0.2
BCP     69.01 296 eP     15 16.00     7.1X
BAG     69.04 296 iPd-   15 08.00    -1.1
                  e      17 40.00
ERM     69.45 330 ePd    15 10.69    -0.1
KUSJ    69.59 332 iPd    15 11.00    -0.6
ADK     69.64   1 iPc    15 09.73    -2.0
        0.4s   426.91nm          6.3mb
SZP     69.66 297 ePd    15 08.00    -4.5X
HOOJ    69.67 331 iPd    15 12.40     0.3
AOMJ    69.70 328 P      15 12.70     0.4
```

BBP	69.76	301	ePd	15 11.00	-2.1
KUMJ	69.82	316	P	15 12.80	-0.4
YONJ	69.83	320	P	15 13.20	0.0
PIP	69.88	298	ePd	15 13.50	-0.3
SHK	69.89	319	ePd	15 13.30	-0.3
	0.9s	974.79nm			6.3mb
KUR	69.99	335	iPd-	15 13.00	-0.9
	0.8s	400.00nm			6.0mb
			iS	23 40.00	
SHNJ	70.63	317	P	15 17.30	-0.6
MRRJ	70.76	329	iPd	15 18.40	0.0
SMY	70.76	355	iPc	15 16.80	-1.4
	0.8s	1104.77nm			6.4mb
ASAJ	71.32	332	iPd	15 22.80	1.1
SPA	72.07	180	iPd	15 26.90	0.9
	0.8s	231.25nm			5.8mb
			i	17 28.10	587kmX
TATO	72.38	304	iPd	15 27.41	-0.8
			ePcP	15 40.65	
			epPd	17 29.24	590kmX
			ePP	18 08.62	
			iS	24 05.07	
			eSKS	24 26.26	
			eScS	24 44.14	
LEM	72.60	268	ePd	15 30.00	0.1
	Z 20s	1.77um			5.3Msz
			eS	24 10.00	
			eLR	32 40.00	
PET	73.47	346	eP	15 32.00	-1.7
	0.8s	140.00nm			5.5mb
			e	17 36.00	600kmX
			e	18 24.00	
			eS	24 15.00	
			ePS	24 46.00	
			e	29 12.00	
YSS	73.55	333	iPd	15 34.07	-0.2
	0.8s	290.00nm			5.9mb
			epP	17 36.23	589kmX
			(sP)	18 36.49	
			iS	24 17.85	
			eScS	24 52.28	
SDN	74.68	11	iPc	15 38.79	-1.6
			ePP	18 34.15	
SSE	75.74	310	iPd	15 46.84	0.1
	1.0s	518.00nm			6.0mb
	Z 20s	0.90um			5.1Msz
	N 12s	0.80um			
			epPd	17 49.00	583kmX
			ec	18 41.97	
			iS	24 42.60	
			iSKS	25 03.79	
			eScS	25 13.72	
			i	27 26.00	
VLA	75.99	325	iPc	15 48.00	0.1
	2.0s	682.00nm			5.8mb
			iS	24 48.00	
			iPS	25 20.00	
GCC	76.39	43	iPc	15 50.73	0.5
PRS	76.40	44	iPc	15 50.87	0.5
PCC	76.41	43	iPc	15 50.57	0.2
SBC	76.47	47	iPc	15 51.11	0.4
			epPc	17 53.28	581kmX
			e	18 48.90	
			eS	24 53.59	
			eSKS	25 07.49	
			eScS	25 18.42	
			esS	28 31.27	
STAN	76.49	43	ePc	15 50.99	0.2
	1.2s	3110.00nm			6.6mb
SAO	76.60	44	iPc	15 51.84	0.4
	0.8s	1952.98nm			6.6mb
			epP	17 53.81	580kmX
			S	24 47.69	
			e	36 38.55	
8CH	76.63	46	iPc	15 52.51	0.8
			epP	17 54.97	582kmX
BKS	76.72	43	iPc	15 52.30	0.2
	1.1s	2390.00nm			6.5mb
			epP	17 58.09	602kmX
			esPc	19 04.09	
			eS	25 00.09	
			i	25 19.09	
			isS	28 39.09	
			esPS	29 09.09	
			e	36 44.09	
NTYM	76.75	42	iPc	15 52.42	0.3
PRI	76.77	45	iPc	15 53.43	0.9
PHAM	76.77	45	iPc	15 52.97	0.6
MHC	76.80	43	iPc	15 52.90	0.2
	1.1s	2030.00nm			6.5mb
ARN	76.88	43	iPc	15 53.43	0.5
			epP	17 55.80	581kmX
			ePP	18 53.98	
HKC	77.06	299	iP	15 55.40	1.2
			S	25 00.00	
PKEM	77.10	45	iPc	15 55.31	1.2
FOX	77.20	40	iPc	15 55.65	1.1
EKR	77.21	39	iPc	15 55.31	0.7
ARC	77.36	39	iPc	15 56.00	0.6
	1.2s	1550.00nm			6.3mb
FHC	77.37	39	iPc	15 56.26	0.7
PAS	77.39	48	iPc	15 55.75	0.0
			eS	25 00.42	
			eScS	25 14.65	
MCO	77.50	298	eP	15 57.80	1.3
SSK	77.76	48	iPc	15 57.97	0.0
			ePP	18 58.62	
PLM	77.91	49	iPc	15 59.00	0.3
			epP	18 01.24	578kmX
			ePP	19 01.69	
NJ2	77.93	310	iPd	15 59.80	1.2
	1.0s	490.00nm			5.9mb
			S	25 08.00	
PEC	77.97	48	iPc	15 58.80	-0.1
	0.7s	378.97nm			5.9mb
			epP	18 01.87	583kmX
			ePP	18 59.32	
ISA	77.99	46	iPc	15 59.44	0.5
	0.7s	1550.00nm			6.5mb
	Z 18s	0.91um			5.1Msz
			ipPc	18 01.27	575kmX
			e	18 58.55	
			PP	19 08.49	
			e	23 26.34	
			eS	25 06.82	
			eScS	25 30.77	
			e	37 10.28	
CMB	78.01	43	iPc	15 58.76	-0.3
			epPc	18 01.26	579kmX
			e	19 01.84	
			eS	25 05.84	
			eScS	25 29.85	
			isS	28 46.42	
GZH	78.09	299	Pd	16 01.00	1.4
	0.8s	850.00nm			6.2mb
			SKS	25 10.00	
WDC	78.12	40	iPc	15 59.33	-0.1
	1.4s	1800.00nm			6.3mb
			epPc	18 06.02	604kmX
			esPc	19 11.02	
			eS	25 05.02	
			e	25 57.02	
			esS	28 44.02	
			e	37 06.02	
ORV	78.17	42	iPc	15 59.80	0.1
MDJ	78.23	325	iPd	16 00.61	0.7
			epPd	18 05.43	593kmX
			e	18 59.39	
			iS	25 12.37	
			eScS	25 34.05	
			e	26 13.78	
PFO	78.33	49	iPc	16 00.77	-0.1
			epPc	18 03.59	580kmX
			ed	19 04.51	
			eS	25 11.50	
			eScS	25 35.92	
			isS	28 47.53	
KDC	78.55	14	iPc	16 00.90	-0.4
MIN	78.56	41	iPc	16 01.52	-0.4
	1.2s	1130.00nm			6.2mb
MEMM	78.76	44	iPc	16 03.89	1.1
GSC	78.95	47	iPc	16 04.10	0.0
			epPc	18 05.61	571kmX
			e	19 05.20	
			iS	25 16.68	
			isS	28 57.67	
			eP'P'	42 56.00	
LBFM	78.97	40	iPc	16 04.44	0.3
			epP	18 08.04	584kmX
			eP'P'	42 56.45	
DBO	79.22	38	P	16 05.77	0.5
GLA	79.23	50	iPd	16 06.35	0.9
			epP	18 09.57	581kmX
			ePP	19 12.91	
BONR	79.34	44	P	16 06.66	0.4
KGM	79.37	276	ePd	16 08.00	1.4
	1.2s	2692.90nm			6.6mb
			e	19 13.00	
OIZ	79.40	294	iPd	16 07.16	0.6
			e	19 10.24	
			iS	25 24.23	
			e	25 43.10	
			ePS	26 14.06	
RNO	79.41	37	P	16 07.00	0.8
VIP	79.57	42	P	16 17.88	10.4X
DL2	79.61	317	Pd	16 08.00	0.8
	1.0s	800.00nm			6.1mb
			S	25 24.00	
			SS	30 47.00	
SNY	80.01	320	iPd	16 09.90	0.6
	1.0s	250.00nm			5.6mb
			PP	19 15.00	
			iS	25 30.00	
CN2	80.06	322	iPd	16 10.20	0.7
	1.3s	1000.00nm			6.1mb
			S	25 29.00	
KVN	80.07	43	iPc	16 10.41	0.5
			epP	18 13.84	580kmX
			ePP	19 18.77	
TNP	80.13	45	iPc	16 10.47	0.2
			epP	18 13.54	578kmX
			ePP	19 20.38	
			eP'P'	42 48.97	
TPNV	80.19	46	ePc	16 10.99	0.4
	1.3s	1833.89nm			6.4mb
			epPc	18 14.15	578kmX
WHN	80.59	306	iPd	16 13.50	1.0
	1.5s	950.00nm			6.1mb
			PP	19 26.00	
			S	25 32.00	
KMOR	80.61	36	P	16 12.87	0.5
SSOR	80.71	37	P	16 13.09	0.1
RSO	80.96	13	ePc	16 12.62	-1.4
			eS	25 26.04	
SVW	80.99	11	ePc	16 13.01	-1.0
	0.9s	547.83nm			6.1mb
ONR	81.22	35	P	16 16.31	1.0
TIA	81.25	312	Pd	16 16.30	0.5
	1.2s	290.00nm			5.7mb
			S	25 40.00	
BMW	81.27	35	iPc	16 16.00	0.3
			epP	18 20.86	586kmX
			ePP	19 30.86	
MZX	81.46	62	(P)	16 19.17	2.1
MID	81.55	16	eP	16 16.30	-0.4
SLKM	81.55	14	iPc	16 15.66	-1.1
			eS	25 29.55	
			ePKKP	34 45.14	
CROR	81.63	37	P	16 17.84	0.2
SHW	81.64	36	iPc	16 18.50	0.8
			ePP	19 34.88	
MGD	81.74	345	iPc+	16 16.50	-1.2
	0.8s	110.00nm			5.4mb
			e	19 40.00	
			iS	25 39.00	
			eSP	26 30.00	
CP2	81.79	12	ePc	16 16.64	-1.6
			eS	25 40.27	
			eP'P'	42 49.47	
CRP	81.81	13	iPc	16 16.57	-1.7
			epP	18 20.81	581kmX
			eS	25 35.73	
TUC	81.87	52	iPc	16 20.53	1.4
	1.3s	447.07nm			5.8mb
			epP	18 23.94	576kmX
			eS	25 51.03	
			PKKS	38 20.91	
			e	42 44.27	
			eP'P'	43 49.26	
ASR	81.98	36	P	16 19.73	0.4
STW	82.06	34	P	16 20.46	0.9
VG8	82.06	37	iPc	16 19.78	0.1
			ePP	19 35.25	
			eP'P'	42 49.41	
GMW	82.16	34	iPc	16 20.25	0.1
			epP	18 24.03	578kmX
LON	82.21	35	iPc+	16 20.07	-0.4
			epP	18 24.92	584kmX
			S	25 51.79	
			e	30 30.10	
			ePKKP	34 43.73	

21d 05h

			PKKS	38 13.51	
			eP'P'	42 46.45	
PMS	82.35	14	ePc	16 19.90	-0.9
IPM	82.36	277	ePd	16 22.90	1.1
			e	19 37.10	
FMW	82.40	35	P	16 21.91	0.4
PGC	82.48	33	iPc	16 21.70	0.1
	0.8s		558.00nm		6.1mb
ARUT	82.55	46	iPc	16 23.02	0.5
			eP'P'	42 45.44	
			e	45 19.37	
JBO	82.57	37	P	16 22.64	0.4
TTA	82.62	10	iPc	16 21.99	-0.2
	0.9s		434.94nm		6.0mb
			epP	18 28.37	592kmX
			eS	25 47.56	
			eP'P'	42 50.17	
RMW	82.64	35	iPc	16 22.61	0.0
			epP	18 28.73	591kmX
PWA	82.64	13	iPc	16 21.30	-0.9
CGX	82.65	67	(P)	16 25.00	1.6
PMR	82.76	14	iPd+	16 21.68	-1.1
	1.2s		1398.86nm		6.4mb
	Z 21s		0.44um		4.8Msz
			epP	18 27.30	587kmX
			S	25 52.11	
MCW	82.83	33	iPc	16 23.91	0.5
			epP	18 28.73	583kmX
			ePP	19 41.76	
JCW	83.01	34	P	16 24.69	0.3
SIT	83.04	22	iPc	16 24.28	0.0
	1.2s		468.50nm		5.9mb
			ePP	19 44.05	
AIA	83.42	157	eP	16 28.60	2.5
KLU	83.43	15	iPc	16 25.47	-0.8
			eS	25 50.55	
WAH2	83.47	36	P	16 27.10	0.5
YKU	83.53	19	ePc	16 27.50	0.9
SNG	83.58	280	iPd	16 30.00	2.2
	1.1s		1134.18nm		6.4mb
			eS	25 56.00	
MAW	83.70	200	iPd	16 29.00	1.5
	1.1s		369.57nm		5.9mb
LNOR	83.70	38	P	16 27.84	-0.1
MSU	83.77	46	ePc	16 29.31	0.7
			epP	18 35.49	589kmX
			ePP	19 50.11	
			ePKKP	34 41.49	
			e	42 29.06	
			eP'P'	42 39.76	
			e	45 01.32	
WTV	83.79	35	P	16 28.35	0.0
BJI	83.80	315	iPd	16 29.12	0.7
			epPd	18 36.25	594kmX
			eSKS	25 55.56	
			iS	26 07.01	
BALM	83.98	17	iPd	16 28.27	-0.8
SAW	84.10	36	P	16 29.88	0.1
DUG	84.15	45	iPd	16 30.35	0.0
	1.6s		926.06nm		6.2mb
ENH	84.25	304	iPd	16 32.06	1.2
AGX	84.47	65	(P)	16 36.29	4.2X
MRX	84.64	67	(P)	16 35.69	2.8X
PCID	84.76	41	iPc	16 32.80	-0.6
STID	84.81	40	ePc	16 32.90	-0.6
ACX	84.82	71	(P)	16 36.88	3.0X
DPW	84.86	36	iPc	16 33.29	-0.2
			ePP	19 53.48	
			ePKKP	34 37.24	
			e	42 33.53	
			eP'P'	42 43.39	
HVU	84.96	43	iPc	16 34.41	0.2
			epP	18 40.83	588kmX
			ePP	19 59.41	
			e	20 08.28	
			ePKKP	34 37.68	
			eP'P'	42 46.07	
GYA	85.00	300	iPd	16 35.80	1.0
	1.2s		1010.00nm		6.3mb
			pP	18 44.00	598kmX
			PP	20 03.00	
			SKS	26 05.00	
			S	26 18.00	
SRU	85.19	46	iPc	16 35.78	0.3
			epP	18 43.02	592kmX
			ePP	20 01.63	
			ePKKP	34 37.21	

TIY	85.27	312	iPc	16 37.00	1.3
	1.0s		820.00nm		6.3mb
			PP	20 02.00	
			SKS	26 05.00	
			S	26 22.00	
DAU	85.30	45	ePc	16 36.01	-0.1
			epP	18 43.38	593kmX
			ePP	20 02.75	
			eS	26 13.51	
			ePKKP	34 37.59	
			eP'P'	42 43.00	
EMUT	85.32	46	iPc	16 36.45	0.3
			ePP	20 01.81	
			ePKKP	34 37.33	
			eP'P'	42 44.16	
NEW	85.68	36	iPd	16 37.19	-0.2
	0.8s		765.10nm		6.4mb
			ePP	20 05.16	
			i	20 13.05	
III	85.70	69	(P)	16 39.50	1.2
PTI	85.75	42	iPc	16 38.92	0.9
			epP	18 45.60	588kmX
CRX	85.87	68	(P)	16 41.50	2.3X
IMA	85.92	10	iPc	16 37.57	-0.7
	0.8s		76.02nm		5.5mb
			epP	18 46.18	599kmX
			ePP	20 06.81	
			e	42 34.96	
			eP'P'	42 41.28	
HHAI	85.95	42	iPc	16 39.91	1.0
			epP	18 47.26	591kmX
FBA	85.96	13	iPc	16 37.02	-1.3
			epP	18 45.09	596kmX
LOE	85.97	290	iPd	16 41.00	1.6
			i	20 12.20	
XAN	86.25	307	iPd	16 41.77	1.3
			epP	18 49.23	592kmX
			iSKS	26 10.06	
			iS	26 32.00	
			esS	30 23.33	
ALQ	86.27	52	iPc+	16 40.84	0.1
	1.0s		698.49nm		6.3mb
	Z 18s		0.39um		4.8Msz
			epP	18 47.69	588kmX
			ePP	20 07.49	
ANMO	86.27	52	iPc	16 42.08	1.3
			isPd	19 47.48	
			ePP	20 09.07	
			iSKS	26 12.86	
			eS	26 33.22	
			ePS	27 28.35	
			isS	30 15.46	
UNM	86.28	68	(P)	16 42.00	0.8
HIA	86.41	325	iPd	16 40.48	-0.4
MCMT	86.41	41	iPc	16 42.02	0.7
NCM	86.57	38	iPc	16 40.90	-0.9
PPM	86.68	69	(P)	16 46.10	2.7X
IIA	86.68	69	(P)	16 46.10	3.4X
LTMT	86.72	41	ePc	16 44.00	1.2
NST	86.83	287	iPd	16 45.00	1.6
HBMT	87.04	40	iPc	16 44.41	0.2
TPMT	87.10	41	iPc	16 45.81	1.2
BGMT	87.11	40	iPc	16 45.12	0.6
LRM	87.15	40	ePc	16 44.86	0.1
			e	18 54.70	604kmX
			e	20 19.40	
BUT	87.17	40	iPc	16 45.04	0.3
HHC	87.28	315	iPd	16 46.00	0.7
	1.2s		830.00nm		6.4mb
LCCM	87.50	40	iPc	16 46.57	0.3
BW06	87.53	43	iPc	16 46.23	-0.4
	0.8s		368.28nm		6.2mb
			epP	18 52.55	582kmX
			ePP	20 19.26	
			e	42 26.05	
			eP'P'	42 39.18	
			e	45 00.80	
OXX	87.72	71	(P)	16 51.16	3.3X
IISM	87.77	69	(P)	16 51.16	3.4X
KMI	87.79	297	iPd	16 50.03	1.9
	1.8s		2200.00nm		6.7mb
	Z 20s		1.20um		5.3Msz
	N 12s		2.40um		
			PcP	17 01.50	
			pP	17 23.00	128kmX
			sP	17 41.00	
			epPd	18 56.50	

			PP	19 43.00	
			iSKS	26 21.32	
			iS	26 46.15	
			SKS	26 46.50	
			ScS	26 52.00	
KHT	87.94	286	iPd	16 50.30	1.7
MEMT	87.95	40	iPc	16 49.06	0.6
HRY	87.96	39	iPc	16 48.64	0.3
SXM	88.06	40	iPc	16 49.71	0.8
BTO	88.23	314	iPc	16 50.50	0.8
	0.8s		110.00nm		5.8mb
			SKS	26 21.00	
			S	26 45.50	
BDT	88.37	289	iPd	16 50.00	-0.6
	1.0s		552.00nm		6.4mb
CHTO	88.94	290	iPd	16 54.41	1.2
	0.8s		109.81nm		5.8mb
			ipPd	19 01.54	585kmX
			esP	19 59.81	
			ePP	20 31.98	
			iSKS	26 28.66	
			iS	26 54.73	
			ePS	28 03.02	
			epSKS	29 33.23	
			esSKS	30 36.14	
			isS	30 49.38	
GOL	89.03	48	iPd	16 53.70	0.1
	0.8s		109.81nm		5.8mb
			epPd	19 00.50	583kmX
			esPc	20 00.76	
			eHPP	20 31.61	
			ePP	20 31.78	
CD2	89.04	303	iPd	16 54.60	1.0
	1.2s		570.00nm		6.4mb
			pP	19 03.80	597kmX
			sP	19 50.00	
			PP	20 40.00	
			iSKS	26 25.10	
			iS	26 58.60	
PAF	89.58	218	e(P)	16 57.00	1.3
			e(S)	24 21.00	
YAK	89.63	338	iPd	16 54.50	-1.0
	0.8s		110.00nm		5.8mb
			iS	26 27.00	
			isS	26 58.00	
			eSSS	33 10.00	
SES	90.19	36	iPc	16 58.10	-0.3
	0.8s		356.00nm		6.4mb
			pP	17 05.00	22kmX
BRW	90.37	7	iPd	16 58.34	-0.3
			ePP	20 40.03	
LZH	90.88	308	ePc	17 02.81	0.7
	1.5s		1299.00nm		6.7mb
			pP	19 12.50	597kmX
			(sP)	20 09.87	
			sP	20 10.00	
			ePP	20 43.86	
			eSKS	26 37.29	
			iS	27 14.95	
			sS	31 10.00	
			SS	33 26.00	
TPX	91.08	75	(P)	17 05.44	2.4
NVL	91.13	183	iPd	17 01.70	-0.7
	1.2s		227.00nm		6.1mb
			e	17 12.00	32kmX
			e	17 30.00	
			ePP	19 11.00	
			e	19 38.00	
			e	19 56.00	
			ePPP	20 06.00	
			eS	27 04.00	
			e	27 24.00	
CIT	91.17	325	iP	17 04.00	1.1
	1.2s		322.00nm		6.2mb
			eS	26 40.00	
			ePS	27 16.00	
RSSD	91.74	44	iPd+	17 05.13	-0.8
	1.1s		722.03nm		6.6mb
	Z 21s		0.35um		4.8Msz
			pP	19 10.81	573kmX
			ePP	20 45.24	
			e	20 52.38	
			e	26 41.96	
SNA	91.84	179	iPd	17 07.70	2.0
	0.8s		533.00nm		6.6mb
WMOK	92.01	54	iPc	17 06.61	-0.5
MEO	92.18	54	iPd	17 07.90	0.0

```
ACO     92.42  52 iPd     17 08.60  -0.4
FNO     93.26  54 iPd     17 13.10   0.3
OCO     93.29  54 iPd     17 14.40   1.4
BOD     93.65 330 iPd     17 13.10  -0.9
        1.3s   65.00nm          5.6mb
YKA     94.50  25 eP      17 17.00  -0.8
        0.9s  134.00nm          6.2mb
GTA     95.03 310 iPd     17 21.00   0.1
        1.0s  120.00nm          6.1mb
MIAR    96.01  56 iPc     17 25.28   0.1
        1.6s  215.54nm          6.1mb
TIK     96.24 345 iPc     17 24.00  -1.5
        1.2s   30.00nm          5.4mb
                  e       21 25.00
                  e       23 35.00
                  iS      27 48.00
ZAK     96.42 321 iPd     17 26.30  -0.3
        1.3s   89.00nm          5.9mb
                  e       21 36.50
                  e       27 07.00
                  e       28 00.00
                  eSS     34 40.00
IRK     96.48 323 eP-     17 25.00  -2.0
        1.5s   37.00nm          5.4mb
                  i       21 36.00
                  e       27 57.00
                  eSS     29 32.00
OLY     97.94  55 iPc     17 33.74  -0.3
                  (pP)    19 42.58 591kmX
                  eP'P'   34 05.50
MOY     98.22 322 eP      17 34.80   0.0
        1.6s   85.00nm          5.8mb
                  eS      27 16.30
CCM     98.82  53 ePDIFc17 36.78  -1.1
                  epPc    19 45.23 588kmX
                  esP     20 44.49
                  ePP     21 42.73
                  iSKS    27 18.61
                  eSKKS   27 51.30
                  eHSKKS27 52.96
                  eSDIF   28 18.06
                  ePS     29 43.46
                  epSKS   30 26.49
                  e       30 59.60
                  esS     32 09.81
LSA     99.00 298 ePDIF   17 39.77   0.3
                  epPd    19 48.89 592kmX
                  esP     20 43.18
                  ePP     21 50.69
                  iHPP    21 51.35
                  iSKS    27 20.03
                  eSKKS   27 50.24
                  iSDIF   28 23.41
                  ePS     29 53.15
                  e       31 05.99
                  isS     32 20.47
ULM     99.09  40 ePc     17 40.30   1.5
FVM     99.42  53 iPc     17 39.95  -0.6
        1.0s   85.59nm          6.1mb
     Z  18s    0.86um           5.3Msz
                  epP     19 49.90 597kmX
                  ePP     21 47.17
                  e       27 03.16
                  eP'P'   34 00.92
                  e       34 31.14
GRT     99.74  55 ePDIF   17 42.15   0.1
ELC    100.16  54 ePdiff17 43.92   0.0
                  epP     19 56.91
                  ePP     21 53.07
                  eP'P'   33 59.19
                  e       34 26.68
ARE    100.42 111 ePdiff17 48.00   2.1
UER    102.32 320 iPdiff17 51.80  -1.3
        1.0s   28.00nm          5.8mb
                  iS      27 33.80
                  SS      31 38.00
FCC    102.40  32 ePdiff17 55.50   2.2
                  pP      18 09.50
CNCB   103.38 113 Pdiff   18 04.00   4.6X
                  e       24 16.00
LPB    103.39 112 Pdiff   18 02.00   2.8X
ZOBO   103.45 112 Pdiffc18 03.80   4.0X
                  e       24 17.00
WMQ    104.94 312 ePdiff18 04.76  -0.4
                  esP     21 12.48
                  ePP     22 19.17
RES    105.59  16 ePdiff18 08.00   0.8
```

```
        1.0s    7.00nm          5.5mb
JSC    105.80  59 (PKP)   22 18.04  -0.2
LHS    106.20  58 PKP     22 32.70  13.7X
NAV    106.73  56 ePdiff18 14.20   1.0
BLA    107.01  56 (PKP)   22 21.59   1.1
DLA    107.06  50 Pdiff   18 16.50   2.1
HYB    107.14 283 ePdiff18 15.00  -0.4
GBA    107.24 279 Pdiff   18 17.00   1.2
GBA    107.24 279 PKPc    22 20.80  -0.6
        0.6s   10.00nm
ELF    107.30  49 Pdiff   18 17.30   1.8
ELT    107.33 321 iPdiff18 15.00  -0.3
LDN    107.37  50 Pdiff   18 17.35   1.5X
NRI    107.92 338 ePdiff18 33.00  15.4X
ACTO   108.26  49 Pdiff   18 21.78   2.0
TYNO   108.33  50 Pdiff   18 22.09   2.0
EEO    109.32  46 ePdiff18 30.50   6.1X
WLVO   109.49  49 Pdiff   18 25.96   0.8
NDI    110.66 294 iPKP    22 27.00  -0.6
TOV    110.68  86 ePKP    22 26.70  -1.4
PRZ    111.49 309 ePdiff18 34.00  -0.4
        1.4s   70.00nm
PRZ    111.49 309 ePKP    22 29.00   0.0
        0.8s  140.00nm
                  eS      28 18.00
JAQ    111.90  39 ePdiff18 35.00  -0.7
RSNY   112.32  49 ePdiff18 38.84   1.1
PAL    112.52  52 PKP     22 50.90  20.1X
KSH    113.05 306 PKP     22 32.00  -0.1
HRV    114.37  51 ePdiff18 47.75   0.9
     Z  19s    0.34um           5.0Msz
                  PP      23 33.97
                  e       26 21.96
                  iSKS    28 27.67
                  eSKKS   29 37.61
                  SP      32 29.15
                  i       32 29.76
                  ePS     33 19.89
BNH    114.66  49 iPKPd   22 34.39  -0.4
                  ePP     23 38.23
                  eSKPdf25 15.62
PPD    114.78 126 ePKP    22 34.80  -0.9
MIM    116.24  48 ePKP    22 36.77  -1.0
                  ePP     23 51.37
CBM    116.84  46 ePKP    22 36.64  -2.2
     Z  19s    0.40um           5.1Msz
                  PP      23 57.16
                  SP      32 40.09
LMN    119.19  47 ePKP    22 45.00   1.6
OUE    119.73 295 iPKPd   22 45.70   0.5
        0.9s  714.29nm
                  e(S)    24 28.90
BAO    120.89 121 ePKP    22 44.00  -3.6X
                  e       24 01.80
                  e       25 27.00
BDF    120.94 122 ePKP    22 45.50  -2.2
                  e       24 02.00
                  e       25 27.20
AVY    121.57 233 ePKP    22 49.40   0.5
VTY    121.62 233 iPKPc   22 49.50   0.5
SVE    121.69 326 iPKPc   22 47.00  -0.7
        1.3s  240.00nm
                  e       34 48.00
                  e       40 16.00
ARU    122.89 326 ePKPd   22 50.00  -0.1
        1.2s  500.00nm
                  e       24 44.00
                  e       25 57.00
GRM    123.59 205 iPKPc   22 53.50   1.2
        1.0s  380.00nm
KEV    125.97 349 iPKP    22 55.50  -0.2
MAIO   126.05 302 iPKPd   22 57.00   0.0
        1.2s    6.94nm
                  i       24 43.00
                  eS      32 16.00
CER    126.13 198 iPKPc   22 55.00  -2.2
        1.4s  180.00nm
TUH    126.23 198 iPKPd   22 53.00  -4.3X
        1.0s   40.00nm
                  i       25 16.00
ASH    126.83 304 ePKP    22 43.00 -15.3X
                  i       22 58.50
                  i       25 04.00
                  e       26 10.00
                  e       29 12.00
BLF    127.40 207 iPKPc   22 59.70  -0.2
        0.8s   80.00nm
```

```
                  i       25 13.50
SEK    127.42 209 iPKPd   23 00.20   0.2
        0.9s  191.00nm
KAT    128.31 306 ePKP    23 02.00   0.9
                  i       25 13.00
                  e       28 10.00
BFT    128.41 213 iPKPc   23 02.00   0.0
        0.6s   57.00nm
                  i       25 12.00
PRY    128.67 210 iPKPc   23 01.50  -0.9
        1.5s  172.00nm
                  i       25 20.00
SLR    129.27 212 iPKPd   23 02.70  -0.8
        1.3s  150.00nm
     Z  18s    4.06um           6.2MszX
POF    129.59 201 iPKPc   23 04.00   0.2
        0.7s   72.00nm
                  i       25 22.00
KSR    129.84 210 iPKPc   23 01.60  -3.1X
        1.5s  240.00nm
                  i       25 21.00
SOB1   130.17 119 ePKP    22 50.30 -15.1X
                  e       23 05.00
                  e       25 34.50
KAF    132.66 344 ePKP    22 52.00 -16.6X
        0.6s   26.40nm
PUL    133.41 340 (PKP)   23 10.00  -0.1
        1.0s  150.00nm
MOS    133.50 333 ePdiff20 25.00  13.5X
        2.2s  660.00nm
                  e       23 11.00
                  e       25 45.00
BUL    133.64 216 iPKP    23 11.30  -0.7
                  iSKP    25 46.70
SHE    133.79 309 iPKPd   22 58.00 -13.4X
        1.0s   60.00nm
                  i       23 12.00
OBN    134.36 332 ePKP    23 10.00  -2.1
        1.0s  140.00nm
                  eSKP    25 32.00
                  ePP     25 44.00
                  esPKP   26 10.00
                  ePKS    26 43.00
                  epPP    27 37.00
                  ePPP    28 51.00
                  e       34 56.00
                  eSP     35 03.00
                  eSS     42 48.00
                  (SSS)   46 52.00
MTD    134.44 222 ePKP    23 13.10  -0.4
NUR    134.45 344 ePKP    22 59.00 -13.1X
GRO    135.08 314 iPKPc   23 14.00   0.2
        1.5s  400.00nm
GRS    135.79 308 ePKP    23 03.00 -12.6X
        1.0s   30.00nm
                  e       29 34.00
MTA    136.24 312 ePKP    23 03.00 -13.1X
        0.8s  150.00nm
                  i       23 15.00
NB2    136.49 353 PKP     23 05.70 -10.3X
        0.8s   30.40nm
PYA    136.59 316 ePKP    23 06.00 -10.7X
        1.0s  100.00nm
                  i       23 16.00
                  i       26 10.00
UPP    136.63 348 iPKP    23 04.60 -11.6X
WIN    136.84 201 ePKP    23 05.00 -13.1X
        0.5s  110.00nm
                  i       25 57.00
KIV    136.87 316 iPKPc   23 07.80  -9.6X
        1.2s  122.00nm
                  iSS     43 19.90
                  eSSS    48 37.50
RYD    137.59 287 ePKPd   23 08.00 -11.2X
                  eS      25 29.00
LSZ    137.70 220 iPKP    23 09.00 -10.7X
                  i       23 30.00
                  i       26 10.90
KONO   138.03 354 ePKP    23 07.86 -11.0X
MNK    138.92 337 ePKP    23 11.00  -9.6X
DHJN   140.07 276 ePKPd   23 18.50  -5.6X
NAI    140.28 245 PKP     23 19.00  -5.6X
     Z  20s    0.39um           5.2Msz
                  PP      25 44.00
QASM   140.34 289 iPKPc   23 18.00  -6.1X
KMTA   140.72 277 ePKPd   23 19.30  -5.9X
ABHA   140.83 277 ePKPd   23 20.60  -4.9X
```

21d 05h

MUD	141.21	353	iPKPc	23 19.80	-4.8X
	0.7s		32.00nm		
			e	25 43.00	
			i	26 28.70	
EDU	141.41	4	ePKP	23 18.90	-6.1X
ELO	141.44	5	ePKP	23 19.40	-5.7X
BSD	141.60	348	iPKPd	23 20.60	-4.7X
	0.7s		36.00nm		
EAB	141.67	5	ePKP	23 20.60	-4.8X
EBH	141.67	4	ePKP	23 20.40	-5.1X
ESY	142.06	4	ePKP	23 21.40	-4.7X
EAU	142.08	5	ePKP	23 21.90	-4.3X
	1.3s		69.00nm		
EBL	142.18	4	ePKP	23 22.10	-4.2X
	1.1s		53.00nm		
EKA	142.61	4	PKPd	23 23.30	-3.8X
	0.8s		58.20nm		
ESK	142.62	4	iPKP	23 23.40	-3.7X
	1.0s		80.00nm		
AAE	142.72	261	iPKP	23 27.80	-1.1
GAZ	143.33	309	iPKP	23 26.80	-2.1
KIS	143.37	328	iPKPd-	23 26.00	-2.6X
	1.4s		2000.00nm		
			e	25 42.00	
BZK	143.45	318	iPKP	23 27.00	-1.9
DMU	143.63	8	iPKPc	23 26.80	-2.0
	0.8s		770.00nm		
WIM	143.65	6	iPKPc	23 27.10	-1.8
KAS	143.90	317	iPKPd	23 29.40	-0.4
DCN	144.12	9	iPKPc	23 28.50	-1.2
	0.8s		790.00nm		
DLF	144.27	8	iPKPc	23 29.20	-0.7
	0.9s		1368.00nm		
WME	144.43	6	iPKPc	23 29.60	-0.6
	1.4s		321.00nm		
BRNL	144.44	347	ePKPc	23 29.00	-1.2
			epP	25 56.20	
BIR	144.51	328	iPKP	23 30.00	-0.6
PPE	144.54	328	iPKPc	23 32.00	1.3
YRC	144.55	6	iPKPc	23 29.90	-0.5
PTT	144.64	330	ePKP	23 27.50	-3.3X
OJC	144.70	340	ePKP	23 30.40	-0.4
	0.7s		270.00nm		
			i	23 37.80	
ADAT	144.74	309	ePKP	23 32.00	0.7
ETA	144.90	8	iPKPc	23 31.40	0.4
VAL	144.93	13	PKP	23 41.40	10.3X
YRH	144.95	6	iPKPc	23 30.90	-0.2
CFR	144.97	326	ePKP	23 30.00	-1.4
UZH	145.11	336	iPKPd	23 31.50	0.0
ECB	145.14	9	iPKPc	23 31.80	0.4
	0.7s		508.00nm		
KSP	145.20	343	iPKPd	23 31.30	-0.3
	0.9s		338.00nm		
			i	23 33.00	
			i	23 41.20	
			iPP	25 50.00	
VRI	145.23	328	ePKPc	23 32.00	0.2
ANTO	145.29	315	ePKPd	23 41.62	9.4X
RAC	145.33	341	ePKP	23 32.00	0.2
	1.0s		1.10nm		
			i	23 33.50	
ECP	145.38	9	iPKPc	23 32.40	0.6
	0.9s		864.00nm		
SPC	145.42	338	iPKP	23 32.90	0.6
			ipPKP	25 56.60	
HCG	145.56	6	iPKPc	23 33.00	0.8
CLL	145.57	347	iPKP	23 31.90	-0.3
	1.2s		54.00nm		
BHL	145.64	304	PKP	23 30.00	-3.0X
BRG	145.77	346	iPKPd	23 32.10	-0.4
	1.2s		190.00nm		
			i	23 34.40	
			i	23 35.90	
			ipPKP	25 51.00	
HRI	145.77	303	ePKP	23 31.10	-2.2X
CEI	145.81	334	ePKP	23 37.00	4.3X
HTR	145.83	5	iPKPc	23 33.80	1.2
WTS	145.86	354	iPKPc	23 33.00	0.4
	0.9s		261.30nm		
			i	23 34.40	
			e	23 43.50	
			e	25 54.00	
MLR	145.89	329	ePKPd	23 32.50	-0.6
HAE	145.93	4	iPKPc	23 34.20	1.5
PSN	145.94	324	iPKPd	23 35.00	2.0
HGH	146.31	5	iPKPc	23 35.00	1.6
PRU	146.44	345	PKPd	23 33.30	-0.3
	0.9s		97.00nm		
			i	23 36.30	
			e	25 53.80	
			SS	45 14.00	
			e	50 40.00	
MOX	146.48	348	ePKP	23 33.70	0.0
	1.4s		66.00nm		
			epPKP	25 54.10	
JVI	146.48	301	ePKP	23 33.00	-1.4
CMP	146.49	329	iPKPc	23 39.00	5.1X
VRAC	146.50	342	iPKPd	23 36.80	3.1X
	1.2s		494.10nm		
			e	23 39.70	
			e	25 54.50	
FAM	146.55	307	ePKP	23 34.00	-0.3
PSZ	146.61	337	iPKPd	23 36.90	2.8X
EYL	146.64	318	ePKP	23 33.00	-1.4
AYN	146.65	295	ePKPd	23 34.30	-0.3
HOF	146.74	348	ePKP	23 34.00	-0.2
HRT	146.81	319	ePKP	23 33.80	-0.8
BNS	146.84	353	iPKPc	23 34.50	0.3
	1.3s		290.00nm		
			ipPc	23 37.30	
			i	25 54.40	
GBZT	146.97	319	ePKP	23 34.00	-0.8
ISK	147.04	320	ePKP	23 34.70	-0.2
CSS	147.07	307	ePKP	23 34.00	-1.2
YLV	147.14	319	ePKP	23 33.80	-1.4
ENN	147.16	355	iPKPc	23 35.30	0.6
	0.8s		153.00nm		
			e	23 38.00	
			e	23 46.50	
			e	25 55.00	
			e	27 11.00	
UCC	147.24	357	PKP+	23 38.00	3.1X
			pPKP	25 55.00	
SRO	147.27	339	ePKP	23 35.00	0.0
			i	23 39.10	
			i	26 15.70	
			i	34 06.70	
DRA	147.30	329	ePKPc	23 35.00	-0.2
ZST	147.33	340	iPKP	23 34.80	-0.3
			i	23 48.90	
			ipPKP	25 55.10	
			ePKS	27 22.10	
			e	34 04.90	
DMK	147.36	322	ePKP	23 34.70	-0.7
CTT	147.38	321	ePKP	23 34.30	-1.1
TNS	147.41	352	ePKPd	23 34.90	-0.4
			e	23 38.90	
			i	23 42.00	
			i	25 57.00	
RMN	147.46	299	ePKP	23 35.50	-0.5
GZR	147.46	332	ePKPd	23 34.00	-1.5
GRF	147.46	348	ePKPc	23 36.00	0.7
	Z 20s		0.30um		5.1Msz
			id	23 39.60	
			e(pPKP	25 54.00	
CPZ	147.47	8	ePKPc	23 38.00	2.7X
	1.2s		149.00nm		
KHC	147.48	345	PKPd	23 35.40	0.0
	0.8s		61.30nm		
			e	23 39.00	
			e	23 52.50	
			e	25 56.50	
			e	27 17.00	
ALT	147.49	316	ePKP	23 35.00	-0.8
VKA	147.52	341	ePKP	23 35.00	-0.4
			i	23 39.60	
			i	23 44.00	
			epPKP	25 57.00	
SNF	147.53	357	iPKPc	23 35.79	0.4
			i	23 38.91	
			i	23 42.76	
			ipPKP	25 56.66	
BADA	147.58	295	ePKPd	23 40.00	3.9X
GEC2	147.71	345	PKP	23 35.40	-0.5
	0.8s		10.23nm		
			e	23 39.80	
			e	25 58.00	
			e	26 03.10	
			e	26 06.10	
			e	26 11.80	
			e	34 02.50	
			e	34 10.80	
			e	50 37.00	
PVL	147.80	326	iPKPd	23 40.00	4.0X
PPCY	147.85	308	ePKP	23 35.40	-1.0
DOU	147.92	356	PKP	23 38.20	2.2
			e	23 40.30	
			pPKP	25 57.20	
			e	27 13.60	
			e	32 41.20	
KCT	147.95	319	iPKP	23 35.70	-0.7
BCK	147.98	313	ePKP	23 35.00	-1.6
BNT	148.16	320	ePKP	23 35.80	-0.9
EDC	148.20	320	iPKP	23 40.50	3.7X
UZD	148.21	337	ePKP	23 34.00	-2.6X
WLF	148.23	354	PKPc	23 37.30	0.8
			i	23 42.00	
			i	23 46.08	
			ipPKP	25 59.35	
			e	32 22.00	
KHL	148.27	315	iPKP	23 36.40	-0.7
KMR	148.33	344	iPKP-	23 36.80	0.1
			i	23 41.80	
			i	23 45.20	
			ipPKP	25 59.30	
SSR	148.34	332	ePKPc	23 37.00	0.1
LANF	148.71	352	PKP	23 37.96	0.7
HOFF	148.73	352	PKP	23 38.22	1.0
ELL	148.80	312	ePKP	23 42.00	4.0X
KDZ	148.81	324	iPKPd	23 43.00	5.3X
PLD	148.90	325	iPKPd	23 42.00	4.2X
FUR	148.91	347	iPKPd	23 37.40	-0.2
			i	23 42.70	
			i	23 48.70	
RDO	149.08	323	ePKP	23 37.20	-0.8
STR	149.11	352	PKP	23 38.81	1.0
RZN	149.18	325	iPKPd	23 44.00	5.5X
FLN	149.32	3	ePKP	23 38.00	-0.2
	0.8s		26.20nm		
WLS	149.33	352	PKP	23 38.39	0.1
KSL	149.33	312	ePKP	23 44.00	5.4X
CDF	149.34	352	PKP	23 38.22	-0.1
VTS	149.34	328	iPKPd	23 44.00	5.4X
KBA	149.44	344	iPKPd	23 37.40	-1.3
	0.9s		143.00nm		
			i	23 43.20	
			i	23 52.30	
			i	26 00.10	
			i	26 05.60	
			i	26 17.70	
			i	27 14.80	
			i	27 28.10	
LDF	149.50	2	ePKP	23 38.20	-0.3
	0.9s		24.10nm		
ECH	149.55	352	PKP	23 38.56	0.0
WATA	149.63	346	iPKPd	23 38.20	-0.7
			i	23 44.20	
			i	23 52.30	
GRR	149.67	3	ePKP	23 38.60	-0.1
	0.9s		17.35nm		
VITF	149.68	354	PKP	23 39.07	0.3
WTTA	149.68	346	iPKPd	23 38.50	-0.5
	1.4s		69.40nm		
			i	23 44.50	
			i	23 52.60	
			i	26 01.40	
			i	27 26.20	
IZM	149.72	317	iPKP	23 37.50	-1.7
MOTA	149.72	347	iPKPd	23 38.30	-0.8
			i	23 44.30	
			i	23 52.50	
PTJ	149.73	340	ePKP	23 37.70	-1.3
YER	149.73	314	iPKP	23 45.00	5.7X
FEL	149.77	351	PKP	23 39.24	0.2
ZAG	149.79	340	ePKP	23 38.00	-1.0
SLE	149.80	351	iPKPd	23 38.50	-0.5
SOTA	149.82	347	iPKPd	23 38.70	-0.5
			i	23 44.80	
			i	23 55.60	
PRK	149.84	320	ePKP	23 38.60	-0.7
HAU	149.85	353	ePKP	23 38.90	-0.2
	0.9s		14.10nm		
MOF	149.91	352	PKP	23 39.33	0.1
KKB	149.93	327	iPKPd	23 45.00	5.7X
KOT	149.94	299	ePKP	23 38.00	-1.7
RBL	149.96	343	PKP	23 38.81	-0.5
BSF	149.97	353	ePKP	23 39.00	-0.4
	1.2s		31.55nm		
LPF	150.02	3	ePKP	23 39.10	-0.1
	0.9s		20.95nm		

```
FVI    150.03 344 PKP    23 38.54  -0.7
LJU    150.05 342 ePKP   23 39.00  -0.4
                  iPKPbc23 45.00
ZLA    150.09 351 ePKPd  23 38.80  -0.7
OGA    150.19 347 ePKP   23 39.90   0.1
                  i      23 46.00
BBS    150.24 352 PKP    23 40.00   0.3
VOY    150.25 342 iPKPd  23 39.00  -0.8
                  iPKPbc23 45.20
                  i      26 03.60
                  i      27 22.60
VBY    150.31 340 iPKPd  23 39.00  -0.8
                  iPKPbc23 45.50
CEY    150.35 341 ePKPd  23 39.50  -0.4
                  iPKPbc23 45.60
                  e      26 03.50
HLW    150.37 299 e(PKP)23 39.00   -1.3
LOMF   150.44 353 PKP    23 40.35   0.3
OSS    150.55 348 iPKPd  23 40.30  -0.1
TRI    150.58 342 ePKP   23 39.30  -0.8
                  e      23 45.80
                  e      26 05.00
PLE    150.58 333 iPKPd  23 39.77  -0.7
VAY    150.59 326 iPKP   23 39.50  -0.8
   0.9s   432.00nm
                  iPKPab23 45.60
                  i      23 56.00
LLS    150.59 349 ePKPd  23 40.20  -0.2
SKO    150.69 329 iPKP   23 40.00  -0.5
   1.3s    64.00nm
                  iPKPab23 46.60
                  i      23 56.60
                  i      26 04.50
                  e      27 25.00
RIY    150.72 341 ePKP   23 39.50  -0.9
                  i      23 46.20
IVA    150.72 332 iPKPd  23 39.53  -1.1
LOR    150.79 357 ePKP   23 40.50   0.0
   1.1s    21.75nm
CTI    150.82 345 PKP    23 40.11  -0.6
HYF    150.84 358 ePKP   23 40.90   0.4
VDL    150.87 349 ePKPd  23 41.60   0.7
PVY    150.91 331 iPKPd  23 39.97  -1.0
SSF    151.01 357 ePKP   23 40.90   0.1
   0.9s    19.00nm
LBF    151.06 356 ePKP   23 40.90   0.0
   1.0s    10.40nm
NKY    151.17 333 iPKPd  23 40.44  -0.9
AVF    151.29 357 ePKP   23 41.00  -0.2
   1.2s    11.30nm
BRY    151.30 333 iPKPd  23 39.83  -1.7
TMA    151.35 349 ePKPd  23 41.30  -0.3
TTG    151.36 332 iPKPd  23 40.49  -0.9
SMF    151.41 357 ePKP   23 41.20  -0.2
   1.3s    24.90nm
MFF    151.49   2 ePKP   23 41.50   0.0
   0.9s    30.95nm
SAL    151.50 347 PKP    23 41.63   0.1
   0.9s   304.20nm
BGF    151.54 358 ePKP   23 41.70   0.1
   1.0s    10.60nm
MMK    151.55 350 ePKPd  23 42.40   0.5
VAI    151.60 349 PKP    23 41.40  -0.2
   1.3s   206.90nm
DIX    151.61 351 ePKPd  23 42.50   0.5
OHR    151.65 328 iPKP   23 41.50  -0.5
   1.3s   125.00nm
                  iPKPab23 48.60
                  i      24 00.50
BDV    151.67 332 iPKPd  23 41.03  -0.9
HCY    151.68 333 iPKPd  23 40.79  -1.1
EMS    151.69 352 ePKPd  23 42.60   0.6
KZN    151.73 326 ePKP   23 41.00  -1.2
ULC    151.74 331 iPKPd  23 41.23  -0.8
TCF    151.83 359 ePKP   23 42.00   0.0
   0.9s    22.75nm
LSF    151.87 360 ePKP   23 41.70  -0.4
   0.8s    20.55nm
MAF    151.89 358 ePKP   23 42.10   0.0
   1.3s    11.20nm
HVAR   151.91 336 iPKPd  23 48.60   6.4X
ORX    151.96 350 PKP    23 41.74  -0.6
ORO    151.97 350 PKP    23 42.11  -0.2
   0.8s    40.90nm
RSL    152.10 352 PKP    23 43.14   0.5
ATH    152.20 320 ePKP   23 49.00   6.3X
LPL    152.26 352 ePKP   23 43.50   0.6
```

```
   0.9s    15.40nm
LSD    152.26 351 PKP    23 43.02   0.1
LPG    152.27 352 ePKP   23 43.60   0.6
   1.0s    21.80nm
RSP    152.54 351 PKP    23 42.33  -0.9
NPS    152.55 313 ePKP   23 49.00   5.6X
BNI    152.72 352 PKP    23 44.50   1.0
   1.1s   124.50nm
RJF    152.82 360 ePKP   23 43.50   0.1
   0.9s    27.20nm
RRL    152.83 352 PKP    23 44.21   0.4
BHB    152.84 351 PKP    23 43.25  -0.3
PCP    152.92 349 PKP    23 42.61  -1.1
FIR    153.05 344 ePKP   23 42.00  -1.7
LFF    153.17   1 ePKP   23 44.10   0.2
   1.0s    19.60nm
DOI    153.18 351 PKP    23 47.24   3.2X
   1.0s    41.20nm
CAF    153.19 359 ePKP   23 44.20   0.2
   0.9s    10.15nm
PZZ    153.20 351 PKP    23 43.80  -0.4
KEK    153.20 327 ePKP   23 44.00  -0.1
SURF   153.26 351 PKP    23 45.34   1.0
ROB    153.28 350 PKP    23 43.80  -0.4
FIN    153.30 349 PKP    23 42.15  -2.0
STV    153.42 351 PKP    23 42.97  -1.4
LPO    153.44   0 ePKP   23 44.50   0.2
   1.0s    12.20nm
VLI    153.47 319 ePKP   23 44.50  -0.1
SAOF   153.63 350 PKP    23 45.03   0.4
AUTN   153.64 350 PKP    23 45.34   0.5
IMI    153.65 350 PKP    23 43.02  -1.6
TOUF   153.65 351 PKP    23 45.29   0.5
AURF   153.76 350 PKP    23 45.29   0.4
SBF    153.77 350 PKP    23 45.29   0.5
REVF   153.90 350 PKP    23 44.69  -0.3
CALN   153.96 351 PKP    23 45.77   0.6
FRF    154.19 351 ePKP   23 45.20  -0.1
   1.1s    20.25nm
CDR    154.19 353 ePKPd  23 55.30  10.0X
                  i      24 11.20
                  e      26 13.70
                  e      27 47.50
LRG    154.33 352 ePKP   23 45.80   0.3
   1.0s    20.00nm
LMR    154.43 351 ePKP   23 45.70   0.1
   1.0s    13.20nm
EZAM   154.45  18 ePKP   23 46.00   0.3
ERUA   154.64  15 ePKP   23 48.00   2.0
PGF    154.75 347 PKP    23 46.64   0.4
EPF    155.07   2 ePKP   23 47.00   0.4
   0.7s     6.05nm
ECRI   155.28   7 ePKP   23 48.50   1.6
EGRA   155.88   3 ePKP   23 48.50   0.9
GUD    156.96  11 ePKP   23 50.00   0.8
ETOR   157.10   7 ePKP   23 50.00   0.7
EPLA   157.10  15 ePKP   23 50.50   1.2
EROQ   157.28   2 ePKP   23 49.00  -0.4
PAB    157.98  12 ePKP   23 51.05   0.7
                  ePKPab24 23.56
                  eSKP   26 11.35
ESEL   158.31 357 ePKP   23 51.70   1.1
ECHE   158.42   5 ePKP   23 53.50   2.7X
BCAO   158.51 233 iPKPd  23 51.20  -0.4
   0.9s   189.00nm
                  i      24 32.00
                  i      26 46.00
                  i      28 13.10
EVIA   159.19   9 ePKP   23 52.90   1.1
EVAL   159.24  19 ePKP   23 53.50   1.8
EHOR   159.43  15 ePKP   23 53.40   1.5
ELUQ   159.91  13 ePKP   23 53.00   0.5
EHUE   159.98   9 ePKP   23 54.00   1.4
EPRU   160.24  16 ePKP   23 55.00   2.2
ECOG   160.33  12 ePKP   23 52.50  -0.5
EJIF   160.66  17 ePKP   23 56.50   3.3X
EGUA   160.76  12 ePKP   23 53.00  -0.3
ENIJ   160.87   9 ePKP   23 54.00   0.6
AVE    162.84  26 iPKP   23 57.00   1.5
                  i      24 49.20
TIO    164.92  30 iPKP   23 59.20   1.6
                  i      24 58.00
LIC    166.65 151 PKPd   23 59.14  -0.1
   0.9s    63.00nm
 Z  20s     0.15um
KIC    166.90 152 PKPd   23 59.36  -0.1
   0.9s    72.00nm
```

```
                  PKPab 25 09.00
                  e     26 21.00
                  PKS   27 17.00
                  PP    29 05.00
TIC    167.02 150 PKPd  23 59.48  -0.1
   0.9s    58.50nm
   S.D. = 0.9  on 564 of 655 obs.
```

• MAR 21, 1993 05h 06m 04.74± 2.67s
38.689 N ± 9.7km 26.472 E ±25.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.6 (ISK).

```
IZM      0.68 115 iPg    06 18.50   0.2
                  iSg    06 28.50
EDC      1.98  33 iPn    06 38.50  -0.1
BNT      2.01  33 ePn    06 39.00   0.0
YER      2.11 137 ePn    06 41.00   0.4
KCT      2.13  43 ePn    06 41.20   0.3
KHL      2.42  98 ePn    06 44.00  -1.1
YLV      2.92  49 ePn    06 53.00   0.8
DMK      3.28  17 ePn    06 56.70  -0.5
VAY      3.99 312 ePn    07 18.70  11.5X
   S.D. = 0.7  on   8 of   9 obs.
```

MAR 21, 1993 07h 32m 23.16± 0.65s
22.218 S ± 7.5km 67.485 W ± 8.6km
DEPTH = 175.4 ± 7.3 km
5.0mb (10 obs.)
CHILE-BOLIVIA BORDER REGION (124)

```
YJA      1.84  89 iPc    33 00.00   1.0
HJA      2.16 118 iPd    33 03.70   1.6
                  S      33 31.80
ANT      3.08 241 iPc    33 11.40  -1.7
                  iS     33 46.20
SLA      3.10 144 iPc    33 14.80   1.4
                  S      33 52.40
FSA      4.08 161 ePd    33 27.50   1.8
CNCB     5.40 355 iPd    33 46.10   2.6X
LPB      5.68 354 P      33 49.00   1.8
ZOBO     5.93 354 P      33 52.20   1.6X
CYA      6.39 166 ePd    33 56.20   0.2
                  S      35 07.40
ARE      6.86 326 iPd    34 00.50  -2.1
                  iS     35 15.00
RTPR     8.10 174 ePd    34 16.70  -2.0
CFA      9.38 184 e(P)   34 33.50  -2.0
MRA     10.28 172 ePd    34 44.30  -2.9X
PPD     14.99  92 eP     35 47.20  -0.3
                  e      35 50.90
                  e      35 53.10
VAO     18.96  96 eP     36 32.20  -1.3
                  e      36 34.30
                  e      36 35.60
BAO     19.56  74 iPd    36 37.90  -1.8
                  e      37 07.00
                  e      41 42.00
BDF     19.63  74 iPd    36 38.90  -1.5
                  e      41 43.00
SO81    28.61  67 eP     38 03.80  -1.5
BIM     37.04  10 eP     39 17.00  -0.8
MVM     37.11  11 eP     39 17.92  -0.5
FDF     37.24  10 eP     39 18.91  -0.6
CRM     37.30  11 eP     39 15.31  -4.7X
UYO     61.67 335 iPc    42 24.80   0.2
LIC     67.32  73 P      43 00.90  -0.6
        0.3s      5.00nm          4.8mb
TIC     67.52  72 P      43 02.10  -0.7
        0.9s     27.00nm          5.0mb
KIC     67.64  73 Pc     43 02.86  -0.6
        0.4s     22.00nm          5.2mb
ALQ     67.82 326 ePd    43 05.43   1.0
        0.8s      2.55nm          4.1mb
MSU     73.52 325 ePd    43 40.80   2.2
ARUT    73.68 324 iPc    43 42.23   2.8X
BW06    75.40 329 eP     43 50.31   1.0
        0.7s      1.05nm          3.7mb X
TUH     75.46 120 eP     43 57.00   7.3X
        0.5s     23.00nm          5.2mb
WIN     77.04 109 eP     43 57.00  -1.9
        0.5s     23.00nm          5.2mb
POF     77.31 117 eP     44 02.00   2.0
GRM     81.34 122 iPc    44 13.00  -8.6X
        1.0s    120.00nm          5.6mb
PRY     84.38 117 eP     44 37.50   0.1
```

21d 07h

PAB 85.10 44 eP 44 41.00 0.5
BUL 87.92 111 iPd 44 56.40 1.6
1.0s 14.50nm 4.9mb
BCAO 87.98 84 ePc 44 56.00 1.0
0.3s 5.00nm 4.9mb
YKA 92.30 340 eP 45 17.50 3.6X
0.6s 0.70nm 3.9mb
WB2 132.98 209 ePKP 51 21.10 1.3
0.5s 2.60nm
WRA 132.98 209 PKP 51 22.00 2.2X
0.5s 1.00nm
GBA 145.61 98 PKP 51 44.00 1.3
e 54 18.00
HYB 147.74 92 ePKP 51 50.00 3.8X
S.D. = 1.5 on 33 of 43 obs.

MAR 21, 1993 07h 48m 49.26± 0.92s
38.861 N ± 5.0km 70.614 E ± 3.7km
DEPTH = 45.3 ± 9.4 km
4.6mb (44 obs.) 4.2Msz (2 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

KSH 4.21 80 ePn 49 52.50 -0.3
sP 50 06.00
Sg 51 04.00
FRU 5.00 36 iPnc 50 05.50 1.9
eS 51 06.00
PRZ 6.94 56 ePn 50 31.50 0.4
Z 11s 5.70um
E 11s 5.70um
OUE 9.16 200 eP 51 02.40 0.4
eS 52 43.90
MAIO 9.19 257 eP 50 56.00 -6.3X
eS 52 35.00
ASH 9.67 268 eP 51 03.00 -5.8X
KAT 11.17 276 eP 51 24.00 -5.2X
iS 53 42.00
NDI 11.54 150 iP 51 32.00 -2.2
0.5s 28.17nm 5.6mb X
eS 55 38.00
WMQ 13.75 63 eP 52 03.20 -0.4
Z 12s 0.86um
pP 52 10.00
eS 54 36.00
ELT 17.97 32 iPc 52 55.40 -1.7
1.6s 39.00nm 4.3mb
eS 56 12.00
GRS 18.83 280 eP 53 06.00 -2.0
1.1s 30.00nm 4.4mb
SVE 19.13 343 ePd 53 11.00 -0.2
LSA 19.24 112 P 53 12.60 -0.5
1.2s 31.00nm 4.4mb
ARU 19.27 339 eP 53 13.00 0.2
eS 56 38.00
GRO 19.29 291 eP 53 13.00 -0.1
2.0s 240.00nm 5.1mb
N 14s 3.00um
E 16s 2.50um
POO 20.45 171 iPd 53 18.70 -6.9X
UER 20.74 45 ePc 53 28.00 -0.2
1.2s 22.00nm 4.4mb
PYA 21.24 293 eP 53 36.00 2.5
1.0s 100.00nm 5.1mb
Z 14s 1.00um 4.4MszX
i 53 53.00
KIV 21.50 293 (P) 53 31.60 -4.6X
1.0s 31.00nm 4.7mb
Z 16s 0.50um 4.0MszX
HYB 22.46 160 eP 53 46.80 1.0
1.0s 50.00nm 4.9mb
GTA 22.62 79 P 53 48.00 0.7
1.0s 32.00nm 4.7mb
Z 18s 0.57um 4.0Msz
E 10s 0.26um
MOY 24.72 49 eP 54 09.10 1.7
ZAK 25.74 53 iPc 54 17.50 0.5
0.9s 27.00nm 4.8mb
GBA 25.87 165 P 54 18.00 -0.5
LZH 26.44 86 eP 54 24.50 0.7
1.4s 21.00nm 4.5mb
Z 15s 0.39um 4.1MszX
E 13s 0.31um
MOS 27.66 318 eP 54 36.00 1.5
e 54 48.00
e 55 40.00
OBN 27.96 317 eP 54 38.00 0.8
1.0s 24.00nm 4.8mb
e 55 22.00
CD2 28.21 96 eP 54 40.60 0.8
XAN 31.03 87 P 55 05.00 0.1
0.8s 5.50nm 4.4mb
HHC 31.30 73 P 55 07.80 0.5
1.2s 8.00nm 4.4mb
NRI 32.01 12 ePd 55 13.00 0.0
1.4s 13.00nm 4.6mb
e 56 33.00
CIT 32.41 52 eP 55 16.50 -0.3
GYA 32.57 101 P 55 18.60 0.1
TIY 32.64 79 eP 55 19.40 0.4
Z 20s 0.75um 4.4Msz
BOD 33.85 41 iP 55 27.20 -2.0
0.9s 13.00nm 4.8mb
KAF 35.49 326 eP 55 44.20 1.0
NUR 35.75 322 eP 55 44.50 -0.8
OJC 37.27 305 eP 55 58.70 0.4
KSP 39.47 306 eP 56 18.00 1.3
PRU 40.66 305 eP 56 30.00 3.5X
e 56 37.00
VBY 40.86 298 e(P) 56 32.00 3.9X
BRG 40.95 306 iP 56 32.10 3.3X
GEC2 41.35 303 P 56 33.00 0.7
0.9s 0.64nm 3.4mb X
e 56 36.30
e 56 38.30
KHC 41.39 304 eP 56 36.00 3.5X
e 58 15.00
CLL 41.50 307 iP 56 36.30 3.0X
SSE 41.71 85 Pc 56 36.50 1.2
1.0s 11.00nm 4.5mb
YAK 42.26 37 eP 56 35.00 -4.4X
0.8s 30.00nm 5.1mb
NB2 42.33 322 P 56 36.60 -3.5X
0.6s 2.20nm 4.1mb
GRF 42.83 305 ePc 56 46.00 1.7
e 56 48.50
TIK 43.71 23 iPc 56 51.00 0.0
1.8s 18.00nm 4.5mb
e 58 35.00
e 58 36.00
eS 03 20.00
BSF 46.07 303 eP 57 09.90 -0.5
0.6s 3.70nm 4.5mb
HAU 46.32 303 eP 57 11.80 -0.4
0.6s 2.70nm 4.4mb
SBF 46.66 297 eP 57 15.80 0.7
0.6s 7.05nm 4.8mb
LPG 46.68 300 eP 57 15.20 -0.3
0.4s 1.80nm 4.4mb
LPL 46.69 300 eP 57 15.00 -0.4
0.5s 3.30nm 4.5mb
LBF 48.13 302 eP 57 25.50 -1.1
0.6s 2.25nm 4.4mb
LOR 48.13 303 eP 57 25.40 -1.1
0.5s 1.45nm 4.3mb
SMF 48.31 302 eP 57 27.20 -0.7
0.7s 6.05nm 4.7mb
SSF 48.42 303 eP 57 28.70 0.0
0.5s 1.80nm 4.4mb
AVF 48.60 302 eP 57 29.50 -0.6
0.6s 5.95nm 4.8mb
MAF 49.28 302 eP 57 35.30 -0.1
0.6s 4.05nm 4.6mb
TCF 49.50 302 eP 57 36.70 -0.3
0.8s 7.10nm 4.7mb
LDF 50.34 305 eP 57 42.60 -0.8
0.6s 6.05nm 4.8mb
FLN 50.51 306 eP 57 43.80 -0.9
0.6s 5.30nm 4.7mb
GRR 50.86 305 eP 57 46.30 -1.1
0.5s 4.25nm 4.7mb
LFF 50.90 301 eP 57 47.50 -0.2
0.6s 5.30nm 4.7mb
MFF 50.95 303 eP 57 48.00 -0.1
0.7s 3.40nm 4.5mb
MAT 52.40 70 eP 57 58.00 -1.2
1.0s 10.00nm 4.8mb
BCAO 58.24 248 iPd 58 44.10 2.5
0.6s 6.00nm 4.9mb
ILT 61.70 24 eP 59 03.00 -1.6
IMA 69.97 18 eP 59 57.20 -0.4
0.9s 4.17nm 4.4mb
FBA 72.29 16 eP 00 11.06 -0.4
0.8s 2.67nm 4.2mb
KIC 74.64 266 P 00 29.00 3.1X
YKA 78.91 2 eP 00 48.20 -0.7
0.8s 3.00nm 4.3mb
WRA 83.50 122 P 01 14.10 0.4
0.7s 0.60nm 3.8mb
WB2 83.51 122 iPd 01 13.80 0.1
0.4s 7.60nm 5.1mb
S.D. = 1.0 on 63 of 76 obs.

% MAR 21, 1993 08h 04m 51.18± 0.74s
27.960 S ± 7.0km 26.685 E ± 8.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.0 (PRE).

SEK 0.91 114 iPd 05 10.00 0.9
S 05 21.90
BFS 1.06 5 iPc 05 11.60 -0.1
S 05 24.40
BLF 1.23 201 iPd 05 15.70 1.1
S 05 33.50
PRY 1.24 34 eP 05 14.50 -0.4
S 05 32.00
SWZ 1.43 302 iPd 05 19.10 1.1
S 05 37.70
KSR 2.09 5 iPd 05 28.50 1.0
S 05 54.00
SLR 2.64 33 iPc 05 35.20 0.0
S 06 06.00
BFT 3.76 54 eP 05 50.00 -1.3
S 06 32.00
SUR 6.73 228 eP 06 31.00 -2.3
CER 8.34 228 e(P) 06 51.90 -3.7X
S 08 10.00
S.D. = 1.4 on 9 of 10 obs.

% MAR 21, 1993 08h 07m 15.28± 0.65s
28.089 S ± 7.6km 26.794 E ± 9.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.0 (PRE).

SEK 0.77 108 iPd 07 30.60 -0.2
S 07 38.60
BLF 1.15 208 iPc 07 38.90 1.6
S 07 55.50
PRY 1.30 28 eP 07 39.50 -0.5
S 07 56.50
KSR 2.22 2 eP 07 54.00 0.6
S 08 20.50
SLR 2.69 30 eP 08 01.00 0.8
S 08 29.90
BFT 3.76 51 eP 08 15.00 -0.4
S 08 56.00
SUR 6.71 229 e(P) 08 56.00 -1.2
S 10 09.00
CER 8.32 229 e(P) 09 18.90 -0.6
S.D. = 1.1 on 8 of 8 obs.

• MAR 21, 1993 08h 13m 31.62± 1.40s
43.318 N ±11.1km 10.762 E ± 9.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.3 (FIR). ML 2.7 (LDG).

FIR 0.58 38 iPgd 13 43.20 -0.2
iSg 13 52.00
PGF 1.51 240 Pn 13 59.20 0.4
Sn 14 17.30
SBF 2.48 284 Pn 14 13.00 0.3
FRF 3.01 276 Pn 14 20.20 0.0
LMR 3.10 272 Pn 14 21.00 -0.5
LRG 3.21 274 Pn 14 23.20 0.1
TRI 3.21 41 e(P) 14 43.60 20.5X
LPG 3.61 309 Pn 14 28.20 -0.8
LPL 3.63 309 Pn 14 28.60 -0.6
VBY 3.89 54 e(P) 14 47.30 14.6X
HAU 5.62 328 Pn 14 58.70 1.5
CDF 5.65 336 Pn 14 57.10 -0.6
LBF 6.04 310 Pn 15 04.30 1.2
CAF 6.46 287 Pn 15 08.30 -0.9
S.D. = 0.8 on 12 of 14 obs.

% MAR 21, 1993 08h 17m 37.50± 0.63s
37.100 N ± 5.5km 3.536 W ± 5.8km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.9 (MDD).

ECOG 0.18 352 iPgc 17 39.70 -1.9
eSg 17 43.40
EGUA 0.27 185 iPgc 17 42.60 -0.5
eSg 17 47.40
ELUQ 0.74 308 ePg 17 52.00 -0.1
eSg 18 01.60
EHUE 1.04 46 ePg 17 58.50 1.4
eSg 18 11.30
ENIJ 1.07 96 ePg 17 57.00 -0.7
eSg 18 12.20
EBAN 1.08 350 ePg 17 58.00 0.2
eSg 18 12.50
EPRU 1.36 265 ePn 18 06.00 3.4X
eSn 18 24.40
EHOR 1.54 298 ePn 18 06.00 1.0
eSn 18 25.00
EJIF 1.68 248 ePn 18 07.80 0.7
eSn 18 29.80
EVIA 1.74 28 ePn 18 09.30 1.3
eSn 18 30.80
EVAL 2.60 282 ePn 18 20.00 -0.4
eSn 18 50.70
GUD 3.57 352 ePn 18 33.80 -0.4
eSn 19 14.50
ETOR 3.89 17 ePn 18 38.00 -0.7
eSn 19 23.30
S.D. = 1.1 on 12 of 13 obs.

---

* MAR 21, 1993 09h 19m 47.62± 0.75s
6.170 S ±11.8km 142.252 E ± 9.9km
DEPTH = 33.0km (normal)
4.4mb (5 obs.)
NEW GUINEA, PAPUA NEW GUINEA (202)

MDG 3.63 76 e(P) 20 42.50 -0.4
PMG 5.83 124 eP 21 13.50 -0.6
MTN 12.82 238 eP 22 49.00 -1.3
CTA 14.37 165 eP 23 18.00 7.2X
WB2 15.70 209 eP 23 27.60 -0.5
0.9s 8.80nm 3.9mb
eS 26 13.80
BRS 23.36 156 iPc 25 03.20 9.0X
WARB 24.86 215 eP 25 11.00 2.2
0.5s 12.00nm 4.7mb
SSE 42.18 333 Pc 27 38.60 -0.3
1.0s 11.00nm 4.5mb
LZH 55.35 322 eP 29 20.50 -0.5
1.5s 19.00nm 4.9mb
YKA 101.51 27 ePdiff33 38.60 1.3
0.9s 0.30nm 3.9mb
S.D. = 1.4 on 8 of 10 obs.

% MAR 21, 1993 09h 55m 24.88± 1.02s
37.070 N ± 8.8km 3.558 W ± 7.9km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.9 (MDD).

ECOG 0.21 358 iPg 55 28.39 -1.1
eSg 55 30.90
ELUQ 0.75 311 ePg 55 40.02 0.5
eSg 55 50.60
MAL 0.76 244 ePn 55 39.50 -0.3
iSg 55 51.20
ENIJ 1.09 95 iPg 55 45.48 0.2
EBAN 1.11 351 iPgd 55 46.40 0.7
eSg 56 01.30
EPRU 1.34 266 iPnd 55 53.47 3.8X
EJIF 1.65 249 iPn 55 59.46 5.4X
S.D. = 1.0 on 5 of 7 obs.

MAR 21, 1993 10h 01m 40.19± 0.53s
37.046 N ± 5.8km 3.563 W ± 4.9km
DEPTH = 17.9 ± 6.4 km
3.5mb (1 obs.)
SPAIN (377)
mbLg 3.3 (MDD).

EGUA 0.21 180 iPgd 01 45.01 -0.4
MAL 0.75 245 iPnc 01 54.00 -0.4
iSg 02 06.00
ELUQ 0.76 313 iPgd 01 54.75 0.1
eSg 02 05.10
ENIJ 1.09 94 iPgc 01 59.85 -0.4
eSg 02 13.70
EHUE 1.09 45 iPgd 02 00.75 0.5
eSg 02 14.20
EBAN 1.13 351 iPgd 02 00.65 -0.2
eSg 02 15.80
EPRU 1.34 267 iPnc 02 05.49 1.5
eSn 02 23.90
LIJA 1.49 265 eP 02 09.00 2.8X
EHOR 1.55 301 iPnc 02 07.93 0.9
eSn 02 26.30
ALJ 1.68 258 iP 02 16.00 7.0X
EVIA 1.80 28 iPnc 02 10.34 -0.4
eSn 02 31.80
EALH 1.89 64 iPnd 02 13.22 1.3
eSn 02 36.10
PLAT 1.99 243 eP 02 20.00 6.5X
PAB 2.57 346 ePn 02 27.50 5.7X
i(Pg) 02 28.50
eSn 02 58.50
i(Sg) 03 02.70
EVAL 2.59 283 iPnc 02 21.69 -0.4
EPLA 3.60 328 iPnc 02 36.02 -0.4
GUD 3.62 353 iPnd 02 36.14 -0.6
eSn 03 17.80
YKA 66.55 332 eP 12 29.60 -1.2
0.9s 0.30nm 3.5mb
S.D. = 0.9 on 14 of 18 obs.

? MAR 21, 1993 10h 16m 29.69± 7.78s
15.865 N ±115.km 93.463 W ±18.1km
DEPTH = 115.4 ± 15.0 km
3.3mb (1 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

SCX 1.18 42 iP 16 53.50 0.1
iS 17 13.00
OXX 3.35 292 (P) 17 21.00 -0.5
iS 17 48.50
PPM 5.87 304 iP 17 56.00 -0.2
III 6.26 294 iP 18 02.00 0.7
YKA 48.90 347 eP 25 05.30 -0.1
0.7s 0.30nm 3.3mb
S.D. = 0.9 on 5 of 5 obs.

---

* MAR 21, 1993 11h 12m 20.82± 1.32s
2.573 S ± 7.7km 80.530 W ±17.3km
DEPTH = 33.0km (normal)
3.5mb (1 obs.)
NEAR COAST OF ECUADOR (105)

YANA 3.13 39 P 13 09.93 0.5
ANTI 3.16 48 P 13 09.64 -0.4
COTA 3.63 37 P 13 16.88 0.4
CAYA 3.66 44 P 13 16.59 -0.5
ZOBO 18.29 139 eP 16 34.00 -0.5
CNCB 18.77 140 P 16 41.00 0.6
SIV 23.34 126 P 17 38.00 10.7X
YKA 69.84 344 eP 23 29.80 -0.1
0.6s 0.30nm 3.5mb
S.D. = 0.6 on 7 of 8 obs.

---

* MAR 21, 1993 12h 29m 31.64± 1.85s
36.256 N ± 8.0km 27.126 E ±18.0km
DEPTH = 33.0km (normal)
DODECANESE ISLANDS (369)
MD 3.3 (ISK).

YER 1.28 46 ePg 29 54.00 0.6
iSg 30 05.00
IZM 2.14 3 ePn 30 06.00 0.2
ELL 2.30 77 iPn 30 09.00 0.9
KHL 2.81 42 ePn 30 14.00 -1.3
BCK 3.03 66 ePn 30 18.60 0.2
PPCY 4.47 106 eP 30 39.30 0.5
eS 31 24.00
CSS 5.22 103 eP 30 48.20 -1.2
eS 31 42.00
DSI 8.30 122 eP 31 32.60 0.0
SAGI 8.72 132 eP 31 38.70 0.2
eS 33 04.10
MBH 9.17 133 eP 31 44.70 -0.1
S.D. = 0.8 on 10 of 10 obs.

MAR 21, 1993 12h 36m 52.26± 0.73s
43.246 N ± 7.8km 10.828 E ± 4.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

PII 0.52 335 P 37 03.20 0.3
eSg 37 11.10
BDI 0.83 348 Pd 37 08.80 0.4
eSg 37 20.20
CRE 0.90 65 Pd 37 09.70 0.1
PGD 0.90 46 Pc 37 09.50 -0.2
eSg 37 21.00
SFI 1.00 47 Pc 37 11.10 -0.2
eSg 37 25.80
PGF 1.51 243 Pn 37 20.40 0.9
Sn 37 38.90
SBF 2.54 285 Pn 37 33.70 -0.6
FRF 3.06 277 Pn 37 41.10 -0.5
LMR 3.15 273 Pn 37 42.70 -0.2
LRG 3.27 275 Pn 37 44.40 -0.1
S.D. = 0.5 on 10 of 10 obs.

---

* MAR 21, 1993 12h 47m 14.75± 0.32s
18.958 S ± 8.9km 169.317 E ± 8.3km
DEPTH = 273.4km (5 depth phases)
4.8mb (16 obs.)
VANUATU ISLANDS (186)

PVC 1.54 322 iP 47 56.20 0.3
iS 48 25.90
BKM 1.64 321 iPd 47 54.80 -1.8
iS 48 27.50
DZM 4.10 221 iPc 48 21.70 0.3
HNR 13.12 315 ePc 50 14.00 1.3
NOZ 21.01 161 eP 51 38.00 0.1
0.4s 38.00nm 5.2mb
CTA 21.76 263 iP 51 38.00 -7.4X
i 52 27.00
MNG 22.23 168 eP 51 49.30 -0.5
0.3s 31.00nm 5.2mb
STK 28.06 237 eP 52 44.40 1.1
0.5s 1.40nm 3.8mb
e 53 32.40 244kmX
WB2 32.95 262 eP 53 24.70 -1.4
0.3s 6.90nm 4.7mb
eS 58 24.80
WRA 32.96 262 P 53 26.00 -0.2
ASPA 33.27 256 iPd 53 29.10 0.3
0.4s 48.10nm 5.4mb
e 54 16.90 234kmX
MAT 62.54 332 eP 57 12.00 0.1
1.0s 8.00nm 4.3mb
KMI 78.19 302 Pc 58 47.50 1.4
1.0s 40.00nm 5.1mb
ARN 85.79 48 eP 59 25.29 0.6
TTA 86.04 15 eP 59 25.56 0.1
1.0s 3.31nm 4.1mb
YAK 86.60 342 eP 59 28.10 0.1
1.2s 20.00nm 4.9mb
ORV 86.83 46 iPc 59 29.90 0.3
CMB 86.92 48 iPc 59 30.26 0.2
0.9s 11.03nm 4.7mb
pP 00 34.14 266km
ISA 87.25 51 iPc 59 32.19 0.4
0.9s 14.26nm 4.8mb
pP 00 39.67 282km
PEC 87.47 53 iPc 59 32.77 -0.1
0.8s 12.47nm 4.8mb
PLM 87.48 54 iPc 59 33.35 0.3
pP 00 38.04 269km
GSC 88.33 52 eP 59 37.10 0.1
TPNV 89.42 51 eP 59 42.71 0.6
0.7s 12.39nm 4.9mb
FBA 89.79 17 iPc 59 41.06 -1.9
0.9s 6.02nm 4.5mb
RMW 90.33 39 eP 59 46.21 0.3
TUC 91.79 57 iPc 59 53.70 0.7
1.0s 9.72nm 4.7mb
pP 00 59.84 274km
ARUT 91.80 51 (P) 59 53.27 0.2
MSU 93.00 50 eP 59 58.38 -0.3
SRU 94.42 50 eP 00 04.68 -0.4
pP 01 11.55 277km
YKA 100.39 27 ePdiff00 30.20 -1.1
0.8s 1.40nm 4.5mb
LMN 128.21 46 ePKP 05 51.50 1.5
MOX 143.76 336 iPKPc 06 16.50 -2.1
1.4s 17.00nm
VAY 143.95 315 iPKP 06 17.00 -2.2
KHC 144.12 333 PKP 06 18.00 -1.3
1.0s 6.00nm
e 07 11.50
GEC2 144.28 332 PKPc 06 18.30 -1.4
0.9s 6.29nm

21d 13h

e 06 22.50
SKO 144.38 317 iPKP 06 19.40 -0.5
1.1s 78.00nm
GRF 144.67 335 ePKP 06 20.00 -0.2
OHR 145.22 316 iPKP 06 21.30 -0.2
VBY 145.90 327 iPKPc 06 23.10 0.7
WLF 146.52 340 iPKP 06 25.52 2.3
DOU 146.62 342 PKPc 06 25.40 2.0
CDF 147.21 338 iPKPc 06 26.70 2.2
0.8s 10.90nm
BSF 147.87 338 iPKPc 06 28.30 2.7X
0.8s 6.70nm
HAU 147.88 338 iPKPc 06 23.50 -2.0
0.8s 9.40nm
BCAO 148.03 247 iPKPc 06 30.10 3.3X
0.2s 24.00nm
i 07 35.00
FLN 149.14 347 iPKPc 06 31.30 3.9X
0.9s 10.95nm
LDF 149.22 346 iPKPc 06 31.50 4.0X
0.9s 6.20nm
LOR 149.36 340 iPKPc 06 32.20 4.4X
0.8s 9.65nm
LBF 149.57 340 iPKPc 06 32.80 4.6X
0.8s 3.65nm
GRR 149.58 347 iPKPc 06 32.50 4.4X
0.7s 9.70nm
SSF 149.65 341 iPKPc 06 33.00 4.8X
1.0s 14.60nm
LPL 149.83 335 ePKP 06 33.90 5.0X
0.8s 6.30nm
LPG 149.84 335 ePKP 06 34.10 5.1X
0.7s 6.15nm
SMF 149.91 340 iPKPc 06 33.50 4.8X
0.8s 4.15nm
AVF 149.94 341 iPKPc 06 33.10 4.4X
0.8s 3.10nm
LPF 149.96 347 iPKPc 06 33.60 5.0X
0.9s 21.15nm
BGF 150.31 341 iPKPc 06 34.30 5.0X
0.9s 9.00nm
MAF 150.69 341 ePKP 06 35.40 5.5X
TCF 150.74 342 iPKPc 06 35.40 5.4X
0.5s 3.20nm
LSF 150.98 342 iPKPc 06 35.60 5.3X
0.6s 4.80nm
MFF 151.10 345 iPKPc 06 36.10 5.7X
0.6s 2.45nm
PGF 151.17 329 iPKPc 06 36.60 5.8X
0.8s 18.25nm
RJF 151.84 342 ePKP 06 37.00 5.4X
0.5s 2.05nm
LFF 152.40 342 ePKP 06 39.30 6.9X
0.7s 4.65nm
LPO 152.50 341 iPKPc 06 39.50 7.0X
0.6s 2.45nm
S.D. = 1.2 on 42 of 65 obs.

& MAR 21, 1993 12h 50m 26.83s
59.793 N 152.720 W
DEPTH = 82.0km
2.9mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

OPT 0.29 242 iPd 50 38.94 -0.6
eS 50 47.96
INE 0.32 327 ePc 50 39.08 -0.8
eS 50 48.90
INW 0.35 323 ePc 50 39.24 -0.7
eS 50 49.56
AUE 0.55 218 iPd 50 40.77 -0.6
AUL 0.55 222 ePd 50 40.83 -0.6
eS 50 52.37
AUH 0.57 221 ePd 50 40.98 -0.6
eS 50 51.69
AUW 0.57 222 iPd 50 41.00 -0.6
AUI 0.58 218 iPd 50 40.96 -0.7
iS 50 51.86
XLV 0.61 123 eP 50 41.64 -0.3
eS 50 53.02
RS1 0.67 358 iPc 50 42.15 -0.6
eS 50 54.22
RSO 0.67 359 iPc 50 42.13 -0.7
eS 50 54.32
RS2 0.67 358 iPc 50 42.18 -0.6
eS 50 54.33
RDW 0.69 356 iPc 50 42.29 -0.7
eS 50 54.95
RDN 0.72 358 eP 50 42.79 -0.5
eS 50 55.18
PDB 0.74 270 iPd 50 42.54 -0.8
iS 50 54.83
NCT 0.78 352 iPc 50 43.15 -0.7
eS 50 55.80
RDT 0.80 11 eP 50 43.08 -0.9
CNPM 0.80 109 iPc 50 43.19 -0.8
eS 50 55.83
DFR 0.80 1 iPc 50 43.43 -0.6
eS 50 56.30
BRLK 0.93 91 ePc 50 44.65 -0.8
eS 50 58.23
MCNL 1.03 234 iPd 50 45.50 -1.1
eS 50 59.60
SYI 1.20 172 ePd 50 48.01 -0.7
NKA 1.21 37 iPc 50 49.78 1.0
CKL 1.42 7 iPc 50 51.07 -0.6
SPU 1.43 13 iPc 50 51.11 -0.7
CKT 1.44 10 iPc 50 51.17 -0.7
eS 51 09.97
SLKM 1.44 59 eP 50 50.87 -1.0
CKN 1.46 10 iPc 50 51.67 -0.5
BGL 1.48 6 ePc 50 52.03 -0.5
CP2 1.50 9 iPc 50 52.27 -0.5
CPAM 1.49 11 eP 50 52.23 -0.4
CRP 1.51 10 eP 50 51.86 -1.0
eS 51 10.54
SEW 1.68 78 ePc 50 53.91 -1.0
MPA 1.82 66 iPd 50 56.04 -0.8
SUA 1.94 29 eP 50 58.18 -0.4
SVW 1.95 314 eP 50 57.55 -1.2
KDC 2.05 177 eP 50 58.01 -2.0
PTE 2.13 58 eP 50 59.68 -1.4
PMS 2.14 46 P 51 00.50 -0.7
SKT 2.27 14 iPc 51 01.97 -1.1
PWA 2.33 36 P 51 03.90 0.1
PLRM 2.52 43 eP 51 05.13 -1.3
PMR 2.52 43 eP 51 04.85 -1.6
GHO 2.72 42 eP 51 07.93 -1.4
SML 2.95 45 iPc 51 11.00 -1.4
HIN 3.17 76 ePc 51 12.49 -3.0
SCM 3.34 50 eP 51 16.28 -1.6
VLZ 3.44 64 eP 51 16.56 -2.5
CVA 3.56 75 eP 51 18.66 -2.2
KLU 3.76 60 eP 51 20.91 -2.7
TRF 3.85 17 eP 51 24.84 -0.2
RND 4.07 25 eP 51 26.57 -1.5
BALM 5.29 72 eP 51 42.51 -2.6
FBA 5.61 22 eP 51 47.26 -2.2
YKA 18.41 65 eP 54 34.50 -3.1
0.4s 0.30nm 2.9mb
55 obs. associated

% MAR 21, 1993 12h 54m 58.76± 0.52s
26.369 S ± 5.1km 27.454 E ± 5.1km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.1 (PRE).

BPI 0.55 70 iPd 55 09.50 -0.3
S 55 16.50
PRY 0.56 178 eP 55 10.50 0.6
S 55 18.00
KSR 0.71 315 eP 55 12.50 -0.5
S 55 21.00
BFS 0.80 229 iPc 55 15.50 0.7
S 55 25.60
SLR 0.98 50 iPd 55 18.50 0.6
S 55 30.50
SEK 1.95 176 iPc 55 32.60 -0.4
S 55 57.10
SWZ 2.07 247 iPd 55 35.50 0.8
S 56 02.00
BFT 2.43 74 eP 55 40.00 0.1
S 56 11.00
BLF 2.95 202 iPd 55 46.80 -0.5
S 56 20.00
FRS 3.86 209 e(P) 55 59.00 -1.1
SUR 8.33 222 eP 56 59.00 -4.3X
S.D. = 0.7 on 10 of 11 obs.

MAR 21, 1993 13h 04m 15.39± 0.70s
45.216 N ± 4.3km 7.480 E ± 6.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

RSP 0.17 248 P 04 20.10 0.8
S 04 22.72
LSD 0.33 317 P 04 22.63 0.2
S 04 26.80
BHB 0.40 202 P 04 24.28 0.6
S 04 29.86
ORX 0.55 40 P 04 26.75 0.3
S 04 33.80
RRL 0.57 239 P 04 27.30 0.1
S 04 34.71
LPG 0.59 299 Pg 04 26.90 -0.6
Sg 04 34.20
LPL 0.61 300 Pg 04 27.40 -0.4
Sg 04 34.20
PZZ 0.76 201 P 04 29.73 -0.6
S 04 38.47
STV 0.98 187 P 04 33.57 -0.5
S 04 44.78
S.D. = 0.6 on 9 of 9 obs.

MAR 21, 1993 14h 25m 30.40± 0.49s
44.385 N ± 3.9km 7.290 E ± 4.2km
DEPTH = 14.0 ± 4.9 km
NORTHERN ITALY (545)
ML 2.1 (GEN), 1.9 (LDG).

STV 0.14 170 P 25 33.90 -0.4
S 25 35.79
PZZ 0.18 312 P 25 35.38 0.4
S 25 38.35
ROB 0.43 102 P 25 39.42 0.2
S 25 45.35
BHB 0.46 358 P 25 39.45 -0.3
S 25 45.53
IMI 0.64 138 P 25 42.51 -0.4
S 25 50.80
FIN 0.68 105 P 25 43.48 -0.1
S 25 52.67
PCP 0.91 80 P 25 48.14 0.6
S 26 00.23
FRF 0.95 210 Pg 25 47.80 -0.2
Sg 25 59.50
LRG 1.15 216 Pg 25 52.00 0.5
Sg 26 06.40
LMR 1.19 209 Pg 25 52.30 0.0
Sg 26 06.80
LPL 1.20 341 Pg 25 52.10 -0.4
S.D. = 0.5 on 11 of 11 obs.

MAR 21, 1993 14h 34m 07.33± 1.15s
33.534 S ± 8.0km 70.549 W ± 8.5km
DEPTH = 75.0 ± 12.9 km
CHILE-ARGENTINA BORDER REGION (127)
MD 4.0 (SAN).

PCH 0.09 161 iPd 34 18.69 0.1
iS 34 28.08
SAN 0.12 311 iP 34 18.49 -0.1
iS 34 27.89
FCH 0.30 46 iP- 34 19.72 0.1
iS 34 30.64
TACH 0.35 250 iP+ 34 19.77 0.2
PEL 0.41 344 iP+ 34 20.21 0.2
iS 34 30.83
CHCH 0.41 192 iPd 34 20.38 0.3
iS 34 30.98
CACH 0.58 184 iPd 34 22.17 0.4
iS 34 34.61
ROCH 0.68 325 iPd 34 22.33 -0.5
iS 34 35.26
LNV 0.83 239 iP+ 34 23.55 -0.7
iS 34 37.09
JACH 0.85 358 iPd 34 24.28 -0.4
iS 34 38.22
LCCH 0.85 274 iP+ 34 24.38 -0.2
iS 34 38.42
RTCV 2.38 46 ePc 34 44.40 -0.6
RTCB 2.52 36 eP 34 46.50 -0.5
S 35 17.00
CFA 2.74 46 ePd 34 49.00 -0.9
S 35 21.40
RTRS 3.48 16 e(P) 35 02.40 2.2
S.D. = 0.8 on 15 of 15 obs.

% MAR 21, 1993 14h 37m 05.82± 0.67s
44.406 N ± 5.1km 6.475 E ±17.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.8 (LDG).

FRF 0.85 172 Pg 37 22.10 -0.2
Sg 37 32.30
CDR 0.89 215 eP 37 22.80 -0.1
e 37 32.80
LRG 0.96 185 Pg 37 24.50 0.5
Sg 37 36.70
LMR 1.07 179 Pg 37 25.80 -0.2
Sg 37 39.50
LPG 1.11 10 Pn 37 26.80 0.0
LPL 1.12 9 Pg 37 27.10 0.0
S.D. = 0.3 on 6 of 6 obs.

? MAR 21, 1993 14h 47m 33.01± 2.75s
35.969 S ±24.2km 179.226 E ±26.8km
DEPTH = 187.0 ± 16.1 km
4.9mb (2 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 1.79 204 P 48 07.60 -1.0
PUZ 2.24 200 P 48 13.40 -0.1
eS 48 53.50
NOZ 2.81 199 P 48 20.40 0.3
KUZ 2.93 254 P 48 20.90 -0.7
PAHZ 3.36 210 eP 48 28.90 2.0
WLZ 3.47 236 eP 48 29.90 1.7
eS 49 23.30
TTH 4.04 207 eP 48 36.10 0.7
MNG 5.50 211 P 48 53.40 -0.8
S 50 06.00
MTW 5.95 208 P 48 59.20 -0.9
CAW 6.08 211 P 49 00.70 -1.1
ASPA 40.86 275 iPd 54 58.80 0.8
0.4s 17.40nm 5.0mb
WB2 42.35 280 eP 55 09.00 -1.2
0.5s 18.70nm 4.9mb
BCAO 143.92 214 iPKPd 06 48.60 0.5
0.5s 8.00nm
LIC 150.14 171 PKP 07 06.50 8.5X
KIC 150.31 172 PKP 07 06.80 8.5X
TIC 150.56 171 PKP 07 07.70 9.0X
S.D. = 1.2 on 13 of 16 obs.

MAR 21, 1993 16h 55m 35.13± 0.97s
38.208 S ± 6.0km 175.739 E ± 5.4km
DEPTH = 228.6 ± 10.0 km
NORTH ISLAND, NEW ZEALAND (159)

MOZ 0.79 248 P 56 06.90 -0.1
WHH 0.90 139 P 56 06.80 -0.9
NGZ 0.97 186 P 56 07.90 -0.3
CNZ 1.00 189 P 56 08.30 0.0
URZ 1.08 93 P 56 07.40 -1.2
S 56 28.30
PAHZ 1.22 123 P 56 09.40 -0.2
MOH 1.44 130 P 56 11.50 0.3
KUZ 1.46 359 P 56 11.70 0.4
WAHZ 1.56 162 P 56 12.40 0.1
TTH 1.58 148 P 56 12.90 0.6
BSZ 1.71 201 P 56 14.10 0.7
NOZ 1.85 103 P 56 15.00 0.3
MAHZ 1.94 121 P 56 16.20 0.6
TEHZ 1.96 155 P 56 16.20 0.4
PUZ 1.99 87 P 56 15.80 -0.3
S 56 41.80
HBZ 2.12 74 P 56 17.60 0.3
MNG 2.42 185 P 56 20.40 0.1
S 56 50.10
PGZ 2.44 170 Pc 56 20.70 0.1
KIW 2.73 193 P 56 23.70 0.0
CAW 2.94 190 P 56 26.00 -0.1
DIW 2.95 208 P 56 26.50 0.4
MTW 2.95 183 P 56 25.80 -0.4
MRW 3.12 194 P 56 28.10 0.0
S 57 04.70
BLW 3.16 184 P 56 28.40 -0.2
WEL 3.16 193 P 56 28.70 0.2
S 57 06.30
MOW 3.23 187 P 56 29.00 -0.4
QRZ 3.61 223 eP 56 33.80 0.1
S 57 17.10
THZ 4.17 211 eP 56 41.20 0.7
eS 57 29.60
KHZ 4.53 201 P 56 45.30 0.4
S 57 34.90
DSZ 4.65 219 P 56 46.40 -0.1
LTZ 5.28 209 eP 56 53.90 -0.5
S 57 51.80
MQZ 5.97 202 P 57 02.20 -0.8
S 58 05.60
S.D. = 0.5 on 32 of 32 obs.

* MAR 21, 1993 17h 09m 39.01± 0.90s
8.707 S ±10.1km 129.520 E ±16.9km
DEPTH = 33.0km (normal)
4.5mb (3 obs.)
TIMOR SEA (290)

MTN 4.41 159 eP 10 44.70 -0.7
0.3s 260.00nm
e 10 54.50
eS 11 37.00
KUG 6.01 256 eP 11 24.00 16.0X
WB2 12.11 158 eP 12 25.70 -6.6X
0.5s 19.30nm 5.5mb X
MBL 15.51 216 eP 13 18.00 1.0
WARB 17.60 189 eP 13 42.00 -1.4
CTA 19.74 127 eP 14 10.00 0.8
STK 25.64 156 eP 15 08.20 0.8
0.7s 2.10nm 3.8mb
eS 19 57.60
MAT 45.74 10 eP 17 58.00 -1.1
1.0s 7.00nm 4.5mb
YAK 70.51 0 iPd 20 52.70 0.6
0.9s 26.00nm 5.3mb
CNCB 149.30 146 PKP 29 31.00 7.8X
ZOBO 149.64 145 PKP 29 32.70 8.9X
S.D. = 1.2 on 7 of 11 obs.

MAR 21, 1993 17h 56m 24.09± 0.55s
41.163 N ± 7.0km 21.996 E ± 3.9km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (SKO).

GRG 0.37 124 ePg 56 32.00 0.3
VAY 0.46 70 iPg 56 33.60 0.1
iSg 56 41.00
FNA 0.60 231 ePg 56 36.32 0.0
eSg 56 44.30
KNT 0.68 90 ePg 56 37.56 0.0
eSg 56 47.44
OHR 0.91 267 ePg 56 41.30 -0.2
eSg 56 55.30
SKO 0.91 333 ePg 56 41.70 0.2
0.7s 37.00nm
iSg 56 52.70
Lg 56 54.70
SOH 1.08 108 ePg 56 44.72 0.2
SRS 1.21 92 ePb 56 45.92 -0.7
S.D. = 0.4 on 8 of 8 obs.

* MAR 21, 1993 18h 22m 49.95± 1.22s
17.977 S ± 6.7km 168.015 E ± 8.4km
DEPTH = 17.2 ± 8.8 km
4.9mb (12 obs.)
VANUATU ISLANDS (186)

PVC 0.37 50 iPc 22 57.00 -0.7
BKM 0.38 35 iP 22 58.20 0.4
iS 23 13.00
DZM 4.33 200 iPc 23 55.00 -1.6
iS 24 43.10
HNR 11.55 316 P 25 30.00 -7.2X
BRS 16.88 234 iP 26 49.00 1.9
ARMA 19.38 227 eP 27 20.10 2.0
0.3s 7.00nm 4.4mb
RMQ 19.72 241 iPc 27 21.90 0.1
0.4s 22.00nm 4.8mb
CTA 20.68 261 iPc 27 31.00 -0.7
1.0s 15.00nm 4.3mb
PMG 21.96 290 eP 27 38.00 -6.8X
MNG 23.46 166 eP 27 59.20 -0.2
e 28 05.40
QLP 23.58 244 iPc 28 00.90 0.3
PGZ 23.66 164 eP 28 01.40 0.2
CNB 23.93 220 iPc 28 05.40 1.4
0.5s 38.00nm 5.2mb
epP 28 15.60 38kmX
BWA 23.96 223 eP 28 03.40 -0.9
e 28 14.20
i 28 27.70
MTW 23.98 166 eP 28 03.50 -0.9
THZ 24.07 171 P 28 05.80 0.5
CAN 24.16 221 eP 28 07.20 1.0
e 28 13.40
i 28 18.30
i 28 32.10
CMS 24.17 232 eP 28 06.50 0.2
0.4s 8.00nm 4.6mb
LTZ 24.99 173 P 28 13.90 -0.3
MDG 25.14 298 e(P) 28 15.50 -0.3
STK 27.58 235 iPc 28 37.60 -0.6
0.5s 6.90nm 4.6mb
e 28 47.40
TOO 27.77 221 eP 28 39.80 -0.1
WB2 31.87 261 iPd 29 13.20 -3.4X
0.6s 8.50nm 4.8mb
ASPA 32.33 254 iPc 29 17.90 -2.7X
0.8s 43.40nm 5.4mb
MBL 45.38 258 eP 31 06.00 -3.5X
MEEK 46.28 250 eP 31 15.00 -1.6
NANU 49.25 255 eP 31 38.00 -1.8
PCI 50.25 284 ePc 31 39.00 -8.6X
LEM 59.80 273 iPc 32 56.50 -0.7
MAT 61.10 333 eP 33 08.00 2.6X
SPA 72.13 180 iPd 34 13.60 -1.8
1.1s 29.76nm 5.3mb
BJI 75.23 321 eP 34 29.50 -4.0X
KMI 76.62 302 eP 34 46.00 4.0X
1.5s 50.00nm 5.4mb
CHTO 77.07 295 eP 34 43.30 -1.0
LZH 81.02 312 eP 35 06.00 0.3
1.5s 16.00nm 4.8mb
pP 35 10.00 13kmX
YAK 85.31 343 eP 35 24.20 -2.5
1.8s 35.00nm 5.3mb
NVL 89.95 188 eP 35 48.00 -1.2
GBA 94.65 283 P 36 11.00 -0.7
KAF 128.46 338 ePKP 41 54.00 -2.9X
NUR 130.13 337 iPKP 41 57.90 -2.2
0.4s 3.10nm
NB2 133.93 345 PKP 42 04.50 -3.0
0.7s 1.70nm
BRG 141.23 334 e(PKP) 42 22.00 0.8
KHC 142.68 332 ePKP 42 20.50 -3.4X
e 42 25.00
e 43 35.50
GEC2 142.84 332 PKP 42 18.10 -6.2X
1.0s 0.94nm
e 42 21.30
e 42 25.20
GRF 143.26 335 ePKP 42 20.00 -4.9X
KBA 144.28 330 ePKP 42 22.00 -4.9X
VBY 144.41 326 iPKP 42 23.90 -3.0X
VOY 144.75 328 iPKP 42 24.20 -3.4X
SNF 145.03 342 PKP 42 25.10 -2.7
WLF 145.18 339 iPKPc 42 26.31 -1.7
DOU 145.30 341 PKPc 42 25.80 -2.5
OGA 145.51 332 iPKPc 42 27.70 -1.3
0.8s 15.00nm
CDF 145.83 337 ePKP 42 27.50 -1.9
0.6s 14.25nm
SLE 145.89 335 ePKPd 42 27.50 -1.9
OSS 146.04 332 ePKPd 42 28.70 -1.2
LLS 146.40 334 ePKPd 42 29.60 -0.9
VDL 146.49 333 ePKPd 42 30.10 -0.6
BSF 146.50 337 ePKP 42 29.30 -1.2
0.9s 8.70nm
HAU 146.51 337 ePKP 42 29.50 -0.9
0.6s 9.40nm
TMA 147.05 333 iPKPd 42 31.20 -0.3
BCAO 147.25 249 iPKPc 42 33.00 0.4
1.0s 35.00nm
i 42 44.00
MMK 147.48 334 ePKPd 42 33.10 0.8
DIX 147.69 334 ePKPd 42 33.70 1.0
ORX 147.81 333 PKP 42 32.31 -0.4
EMS 147.89 335 ePKPd 42 33.70 0.8
FLN 147.90 346 ePKP 42 32.80 0.3
0.9s 13.25nm
LDF 147.97 345 ePKP 42 33.10 0.4
0.8s 7.10nm
LOR 148.02 339 ePKP 42 33.60 0.8
0.9s 18.35nm
LBF 148.22 339 ePKP 42 34.20 1.0

```
     0.8s     13.15nm
LSD    148.30 334 PKP    42 35.19    1.5
SSF    148.31 340 ePKP   42 34.60    1.3
     0.8s     25.80nm
GRR    148.34 346 ePKP   42 34.20    1.0
     0.9s     14.10nm
PCP    148.41 331 PKP    42 34.32    0.7
LPL    148.42 334 ePKP   42 35.30    1.5
     0.7s     12.25nm
LPG    148.43 334 ePKP   42 35.50    1.6
     0.6s     12.25nm
RSP    148.50 333 PKP    42 34.64    0.8
SMF    148.56 339 ePKP   42 35.00    1.3
     0.8s      9.25nm
AVF    148.60 340 ePKP   42 34.80    1.1
     0.8s      8.20nm
LPF    148.72 346 ePKP   42 35.40    1.5
     0.6s     12.70nm
BHB    148.74 333 PKP    42 34.50    0.4
FIN    148.82 331 PKP    42 34.18   -0.1
RRL    148.88 334 PKP    42 36.33    1.7
ROB    148.91 332 PKP    42 35.51    1.1
BGF    148.97 340 ePKP   42 36.10    1.7
     0.7s     14.45nm
PZZ    149.08 333 PKP    42 35.97    1.2
STV    149.19 332 PKP    42 35.46    0.6
IMI    149.20 331 PKP    42 36.52    1.6
SURF   149.23 333 PKP    42 37.89    2.8X
SAOF   149.29 332 PKP    42 36.74    1.8X
AUTN   149.34 332 PKP    42 37.35    2.0X
MAF    149.36 340 ePKP   42 37.30    2.3X
     0.9s      7.70nm
TOUF   149.41 332 PKP    42 37.35    2.0X
TCF    149.42 340 ePKP   42 37.20    2.1X
     0.9s     16.05nm
SBF    149.44 332 PKP    42 37.11    1.9X
AURF   149.47 332 PKP    42 37.35    2.0X
SSB    149.48 337 PKP    42 39.26    4.0X
LSF    149.66 341 ePKP   42 37.60    2.2X
     0.9s     19.50nm
PGF    149.70 328 PKP    42 38.08    2.4X
CALN   149.77 332 PKP    42 38.32    2.5X
MFF    149.82 344 ePKP   42 38.10    2.5X
     0.9s     23.10nm
RJF    150.51 340 ePKP   42 40.00    3.3X
     0.9s     14.40nm
CAF    150.67 339 ePKP   42 40.50    3.5X
     0.9s      8.20nm
LFF    151.08 341 ePKP   42 41.30    3.8X
     0.7s     17.40nm
LPO    151.17 340 ePKP   42 41.60    3.9X
     0.6s     13.70nm
EPF    152.93 340 ePKP   42 45.40    5.0X
     0.9s      7.20nm
    S.D. = 1.3  on  71 of 105 obs.
-----------------------------------------
% MAR 21, 1993  19h 44m 01.05± 2.33s
  44.851 N ± 6.8km     6.704 E ±20.8km
  DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
     ML 1.9 (GEN).

RRL      0.09  40 P      44 03.90    0.0
                  S      44 06.18
BHB      0.40  91 P      44 09.21    0.0
                  S      44 15.48
PZZ      0.45 141 P      44 10.17    0.0
                  S      44 16.76
LSD      0.69  28 P      44 14.77    0.0
STV      0.75 144 P      44 15.85    0.0
    S.D. = 0.1  on   5 of   5 obs.
-----------------------------------------
  MAR 21, 1993  19h 48m 27.95± 0.51s
  26.388 S ± 4.7km    27.363 E ± 5.1km
  DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
     ML 3.4 (PRE).

PRY      0.55 170 eP     48 38.50   -0.4
                  S      48 45.00
BPI      0.64  71 eP     48 41.10    0.4
                  S      48 49.60
KSR      0.67 321 eP     48 41.50    0.1
                  S      48 50.50
BFS      0.73 225 iPd    48 42.90    0.4
                  S      48 52.50
SLR      1.05  52 iPc    48 48.50    0.2
                  S      49 01.50
SEK      1.94 173 iPd    49 02.00   -0.1
                  S      49 25.50
SWZ      1.99 246 eP     49 03.60    0.9
                  S      49 27.70
BFT      2.51  74 iPc    49 10.90    0.6
                  S      49 36.00
BLF      2.90 201 iPc    49 15.00   -0.8
                  S      49 48.00
GRM      6.94 185 eP     50 08.50   -4.3X
                  S      51 22.00
SUR      8.26 222 eP     50 27.00   -4.5X
CER      9.86 223 e(P)   50 48.00   -5.5X
                  S      52 36.00
WIN     10.09 290 eP     50 52.90   -3.9X
                  S      52 37.00
LSZ     11.08   4 iPn    51 09.00   -1.3
                  iSn    53 06.00
                  iSg    54 14.00
    S.D. = 0.8  on  10 of  14 obs.
-----------------------------------------
? MAR 21, 1993  20h 23m 07.30± 1.24s
  24.192 S ±35.1km    67.224 W ±11.2km
  DEPTH = 211.8 ± 12.5 km
 CHILE-ARGENTINA BORDER REGION     (127)

SLA      1.66 109 iPd    23 44.00    0.0
HJA      1.93  60 ePd    23 46.30    0.0
ANT      2.96 279 iP     23 57.50    0.0
                  iS     24 34.30
BAO     19.97  68 eP     27 25.00   -0.2
BDF     20.03  69 eP     27 26.00    0.2
    S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
& MAR 21, 1993  20h 29m 59.10s
  40.295 N            124.582 W
  DEPTH =   5.0km  (geophysicist)
 NEAR COAST OF NORTHERN CALIF.    ( 35)
       <BRK>. ML 3.2 (BRK).

FOX      0.50  63 iPc    30 09.60    0.4
                  iS     30 17.71
EKR      0.52  40 iPc    30 10.33    0.8
                  iS     30 18.75
FHC      0.68  42 iPc    30 12.73    0.0
                  iS     30 21.61
ARC      0.70  33 ePd    30 12.86   -0.2
                  eS     30 22.65
WDC      1.58  79 eP     30 24.70   -3.2
LBFM     2.30  62 eP     30 36.22   -2.2
ORV      2.48 106 eP     30 37.72   -3.1
                  iS     31 07.12
         7 obs. associated
-----------------------------------------
  MAR 21, 1993  20h 54m 35.97± 0.83s
  45.089 N ± 6.7km    10.487 E ± 7.3km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.8 (VIE), 2.5 (LDG).

TMA      1.52 312 ePd    55 03.20   -0.2
VDL      1.57 333 iPd    55 03.90   -0.2
OSS      1.62 352 ePd    55 05.30    0.5
OGA      1.82  12 ePn    55 09.00    1.3
MMK      2.02 299 P      55 13.10    2.5X
WTTA     2.32  20 iP     55 14.60   -0.3
                  iPg    55 16.30
                  iSg    55 47.40
DIX      2.38 296 Pd     55 19.30    3.4X
TRI      2.39  74 ePg    55 42.30   26.5X
                  eSg    55 52.00
SBF      2.50 242 Pn     55 18.60    1.1
VOY      2.57  67 e(Pn)  55 22.60    4.1X
                  eSn    55 46.60
PGF      2.76 203 Pn     55 20.70   -0.4
                  Sn     55 54.70
KBA      2.81  44 iPnd   55 21.30   -0.7
                  i      56 02.60
                  i      56 09.60
BSF      3.75 318 Pn     55 35.30    0.1
                  Sn     56 14.30
CDF      3.99 328 Pn     55 39.40    0.9
                  Sn     56 19.80
HAU      4.08 317 Pn     55 38.00   -1.8
                  Sn     56 23.80
KHC      4.56  26 eP     56 04.00   17.4X
                  e      56 20.00
                  e      56 48.00
                  eSg    57 09.00
SMF      4.90 291 Pn     55 50.50   -0.9
                  Sn     56 44.10
LBF      4.91 295 Pn     55 51.90    0.3
                  Sn     56 44.90
LOR      5.09 298 Pn     55 54.40    0.3
                  Sn     56 48.20
    S.D. = 0.9  on  14 of  19 obs.
-----------------------------------------
  MAR 21, 1993  21h 06m 52.88± 0.35s
  43.640 N ± 4.7km    16.824 E ± 4.5km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      MD 3.7 (TRI). ML 3.6 (TTG), 3.3
      (VIE). Felt at Sinj, Imotski and
      Makarska, Croatia.

HVAR     0.54 211 iPgd   07 03.20   -0.5
                  iSg    07 11.60
BRY      1.46 120 iPgc   07 17.62   -1.7
                  iSg    07 39.42
HCY      1.71 134 iPnc   07 22.12   -0.8
                  iSn    07 46.60
NKY      1.79 117 iPnc   07 24.24    0.1
                  iSn    07 50.40
PLE      1.90  99 iPnd   07 26.40    0.7
                  iSn    07 53.97
BDV      2.00 132 iPnd   07 26.90   -0.2
                  iSn    07 53.65
VBY      2.18 330 iPn    07 30.40    0.8
                  iSn    07 58.20
ZAG      2.26 345 e(Pn)  07 31.00    0.2
                  iSn    08 01.50
PTJ      2.34 345 Pn     07 32.10    0.0
                  Sn     08 05.40
IVA      2.37 108 iPnd   07 33.36    0.8
                  iSn    08 05.02
RIY      2.44 315 iPnc   07 33.90    0.6
                  iSn    08 09.70
ULC      2.45 132 ePn    07 33.17   -0.4
                  iSn    08 04.85
PVY      2.53 113 iPnd   07 35.89    1.1
                  iSn    08 08.27
CEY      2.71 322 ePn    07 38.10    0.9
                  eSn    08 13.50
LJU      2.90 327 ePn    07 40.90    0.9
                  eSg    08 29.50
TRI      3.01 315 ePn    07 41.30   -0.1
                  ePb    07 48.90
                  iPg    07 50.60
                  eSn    08 22.50
                  e(Sb)  08 35.20
                  iSg    08 39.70
VOY      3.17 320 iPnd   07 44.50    0.6
                  e      08 17.00
                  eSn    08 24.00
SKO      3.78 115 ePn    07 55.20    2.7X
                  i      08 56.20
OHR      3.88 129 ePn    07 55.00    1.1
BZS      3.95  58 eP     07 53.00   -1.8
KBA      4.22 326 iPnc   07 59.00    0.1
                  id     07 59.20
                  iSn    08 53.00
                  i      09 12.20
VAY      4.84 117 ePn    08 08.40    0.9
WTTA     5.14 317 iPnd   08 11.50   -0.4
                  iSn    09 11.90
OGA      5.21 310 iPc    08 17.60    4.7X
GEC2     5.64 339 Pn     08 17.40   -1.4
                  Sn     09 20.10
PGF      5.83 262 Pn     08 21.20   -0.4
KHC      5.93 339 Pn     08 21.50   -1.4
                  e      08 37.00
                  Sg     09 28.40
PRU      6.54 347 eP     09 05.00   33.5X
                  eSg    09 54.00
SBF      6.80 275 Pn     08 32.20   -3.0X
                  Sn     09 47.80
GRF      7.17 329 ePg    08 37.00   -3.3X
                  e(Sg)  09 58.00
FRF      7.39 273 Pn     08 40.60   -2.8X
LPG      7.43 288 Pn     08 40.00   -4.2X
                  Sn     10 01.50
LPL      7.45 288 Pn     08 41.00   -3.4X
                  Sn     10 02.00
LMR      7.51 271 Pn     08 43.50   -1.5X
```

LRG 7.61 272 Pn 08 45.00 -1.4X
BSF 8.17 304 Pn 08 51.70 -2.7X
Sn 10 21.10
CDF 8.18 309 Pn 08 51.00 -3.5X
Sn 10 19.30
HAU 8.52 304 Pn 08 56.50 -2.7X
Sn 10 29.40
LBF 9.65 295 Pn 09 10.80 -4.0X
Sn 10 55.00
SMF 9.65 293 Pn 09 11.10 -3.7X
Sn 10 55.00
LOR 9.81 296 Pn 09 13.00 -3.9X
Sn 10 59.70
AVF 10.01 293 Pn 09 15.90 -3.9X
BGF 10.31 291 Pn 09 19.80 -4.0X
Sn 11 09.10
S.D. = 0.9 on 25 of 43 obs.

% MAR 21, 1993 21h 50m 09.59± 2.57s
44.843 N ± 7.1km 6.668 E ±22.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.8 (GEN).

RRL 0.11 47 P 50 12.79 0.1
S 50 15.03
BHB 0.42 90 P 50 18.21 0.0
S 50 24.27
PZZ 0.46 137 P 50 19.02 0.1
S 50 25.60
LSD 0.71 29 P 50 23.63 -0.1
STV 0.76 142 P 50 24.43 -0.1
S.D. = 0.1 on 5 of 5 obs.

% MAR 21, 1993 22h 17m 52.18± 0.61s
40.432 N ± 6.9km 28.042 E ± 5.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

BNT 0.12 231 iPg 17 55.70 0.5
EDC 0.16 238 iPg 17 55.50 -0.4
iSg 17 58.00
KCT 0.30 127 iPg 17 58.20 -0.3
eSg 18 02.20
CTT 0.77 22 iPg 18 07.20 0.0
eSg 18 17.20
ISK 1.00 50 iPg 18 10.70 -0.4
iSg 18 24.20
YLV 1.02 82 ePg 18 11.70 0.1
eSg 18 25.20
HRT 1.30 72 ePn 18 16.70 0.5
EYL 1.62 85 ePn 18 21.00 0.0
S.D. = 0.4 on 8 of 8 obs.

MAR 21, 1993 22h 37m 23.47± 0.74s
26.371 S ± 5.8km 27.479 E ± 8.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.2 (PRE). mbLg 3.0 (BUL).

PRY 0.56 181 eP 37 34.00 -0.6
S 37 40.50
KSR 0.73 314 iPd 37 38.50 0.5
SLR 0.96 49 iPc 37 42.30 0.0
S 37 55.00
SEK 1.95 176 iPc 37 58.20 0.5
S 38 22.30
BFT 2.41 74 iPd 38 05.00 0.6
S 38 34.00
BUL 6.29 10 iPn 38 58.30 -1.0
iSn 40 05.30
iSb 40 19.00
iSg 40 37.60
SUR 8.35 223 iPd 39 24.00 -4.2X
S 40 49.90
S.D. = 0.9 on 6 of 7 obs.

? MAR 21, 1993 22h 48m 23.33± 2.11s
5.676 S ±19.1km 148.103 E ±29.0km
DEPTH = 203.1 ± 8.8 km
4.1mb (2 obs.)
NEW BRITAIN REGION, P.N.G. (192)

FINC 0.97 195 eP 48 53.10 -0.3
YYYY 2.20 255 iPc 49 05.60 1.0
MDG 2.35 280 iPc 49 05.50 -0.6
PMG 3.82 194 iPd 49 29.50 6.0X
CTA 14.44 187 eP 51 50.00 10.2X
MTN 18.19 246 eP 52 21.00 -2.6X
WB2 19.49 222 iPd 52 37.30 0.3
0.5s 79.40nm 5.5mb X
eS 56 00.10
STK 26.77 192 eP 53 51.10 4.8X
1.0s 1.90nm 3.8mb
WARB 28.92 223 eP 54 06.50 0.9
MBL 31.42 238 eP 54 26.00 -1.6
LZH 58.69 319 eP 58 02.50 0.4
1.5s 16.00nm 4.5mb
GEC2 122.26 326 PKP 06 59.80 4.2X
0.7s 0.58nm
S.D. = 1.3 on 7 of 12 obs.

% MAR 21, 1993 22h 58m 57.67± 4.25s
44.107 N ±15.6km 8.722 E ±26.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.38 286 P 59 05.62 0.1
S 59 09.97
PCP 0.45 344 P 59 06.90 0.0
S 59 12.50
IMI 0.63 252 P 59 10.38 0.0
S 59 18.50
ROB 0.64 287 P 59 09.84 -0.7
S 59 17.38
STV 1.02 278 P 59 17.45 0.5
S 59 29.02
PZZ 1.23 289 P 59 20.63 0.0
S 59 34.73
BHB 1.28 306 P 59 21.55 0.2
S 59 36.16
S.D. = 0.5 on 7 of 7 obs.

MAR 21, 1993 23h 55m 49.52± 0.62s
41.903 N ± 7.8km 20.950 E ± 5.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (SKO), 2.6 (TTG).

SKO 0.37 79 iPgd 55 57.10 -0.1
0.3s 79.00nm
iSg 56 03.50
OHR 0.80 188 iPg 56 04.20 -0.9
1.1s 294.00nm
iSg 56 16.60
Lg 56 19.70
PVY 1.00 314 iPgd 56 06.79 -1.8
iSg 56 20.40
IVA 1.24 322 iPgc 56 11.67 -1.0
iSg 56 28.08
ULC 1.27 273 iPgd 56 12.97 -0.1
iSg 56 30.84
VAY 1.35 115 iPn 56 14.70 0.4
0.4s 62.00nm
iSg 56 33.30
Lg 56 35.40
TTG 1.36 293 iPgd 56 13.78 -0.7
iSg 56 32.63
BDV 1.62 284 iPgc 56 18.98 0.7
iSg 56 42.05
NKY 1.71 303 iPgd 56 19.95 0.3
iSg 56 43.98
PLE 1.83 322 iPnd 56 22.35 1.0
iSn 56 46.93
HCY 1.90 287 iPnd 56 23.88 1.6
iSn 56 48.88
BRY 2.04 300 iPnd 56 25.07 0.6
iSn 56 52.29
S.D. = 1.1 on 12 of 12 obs.

? MAR 22, 1993 01h 20m 19.76± 1.89s
21.301 S ±15.2km 68.323 W ±25.7km
DEPTH = 167.7 ± 17.8 km
3.9mb (1 obs.)
CHILE-BOLIVIA BORDER REGION (124)

YJA 2.76 109 iPd 21 04.30 -1.6
S 21 35.00
HJA 3.31 126 ePc 21 13.50 1.3
S 21 49.00
CNC8 4.48 4 iPc 21 28.10 0.2
S 22 18.00
LPB 4.75 3 P 21 31.20 -0.1
ZOBO 4.99 2 iPc 21 34.80 0.1
SIV 8.67 54 P 22 23.40 0.4
YKA 91.18 340 eP 33 06.00 -0.2
0.7s 0.80nm 3.9mb
S.D. = 1.2 on 7 of 7 obs.

---

* MAR 22, 1993 02h 27m 52.77± 1.35s
18.195 N ±10.1km 100.753 W ±12.6km
DEPTH = 33.0km (normal)
3.1mb (1 obs.)
GUERRERO, MEXICO (59)

III 1.23 81 iP 28 14.00 0.0
iS 28 26.00
MRX 1.56 345 iP 28 27.50 9.0X
(S) 28 51.00
ACX 1.57 147 iP 28 19.00 0.3
iS 28 33.00
CRX 1.58 40 (P) 28 38.00 18.9X
UNM 1.87 52 (P) 28 29.00 5.7X
PPM 2.19 66 iP 28 28.00 -0.1
(S) 28 52.00
IIA 2.20 64 eP 28 28.50 0.8
iS 28 44.00
IISM 3.30 76 iP 28 43.00 -0.3
(S) 29 07.00
OXX 4.00 105 (P) 28 53.00 -0.5
YKA 45.30 351 eP 36 08.80 -0.2
0.4s 0.10nm 3.1mb
WB2 128.09 259 iPKPd 47 05.10 7.1X
0.3s 3.80nm
S.D. = 0.5 on 7 of 11 obs.

MAR 22, 1993 02h 47m 42.09± 0.57s
24.948 S ± 4.7km 69.032 W ± 8.6km
DEPTH = 120.9 ± 8.6 km
4.3mb (1 obs.)
NORTHERN CHILE (123)

ANT 1.77 314 iPc 48 12.80 -0.3
iS 48 35.80
SLA 3.22 87 ePc 48 32.80 0.6
HJA 3.74 63 ePc 48 40.80 1.9
YJA 4.26 50 iPc 48 47.40 0.9
CYA 4.53 141 iPc 48 50.40 0.6
RTRS 5.22 184 ePc 49 01.00 2.0
RTPR 5.78 158 ePc 49 06.00 -0.8
RTLL 6.38 176 iPd 49 14.70 -0.3
S 50 23.00
RTCB 6.52 178 eP 49 17.00 0.0
S 50 27.00
CFA 6.67 174 e(P) 49 18.80 -0.2
RTBS 6.70 183 e(P)d 49 19.50 0.2
RTCV 6.90 176 ePc 49 21.90 -0.3
MDZ 7.91 179 e(P) 50 07.70 31.8X
MRA 7.99 159 ePd 49 35.00 -1.8
CNC8 8.15 7 P 49 39.00 -0.7
LPB 8.42 6 P 49 42.00 -1.1
ZOBO 8.66 6 P 49 46.20 -0.3
ARE 8.75 344 eP 49 45.00 -2.5X
eS 51 20.00
SIV 11.62 41 P 50 31.80 6.5X
PPD 16.51 83 eP 51 27.40 -0.5
e 51 28.70
VAO 20.25 89 eP 52 08.20 -1.8
BAO 21.78 69 (P) 52 36.00 10.7X
BDF 21.84 69 eP 52 23.90 -2.0
e 52 48.50
LIC 69.49 73 P 58 40.60 0.9
TIC 69.70 72 P 58 42.00 1.0
KIC 69.80 73 P 58 42.60 0.9
ULM 78.56 343 eP 59 36.50 5.2X
YKA 94.39 341 eP 00 50.00 1.3
0.6s 0.80nm 4.3mb
ASPA 126.81 207 iPKPc 06 35.90 2.3X
0.3s 4.80nm
WB2 129.91 209 iPKPc 06 42.10 2.6X
0.3s 2.70nm
GBA 146.49 103 PKP 07 14.00 4.3X
S.D. = 1.2 on 23 of 31 obs.

& MAR 22, 1993 02h 51m 20.10s
40.602 N 124.847 W
DEPTH = 2.0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.1 (BRK).

```
22d  02h

EKR     0.55  80 iPc    51 32.09   1.1
                 iS     51 40.32
ARC     0.65  65 ePc    51 33.24   0.2
                 iS     51 42.49
FOX     0.66  97 iPc    51 33.99   0.8
                 eS     51 43.87
FHC     0.69  73 iPc    51 34.28   0.5
                 iS     51 44.07
WDC     1.76  90 ePc    51 49.50  -2.3
                 iS     52 11.58
LBFM    2.36  71 eP     51 59.91  -0.8
MIN     2.49  95 ePc    51 59.59  -2.8
                 iS     52 29.11
ORV     2.77 111 ePc    52 03.85  -2.5
                 eS     52 33.17
      8 obs. associated
--------------------------------------
? MAR 22, 1993 03h 26m 57.65± 8.46s
  44.697 N ±52.3km   6.845 E ±30.7km
  DEPTH = 10.0km  (geophysicist)
 FRANCE                          (538)
     ML 2.3 (STR).

AUTN    0.82 149 Pg     27 13.62   0.0
                 Sg     27 22.16
SAOF    0.87 144 Pg     27 14.46   0.0
                 Sg     27 23.58
AURF    0.88 157 Pg     27 14.38  -0.3
SBF     0.94 153 Pg     27 15.46  -0.1
CALN    0.95 178 Pg     27 15.72  -0.1
                 Sg     27 25.89
REVF    1.03 158 Pg     27 17.54   0.4
PGF     2.66 143 Pn     27 41.41   0.0
     S.D. = 0.3  on   7 of   7 obs.
--------------------------------------
& MAR 22, 1993 03h 57m 30.30s
  58.917 N            153.279 W
  DEPTH = 78.2km
 KODIAK ISLAND REGION            ( 13)
     <AEIC>

AUI     0.43 350 eP     57 43.34  -0.1
                 eS     57 51.88
AUE     0.45 354 eP     57 43.24  -0.3
AUH     0.46 349 eP     57 43.92   0.2
AUW     0.47 348 eP     57 43.45  -0.3
AUL     0.47 350 eP     57 43.81   0.0
SYI     0.56 123 iP     57 43.80  -0.7
                 eS     57 54.02
MCNL    0.61 297 iP     57 44.38  -0.7
OPT     0.74   2 iP     57 45.88  -0.6
                 eS     57 57.71
PDB     0.99 332 iP     57 48.42  -1.0
                 eS     58 02.14
INE     1.15   5 eP     57 50.28  -1.3
INW     1.16   4 iP     57 50.49  -1.1
                 eS     58 05.70
CNPM    1.22  59 eP     57 51.09  -1.1
KDC     1.24 160 eP     57 51.59  -0.9
                 eS     58 08.06
BRLK    1.49  54 eP     57 54.68  -1.2
                 S      58 12.41
RS1     1.57   9 iP     57 55.97  -1.1
                 S      58 16.46
RS2     1.57   9 eP     57 55.97  -1.2
                 eS     58 16.13
RSO     1.57  10 eP     57 55.98  -1.1
RDW     1.59   8 eP     57 56.34  -1.0
REF     1.60  10 eP     57 56.24  -1.3
                 S      58 15.99
                 eS     58 16.14
NCT     1.66   6 eP     57 56.68  -1.5
DFR     1.71  10 eP     57 57.67  -1.1
NKA     2.10  28 eP     58 04.97   0.9
SLKM    2.22  43 iP     58 04.20  -1.6
SEW     2.29  57 eP     58 04.30  -2.3
CKL     2.34  11 eP     58 06.42  -1.0
CKT     2.35  13 eP     58 06.66  -1.0
SPU     2.35  15 iP     58 06.67  -0.9
CKN     2.38  13 eP     58 07.41  -0.5
BGL     2.40  10 eP     58 07.49  -0.8
CP2     2.41  12 eP     58 07.56  -1.0
CPAM    2.41  13 eP     58 07.92  -0.6
CRP     2.42  13 eP     58 07.76  -0.9
SVW     2.49 333 eP     58 08.06  -1.5
MPA     2.54  50 eP     58 08.18  -1.9
PTE     2.90  46 iP     58 13.09  -2.0
```

```
PMS     2.99  37 eP     58 14.90  -1.5
SKT     3.19  15 eP     58 17.61  -1.6
KLU     4.49  52 eP     58 34.47  -2.9
      38 obs. associated
--------------------------------------
   MAR 22, 1993 04h 27m 03.06± 0.30s
   44.486 N ± 1.8km    6.932 E ± 2.6km
   DEPTH = 11.0 ± 3.1 km
 FRANCE                          (538)
     ML 2.8 (LDG), 2.4 (GEN).

SURF    0.09 267 Pg     27 04.89  -1.0
                 Sg     27 07.39
PZZ     0.12  81 Pc     27 06.43   0.1
                 S      27 08.60
STV     0.37 130 P      27 10.23  -0.5
                 S      27 15.39
BHB     0.43  33 Pc     27 11.61  -0.2
                 S      27 17.83
RRL     0.45 346 P      27 11.86  -0.4
                 S      27 18.66
TOUF    0.52 154 Pg     27 12.88  -0.9
AUTN    0.61 144 Pg     27 14.83  -0.5
                 Sg     27 23.23
AURF    0.66 154 Pg     27 15.43  -0.8
SAOF    0.67 138 Pg     27 15.56  -0.8
                 Sg     27 24.58
ROB     0.70 106 P      27 16.68  -0.2
                 S      27 26.34
RSP     0.71  19 P      27 16.88  -0.1
                 S      27 27.47
SBF     0.72 150 Pg     27 16.78  -0.4
                 Sg     27 27.03
CALN    0.73 182 Pg     27 17.12  -0.4
REVF    0.81 157 Pg     27 18.62  -0.1
IMI     0.90 130 P      27 19.96  -0.3
                 S      27 31.99
FRF     0.95 193 Pg     27 21.50   0.5
                 Sg     27 33.50
FIN     0.96 106 P      27 21.07  -0.1
                 S      27 33.84
LSD     0.98   9 P      27 22.24   0.4
                 S      27 35.39
LPG     1.02 353 Pg     27 22.50   0.0
                 Sg     27 35.90
LPL     1.04 352 Pg     27 22.80   0.0
                 Sg     27 37.00
LRG     1.11 202 Pn     27 23.70  -0.1
                 Pg     27 24.30
                 Sg     27 38.00
PCP     1.16  87 P      27 24.61   0.0
                 S      27 39.67
CDR     1.17 226 ePg    27 25.10   0.3
                 i      27 25.90
                 eSg    27 40.30
                 e      27 40.40
                 e      27 40.50
LMR     1.19 195 Pn     27 24.70  -0.5
                 Pg     27 25.30
                 Sg     27 40.30
ORX     1.37  33 P      27 26.90  -1.2
PGF     2.45 141 Pn     27 42.76  -0.9
BGF     3.54 307 Pn     27 58.40  -0.7
     S.D. = 0.5  on  27 of  27 obs.
--------------------------------------
* MAR 22, 1993 04h 37m 56.17± 0.86s
  52.247 N ±11.5km  166.108 W ± 9.4km
  DEPTH = 64.2km  ( 3 depth phases)
  4.2mb ( 4 obs.)
 FOX ISLANDS, ALEUTIAN ISLANDS   ( 9)
     ML 4.6 (PMR).

SDN     4.55  45 (P)    39 03.59  -0.4
                 S      40 04.78
ADK     6.53 271 (P)    39 32.08   0.3
CP2    11.79  35 eP     40 44.60   0.9
CRP    11.82  35 eP     40 44.79   0.7
TTA    11.98  23 eP     40 43.04  -3.1X
       0.7s     1.75nm          4.1mb
PMS    12.76  39 eP     40 57.40   1.0
KLU    14.35  42 eP     41 17.80   0.6
IMA    15.21  20 eP     41 26.50  -1.8
FBA    15.79  30 eP     41 35.00  -0.6
YKA    28.81  49 eP     43 59.80  10.0X
       0.9s     1.40nm
NEW    31.09  78 (P)    44 09.82  -0.4
       0.7s     9.64nm          4.6mb
```

```
                 pP     44 26.21  68km
LCCM   35.40  78 eP     45 05.10  17.5X
BW06   38.45  81 (P)    45 14.42   1.1
       1.0s     2.47nm          4.1mb
                 pP     45 30.26  63km
MSU    39.37  88 eP     45 21.60   0.5
FCC    39.47  51 ePc    45 34.30  13.0X
PLM    39.87  98 (P)    45 29.08   3.9X
                 e      45 46.91
SRU    40.02  86 eP     45 24.97  -1.4
RSSD   41.02  76 eP     45 34.00  -0.5
       0.6s     2.85nm          4.2mb
                 pP     45 49.63  62km
ULM    42.42  64 eP     46 02.00  16.3X
JAQ    50.77  50 eP     46 35.00 -16.3X
LMN    61.33  51 eP     48 21.00  13.9X
     S.D. = 1.0  on  13 of  21 obs.
--------------------------------------
* MAR 22, 1993 04h 38m 37.77± 1.51s
  11.296 N ±12.5km   87.376 W ±10.7km
  DEPTH = 45.5 ± 10.9 km
  4.4mb ( 5 obs.)
 NEAR COAST OF NICARAGUA         ( 74)

PYN     1.13  18 eP     38 57.04  -0.4
SSN     1.49  90 eP     39 02.45  -0.1
PYT     1.77  46 eP     39 05.48  -1.1
IXG     4.15 314 iPd    39 40.91   0.5
                 iS     40 27.68
SDV    16.66  97 eP     42 30.70   0.8
TOV    17.35  93 eP     42 40.00   1.5
GOGA   22.30   9 iPd    43 33.27   0.5
       0.8s    16.11nm          4.5mb
UYO    23.67 345 iPd    43 47.00   1.0
MIAR   23.82 347 eP     43 47.72   0.2
       0.7s    11.87nm          4.5mb
LHS    23.84  14 eP     43 48.16   0.4
MEO    25.51 338 iPc    44 04.50   0.7
FNO    25.53 341 iPd    44 03.70  -0.2
WMOK   25.54 338 eP     44 03.52  -0.5
       1.2s    21.67nm          4.6mb
ELC    25.93 357 eP     44 06.11  -1.4
CVL    27.75  15 eP     44 22.16  -2.0X
TBR    31.90  19 eP     44 58.54  -2.6X
RSNY   34.93  16 iPc    45 25.94  -1.4
       0.9s     1.98nm          4.0mb
EEO    35.92  10 eP     45 37.00   1.3
SIV    37.59 136 P      46 04.40  14.4X
LMN    39.44  25 eP     46 08.50   3.3X
BAO    47.29 124 eP     47 08.30  -0.9
                 e      47 14.00
BDF    47.38 124 eP     47 09.00  -0.8
FCC    47.64 355 ePd    47 12.70   1.6
YKA    54.74 345 eP     48 03.00  -1.7
       0.7s     2.00nm          4.3mb
     S.D. = 1.1  on  20 of  24 obs.
--------------------------------------
? MAR 22, 1993 04h 40m 03.93± 9.54s
  17.773 N ±41.3km   65.546 W ±50.6km
  DEPTH = 10.0km  (geophysicist)
 PUERTO RICO REGION              ( 90)

CPD     0.44 307 iP     40 13.00   0.1
LPR     0.62 330 iP     40 16.20  -0.2
                 S      40 22.80
SJG     0.67 300 iP     40 16.80  -0.4
                 S      40 23.80
PORP    1.08 285 iP     40 24.00  -0.2
APR     1.31 301 iP     40 28.80   0.6
                 S      40 44.10
     S.D. = 0.5  on   5 of   5 obs.
--------------------------------------
? MAR 22, 1993 05h 02m 58.48± 2.58s
  28.710 S ±66.7km  176.783 W ±32.7km
  DEPTH = 112.0 ± 24.2 km
  4.6mb ( 2 obs.)
 KERMADEC ISLANDS REGION         (177)

RAO     1.13 241 eP     03 21.50   0.0
                 iS     03 42.00
CTA    34.63 276 iPc    09 39.00   0.1
WB2    45.12 270 iPd    11 05.40  -0.1
       0.7s     7.90nm          4.6mb
MAT    77.48 324 eP     14 43.00   0.0
       1.0s     9.00nm          4.5mb
NB2   147.23 353 PKP    22 31.40   4.4X
       0.8s     2.30nm
```

HFS 147.78 350 ePKP 22 27.90 0.0
0.5s 1.20nm
S.D. = 0.1 on 5 of 6 abs.

----

* MAR 22, 1993 05h 24m 26.02± 1.10s
25.222 N ±10.0km 142.355 E ±23.9km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)
VOLCANO ISLANDS REGION (213)

WKYJ 10.72 328 P 27 06.80 6.5X
KAKJ 11.11 351 P 27 05.40 -0.2
CHJJ 11.17 346 P 27 05.80 -0.7
TKSJ 11.33 322 P 27 10.70 2.1
MAT 11.83 343 (P) 27 15.00 -0.4
MTMJ 11.98 342 P 27 17.00 -0.5
NIIJ 12.32 347 P 27 20.90 -1.0
YONJ 12.55 324 P 27 28.90 3.8X
OFUJ 13.83 358 eP 27 42.00 0.1
eS 30 08.50
WB2 45.56 191 iPc 32 44.10 -0.6
0.3s 25.60nm 5.6mb X
MAIO 70.08 302 iPc 35 36.00 -1.2
eS 44 14.00
ASH 70.47 303 eP 35 40.00 0.6
YKA 73.71 28 eP 35 59.80 1.7
0.6s 1.00nm 4.0mb
GRS 78.76 308 iPc 36 42.00 14.8X
1.0s 70.00nm
KAF 79.22 335 eP 36 26.10 -3.0X
NUR 80.80 334 eP 36 25.60 -11.9X
HFS 85.20 337 eP 36 58.90 -1.2X
0.3s 1.20nm 4.6mb
NB2 85.40 338 P 36 58.00 -3.2X
0.4s 1.00nm 4.4mb
CSS 90.04 309 eP 37 27.60 3.6X
ELL 91.45 312 eP 37 42.50 11.9X
ZOBO 150.20 79 PKP 44 19.20 7.9X
LR 41 42.00
LPB 150.32 79 PKP 44 19.00 7.8X
CNCB 150.52 79 PKP 44 20.00 8.3X
SOB1 163.78 12 ePKP 44 34.60 7.3X
e 44 36.40
e 44 52.60
S.D. = 1.2 on 11 of 24 abs.

MAR 22, 1993 05h 24m 56.03± 0.19s
8.664 S ± 4.1km 110.882 E ± 5.7km
DEPTH = 52.4km (13 depth phases)
5.1mb (43 obs.)
JAWA, INDONESIA (277)

LEM 3.72 299 ePd 25 56.00 3.5X
eS 26 41.00
KGM 13.02 324 ePc 28 07.00 6.6X
e 32 07.00
NANU 14.52 163 iPd 28 13.10 -7.0X
0.2s 16.00nm 5.1mb
eS 30 42.00
MBL 15.13 146 eP 28 21.00 -7.0X
0.3s 27.00nm 4.9mb
eS 30 53.00
IPM 16.42 323 ePd 28 50.60 6.0X
0.9s 59.50nm 4.7mb
MEEK 19.32 159 eP 29 18.00 -2.0
0.6s 43.00nm 4.9mb
eS 32 35.00
MTN 20.32 104 eP 29 30.00 -0.5
0.4s 117.00nm 5.6mb
MRWA 21.00 167 eP 29 36.00 -1.4
e 29 51.00 67kmX
eS 33 16.00
BAL 22.50 167 eP 29 51.40 -0.9
eS 33 52.00
WARB 22.97 141 iPd 29 56.90 -0.1
0.4s 10.00nm 4.6mb
e 30 10.00 54km
eS 34 01.00
KLB 23.69 165 eP 30 03.00 -0.9
eS 34 16.00
MUN 23.72 169 eP 30 02.50 -1.7
e 30 17.00 61km
eS 34 21.00
COOL 24.09 158 eP 30 06.80 -1.1
e 30 19.00 49km
eS 34 22.00
PLP 24.18 36 ePc 30 11.30 2.5X
PGP 24.19 25 ePd 30 11.80 3.0X
WRA 25.31 119 P 30 20.38 0.8
0.5s 2.20nm 3.9mb X
WB2 25.32 119 iPc 30 19.80 0.1
0.6s 15.00nm 4.7mb
epP 30 35.20 66kmX
iS 35 01.90
KHT 26.29 332 eP 30 27.50 -1.1
NST 26.42 336 eP 30 32.00 2.2
ASPA 26.61 127 P 30 31.50 -0.1
0.4s 0.70nm 3.6mb X
FORT 27.23 146 eP 30 36.50 -0.6
CHTO 29.73 337 eP 30 59.10 -0.7
KMI 34.51 347 eP 31 47.00 5.3X
Z 18s 2.20um 4.9Msz
N 16s 1.40um
E 16s 0.90um
GYA 35.15 353 P 31 47.80 0.8
1.0s 23.00nm 5.1mb
Z 30s 1.25um 4.5MszX
CTA 36.01 112 iPc 31 55.50 1.2
i 32 05.00 32kmX
QLP 36.27 124 eP 31 57.50 1.1
STK 36.69 133 eP 31 59.30 -0.6
0.6s 5.00nm 4.6mb
CMS 39.63 130 eP 32 25.00 0.5
GBA 39.90 303 P 32 25.00 -1.8
CD2 39.94 350 eP 32 26.80 -0.2
BFD 40.34 140 eP 32 30.90 0.7
0.5s 9.00nm 4.8mb
SSE 40.75 14 Pc 32 36.50 2.9X
0.8s 9.00nm 4.6mb
Z 22s 0.60um 4.4Msz
esP 32 52.00
HYB 41.14 309 eP 32 36.00 -1.0
NJ2 41.20 10 Pc 32 39.00 1.8
Z 20s 0.35um 4.2Msz
XAN 42.51 358 P 32 48.10 0.1
0.8s 15.00nm 4.8mb
Z 30s 0.74um 4.4MszX
sP 33 04.50
S 39 05.00
LSA 42.61 334 P 32 49.20 -0.3
0.8s 10.00nm 4.6mb
S 39 08.00
BRS 43.70 121 iPc 33 00.80 2.9X
ipP 33 12.00 39kmX
e 34 04.00
LZH 45.00 352 eP 33 09.00 0.7
1.2s 38.00nm 5.1mb
Z 25s 0.75um 4.5MszX
pP 33 23.00 53km
PP 34 50.00
ScP 38 37.00
S 39 41.50
ScS 42 59.50
POO 45.44 307 iPc 33 04.00 -8.0X
TIY 46.16 2 Pc 33 17.60 0.3
Z 40s 1.61um 4.7MszX
TKSJ 47.77 26 P 33 30.50 0.5
YONJ 48.55 25 P 33 35.70 -0.4
WKYJ 48.66 27 P 33 37.00 0.0
BJI 48.70 5 eP 33 37.00 -0.1
0.8s 12.00nm 5.0mb
Z 24s 0.64um 4.5MszX
PcP 35 02.50
ScP 38 52.00
GTA 48.92 349 eP 33 40.00 1.0
Z 16s 0.69um 4.7MszX
E 18s 6.78um
BTO 49.02 359 eP 33 39.00 -0.7
NDI 49.34 320 eP 33 40.00 -2.2
TSRJ 49.93 27 P 33 47.50 0.8
MTMJ 51.63 28 P 33 59.10 -0.6
CHJJ 51.75 29 P 33 59.40 -1.1
MAT 51.78 28 eP 33 59.00 -1.7
1.5s 77.78nm 5.5mb
Z 20s 0.35um 4.4Msz
eS 41 28.00
NIIJ 52.72 28 P 34 06.10 -1.6
CN2 53.87 13 eP 34 14.60 -1.4
0.6s 5.60nm 4.8mb
Z 16s 0.59um 4.7MszX
ePcP 35 21.20
MDJ 55.66 16 eP 34 28.60 -0.5
WMQ 56.32 340 P 34 33.00 -1.0
1.0s 14.00nm 4.9mb
Z 18s 0.52um 4.7Msz
sP 34 46.80
S 42 18.50
CSY 57.54 180 iPc 34 40.80 -1.3
0.9s 15.30nm 5.1mb
KSH 57.79 328 eP 34 44.40 -0.1
0.7s 20.00nm 5.3mb
ZAK 59.17 354 iPc 34 52.00 -1.7
0.7s 11.00nm 5.1mb
Z 18s 0.52um 4.7Msz
E 19s 0.41um
e 35 41.70 218kmX
CIT 60.46 2 eP 35 03.00 0.4
MOY 60.71 353 eP 35 04.00 -0.2
FRU 60.98 330 eP 35 05.00 -1.3
1.3s 30.00nm 5.3mb
e 35 48.00 185kmX
AVY 61.90 253 iPc 35 13.60 0.4
VTY 62.09 253 iPc 35 15.00 0.6
YSS 62.25 24 iPc 35 13.30 -1.4
1.0s 90.00nm 5.9mb
Z 18s 0.30um 4.5Msz
i 35 28.40 55km
e 43 36.00
KUR 63.12 28 iPd 35 20.50 0.1
0.7s 130.00nm 6.1mb X
ELT 65.13 344 eP 35 32.20 -1.3
1.4s 20.00nm 4.9mb
Z 14s 5.00um 5.9MszX
eS 44 09.00
e 45 17.00
BOD 66.34 2 iPc 35 39.60 -1.5
1.3s 52.00nm 5.4mb
MAW 66.94 198 P 35 45.09 0.2
YAK 71.97 9 iPc 36 14.70 -1.0
1.0s 141.00nm 5.8mb
eS 45 29.00
PET 73.60 28 eP 36 25.00 -0.4
0.6s 70.00nm 5.8mb
Z 16s 0.30um 4.7MszX
e 36 40.50 55km
MGD 75.50 19 iPc+ 36 36.50 0.2
0.7s 220.00nm 6.2mb X
i 36 51.00 51km
e 36 58.00
SVE 77.13 334 iPc 36 45.20 -0.3
1.1s 80.00nm 5.7mb
MTD 77.36 255 iPc 36 48.30 0.6
ARU 77.77 333 iPc 36 48.30 -0.7
1.0s 80.00nm 5.7mb
BFT 78.08 246 e(P) 36 51.00 -0.7
0.5s 8.00nm 5.0mb
MTA 78.40 316 iP 36 53.20 0.4
NRI 79.47 352 iPc 36 56.30 -1.7
1.0s 35.00nm 5.2mb
SLR 79.66 245 iPd 37 01.90 1.7
0.8s 26.00nm 5.2mb
BUL 79.85 251 iPd 37 02.50 1.2
1.0s 10.00nm 4.7mb
ipP 37 18.10 55km
SEK 80.04 243 eP 37 01.00 -1.2
PRY 80.29 244 eP 37 03.10 -0.4
KIV 80.69 317 iPc 37 05.60 0.4
0.7s 56.00nm 5.6mb
LSZ 80.76 256 iPc 37 07.00 0.9
TIK 81.01 6 iPc 37 05.00 -1.2
0.8s 108.00nm 5.8mb
Z 18s 0.30um 4.7Msz
i 37 18.00 44km
iS 47 12.00
MBH 82.30 302 eP 37 14.30 0.4
JVI 82.46 304 eP 37 15.40 0.8
ADI 82.86 305 eP 37 18.00 1.4
MOS 87.84 327 iPc 37 42.00 1.2
1.5s 140.00nm 6.0mb
i 37 56.00 47km
OBN 88.20 326 iPc 37 43.20 0.7
1.0s 98.00nm 6.0mb
i 37 58.00 51km
i 48 05.00
e 48 21.50
e 49 46.00
WIN 90.18 247 iPc 38 10.00 17.1X
1.0s 50.00nm
ILT 90.75 21 iPc 37 54.30 0.1
1.2s 13.00nm 5.2mb
i 38 10.00 54km

BCAO 92.97 274 iPd 38 06.50 0.8
1.0s 25.00nm 5.6mb
i 38 21.60 52km
KAF 95.06 332 eP 38 13.20 -1.0
0.4s 4.80nm 5.3mb
NUR 95.62 330 eP 38 16.40 -0.3
IMA 100.07 24 (Pdiff38 39.00 2.0
0.7s 1.45nm 4.6mb
HFS 101.04 330 ePdiff38 41.30 0.0
0.4s 1.10nm 4.8mb
NB2 102.21 331 Pdiff 38 44.10 -2.5X
0.7s 2.50nm 5.0mb
YKA 117.03 22 ePKP 43 35.90 -0.4
0.6s 2.20nm
FCC 126.50 16 ePKP 43 58.00 3.4X
LCCM 127.92 37 ePKP 43 59.20 1.2
HVU 129.37 42 ePKP 44 02.68 1.8
DUG 130.08 44 ePKP 44 04.39 2.1
iSKP 47 20.46
EMUT 131.61 43 ePKP 44 07.24 1.9
iSKP 47 26.50
SRU 132.14 44 ePKP 44 07.88 1.6
ULM 132.96 23 ePKP 44 11.00 3.8X
RSSD 133.45 35 ePKP 44 08.49 -0.2
e 44 24.65
eSKP 47 30.45
JAO 134.67 6 ePKP 44 11.00 0.6
GOL 135.26 40 ePKP 44 13.18 0.9
ALQ 136.98 47 ePKP 44 18.38 2.7X
e 44 33.94
EEO 141.21 11 ePKP 44 20.50 -2.2X
WMOK 142.42 42 ePKP 44 25.38 0.1
MEO 142.52 42 iPKPd 44 25.50 0.1
LMN 142.76 355 ePKP 44 25.50 0.1
ACTO 143.90 14 PKP 44 25.92 -1.5
RSNY 143.94 7 iPKP 44 25.41 -2.1
WLVO 143.96 11 PKP 44 25.84 -1.6
BNH 144.16 3 iPKPc 44 26.23 -1.6
TYNO 144.43 14 PKP 44 27.53 -0.8
STCO 144.48 13 PKP 44 27.63 -0.8
PPD 144.85 210 ePKP 44 29.80 0.1
e 44 42.10
FVM 145.04 30 iPKPc 44 29.35 -0.2
UYO 145.55 39 iPKPc 44 30.70 0.2
MIAR 145.83 37 ePKP 44 32.09 1.1
ELC 146.18 30 iPKPc 44 33.01 1.5
HRV 146.22 3 ePKPc 44 33.16 1.8
e 44 48.52
OLY 146.37 34 ePKPc 44 33.46 1.6
GRT 146.88 31 ePKP 44 36.90 4.3X
MRX 147.09 67 (PKP) 44 37.50 4.1X
TBR 147.34 7 (PKP) 44 34.59 1.4
iPKPbc44 36.30
iPKPab44 38.49
GPD 147.43 8 iPKP 44 36.61 3.2X
e 44 51.04
PAL 147.51 7 ePKP 44 34.90 1.4
iPKPbc44 36.83
iPKPab44 39.29
PNJ 147.58 7 ePKP 44 36.94 3.4X
PKPbc 44 40.00
PKKP 44 42.51
GMTN 147.60 7 iPKP 44 37.40 3.8X
MCWV 147.68 16 (PKP) 44 34.87 1.1
ePKPbc44 37.70
ePKPab44 40.16
ACX 148.97 72 (PKP) 44 41.00 4.5X
III 149.00 69 (PKP) 44 43.00 6.2X
UNM 149.01 67 (PKP) 44 42.50 5.6X
NAV 149.58 19 ePKP 44 38.65 1.7
iPKPbc44 42.00
PPM 149.59 67 (PKP) 44 44.50 6.5X
CVL 149.62 15 ePKP 44 37.91 1.0
iPKPbc44 42.62
ePKPab44 47.59
CBN 149.66 13 ePKP 44 42.80 5.9X
TKL 149.98 24 iPKPc 44 43.61 6.1X
IISM 150.75 66 (PKP) 44 47.00 7.9X
OXX 151.85 70 (PKP) 44 50.00 8.9X
PRM 151.92 24 ePKP 44 48.20 7.7X
ePKPab44 57.84
GOGA 152.04 26 (PKP) 44 42.18 1.5
ePKPbc44 48.15
ePKPab44 57.96
JSC 152.17 22 ePKP 44 41.69 0.9
iPKPbc44 48.14
SIV 154.24 198 PKP 44 57.40 13.2X

S.D. = 1.1 on 116 of 148 obs.

• MAR 22, 1993 05h 37m 56.38± 0.57s
49.092 N ± 9.7km 156.298 E ±11.4km
DEPTH = 33.0km (normal)
4.7mb (25 obs.)
KURIL ISLANDS (221)

MAT 18.20 233 eP 42 08.00 0.0
1.3s 19.23nm 4.1mb
HHC 32.30 272 P 44 23.40 -0.9
1.0s 8.50nm 4.6mb
Z 20s 0.62um 4.3Msz
TIY 33.39 267 eP 44 33.70 -0.1
LZH 39.97 271 eP 45 29.00 -0.5
1.2s 15.00nm 4.6mb
pP 45 36.00 24kmX
GYA 44.31 258 P 46 05.20 0.3
1.0s 19.00nm 4.9mb
YKA 47.76 39 eP 46 30.40 -1.3
1.0s 1.40nm 3.9mb
CHTO 54.73 258 eP 47 25.80 1.0
FCC 58.12 35 eP 47 50.50 2.0
NB2 66.68 342 P 48 44.20 -1.4
0.8s 2.80nm 4.4mb
WB2 71.45 202 iPc 49 14.80 -0.6
1.0s 2.20nm 4.1mb
i 49 28.20
WRA 71.46 202 P 49 15.20 -0.2
0.7s 0.50nm 3.7mb X
GBA 72.57 271 P 49 23.00 0.8
EKA 74.53 348 Pd 49 32.90 -0.1
0.8s 6.00nm 4.6mb
SPC 75.04 332 e(P) 49 37.00 0.7
CLL 75.18 337 iPc 49 36.20 -0.6
1.2s 21.00nm 5.0mb
BRG 75.33 336 e(P) 49 37.20 -0.5
PRU 75.98 336 eP 49 41.10 -0.3
e 49 55.00
WTS 75.99 341 eP 49 41.50 0.1
0.8s 7.60nm 4.7mb
MOX 76.14 338 eP 49 42.60 0.3
1.3s 12.00nm 4.7mb
ZST 76.87 333 e(P) 49 46.60 0.2
KHC 77.02 336 P 49 48.00 0.7
1.0s 8.90nm 4.7mb
e 49 55.50
GRF 77.11 338 iPc 49 48.50 0.8
1.1s 30.00nm 5.2mb
GEC2 77.25 336 P 49 48.00 -0.6
0.7s 2.09nm 4.3mb
e 49 54.10
e 50 01.70
ENN 77.34 341 eP 49 49.00 0.1
0.9s 14.90nm 5.0mb
DOU 78.25 342 Pc 49 54.50 0.6
KBA 78.96 335 iPd 49 59.30 1.2
0.8s 16.50nm 5.1mb
i 50 15.90
WTTA 79.25 336 iPd 50 00.70 1.0
1.1s 28.20nm 5.2mb
CDF 79.26 340 eP 49 58.50 -1.1
1.0s 9.60nm 4.8mb
SQTA 79.40 337 iPd 50 01.40 0.9
HAU 79.85 340 eP 50 01.50 -1.2
BSF 79.91 340 eP 50 01.80 -1.4
FLN 80.49 345 eP 50 04.90 -1.2
1.0s 14.60nm 4.9mb
GRR 80.91 345 eP 50 07.70 -0.6
1.0s 20.40nm 5.1mb
VAY 81.18 327 eP 50 10.40 0.6
LPF 81.29 345 eP 50 09.70 -0.6
LPL 82.11 339 eP 50 14.60 -0.3
1.1s 8.05nm 4.7mb
LPG 82.12 339 eP 50 15.00 0.0
0.8s 2.95nm 4.4mb
MAF 82.35 342 eP 50 15.90 0.0
1.0s 7.80nm 4.7mb
TCF 82.36 342 eP 50 16.50 0.5
MFF 82.51 344 eP 50 17.30 0.6
1.1s 11.50nm 4.9mb
LSF 82.53 343 eP 50 17.40 0.6
0.6s 3.05nm 4.5mb
S.D. = 0.8 on 41 of 41 obs.

MAR 22, 1993 05h 38m 01.40± 0.62s
26.329 S ± 5.6km 27.398 E ± 7.3km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.1 (PRE). mbLg 2.9 (BUL).

PRY 0.60 174 iPd 38 12.40 -1.0
S 38 19.20
KSR 0.65 316 iPc 38 14.50 0.2
S 38 22.50
BFS 0.79 224 eP 38 17.70 0.4
S 38 27.40
SLR 0.99 54 iPd 38 22.00 1.2
S 38 35.10
SEK 2.00 174 iPd 38 37.00 0.7
S 39 00.80
SWZ 2.04 245 eP 38 38.00 1.1
S 39 02.00
BFT 2.47 76 eP 38 44.00 0.9
S 39 14.00
BLF 2.97 201 eP 38 49.20 -1.0
S 39 25.80
BUL 6.26 11 iPn 39 36.40 -0.4
iSn 40 46.20
iSg 41 17.30
MTD 10.27 23 iPn 40 30.60 -2.0
iSg 43 16.20
LSZ 11.02 4 iPn 40 40.00 -3.0X
iSn 42 41.00
iSg 43 47.00
S.D. = 1.2 on 10 of 11 obs.

• MAR 22, 1993 06h 52m 23.82± 0.73s
15.053 N ±18.5km 91.987 W ± 9.8km
DEPTH = 42.5 ± 17.8 km
3.7mb (1 obs.)
MEXICO-GUATEMALA BORDER REGION (62)
MD 4.0 (GCG).

TPX 0.30 241 iP 52 30.50 -1.8
iS 52 35.00
BVA 1.36 106 iP 52 46.15 -0.8
iS 53 05.38
IXG 1.72 120 eP 52 53.62 1.6
eS 53 19.96
SCX 1.79 340 iP 52 53.00 0.3
iS 53 15.00
MRL 2.22 89 ePd 52 58.90 -0.2
eS 53 31.82
YUP 2.28 112 ePd 53 00.51 0.6
eS 53 37.93
OXX 4.98 295 eP 53 40.00 1.7
IISM 6.47 308 iP 53 59.00 -0.1
(S) 55 00.00
PPM 7.50 303 eP 54 15.00 1.0
III 7.89 296 eP 54 22.00 2.8X
MEO 20.53 344 iPd 57 00.10 -1.1
YKA 50.01 347 eP 01 14.60 -1.2
0.7s 0.60nm 3.7mb
S.D. = 1.4 on 11 of 12 obs.

% MAR 22, 1993 07h 21m 39.17± 0.69s
31.510 S ±10.4km 68.113 W ± 6.7km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.14 228 iPc 21 44.70 -0.6
S 21 48.60
RTLL 0.35 300 ePc 21 47.30 -0.4
RTCV 0.50 226 iPd 21 50.00 0.1
RTCB 0.59 272 iPd 21 51.70 0.6
S 22 00.60
RTPR 1.83 49 ePd 22 08.80 0.0
eS 22 31.00
MRA 2.23 114 ePd 22 14.60 0.1
S.D. = 0.6 on 6 of 6 obs.

& MAR 22, 1993 09h 05m 00.00s
37.518 N 118.443 W
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
<BRK>. ML 3.1 (BRK).

MEMM 0.42 291 iPc 05 08.32 -0.1
BONR 0.45 14 iPd 05 08.62 -0.5
TNP 1.12 60 eP 05 20.79 -0.9
KVN 1.55 10 eP 05 28.19 -0.3
CMB 1.62 289 iPc 05 29.32 -0.1
iS 05 50.42

TPNV 1.84 107 eP 05 32.31 -0.4
ISA 1.85 181 eP 05 33.11 0.4
S 05 57.45
SAO 2.51 254 eP 05 43.92 1.7
eS 06 15.82
MHC 2.55 267 eP 05 45.19 2.3
eS 06 17.69
GSC 2.58 149 ePn 05 41.42 -1.7
10 obs. associated

MAR 22, 1993 09h 08m 31.48± 0.64s
49.120 N ± 8.6km 156.308 E ±10.5km
DEPTH = 33.0km (normal)
4.7mb (22 obs.)
KURIL ISLANDS (221)

SKR 1.55 355 iPnc 08 57.40 0.3
i 09 12.00
KUR 6.94 239 (Pn) 10 15.00 1.6
Z 14s 2.20um
N 14s 1.40um
E 14s 7.00um
SHO 8.40 235 ePn 10 29.50 -4.3X
Z 14s 1.10um
YSS 9.34 262 iPnd 10 50.00 3.2
Z 16s 0.80um
E 16s 0.50um
KUSJ 10.05 238 eP 10 54.80 -1.7
eS 12 38.20
ASAJ 10.64 247 eP 11 06.40 1.7X
HOOJ 11.31 238 eP 11 21.90 8.2X
eS 13 13.20
MGD 11.45 346 ePn 11 16.00 0.4
Z 14s 1.10um
N 14s 1.10um
MAT 18.22 233 (P) 12 41.00 -2.4
1.3s 13.46nm 3.9mb
Z 20s 0.35um 5.1Msz
eS 16 28.00
YAK 19.63 321 eP 12 57.70 -2.1
1.0s 50.00nm 4.8mb
WKYJ 21.37 234 P 13 18.10 0.0
YONJ 21.81 239 P 13 22.80 0.3
TKSJ 22.38 236 P 13 28.90 0.8
ILT 22.61 25 iPd 13 28.70 -1.3
1.2s 21.00nm 4.5mb
e 14 13.00
eS 17 30.00
TIK 25.86 340 eP 13 58.00 -3.2X
1.0s 9.00nm 4.3mb
Z 14s 0.70um 4.3MszX
e 19 33.00
BOD 26.15 306 eP 14 04.30 0.2
FBA 32.97 40 eP 15 04.10 -0.7
ZAK 33.68 293 iPd 15 10.30 -0.8
0.9s 10.00nm 4.7mb
Z 15s 0.69um 4.5MszX
E 14s 0.48um
LZH 39.97 271 eP 16 03.00 -1.6
1.2s 23.00nm 4.8mb
Z 14s 0.39um 4.4MszX
N 14s 0.29um
sP 16 10.00
NVS 43.48 306 eP 16 30.80 -2.0
1.4s 10.00nm 4.4mb
Z 15s 0.42um 4.4MszX
e 18 18.00
YKA 47.73 39 eP 17 12.50 5.9X
0.8s 1.50nm 4.1mb
SVE 53.57 317 ePc 17 49.30 -1.6
CHTO 54.74 258 eP 18 00.70 0.7
BGMT 58.66 56 eP 18 28.70 0.7
POO 71.34 277 iPd 19 44.50 -5.5X
WB2 71.48 202 iPc 19 50.10 -0.5
0.9s 2.00nm 4.2mb
KSP 74.70 335 eP 20 09.20 0.0
CLL 75.15 337 iPd 20 11.60 -0.1
1.4s 25.00nm 5.0mb
BRG 75.31 336 e(P) 20 12.40 -0.2
MOX 76.11 338 eP 20 17.60 0.4
1.6s 22.00nm 4.9mb
MLR 76.32 327 eP 20 20.00 1.4
KHC 77.00 336 P 20 23.00 0.8
1.2s 10.00nm 4.7mb
GRF 77.09 338 iPc 20 23.50 0.8
1.1s 19.00nm 5.0mb
GEC2 77.22 336 P 20 23.60 0.0
0.8s 2.72nm 4.3mb
ENN 77.31 341 eP 20 24.50 0.7
1.0s 21.00nm 5.1mb
KBA 78.94 335 iPc 20 33.90 0.8
1.1s 31.80nm 5.2mb
WTTA 79.23 336 iPc 20 35.50 0.8
CDF 79.23 340 eP 20 34.50 -0.1
1.2s 14.30nm 4.8mb
HAU 79.82 340 eP 20 37.50 -0.2
1.2s 8.95nm 4.6mb
FLN 80.46 345 eP 20 40.90 -0.1
1.0s 20.00nm 5.1mb
LDF 80.56 344 eP 20 42.00 0.4
0.8s 7.40nm 4.7mb
GRR 80.89 345 eP 20 43.60 0.3
1.2s 30.35nm 5.2mb
MAF 82.33 342 eP 20 51.80 0.9
1.0s 7.60nm 4.7mb
S.D. = 1.2 on 37 of 43 obs.

---

* MAR 22, 1993 09h 10m 07.71± 1.76s
31.842 S ± 9.2km 68.980 W ±11.0km
DEPTH = 100.0 ± 17.6 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTCV 0.38 93 ePd 10 23.20 0.2
RTCB 0.39 23 iPd 10 23.20 0.1
S 10 35.00
RTBS 0.44 294 iPd 10 23.20 -0.1
eS 10 34.80
RTLL 0.67 41 eP 10 25.00 -0.2
CFA 0.67 70 ePc 10 25.20 0.0
S 10 39.10
MDZ 1.04 174 eP 10 28.90 -0.1
iS 10 45.70
RTRS 1.72 346 ePd 10 37.10 0.0
RTPR 2.62 55 e(P) 10 48.90 -0.1
S.D. = 0.2 on 8 of 8 obs.

? MAR 22, 1993 09h 25m 31.07± 6.98s
31.959 S ±52.0km 71.710 W ±21.1km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.7 (SAN).

ROCH 1.17 150 iPd 25 53.02 -0.1
iS 26 05.98
JACH 1.19 128 iP+ 25 53.33 0.0
iS 26 06.33
PEL 1.46 144 iPd 25 57.46 -0.1
iS 26 13.63
LCCH 1.52 176 iP 25 58.62 0.4
iS 26 15.48
TACH 1.81 159 iPd 26 02.51 0.0
iS 26 23.31
FCH 1.82 139 iP 26 02.75 -0.2
iS 26 23.09
PCH 1.94 149 iP+ 26 04.71 0.2
iS 26 27.11
LNV 2.01 173 iP+ 26 04.77 -0.6
iS 26 29.40
CHCH 2.16 156 iP 26 07.91 0.3
iS 26 33.53
S.D. = 0.3 on 9 of 9 obs.

MAR 22, 1993 10h 11m 48.35± 1.20s
40.370 N ±10.0km 21.788 E ± 7.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.52 323 ePg 11 58.40 -0.5
LIT 0.60 116 ePg 12 00.08 -0.4
eSg 12 08.76
GRG 0.75 38 ePg 12 01.44 -1.6
eSg 12 12.84
OHR 1.06 315 ePn 12 08.70 0.4
VAY 1.12 32 eP 12 10.00 0.7
KNT 1.16 46 ePg 12 11.08 1.1
SOH 1.27 69 ePb 12 11.84 -0.2
PAIG 1.52 106 ePb 12 15.96 0.4
S.D. = 1.0 on 8 of 8 obs.

? MAR 22, 1993 10h 14m 46.35± 2.51s
5.395 S ±27.7km 147.340 E ±22.5km
DEPTH = 215.7 ± 8.2 km
4.5mb (5 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC 1.32 157 eP 15 20.30 0.1
MDG 1.56 275 eP 15 22.20 0.0
YYYY 1.60 238 iPc 15 22.70 -0.1
MNDI 3.74 258 eP 15 47.00 0.7
PMG 3.99 183 iPd 15 48.00 -1.1
CTA 14.64 184 iPd 18 06.20 1.3
1.0s 12.50nm 4.3mb
WB2 19.20 220 iPd 18 55.40 -0.8
0.6s 90.20nm 5.5mb
eS 22 17.90
QLP 21.28 188 iPd 19 17.90 1.2
STK 26.89 191 eP 20 08.50 -0.8
0.4s 1.20nm 3.9mb
WARB 28.61 222 eP 20 24.70 -0.2
0.3s 4.00nm 4.6mb
MEEK 34.60 229 iPd 21 16.60 -0.2
0.5s 8.00nm 4.6mb
S.D. = 0.9 on 11 of 11 obs.

? MAR 22, 1993 10h 40m 42.31± 8.25s
30.386 S ±66.2km 70.643 W ±30.0km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 4.2 (SAN).

RTCB 1.93 125 eP 41 15.50 0.0
JACH 2.29 179 (P) 41 20.85 0.0
iS 41 49.05
ROCH 2.60 187 iP+ 41 24.83 -0.4
iS 41 58.74
PEL 2.75 181 eP+ 41 26.83 -0.5
iS 42 01.77
FCH 2.95 174 iP 41 30.57 0.2
iS 42 08.60
SAN 3.06 180 eP 41 32.82 1.2
iS 42 10.12
LCCH 3.18 194 iP 41 34.02 0.7
(S) 42 15.47
PCH 3.23 178 iP 41 34.14 0.0
(S) 42 16.82
TACH 3.27 184 iP 41 33.78 -0.8
iS 42 15.28
CHCH 3.54 180 eP 41 38.10 -0.3
iS 42 21.93
LNV 3.62 190 eP 41 39.16 -0.4
(S) 42 25.45
CACH 3.72 179 eP 41 41.35 0.2
(S) 42 28.65
S.D. = 0.6 on 12 of 12 obs.

% MAR 22, 1993 10h 44m 02.96± 1.15s
36.897 N ±12.8km 29.126 E ± 6.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.4 (ISK).

ELL 0.65 103 iPg 44 16.00 0.0
eSg 44 27.00
YER 0.72 290 iPg 44 17.20 0.1
iSg 44 28.20
BCK 1.30 64 ePn 44 27.00 0.0
KHL 1.46 12 ePn 44 30.00 0.6
IZM 2.11 316 iPn 44 38.50 -0.2
ALT 2.29 20 ePn 44 41.00 -0.5
S.D. = 0.5 on 6 of 6 obs.

MAR 22, 1993 11h 03m 43.58± 0.12s
34.697 N ± 1.8km 34.402 E ± 1.9km
DEPTH = 32.1km (16 depth phases)
5.4mb (130 obs.) 5.0Msz (41 obs.)
CYPRUS REGION (372)
Mw 5.4 (HRV). MD 5.1 (CSS). ML 4.9 (JER). Felt (IV) at Ayia Napa and (III) at Nicosia and Larnaca. Also felt at Afula, Haifa and Jerusalem, Israel.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 33S, 55C
Centroid Location:
Origin Time 11:03:50.9 0.6
Lat 34.74N FIX;Lon 34.41E FIX
Dep 15.0 FIX Half-duration 1.2
Moment Tensor; Scale 10**17 Nm
Mrr= 1.09 0.09 Mtt=-0.26 0.12
Mff=-0.83 0.06 Mrt= 1.17 0.20
Mrf=-0.08 0.19 Mtf= 0.18 0.08

22d 11h

Principal Axes:
T Val= 1.77 Plg=60 Azm=359
N -0.68 18 124
P -1.09 23 222
Best Double Couple:Mo=1.4*10**17
NP1:Strike=343 Dip=27 Slip= 133
NP2: 117 71 71

CSS	0.92	287	eP	04 01.00	0.8	
BHL	1.30	127	Pg	04 03.00	-2.8X	
			Sg	04 17.00		
PPCY	1.70	277	eP	04 13.50	2.0	
			eS	04 38.00		
ADI	1.75	157	eP	04 11.30	-0.9	
HRI	1.81	142	eP	04 12.30	-0.8	
MMR	1.90	153	Pn	04 13.60	-0.9	
ATZ	2.01	159	eP	04 15.30	-0.6	
BRNI	2.03	166	Pn	04 15.80	-0.5	
KSHT	2.08	145	Pn	04 16.80	-0.1	
GLH	2.24	152	Pn	04 19.30	0.1	
MAMI	2.28	164	Pn	04 19.70	0.0	
MML	2.41	159	eP	04 21.50	-0.1	
ADAT	2.48	18	iPnd	04 22.80	0.2	
			iSg	04 53.50		
ZNT	2.51	168	eP	04 22.40	-0.6	
HMDT	2.60	159	Pn	04 24.50	0.2	
JVI	2.87	164	Pn	04 28.50	0.3	
DSI	3.22	165	eP	04 33.60	0.5	
GAZ	3.36	42	ePn	04 34.00	-1.1	
YTIR	3.39	170	Pn	04 35.50	-0.1	
MZDA	3.45	167	Pn	04 36.90	0.6	
SDOM	3.70	167	Pn	04 40.60	0.7	
MKT	3.79	170	eP	04 41.60	0.4	
ARVI	4.09	171	Pn	04 45.70	0.3	
BCK	4.14	313	iP	04 47.50	1.3	
KSL	4.18	291	iPd	04 47.10	0.4	
ELL	4.19	301	iP	04 48.70	1.7	
RMN	4.19	177	Pn	04 46.50	-0.5	
BNN	4.30	15	iP	04 49.50	0.9	
PRNI	4.37	173	eP	04 49.10	-0.3	
SAGI	4.47	177	Pn	04 50.40	-0.5	
MBH	4.93	175	Pn	04 56.50	-0.9	
KOT	5.23	205	eP	04 59.50	-2.1	
ANTO	5.32	347	P	05 13.90	11.0X	
KHL	5.34	314	iP	05 02.50	-0.7	
HLW	5.48	209	eP	05 03.00	-2.0	
			eS	06 00.00		
YER	5.53	298	iP	05 06.20	0.3	
ALT	5.54	323	iP	05 05.40	-0.7	
AYN	5.97	166	eP	05 12.00	0.0	
			eS	06 10.00		
BADA	6.18	175	eP	05 14.30	-0.6	
			eS	06 17.00		
GPA	6.46	331	eP	05 18.50	-0.4	
KAS	6.68	356	eP	05 23.00	0.9	
EYL	6.76	331	eP	05 22.00	-1.2	
IZM	6.83	305	iP	05 22.50	-1.7	
YLV	7.09	327	iP	05 26.80	-1.0	
HRT	7.17	330	eP	05 27.80	-1.1	
NPS	7.24	277	eP	05 28.00	-1.8	
BZK	7.26	358	iP	05 31.00	0.9	
KCT	7.33	321	iP	05 29.80	-1.4	
TBZ	7.59	32	eP	05 36.50	1.8	
ISK	7.63	328	iP	05 34.30	-1.0	
BNT	7.64	320	iP	05 35.30	-0.2	
EDC	7.67	319	eP	05 34.50	-1.3	
ITU	7.68	328	iPd	05 35.50	-0.5	
PRK	7.93	307	eP	05 39.40	-0.1	
DMK	8.82	326	iP	05 51.20	-0.7	
ALN	9.05	316	eP	05 55.10	0.1	
ATH	9.22	294	eP	05 57.00	-0.3	
RDO	9.51	315	eP	06 02.50	1.2	
VLI	9.54	285	iPd	05 58.70	-3.1X	
SOC	9.78	23	iPd	06 06.00	0.9	
	2.0s	150.00nm				5.9mb
Z	16s	17.50um				5.6MszX
N	16s	11.00um				
E	14s	2.50um				
OUR	10.00	307	eP	06 07.82	-0.3	
PAIG	10.01	305	eP	06 06.74	-1.4	
ANN	10.41	11	eP	06 12.00	-1.7	
	1.2s	80.00nm				5.8mb
			eS	08 04.00		
KER	10.49	88	eP	06 13.00	-1.9	
AGG	10.59	298	eP	06 15.78	-0.4	
GRS	10.66	60	iPc	06 20.00	2.6X	
	1.7s	350.00nm				6.3mb

Z	16s	8.06um				5.9MszX
N	15s	6.86um				
E	15s	5.49um				
			eS	08 27.00		
SOH	10.67	308	eP	06 11.50	-5.8X	
SRS	10.67	310	eP	06 17.10	-0.2	
MTA	10.76	46	iPc	06 20.00	1.6	
	0.8s	50.00nm				5.8mb
			e	08 28.00		
LIT	10.90	303	eP	06 20.62	0.2	
KNT	11.14	309	eP	06 23.82	0.2	
KIV	11.25	32	iPc	06 27.30	2.1	
	1.4s	280.00nm				6.3mb
Z	14s	2.60um				4.7Msz
VAY	11.43	309	iP	06 28.00	0.4	
PYA	11.47	33	iPd	06 30.50	2.3	
	1.3s	150.00nm				6.0mb
Z	20s	3.50um				5.9Msz
N	20s	3.00um				
E	20s	4.50um				
			eS	08 38.00		
KZN	11.48	303	eP	06 29.00	0.6	
CFR	11.52	337	eP	06 27.00	-1.7	
BUC1	11.60	329	eP	06 32.00	2.2	
QASM	11.64	135	eP	06 40.00	9.4X	
			eS	09 35.00		
VLS	11.65	291	eP	06 28.00	-2.7X	
FNA	11.96	304	eP	06 36.90	2.0	
ISR	12.04	332	ePc	06 38.00	2.2	
BRD	12.18	335	eP	06 41.00	3.4X	
IGT	12.22	297	iP	06 39.30	1.0	
GRO	12.30	42	eP	06 42.00	2.7X	
	2.0s	240.00nm				6.0mb
Z	15s	12.00um				4.7Msz
N	16s	17.50um				
E	18s	8.50um				
			eS	09 06.00		
SKO	12.49	309	iP	06 43.50	1.6	
Z	15s	4.27um				
			i	09 14.00		
			i	09 42.00		
			LR	12 15.00		
OHR	12.50	305	iP	06 44.20	2.1	
	1.2s	125.00nm				5.9mb
MLR	12.57	332	ePc	06 44.00	1.0	
SRN	12.58	298	eP	06 44.00	1.0	
VRI	12.60	335	ePc	06 43.00	-0.2	
PPE	12.61	338	eP	06 43.50	0.1	
DRA	12.65	325	ePc	06 45.00	1.0	
KEK	12.67	298	eP	06 44.70	0.4	
TPE	12.72	300	eP	06 46.00	1.1	
SHE	12.73	58	iPd	06 47.00	2.0	
	1.2s	250.00nm				6.2mb
CVO	12.76	333	eP	06 47.00	1.6	
CMP	12.76	329	iPd	06 52.00	6.6X	
MJMA	12.88	130	eP	06 50.00	2.8X	
KIS	12.99	343	iPc+	06 47.00	-1.5	
	1.5s	600.00nm				6.4mb X
Z	17s	6.60um				4.2MszX
N	17s	6.00um				
E	18s	1.40um				
MAK	13.11	47	iP-	06 54.00	4.0X	
Z	17s	29.00um				
N	17s	11.00um				
E	17s	24.00um				
VLO	13.15	300	eP	06 52.50	2.0	
TIR	13.24	304	eP	06 55.50	3.8X	
TNR	13.39	328	ePd	06 57.00	3.2X	
LACI	13.47	305	eP	06 56.20	1.4	
PVY	13.75	309	iPc	07 01.39	2.8	
SDA	13.79	307	eP	07 03.40	4.3X	
ULC	13.92	306	iPc	07 05.02	4.3X	
IVA	13.94	310	iPc	07 03.40	2.4X	
TTG	14.13	308	iPc	07 06.39	3.0	
BDV	14.34	306	iPc	07 09.08	2.8X	
NKY	14.48	309	iPc	07 09.35	1.2	
PLE	14.49	311	iPc	07 07.98	-0.3	
RYD	14.53	130	eP	07 08.00	-0.8	
			eS	10 20.00		
BZS	14.63	322	eP	07 10.00	0.1	
HCY	14.64	307	iPc	07 12.12	2.0	
BRY	14.82	308	iPc	07 13.35	0.8	
TIM	14.91	322	iPc	07 18.00	4.4X	
CEI	15.76	329	eP	07 38.00	13.4X	
DHR	15.92	117	eP	07 22.00	-4.8X	
			eS	11 50.00		
MEU	15.96	284	P	07 24.62	-2.8X	

	0.9s	88.90nm				4.9mb
PZI	15.97	284	P	07 23.37	-4.1X	
	0.8s	142.90nm				5.2mb
HVAR	16.31	307	iP	07 33.50	1.8	
UZH	16.57	331	iPd	07 35.00	0.1	
	1.5s	1080.00nm				5.8mb
Z	14s	5.30um				5.7Msz
N	14s	3.30um				
E	14s	2.80um				
LVV	16.92	336	iP	07 43.00	3.7X	
Z	20s	7.00um				
N	20s	3.00um				
E	18s	4.30um				
			iS	10 53.00		
SDI	17.61	299	P	07 48.50	0.4	
SRO	17.79	322	eP	07 51.00	0.9	
SPC	17.86	328	eP	07 52.40	1.2	
ZAG	17.87	314	iPd	07 54.00	2.8X	
PTJ	17.93	314	iP	07 53.00	0.9	
ABHA	17.99	153	eP	08 03.00	9.8X	
KAT	18.03	69	eP	07 55.00	1.7	
Z	13s	1.30um				
AQU	18.09	301	P	07 54.30	0.2	
KMTA	18.11	153	eP	07 58.00	3.4X	
VBY	18.15	312	iPd	07 54.00	-0.6	
RDP	18.41	299	P	07 58.56	0.6	
	1.1s	281.00nm				5.3mb
RMP	18.44	299	P	07 59.31	1.1	
	0.8s	132.70nm				5.2mb
RIY	18.61	311	eP	07 58.70	-1.6	
MNS	18.61	301	P	08 00.30	-0.1	
ZST	18.65	322	eP	08 00.50	-0.3	
CEY	18.77	312	eP	08 00.20	-2.1	
ARV	18.79	304	P	08 02.30	-0.3	
DHJN	18.81	152	eP	08 06.50	3.2X	
OJC	18.83	330	iP	08 03.10	0.1	
	1.4s	134.00nm				5.0mb
			i	08 05.40		
			i	08 07.60		
			i	08 10.00		
ASS	18.84	303	P	08 03.40	0.1	
LJU	18.86	313	eP	08 02.60	-0.7	
			eS	11 35.50		
VKA	19.10	321	iPd	08 05.80	-0.4	
	2.5s	709.00nm				5.5mb
Z	11s	2.90um				5.4MszX
			LR	17 00.00		
TRI	19.16	311	ePc	08 05.50	-1.5	
			ePP	08 33.70		
			eS	11 48.00		
VOY	19.24	312	iP	08 06.50	-1.5	
			e(S)	11 43.00		
RSM	19.28	305	P	08 08.60	0.3	
ASH	19.56	73	P	08 12.00	0.4	
	1.3s	390.00nm				5.5mb
			e	11 51.00		
VRAC	19.63	323	ePd	08 11.90	-0.4	
	2.4s	1558.20nm				5.9mb
			e	08 19.30	29km	
RBL	19.63	313	P	08 11.18	-1.3	
	1.1s	138.90nm				5.2mb
SFI	19.68	305	Pc	08 13.00	0.2	
MNK	19.79	348	eP	08 17.00	3.1X	
FIR	20.04	304	eP	08 14.00	-2.6X	
			eS	12 10.00		
K8A	20.09	314	iPd	08 16.10	-1.2	
	1.0s	266.00nm				5.5mb
			i	08 16.80	3kmX	
			i	08 31.30		
			i	12 24.20		
			i	12 33.00		
KMR	20.16	318	iP+	08 16.80	-1.0	
OBN	20.46	4	iPd	08 19.00	-1.9	
	1.1s	534.00nm				5.8mb
Z	16s	1.60um				4.5MszX
N	16s	1.90um				
E	16s	1.50um				
			i	08 35.00	76kmX	
			iPPP	08 51.00		
			eS	12 06.00		
			eSS	12 32.00		
MAIO	20.48	78	iPd	08 22.20	0.8	
	1.0s	45.00nm				4.8mb
			eS	12 18.00		
PII	20.52	303	P	08 19.40	-2.2	
BDI	20.58	304	P	08 20.50	-1.9	
CTI	20.64	310	Pc	08 22.10	-0.8	

```
KSP    20.82 326 iPc   08 23.60  -1.0
       1.2s   145.00nm        5.2mb
KHC    21.07 319 iPc   08 26.40  -0.9
       1.0s    78.00nm        5.1mb
   Z   16s     3.00um         4.8MszX
   N   16s     1.50um
   E   16s     2.50um
                 e     08 39.50  56kmX
                 e     12 23.00
PRU    21.09 322 Pc    08 26.50  -0.9
       1.1s    82.60nm        5.0mb
   Z   15s     3.10um         4.8MszX
   N   15s     0.90um
   E   15s     2.80um
                 e     08 29.00   9kmX
                 e     09 26.00
                 S     12 24.00
MOS    21.16   5 iPc   08 27.00  -1.0
       1.5s   910.00nm        6.0mb
   Z   18s     3.80um         4.8Msz
                 e     08 50.00 115kmX
SAL    21.18 308 Pc    08 28.20  -0.1
WTTA   21.19 313 iPc   08 27.90  -0.8
       1.1s   287.00nm        5.6mb
                 i     08 29.30   5kmX
WATA   21.26 313 iPc   08 28.10  -1.3
                 i     08 29.80   6kmX
                 i     12 33.50
PGF    21.29 299 P     08 28.57  -1.0
OGA    21.38 312 eP    08 30.30  -0.3
SQTA   21.43 313 iPc   08 30.30  -0.7
       0.8s   109.00nm        5.3mb
                 i     08 31.90   6kmX
                 i     08 37.40
                 i     12 34.10
                 iSg   38 49.00
MOTA   21.55 313 iPc   08 31.00  -1.3
       1.1s   211.00nm        5.5mb
                 i     08 32.70   6kmX
                 i     08 50.80
BOB    21.59 305 P     08 32.30  -0.3
MDI    21.77 308 P     08 33.70  -0.5
FUR    21.84 315 iPc   08 35.50   0.5
   Z   22s     4.00um         4.8Msz
                 i     08 39.70  15kmX
OSS    21.85 311 iPc   08 35.40   0.1
BRG    21.95 324 iP    08 35.20  -0.8
       1.3s   160.00nm        5.3mb
                 i     08 37.60   9kmX
PCP    22.13 304 P     08 35.94  -2.0
VDL    22.20 310 ePc   08 40.00   1.2
FIN    22.27 303 P     08 39.23  -0.1
CKI    22.28 304 P     08 39.80   0.4
IMI    22.41 302 P     08 39.42  -1.3
VAI    22.41 308 P     08 40.40  -0.3
TMA    22.43 308 iPc   08 41.00  -0.1
ROB    22.52 303 P     08 40.70  -1.2
LLS    22.65 310 iPc   08 42.60  -0.6
HOF    22.66 320 eP    08 43.80   0.7
SAOF   22.66 302 P     08 40.64  -2.5X
GRF    22.66 318 eP    08 41.50  -1.6
       1.1s    44.00nm        4.8mb
   Z   20s     2.10um         4.6Msz
CLL    22.68 324 eP    08 43.00  -0.3
       1.3s    71.00nm        5.0mb
                 e(S)  12 49.00
SBF    22.71 302 P     08 42.93  -0.8
REVF   22.73 301 P     08 43.63  -0.2
AUTN   22.75 302 P     08 43.65  -0.6
AURF   22.79 302 P     08 43.91  -0.6
ORO    22.85 306 P     08 44.20  -0.9
       1.3s   188.60nm        5.4mb
ORX    22.85 306 P     08 43.63  -1.5
TOUF   22.88 302 P     08 45.25  -0.3
STV    22.89 303 P     08 45.09  -0.4
MOX    22.98 321 iPc   08 46.20  -0.1
       1.5s   165.00nm        5.3mb
   Z   18s     1.60um         4.5Msz
                 eS    13 00.00
MMK    23.01 308 P     08 46.41  -0.4
CALN   23.07 301 P     08 46.53  -0.8
BHB    23.09 304 P     08 45.78  -1.6
PZZ    23.11 303 P     08 46.28  -1.4
RSP    23.19 305 P     08 46.05  -2.4
FRF    23.19 301 eP    08 47.90  -0.5
       1.2s    96.70nm        5.2mb
BRNL   23.24 326 ePc   08 47.80  -0.8
                 e     10 29.50
LMR    23.24 300 eP    08 48.20  -0.6
       1.3s    90.60nm        5.1mb
ZLA    23.27 311 ePc   08 48.20  -0.9
SURF   23.30 303 P     08 48.99  -0.6
SLE    23.32 312 ePc   08 48.80  -0.8
LSD    23.35 306 P     08 49.30  -0.8
LRG    23.37 300 eP    08 50.20   0.1
       1.2s   109.80nm        5.2mb
DIX    23.38 307 ePc   08 50.60   0.2
RRL    23.44 304 P     08 50.31  -0.7
LPG    23.63 305 eP    08 53.10   0.2
       1.0s   172.80nm        5.5mb
LPL    23.65 306 eP    08 53.00   0.0
       0.8s    66.35nm        5.2mb
EMS    23.69 307 ePc   08 53.40   0.0
RSL    23.77 306 P     08 53.43  -0.7
CDR    23.84 301 ePd   08 55.70   1.1
GRN    24.24 304 P     08 55.42  -3.2X
CDF    24.34 313 eP    08 59.40  -0.1
       1.1s   104.50nm        5.3mb
BSF    24.40 311 eP    09 00.00  -0.2
       1.1s   154.80nm        5.5mb
TNS    24.47 317 ePc   09 00.20  -0.5
BSD    24.48 332 iPd   09 00.00  -0.7
       0.6s    62.00nm        5.3mb
HAU    24.74 311 eP    09 02.70  -0.7
       1.1s   142.10nm        5.5mb
   Z   22s     1.98um         4.6MszX
SSB    25.07 304 P     09 05.53  -1.0
PUL    25.22 355 ePc   09 08.00   0.3
       1.5s   650.00nm        6.0mb
                 eS    13 36.00
                 e     13 50.00
ESEL   25.51 291 eP    09 12.50   1.8
WLF    25.53 314 P     09 11.00   0.3
                 i     09 23.00  47kmX
BNS    25.54 318 ePc   09 10.10  -0.7
   Z   15s     6.50um         5.3MszX
COLF   25.71 304 P     09 12.02  -0.5
ETER   25.72 297 eP    09 13.50   0.9
PLDF   25.87 305 P     09 13.56  -0.5
COP    25.87 331 iPc   09 14.30   0.5
       0.8s   167.16nm        5.7mb
   Z   20s     3.90um         4.9Msz
SMF    25.90 307 eP    09 13.20  -1.1
       1.2s   340.35nm        5.8mb
LBF    25.91 307 eP    09 13.10  -1.3
       1.1s    87.40nm        5.3mb
MTHF   26.04 298 P     09 16.30   0.7
LOR    26.08 308 eP    09 14.70  -1.2
       0.8s    48.20nm        5.2mb
   Z   22s     1.77um         4.6Msz
VDCF   26.12 297 P     09 17.95   1.6
ENN    26.15 317 eP    09 17.00   0.6
       0.9s    21.60nm        4.8mb
AGO    26.22 305 P     09 16.59  -0.6
PYM    26.23 304 P     09 16.72  -0.7
SSF    26.24 307 eP    09 16.40  -1.0
       1.1s   108.90nm        5.4mb
WTS    26.25 320 eP    09 17.50   0.1
AVF    26.27 307 eP    09 16.50  -1.1
       1.0s    68.00nm        5.2mb
TRGS   26.40 297 P     09 20.03   0.9
LSPF   26.50 298 P     09 21.72   1.9
BGF    26.54 306 eP    09 19.00  -1.1
       1.0s    47.20nm        5.1mb
NUR    26.59 349 iP    09 19.80  -0.6
       0.5s    55.90nm        5.4mb
   Z   16s     3.00um         4.9MszX
                 eS    14 17.00
                 LR    20 18.00
DOU    26.63 314 P     09 21.00   0.1
       0.8s    61.70nm        5.3mb
                 i     09 22.80   6kmX
                 PcP   12 44.80
MAF    26.64 305 eP    09 20.40  -0.7
       1.0s    48.40nm        5.1mb
CAF    26.70 302 eP    09 21.20  -0.5
       0.9s    23.60nm        4.8mb
WIT    26.75 321 eP    09 23.00   1.1
GRBF   26.75 298 P     09 25.49   3.3X
TCF    26.90 305 eP    09 21.80  -1.6
       1.0s    30.60nm        4.9mb
LESF   26.96 298 P     09 25.67   1.6
SNF    26.98 315 P     09 24.00  -0.1
SALF   27.00 297 P     09 27.86   3.4X
RJF    27.16 303 eP    09 25.20  -0.6
       0.7s    72.10nm        5.4mb
   Z   21s     1.33um         4.5Msz
LPO    27.27 301 eP    09 25.10  -1.7
       0.8s    38.70nm        5.1mb
ARU    27.27  30 iP    09 26.60  -0.1
       1.8s   350.00nm        5.7mb
                 e     09 33.50  24km
                 e     09 42.50
                 e     15 25.00
EBR    27.38 293 eP    09 29.00   1.2
EROQ   27.45 293 eP    09 29.50   1.1
UPP    27.46 342 iP    09 27.60  -0.7
LFF    27.63 302 eP    09 28.20  -1.8
       0.7s    33.95nm        5.1mb
ENSF   27.63 297 P     09 32.81   2.6X
EPF    27.65 298 eP    09 29.30  -1.0
       0.8s    14.50nm        4.7mb
MUD    27.74 329 iPd   09 31.70   0.8
       0.9s    86.00nm        5.4mb
                 e     10 24.00 271kmX
QUE    27.76  90 eP    09 36.50   4.8X
                 eS    14 31.50
KAF    27.91 352 iP    09 31.10  -1.3
       0.4s    15.60nm        5.1mb
EGRA   28.06 296 eP    09 30.50  -3.4X
SVE    28.39  31 ePc   09 37.00   0.2
       1.2s   200.00nm        5.7mb
   Z   16s     2.00um         4.8MszX
   N   15s     1.50um
   E   15s     0.50um
                 eS    14 25.00
                 eSS   16 04.00
ECHE   28.50 290 eP    09 39.50   1.5
MFF    28.56 305 eP    09 36.90  -1.5
       1.0s    43.20nm        5.1mb
HFS    28.80 338 eP    09 39.40  -1.0
       1.4s   308.80nm        5.8mb
   Z   18s     1.67um         4.7Msz
                 LR    20 58.00
LDF    29.02 309 eP    09 41.50  -1.1
       1.0s    34.40nm        5.0mb
ELIZ   29.02 298 eP    09 44.00   1.3
FLN    29.30 309 eP    09 42.90  -2.1
       1.2s    57.10nm        5.2mb
   Z   18s     1.40um         4.6Msz
ETOR   29.32 293 eP    09 46.00   0.6
GRR    29.44 308 eP    09 44.30  -2.0
       0.8s    34.25nm        5.1mb
LPF    29.47 308 eP    09 44.40  -2.2
       0.9s    32.75nm        5.1mb
ENIJ   29.65 285 eP    09 49.50   1.1
ECRI   29.71 297 eP    09 49.50   0.6
EVIA   29.73 289 eP    09 50.20   1.0
KONO   29.78 335 iPc   09 48.50  -0.7
NB2    30.27 338 P     09 51.80  -1.9
       1.0s    68.80nm        5.4mb
ECOG   30.70 286 eP    09 58.00   0.3
EGUA   30.75 285 eP    09 59.00   0.9
GUD    30.91 293 eP    10 00.50   0.9
PAB    31.11 290 iPc   10 01.60   0.3
                 eS    15 03.00
ELUQ   31.22 287 eP    10 02.00  -0.2
MAL    31.44 285 iPd   10 05.00   0.9
EHOR   31.96 287 eP    10 08.50  -0.2
EPRU   32.06 286 eP    10 09.50  -0.1
FRU    32.15  63 eP    10 12.00   1.7
       2.3s   150.00nm        5.5mb
   Z   20s     1.00um         4.5Msz
   E   20s     1.50um
                 e     10 22.00  36km
                 e     11 30.00
                 e     15 17.00
LIJA   32.21 286 eP    10 09.00  -2.0
EJIF   32.32 285 eP    10 12.00   0.2
ALJ    32.39 285 eP    10 13.00   0.4
EPLA   32.41 292 eP    10 13.50   0.9
PLAT   32.60 284 eP    10 15.50   1.1
IFR    32.61 279 iP    10 19.00   4.4X
CNIL   32.80 285 eP    10 15.50  -0.5
EKA    33.04 320 Pd    10 17.10  -0.8
       1.0s    28.20nm        5.1mb
SDF    33.09 354 iP    10 17.20  -1.0
EVAL   33.17 287 eP    10 20.00   0.8
KSH    33.30  69 eP    10 22.50   2.0
       0.7s    20.00nm        5.1mb
   Z   16s     1.79um         4.9MszX
```

22d 11h

	N	12s	1.24um			
	E	12s	1.17um			
AVE		34.52	280	eP	10 31.00	0.0
				i	10 41.50	37km
DMU		34.61	317	eP	10 33.00	1.5
PRZ		34.94	64	eP	10 36.00	1.3
		1.6s	70.00nm			5.3mb
	Z	16s	1.00um			4.7MszX
TIO		35.04	276	iP	10 37.00	1.4
KEV		35.35	356	iP	10 37.90	0.3
		0.9s	67.60nm			5.6mb
	Z	20s	3.20um			5.1Msz
				LR	27 30.00	
TRO		36.02	351	eP	10 42.50	-0.8
NDI		36.71	87	eP	10 51.00	1.4
ELT		40.65	47	eP	11 20.70	-1.4
		1.8s	75.00nm			5.1mb
	Z	16s	1.70um			5.0MszX
				eS	17 29.00	
WMO		41.63	61	P	11 31.00	0.6
		1.0s	42.00nm			5.1mb
	Z	16s	2.59um			5.2MszX
	N	12s	1.48um			
				sP	11 42.00	
HYB		42.86	102	eP	11 40.50	-0.2
AKU		43.66	332	iPc	11 47.30	0.8
		1.7s	384.62nm			5.9mb
				i	13 34.90	619kmX
GBA		44.11	108	P	11 54.00	3.3X
KBS		45.31	354	eP	12 01.40	1.7
NRI		45.36	24	eP	12 01.00	0.8
		1.1s	149.00nm			5.8mb
	Z	16s	2.40um			5.2MszX
	N	16s	1.20um			
	E	16s	1.10um			
				i	12 12.00	38km
				e	13 47.00	
				eS	18 58.00	
				eSS	22 00.00	
UER		45.39	49	eP	12 01.00	0.4
		1.9s	60.00nm			5.2mb
				eS	18 40.00	
KIC		45.77	241	P	12 03.92	-0.1
		0.9s	100.00nm			5.7mb
TIC		45.78	242	P	12 03.90	-0.2
LIC		46.07	241	P	12 06.20	-0.2
	Z	21s	0.55um			4.5Msz
LSA		47.75	79	Pd	12 20.50	0.4
		1.2s	27.00nm			5.1mb
MOY		49.66	49	ePc	12 34.80	0.8
		1.4s	56.00nm			5.4mb
LSZ		50.05	188	iPd	12 39.00	1.6
ZAK		51.29	50	eP	12 45.70	-0.7
		2.0s	95.00nm			5.4mb
	Z	16s	2.18um			5.3MszX
	E	16s	2.42um			
				eS	20 05.00	
GTA		51.40	64	P	12 46.50	-1.1
		1.0s	42.00nm			5.4mb
				pP	12 57.00	36km
IRK		51.61	47	ePc	12 46.80	-2.1
		1.5s	37.00nm			5.1mb
	Z	18s	1.28um			5.0Msz
	N	16s	0.34um			
	E	18s	1.19um			
				e	12 59.00	44kmX
				eS	20 08.00	
AVY		54.81	165	eP	13 15.00	2.0
BUL		54.81	187	eP	13 13.70	0.7
LZH		55.48	67	eP	13 17.00	-0.8
		2.0s	84.00nm			5.4mb
	Z	18s	1.24um			5.0Msz
	N	16s	0.92um			
				pP	13 27.00	33km
				eS	20 55.00	
BOD		56.15	39	eP	13 19.70	-2.4X
		1.4s	58.00nm			5.4mb
CIT		57.26	46	eP	13 30.00	-0.2
GDH		57.32	335	iPc	13 34.20	3.9X
		0.9s	100.84nm			5.9mb
				e	36 42.00	
CD2		57.36	73	P	13 30.00	-1.2
BTO		58.46	60	eP	13 37.00	-1.8
CHTO		58.86	88	eP	13 40.30	-1.5
TIK		58.86	22	iPd	13 40.00	-1.1
		1.2s	70.00nm			5.7mb
				eS	21 44.00	
KMI		59.01	79	Pc	13 42.00	-1.0
		1.5s	70.00nm			5.6mb
	Z	16s	1.90um			5.3MszX
				pP	13 50.00	26km
				sP	13 53.50	
				S	21 46.00	
WIN		59.27	199	eP	13 47.00	2.3
		1.0s	40.00nm			5.5mb
HHC		59.46	59	P	13 45.00	-0.8
		1.0s	57.00nm			5.7mb
	Z	18s	1.21um			5.1Msz
	N	15s	0.49um			
	E	15s	0.84um			
				S	21 55.00	
XAN		60.11	67	P	13 49.00	-1.2
		1.0s	18.00nm			5.2mb
	Z	20s	0.91um			4.9Msz
				pP	14 00.00	37km
				eS	21 56.00	
SLR		60.38	186	iPd	13 54.50	2.4
		1.1s	40.00nm			5.5mb
	Z	18s	4.74um			5.7Msz
KSR		60.65	188	iPd	13 53.00	-1.0
TIY		61.27	62	eP	13 57.20	-0.9
	Z	20s	1.62um			5.2Msz
	N	19s	1.58um			
				S	22 18.00	
NST		61.42	90	eP	13 58.50	-0.9
GYA		61.57	76	iPc	13 59.20	-1.1
		1.2s	46.00nm			5.5mb
PRY		61.64	187	iPd	14 01.10	0.4
		0.7s	11.00nm			5.1mb
YAK		62.38	32	eP	14 03.10	-2.0
		1.8s	70.00nm			5.5mb
SEK		63.01	187	iPc	14 10.50	0.8
		0.7s	27.00nm			5.5mb
BJI		63.02	58	eP	14 09.00	-0.6
		1.5s	86.00nm			5.7mb
	Z	16s	1.17um			5.2MszX
	E	16s	0.93um			
				eS	22 40.00	
				eSS	26 48.00	
BLF		63.93	188	eP	14 16.50	0.7
		0.7s	22.00nm			5.4mb
FRS		64.67	189	eP	14 22.50	2.1
		0.7s	11.00nm			5.1mb
POF		65.18	194	iPc	14 26.50	2.8X
		0.5s	8.00nm			5.1mb
TIA		65.31	62	eP	14 24.40	-0.3
WHN		65.76	69	eP	14 26.50	-1.1
		1.5s	50.00nm			5.4mb
RES		65.95	347	ePd	14 29.40	1.2
		1.0s	3.00nm			4.3mb X
SNY		67.34	54	Pd	14 36.30	-1.2
	Z	17s	3.75um			5.7MszX
	N	15s	0.83um			
	E	16s	2.45um			
CN2		67.67	52	eP	14 37.70	-1.9
		1.0s	9.30nm			4.8mb
	Z	17s	1.89um			5.4MszX
	N	16s	1.15um			
	E	16s	0.63um			
				epP	14 48.60	36km
				eS	23 33.00	
OIZ		67.69	82	eP	14 39.00	-1.1
IPM		68.23	100	ePc	14 43.30	-0.2
NJ2		68.48	65	Pc	14 44.00	-0.8
		1.0s	7.80nm			4.8mb
	Z	18s	0.59um			4.9Msz
	E	15s	0.49um			
				S	23 42.00	
SSE		70.68	65	Pc	14 57.70	-0.6
		1.0s	11.00nm			4.9mb
	Z	20s	0.90um			5.0Msz
	E	15s	0.50um			
				S	24 09.00	
LMN		71.75	313	eP	15 07.50	2.9X
MGD		72.13	28	eP	15 06.00	-0.5
		1.0s	80.00nm			5.7mb
	Z	18s	0.70um			5.0Msz
	N	20s	0.60um			
	E	18s	0.70um			
				e	15 14.00	26km
				e	15 27.00	
				eS	24 26.00	
				e	25 00.00	
CBM		73.13	316	eP	15 12.91	0.3
		0.7s	30.88nm			5.4mb
	Z	20s	0.51um			4.8Msz
JAO		73.26	324	ePd	15 12.70	-0.6
HNME		73.47	315	eP	15 13.38	-1.2
BRW		74.00	4	eP	15 18.26	1.1
				e	15 32.97	52kmX
MIM		74.59	315	(P)	15 22.44	1.3
ILT		74.73	12	iPc	15 21.00	-0.5
		1.2s	65.00nm			5.5mb
				e	15 31.00	32km
BNH		76.26	315	eP	15 31.21	0.5
YSS		76.35	42	ePc	15 31.00	-0.1
		1.2s	30.00nm			5.2mb
	Z	18s	0.70um			5.0Msz
	N	18s	0.60um			
	E	18s	0.50um			
				e	15 42.00	36km
				(S)	25 17.00	
FCC		77.50	335	eP	15 40.50	3.3X
HRV		77.65	313	eP	15 39.46	1.1
		0.9s	48.63nm			5.5mb
	Z	21s	0.76um			5.0Msz
RSNY		78.17	316	eP	15 41.67	0.4
		1.0s	59.38nm			5.6mb
	Z	20s	0.51um			4.9Msz
IMA		79.36	3	ePc	15 47.80	0.3
		0.6s	21.90nm			5.3mb
EEO		79.37	320	eP	15 51.00	3.3X
MAT		79.77	53	ePKP	15 47.00	-3.1X
	Z	20s	0.35um			4.7Msz
PAL		79.95	313	ePc	15 52.04	1.1
YKA		79.98	346	P	15 51.30	0.6
		1.0s	50.00nm			5.5mb
PNJ		80.16	313	iP	15 53.68	1.6
GMTN		80.19	313	iP	15 52.60	0.4
GPD		80.28	313	eP	15 53.50	0.8
FBA		80.72	1	ePc	15 55.60	1.1
		0.9s	50.10nm			5.5mb
WLVO		80.74	318	P	15 55.81	0.8
STCO		81.63	317	P	16 00.40	0.7
ACTO		81.86	318	P	16 01.89	0.9
TYNO		82.09	318	P	16 02.88	0.7
TTA		82.35	5	ePc	16 04.50	1.3
		1.5s	91.20nm			5.6mb
ELF		82.82	318	P	16 07.50	1.5
LDN		82.85	318	P	16 07.55	1.4
DLA		83.18	318	P	16 08.55	0.7
SO81		83.32	254	eP	16 12.00	3.1X
PMR		84.01	2	ePc	16 12.40	0.8
		1.2s	70.10nm			5.7mb
KLU		84.15	0	eP	16 13.60	1.1
SVW		84.19	5	ePc	16 14.00	1.4
CP2		84.23	3	eP	16 10.27	-2.8X
MCWV		84.32	315	eP	16 15.58	1.9
		0.4s	87.21nm			6.3mb
	Z	21s	0.82um			5.1Msz
BALM		84.57	358	eP	16 15.47	0.8
CVL		84.59	313	eP	16 15.84	0.8
ULM		84.69	331	ePd	16 18.00	2.7X
SLKM		85.07	2	eP	16 17.36	0.4
SMY		86.12	23	P	16 30.00	7.6X
	Z	20s	1.56um			5.4Msz
NAV		86.42	314	eP	16 24.20	0.0
SIT		88.19	354	P	16 40.00	7.7X
	Z	20s	1.23um			5.3Msz
LHS		88.32	312	eP	16 34.72	1.4
JSC		88.73	312	eP	16 36.33	1.0
TKL		89.31	314	eP	16 38.59	0.5
SES		89.94	339	eP	16 41.00	0.1
		1.0s	111.00nm			6.1mb
				pP	16 50.00	28km
GOGA		90.66	312	eP	16 45.96	1.6
	Z	22s	0.63um			5.0Msz
FVM		91.41	320	eP	16 48.21	0.4
		1.1s	53.56nm			5.8mb
BAO		92.68	253	eP	16 53.80	-0.1
				e	16 56.20	8kmX
RSSD		92.92	331	eP	16 55.05	0.1
		1.0s	36.38nm			5.8mb
	Z	21s	0.41um			4.9Msz
NEW		93.58	341	eP	16 58.29	0.6
		1.0s	72.05nm			6.1mb
				e	17 08.23	31km
				e	17 15.85	
OLY		93.80	318	eP	16 58.89	0.1
DPW		94.22	342	eP	17 01.67	1.0
				e	17 11.19	30km

LCCM 94.24 337 eP 17 01.10 0.2
MIAR 95.66 319 eP 17 07.88 0.5
1.1s 66.67nm 6.0mb
Z 20s 0.57um 5.0Msz
BW06 96.15 334 eP 17 09.13 -0.7
1.3s 13.03nm 5.2mb
GOL 97.17 330 eP 17 14.00 -0.5
1.3s 11.13nm 5.2mb
Z 20s 0.63um 5.1Msz
e 17 43.69 112kmX
MEO 98.08 323 iPc 17 19.10 0.7
HVU 98.15 336 eP 17 19.03 0.3
WMOK 98.22 323 eP 17 19.20 0.2
0.7s 4.93nm 5.1mb
Z 20s 0.61um 5.1Msz
DAU 98.83 334 eP 17 22.66 0.6
DUG 99.58 335 eP 17 25.86 0.6
0.8s 5.47nm 5.1mb
Z 19s 0.46um 5.0Msz
SRU 99.71 333 eP 17 25.61 -0.3
MSU 100.84 334 ePdiff17 32.14 1.2
ALQ 101.65 328 Pdiff 17 40.00 5.5X
Z 19s 0.55um 5.1Msz
ARUT 101.94 334 ePdiff17 37.99 2.3
WDC 102.14 342 Pdiff 17 50.00 13.7X
Z 19s 0.48um 5.0Msz
CMB 103.94 340 Pdiff 17 50.00 5.5X
Z 19s 0.67um 5.2Msz
ISA 105.56 337 PKP 22 20.00 14.9X
Z 20s 0.81um 5.3Msz
ZOBO 109.23 263 ePKP 22 30.00 16.8X
Z 20s 0.26um 4.8Msz
LR 56 20.00
STK 120.33 110 ePKP 22 32.40 -0.8
1.2s 1.90nm
HON 123.06 14 PKP 22 50.00 11.4X
Z 19s 0.36um 5.0Msz
S.D. = 1.1 on 381 of 438 obs.

? MAR 22, 1993 11h 09m 13.83± 5.32s
59.960 N ±21.3km 4.436 E ±33.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.3 (BER).

EGD 0.50 51 iPc 09 24.06 0.0
BER 0.62 46 eP 09 26.26 0.0
ASK 0.65 36 eP 09 26.68 -0.1
eS 09 32.89
ODD1 1.10 92 eP 09 34.58 0.0
eS 09 47.85
HYA 1.49 35 eP 09 40.61 0.1
eS 09 58.14
NRA0 3.62 75 ePg 10 19.26 8.2X
eS 10 50.44
S.D. = 0.1 on 5 of 6 obs.

MAR 22, 1993 11h 53m 38.35± 0.33s
40.184 S ± 3.0km 174.762 E ± 4.3km
DEPTH = 28.9 ± 3.9 km
COOK STRAIT, NEW ZEALAND (163)
ML 3.7 (WEL).

BSZ 0.41 19 Pc 53 47.30 0.1
S 53 52.40
KIW 0.69 171 Pd 53 51.50 -0.3
MNG 0.70 129 P 53 51.90 -0.1
S 54 01.00
DIW 0.89 226 P 53 54.30 -0.5
CAW 0.95 166 P 53 55.40 -0.3
MRW 1.05 182 P 53 56.80 -0.3
S 54 10.80
NRZ 1.06 323 P 53 58.20 0.9
TCW 1.09 200 P 53 57.40 -0.3
WEL 1.10 180 P 53 57.80 0.0
MTW 1.13 150 P 53 58.70 0.5
CNZ 1.15 32 P 53 57.80 -0.9
PGZ 1.23 111 eP 54 00.20 0.5
MOW 1.29 163 P 54 01.10 0.6
BLW 1.30 156 P 54 01.30 0.6
WAHZ 1.32 69 eP 54 00.50 -0.4
MOZ 1.68 1 P 54 06.20 0.1
S 54 26.60
ORZ 1.82 249 eP 54 08.30 0.1
KHZ 2.41 202 P 54 16.70 0.0
DSZ 2.73 234 eP 54 21.10 -0.1
S.D. = 0.5 on 19 of 19 obs.

? MAR 22, 1993 12h 07m 20.22± 2.32s
19.760 N ±17.2km 64.483 W ±34.3km
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
VIRGIN ISLANDS (91)

LPR 1.95 222 iP 07 53.50 -0.3
CPD 2.18 219 iP 07 57.40 0.3
SJG 2.28 224 iP 07 58.40 -0.1
CLLP 2.59 230 iP 08 12.50 9.6X
MGP 3.02 235 iP 08 09.00 0.0
IDE 3.15 245 iP 08 10.80 0.0
YKA 54.69 334 eP 16 51.50 0.0
0.6s 0.50nm 3.7mb
S.D. = 0.2 on 6 of 7 obs.

• MAR 22, 1993 12h 56m 13.87± 2.37s
43.254 N ±24.1km 10.832 E ±19.6km
DEPTH = 5.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.2 (FIR).

FIR 0.61 30 ePg 56 26.00 0.0
iSg 56 34.50
PGF 1.52 243 Pn 56 42.10 0.3
Sn 57 01.30
SBF 2.54 285 Pn 56 57.50 1.0
LMR 3.16 273 Pn 57 04.90 -0.2
LRG 3.27 275 Pn 57 05.80 -0.9
S.D. = 1.0 on 5 of 5 obs.

& MAR 22, 1993 13h 08m 16.91s
34.468 N 116.508 W
DEPTH = 2.6km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.3 (PAS), 3.2 (GS).

PEC 0.79 223 iPd 08 31.53 -1.1
GSC 0.87 344 iPc 08 33.00 -1.3
SSK 1.01 256 eP 08 35.65 -1.3
eS 08 50.36
PLM 1.15 195 eP 08 38.24 -1.0
eS 08 52.76
GLA 1.99 135 ePn 08 48.56 -3.3
ISA 2.01 307 ePn 08 50.00 -2.2
eS 09 20.28
TPNV 2.48 5 ePn 08 58.61 -0.5
BCH 3.03 285 ePn 09 07.48 0.7
PHAM 3.47 294 Pg 09 22.56 9.6
TNP 3.65 351 (Pn) 09 15.55 -0.2
ePg 09 24.29
MEMM 3.75 329 ePg 09 26.27 9.3
BONR 3.77 338 ePn 09 17.64 0.1
ePg 09 26.65
ARUT 4.14 36 iPd 09 20.89 -1.7
MSU 5.34 40 ePn 09 37.79 -1.9
14 obs. associated

MAR 22, 1993 13h 23m 53.23± 1.34s
48.276 N ± 5.9km 8.054 E ±10.3km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 1.9 (STR).

FEL 0.40 184 ePg 24 00.43 -1.1
WLS 0.49 287 Pg 24 02.95 -0.2
Sg 24 12.58
CDF 0.54 285 Pg 24 03.80 -0.3
ECH 0.60 265 Pg 24 04.96 -0.4
LANF 0.72 347 Pg 24 07.83 0.4
Sg 24 19.12
MOF 0.75 236 Pg 24 08.47 0.5
BSF 0.96 243 Pg 24 11.99 0.5
Sg 24 26.06
LOMF 1.24 222 Pg 24 17.12 0.8
Sg 24 35.48
S.D. = 0.7 on 8 of 8 obs.

MAR 22, 1993 13h 58m 36.98± 0.14s
45.313 N ± 2.9km 150.337 E ± 2.3km
DEPTH = 45.7km (9 depth phases)
5.5mb (133 obs.) 4.9Msz (46 obs.)
KURIL ISLANDS (221)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 40S, 72C
Centroid Location:
Origin Time 13:58:43.3 0.3
Lat 45.23N 0.04 Lon 150.51E 0.04
Dep 46.2 2.3 Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr= 9.57 0.34 Mtt=-2.95 0.57
Mff=-6.62 0.43 Mrt= 3.48 0.63
Mrf= 7.55 0.70 Mtf=-9.02 0.45
Principal Axes:
T Val= 12.55 Plg=68 Azm=269
N 3.95 13 33
P -16.49 17 127
Best Double Couple:Mo=1.5*10**17
NP1:Strike=236 Dip=30 Slip= 116
NP2: 27 63 76

KUR 1.75 268 iPnd- 59 06.50 1.2
iS 59 28.00
SHO 2.91 241 iPnc 59 21.00 -0.9
eS 59 56.50
KUSJ 4.61 243 P 59 44.30 -1.6
eS 00 36.30
YSS 5.56 291 iPn 00 00.00 0.7
Z 17s 17.50um
N 17s 5.00um
E 17s 12.00um
iS 01 08.80
ASAJ 5.61 260 P 00 02.80 2.7X
HOOJ 5.88 243 iP+ 00 03.90 0.1
eS 01 12.50
SKR 6.60 34 ePn 00 13.20 -0.7
Z 16s 5.60um
N 16s 3.90um
E 16s 3.70um
SAP 6.86 254 eP 00 22.00 4.6X
eS 01 43.00
MRRJ 7.29 250 eP 00 23.90 0.4
eS 01 44.10
AOMJ 8.71 240 eP 00 41.10 -2.1
OFUJ 8.95 229 eP 00 42.60 -3.9X
eS 02 16.10
PET 9.43 32 ePn 00 56.00 2.9X
Z 20s 6.50um
OKH 9.55 332 ePn 00 54.00 -0.6
Z 19s 4.00um
e 02 52.00
YAMJ 10.49 231 eP 01 04.00 -3.6X
eS 02 54.30
NIIJ 11.73 231 P 01 21.30 -3.1X
KAKJ 11.91 224 P 01 23.00 -3.8X
eS 03 27.90
CHJJ 12.63 227 eP 01 33.20 -3.2X
eS 03 43.90
MAT 12.67 230 eP 01 34.00 -3.0X
0.8s 37.31nm 5.4mb
(S) 03 44.00
MTMJ 12.86 232 P 01 36.80 -2.8X
VLA 13.41 267 iPnd 01 45.00 -1.7
TSRJ 14.64 233 P 02 01.10 -1.7
MDJ 14.70 275 eP 02 05.80 2.2X
1.5s 140.00nm 5.1mb
PP 02 17.00
S 04 48.00
MGD 14.82 1 ePc 02 04.00 -0.9
1.5s 120.00nm 5.0mb
Z 17s 2.80um 4.5MszX
N 18s 2.80um
E 17s 0.60um
eSS 04 49.00
WKYJ 15.82 231 P 02 23.00 4.8X
YONJ 16.35 238 P 02 23.40 -1.3
TKSJ 16.86 233 P 02 28.90 -2.3
SMY 17.21 56 eP 02 34.82 -0.6
1.1s 115.45nm 4.9mb
SEY 17.66 3 iPc 02 41.00 0.0
Z 17s 4.00um
e 06 00.00
CN2 17.79 274 eP 02 41.40 -1.3
0.8s 69.00nm 4.8mb
Z 17s 5.44um 6.4MszX
N 26s 4.83um
E 26s 1.51um
esP 02 55.50
SHNJ 18.49 239 P 02 50.50 -0.8
SNY 19.67 269 iPc 03 03.00 -1.8
1.0s 180.00nm 5.3mb

22d 14h

```
    Z  18s       4.62um                4.4Msz
    N  13s       0.84um
    E  15s       2.72um
                 pP      03 14.00   50km
                 S       06 35.00
KUMJ   19.77 237 P       03 06.00    0.1
YAK    20.56 332 eP      03 09.90   -4.0X
       1.0s   1309.00nm             6.2mb
    Z  19s       4.10um             4.8Msz
    N  19s       2.50um
    E  19s       1.60um
                 i       03 27.00   82kmX
                 ePPP    03 44.00
                 eS      06 56.00
                 i       14 35.00
KAGJ   20.72 234 eP      03 16.80    1.0
DL2    22.17 263 iPc     03 30.00   -0.3
    Z  30s       1.52um             4.2MszX
    N  15s       0.74um
    E  16s       1.26um
                 S       07 29.00
CIT    24.97 299 eP      03 55.00   -2.5X
    Z  16s       4.10um             5.0MszX
    E  16s       7.40um
                 eS      08 21.00
BOD    25.39 313 eP      04 00.50   -0.8
BJI    25.54 270 eP      04 02.50   -0.3
       1.2s    130.00nm             5.4mb
    Z  18s       3.53um             4.9Msz
    E  16s       2.80um
                 eScS    14 57.50
TIA    26.59 262 Pc      04 12.90    0.3
       1.0s    280.00nm             5.8mb
    Z  19s       1.45um             4.5Msz
    E  14s       0.98um
                 pP      04 24.00   42km
SSE    26.77 248 iPd     04 15.00    0.7
       1.2s    210.00nm             5.6mb
    Z  16s       2.20um             4.8MszX
    N  16s       1.00um
    E  16s       1.60um
                 pP      04 28.00   52km
                 S       08 42.00
NJ2    27.72 252 Pc      04 23.00    0.1
       1.0s     33.00nm             4.9mb
    Z  14s       2.07um             4.9MszX
    N  16s       1.09um
    E  15s       1.85um
                 pP      04 27.00   14kmX
ILT    27.77  25 iPc     04 20.60   -2.3X
       1.4s     69.00nm             5.1mb
    Z  19s       1.30um             4.5Msz
                 i       07 38.00
                 iS      08 59.00
                 e       15 06.00
TIK    28.33 346 iPc     04 27.50   -0.5
       0.7s     13.00nm             4.7mb
    Z  16s       2.00um             4.8MszX
                 i       05 27.00 315kmX
                 i       15 06.00
HHC    28.48 275 iPc     04 30.00    0.2
       0.8s    220.00nm             5.9mb
    Z  18s       6.04um             5.2Msz
    N  15s       1.51um
    E  15s       3.17um
                 sP      04 48.00
                 S       09 16.00
                 sS      09 32.00
TIY    29.17 268 iPd     04 36.90    0.9
       0.9s     95.00nm             5.5mb
    Z  18s       3.15um             5.0Msz
    E  16s       1.65um
                 S       09 30.00
BTO    29.66 275 P       04 40.00   -0.4
       1.0s     44.00nm             5.1mb
    N  14s       1.24um
    E  14s       1.35um
                 pP      04 45.50   19kmX
                 ePP     05 35.50
                 eS      09 32.00
ZAK    31.56 296 eP      04 57.00    0.1
    Z  16s       3.66um             5.1MszX
    E  16s       5.04um
                 eS      09 51.00
WHN    31.69 255 iPc     04 58.00   -0.3
       1.0s     44.00nm             5.2mb
    Z  20s       2.49um             4.9Msz
```

```
    E  17s       1.09um
                 eS      10 08.00
                 sS      10 26.00
GUMO   31.96 190 eP      04 54.70   -6.0X
    Z  23s       0.85um             4.4MszX
PJG    31.96 190 eP      04 54.80   -5.9X
QZH    32.66 242 iPc     05 07.00    0.3
                 S       10 24.00
MOY    32.79 299 eP      05 08.90    1.3
XAN    33.47 265 Pc      05 13.00   -0.8
       1.0s     66.00nm             5.5mb
    Z  20s       1.58um             4.7Msz
    N  13s       0.95um
    E  14s       0.55um
                 pP      05 20.50   26kmX
                 sP      05 26.00
                 S       10 28.00
TTA    34.77  40 eP      05 24.39   -0.4
       1.3s     21.60nm             4.9mb
SVW    34.85  43 (P)     05 24.75   -0.7
       1.3s     22.10nm             4.9mb
LZH    36.00 272 iPc     05 36.00    0.4
       1.4s    440.00nm             6.2mb
    Z  28s       2.00um             4.7MszX
    N  14s       0.81um
                 sP      05 52.00
                 ePP     06 58.00
                 PcP     08 02.00
                 S       11 10.00
                 sS      11 30.00
                 ScP     11 44.00
                 PcS     11 48.00
                 eSS     13 44.00
IMA    36.10  35 iPc     05 35.71   -0.3
       0.9s     14.66nm             4.9mb
BRW    36.10  26 iP      05 35.54   -0.3
CVP    36.37 230 ePc     05 38.80    0.2
CP2    36.49  43 (P)     05 40.32    0.9
CRP    36.53  43 eP      05 40.17    0.4
GTA    37.29 279 iPc     05 47.00    0.7
       1.0s    140.00nm             5.8mb
    Z  18s       2.28um             5.0Msz
    E  13s       0.72um
                 pP      05 58.50   41km
                 sP      06 03.00
                 PP      07 21.00
                 PcP     08 06.00
                 S       11 30.00
                 ScP     11 48.00
                 ScS     15 56.50
GZH    37.32 246 Pc      05 47.40    0.9
       1.0s    100.00nm             5.7mb
    Z  22s       1.30um             4.7Msz
PMR    37.97  43 eP      05 51.29   -0.3
       1.1s     24.67nm             5.0mb
    Z  21s       0.88um             4.5Msz
BAG    38.10 231 ePc     05 53.00   -0.4
       0.9s     58.82nm             5.5mb
FBA    38.48  37 iPc     05 56.05    0.2
       1.0s     20.84nm             5.0mb
CD2    38.83 265 iPc     05 59.40    0.2
       0.9s    280.00nm             6.1mb
    Z  30s       1.17um             4.5MszX
                 pP      06 08.80   32kmX
                 sP      06 14.00
                 PP      07 30.00
                 S       11 52.00
                 sS      12 10.00
NRI    38.83 330 iPd     05 55.00   -3.6X
       1.2s     22.00nm             4.9mb
    Z  18s       1.80um             4.9Msz
    E  20s       3.70um
                 e       07 37.00 594kmX
GYA    39.51 257 iPc     06 04.80   -0.2
       1.0s     81.00nm             5.5mb
    Z  26s       1.14um             4.6MszX
    N  20s       1.51um
    E  20s       2.94um
                 PP      07 40.00
                 PcP     08 13.20
                 ScP     11 58.40
                 S       12 06.00
KLU    39.51  43 eP      06 04.68    0.1
PLP    40.36 220 ePd     06 12.50    0.6
ELT    41.25 305 eP      06 17.00   -1.8
       1.5s     30.00nm             4.8mb
    Z  17s       1.50um             4.9MszX
```

```
                 e       08 14.00
                 e       16 16.00
BALM   41.29  43 eP      06 19.83    0.6
QIZ    42.50 245 eP      06 31.00    1.6
                 eS      12 53.00
NVS    42.54 308 eP      06 27.80   -1.6
       1.5s     16.00nm             4.5mb
    Z  15s      25.00um             6.2MszX
                 e       06 47.80   83kmX
                 e       08 20.50
                 e       12 46.50
                 e       16 27.00
KMI    43.07 259 iPc     06 35.00    0.7
       1.5s    280.00nm             5.8mb
    Z  22s       1.90um             4.9Msz
    N  20s       1.70um
    E  20s       1.60um
                 pP      06 47.50   46km
                 S       12 58.00
                 sS      13 17.00
WMQ    43.65 291 P       06 40.00    1.4
       1.0s     21.00nm             4.8mb
    Z  16s       2.33um             5.2MszX
    N  14s       1.64um
                 pP      06 52.00   43km
                 sP      06 57.50
SIT    45.77  47 P       07 10.00   14.7X
    Z  20s       3.07um             5.2Msz
HON    48.37 102 P       07 30.00   13.8X
    Z  20s       0.73um             4.7Msz
LSA    48.41 272 iPc     07 18.40    1.4
       0.9s     65.00nm             5.7mb
CHTO   49.90 255 ePc     07 28.50    0.6
       0.9s     50.09nm             5.5mb
PRZ    50.31 294 iPc     07 32.50    1.4
       1.0s     60.00nm             5.6mb
    Z  16s       2.40um             5.3MszX
    N  16s       2.00um
    E  16s       2.00um
NST    51.30 252 eP      07 40.00    1.4
FRU    52.55 296 iPd     07 49.00    1.1
       2.0s    110.00nm             5.5mb
    Z  19s       2.20um             5.2Msz
    N  19s       2.20um
    E  19s       2.20um
RES    52.80  18 eP      07 49.50    0.2
       1.0s     20.00nm             5.1mb
YKA    53.22  35 eP      07 52.20   -0.3
       1.1s     18.20nm             5.0mb
KSH    53.43 292 Pd      07 55.70    1.2
       1.2s     80.00nm             5.6mb
    Z  24s       2.74um             5.2MszX
    N  14s       1.08um
    E  14s       1.72um
                 sP      08 10.00
                 PP      09 59.00
                 S       15 22.00
                 sS      15 44.00
                 SS      19 03.50
SVE    53.57 317 ePc     07 52.70   -2.4
       1.0s     40.00nm             5.4mb
    Z  18s       1.50um             5.1Msz
    N  18s       0.80um
    E  18s       1.00um
                 e       08 08.50   60kmX
                 e       09 02.30
RMW    57.43  54 (P)     08 23.33    0.1
KEV    58.04 340 eP      08 45.00   17.9X
NDI    58.78 281 iPc     08 33.00    0.2
       1.0s    360.00nm             6.5mb
IPM    59.02 242 ePc     08 35.00    0.4
       0.9s     40.10nm             5.5mb
VGB    59.10  55 eP      08 35.23    0.3
DPW    59.22  52 eP      08 34.86   -0.8
NEW    59.59  51 eP      08 37.29   -0.9
       1.0s     24.29nm             5.3mb
KGM    59.63 238 ePd     08 40.40    1.6
SDF    59.90 338 iP      08 39.30   -0.8
LBFM   60.86  59 eP      08 47.30    0.1
WDC    60.91  61 P       09 00.00   12.7X
    Z  20s       0.32um             4.5Msz
SES    61.53  46 eP      08 50.00   -1.4
ORV    62.16  61 eP      08 54.71   -1.1
FCC    63.51  32 ePc     09 06.40    2.1
CMB    63.78  62 eP      09 05.96   -0.5
       0.9s      8.01nm             4.8mb
    Z  20s       0.41um             4.6Msz
```

KAF 63.92 334 eP 09 05.60 -1.3
0.5s 8.40nm 5.0mb
GDH 64.40 9 iPd 09 14.60 4.6X
1.2s 93.75nm 5.7mb
LEM 64.46 228 ePd 09 11.50 0.3
KVN 64.56 60 eP 09 12.17 0.4
QUE 64.86 288 eP 09 14.00 0.2
MEMM 64.91 61 eP 09 14.44 0.7
HYB 65.08 270 iPc 09 15.00 -0.1
1.0s 170.00nm 6.0mb
OBN 65.38 325 iPc 09 14.50 -2.0
1.0s 35.00nm 5.4mb
Z 18s 1.70um 5.3Msz
N 18s 1.20um
E 18s 0.80um
i 09 27.20 44km
e 09 46.00
e 19 12.00
(SS) 22 10.00
ASH 65.51 300 eP 09 18.50 0.9
NUR 65.66 334 eP 09 17.00 -1.2
0.4s 6.70nm 5.0mb
Z 21s 2.00um 5.3Msz
LR 40 00.00
TNP 65.70 60 eP 09 18.94 -0.2
0.8s 13.76nm 5.1mb
MAIO 65.84 298 iPc 09 20.00 0.1
eS 18 08.00
HVU 65.98 54 eP 09 20.80 0.0
WB2 66.55 196 iPd 09 23.10 -1.2
0.8s 21.50nm 5.2mb
WRA 66.56 196 P 09 23.80 -0.5
0.9s 4.00nm 4.5mb X
DUG 66.98 56 eP 09 27.03 -0.1
0.9s 14.49nm 5.0mb
Z 20s 0.36um 4.6Msz
TPNV 67.02 60 eP 09 27.01 -0.5
0.9s 23.79nm 5.2mb
BW06 67.15 52 eP 09 27.37 -1.0
1.1s 19.91nm 5.1mb
POO 67.65 274 iPc 09 23.00 -8.5X
0.9s 84.03nm 5.8mb
GSC 67.74 62 eP 09 31.50 -0.4
DAU 67.74 55 eP 09 32.57 0.4
ARUT 68.18 58 eP 09 34.57 -0.2
UPP 68.27 336 iP 09 32.90 -1.8
EMUT 68.39 55 eP 09 35.85 -0.3
PEC 68.43 63 eP 09 35.12 -1.1
0.8s 12.11nm 5.0mb
GBA 68.45 268 P 09 36.00 -0.4
MSU 68.45 57 eP 09 36.45 -0.1
ULM 68.87 39 eP 09 41.00 2.5X
NB2 68.94 340 P 09 37.60 -1.3
0.9s 21.80nm 5.1mb
PLM 68.97 64 eP 09 40.94 1.2
AKU 68.98 355 iPc 09 38.20 -0.7
1.0s 41.67nm 5.4mb
SRU 69.02 55 eP 09 39.43 -0.5
HFS 69.10 338 eP 09 37.70 -2.1
0.8s 16.80nm 5.1mb
Z 19s 0.90um 5.0Msz
LR 35 43.00
RSSD 69.23 48 iPd 09 39.95 -1.2
1.3s 34.47nm 5.2mb
GRO 69.24 311 iPd 09 42.00 1.1
i 09 55.00 45km
PYA 70.15 313 iPd 09 47.00 0.5
1.0s 100.00nm 5.7mb
Z 20s 3.00um 5.5Msz
N 20s 2.00um
E 20s 2.00um
i 10 03.00 58kmX
KIV 70.39 313 iPc 09 48.50 0.4
1.7s 385.00nm 6.1mb
Z 20s 2.10um 5.4Msz
GRS 71.53 308 iPc 09 56.00 0.9
1.4s 140.00nm 5.7mb
GOL 71.55 52 eP 09 55.35 -0.1
0.9s 7.64nm 4.7mb
Z 19s 0.74um 5.0Msz
BSD 73.08 335 iPd 10 03.50 -0.2
0.7s 12.00nm 5.0mb
TUC 73.46 61 P 10 20.00 13.5X
Z 19s 0.24um 4.5Msz
JAQ 73.74 26 eP 10 06.50 -1.1
ALQ 74.24 56 iPc 10 11.25 0.1
0.9s 5.72nm 4.5mb
Z 21s 0.30um 4.6Msz
WARB 74.36 202 eP 10 12.00 0.5
0.6s 13.00nm 5.1mb
KIS 74.65 323 iPc+ 10 13.00 0.0
0.8s 200.00nm 6.1mb
Z 20s 2.60um 5.5Msz
N 20s 2.10um
E 20s 1.70um
KER 74.67 303 iPc 10 13.70 0.2
OJC 75.62 330 eP 10 17.00 -1.5
0.9s 104.00nm 5.8mb
i 10 18.50 5kmX
PPE 75.81 323 ePc 10 20.00 0.3
UZH 76.01 327 iPd 10 20.80 0.1
1.2s 70.00nm 5.5mb
Z 18s 2.40um 5.5Msz
N 18s 1.40um
E 18s 1.30um
i 10 34.80 49km
i 10 40.80
KSP 76.29 332 eP 10 21.60 -0.7
0.9s 55.00nm 5.5mb
id 10 22.60 3kmX
SPC 76.31 329 eP 10 23.30 0.6
CFR 76.40 322 eP 10 23.00 0.1
VRI 76.47 323 ePc 10 24.00 0.6
CVO 76.74 324 eP 10 26.00 1.1
KAS 76.76 316 iPc 10 21.90 -3.3X
CLL 76.94 334 iPc 10 25.20 -0.7
1.1s 105.00nm 5.8mb
BRG 77.03 333 iP 10 25.80 -0.6
MLR 77.10 323 ePc 10 27.00 -0.1
ISR 77.13 323 eP 10 28.50 1.4
STK 77.24 188 eP 10 28.70 1.1
0.2s 2.10nm 4.8mb
EKA 77.25 345 Pd 10 27.80 0.3
0.9s 47.30nm 5.5mb
WIT 77.40 338 eP 10 30.00 1.6
VRAC 77.50 331 iPc 10 29.60 0.6
1.1s 290.50nm 6.2mb
i 10 29.90 1kmX
PRU 77.60 333 eP 10 25.00 -4.6X
1.0s 38.70nm 5.4mb
e 10 29.60 15kmX
CMP 77.66 324 ePc 10 33.00 3.0X
MOX 77.95 335 eP 10 31.30 -0.2
1.4s 66.00nm 5.5mb
Z 21s 1.20um 5.2Msz
WTS 78.11 338 ePc 10 32.00 -0.3
0.9s 88.70nm 5.8mb
HOF 78.16 334 iPd 10 32.90 0.2
0.8s 44.00nm 5.5mb
SRO 78.17 329 iP 10 34.10 1.4
ZST 78.27 330 iP 10 33.70 0.4
EEO 78.63 32 eP 10 37.00 1.8
KHC 78.66 333 iPc 10 36.40 1.0
1.0s 53.50nm 5.5mb
Z 18s 1.00um 5.2Msz
N 18s 0.70um
E 18s 0.70um
BZS 78.76 326 eP 10 36.50 0.5
WMOK 78.77 52 iPc 10 35.84 -0.4
0.9s 12.44nm 4.9mb
Z 19s 0.63um 5.0Msz
MEO 78.84 52 iPd 10 36.00 -0.7
GEC2 78.87 332 e(P) 10 36.50 -0.2
0.8s 25.40nm 5.2mb
GRF 78.91 334 iPc 10 37.30 0.5
1.0s 84.00nm 5.6mb
Z 19s 1.20um 5.2Msz
BNS 78.94 337 iPc 10 36.70 -0.2
0.9s 60.00nm 5.5mb
EYL 79.12 318 eP 10 36.20 -2.0
HRT 79.15 318 iP 10 38.20 -0.1
TNS 79.25 336 ePc 10 38.20 -0.5
DMU 79.28 347 iPd 10 39.10 0.5
1.0s 174.00nm 6.0mb
ENN 79.46 338 iPc 10 39.70 0.0
0.9s 91.00nm 5.7mb
DLF 79.79 346 iPd 10 42.00 0.6
0.9s 298.00nm 6.2mb
DCN 79.87 347 iPd 10 42.40 0.6
1.0s 162.00nm 5.9mb
HCG 80.20 344 eP 10 44.10 0.4
KCT 80.21 319 iP 10 43.90 -0.1
FUR 80.24 334 eP 10 44.40 0.4
0.9s 108.00nm 5.8mb
HAE 80.26 343 eP 10 44.20 0.3
ALT 80.33 317 eP 10 44.00 -0.7
HTR 80.36 344 eP 10 44.80 0.3
WLF 80.40 337 iP 10 46.61 1.9
DOU 80.42 338 P 10 44.80 0.0
1.0s 58.30nm 5.5mb
KBA 80.53 332 iPc 10 45.70 0.0
0.9s 95.10nm 5.7mb
i 10 46.50 3kmX
PTJ 80.64 330 iPc 10 45.90 -0.3
FVM 80.68 44 eP 10 46.11 -0.3
1.1s 20.60nm 5.0mb
HGH 80.69 343 ePd 10 46.90 0.7
1.0s 55.00nm 5.5mb
ZAG 80.71 330 iPc 10 46.80 0.4
ALN 80.75 321 eP 10 46.88 0.2
WATA 80.88 333 iPc 10 47.70 0.2
WTTA 80.92 333 iPc 10 48.30 0.5
0.8s 91.60nm 5.8mb
i 10 48.70 1kmX
RBL 81.01 331 Pc 10 47.40 -0.7
MOTA 81.02 333 iPc 10 48.50 0.2
0.9s 88.90nm 5.7mb
FVI 81.14 332 Pc 10 47.90 -0.7
WLS 81.20 336 P 10 49.07 0.0
CDF 81.22 336 P 10 49.07 -0.1
VBY 81.24 330 ePc 10 49.50 0.3
VOY 81.25 331 eP 10 48.20 -1.2
ePcP 10 53.50
CEY 81.32 330 eP 10 49.00 -0.7
LIBD 81.36 336 P 10 49.32 -0.5
ECH 81.43 336 P 10 50.09 -0.1
SLE 81.45 335 Pc 10 49.90 -0.4
OGA 81.47 333 eP 10 51.10 0.4
0.8s 53.00nm 5.6mb
BHL 81.47 310 P 10 50.00 -0.8
FEL 81.49 335 P 10 50.44 -0.2
PLE 81.54 326 iPc 10 51.58 0.6
TRI 81.58 331 ePd 10 50.40 -0.5
SRS 81.65 322 eP 10 51.44 0.0
IVA 81.73 326 iPc 10 52.39 0.5
MIAR 81.73 49 iPc 10 51.77 -0.2
0.9s 14.39nm 5.0mb
Z 20s 0.38um 4.8Msz
ZLA 81.73 335 ePc 10 51.80 0.0
VITF 81.76 337 P 10 51.88 0.0
MOF 81.77 336 P 10 51.88 -0.2
ELC 81.82 44 eP 10 52.14 -0.2
HAU 81.85 336 iPc 10 52.40 0.0
0.9s 30.80nm 5.3mb
Z 20s 0.95um 5.2Msz
SKO 81.85 324 iP 10 52.50 0.0
1.0s 194.00nm 6.1mb
Z 19s 1.38um 5.3Msz
LR 50 55.00
BSF 81.88 336 P 10 52.36 -0.3
CSS 81.89 312 eP 10 53.00 0.2
HRI 81.90 310 iPc 10 54.10 1.1
OSS 81.91 334 ePc 10 53.30 0.4
KNT 81.91 323 eP 10 52.72 -0.1
VAY 81.92 323 iPc 10 53.40 0.6
1.0s 208.00nm 6.1mb
PVY 81.93 325 iPc 10 53.13 0.1
CTI 81.99 332 P 10 52.10 -1.2
SOH 81.99 322 eP 10 53.04 -0.3
BBS 82.01 336 P 10 52.70 -0.6
RSNY 82.08 31 eP 10 53.06 -0.6
0.9s 10.82nm 4.9mb
Z 21s 0.24um 4.5Msz
OLY 82.09 47 eP 10 53.50 -0.3
LLS 82.10 334 iPc 10 54.30 0.3
CBM 82.10 25 eP 10 53.23 -0.5
0.9s 17.66nm 5.1mb
Z 20s 0.37um 4.7Msz
OUR 82.12 322 eP 10 53.36 -0.5
NKY 82.13 326 iPc 10 53.74 -0.3
IZM 82.20 318 iP 10 54.00 -0.4
BRY 82.24 326 iPc 10 54.01 -0.6
GRG 82.29 323 eP 10 54.48 -0.4
VDL 82.30 334 ePc 10 55.70 0.7
LOMF 82.31 336 P 10 54.59 -0.3
THE 82.32 322 eP 10 54.44 -0.5
TTG 82.35 326 iPc 10 54.86 -0.2
PHP 82.50 325 eP 10 55.20 -0.7
SDA 82.58 325 eP 10 56.00 -0.2
PAIG 82.59 322 eP 10 55.76 -0.6
HCY 82.64 326 iPc 10 55.74 -0.8

```
22d  14h

BDV     82.65 326 iPc     10 55.91   -0.7
SAL     82.75 333 P       10 56.60   -0.4
ULC     82.75 325 iPc     10 56.48   -0.7
TMA     82.82 334 ePd     10 57.70    0.0
OHR     82.84 324 iPc     10 57.40   -0.3
        0.8s    130.00nm             6.0mb
LACI    82.84 325 iPd     10 58.00    0.4
FNA     82.87 323 eP      10 57.52   -0.3
FLN     82.90 341 iPc     10 58.00    0.2
        0.9s     95.65nm             5.8mb
     Z  19s      0.55um              4.9Msz
LIT     82.96 322 eP      10 57.32   -1.0
LDF     82.97 341 iPc     10 58.30    0.1
        1.2s    133.30nm             5.9mb
TIR     83.02 325 iPd     10 58.50    0.0
VAI     83.07 334 P       10 58.40   -0.3
MMK     83.15 335 ePc     11 00.00    0.5
LOR     83.21 338 iPc     10 59.50    0.0
        0.8s     52.40nm             5.6mb
     Z  22s      1.02um              5.2Msz
DIX     83.29 335 ePc     11 00.80    0.6
GRR     83.34 341 iPc     11 00.50    0.5
        1.0s    192.00nm             6.1mb
BGIO    83.44 309 iPc     11 02.00    1.0
LBF     83.44 338 iPc     11 00.70    0.0
        0.7s     22.15nm             5.3mb
EMS     83.44 335 ePc     11 01.30    0.4
SSF     83.49 338 iPc     11 01.20    0.3
        0.8s     41.90nm             5.5mb
ORX     83.52 334 P       11 01.23    0.0
HYF     83.53 339 eP      11 01.70    0.6
RSM     83.59 331 P       11 02.00    0.6
LPF     83.71 341 iPc     11 02.50    0.5
        1.1s    176.80nm             6.0mb
AVF     83.78 338 iPc     11 02.80    0.4
        1.0s     54.40nm             5.6mb
SMF     83.79 338 iPc     11 02.80    0.4
        0.8s     63.95nm             5.7mb
ARV     83.80 330 P       11 02.80    0.3
SFI     83.80 331 Pc      11 03.50    1.1
BOB     83.84 333 P       11 03.20    0.4
TPE     83.85 324 eP      11 03.50    0.7
RSL     83.88 335 P       11 03.06    0.0
PGD     83.89 331 P       11 04.30    1.2
VLO     83.91 325 eP      11 05.10    2.0
AGG     83.92 322 eP      11 02.12   -1.1
LSD     83.93 335 P       11 03.86    0.4
LPL     84.00 335 iPc     11 04.50    0.7
        0.9s     57.00nm             5.6mb
LPG     84.01 335 iPc     11 04.80    0.9
        0.9s     54.70nm             5.6mb
CRE     84.02 331 P       11 04.30    0.5
LMN     84.06  24 eP      11 07.50    3.7X
BDI     84.10 332 P       11 03.70   -0.4
FIR     84.13 332 eP      11 05.00    0.9
BGF     84.13 338 eP      11 04.60    0.5
        0.8s     24.60nm             5.3mb
MCWV    84.17  37 P       11 10.00    5.6X
     Z  19s      1.03um              5.2Msz
RSP     84.17 335 P       11 04.07   -0.5
SRN     84.20 324 eP      11 04.00   -0.5
ASS     84.27 330 P       11 04.80   -0.1
PCP     84.33 334 P       11 05.07   -0.1
BNI     84.44 335 P       11 05.90    0.0
BHB     84.45 335 P       11 04.55   -1.2
CKI     84.52 334 P       11 05.80   -0.3
MAF     84.52 338 iPc     11 07.10    1.0
        1.1s    217.80nm             6.2mb
RRL     84.53 335 P       11 06.92    0.5
GRN     84.54 336 P       11 07.76    1.4
TCF     84.55 338 iPc     11 06.90    0.6
        1.0s     68.00nm             5.7mb
AQU     84.64 329 P       11 07.20    0.4
FIN     84.73 334 P       11 06.07   -1.1
LSF     84.76 339 iPc     11 08.00    0.7
        1.1s    165.55nm             6.1mb
ROB     84.76 334 P       11 06.55   -0.8
DOI     84.76 334 P       11 06.30   -1.1
PZZ     84.81 335 P       11 06.65   -1.1
MFF     84.85 340 iPc     11 08.60    0.9
        1.0s     98.00nm             5.9mb
SSB     84.85 337 P       11 07.96    0.2
MNS     84.87 330 P       11 07.50   -0.4
HRV     84.92  30 P       11 20.00   11.9X
     Z  20s      0.36um              4.8Msz
SURF    84.92 335 P       11 08.57    0.2
STV     84.98 334 P       11 06.44   -2.1X

MBH     85.05 308 iPc     11 10.00    0.9
SDI     85.05 329 P       11 08.30   -0.6
IMI     85.10 334 P       11 08.60   -0.5
SAOF    85.14 334 P       11 08.09   -1.2
AUTN    85.17 334 P       11 09.32   -0.3
TOUF    85.21 334 P       11 09.43   -0.4
SBF     85.29 334 P       11 09.67   -0.4
AURF    85.30 334 P       11 09.43   -0.7
RFI     85.34 329 P       11 11.18    1.0
        0.2s     19.20nm             5.9mb
RMP     85.36 330 P       11 10.77    0.4
        0.8s    121.30nm             6.1mb
ORI     85.48 326 P       11 11.90    0.9
        0.4s  ********nm             9.2mb X
SGO     85.49 327 P       11 10.20   -0.8
CALN    85.55 334 P       11 11.27   -0.2
RJF     85.64 339 iPc     11 12.70    1.0
        1.0s     79.00nm             5.9mb
     Z  23s      1.25um              5.2MszX
NAV     85.72  38 eP      11 12.76    0.5
MGR     85.76 327 P       11 11.20   -1.2
CSI     85.79 326 P       11 12.60    0.0
FRF     85.80 334 iPc     11 12.40   -0.1
        1.3s     88.10nm             5.8mb
CAF     85.85 338 eP      11 13.50    0.7
        1.0s    118.00nm             6.1mb
ROI     85.85 326 P       11 13.00    0.1
TDS     85.87 326 P       11 12.00   -0.9
CDR     85.96 335 ePc     11 13.80    0.5
PGF     85.97 332 P       11 13.22   -0.3
LRG     85.98 335 iPc     11 13.90    0.5
        1.1s    116.25nm             6.0mb
LMR     86.05 334 iPc     11 14.20    0.5
        1.1s    145.55nm             6.1mb
CVL     86.16  37 eP      11 15.00    0.6
LFF     86.18 339 eP      11 14.80    0.4
        1.1s    148.95nm             6.1mb
LPO     86.31 338 eP      11 15.50    0.5
        1.1s    103.05nm             6.0mb
GRI     86.56 326 P       11 16.70    0.3
        1.1s     92.50nm             5.9mb
SOI     87.35 326 P       11 19.50   -0.6
MTHF    87.57 337 P       11 22.65    1.4
CEH     87.65  38 P       11 30.00    8.3X
     Z  19s      0.24um              4.6Msz
GOGA    87.72  42 P       11 30.00    8.0X
     Z  19s      0.31um              4.7Msz
LSPF    87.73 337 P       11 22.30    0.3
LESF    87.82 338 P       11 22.75    0.4
JSC     88.04  40 eP      11 23.88    0.4
EPF     88.07 338 eP      11 23.80    0.2
        1.2s     30.65nm             5.4mb
TRGS    88.13 337 P       11 26.17    2.1
PZI     88.70 326 P       11 26.96    0.2
        0.9s     42.40nm             5.7mb
BCAO   114.49 305 iPKPc   17 14.10    0.2
        0.7s      6.00nm
                  i       18 06.10
MTD    121.90 278 iPKPd   17 28.20    0.2
                  ipP     18 04.70
                  iPP     19 01.30
TIC    123.76 330 PKP     17 31.60    0.0
KIC    123.92 330 PKP     17 31.90    0.0
LIC    124.15 330 PKP     17 32.40    0.1
     Z  21s      0.19um              4.7Msz
BUL    126.24 278 iPKPc   17 36.30   -0.1
        1.0s     11.50nm
                  ipP     19 30.30
BFT    128.80 271 e(PKP)17 41.50      0.2
SLR    130.07 273 iPKPc   17 45.00    1.4
        0.8s     26.00nm
PRY    131.38 272 ePKP    17 46.00    0.0
SEK    132.12 270 iPKPd   17 48.20    0.8
        0.7s     33.00nm
BLF    133.60 271 ePKP    17 49.50   -0.7
ZOBO   136.72  61 PKP     17 57.60    0.6
                  LR      04 30.00
CNCB   137.22  61 PKP     17 57.00   -0.9
                  i       21 26.90
SIV    140.64  52 ePKP    18 08.00    4.6X
SOB1   142.75  19 (PKP)   17 52.00  -15.2X
BDF    146.69  33 ePKP    18 15.20    1.3
                  e       18 42.60
NVL    147.53 204 ePKP    18 16.00    2.5X
MRA    149.38  78 ePKPd   18 22.20    4.6X
PPD    150.78  45 ePKP    18 26.50    6.5X
SNA    151.53 199 iPKPc   18 28.20    8.6X

        0.9s     56.00nm
AIA    152.53 149 e(PKP)18 26.00      4.8X
    S.D. = 0.8  on 340 of 382 obs.
---------------------------------------------
? MAR 22, 1993  14h 15m 37.84±10.46s
  58.444 N ±90.6km      6.883 E ±22.9km
  DEPTH = 10.0km  (geophysicist)
 SOUTHERN NORWAY                        (535)
     MD 2.5 (BER).

ODD1     1.48 355 eP      16 04.67    0.1
                  eSg     16 26.30
EGD      2.02 336 eP      16 12.16   -0.1
                  eSg     16 41.85
ASK      2.22 338 eP      16 15.35    0.2
                  eSg     16 47.14
HYA      2.75 353 eP      16 22.62   -0.2
NRA0     3.30  44 ePn     16 30.57    0.0
                  ePg     16 39.98
                  eSn     17 13.88
                  eLg     17 32.13
    S.D. = 0.2  on   5 of   5 obs.
---------------------------------------------
& MAR 22, 1993  14h 37m 52.02s
  59.685 N              153.576 W
  DEPTH = 119.7km
 SOUTHERN ALASKA                        (  2)
     <AEIC>.

OPT      0.18 100 eP      38 07.98    0.7
                  eS      38 19.55
AUL      0.31 167 eP      38 08.43    0.8
AUW      0.32 170 eP      38 08.49    0.8
AUH      0.33 168 eP      38 08.70    0.9
PDB      0.33 289 eP      38 08.43    0.7
                  eS      38 21.05
AUE      0.34 162 eP      38 08.51   -0.8
AUI      0.36 168 eP      38 08.45   -1.0
INW      0.44  30 eP      38 08.92   -1.1
INE      0.46  34 eP      38 09.23   -0.9
                  eS      38 23.71
MCNL     0.63 218 eP      38 10.18   -0.9
RS1      0.88  27 eP      38 12.52   -0.9
                  eS      38 28.64
RS2      0.88  27 eP      38 12.51   -0.9
                  eS      38 28.74
RSO      0.88  28 eP      38 12.45   -1.0
                  eS      38 28.48
RDW      0.89  25 iP      38 12.48   -1.0
                  S       38 28.96
REF      0.92  28 eP      38 12.87   -0.9
                  eS      38 28.83
                  eS      38 29.23
NCT      0.94  20 eP      38 12.91   -0.9
DFR      1.01  26 eP      38 13.65   -0.9
CNPM     1.20  97 eP      38 14.82   -1.6
SYI      1.24 150 eP      38 15.20   -1.6
BRLK     1.37  86 eP      38 16.69   -1.6
                  eS      38 35.37
CKL      1.64  22 iP      38 20.86   -0.7
CKT      1.67  23 eP      38 20.97   -0.9
SPU      1.68  26 eP      38 20.97   -1.0
BGL      1.69  20 eP      38 21.65   -0.5
CKN      1.69  24 eP      38 21.66   -0.5
CP2      1.72  22 eP      38 21.70   -0.9
CPAM     1.73  24 eP      38 22.06   -0.6
CRP      1.74  23 eP      38 22.16   -0.7
SVW      1.75 325 eP      38 22.08   -0.8
SLKM     1.87  62 eP      38 23.11   -1.3
SEW      2.12  77 eP      38 25.57   -1.9
MPA      2.26  67 eP      38 27.83   -1.4
SUA      2.27  37 eP      38 28.85   -0.6
SKT      2.51  23 eP      38 31.56   -1.0
PMS      2.53  50 P       38 31.20   -1.6
PTE      2.56  60 eP      38 31.33   -1.7
PWA      2.68  41 P       38 34.00   -0.7
GHO      3.10  45 eP      38 38.31   -2.1
SML      3.34  48 eP      38 40.80   -2.8
HIN      3.62  76 eP      38 45.77   -1.5
SCM      3.75  52 eP      38 46.70   -2.4
VLZ      3.87  65 eP      38 49.27   -1.4
TRF      4.09  21 eP      38 52.15   -1.7
KLU      4.19  61 eP      38 53.52   -1.5
     44 obs. associated
---------------------------------------------
& MAR 22, 1993  15h 41m 42.71s
  33.490 N              116.401 W
```

DEPTH = 11.5km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.2 (PAS), 2.6 (GS). Felt.
PLM 0.41 251 iPc 41 50.66 -0.5
S 41 56.42
PEC 0.75 303 eP 41 56.09 -1.2
S 42 06.33
SSK 1.29 304 eP 42 05.41 -1.3
S 42 22.48
GLA 1.39 108 eP 42 06.50 -1.5
GSC 1.84 350 eP 42 13.10 -1.4
S 42 40.13
ISA 2.76 322 (Pn) 42 27.46 -0.2
Pg 42 32.59
Lg 43 09.04
TPNV 3.45 2 (P) 42 42.08 4.5
ARUT 4.92 29 (Pn) 43 00.29 1.9
SRU 7.35 39 (Pn) 43 36.59 4.0
9 obs. associated

% MAR 22, 1993 16h 41m 04.19± 1.22s
33.142 S ± 5.0km 70.285 W ± 9.8km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).
FCH 0.19 181 iPd 41 08.53 0.0
iS 41 11.24
PEL 0.34 270 iPd 41 11.57 0.4
iS 41 16.60
PCH 0.51 202 iP+ 41 14.77 0.1
iS 41 22.43
JACH 0.53 330 iP+ 41 14.86 0.0
iS 41 21.89
ROCH 0.63 285 iP+ 41 16.99 -0.1
iS 41 25.73
TACH 0.75 227 iP 41 18.86 0.0
iS 41 29.47
CHCH 0.85 201 eP 41 20.42 -0.1
iS 41 32.15
CACH 1.01 195 iP- 41 23.51 0.2
iS 41 37.68
LCCH 1.13 252 iP 41 24.97 -0.3
iS 41 39.73
LNV 1.24 229 iP+ 41 27.01 -0.2
iS 41 43.49
S.D. = 0.2 on 10 of 10 obs.

MAR 22, 1993 17h 46m 16.56± 1.63s
39.000 S ±10.1km 174.768 E ± 9.6km
DEPTH = 285.6 ± 16.0 km
NORTH ISLAND, NEW ZEALAND (159)
CNZ 0.64 109 P 46 54.10 0.0
NGZ 0.67 106 Pc 46 54.30 0.0
BSZ 0.81 171 eP 46 54.50 -0.1
WAHZ 1.42 120 Pc 46 58.20 0.1
TTH 1.69 109 P 47 00.40 0.5
MNG 1.71 161 Pc 47 00.10 0.0
S 47 28.60
PAHZ 1.79 86 P 47 00.80 0.1
MOH 1.86 95 P 47 01.50 0.3
TEHZ 1.86 123 P 47 01.30 0.0
KIW 1.87 177 P 47 01.20 -0.1
DIW 1.91 200 P 47 01.80 0.1
URZ 1.98 69 P 47 01.50 -0.7
S 47 30.80
PGZ 1.99 145 eP 47 01.90 -0.4
CAW 2.12 174 P 47 03.50 0.1
MTW 2.23 166 P 47 04.20 -0.1
MRW 2.23 181 P 47 04.30 0.0
S 47 36.60
BLW 2.43 167 P 47 05.70 -0.4
MOW 2.45 171 eP 47 06.10 -0.2
ORZ 2.51 223 eP 47 07.10 0.2
NOZ 2.58 83 P 47 08.10 0.6
PUZ 2.89 72 P 47 10.40 -0.2
KHZ 3.54 195 P 47 18.40 1.1
LTZ 4.23 206 eP 47 24.40 -0.7
S.D. = 0.4 on 23 of 23 obs.

& MAR 22, 1993 18h 13m 10.84s
63.126 N 150.891 W
DEPTH = 131.1km
3.2mb (1 obs.)
CENTRAL ALASKA (1)
<AEIC>. Felt (III) at Skwentna.
TRF 0.43 40 iPc 13 29.80 -0.3
iS 13 44.04
HUR 0.59 104 ePc 13 30.16 -0.7
eS 13 45.83
RND 0.96 72 iPc 13 33.32 -0.6
S 13 51.29
MCK 1.07 54 iPc 13 34.51 -0.3
eS 13 52.86
SKT 1.19 195 iPd 13 35.53 -0.5
eS 13 54.36
PWA 1.55 162 P 13 40.40 0.5
GHO 1.64 145 ePc 13 40.81 -0.2
eS 14 02.88
NEA 1.66 28 iPc 13 40.38 -0.9
S 14 04.68
SUA 1.67 178 ePc 13 41.49 0.0
S 14 05.29
PLRM 1.74 151 eP 13 41.77 -0.4
PMR 1.74 151 ePn 13 41.29 -0.9
eS 14 05.02
SML 1.78 137 iPc 13 41.92 -0.7
CRP 1.96 198 ePd 13 44.22 -0.7
eS 14 09.95
CPAM 1.97 198 ePd 13 44.70 -0.3
eS 14 10.39
CP2 1.97 199 eP 13 44.75 -0.4
eS 14 10.80
PMS 1.99 161 P 13 44.90 -0.3
BGL 2.00 201 ePd 13 45.45 0.1
CKN 2.00 198 ePc 13 45.54 0.2
S 14 13.04
SPU 2.03 196 ePc 13 45.20 -0.5
S 14 11.19
CKT 2.03 198 ePd 13 45.23 -0.5
eS 14 11.70
CCB 2.05 40 iPc 13 45.09 -0.8
CKL 2.05 200 ePd 13 45.86 -0.2
SCM 2.10 127 eP 13 45.77 -0.9
HDA 2.17 52 ePc 13 46.48 -0.9
eS 14 14.61
MDM 2.18 31 ePc 13 46.86 -0.7
FBA 2.24 36 iPc 13 47.61 -0.7
THY 2.34 81 eP 13 49.68 0.1
S 14 19.28
TTA 2.34 267 eP 13 48.43 -1.2
NKA 2.40 184 eP 13 52.22 2.0
GLM 2.42 38 iPc 13 49.97 -0.7
PTE 2.43 158 eP 13 49.95 -0.8
PAX 2.47 91 ePc 13 51.07 -0.3
eS 14 21.68
SDG 2.53 101 eP 13 51.65 -0.3
SLKM 2.65 173 eP 13 52.98 -0.6
MPA 2.74 164 ePd 13 53.85 -0.9
TZL 2.75 111 eP 13 54.98 0.1
RDW 2.80 200 eP 13 55.20 -0.5
RS2 2.82 199 eP 13 55.93 0.0
RSO 2.82 199 eP 13 56.02 0.1
RS1 2.82 199 eP 13 56.36 0.4
KLU 2.84 123 eP 13 54.85 -1.3
VLZ 2.93 131 eP 13 55.93 -1.2
eS 14 30.00
SVW 3.01 230 eP 13 57.31 -0.9
SEW 3.11 167 eP 13 58.70 -0.8
DOT 3.12 77 eP 13 58.75 -0.9
IMA 3.19 339 ePd 13 59.67 -1.1
INE 3.25 200 eP 14 01.16 -0.4
INW 3.25 200 eP 14 01.38 -0.1
BRLK 3.37 180 eP 14 02.67 -0.4
S 14 40.18
HIN 3.44 141 eP 14 02.52 -1.5
CVA 3.56 134 eP 14 05.05 -0.4
TMW 3.58 83 eP 14 04.66 -1.1
CNPM 3.62 183 iPc 14 05.62 -0.7
OPT 3.66 199 eP 14 06.76 -0.2
PDB 3.71 207 ePd 14 07.09 -0.4
GLB 3.71 114 ePc 14 06.62 -1.0
AUL 3.95 199 eP 14 09.50 -1.3
AUE 3.97 199 eP 14 11.07 0.2
AUW 3.97 199 eP 14 10.89 -0.1
AUH 3.97 199 eP 14 12.10 1.0
AUI 4.00 199 eP 14 11.84 0.5
FYU 4.21 32 eP 14 13.41 -0.8
MCNL 4.29 204 eP 14 15.42 0.1
CRQM 4.37 120 eP 14 15.57 -0.9
TGL 4.49 118 eP 14 16.34 -1.7
BALM 4.53 114 eP 14 17.02 -1.7
SYI 4.59 190 eP 14 18.11 -1.2
CTGM 4.99 111 eP 14 24.27 -0.7
YAH 5.15 118 eP 14 25.60 -1.6
KDC 5.45 189 (P) 14 28.93 -2.0
YKA 16.46 76 eP 16 54.90 -0.1
0.4s 0.50nm 3.2mb
71 obs. associated

MAR 22, 1993 18h 23m 50.86± 0.15s
52.172 N ± 4.0km 172.889 W ± 2.0km
DEPTH = 33.0km (normal)
5.3mb (76 obs.) 5.2Msz (46 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
Mw 5.7 (HRV). Ms 5.1 (BRK). Felt (IV) on Adak and Atka.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 41S, 94C
Centroid Location:
Origin Time 18:23:55.2 0.2
Lat 52.28N 0.04 Lon 172.73W 0.03
Dep 27.4 1.7 Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-2.01 0.09 Mtt=-2.54 0.13
Mff= 4.55 0.08 Mrt=-0.09 0.18
Mrf= 0.72 0.31 Mtf= 1.66 0.10
Principal Axes:
T Val= 4.98 Plg= 6 Azm=282
N -2.01 74 173
P -2.98 15 14
Best Double Couple:Mo=4.0*10**17
NP1:Strike= 57 Dip=75 Slip= -7
NP2: 149 83 -165
ADK 2.36 264 iPc 24 29.45 1.3
SMY 7.97 279 eP 25 45.75 -1.4
SDN 8.00 62 eP 25 47.40 -0.2
KDC 12.96 56 eP 26 52.50 -2.6X
SVW 13.01 40 eP 26 58.60 2.7
RSO 13.87 45 eP 27 10.54 3.2X
TTA 14.03 33 eP 27 11.85 2.6
CP2 14.48 43 eP 27 19.50 4.2X
CRP 14.51 43 eP 27 19.41 3.7X
SLKM 15.02 47 eP 27 23.10 0.9
PMS 15.62 45 eP 27 31.20 1.3
PMR 15.95 45 eP 27 36.84 2.7
1.0s 112.94nm 5.0mb
ILT 16.03 352 iPd 27 38.00 2.9
1.8s 1050.00nm 5.7mb
Z 18s 3.20um 4.3MszX
N 20s 2.10um
E 20s 4.00um
iS 30 38.00
IMA 16.95 27 eP 27 49.20 2.3
1.5s 203.31nm 5.0mb
PET 17.27 284 eP 27 52.00 1.3
Z 20s 4.10um
eS 31 07.00
KLU 17.33 47 eP 27 51.03 -0.6
COL 18.11 36 eP 27 59.97 -1.1
FBA 18.11 36 eP 28 00.45 -0.6
0.8s 63.00nm 4.8mb
BALM 18.85 50 eP 28 08.36 -1.9
SKR 19.33 278 eP 28 16.00 0.1
1.0s 230.00nm 5.4mb
Z 18s 5.60um 4.4MszX
N 18s 2.50um
E 18s 4.60um
eS 31 50.00
BRW 20.52 15 eP 28 28.18 -0.2
MGD 21.49 306 eP 28 40.00 1.6
1.2s 690.00nm 5.9mb
Z 18s 4.10um 4.9Msz
E 18s 5.90um
e 29 05.00
ePPP 29 18.00
eS 32 38.00
SIT 22.09 62 eP 28 44.26 -0.1
0.8s 129.75nm 5.4mb
Z 19s 4.81um 4.9Msz
KUR 26.55 271 eP 29 26.50 -0.7
1.0s 6500.00nm 7.2mb X
Z 16s 2.80um 4.9MszX
N 16s 2.20um
YSS 28.88 278 eP 29 48.00 -0.2

22d 18h

Z	18s	2.70um			4.9Msz
E	18s	2.50um			
			e	30 01.00	
			e	30 36.00	
			eS	34 34.00	
			e	34 50.00	
KUSJ	29.60	269	P	29 52.20	-2.6
ASAJ	30.33	273	eP	29 53.40	-7.9X
HOOJ	30.87	269	eP	30 04.90	-1.1
OSD	31.42	78	P	30 12.05	0.9
YAK	31.65	311	eP	30 13.10	0.4
	1.2s	161.00nm			5.8mb
Z	19s	5.90um			5.3Msz
N	19s	2.80um			
E	19s	4.10um			
			iPPP	31 21.00	
			i	31 37.00	
			eS	35 12.00	
			i	40 37.00	
TIK	31.79	329	iPd	30 23.00	9.2X
	2.0s	40.00nm			4.9mb
Z	18s	3.50um			5.1Msz
			i	30 30.00	
			e	31 24.00	
			ePPP	31 40.00	
			eS	35 29.00	
			i	40 38.00	
HDW	31.89	78	P	30 16.11	1.0
YKA	31.99	48	eP	30 16.20	0.5
	0.4s	4.30nm			4.7mb
MBW	32.08	75	P	30 17.27	0.5
GMW	32.10	78	eP	30 17.26	0.5
CMW	32.11	76	P	30 18.05	1.1
CPW	32.15	79	P	30 18.53	1.2
MRRJ	32.21	271	eP	30 16.70	-1.1
JCW	32.32	76	P	30 19.37	0.6
BMW	32.34	80	P	30 19.76	0.8
BLH	32.42	77	P	30 20.52	1.0
RPW	32.46	76	P	30 20.29	0.3
HTW	32.59	77	P	30 21.66	0.5
RMW	32.73	78	eP	30 22.90	0.5
KIP	32.79	154	(P)	30 23.99	1.0
GSM	32.86	78	P	30 24.33	0.8
HON	32.88	154	P	30 30.00	6.2X
Z	21s	1.35um			4.6Msz
RCS	33.05	78	P	30 26.23	0.8
FMW	33.06	78	P	30 25.94	0.6
LON	33.06	79	eP	30 25.44	0.2
SHW	33.07	80	(P)	30 24.77	-0.7
ESD	33.12	80	P	30 27.66	1.8
MTMW	33.17	80	P	30 27.50	1.3
WPW	33.25	79	P	30 27.23	0.3
GLK	33.27	79	P	30 27.59	0.4
NLW	33.33	76	P	30 28.01	0.4
ASR	33.48	80	P	30 29.45	0.5
ETW	33.55	76	P	30 29.82	0.3
GT2	33.57	82	P	30 30.56	0.9
TBM	33.59	77	P	30 30.06	0.2
SSOR	33.61	82	P	30 30.63	0.6
CBSW	33.63	76	P	30 29.98	-0.2
NAC	33.66	78	P	30 30.88	0.4
DHW2	33.71	76	P	30 30.92	0.1
AOMJ	33.71	269	eP	30 30.80	0.0
WTV	33.73	76	P	30 30.82	-0.2
EBG	33.73	78	P	30 31.66	0.6
VLL	33.77	81	P	30 32.20	0.7
OFUJ	33.80	266	eP	30 31.40	-0.2
GL2	34.04	79	P	30 34.13	0.3
SAW	34.06	76	P	30 33.78	-0.1
MXC	34.06	78	P	30 34.27	0.4
EPH	34.11	76	P	30 33.81	-0.4
BPO	34.18	82	P	30 36.06	0.9
VGB	34.29	80	(P)	30 36.47	0.6
MDW	34.36	78	P	30 37.09	0.7
WAH2	34.41	77	P	30 37.13	0.3
CRF	34.48	77	P	30 37.53	0.1
GBL	34.55	78	P	30 38.34	0.3
RSW	34.58	78	P	30 38.76	0.4
PRW	34.61	78	P	30 39.12	0.6
OD2	34.62	76	P	30 38.52	-0.1
MJ2	34.63	78	P	30 38.98	0.3
DPW	34.69	75	eP	30 38.86	-0.5
			pP	30 49.12	36kmX
PATW	34.73	79	P	30 40.52	1.0
WIW	34.74	78	P	30 39.87	0.3
ET3	34.88	77	P	30 41.12	0.3
NEW	35.15	74	eP	30 43.14	-0.1
	0.9s	414.20nm			6.4mb X
			pP	30 53.20	34kmX
			sP	31 01.17	
YAMJ	35.37	266	eP	30 44.90	-0.2
LBFM	35.87	87	eP	30 50.08	0.5
			pP	31 00.87	38kmX
WDC	35.92	88	eP	30 50.60	0.8
	0.9s	37.06nm			5.3mb
Z	20s	2.12um			4.9Msz
KAKJ	36.54	263	P	30 55.10	0.1
NIIJ	36.59	265	P	30 55.30	-0.1
ORV	37.17	89	eP	30 59.93	-0.4
CHJJ	37.36	264	P	31 03.40	1.5
RES	37.48	25	eP	31 02.50	0.1
	1.0s	8.00nm			4.5mb
MAJO	37.53	265	ePc	31 03.27	0.0
			pP	31 13.44	35kmX
			sP	31 18.05	
MAT	37.53	265	iPc	31 03.10	-0.2
	1.1s	153.16nm			5.8mb
Z	20s	4.96um			5.3Msz
			eS	36 42.00	
SES	37.69	67	eP	31 04.00	-0.6
	0.9s	153.00nm			5.9mb
MTMJ	37.75	266	P	31 06.00	0.8
BKS	37.75	92	eP	31 25.09	19.9X
Z	20s	3.60um			5.2Msz
			ePP	32 43.09	
			eS	36 41.09	
			e	37 11.09	
			eLR	41 09.09	
IIDJ	38.40	264	P	31 12.10	1.4
ARN	38.52	92	eP	31 11.23	-0.4
CMB	38.79	90	eP	31 14.30	0.3
	1.2s	56.03nm			5.2mb
Z	20s	2.74um			5.1Msz
			pP	31 23.22	30kmX
			sP	31 27.20	
			S	37 14.48	
			SS	40 15.15	
SAO	38.94	92	eP	31 15.73	0.5
	0.8s	20.62nm			4.9mb
			S	37 14.62	
			SS	40 16.48	
MCMT	39.43	76	iPc	31 19.20	-0.3
LCCM	39.47	74	eP	31 18.70	-0.9
TSRJ	39.55	266	P	31 20.00	-0.2
KVN	39.57	87	eP	31 20.99	0.4
MEMM	39.91	89	eP	31 24.37	1.2
BONR	40.13	89	eP	31 25.94	0.6
PHAM	40.19	93	eP	31 26.37	0.9
BOD	40.32	308	eP	31 26.80	0.5
WKYJ	40.66	265	P	31 29.80	0.4
TNP	40.71	88	eP	31 30.34	0.3
	1.0s	36.08nm			5.1mb
BCH	40.81	93	eP	31 31.44	0.7
			e	31 42.37	
HVU	41.20	80	ePd	31 34.08	0.2
YONJ	41.32	267	P	31 34.90	0.1
ISA	41.49	91	eP	31 36.27	0.1
	1.2s	49.38nm			5.1mb
Z	20s	3.50um			5.2Msz
			S	37 50.95	
			SS	41 05.65	
TKSJ	41.77	266	P	31 38.80	0.4
TPNV	42.03	88	eP	31 40.92	0.2
	0.9s	76.01nm			5.4mb
DUG	42.12	82	ePc	31 41.58	0.2
	0.9s	85.06nm			5.5mb
Z	22s	1.70um			4.9Msz
			epP	31 52.47	38kmX
			esP	31 56.54	
BW06	42.56	77	ePc	31 44.34	-0.8
	1.1s	176.10nm			5.7mb
			epP	31 55.14	38kmX
FCC	42.72	49	ePc	31 48.00	2.1
GSC	42.75	90	eP	31 46.48	-0.1
SSK	42.93	92	(P)	31 48.24	0.1
DAU	42.93	81	eP	31 48.83	0.5
			epP	31 58.91	34kmX
ARUT	43.22	85	eP	31 50.44	-0.1
			epP	32 00.92	36kmX
CIT	43.34	300	eP	31 51.00	-0.1
Z	20s	5.30um			5.4Msz
E	20s	10.30um			
			e	33 34.00	
			eS	38 14.00	
PEC	43.47	92	eP	31 52.20	-0.2
	1.0s	18.64nm			4.8mb
SHNJ	43.48	268	P	31 52.80	0.4
MSU	43.54	83	eP	31 53.40	0.2
EMUT	43.56	81	eP	31 53.71	0.3
PLM	44.01	93	eP	31 57.22	0.2
SRU	44.17	82	eP	31 58.18	-0.1
			pP	32 09.38	39kmX
KUMJ	44.73	267	P	32 03.00	0.5
RSSD	45.04	72	eP	32 03.91	-1.3
	1.2s	67.61nm			5.4mb
Z	21s	1.35um			4.9Msz
NRI	45.36	331	ePc	32 09.00	2.0
Z	20s	2.50um			5.1Msz
E	20s	8.00um			
			i	32 19.20	
			e	33 48.00	
			eS	38 42.00	
KAGJ	45.62	265	P	32 09.90	0.3
ULM	46.14	60	ePc	32 15.30	1.8
GOL	46.93	77	eP	32 19.92	-0.3
	1.0s	116.05nm			5.8mb
Z	21s	2.73um			5.2Msz
			e	32 30.86	
			S	39 15.87	
			SS	42 53.72	
IRK	48.01	305	eP+	32 37.00	8.7X
Z	22s	2.98um			5.2Msz
N	20s	1.74um			
E	22s	3.26um			
			eS	39 20.00	
			ePS	39 33.00	
TUC	48.47	89	eP	32 31.80	-0.3
	0.8s	22.58nm			5.3mb
Z	20s	1.66um			5.0Msz
			e	32 43.94	
BJI	48.76	285	eP	32 42.00	7.9X
Z	26s	2.64um			5.1MszX
N	17s	2.05um			
			ePP	34 32.00	
			eS	39 18.00	
ALQ	49.35	83	eP	32 38.32	-0.7
	1.2s	41.20nm			5.3mb
Z	20s	1.29um			4.9Msz
			e	32 49.16	
ZAK	49.64	303	eP	32 38.00	-2.7
	1.5s	25.00nm			5.0mb
			eS	39 43.00	
			e	42 28.00	
MOY	50.03	306	eP	32 45.80	2.1
	1.5s	84.00nm			5.5mb
GUMO	51.15	237	e(P)	32 41.00	-11.7X
Z	23s	0.38um			4.4MszX
SSE	51.65	273	Pc	32 56.00	-0.3
	1.2s	89.00nm			5.6mb
Z	20s	2.30um			5.2Msz
N	20s	1.90um			
			i	33 06.30	
			pP	33 10.00	52kmX
			i	35 08.00	
			S	40 14.00	
			PS	40 34.00	
ACO	52.60	76	iPd	33 02.10	-1.4
JAQ	53.94	47	eP	33 10.50	-2.5
WMOK	54.14	78	eP	33 13.59	-1.2
	0.8s	65.50nm			5.7mb
Z	21s	2.47um			5.2Msz
			e	33 24.92	
			S	40 51.82	
MEO	54.23	78	iPc	33 14.00	-1.5
FNO	54.62	76	iPd	33 17.30	-1.0
ELT	55.94	315	eP	33 26.90	-0.7
	1.8s	71.00nm			5.4mb
Z	18s	2.50um			5.3Msz
			eS	41 07.00	
			e	41 27.00	
			e	45 00.00	
FVM	56.86	69	eP	33 31.78	-2.7
	0.6s	47.59nm			5.7mb
Z	18s	1.72um			5.2Msz
UYO	57.12	75	iPc	33 33.80	-2.5
EEO	57.13	55	eP	33 37.00	0.7
			pP	33 48.50	39kmX
MIAR	57.39	74	eP	33 36.30	-1.9
	0.8s	38.32nm			5.5mb
Z	21s	1.39um			5.0Msz
			S	41 32.65	

KEV 57.52 352 eP 33 47.00 8.3X
GRT 58.63 70 (P) 33 48.20 1.4
LZH 58.63 290 eP 33 45.50 -1.6
1.5s 51.00nm 5.4mb
Z 20s 2.43um 5.3Msz
N 16s 1.74um
sP 33 59.50
eS 41 46.00
sS 42 03.00
eSS 45 35.00
SDF 59.85 352 iP 33 54.00 -0.9
RSNY 60.87 54 eP 33 59.43 -2.8
0.9s 41.60nm 5.6mb
Z 20s 3.65um 5.5Msz
e 34 10.86
MCWV 61.60 61 eP 34 16.36 9.1X
0.7s 77.60nm 5.9mb
Z 20s 2.14um 5.3Msz
GBTN 62.04 67 eP 34 07.90 -2.3
CBM 62.22 49 eP 34 08.52 -2.7
0.5s 15.87nm 5.4mb
Z 19s 4.22um 5.6Msz
BNH 62.45 52 eP 34 10.96 -1.9
NAV 62.77 64 eP 34 13.69 -1.3
BAG 62.83 262 eP 34 15.00 -0.8
eS 42 40.00
SVE 62.83 330 ePc 34 16.50 1.4
Z 19s 2.50um 5.4Msz
N 19s 2.50um
E 19s 1.30um
e 34 29.00
BLA 63.05 63 eP 34 17.12 0.2
0.9s 44.92nm 5.6mb
GPD 63.46 57 eP 34 18.46 -1.1
MRX 63.50 92 (P) 34 20.00 0.1
TBR 63.50 57 eP 34 18.28 -1.4
CVL 63.56 62 eP 34 19.68 -0.5
PNJ 63.70 57 iP 34 19.68 -1.4
GMTN 63.71 57 eP 34 19.50 -1.6
CRNY 63.72 56 eP 34 19.86 -1.3
PAL 63.76 56 eP 34 20.12 -1.3
e 34 30.82
ARU 63.79 331 eP 34 22.00 0.6
Z 18s 2.50um 5.4Msz
N 18s 1.50um
E 16s 1.50um
e 34 36.00
e 34 52.00
HRV 63.84 54 eP 34 21.71 -0.2
0.8s 24.86nm 5.4mb
Z 19s 0.22um 4.4Msz
epP 34 31.43 31kmX
CBN 63.99 61 eP 34 22.00 -0.9
GOGA 64.09 68 eP 34 21.19 -2.5
EMM 64.14 50 eP 34 21.55 -2.3
LMN 64.54 47 eP 34 27.50 1.0
pP 34 38.50 36kmX
JSC 64.71 66 eP 34 26.15 -1.6
LHS 64.82 66 eP 34 27.10 -1.3
KAF 65.05 350 iP 34 27.90 -1.6
0.4s 3.30nm 4.8mb
PPM 65.56 90 (P) 34 32.50 -1.5
III 65.56 91 (P) 34 31.00 -2.6
HNR 65.65 210 P 34 38.00 4.2X
ACX 66.46 93 (P) 34 33.50 -5.7X
NUR 66.79 351 iP 34 39.20 -1.4
0.5s 4.70nm 4.8mb
PUL 66.85 347 (P) 34 52.00 11.0X
1.8s 100.00nm
Z 20s 1.20um 5.1Msz
N 20s 1.20um
E 20s 0.20um
KMI 67.21 282 Pc 34 43.00 -1.1
1.5s 60.00nm 5.5mb
Z 30s 3.60um 5.4MszX
N 16s 1.10um
E 16s 1.00um
pP 34 53.00 32kmX
sP 34 57.00
S 43 37.00
PS 44 01.00
PRZ 67.42 311 eP 34 45.00 -0.1
1.6s 30.00nm 5.1mb
Z 19s 2.80um 5.5Msz
N 19s 2.00um
SLL 67.60 357 eP 34 43.80 -1.9
0.4s 4.30nm 4.9mb

OXX 68.23 90 (P) 34 45.00 -5.6X
FRU 68.88 313 eP 34 54.00 0.0
2.0s 60.00nm 5.3mb
Z 19s 2.00um 5.4Msz
e 48 22.00
MOS 69.53 342 eP 35 10.00 12.3X
1.5s 70.00nm
Z 17s 1.80um 5.4MszX
OBN 70.33 343 eP 35 03.00 0.4
1.5s 35.00nm 5.2mb
OBN 70.33 343 iPc 35 17.00 14.4X
1.5s 91.00nm
Z 20s 2.20um 5.4Msz
N 20s 1.60um
E 20s 1.10um
i 35 29.20
EKA 72.53 6 P 35 16.00 0.2
1.0s 16.30nm 5.0mb
DMU 73.65 9 eP 35 23.30 0.9
DCN 74.17 9 eP 35 25.00 -0.3
CHTO 74.26 280 eP 35 26.10 -0.3
CHTO 74.26 280 eP 35 30.70 4.3X
0.7s 68.30nm 5.8mb
NST 75.95 277 eP 35 37.00 0.9
DZM 76.10 200 iPc 35 36.90 0.1
WTS 76.21 0 eP 35 38.00 1.0
0.7s 6.80nm 4.8mb
e 35 47.50
CLL 76.77 356 eP 35 40.00 -0.2
1.9s 47.00nm 5.2mb
i 35 51.70
KSP 77.07 354 eP 35 39.50 -2.4
e 35 51.60
BRG 77.17 356 iP 35 42.20 -0.2
i 35 53.80
OJC 77.42 352 eP 35 45.40 1.6
ENN 77.43 1 eP 35 45.00 1.2
0.8s 9.50nm 4.9mb
e 35 54.50
MOX 77.49 357 eP 35 44.40 0.2
1.9s 67.00nm 5.3mb
Z 20s 0.80um 5.0Msz
e 35 55.70
e 36 39.00
KHT 77.57 278 eP 35 46.00 0.9
SNF 77.67 2 eP 35 55.80 10.7X
PRU 78.02 355 eP 35 47.00 -0.1
Z 21s 0.80um 5.0Msz
e 35 57.50
e 37 14.00
DOU 78.09 2 P 35 46.90 -0.5
e 35 59.00
SPC 78.40 351 eP 35 49.50 0.0
GRF 78.45 357 eP 35 49.40 -0.1
e 35 51.80
e 36 00.70
VRAC 78.58 354 eP 35 50.40 0.3
KHC 78.93 356 iPc 35 52.70 0.6
Z 18s 0.90um 5.1Msz
N 18s 0.90um
E 18s 0.80um
e 36 02.20
e 36 35.00
NDI 78.93 303 eP 35 53.00 0.6
GEC2 79.21 356 P 35 52.70 -1.0
0.7s 3.62nm 4.5mb
e 36 04.30
e 36 11.30
LANF 79.22 360 P 35 54.00 0.3
FLN 79.24 5 eP 35 52.50 -1.3
0.8s 15.05nm 5.0mb
Z 21s 0.93um 5.1Msz
HOFF 79.26 359 P 35 54.10 0.2
PYA 79.28 334 eP 35 55.00 0.9
Z 20s 2.50um 5.5Msz
i 36 10.00
LDF 79.42 5 eP 35 53.60 -1.2
0.9s 26.05nm 5.2mb
KIS 79.45 345 eP 35 54.00 -0.9
Z 18s 0.80um 5.1Msz
GRR 79.59 5 eP 35 54.70 -1.0
0.7s 14.10nm 5.1mb
ZST 79.65 353 eP 35 55.40 -0.6
ipP 36 07.50 40kmX
e(PP) 39 00.50
e 44 38.20
ASH 79.77 321 eP 35 49.00 -7.8X

CDF 79.80 360 P 35 56.43 -0.5
WLS 79.79 360 P 35 56.07 -0.8
LPF 79.93 6 eP 35 56.70 -0.8
1.0s 26.80nm 5.2mb
SRO 79.93 352 eP 35 58.90 1.4
e 45 12.20
VITF 79.99 1 P 35 57.44 -0.4
ECH 79.99 360 P 35 56.88 -1.0
HAU 80.20 1 eP 35 58.20 -0.8
1.0s 18.40nm 5.0mb
Z 21s 1.02um 5.1Msz
CTA 80.28 219 P 36 00.59 0.9
FEL 80.33 359 P 35 59.08 -0.7
MOF 80.36 360 P 35 58.31 -1.6
BSF 80.38 0 P 35 59.36 -0.7
SLE 80.43 359 P 36 00.58 0.3
MTN 80.68 235 eP 36 01.30 -0.6
ZLA 80.72 359 P 36 02.75 1.0
MAIO 80.75 320 eP 36 02.00 -0.2
e 39 21.00
MOTA 80.80 357 iPc 36 02.40 0.0
LOMF 80.86 0 P 36 02.17 -0.4
HYF 80.87 3 eP 36 02.10 -0.4
WTTA 80.87 357 iPc 36 02.90 0.1
1.4s 41.80nm 5.2mb
i 36 12.90
i 36 14.70
VRI 80.89 346 eP 36 04.00 1.3
LOR 80.90 2 eP 36 01.90 -0.8
1.0s 25.00nm 5.2mb
Z 21s 0.90um 5.1Msz
SQTA 80.93 357 iPc 36 03.40 0.4
MTA 80.96 332 eP 36 04.00 1.0
i 36 18.00
KBA 80.99 356 iPc 36 04.00 0.6
0.9s 23.20nm 5.2mb
i 36 15.60
e 38 12.00
CVO 81.02 347 eP 36 05.50 2.1
SSF 81.10 2 eP 36 03.10 -0.6
0.7s 22.05nm 5.3mb
LBF 81.19 2 eP 36 03.40 -0.9
0.7s 7.05nm 4.8mb
LLS 81.33 359 P 36 05.75 0.6
AVF 81.37 3 eP 36 04.40 -0.7
0.7s 13.55nm 5.1mb
MLR 81.38 347 eP 36 07.00 1.6
MFF 81.41 5 eP 36 04.80 -0.5
0.8s 22.85nm 5.2mb
SMF 81.52 2 eP 36 05.20 -0.8
0.6s 12.70nm 5.1mb
BGF 81.58 3 eP 36 05.50 -0.8
VDL 81.70 358 P 36 07.42 0.3
CMP 81.72 347 ePc 36 12.00 5.0X
TCF 81.83 3 eP 36 06.70 -0.9
0.7s 8.60nm 4.9mb
LSF 81.84 4 eP 36 06.90 -0.7
0.5s 13.10nm 5.2mb
MAF 81.91 3 eP 36 07.60 -0.4
0.9s 22.60nm 5.2mb
TMA 82.09 359 P 36 09.38 0.2
DIX 82.13 360 P 36 11.10 1.7
EMS 82.14 0 P 36 11.32 1.9
MMK 82.15 359 P 36 10.88 1.3
SNG 82.23 272 eP 36 08.50 -1.6
VBY 82.45 354 eP 36 10.10 -0.7
GRS 82.53 330 eP 36 11.00 -0.5
Z 15s 0.65um 5.1MszX
N 16s 0.64um
E 16s 0.80um
LPL 82.69 0 eP 36 12.90 0.6
LPG 82.71 0 eP 36 13.10 0.6
QUE 82.75 311 eP 36 14.50 1.7
RJF 82.78 4 eP 36 11.70 -0.8
0.8s 10.35nm 5.0mb
Z 20s 1.10um 5.2Msz
LFF 83.11 5 eP 36 13.80 -0.4
1.0s 40.60nm 5.5mb
CAF 83.19 4 eP 36 14.20 -0.5
LPO 83.39 4 eP 36 15.00 -0.7
KAS 84.00 340 eP 36 20.50 1.6
IPM 84.01 270 ePd 36 20.20 1.0
e 36 30.90
FIR 84.36 357 eP 36 22.00 1.5
CDR 84.53 1 ePd 36 22.90 1.5
KGM 84.60 266 eP 36 25.00 2.8
BRS 84.74 210 iP 36 35.00 12.5X

22d 18h

```
EPF     85.00   5 eP      36 22.70  -1.1
WRA     85.22 229 P       36 24.60  -0.4
RMQ     85.22 214 eP      36 25.50   0.6
SKO     85.41 349 iP      36 26.00   0.1
        1.5s    90.00nm            5.8mb
     Z  21s      1.05um            5.2Msz
                  LR      15 13.00
VAY     85.92 348 iP      36 27.70  -0.7
SRS     85.99 348 eP      36 28.52  -0.3
KNT     86.04 348 iP      36 29.46   0.4
GRG     86.30 348 eP      36 31.08   0.7
SOH     86.31 348 eP      36 29.32  -1.1
OHR     86.34 350 iP      36 26.00  -4.6X
        1.5s   138.00nm            6.0mb
OUR     86.71 347 eP      36 31.00  -1.3
QLP     86.93 218 eP      36 34.00   0.7
HYB     87.29 295 eP      36 35.00  -0.5
        1.0s    40.00nm            5.6mb
ARMA    87.92 210 eP      36 41.00   2.9
ASPA    88.64 227 iPc     36 41.40  -0.3
        0.9s    26.20nm            5.6mb
POO     88.96 299 eP      36 36.50  -7.0X
TOV     90.26  74 eP      36 50.90   1.3
SDV     90.47  75 ePc     36 50.90   0.1
CMS     90.81 214 eP      36 51.80   0.2
GBA     91.00 294 P       36 53.00   0.1
BWA     92.64 211 e(P)    37 00.60   0.7
                  e       37 15.10
STK     92.69 217 eP      37 00.20   0.0
        0.8s     3.50nm            4.8mb
                  e       40 32.10
SIV    115.84  83 iPdiff39 01.40  16.9X
TIC    120.50  14 PKP     42 39.30  -1.3
KIC    120.82  14 PKP     42 39.40  -1.8
LIC    120.91  14 PKP     42 40.10  -1.3
     Z  21s      0.43um            5.1Msz
BCAO   122.78 346 iPKPc   42 44.10  -0.8
        0.6s     8.00nm
                  i       42 55.00
                  i       44 33.90
                  i       46 18.00
AVY    134.14 301 ePKP    43 19.60  12.8X
SPA    141.98 180 ePKPc   43 13.00  -6.8X
BFT    148.37 318 ePKP    43 28.00  -3.8X
        0.6s    28.00nm
SLR    149.12 321 ePKP    43 34.50   1.6
        0.3s    24.00nm
     Z  18s      5.42um            6.4MszX
MAW    149.37 218 e(PKP)43 37.00   5.3X
        0.8s    34.48nm
PRY    150.50 321 ePKP    43 37.00   2.1X
        0.6s    23.00nm
BLF    152.95 321 ePKP    43 44.50   6.1X
        0.7s    77.00nm
     S.D. = 1.1  on 295 of 328 obs.
```

```
   MAR 22, 1993  18h 36m 41.12± 0.49s
   23.593 S ± 6.1km   66.630 W ± 7.9km
   DEPTH = 212.5 ±  5.3 km
   4.3mb (  7 obs.)
 JUJUY PROVINCE, ARGENTINA        (128)

HJA      1.19  72 iPd     37 14.50   0.8
SLA      1.53 138 iPd     37 17.50   0.8
                  S       37 46.00
YJA      1.76  37 iPd     37 19.10   0.0
                  S       37 44.00
ANT      3.47 267 iP+     37 33.20  -4.2X
                  iS      38 12.80
CYA      4.89 171 ePd     37 55.20   0.1
                  S       38 49.70
CNCB     6.86 349 iPd     38 21.40   0.4
                  S       39 40.00
LPB      7.16 349 P       38 24.80   0.1
       1.0s    90.00nm           4.9mb X
                  S       39 42.00
ZOBO     7.40 349 P       38 27.40  -0.7
                  S       39 51.20
CFA      8.11 190 e(P)    38 34.20  -2.5
ARE      8.44 326 eP      38 39.00  -2.3
                  iS      40 08.00
MRA      8.82 175 ePc     38 42.30  -3.6X
MDZ      9.46 191 eP      38 55.30   1.1
PPD     14.21  87 eP      39 55.90   1.5
                  e       39 57.90
                  e       40 04.00
VAO     18.07  92 eP      40 38.80  -0.7
                  e       40 39.80
                  e       40 42.10
                  e       40 55.10
BDF     19.31  69 iPd     40 53.00   0.7
SOB1    28.46  64 eP      42 16.90  -1.7
MIAR    63.23 335 iPd     46 48.21  -0.7
        0.4s     1.86nm            4.2mb
FVM     65.20 339 iP      47 00.70  -0.9
        0.9s    10.17nm            4.6mb
LIC     66.99  72 P       47 12.20  -1.2
TIC     67.20  71 P       47 13.70  -1.0
KIC     67.30  72 P       47 14.40  -1.0
ALQ     69.40 326 iPd     47 32.00   3.9X
        1.0s     9.75nm            4.5mb
TUC     69.78 321 eP      47 31.18   0.9
        0.6s     1.60nm            3.9mb
PEC     74.68 318 iP      47 59.98   0.9
RSSD    75.60 333 iP      48 05.09   0.9
        1.0s     5.97nm            4.3mb
DAU     76.02 326 iPd     48 08.06   1.2
BW06    76.98 329 iPd     48 12.13   0.2
        0.8s     2.37nm            4.0mb
ULM     77.95 341 eP      48 20.00   3.2X
LCCM    80.39 330 eP      48 31.70   1.5
DPW     84.86 328 iP      48 53.98   1.2
FCC     85.15 346 eP      48 57.50   3.6X
BCAO    87.33  84 iPc     49 06.00   0.4
        1.0s    10.00nm            4.6mb
WB2    132.13 207 ePKP    55 32.10   0.4
        0.3s     5.00nm
GBA    144.61 100 PKP     55 54.00  -0.5
HYB    146.87  94 ePKP    56 01.30   3.1X
MAT    155.01 307 ePKP    56 18.00   8.3X
      S.D. = 1.2  on  29 of  36 obs.
```

```
%  MAR 22, 1993  18h 40m 30.21± 0.90s
   26.753 S ± 8.2km   26.480 E ± 9.4km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA        (584)
      ML 3.6 (PRE).

BFS      0.31 118 iPd     40 35.70  -0.8
                  S       40 37.50
PRY      0.90 101 iPd     40 44.00  -4.1X
                  S       40 52.10
KSR      0.96  23 iPc     40 49.00  -0.1
                  S       41 01.50
SWZ      1.12 247 eP      40 57.50   5.8X
                  S       41 14.60
SEK      1.87 147 iPd     41 03.70   0.5
                  S       41 25.00
SLR      1.91  58 iPd     41 04.30   0.4
                  S       10 25.60
BLF      2.36 186 iPd     41 10.60   0.2
                  S       41 40.00
FRS      3.16 199 iPd     41 24.00   2.5
BFT      3.37  72 e(P)    41 20.00  -4.8X
                  S       41 56.00
POF      6.34 244 eP      41 57.50  -9.1X
GRM      6.54 179 eP      42 08.50  -1.0
                  S       43 18.50
SUR      7.47 220 eP      42 21.50  -1.2
CER      9.06 222 eP      42 44.00  -0.7
      S.D. = 1.3  on   9 of  13 obs.
```

```
   MAR 22, 1993  18h 40m 45.62± 0.54s
   52.245 N ± 5.5km    7.784 E ± 3.2km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                         (543)
      ML 3.8 (GRF), 3.7 (LDG), 3.6
      (BNS). Felt at Ibbenburen,
      Westerkappeln, Mettingen, Recke
      and Georgs-Marienhutte.

WTS      0.65 248 iPgc    40 58.50  -0.1
        0.8s   209.10nm
WIT      0.89 310 iPgc    41 02.70   0.1
                  eS      41 17.00
BNS      1.34 197 iPnc    41 10.93   0.7
        0.7s   715.00nm
                  iPgc    41 11.42
                  iSg     41 29.52
STB      1.75 200 iPc     41 16.74   0.5
        0.8s   210.00nm
                  iSg     41 41.58
KOE      1.82 181 i(Pn)d41 18.05   0.8
        0.7s   389.00nm
                  id      41 19.70
                  iS      41 44.65
ENN      1.88 219 iPnd    41 19.20   1.1
        0.4s    20.80nm
                  ePg     41 22.10
                  eS      41 47.50
MEM      1.98 215 iPd     41 20.06   0.6
                  ic      41 24.02
                  iS      41 48.45
BGG      2.06 188 i(P)c   41 23.74   3.1X
        0.7s   332.00nm
                  ic      41 24.60
                  ic      41 26.26
                  iS      41 52.83
TNS      2.07 168 iPnd    41 27.40   6.6X
                  iSn     41 57.10
                  iSb     42 03.00
ABH      2.37 184 ePg     41 25.00  -0.2
UCC      2.58 237 iP      41 59.00  30.9X
                  i       42 09.00
RUP      2.59 190 ePg     41 27.97  -0.3
TOD      2.72 166 ePg     41 30.35   0.2
WLF      2.78 202 iP      41 38.00   7.0X
                  i       42 13.00
SNF      2.80 233 iP      41 30.40  -0.8
                  i       42 15.80
MOX      2.88 122 ePn     41 32.90   0.5
                  iPg     41 43.50
                  iSg     42 24.00
DOU      2.94 224 P       41 33.20   0.0
                  i       41 42.90
                  iS      42 06.90
HOF      3.22 125 iPnc    41 37.40   0.2
GRF      3.36 138 ePn     41 39.40   0.3
                  e(Pg)   41 51.40
                  e(Sg)   42 38.00
CLL      3.37 104 iPn     41 39.90   0.5
                  ePg     41 51.00
                  (Sg)    42 35.00
CDF      3.85 185 Pn      41 44.80  -1.5
BRG      4.08 107 iPg     41 50.00   0.6
                  i       42 49.00
                  iSg     43 05.00
HAU      4.34 193 Pn      41 52.00  -1.2
                  Sn      42 40.20
                  Sg      43 03.20
BSF      4.46 189 Pn      41 52.70  -2.3X
                  Sg      43 05.90
FUR      4.66 150 ePn     42 03.90   6.2X
PRU      4.82 115 ePn     41 59.70  -0.2
                  e       42 20.50
                  Sn      43 18.00
                  e       44 30.00
KHC      4.83 128 ePn     42 00.00   0.0
                  e       42 09.60
                  Sn      43 19.90
GEC2     5.08 130 Pn      42 04.10   0.4
                  Pg      42 24.50
                  Sn      43 03.40
                  Sg      43 35.50
KSP      5.49 101 eP      42 08.00  -1.4
                  iS      43 50.00
WTTA     5.58 152 iPnc    42 10.00  -0.8
                  i       43 08.70
                  i       43 52.20
LOR      5.59 209 Pn      42 08.60  -2.3X
                  Sn      43 12.30
                  Sg      43 43.70
LBF      5.82 207 Pn      42 11.10  -2.9X
                  Sn      43 16.50
                  Sg      43 47.70
SSF      5.88 210 Pn      42 12.40  -2.5X
                  Sg      43 49.70
SMF      6.17 206 Pn      42 16.40  -2.5X
AVF      6.17 210 Pn      42 16.40  -2.6X
LDF      6.24 237 Pn      42 15.70  -4.1X
                  Sn      43 24.90
KBA      6.31 143 iPnc    42 21.20   0.2
                  i       42 28.10
                  i       43 26.10
                  i       43 33.00
                  i       44 14.40
                  i       44 23.20
FLN      6.32 240 Pn      42 18.00  -3.1X
BGF      6.54 211 Pn      42 20.90  -3.3X
                  Sn      43 31.00
                  Sg      44 10.90
```

```
GRR      6.75 239 Pn     42 23.60  -3.5X
                  Sn     43 35.70
LPL      6.77 186 Pn     42 25.10  -2.6X
LPG      6.79 186 Pn     42 27.00  -1.0X
MAF      6.93 212 Pn     42 25.80  -3.8X
                  Sg     44 22.90
TCF      6.99 214 Pn     42 27.10  -3.4X
                  Sn     43 44.70
                  Sg     44 23.90
LPF      7.07 237 Pn     42 27.50  -4.0X
MFF      7.65 226 Pn     42 38.10  -1.7X
CAF      8.25 210 Pn     42 46.30  -1.8X
     S.D. = 0.7  on  25 of  47 obs.
-----------------------------------------
   MAR  22, 1993   19h 13m 59.53± 0.43s
    44.590 N ± 3.3km     9.543 E ± 4.0km
    DEPTH =  33.0km  (normal)
 NORTHERN ITALY                     (545)
      ML 3.1 (LDG), 2.9 (VIE).

BORS     0.40 149 P      14 08.10  -0.6
                  S      14 14.66
PCP      0.72 266 P      14 15.09   1.9X
                  S      14 25.20
FIN      1.03 249 P      14 18.11   0.4
                  S      14 30.50
ROB      1.23 257 P      14 21.22   0.6
                  S      14 36.68
IMI      1.37 241 P      14 22.36  -0.2
                  S      14 38.02
ORX      1.52 314 P      14 25.70   0.9
                  S      14 42.96
SAOF     1.55 248 Pg     14 25.29   0.1
TMA      1.59 343 iPd    14 26.80   1.0
STV      1.63 259 P      14 26.80   0.5
                  S      14 45.22
AUTN     1.63 249 Pg     14 27.16   0.6
                  Sg     14 47.36
BHB      1.64 280 P      14 27.31   0.8
SBF      1.68 245 Pn     14 27.10   0.0
                  Sn     14 47.10
AURF     1.74 247 Pg     14 28.15   0.2
                  Sg     14 50.00
TOUF     1.75 252 Pg     14 29.19   1.0
                  Sg     14 51.43
PZZ      1.75 268 P      14 28.36   0.2
VDL      1.90 358 iPc    14 31.30   0.9
PGF      2.08 191 Pn     14 29.10  -3.8X
                  Sn     14 51.20
OSS      2.14  11 ePc    14 34.40   0.6
LPG      2.18 296 Pn     14 35.50   1.1
LPL      2.20 296 Pn     14 35.80   1.2
LLS      2.31 351 ePc    14 36.50   0.3
FRF      2.33 245 Pn     14 35.90  -0.4
                  Sn     15 03.00
EMS      2.36 310 ePc    14 39.80   2.8X
LMR      2.53 241 Pn     14 37.90  -1.2
                  Sn     15 06.60
LRG      2.56 245 Pn     14 39.10  -0.5
                  Sn     15 08.40
SOTA     2.88  23 iPgc   14 44.90   0.7
                  iSg    15 17.70
MOTA     2.96  21 iPgc   14 45.70   0.2
                  iSg    15 20.70
ZLA      3.00 345 Pc     14 45.90   0.0
WTTA     3.05  28 iPgc   14 46.70   0.0
                  iSg    15 20.90
WATA     3.09  27 iPgc   14 46.90  -0.4
                  i(Sg)  15 23.50
TRI      3.19  68 eP     15 15.80  27.3X
SLE      3.26 347 ePc    14 48.70  -0.8
FEL      3.45 343 eP     14 51.57  -0.9
BSF      3.76 330 Pn     14 56.70   0.0
                  Sn     15 38.70
HAU      4.07 328 Pn     15 00.40  -0.7
                  Sn     15 46.00
CDF      4.13 339 Pn     15 00.90  -1.1
                  Sn     15 45.60
SMF      4.50 299 Pn     15 06.30  -0.8
                  Sn     15 56.10
LBF      4.57 304 Pn     15 07.40  -0.8
                  Sn     15 58.30
LOR      4.79 306 Pn     15 10.40  -0.8
AVF      4.86 299 Pn     15 11.50  -0.8
SSF      4.89 302 Pn     15 11.80  -0.9
                  Sn     16 05.30
BGF      5.10 295 Pn     15 14.80  -0.8
```

```
                  Sn     16 11.90
GEC2     5.13  32 Pn     15 11.40  -4.7X
                  Sn     16 06.50
     S.D. = 0.7  on  38 of  43 obs.
-----------------------------------------
%  MAR  22, 1993   19h 46m 57.70± 0.88s
   26.907 S ± 6.9km    26.622 E ±10.5km
     DEPTH =    5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
       ML 2.6 (PRE).

PRY      0.76  92 eP     47 13.00  -0.1
KSR      1.07  13 iPd    47 18.50   0.1
SEK      1.67 148 iPc    47 27.90   0.0
                  S      47 49.80
SLR      1.89  52 iPc    47 31.00  -0.1
                  S      47 53.00
BLF      2.23 190 e(P)   47 36.50   0.5
FRS      3.06 202 eP     47 47.00  -0.5
                  S      48 21.70
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
    MAR  22, 1993   20h 06m 51.00± 0.53s
    31.624 S ± 6.8km    69.383 W ± 7.4km
    DEPTH = 124.4 ±  7.3 km
  SAN JUAN PROVINCE, ARGENTINA      (137)
       MD 4.2 (SAN). Felt (III) at San
       Juan.

RTCB     0.52  75 iPc    07 09.50  -0.4
ZON      0.61  83 iPc    07 10.20  -0.2
                  eS     07 22.20
RTCV     0.76 108 iPc    07 12.00   0.4
RTLL     0.83  70 iPd    07 11.50  -0.7
CFA      0.98  89 iPd    07 13.30  -0.2
                  S      07 29.00
MDZ      1.33 160 iP     07 17.70   0.4
                  iS     07 36.70
RTRS     1.45 357 iPc    07 18.00  -0.5
JACH     1.47 224 iP+    07 19.40   0.5
                  iS     07 40.80
FCH      1.86 204 iP+    07 25.48   1.7
                  iS     07 51.34
PEL      1.87 216 iPd    07 23.83   0.2
                  iS     07 49.12
ROCH     1.93 225 iPd    07 24.14  -0.3
PCH      2.21 205 iP+    07 28.79   0.9
                  iS     07 57.42
TACH     2.41 213 iPd    07 29.90  -0.5
                  iS     08 00.77
CHCH     2.54 205 iPd    07 32.47   0.4
                  iS     08 04.55
LCCH     2.61 224 iPd    07 31.74  -1.2
                  iS     08 03.38
CACH     2.69 202 eP     07 34.39   0.3
                  iS     08 09.38
LNV      2.88 216 iPd    07 34.98  -1.5
                  (S)    08 08.45
MRA      3.22 105 iPc    07 41.00   0.0
CYA      4.44  45 iPc    07 54.50  -3.0X
                  S      08 35.80
ZOBO    15.31   5 eP     10 24.00   1.7
GBA    144.70 113 PKP    26 14.00  -1.0
     S.D. = 0.9  on  20 of  21 obs.
-----------------------------------------
    MAR  22, 1993   20h 51m 37.64± 0.35s
    19.498 N ± 5.6km    38.734 E ± 4.9km
    DEPTH =  10.0km  (geophysicist)
    4.9mb ( 51 obs.) 4.8Msz (  9 obs.)
  RED SEA                           (554)
        Mw 5.1 (HRV). MD 4.8 (RYD).
        CENTROID, MOMENT TENSOR     (HRV)
        Data Used: GDSN
        L.P.B.: 18S, 23C
        Centroid Location:
        Origin Time        20:51:39.2 1.1
        Lat 19.43N 0.09 Lon  38.59E 0.10
        Dep  15.0 FIX Half-duration  1.0
        Moment Tensor;   Scale 10**16 Nm
          Mrr=-4.59 0.68  Mtt= 2.25 0.64
          Mff= 2.33 0.48  Mrt= 0.00 0.00
          Mrf= 0.00 0.00  Mtf=-2.29 0.71
         Principal Axes:
          T   Val=  4.59   Plg= 0  Azm=225
          N         0.00        0      135
          P        -4.58       90      180
        Best Double Couple:Mo=4.6*10**16
```

```
          NP1:Strike=315 Dip=45 Slip= -90
          NP2:       135     45      -90

ABHA     4.00 107 eP     52 33.84  -6.7X
KMTA     4.13 108 eP     52 39.74  -2.7
DHJN     4.87 111 eP     52 48.49  -4.5X
AFIF     6.17  41 eP     53 28.66  17.6X
BADA     9.61 340 eP     53 56.63  -2.3
AYN      9.66 346 eP     53 54.38  -5.2X
AAE     10.41 180 eP     54 10.50   0.1
MBH     10.81 342 eP     54 15.40  -0.1
MKT     11.85 345 eP     54 29.70   0.0
HRI     13.97 350 eP     54 58.90   0.9
CSS     16.13 344 eP     55 31.00   5.0X
KER     16.56  25 eP     55 32.00   0.4
NAI     20.73 185 iP     56 28.00   6.7X
     Z  18s     2.06um            4.5Msz
                  S      00 42.00
GRS     20.98  17 eP     56 25.00   1.3
        1.5s  100.00nm             5.0mb
     Z  12s     1.90um           4.7MszX
                  eS     00 29.00
IZM     21.31 335 iP     56 27.30   0.5
EYL     22.25 343 eP     56 32.00  -4.3X
SHE     22.71  20 eP     56 43.00   2.3
        1.2s   50.00nm             4.9mb
                  iS     00 50.00
SOC     24.03   2 eP     56 55.00   1.5
                  eS     01 14.00
GRO     24.49  12 eP     56 59.00   1.0
        2.0s  240.00nm             5.5mb
     Z  14s     2.00um           4.8MszX
     N  14s     2.50um
     E  16s     1.00um
MAK     24.57  15 iP-    57 03.50   4.7X
     Z  14s     2.00um           4.8MszX
     N  14s     2.00um
     E  14s     2.50um
                  e      57 42.00
                  ePPP   57 52.00
                  eSS    02 24.00
KIV     24.61   7 iPc    57 01.30   2.0
        3.6s  289.00nm           5.3mb X
     Z  18s     1.00um            4.4Msz
PYA     24.73   7 eP     57 05.00   4.6X
     Z  14s     2.00um           4.8MszX
BCAO    24.74 235 iPd    57 02.60   1.8
        0.5s   30.00nm             5.2mb
                  i      57 07.20
MAIO    24.75  43 iPd    57 03.10   2.4
                  eS     01 40.00
KAT     24.80  34 eP     57 05.00   4.0X
     Z  14s     1.60um           4.7MszX
     N  14s     3.00um
     E  14s     2.00um
                  eS     01 31.00
ASH     25.09  39 eP     57 09.50   5.7X
VAY     25.75 331 eP     57 10.00   0.0
OHR     26.43 328 eP     57 14.00  -2.4
SKO     26.78 331 iP     57 19.00  -0.6
OUE     27.66  62 eP     57 31.20   3.3X
                  eS     02 24.70
MLR     28.00 341 eP     57 32.50   1.7
VRI     28.11 342 eP     57 36.00   4.4X
CVO     28.23 341 eP     57 37.00   4.3X
VBY     32.39 328 e(P)   58 10.50   0.9
SRO     32.76 334 eP     58 13.80   1.1
SPC     33.14 338 eP     58 17.70   1.4
VOY     33.44 328 e(P)   58 19.00   0.1
                  e      58 39.00
ZST     33.56 334 eP     58 20.10   0.4
PGF     34.02 319 eP     58 23.50  -0.4
        1.1s   13.45nm             4.8mb
OJC     34.16 338 eP     58 25.40   0.5
                  i      58 28.40
VRAC    34.64 334 eP     58 29.60   0.6
        2.9s  413.70nm             5.8mb
GEC2    35.54 331 P      58 35.20  -1.7
        1.2s    5.63nm             4.3mb
                  e      58 41.00
                  e      58 57.20
OBN     35.58 358 iPd    58 37.50   0.5
        1.0s   21.00nm             5.0mb
     Z  20s     0.60um            4.4Msz
                  i      58 40.00
SBF     35.69 320 eP     58 38.00  -0.2
        1.0s   17.20nm             4.9mb
```

22d 20h

KHC 35.80 331 eP 58 40.20 1.2
KSP 35.96 336 eP 58 39.40 -0.9
LMR 35.98 319 eP 58 40.30 -0.3
0.9s 12.60nm 4.8mb
FRF 36.02 319 eP 58 40.70 -0.2
1.1s 25.40nm 5.0mb
NDI 36.17 68 eP 58 45.00 2.6
BRG 36.93 334 eP 58 49.40 0.9
1.4s 21.00nm 4.7mb
LPG 37.00 322 eP 58 48.70 -0.8
0.8s 6.70nm 4.5mb
LPL 37.02 322 eP 58 48.80 -0.8
0.9s 6.40nm 4.4mb
GRF 37.28 330 e(P) 58 50.00 -1.4
2.2s 39.00nm 4.8mb
GBA 37.50 93 P 58 55.00 1.4
CLL 37.66 334 eP 58 53.00 -1.5
2.0s 28.00nm 4.7mb
HYB 37.77 87 eP 58 56.00 0.0
MOX 37.77 332 eP 58 56.20 0.7
2.5s 111.00nm 5.2mb
BSF 38.32 325 eP 59 00.10 -0.2
1.5s 28.75nm 4.8mb
SMF 39.32 322 eP 59 08.00 -0.6
0.9s 6.40nm 4.3mb
LBF 39.42 322 eP 59 09.00 -0.5
0.9s 20.80nm 4.8mb
CAF 39.55 318 eP 59 11.00 0.4
1.1s 18.80nm 4.7mb
LOR 39.64 322 eP 59 10.80 -0.5
1.0s 14.40nm 4.6mb
Z 24s 0.15um 3.7MszX
AVF 39.69 321 eP 59 10.90 -0.7
1.0s 10.60nm 4.5mb
ARU 39.73 17 eP 59 19.00 7.2X
2.0s 200.00nm 5.4mb
Z 16s 1.00um 4.8MszX
N 16s 1.00um
E 16s 0.50um
SSF 39.74 322 eP 59 11.50 -0.5
1.1s 19.05nm 4.7mb
EPF 39.85 315 eP 59 12.60 -0.5
BGF 39.87 321 eP 59 13.20 0.1
1.1s 53.50nm 5.1mb
MAF 39.87 320 eP 59 13.10 0.0
0.9s 12.30nm 4.6mb
LPO 40.00 317 eP 59 14.90 0.7
RJF 40.07 318 eP 59 15.20 0.4
1.2s 20.55nm 4.7mb
Z 21s 0.13um 3.7MszX
LFF 40.40 318 eP 59 17.90 0.5
1.2s 42.25nm 5.0mb
PRZ 40.50 47 eP 59 20.00 1.5
1.6s 60.00nm 5.0mb
Z 19s 2.50um 5.1Msz
E 19s 2.50um
LSF 40.51 320 eP 59 18.80 0.4
1.4s 47.05nm 5.0mb
BUL 40.62 195 eP 59 21.10 1.4
SVE 40.67 18 ePc 59 21.00 1.5
2.0s 40.00nm 4.8mb
Z 15s 1.20um 4.9MszX
N 15s 0.60um
E 15s 0.60um
MFF 41.70 319 eP 59 27.70 -0.4
1.0s 16.00nm 4.7mb
PAB 42.00 308 eP 59 32.00 1.2
NUR 42.18 350 eP 59 33.40 1.6
LDF 42.62 322 eP 59 34.60 -1.1
1.1s 25.40nm 4.9mb
LPF 42.90 321 eP 59 37.00 -0.9
1.0s 26.80nm 4.9mb
FLN 42.91 322 eP 59 37.10 -0.9
1.0s 33.40nm 5.0mb
Z 22s 0.13um 3.8MszX
KAF 43.45 352 eP 59 41.10 -1.1
TIC 44.35 259 P 59 50.72 0.5
LIC 44.51 259 P 59 52.02 0.6
1.0s 22.50nm 5.0mb
Z 18s 0.75um 4.7Msz
e 01 36.00
APO 44.62 343 eP 59 51.10 -0.7
1.3s 32.00nm 5.0mb
NB2 45.81 342 P 59 59.00 -2.3
1.0s 4.60nm 4.4mb
KDS 49.30 270 eP 00 30.00 0.8
ELT 49.61 36 eP 00 29.90 -1.1

1.8s 56.00nm 5.3mb
Z 14s 1.50um 5.1MszX
e 02 23.00
eS 07 41.00
CHTO 56.61 80 eP 01 22.00 -1.5
KHT 57.16 85 eP 01 26.00 -1.4
MOY 57.78 41 eP 01 31.00 -0.2
NRI 58.15 18 iPc 01 33.00 -0.5
1.0s 45.00nm 5.5mb
Z 16s 1.90um 5.3MszX
N 16s 0.90um
E 18s 1.20um
e 03 50.00
LZH 58.92 59 eP 01 39.00 -0.8
2.0s 101.00nm 5.6mb
Z 20s 1.14um 5.0Msz
E 15s 0.68um
sP 01 44.50
eS 09 45.00
KMI 59.01 72 Pc 01 40.00 -0.6
1.5s 50.00nm 5.4mb
ZAK 59.04 42 eP 01 36.50 -3.6X
2.0s 31.00nm 5.1mb
Z 16s 2.67um 5.5MszX
E 17s 3.17um
eS 09 54.00
IRK 59.90 40 ePc 01 43.70 -2.4
2.0s 35.00nm 5.1mb
Z 16s 0.68um 4.9MszX
N 14s 0.25um
E 16s 0.42um
CIT 65.60 41 eP 02 24.00 0.1
BOD 65.98 35 eP 02 23.20 -2.9X
0.9s 32.00nm 5.5mb
BJI 68.28 54 eP 02 41.50 0.5
2.0s 74.00nm 5.5mb
Z 21s 1.52um 5.2Msz
N 14s 0.41um
eS 11 44.00
TIK 71.70 20 iPd 03 00.00 -1.3
2.0s 41.00nm 5.2mb
YAK 73.45 29 eP 03 09.90 -1.8
2.0s 77.00nm 5.4mb
Z 18s 0.80um 5.0Msz
E 18s 0.60um
MGD 83.71 28 eP 04 07.00 -0.8
1.6s 70.00nm 5.6mb
eS 14 25.00
eSS 20 00.00
YSS 85.07 42 (P) 04 15.20 0.3
MAT 85.89 53 ePKP 04 19.00 -0.3
Z 20s 0.35um 4.8Msz
ILT 88.64 13 eP 04 24.00 -8.0X
YKA 95.60 348 eP 05 03.10 -1.2
0.8s 1.80nm 4.6mb
S.D. = 1.2 on 88 of 106 obs.

MAR 22, 1993 21h 17m 11.38± 0.53s
43.438 N ± 3.7km 5.467 E ± 4.1km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.7 (STR).

GELF 0.06 208 Pg 17 13.09 0.1
PUYF 0.19 61 Pg 17 15.49 0.1
TREF 0.20 342 Pg 17 15.27 -0.1
BERF 0.21 127 Pg 17 16.09 0.5
CDR 0.32 43 ePgc 17 17.30 -0.6
PRAF 0.43 330 Pg 17 20.15 0.2
VILF 0.45 23 Pg 17 20.53 0.1
TAVF 0.47 67 Pg 17 20.76 0.0
GANF 0.64 30 Pg 17 24.14 -0.1
CALN 1.08 73 Pg 17 33.14 0.9
REVF 1.41 77 Pn 17 37.93 0.1
TOUF 1.41 65 Pn 17 37.86 -0.1
AURF 1.42 71 Pn 17 37.86 -0.2
Sg 17 57.02
SBF 1.49 73 Pn 17 39.72 0.8
Sg 18 00.18
AUTN 1.53 68 Pn 17 39.64 0.1
Sg 18 01.00
SAOF 1.61 69 Pn 17 40.48 -0.1
Sg 18 03.10
PGF 2.74 108 Pn 17 55.33 -1.6
S.D. = 0.6 on 17 of 17 obs.

? MAR 22, 1993 21h 27m 57.40± 2.26s
22.411 S ±30.4km 174.158 E ±30.3km
DEPTH = 33.0km (normal)
4.6mb (4 obs.)
LOYALTY ISLANDS REGION (189)

DZM 7.15 271 iPd 29 43.00 0.5
iS 30 57.80
RMO 23.46 255 iPd 33 05.30 0.4
CNB 25.15 234 iPd 33 22.00 0.7
0.4s 11.00nm 4.8mb
ASPA 36.98 260 iPc 35 03.50 -2.3
0.8s 6.00nm 4.5mb
WB2 37.13 266 eP 35 04.40 -2.6X
0.5s 2.10nm 4.3mb
MAT 67.75 329 eP 38 54.00 0.1
1.0s 7.00nm 4.7mb
CHTO 84.13 293 eP 40 27.50 0.6
KSP 146.78 334 ePKP 47 41.00 5.4X
CLL 147.65 338 ePKP 47 44.00 7.0X
1.2s 14.00nm
BRG 147.67 336 iPKP 47 45.00 8.0X
1.2s 13.00nm
PRU 148.15 335 ePKP 47 40.50 2.7X
KHC 149.21 335 ePKP 47 50.00 10.4X
GEC2 149.39 334 PKP 47 43.10 3.1X
1.1s 2.51nm
e 47 50.00
GRB5 149.95 337 e(PKP)47 45.00 4.3X
SKO 149.98 317 e(PKP)47 43.20 2.2X
BCAO 150.40 236 ePKPc 47 46.00 3.6X
0.5s 3.00nm
S.D. = 1.5 on 6 of 16 obs.

MAR 22, 1993 21h 30m 57.45± 1.14s
16.911 N ± 8.5km 61.278 W ±11.8km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
MD 3.0 (TRN). ML 2.8 (FDF).

SEG 0.55 203 eP 31 08.43 -0.3
BPA 0.57 284 eP 31 08.42 -0.7
S 31 15.90
DEG 0.63 161 eP 31 09.87 -0.1
S 31 18.90
SFG 0.66 173 eP 31 10.30 0.0
CPB 0.89 324 eP 31 13.56 -0.1
eS 31 25.34
MGH 0.92 258 eP 31 13.78 -0.2
S 31 25.50
PAG 0.96 204 eP 31 14.79 0.2
S 31 26.93
MGG 0.99 182 eP 31 15.20 0.2
NEV 1.26 280 eP 31 19.80 1.0
S 31 35.90
S.D. = 0.5 on 9 of 9 obs.

• MAR 22, 1993 21h 57m 25.78± 2.17s
21.663 N ± 9.0km 143.279 E ±17.0km
DEPTH = 312.9 ± 22.3 km
4.3mb (9 obs.)
MARIANA ISLANDS REGION (215)

WKYJ 14.23 333 P 00 36.70 0.6
TKSJ 14.73 328 P 00 42.60 0.7
KAKJ 14.74 350 P 00 41.40 -0.6
CHJJ 14.81 346 P 00 41.70 -1.1
TSRJ 15.23 337 P 00 48.10 0.8
MAT 15.47 345 (P) 00 49.00 -0.9
0.6s 8.00nm 4.3mb
eS 03 34.00
MTMJ 15.61 343 P 00 50.00 -1.6
NIIJ 15.96 347 P 00 54.30 -0.8
YONJ 15.99 330 P 00 55.80 0.3
YAMJ 16.69 351 eP 01 04.10 1.2
OFUJ 17.42 356 eP 01 11.10 0.7
eS 04 24.20
SSE 21.87 300 Pc 01 54.50 -0.1
1.0s 27.00nm 4.5mb
LZH 37.14 302 Pd 04 09.50 0.5
1.0s 22.00nm 4.5mb
WB2 42.26 193 iPd 04 51.10 0.3
0.3s 29.90nm 5.0mb
WARB 50.22 200 eP 05 52.00 -0.7
STK 53.26 182 eP 06 15.00 0.0
0.4s 3.30nm 4.1mb
GBA 62.88 275 P 07 22.00 0.4
YKA 76.44 28 eP 08 44.00 1.5

0.4s 0.60nm 3.7mb
KAF 82.79 335 eP 09 16.20 0.1
0.4s 1.90nm 4.3mb
NUR 84.35 334 eP 09 24.10 0.2
0.3s 1.70nm 4.4mb
APO 88.43 338 eP 09 42.00 -1.7
0.4s 1.40nm 4.2mb
ZOBO 149.85 85 PKP 16 44.00 7.4X
LPB 149.95 86 ePKP 16 46.00 9.5X
CNCB 150.12 86 PKPc 16 45.70 8.8X
S.D. = 1.0 on 21 of 24 obs.

MAR 22, 1993 22h 25m 54.35± 0.68s
40.760 N ± 4.8km 19.886 E ± 6.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.9 (TIR).

VLO 0.42 226 iPgc 26 03.10 0.3
iSg 26 10.60
TPE 0.47 168 iPgd 26 02.20 -1.8
iSg 26 09.50
TIR 0.59 358 iPgd 26 06.70 0.5
iSg 26 19.70
OHR 0.78 63 iPg 26 08.00 -1.5
0.7s 73.00nm
iSg 26 21.80
Lg 26 28.50
SRN 0.88 174 ePg 26 11.40 0.1
LACI 0.89 351 iPnc 26 13.00 1.7X
iSn 26 31.40
PHP 1.01 24 iPgc 26 12.50 -1.0
iSg 26 30.00
KEK 1.05 184 eP 26 14.50 0.4
eS 26 32.30
FNA 1.13 88 ePb 26 15.40 -0.2
eSb 26 31.56
IGT 1.27 164 ePb 26 18.16 0.2
eSb 26 36.72
SDA 1.32 347 ePn 26 20.40 1.7X
KZN 1.51 107 eP 26 21.40 -0.1
eS 26 46.00
SKO 1.68 44 iPn 26 25.50 1.5X
0.9s 135.00nm
iSg 26 49.50
Lg 26 51.00
GRG 1.92 83 ePn 26 28.40 1.0
eSn 26 53.96
LIT 2.09 107 ePn 26 31.24 1.3
eSn 26 59.78
VAY 2.11 74 ePn 26 31.00 0.9
KNT 2.32 79 ePn 26 33.20 0.1
eSn 27 03.56
S.D. = 1.0 on 14 of 17 obs.

---

* MAR 22, 1993 23h 10m 29.58± 1.34s
51.276 N ±13.4km 15.732 E ± 6.7km
DEPTH = 5.0km (geophysicist)
POLAND (548)
ML 3.6 (GRF), 3.4 (VIE).

KSP 0.56 141 iPd 10 39.50 -1.3
0.4s 125.00nm
iS 10 48.70
BRG 1.20 251 iPg 10 53.60 1.3
iSg 11 13.20
PRU 1.50 211 Pn 10 57.50 0.4
0.4s 28.90nm
Pg 10 59.50
Sn 11 16.20
Sg 11 23.60
i 11 30.00
CLL 1.71 272 iPn 10 58.70 -1.5
iSg 11 27.10
VRAC 2.05 164 iPn 11 04.40 -0.6
0.2s 6.30nm
eSg 11 37.10
KHC 2.55 214 iPn 11 12.50 0.1
Pg 11 19.00
Sn 11 49.20
Sg 11 59.00
HOF 2.63 250 iPnc 11 12.90 -0.5
MOX 2.68 258 ePn 11 14.00 -0.1
iPg 11 21.60
iSg 12 00.50
GEC2 2.76 209 Pn 11 16.40 1.0
Pg 11 28.70
Sg 12 05.70
OJC 2.79 111 eP 11 17.20 1.5
iS 11 53.80
VKA 3.04 173 iPgd 11 27.70 8.5X
iSg 12 10.00
ZST 3.21 163 eP 12 07.70 46.1X
e 12 14.70
GRF 3.29 243 iPnc 11 22.90 0.1
e(Pg) 11 34.10
eSg 12 21.10
KBA 4.48 201 iPnc 11 39.70 -0.2
i 11 48.20
iSg 13 00.50
S.D. = 1.0 on 12 of 14 obs.

? MAR 23, 1993 00h 30m 26.48± 7.50s
38.016 N ±69.6km 20.828 E ±12.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.0 (ATH).

VLS 0.25 311 iPgd 30 30.80 -1.0
eSg 30 35.50
AGG 1.55 49 ePb 30 55.84 1.7
eSb 31 16.92
IGT 1.56 346 ePb 30 54.28 -0.1
eSb 31 14.64
KEK 1.88 335 ePn 31 00.60 1.7
PAIG 2.93 48 ePn 31 12.72 -1.2
SOH 3.42 34 ePn 31 20.44 -0.5
iSn 32 00.84
KNT 3.53 26 ePn 31 21.68 -0.7
S.D. = 1.5 on 7 of 7 obs.

MAR 23, 1993 00h 59m 32.78± 0.26s
19.590 N ± 4.2km 38.693 E ± 3.4km
DEPTH = 10.0km (geophysicist)
5.2mb (83 obs.) 5.0Msz (14 obs.)
RED SEA (554)
Mw 5.2 (HRV). MD 5.1 (RYD).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 22S, 34C
Centroid Location:
Origin Time 00:59:36.9 0.6
Lat 19.85N 0.08 Lon 38.39E 0.07
Dep 16.3 3.3 Half-duration 1.8
Moment Tensor; Scale 10**16 Nm
Mrr=-6.69 0.61 Mtt= 3.76 0.66
Mff= 2.94 0.62 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-5.32 0.63
Principal Axes:
T Val= 8.69 Plg= 0 Azm=223
N -1.99 0 133
P -6.69 90 180
Best Double Couple:Mo=7.7*10**16
NP1:Strike=313 Dip=45 Slip= -90
NP2: 133 45 -90

ABHA 4.07 108 eP 00 30.11 -6.5X
KMTA 4.20 109 iPd 00 36.50 -2.0
eS 01 20.00
DHJN 4.94 112 eP 00 47.00 -2.1
iS 01 40.00
OASM 7.86 34 eP 01 37.00 7.1X
eS 03 05.00
MJMA 8.71 43 eP 01 42.00 0.1
eS 03 12.00
RYD 8.94 54 eP 02 17.00 32.0X
BADA 9.51 340 eP 01 58.84 6.1X
AYN 9.56 346 eP 01 50.58 -2.8X
AAE 10.50 180 eP 02 06.50 -0.3
SHWJ 11.13 346 P 02 13.00 -2.2
SAGI 11.20 342 eP 02 21.10 5.1X
HLW 12.21 328 e(P) 02 30.00 0.4
DSI 12.30 347 eP 02 36.50 5.7X
MASJ 12.38 348 P 02 33.00 1.0
DHR 12.48 56 eP 02 37.00 3.7X
SALJ 12.66 348 P 02 36.00 0.3
HRI 13.88 350 eP 02 57.80 5.9X
BHL 14.51 350 P 03 00.00 -0.2
S 06 03.00
CSS 16.03 344 eP 03 24.00 4.1X
KER 16.49 25 eP 03 26.00 0.1
GAZ 17.57 356 eP 03 40.60 1.3
BCK 19.16 340 eP 03 58.30 -0.7
TAB 19.57 18 eP 04 07.00 2.9X
TEH 19.59 32 eP 04 09.00 4.7X
KHL 20.30 339 iP 04 11.50 -0.1
ALT 20.77 341 eP 04 17.00 0.5
NAI 20.82 185 iP 04 22.00 4.7X
Z 18s 3.40um 4.8Msz
S 08 36.00
GRS 20.91 17 eP 04 17.00 -1.0
1.8s 170.00nm 5.1mb
Z 11s 3.35um 5.0MszX
eS 08 20.00
IZM 21.21 335 iP 04 20.40 -0.5
KAS 22.11 350 eP 04 31.50 1.4
EYL 22.15 343 eP 04 30.00 -0.5
SHE 22.64 20 iPc 04 37.00 1.9
1.2s 70.00nm 5.0mb
Z 12s 4.40um 5.1MszX
N 12s 9.00um
E 12s 8.00um
iS 08 45.00
MTA 22.64 12 eP 04 37.00 1.8
N 11s 3.50um
E 11s 2.00um
i 04 38.60
eS 08 52.00
BAK 22.85 22 iPd 04 44.00 6.8X
Z 13s 11.75um 5.5MszX
N 18s 19.74um
E 11s 6.70um
ALN 23.83 336 eP 04 50.40 3.6X
SOC 23.94 2 iPd+ 04 50.00 2.2
2.0s 300.00nm 5.5mb
Z 13s 1.50um 4.7MszX
N 13s 2.00um
E 12s 1.00um
eS 09 10.00
AGG 23.98 327 eP 04 49.52 1.2
PAIG 24.03 331 iP 04 50.24 1.5
OUR 24.22 332 eP 04 52.96 2.4X
GRO 24.41 12 iP- 04 57.00 4.6X
Z 13s 5.00um 5.2MszX
N 13s 5.00um
i 05 37.00
MAK 24.49 16 iP- 04 58.00 4.8X
Z 14s 4.10um 5.1MszX
N 14s 4.00um
E 14s 4.20um
e 05 38.00
KIV 24.52 7 iPc 04 55.50 1.8
2.0s 217.00nm 5.4mb
Z 16s 1.80um 4.7MszX
PYA 24.64 8 iPd 04 57.00 2.3
2.0s 220.00nm 5.5mb
Z 14s 3.00um 4.9MszX
N 14s 2.50um
E 14s 1.50um
eS 09 26.00
MAIO 24.71 43 eP 04 56.00 0.5
eS 09 33.00
LIT 24.73 329 eP 04 55.20 -0.4
KAT 24.74 34 eP 04 55.00 -0.6
Z 14s 2.40um 4.8MszX
N 14s 3.50um
E 14s 2.00um
i 04 57.00
eS 09 20.00
BCAO 24.76 235 iPd 04 57.00 0.9
0.5s 13.00nm 4.9mb
i 05 26.90
i 08 34.00
SOH 24.90 332 eP 04 58.08 0.9
SRS 25.03 332 eP 04 58.76 0.3
ASH 25.04 39 eP 04 45.00 -13.5X
i 15 58.00
ANN 25.25 358 eP 04 58.00 -2.4
KNT 25.37 331 eP 05 00.40 -1.3
IGT 25.40 325 eP 05 02.16 0.2
GRG 25.44 330 eP 05 01.88 -0.4
SIM 25.57 352 eP 05 08.00 4.5X
Z 30s 1.00um 4.2MszX
eS 09 38.00
VAY 25.65 331 iP 05 05.00 0.8
FNA 25.80 329 iP 05 06.12 0.4
SKO 26.68 330 iP 05 14.00 0.2
1.5s 63.00nm 5.1mb
QUE 27.65 62 eP 05 25.30 2.3
MLR 27.90 341 eP 05 27.50 2.4X
CMP 28.00 339 ePc 05 29.00 3.2X

23d 01h

VRI 28.01 342 eP 05 28.00 2.1
CVO 28.13 341 eP 05 29.00 2.0
KIS 28.51 346 eP 05 30.00 -0.3
Z 18s 0.40um 4.1Msz
eS 10 32.00
UZH 31.85 339 eP 06 00.00 0.0
1.5s 33.00nm 5.0mb
ZAG 32.17 330 eP 06 04.00 1.2
PTJ 32.24 330 eP 06 03.60 0.0
VBY 32.30 328 eP 06 05.00 1.1
SRO 32.66 334 iP 06 08.60 1.6
SPC 33.04 338 eP 06 12.10 1.5
TRI 33.19 327 ePc 06 12.50 0.8
VOY 33.35 328 eP 06 13.10 -0.1
ZST 33.46 333 eP 06 13.80 -0.2
PGF 33.92 319 eP 06 16.80 -1.5
1.5s 53.80nm 5.3mb
OJC 34.06 338 eP 06 16.00 -3.2X
e 06 18.80
i 06 20.60
KBA 34.35 329 iPc 06 22.60 0.7
VRAC 34.54 334 iPc 06 24.10 0.8
2.0s 294.40nm 5.8mb
e 06 29.60
MNK 35.30 349 eP 06 33.00 3.2X
WTTA 35.32 328 iPc 06 30.40 0.1
OGA 35.37 327 iPc 06 32.20 1.4
1.7s 126.00nm 5.5mb
GEC2 35.44 331 P 06 29.50 -1.7
1.5s 31.76nm 5.0mb
e 06 36.20
e 08 58.60
e 09 04.50
OBN 35.49 358 iPc 06 31.50 0.2
1.5s 112.00nm 5.5mb
Z 20s 1.10um 4.6Msz
N 20s 1.00um
E 18s 0.60um
iS 12 16.00
SQTA 35.51 327 iPc 06 32.30 0.5
SBF 35.60 320 eP 06 30.90 -1.7
1.1s 27.35nm 5.0mb
MOTA 35.65 327 iPc 06 33.00 0.0
KHC 35.70 331 P 06 33.60 0.3
1.5s 26.00nm 4.9mb
e 06 48.50
OSS 35.72 326 ePc 06 35.10 1.4
KSP 35.87 336 ePc 06 35.00 0.4
LMR 35.89 318 eP 06 33.20 -1.7
0.7s 8.95nm 4.7mb
PRU 35.92 333 ePc 06 35.00 -0.1
1.8s 43.10nm 5.0mb
e 09 00.00
FRF 35.92 319 eP 06 33.60 -1.6
1.2s 30.95nm 5.1mb
LRG 36.05 319 eP 06 34.70 -1.5
1.3s 47.30nm 5.2mb
TMA 36.05 324 ePc 06 37.20 0.7
MOS 36.10 359 iP 06 37.00 0.5
2.0s 240.00nm 5.7mb
FUR 36.11 328 eP 06 36.60 -0.2
LSZ 36.16 197 iPd 06 39.00 1.5
NDI 36.17 68 iPc 06 39.50 2.0
SURF 36.31 320 P 06 40.18 1.5
LLS 36.45 325 ePc 06 40.30 0.5
MTD 36.81 191 iPc 06 44.20 1.2
BRG 36.84 334 iPc 06 42.80 0.0
1.7s 80.00nm 5.2mb
DIX 36.86 323 ePc 06 44.00 0.6
LPG 36.90 322 eP 06 42.30 -1.5
1.6s 46.65nm 5.0mb
LPL 36.93 322 eP 06 41.60 -2.3
EMS 37.12 323 ePc 06 45.50 0.0
GRF 37.18 330 iPc 06 45.60 -0.1
1.5s 53.00nm 5.1mb
Z 21s 0.20um 3.9MszX
SLE 37.27 326 ePc 06 46.60 0.0
GBA 37.54 93 P 06 50.00 0.9
CLL 37.56 333 iPc 06 48.80 0.0
1.7s 63.00nm 5.1mb
FEL 37.60 326 P 06 49.46 0.1
BBS 37.62 325 P 06 49.57 0.1
KSH 37.66 50 eP 06 51.00 1.0
1.2s 74.00nm 5.3mb
Z 16s 6.56um 5.5MszX
N 13s 3.76um
E 15s 4.67um

sP 07 03.00
PcS 12 55.00
MOX 37.68 332 iPc 06 50.20 0.3
1.9s 86.00nm 5.2mb
e 07 29.00
HYB 37.80 87 ePc 06 51.50 0.1
1.0s 40.00nm 5.1mb
LOMF 37.92 324 P 06 52.54 0.5
LIBD 37.98 326 P 06 53.12 0.7
MOF 38.05 325 P 06 53.48 0.3
FRU 38.06 44 ePc 06 54.50 1.3
2.0s 110.00nm 5.3mb
Z 20s 1.20um 4.7Msz
e 08 22.00
SSB 38.10 320 P 06 53.90 0.3
STR 38.16 326 P 06 54.67 0.7
BSF 38.22 325 P 06 54.80 0.2
ECH 38.26 326 P 06 55.28 0.5
WLS 38.27 326 P 06 54.47 -0.5
HOFF 38.29 327 P 06 55.49 0.5
CDF 38.31 326 P 06 55.56 0.2
SRBF 38.33 327 P 06 55.03 -0.3
LANF 38.39 327 P 06 56.13 0.2
HAU 38.57 325 eP 06 55.70 -1.7
1.3s 28.90nm 4.8mb
Z 21s 0.15um 3.8MszX
SMF 39.23 321 eP 07 00.80 -2.2
1.2s 20.55nm 4.7mb
AVY 39.28 166 eP 07 07.60 3.7X
LBF 39.33 322 eP 07 01.90 -1.9
1.1s 35.15nm 4.9mb
ECHE 39.43 309 eP 07 06.90 2.1
CAF 39.46 318 eP 07 04.00 -0.9
1.4s 64.50nm 5.1mb
LOR 39.55 322 eP 07 03.70 -1.9
1.6s 100.75nm 5.2mb
Z 23s 0.30um 4.1MszX
AVF 39.59 321 eP 07 03.90 -2.0
1.3s 39.00nm 4.9mb
SSF 39.64 322 eP 07 04.40 -2.0
1.2s 36.30nm 4.9mb
ARU 39.66 17 eP 07 07.00 0.7
1.8s 400.00nm 5.8mb
Z 16s 2.00um 5.1MszX
N 16s 1.50um
E 16s 1.00um
e 07 12.00
WLF 39.66 327 P 07 07.00 0.6
EPF 39.76 315 eP 07 05.70 -1.7
1.0s 7.20nm 4.3mb
MAF 39.77 320 eP 07 06.10 -1.4
1.1s 23.70nm 4.8mb
BGF 39.77 321 eP 07 06.20 -1.3
1.4s 138.10nm 5.4mb
EGRA 39.88 313 iPc 07 05.90 -2.4
LPO 39.90 317 eP 07 07.80 -0.8
1.5s 99.75nm 5.3mb
RJF 39.98 318 eP 07 08.10 -1.1
1.1s 33.20nm 4.9mb
Z 23s 0.22um 3.9MszX
TCF 40.02 320 eP 07 08.40 -1.1
1.3s 26.00nm 4.7mb
EHUE 40.13 306 iPc 07 12.70 2.1
HYF 40.26 322 eP 07 10.00 -1.4
LFF 40.30 318 eP 07 11.00 -0.8
1.1s 51.75nm 5.1mb
LSF 40.41 320 eP 07 11.80 -1.0
1.0s 28.80nm 4.9mb
PRZ 40.46 47 eP 07 15.50 2.1
1.6s 90.00nm 5.2mb
Z 17s 4.00um 5.3MszX
N 17s 2.00um
E 17s 4.50um
SVE 40.59 18 ePc 07 15.00 0.9
3.2s 240.00nm 5.4mb X
Z 15s 1.50um 5.0MszX
N 15s 1.00um
E 15s 0.50um
e 09 14.30
eS 13 35.00
e 17 12.00
ETOR 40.61 310 eP 07 15.00 0.4
EGUA 40.64 304 iPc 07 16.10 1.3
BUL 40.70 195 eP 07 16.40 0.9
1.0s 10.00nm 4.5mb
DOU 40.73 326 Pc 07 16.90 1.7
ECOG 40.75 305 iPc 07 16.70 1.0

ELIZ 41.07 314 iPd 07 19.30 1.1
SNF 41.14 327 P 07 18.70 0.2
MAL 41.28 304 iPd 07 22.50 2.6X
ELUQ 41.35 305 eP 07 21.00 0.4
ECRI 41.54 313 iPc 07 23.00 0.9
MFF 41.60 319 eP 07 20.70 -1.8
1.1s 21.00nm 4.8mb
PAB 41.91 308 iPc 07 26.00 0.8
1.6s 83.33nm 5.2mb
EPRU 41.97 304 eP 07 26.20 0.5
EJIF 42.06 303 eP 07 26.50 0.2
GUD 42.08 309 eP 07 27.80 1.2
LDF 42.53 322 eP 07 27.70 -2.3
1.0s 33.40nm 5.0mb
LPF 42.80 321 eP 07 30.00 -2.3
1.0s 40.00nm 5.1mb
FLN 42.82 322 eP 07 30.10 -2.3
0.8s 35.45nm 5.1mb
Z 23s 0.20um 3.9MszX
GRR 42.86 321 eP 07 30.40 -2.3
1.2s 48.20nm 5.1mb
MUD 42.89 336 eP 07 34.20 1.3
1.5s 71.00nm 5.2mb
EVAL 43.28 304 eP 07 36.20 -0.2
EPLA 43.34 308 eP 07 37.80 1.0
HFS 44.26 342 eP 07 42.10 -1.8
0.5s 1.00nm 3.9mb X
Z 18s 0.29um 4.2Msz
LR 25 14.00
TIC 44.33 259 P 07 44.90 -0.3
0.9s 16.50nm 4.9mb
LIC 44.49 259 P 07 46.26 -0.2
0.9s 32.50nm 5.2mb
Z 18s 1.40um 4.9Msz
ERUA 44.72 311 iPc 07 47.50 -0.5
NB2 45.71 342 P 07 54.60 -1.0
1.4s 41.80nm 5.2mb
WIN 46.91 208 iPc 08 08.00 2.3
1.5s 50.00nm 5.4mb
WMQ 47.34 48 P 08 09.00 0.2
2.0s 90.00nm 5.5mb
Z 20s 1.93um 5.1Msz
N 12s 1.04um
EKA 47.56 329 P 08 10.00 -0.2
1.1s 23.30nm 5.2mb
LSA 48.38 67 P 08 18.50 0.9
1.9s 79.00nm 5.5mb
Z 20s 1.62um 5.0Msz
N 16s 1.30um
S 15 19.00
SDF 48.46 354 eP 08 16.00 -1.1
KDS 49.26 270 eP 08 24.00 0.0
ELT 49.56 36 eP 08 22.40 -3.3X
1.5s 109.00nm 5.6mb
Z 13s 2.00um 5.3MszX
e 10 19.00
eS 15 35.00
KEV 50.67 355 eP 08 34.00 0.1
MBO 53.28 274 eP 08 55.50 1.1
GTA 55.70 55 P 09 11.50 -0.5
1.0s 95.00nm 5.8mb
Z 18s 2.63um 5.4Msz
E 12s 0.52um
pP 09 15.50 13kmX
MOY 57.74 41 ePc 09 26.00 -0.1
1.6s 60.00nm 5.4mb
NRI 58.07 18 iPc 09 28.70 0.5
1.9s 158.00nm 5.7mb
Z 16s 3.20um 5.5MszX
E 16s 1.80um
e 11 38.00
eS 17 36.00
eSS 21 34.00
eSSS 23 50.00
NST 58.42 83 eP 09 30.00 -1.4
e 27 45.50
LZH 58.91 59 Pc 09 34.00 -0.8
2.0s 190.00nm 5.9mb
Z 19s 2.39um 5.3Msz
E 15s 1.11um
ZAK 59.00 42 iPc 09 34.20 -0.7
1.6s 41.00nm 5.3mb
Z 17s 4.24um 5.6MszX
E 18s 5.15um
e 10 22.60
eS 17 50.00
KMI 59.02 72 Pc 09 35.00 -0.8

2.0s 80.00nm 5.5mb
Z 20s 1.70um 5.2Msz
N 16s 0.70um
E 16s 1.00um
IRK 59.86 40 ePc 09 39.50 -1.4
1.8s 69.00nm 5.5mb
Z 15s 1.18um 5.1MszX
N 14s 0.54um
E 16s 0.92um
e 09 44.00
GYA 62.31 70 P 09 56.40 -1.6
1.6s 88.00nm 5.7mb
S 18 26.00
XAN 63.22 61 P 10 02.50 -1.4
1.5s 33.00nm 5.3mb
Z 15s 1.82um 5.4MszX
N 14s 0.76um
E 14s 0.41um
pP 10 07.00 15kmX
S 18 36.00
HHC 64.67 53 Pd 10 13.00 -0.4
1.5s 110.00nm 5.8mb
Z 22s 2.71um 5.4Msz
N 20s 0.83um
E 18s 1.76um
PcP 10 42.00
CIT 65.56 41 eP 10 18.00 -0.8
TIY 65.65 57 eP 10 19.40 -0.3
Z 17s 2.39um 5.5MszX
E 15s 0.86um
S 19 09.00
BOD 65.92 35 eP 10 15.30 -5.6X
1.1s 80.00nm 5.8mb
BJI 68.26 54 eP 10 36.00 0.0
2.0s 190.00nm 5.9mb
Z 22s 2.16um 5.3Msz
N 20s 1.33um
eS 19 36.00
eSS 24 00.00
WHN 68.28 64 eP 10 36.00 -0.4
Z 18s 1.21um 5.2Msz
E 16s 0.92um
eS 19 42.00
TIA 69.58 58 eP 10 44.10 -0.2
TIK 71.63 20 iPc 10 55.00 -1.0
2.0s 61.00nm 5.4mb
e 11 09.00
i 13 40.00
NJ2 71.77 62 eP 10 57.50 -0.1
DL2 72.61 54 eP 11 02.50 0.1
1.0s 62.00nm 5.7mb
eS 20 30.00
LEM 72.70 104 ePc 11 02.00 -1.6
SNY 73.49 51 Pc 11 07.20 -0.3
1.4s 24.00nm 5.1mb
CN2 74.42 49 eP 11 13.00 0.1
1.4s 30.00nm 5.1mb
MDJ 77.13 47 eP 11 27.00 -1.3
2.0s 80.00nm 5.5mb
SOB1 83.38 258 (P) 12 04.00 1.9
MGD 83.65 28 eP 12 03.00 0.4
1.7s 130.00nm 5.9mb
e 15 16.00
ePPP 17 16.00
eS 22 26.00
eSS 28 00.00
YSS 85.03 42 eP 12 11.00 1.2
1.5s 80.00nm 5.7mb
LMN 85.15 317 eP 12 15.00 4.5X
MAT 85.87 53 (P) 12 14.00 -0.3
1.5s 44.44nm 5.4mb
eS 22 38.00
JAQ 87.87 327 eP 12 24.50 0.8
ILT 88.56 13 iPc 12 26.50 -0.2
1.6s 25.00nm 5.3mb
KUR 89.02 42 (P) 12 36.00 6.7X
FCC 92.82 337 eP 12 50.00 3.3X
YKA 95.50 348 eP 12 57.70 -1.3
0.8s 1.60nm 4.5mb
WRA 101.55 107 Pdiff 13 29.50 2.4X
0.7s 0.20nm 3.8mb X
BRS 119.64 111 ePdiff15 06.00 18.5X
S.D. = 1.2 on 190 of 223 obs.

MAR 23, 1993 01h 18m 44.85± 0.43s
5.772 S ± 2.5km 148.676 E ± 3.6km
DEPTH = 132.4 ± 4.0 km
5.4mb (33 obs.)
NEW BRITAIN REGION, P.N.G. (192)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 21S, 30C
Centroid Location:
Origin Time 01:18:49.9 1.0
Lat 5.53S 0.10 Lon 149.06E 0.07
Dep 122.4 3.4 Half-duration 1.5
Moment Tensor; Scale 10**17 Nm
Mrr= 0.49 0.09 Mtt= 0.88 0.11
Mff=-1.38 0.13 Mrt=-1.05 0.07
Mrf=-0.45 0.08 Mtf=-0.10 0.13
Principal Axes:
T Val= 1.77 Plg=40 Azm=175
N -0.23 45 28
P -1.54 17 280
Best Double Couple:Mo=1.6*10**17
NP1:Strike=326 Dip=48 Slip= 19
NP2: 223 76 136

FINC 1.17 224 eP 19 08.90 -1.0
YYYY 2.73 260 eP 19 30.10 1.3
eS 20 06.20
MDG 2.93 280 eP 19 31.40 0.2
RAB 3.81 66 iPd- 19 41.00 -2.0
iS 20 28.00
PMG 3.91 203 iPc 19 43.60 -0.7
eS 20 25.00
MNDI 5.01 265 eP 20 01.00 1.7
HNR 11.75 109 eP 21 29.00 -0.4
CTA 14.42 189 iPc+ 22 04.90 0.9
2.0s 617.65nm 5.6mb
ipP 22 09.50
e 22 19.00
i 22 26.50
e 22 35.00
eS 24 42.00
SWI 18.05 285 ePc 22 47.20 -1.6
1.0s 4.00nm 3.7mb X
MTN 18.68 247 iPd 22 54.60 -0.9
GUA 19.54 349 eP 23 05.30 0.7
1.3s 630.77nm 5.8mb
GUMO 19.60 349 eP 23 05.40 0.2
1.5s 397.20nm 5.6mb
Z 19s 1.64um 4.8Msz
PJG 19.60 349 eP 23 05.50 0.3
WB2 19.81 223 iPc 23 07.30 0.0
0.4s 355.40nm 6.1mb
eS 26 41.70
RMQ 20.60 180 iPc 23 16.00 0.7
0.4s 133.00nm 5.7mb
QLP 21.13 191 iPc 23 20.90 0.3
BRS 21.85 170 iPd- 23 28.50 0.7
1.0s 65.00nm 5.0mb
Z 19s 12.00um 5.3Msz
id 23 43.80
id 23 53.00
i 23 58.00
i 24 06.00
i 24 24.00
e(PP) 25 09.00
eS 27 24.00
DZM 23.62 135 iPc 23 45.10 0.1
ARMA 24.68 174 iPc 23 55.50 0.5
CMS 25.72 186 iPc 24 04.10 -0.5
1.0s 137.00nm 5.5mb
STK 26.81 193 eP 24 13.60 -0.9
1.4s 20.60nm 4.5mb
eS 28 48.60
RIV 28.01 176 iPd 24 26.70 1.4
BWA 28.51 180 iPc 24 29.60 -0.3
e 25 06.10
WARB 29.24 224 iPc 24 37.00 0.5
0.4s 28.00nm 5.3mb
CAN 29.41 179 iPc 24 37.80 -0.1
e 25 17.50
CNB 29.41 179 iPd 24 38.00 0.1
1.0s 140.00nm 5.6mb
e 25 18.00
ADE 30.48 196 eP 24 47.00 -0.3
FORT 31.53 215 iPc 24 56.10 -0.4
BFD 31.76 189 iPc 24 57.50 -0.9
1.0s 121.00nm 5.6mb
TOO 31.78 185 iPc 24 59.10 0.4
0.7s 190.00nm 6.0mb
MBL 31.86 239 iPd 24 59.00 -0.5
0.4s 51.00nm 5.7mb
QCP 34.06 307 eP 25 09.00 -9.6X
MEEK 35.38 231 eP 25 30.00 0.2
0.4s 87.00nm 5.9mb
BAG 35.47 309 eP 25 28.00 -2.8X
COOL 35.95 223 iPc 25 34.40 0.0
0.3s 14.00nm 5.2mb
NANU 36.08 239 iPd 25 35.50 -0.1
0.5s 65.00nm 5.7mb
TAU 37.00 182 iPc 25 44.10 1.0
MRWA 38.68 229 iPd 25 57.70 0.3
0.5s 29.00nm 5.3mb
KLB 38.69 225 iPc 25 57.20 -0.2
0.4s 20.00nm 5.2mb
BAL 38.89 227 eP 25 59.00 -0.1
MUN 40.00 225 eP 26 08.40 0.2
1.0s 108.00nm 5.6mb
ORZ 40.92 152 P 26 16.80 1.2
DSZ 41.32 154 P 26 19.50 0.5
e 26 44.90
URZ 41.37 145 P 26 19.30 0.0
WKYJ 41.65 344 P 26 18.90 -2.9X
THZ 41.83 153 P 26 23.10 -0.1
TKSJ 41.89 342 P 26 24.70 1.1
WAHZ 41.98 148 P 26 24.60 0.2
TCW 42.05 151 P 26 25.20 0.3
KIW 42.10 150 P 26 25.50 0.2
NOZ 42.15 145 P 26 26.00 0.3
MNG 42.20 149 P 26 26.20 0.1
MRW 42.27 151 P 26 26.40 -0.3
CAW 42.36 150 P 26 27.20 -0.2
LTZ 42.36 154 P 26 27.50 0.0
CHJJ 42.58 348 eP 26 32.20 3.0X
PGZ 42.61 149 P 26 29.10 -0.3
MTW 42.61 150 P 26 29.20 -0.3
BLW 42.76 150 P 26 30.40 -0.2
TSRJ 42.79 345 P 26 31.90 1.0
BWZ 42.84 158 eP 26 31.00 -0.2
YONJ 43.19 342 P 26 34.90 0.7
MAT 43.22 348 eP 26 34.00 -0.4
1.5s 127.78nm 5.4mb
eS 32 54.00
MTMJ 43.35 347 P 26 36.80 1.2
NIIJ 43.73 349 P 26 39.30 0.8
SSE 45.10 326 Pd 26 50.00 0.5
1.0s 53.00nm 5.2mb
Z 20s 1.40um 4.9Msz
N 15s 0.50um
E 15s 0.40um
sP 27 26.00
PP 28 36.00
S 33 20.00
sS 34 05.00
eSS 36 44.00
PPI 48.48 274 eP 27 13.20 -3.1X
ASAJ 49.96 354 eP 27 28.60 1.5
VLA 50.99 344 iPc 27 36.00 1.0
2.0s 91.00nm 5.3mb
N 19s 0.90um
i 28 05.00
i 28 16.00
i 29 31.00
eS 34 46.00
e 35 38.00
LOE 51.77 297 eP 27 39.00 -2.3
KHT 53.68 293 eP 27 54.50 -0.9
KMI 54.19 307 Pd 27 58.50 -0.8
1.5s 50.00nm 5.2mb
BJI 54.53 330 eP 28 01.00 -0.2
1.5s 57.00nm 5.3mb
epP 28 30.00 122kmX
eS 35 30.00
esS 36 21.00
LZH 59.14 318 eP 28 33.00 -1.1
1.5s 38.00nm 5.2mb
pP 28 38.00 16kmX
sP 28 41.50
i 29 03.00
CIT 64.85 337 eP 29 13.40 1.7
e 29 42.00
MGD 65.69 1 eP 29 16.40 -0.4
e 30 00.00
e 38 24.00
CSY 65.93 196 eP 29 17.90 -0.4
0.5s 30.70nm 5.5mb
ZAK 68.25 331 eP 29 33.30 0.2

23d 01h

1.9s 54.00nm 5.1mb
e 30 01.00
SEY 68.54 2 iPd 29 35.00 0.4
1.5s 25.00nm 4.8mb
i 30 05.00
BOD 69.26 341 eP 29 38.30 -0.9
1.3s 12.00nm 4.6mb
MOY 70.20 331 eP 29 45.20 0.2
HYB 72.95 290 eP 30 03.50 1.5
GBA 73.27 286 P 30 03.00 -0.9
NDI 76.69 301 eP 30 22.00 -1.2
ILT 77.02 12 eP 30 24.00 -0.2
eS 40 00.00
ELT 78.63 327 eP 30 32.20 -1.1
1.3s 24.00nm 4.8mb
eS 40 15.00
e 40 35.00
PRZ 79.56 315 eP 30 39.00 0.1
0.8s 20.00nm 4.9mb
FRU 82.34 314 eP 30 55.00 1.8
SPA 84.26 180 iPc 31 02.80 0.1
1.0s 125.00nm 5.7mb
NRI 85.44 342 iPc 31 07.60 -0.7
1.5s 19.00nm 4.8mb
i 31 39.00
QUE 85.76 301 eP 31 07.80 -3.1X
MAIO 92.72 306 eP 31 43.00 -0.4
YKA 98.19 28 eP 32 08.30 0.6
0.8s 0.70nm 4.2mb X
APO 115.67 337 ePKP 37 09.60 -3.1X
0.4s 3.70nm
NB2 116.36 338 PKP 37 12.70 -1.4
0.7s 1.20nm
GEC2 122.65 326 PKP 37 25.70 -0.8
0.5s 2.09nm
VBY 123.50 322 ePKPc 37 27.70 -0.4
BSF 126.96 329 ePKP 37 33.60 -1.3
0.6s 2.55nm
HAU 127.08 329 ePKP 37 34.50 -0.5
0.6s 3.70nm
PGF 128.89 322 ePKP 37 38.10 -0.6
0.6s 3.70nm
FRF 129.70 324 ePKP 37 39.60 -0.5
0.5s 2.40nm
FLN 129.80 334 ePKP 37 39.30 -0.8
0.5s 3.00nm
LMR 129.92 324 ePKP 37 40.10 -0.4
0.5s 1.80nm
GRR 130.25 334 ePKP 37 40.80 -0.2
0.6s 4.35nm
TCF 130.33 330 ePKP 37 41.40 0.2
0.6s 3.45nm
LPF 130.60 334 ePKP 37 41.60 0.0
0.5s 6.25nm
MFF 131.25 332 ePKP 37 42.80 -0.1
LPO 131.96 329 ePKP 37 44.80 0.4
0.7s 4.85nm
CNCB 137.37 122 ePKP 37 50.00 -6.1X
i 41 20.30
LPB 137.41 122 ePKP 37 47.00 -9.0X
e 41 20.00
ZOBO 137.50 122 ePKP 37 48.00 -8.5X
1.6s 40.73nm
Z 18s 0.56um 5.3Msz
i 41 20.20
LR 52 40.00
SIV 143.47 127 PKP 38 15.00 8.7X
PPD 146.13 145 ePKP 38 11.10 0.4
e 38 13.40
VAO 147.57 152 ePKP 38 15.90 2.9X
BDF 153.11 143 ePKP 38 23.00 1.4
e 38 30.00
e 38 42.80
e 38 58.50
KIC 153.56 273 PKP 38 29.00 6.9X
TIC 153.84 273 PKP 38 30.00 7.5X
S.D. = 0.8 on 103 of 117 obs.

& MAR 23, 1993 01h 26m 15.06s
60.576 N 142.649 W
DEPTH = 10.1km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.1 (AEIC), 3.3
(PGC).

TGL 0.20 334 iPd 26 20.07 0.5
eS 26 23.96
CRQM 0.30 307 iPd 26 20.88 -0.6
S 26 26.94
BALM 0.49 18 iPd 26 24.75 -0.2
eS 26 32.47
YAH 0.50 115 iPd 26 25.03 -0.2
eS 26 33.11
CTGM 0.75 58 iPd 26 29.12 -0.8
S 26 40.01
GLB 1.04 327 iPd 26 32.89 -1.8
eS 26 46.43
eS 26 46.53
eS 26 46.73
CVA 1.53 270 ePd 26 40.57 -1.8
KLU 1.84 301 ePc 26 45.72 -1.3
eS 27 10.18
VLZ 1.89 289 eP 26 45.82 -1.7
eS 27 10.13
HIN 1.92 266 eP 26 45.40 -2.7
TZL 1.99 319 eP 26 48.81 -0.3
SDG 2.40 326 eP 26 54.12 -0.9
HYT 2.54 82 P 26 56.80 -0.3
SCM 2.59 301 eP 26 56.00 -1.8
PAX 2.75 332 eP 26 58.85 -1.3
SML 3.02 297 eP 27 01.70 -2.1
PTE 3.15 278 eP 27 03.21 -2.3
GHO 3.27 294 eP 27 05.00 -2.4
PMR 3.31 291 (P) 27 06.26 -1.6
MPA 3.32 271 eP 27 07.19 -0.8
SLKM 3.74 272 eP 27 11.47 -2.6
FBA 4.94 334 (P) 27 29.02 -2.0
IMA 7.41 323 eP 28 02.86 -3.0
YKA 13.46 70 eP 29 31.00 2.6
0.6s 0.20nm 3.3mb X
24 obs. associated

MAR 23, 1993 02h 52m 13.27± 0.42s
49.163 N ± 3.1km 6.895 E ± 4.6km
DEPTH = 9.7 ± 3.7 km
GERMANY (543)
ML 2.7 (STR). MD 2.7 (UCC).

RUP 0.55 11 ePg 52 24.05 -0.3
LANF 0.63 107 Pg 52 25.43 -0.5
SRBF 0.68 111 Pg 52 27.74 1.0
WLF 0.70 316 iPd 52 27.09 0.0
iS 52 36.69
HOFF 0.74 107 Pg 52 27.79 0.0
CDF 0.79 161 Pg 52 28.16 -0.6
Sg 52 40.21
WLS 0.81 158 Pg 52 28.58 -0.5
Sg 52 41.01
ABH 0.84 30 ePg 52 29.13 -0.3
ECH 0.96 169 Pg 52 31.53 -0.1
Sg 52 44.76
LIBD 1.12 155 Pg 52 34.50 0.3
VITF 1.12 213 Pg 52 34.08 -0.3
Sg 52 49.36
MOF 1.32 173 Pg 52 38.39 0.6
Sg 52 56.04
BSF 1.33 183 Pg 52 38.62 0.6
Sg 52 56.78
TNS 1.46 43 ePnd 52 41.20 1.4
eSn 53 01.10
eSg 53 06.70
FEL 1.49 150 ePg 52 39.62 -0.6
ENN 1.72 339 iP 52 45.80 2.3X
0.7s 33.70nm
eS 53 10.00
DOU 1.76 303 P 52 43.90 -0.2
i 52 47.20
iS 53 08.70
LOMF 1.81 181 Pg 52 47.43 2.5X
SNF 2.16 310 iP 52 55.20 5.4X
GRF 2.87 78 i(Pn) 53 08.20 8.2X
e(Pg) 53 12.00
e(Sg) 53 48.60
MOX 3.39 62 (Pg) 53 19.80 12.4X
(Sg) 54 01.30
GEC2 4.49 91 Pn 53 22.00 -1.0
Pg 53 42.40
Sn 54 14.40
Sg 54 38.30
S.D. = 0.7 on 17 of 22 obs.

MAR 23, 1993 03h 21m 41.14± 0.53s
53.835 N ± 4.2km 158.564 E ± 3.1km
DEPTH = 169.1 ± 5.6 km
4.6mb (63 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

PET 0.82 176 iPnd 22 06.50 -0.2
eS 22 26.00
SKR 3.52 206 ePn 22 35.10 -1.2
eS 23 15.30
MGD 7.58 329 ePn 23 30.50 0.8
Z 12s 0.40um
N 12s 0.30um
eS 24 58.00
OKH 9.28 275 ePn 23 55.80 3.6X
SMY 9.38 90 ePc 23 53.34 -0.1
0.7s 266.63nm 5.9mb X
SEY 9.64 343 ePn 24 00.00 3.0X
e 25 49.00
YSS 12.18 242 iPnc 24 32.00 2.0
e 26 49.00
SHO 12.61 222 ePn 24 29.40 -6.1X
KUSJ 14.11 226 eP 24 48.00 -6.5X
eS 27 15.10
ASAJ 14.25 233 iPd 24 58.20 2.0
ADK 15.06 87 (P) 25 09.48 3.2X
1.2s 85.23nm 5.0mb
HOOJ 15.30 228 eP 25 06.30 -3.0X
eS 27 42.50
MRRJ 16.28 233 eP 25 20.20 -1.1
ILT 17.75 29 eP 25 36.00 -2.5X
1.6s 33.00nm 4.5mb
OFUJ 18.72 225 eP 25 47.80 -1.2
YAMJ 20.17 227 eP 26 03.70 -0.2
MDJ 20.92 256 eP 26 10.50 -0.8
NIIJ 21.40 227 P 26 16.00 -0.1
KAKJ 21.79 223 P 26 20.40 0.5
TIK 22.01 335 iPc 26 23.00 1.2
0.7s 18.00nm 4.6mb
MAT 22.33 227 iPd 26 25.80 0.6
0.6s 44.67nm 5.1mb
eS 30 05.00
CHJJ 22.41 225 P 26 15.10 -10.8X
MTMJ 22.47 228 P 26 26.80 0.1
CN2 23.80 259 Pc 26 38.40 -0.9
0.8s 31.00nm 4.9mb
TSRJ 24.16 230 P 26 43.30 0.5
BOD 24.89 297 iPd 26 48.60 -0.8
0.9s 19.00nm 4.7mb
TTA 24.97 51 eP 26 50.21 0.0
1.4s 20.54nm 4.5mb
WKYJ 25.44 229 iP+ 26 55.90 1.2
YONJ 25.62 233 P 26 56.60 0.3
IMA 26.12 43 eP 27 00.35 -0.3
0.6s 4.33nm 4.3mb
TKSJ 26.34 231 iP+ 27 03.70 0.9
PMS 28.12 54 eP 27 17.80 -0.9
FBA 28.56 46 eP 27 21.51 -1.0
0.4s 4.17nm 4.5mb
KLU 29.81 53 (P) 27 32.89 -0.9
ZAK 33.40 287 eP 28 05.00 0.1
1.0s 8.00nm 4.4mb
HHC 33.76 267 eP 28 07.30 -1.0
0.6s 11.00nm 4.7mb
MOY 34.09 290 eP 28 10.90 0.0
TIY 35.28 262 Pd 28 20.80 -0.4
ELT 41.23 300 iPc 29 10.00 -0.2
0.9s 42.00nm 5.0mb
e 30 48.00
eS 35 08.00
e 38 52.00
LZH 41.44 267 Pc 29 12.50 0.0
1.2s 28.00nm 4.7mb
pP 29 50.00 172kmX
GTA 41.63 274 P 29 14.00 0.1
1.0s 75.00nm 5.2mb
NVS 41.94 303 iPd 29 15.00 -1.1
0.8s 70.00nm 5.3mb
e 29 52.50
eS 35 17.70
RES 42.98 22 eP 29 26.00 1.7
YKA 43.24 43 eP 29 26.40 -0.1
0.5s 3.00nm 4.1mb
WMO 45.87 288 P 29 47.80 0.0
1.2s 20.00nm 4.5mb
GYA 46.78 255 P 29 54.00 -1.2
0.8s 20.00nm 4.7mb
NEW 50.32 60 eP 30 21.44 -0.7
0.6s 14.06nm 4.8mb
EBI 51.77 61 iPc 30 33.61 0.4

SES 51.96 54 iPc 30 34.00 -0.4
0.6s 18.00nm 4.9mb
LBFM 52.34 69 (P) 30 37.84 0.3
FCC 53.47 38 ePd 30 47.50 2.3
FRU 53.73 295 (P) 30 46.00 -1.5
e 31 26.50
e 31 46.00
ORV 53.78 71 eP 30 47.57 -0.3
LCCM 54.61 59 eP 30 53.80 -0.3
HVU 56.98 63 eP 31 11.68 0.7
CHTO 57.17 257 ePc 31 11.40 -0.9
0.7s 9.69nm 4.8mb
TNP 57.19 69 ePc 31 12.76 0.2
0.5s 10.14nm 4.9mb
BW06 57.95 60 iPc 31 18.00 0.1
0.5s 14.99nm 5.1mb
DUG 58.08 64 iPd 31 19.27 0.6
0.5s 4.33nm 4.6mb
KAF 58.44 336 iP 31 19.30 -1.4
0.4s 4.80nm 4.7mb
TPNV 58.54 69 eP 31 22.40 0.5
0.3s 5.17nm 4.9mb
DAU 58.76 63 eP 31 23.58 0.0
ULM 58.97 46 ePc 31 26.70 2.2
EMUT 59.42 63 eP 31 28.43 0.4
GSC 59.42 71 eP 31 27.85 -0.1
ARUT 59.48 67 eP 31 28.41 0.0
MSU 59.64 65 eP 31 30.23 0.7
RSSD 59.75 56 eP 31 29.78 -0.4
0.6s 36.88nm 5.4mb
SRU 60.09 64 iPc 31 32.88 0.4
NUR 60.23 336 eP 31 32.40 -0.5
PEC 60.25 72 eP 31 32.87 -0.6
0.4s 6.59nm 4.8mb
GLA 62.18 71 eP 31 46.81 0.4
NB2 62.57 343 P 31 47.00 -1.6
0.5s 3.80nm 4.5mb
HFS 62.96 341 eP 31 49.00 -2.1
0.5s 6.20nm 4.7mb
JAO 63.69 32 eP 31 54.50 -1.5
TUC 64.99 69 eP 32 04.85 0.1
1.3s 11.17nm 4.6mb
e 32 14.12
ALO 65.36 64 eP 32 07.47 0.2
0.6s 3.97nm 4.5mb
EEO 68.58 39 eP 32 28.50 1.5
WMOK 69.52 59 eP 32 32.33 -0.6
0.6s 7.80nm 4.7mb
e 32 45.62
EKA 70.16 349 Pc 32 36.30 -0.2
0.5s 4.40nm 4.5mb
CLL 71.33 338 iPd 32 43.20 -0.3
0.9s 16.00nm 4.8mb
WTS 71.93 342 eP 32 47.50 0.4
0.7s 14.40nm 4.8mb
CBM 72.07 32 eP 32 46.48 -1.5
0.5s 6.55nm 4.6mb
ELC 72.11 51 eP 32 47.94 -0.5
PRU 72.21 337 eP 32 49.00 0.2
MOX 72.25 339 eP 32 49.30 0.3
MIAR 72.27 56 eP 32 48.71 -0.6
0.5s 3.82nm 4.4mb
OLY 72.51 54 eP 32 49.33 -1.4
GRF 73.24 339 ePc 32 55.60 0.8
1.0s 14.00nm 4.6mb
ENN 73.27 342 eP 32 55.50 0.6
0.8s 11.30nm 4.6mb
GEC2 73.47 337 PKP 32 56.00 -0.3
0.9s 3.23nm 4.1mb
GBA 73.91 271 P 32 58.00 -1.1
LMN 74.05 30 ePc 33 02.10 2.6X
CTA 74.38 192 iPc 33 01.00 -0.6
0.8s 13.06nm 4.7mb
KBA 75.21 336 iPd 33 07.10 0.7
0.8s 22.70nm 5.0mb
e 33 49.00
CDF 75.27 341 iPd 33 06.60 0.0
0.8s 9.40nm 4.6mb
WATA 75.38 337 iPd 33 07.50 0.2
WTTA 75.44 337 iPd 33 08.20 0.5
MOTA 75.48 338 iPd 33 08.00 0.1
SOTA 75.57 338 iPc 33 09.00 0.6
RBL 75.76 336 P 33 07.70 -1.6
FVI 75.80 336 P 33 08.20 -1.2
HAU 75.84 341 iPd 33 09.70 0.0
0.6s 4.95nm 4.4mb
DZM 75.89 172 iPd 33 11.90 1.6
BSF 75.92 341 iPd 33 09.90 -0.4
0.7s 4.85nm 4.3mb
VBY 76.21 334 e(P) 33 11.60 -0.1
WB2 76.38 203 iPd 33 12.60 -0.3
0.8s 25.50nm 5.0mb
WRA 76.38 203 P 33 13.10 0.1
0.8s 6.80nm 4.4mb
CTI 76.58 337 P 33 11.70 -2.3
LOR 77.01 343 iPd 33 16.20 0.0
1.2s 19.95nm 4.7mb
SSF 77.27 343 iPd 33 17.70 0.1
0.8s 6.30nm 4.4mb
AVF 77.56 343 iPd 33 19.50 0.3
1.0s 12.80nm 4.6mb
SMF 77.61 342 iPd 33 19.80 0.3
0.9s 5.55nm 4.3mb
LPL 78.15 340 iPd 33 23.90 1.1
0.8s 16.80nm 4.8mb
LPG 78.16 340 iPd 33 24.10 1.2
0.9s 23.25nm 4.9mb
JSC 78.18 47 eP 33 21.88 -0.9
LHS 78.21 47 (P) 33 20.69 -2.2
TCF 78.24 343 eP 33 23.40 0.4
0.9s 6.20nm 4.3mb
MAF 78.25 343 iPd 33 23.90 0.9
0.7s 4.65nm 4.3mb
BOB 78.29 338 P 33 23.80 0.5
MFF 78.31 345 iPd 33 23.80 0.5
0.8s 7.10nm 4.4mb
LSF 78.39 344 eP 33 24.10 0.3
0.8s 7.95nm 4.5mb
SFI 78.54 336 P 33 25.50 1.0
PGD 78.61 336 P 33 26.00 0.8
BDI 78.70 337 P 33 25.80 0.2
CAF 79.59 343 iPd 33 31.40 1.1
0.7s 3.75nm 4.2mb
LPO 79.97 344 iPd 33 33.40 1.1
0.7s 5.85nm 4.4mb
LRG 80.20 340 eP 33 34.10 0.6
0.7s 8.60nm 4.6mb
EPF 81.72 344 iPd 33 43.30 1.8
0.6s 3.05nm 4.2mb
MNO 83.43 332 P 33 43.90 -6.6X
STK 86.62 194 eP 34 06.30 0.4
2.0s 2.70nm 3.8mb
PPD 141.01 47 (PKP) 40 48.00 -4.5X
SPA 143.65 180 iPKPc 40 52.30 -3.5X
0.7s 70.31nm
S.D. = 0.9 on 121 of 133 obs.

MAR 23, 1993 03h 21m 52.37± 0.38s
40.717 N ± 3.2km 19.937 E ± 4.5km
DEPTH = 6.2 ± 3.1 km
ALBANIA (391)
MD 3.1 (ATH). ML 3.1 (TTG), 2.9 (TIR).

VLO 0.42 234 iPg 22 01.10 0.3
iSg 22 08.60
TPE 0.42 172 iPgd 22 00.00 -0.9
iSg 22 07.50
TIR 0.63 355 iPgc 22 04.50 -0.5
iSg 22 18.00
OHR 0.76 59 iPg 22 05.50 -2.1
0.6s 113.00nm
iSg 22 18.40
Lg 22 26.50
SRN 0.84 177 ePg 22 08.80 -0.1
iSg 22 21.00
LACI 0.93 349 ePn 22 10.90 0.4
iSn 22 29.50
KEK 1.01 186 ePb 22 12.20 0.4
PHP 1.04 21 ePn 22 10.60 -1.8
iSn 22 27.60
FNA 1.10 86 ePb 22 12.88 -0.5
eSb 22 29.64
ULC 1.35 338 iPnd 22 17.39 -0.2
iSn 22 40.67
SDA 1.37 346 ePn 22 18.10 0.1
iSn 22 40.00
KZN 1.46 106 ePb 22 21.00 1.7
SKO 1.69 42 iPn 22 23.50 1.0
1.0s 207.00nm
i 22 45.00
iSg 22 47.50
Lg 22 49.20
BDV 1.77 332 iPnc 22 23.36 -0.4
iSn 22 50.50
TTG 1.79 344 iPnc 22 24.51 0.6
iSn 22 51.80
PVY 1.88 1 iPnd 22 26.69 1.3
iSn 22 55.72
GRG 1.88 82 ePn 22 25.56 0.1
eSn 22 52.16
HCY 2.04 329 iPnc 22 25.82 -1.8
iSn 22 56.81
LIT 2.04 107 ePn 22 28.52 0.8
IVA 2.15 359 iPnd 22 30.54 1.2
iSn 23 01.87
NKY 2.21 342 ePn 22 30.67 0.5
iSn 23 02.04
KNT 2.29 78 ePn 22 31.04 -0.2
eSn 23 00.88
BRY 2.42 335 iPnc 22 32.95 -0.2
iSn 23 06.55
AGG 2.50 132 ePn 22 34.84 0.6
iSn 23 08.40
VLS 2.59 169 ePn 22 34.20 -1.2
PLE 2.64 351 iPnc 22 37.04 0.7
iSn 23 13.61
S.D. = 1.0 on 26 of 26 obs.

? MAR 23, 1993 03h 56m 47.67± 1.27s
37.876 N ±11.8km 1.102 W ±10.1km
DEPTH = 10.0km (geophysicist)
SPAIN (377)

EALH 0.25 266 eP 56 52.80 -0.2
eS 56 58.00
ACU 0.84 40 eP 57 03.80 -0.1
ENIJ 1.26 225 eP 57 11.20 0.1
EVIA 1.34 305 eP 57 12.60 0.2
eS 57 30.30
S.D. = 0.3 on 4 of 4 obs.

MAR 23, 1993 04h 05m 22.09± 0.42s
19.523 N ± 7.9km 38.704 E ± 4.8km
DEPTH = 10.0km (geophysicist)
4.8mb (36 obs.) 4.7Msz (5 obs.)
RED SEA (554)

ABHA 4.03 108 eP 06 21.22 -4.3X
eS 07 08.38
KMTA 4.17 108 eP 06 27.18 -0.2
eS 06 46.76
DHJN 4.90 111 eP 06 36.60 -1.3
eS 07 30.00
BHL 14.58 350 P 09 00.00 9.6X
S 12 00.00
GRS 20.97 17 eP 10 11.00 3.0X
1.8s 70.00nm 4.7mb
GRO 24.47 12 eP 10 52.00 9.7X
KIV 24.59 7 P 10 47.60 4.0X
2.4s 69.00nm 4.9mb
Z 16s 0.40um 4.0MszX
S 14 14.70
PYA 24.71 8 eP 10 46.00 1.4
Z 14s 1.00um 4.5MszX
BCAO 24.73 235 ePd 10 46.90 1.8
0.9s 18.00nm 4.7mb
i 10 52.00
MAIO 24.75 43 eP 10 47.00 1.8
SRO 32.72 334 eP 11 56.60 -0.3
SPC 33.10 338 eP 12 01.20 0.8
ZST 33.53 334 eP 12 04.30 0.4
GEC2 35.50 331 P 12 20.80 -0.2
1.9s 17.34nm 4.6mb
e 12 29.20
e 15 51.70
OBN 35.55 358 eP 12 18.00 -3.2X
1.5s 56.00nm 5.2mb
i 12 22.00
KHC 35.77 331 eP 12 23.60 0.4
KSP 35.93 336 eP 12 24.30 -0.2
LMR 35.95 319 eP 12 24.00 -0.7
1.0s 16.20nm 4.8mb
FRF 35.98 319 eP 12 24.60 -0.4
0.9s 8.50nm 4.6mb
PRU 35.98 333 eP 12 24.50 -0.4
BRG 36.90 334 eP 12 31.90 -0.7
1.5s 21.00nm 4.7mb
LPL 36.98 322 eP 12 33.50 -0.2
CLL 37.62 334 eP 12 39.00 0.3
KSH 37.69 50 eP 12 35.00 -4.6X

23d 04h

MOX 37.74 332 eP 12 40.30 0.6
2.1s 44.00nm 4.9mb
FRU 38.10 44 (P) 12 45.00 2.1
2.0s 20.00nm 4.5mb
e 14 11.00
e 14 37.00
BSF 38.28 325 eP 12 43.10 -1.4
LBF 39.39 322 eP 12 52.80 -0.8
0.9s 14.10nm 4.6mb
CAF 39.52 318 eP 12 54.80 0.1
1.2s 20.55nm 4.7mb
LOR 39.61 322 eP 12 54.60 -0.8
1.0s 12.80nm 4.5mb
AVF 39.65 321 eP 12 54.90 -0.8
1.0s 10.40nm 4.5mb
SSF 39.70 322 eP 12 55.30 -0.9
1.0s 9.60nm 4.4mb
EPF 39.81 315 eP 12 57.30 0.1
0.8s 4.15nm 4.2mb
BGF 39.83 321 eP 12 57.20 0.0
0.9s 24.90nm 4.9mb
MAF 39.83 320 eP 12 57.00 -0.3
0.8s 6.70nm 4.4mb
LPO 39.96 317 eP 12 58.60 0.3
0.9s 12.80nm 4.6mb
RJF 40.03 318 eP 12 59.20 0.2
0.8s 5.50nm 4.3mb
LFF 40.36 318 eP 13 01.90 0.3
0.9s 19.65nm 4.8mb
LSF 40.47 320 eP 13 02.70 0.2
1.0s 15.60nm 4.7mb
PRZ 40.50 47 eP 13 05.00 2.0
1.8s 60.00nm 5.0mb
SVE 40.65 18 ePd 13 05.50 1.6
2.8s 50.00nm 4.7mb
Z 15s 0.60um 4.6MszX
N 15s 0.60um
E 15s 0.30um
MFF 41.66 319 eP 13 11.60 -0.7
1.0s 14.60nm 4.7mb
PAB 41.96 308 eP 13 17.00 2.1
LDF 42.59 322 eP 13 18.70 -1.1
0.9s 19.15nm 4.8mb
LPF 42.86 321 eP 13 21.70 -0.3
1.0s 31.20nm 5.0mb
FLN 42.88 322 eP 13 21.00 -1.2
0.9s 25.20nm 4.9mb
KIC 44.18 259 P 13 33.60 0.4
TIC 44.33 259 P 13 35.20 0.7
LIC 44.49 259 P 13 36.00 0.3
Z 18s 0.29um 4.2Msz
WMQ 47.38 48 P 13 58.90 0.5
1.5s 11.00nm 4.7mb
Z 20s 0.59um 4.6Msz
ELT 49.61 36 eP 14 14.00 -1.4
1.4s 32.00nm 5.1mb
Z 13s 0.60um 4.8MszX
GTA 55.73 55 eP 15 00.00 -1.5
MOY 57.78 41 eP 15 27.60 11.9X
NRI 58.13 18 iPd 15 18.80 0.9
1.7s 32.00nm 5.1mb
LZH 58.94 59 eP 15 23.50 -0.8
1.5s 40.00nm 5.3mb
Z 18s 0.50um 4.7Msz
E 15s 0.34um
sP 15 33.50
GYA 62.32 70 P 15 45.40 -2.0
1.0s 12.00nm 5.0mb
HHC 64.70 53 eP 16 03.00 0.1
1.8s 41.00nm 5.3mb
Z 28s 0.74um 4.7MszX
TIY 65.67 57 eP 16 04.00 -5.1X
Z 20s 0.75um 4.9Msz
E 20s 1.21um
BOD 65.97 35 iPd 16 07.40 -3.1X
0.9s 22.00nm 5.3mb
BJI 68.29 54 eP 16 26.00 0.5
Z 20s 0.60um 4.8Msz
TIK 71.69 20 eP 16 45.00 -0.7
e 16 48.00
CN2 74.46 49 eP 17 02.80 0.3
Z 16s 0.59um 5.0MszX
YKA 95.57 348 eP 18 47.50 -1.1
0.8s 1.10nm 4.4mb
S.D. = 1.0 on 53 of 63 obs.

? MAR 23, 1993 04h 38m 50.07± 1.00s
45.590 N ± 9.9km 26.451 E ± 6.2km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

CVO 0.30 320 iPc 38 56.60 0.2
VRI 0.34 34 iPc 38 56.90 -0.2
MLR 0.37 255 iPc 38 57.60 -0.1
BRD 0.43 100 eP 38 58.90 0.1
ISR 0.46 172 eP 39 08.50 9.1X
PPE 1.03 52 eP 39 20.00 10.5X
S.D. = 0.3 on 4 of 6 obs.

---

* MAR 23, 1993 06h 49m 19.15± 0.80s
1.746 S ±10.4km 135.168 E ±16.2km
DEPTH = 33.0km (normal)
4.1mb (4 obs.)
IRIAN JAYA REGION, INDONESIA (196)

SWI 4.00 283 ePc 50 18.50 -1.2
iS 51 34.00
MTN 11.73 200 eP 52 09.00 1.7
WB2 18.10 182 eP 53 28.30 -1.6
0.7s 10.10nm 4.1mb
eS 56 40.50
WRA 18.10 183 P 53 43.80 13.9X
0.6s 3.50nm
CTA 21.21 150 iP 54 04.50 0.0
BRS 30.58 148 eP 55 31.00 -1.3
STK 30.58 169 eP 55 33.40 1.2
1.1s 1.70nm 3.8mb
XAN 43.32 328 P 57 20.50 0.7
1.0s 4.30nm 4.2mb
BJI 45.07 339 eP 57 33.00 -0.9
GTA 52.23 325 eP 58 30.00 0.5
WMQ 62.08 323 P 59 40.20 1.0
1.0s 15.00nm 5.1mb
CNCB 150.64 130 PKP 09 12.30 6.9X
LPB 150.72 129 PKP 09 12.20 6.9X
ZOBO 150.84 129 PKP 09 12.20 6.4X
S.D. = 1.3 on 10 of 14 obs.

? MAR 23, 1993 07h 28m 37.19± 1.05s
26.864 S ±11.1km 26.744 E ± 8.2km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

BFS 0.05 133 iPd 28 39.10 0.3
S 28 39.80
SWZ 1.30 256 iPd 29 02.00 0.1
S 29 19.70
SEK 1.65 152 eP 29 06.70 -0.4
SLR 1.78 51 iPd 29 08.90 -0.1
S 29 30.00
S.D. = 0.5 on 4 of 4 obs.

---

* MAR 23, 1993 07h 40m 31.81± 1.94s
33.604 N ±16.7km 2.269 W ±11.8km
DEPTH = 10.0km (geophysicist)
MOROCCO (395)
mbLg 4.4 (MDD).

EMEL 1.78 342 iPd 41 04.20 1.3
e 41 10.50
ENIJ 3.36 1 iPc 41 23.90 -1.5
EGUA 3.39 342 iPc 41 25.00 -0.9
ECOG 3.81 344 iPd 41 32.50 0.5
EJIF 3.87 318 iPc 41 37.50 4.9X
EPRU 4.14 325 iPc 41 42.00 5.6X
EHUE 4.21 357 iPd 41 38.00 0.5
ELUQ 4.27 338 iPc 41 40.20 1.8
EALH 4.30 9 iPc 41 38.60 -0.2
e 42 11.20
EBAN 4.71 345 iPc 41 44.50 -0.2
EHOR 4.86 331 iPc 41 48.20 1.6
EVIA 5.03 358 iPc 41 48.00 -1.1
ACU 5.12 17 iPc 41 50.60 0.2
e 42 33.00
EVAL 5.39 319 iPc 41 58.50 4.3X
e 42 46.00
ECHE 6.07 10 iPd 42 04.50 0.8
EPLA 7.13 336 iPc 42 19.00 0.2
e 43 20.90
GUD 7.19 348 iPc 42 18.00 -1.6
e 43 21.20
ETOR 7.20 1 iPc 42 19.00 -0.8
ESEL 7.42 32 iPc 42 26.20 3.5X
e 43 35.00
EROQ 7.52 16 iPc 42 24.00 -0.1
e 43 30.40
EGRA 8.71 10 iPd 42 42.00 1.2
ECRI 8.99 359 iPc 42 43.30 -1.4
e 44 02.00
ERUA 9.58 338 iPc 42 52.00 -0.7
ETER 9.58 23 iPd 42 54.20 1.5
STS 10.50 334 iPd 43 04.30 -1.0
e 44 39.00
GBA 74.11 84 P 52 10.00 -0.3
S.D. = 1.1 on 22 of 26 obs.

? MAR 23, 1993 08h 19m 47.94± 4.17s
28.649 S ±26.0km 67.363 W ±16.3km
DEPTH = 140.7 ± 55.9 km
LA RIOJA PROVINCE, ARGENTINA (138)

CYA 1.40 82 ePd 20 16.00 -0.1
S 20 36.00
RTPR 1.81 156 iPd 20 20.80 0.2
eS 20 44.90
RTLL 2.84 199 ePd 20 33.20 -0.3
S 21 07.20
CFA 3.04 194 e(P) 20 36.10 0.0
S 21 11.70
RTCB 3.09 203 eP 20 36.50 -0.3
RT8S 3.51 211 e(P)d 20 42.60 0.5
MRA 4.01 160 ePc 20 48.80 0.0
S.D. = 0.4 on 7 of 7 obs.

---

* MAR 23, 1993 08h 44m 40.22± 1.78s
35.227 N ±16.7km 2.647 W ± 9.7km
DEPTH = 19.3 ± 8.5 km
STRAIT OF GIBRALTAR (385)
mbLg 2.8 (MDD).

EMEL 0.26 286 iPd 44 46.50 0.2
e 44 52.50
ECOG 2.18 340 eP 45 15.50 -0.6
e 45 41.50
EHUE 2.58 1 eP 45 22.00 0.1
e 45 51.60
EJIF 2.60 299 eP 45 22.00 0.0
EVIA 3.41 2 eP 45 34.10 0.6
e 46 12.50
EVAL 4.06 307 eP 45 42.70 0.0
GBA 74.26 84 P 56 18.00 -0.1
S.D. = 0.5 on 7 of 7 obs.

MAR 23, 1993 08h 48m 44.77± 0.26s
47.941 N ± 3.9km 6.372 E ± 2.2km
DEPTH = 19.1 ± 3.6 km
FRANCE (538)
ML 3.3 (LDG), 2.6 (STR).

HAU 0.07 346 Pg 48 48.00 -0.5
Sg 48 49.40
BSF 0.30 111 Pg 48 50.94 -0.6
Sg 48 54.83
VITF 0.38 317 Pg 48 53.56 0.8
Sg 48 59.37
MOF 0.52 100 Pg 48 54.82 -0.3
Sg 49 01.24
ECH 0.59 62 Pg 48 56.23 -0.2
Sg 49 03.37
LOMF 0.67 152 Pg 48 58.12 0.5
Sg 49 06.79
CDF 0.77 52 Pg 48 59.40 0.0
WLS 0.81 54 Pg 49 00.45 0.4
LIBD 0.85 75 Pg 49 00.65 -0.1
BBS 0.90 121 Pg 49 02.29 0.6
Sg 49 13.86
FEL 1.11 93 Pg 49 04.89 -0.3
Sg 49 19.86
ZLA 1.44 108 P 49 12.20 2.3X
SLE 1.44 96 iPd 49 09.60 -0.3
HOFF 1.46 46 Pn 49 09.92 -0.2
LOR 1.83 249 Pn 49 16.00 0.4
Pg 49 20.50
Sg 49 44.00
LBF 1.89 240 Pn 49 17.40 1.0
Pg 49 21.70
Sg 49 45.70
EMS 1.91 168 eP 49 21.50 4.6X
DIX 1.99 159 eP 49 22.70 4.5X
LLS 2.08 120 ePd 49 20.50 1.1

```
SSF      2.13 247 Pn     49 20.10    0.1
                  Pg     49 26.30
                  Sg     49 52.80
SMF      2.16 234 Pn     49 20.40    0.1
                  Pg     49 26.70
                  Sg     49 54.10
MMK      2.18 149 eP     49 27.00    6.1X
AVF      2.35 242 Pn     49 23.30    0.3
                  Pg     49 30.50
                  Sg     49 59.80
LPL      2.44 174 Pg     49 30.90    6.4X
                  Sg     50 03.40
LPG      2.46 174 Pg     49 31.80    7.0X
                  Sg     50 02.90
TMA      2.51 136 eP     49 32.90    7.4X
HYF      2.61 256 Pg     49 35.50    8.7X
                  Sg     50 09.60
BGF      2.77 241 Pn     49 28.50   -0.5
                  Pg     49 38.00
                  Sg     50 12.80
MAF      3.12 238 Pn     49 34.20    0.3
                  Pg     49 44.30
                  Sg     50 24.10
TCF      3.29 241 Pn     49 35.90   -0.5
                  Pg     49 47.30
                  Sg     50 27.60
LSF      3.72 245 Pg     49 55.20   12.8X
                  Sg     50 40.80
CAF      4.24 226 Pn     49 49.00   -0.9
                  Sg     51 00.90
RJF      4.26 234 Pn     49 49.60   -0.5
                  Pg     50 06.50
                  Sg     50 59.50
LDF      4.39 281 Pg     50 10.80   18.9X
                  Sg     51 03.50
MFF      4.63 256 Pn     49 55.80    0.3
                  Pg     50 11.60
                  Sn     50 43.90
                  Sg     51 09.20
FLN      4.64 283 Pg     50 15.40   19.8X
                  Sg     51 12.40
GRR      4.86 278 Pn     50 00.10    1.5X
                  Sn     50 49.50
                  Sg     51 18.60
LPF      4.98 274 Pn     49 58.00   -2.3X
                  Sg     51 19.50
       S.D. = 0.6   on   25 of  38 obs.
-----------------------------------------
?  MAR  23, 1993  08h 49m 25.85± 1.75s
    7.182 S ±10.2km  129.442 E ±32.2km
   DEPTH = 102.1 ± 36.9 km
   4.3mb (   1 obs.)
 BANDA SEA                         (280)

MTN      5.87 164 eP     50 52.10    0.2
                  eS     51 56.00
SWI      6.53  16 iPd    51 01.00    0.0
                  iS     51 34.00
                  iS     52 06.00
WB2     13.55 160 ePd    52 30.60   -4.5X
                  eS     54 52.50
MBL     16.72 213 eP     53 15.00   -0.2
                  eS     56 11.00
WARB    19.08 188 eP     53 42.50   -0.7
                  eS     57 04.00
NANU    20.33 220 eP     53 56.00   -0.1
      0.3s       5.00nm          4.3mb
MEEK    21.92 207 eP     54 13.00    0.9
                  eS     58 17.00
       S.D. = 0.9   on    6 of   7 obs.
-----------------------------------------
*  MAR  23, 1993  08h 51m 26.86± 1.79s
   45.079 S ± 7.5km  167.275 E ±14.5km
   DEPTH = 156.8 ± 14.6 km
 SOUTH ISLAND, NEW ZEALAND         (162)

MSZ      0.61  48 P      51 49.70   -0.1
                  S      52 03.30
BCZ      1.01 157 P      51 52.20   -0.4
                  S      52 07.50
TLC      1.28  96 Pc     51 55.40    0.2
CMCZ     1.42  94 Pc     51 56.50    0.0
                  S      52 14.60
MHZ      1.42  90 P      51 56.60    0.0
SBCZ     1.44  91 P      51 56.60   -0.1
LRCZ     1.47  90 P      51 57.00   -0.1
LSCZ     1.48  92 P      51 57.00   -0.2
```

```
TUZ      1.88 119 Pd     52 01.60    0.3
                  S      52 22.60
SIZ      1.89 162 P      52 01.70    0.2
BWZ      1.94  74 P      52 02.00    0.0
LMZ      1.97  47 P      52 02.90    0.5
ODZ      2.39  90 eP     52 07.30   -0.1
LTZ      4.28  59 eP     52 31.30   -0.3
DSZ      4.69  46 P      52 37.00    0.0
       S.D. = 0.3   on   15 of  15 obs.
-----------------------------------------
*  MAR  23, 1993  09h 58m 28.79± 2.59s
   34.918 N ±22.7km    2.378 W ± 7.7km
   DEPTH =  49.0 ± 23.0 km
 MOROCCO                           (395)
       mbLg 3.2 (MDD).

EMEL     0.61 309 iPc    58 40.90   -0.5
                  e      58 47.00
EGUA     2.14 334 eP     59 02.00   -0.8
                  e      59 30.00
ECOG     2.54 338 iPc    59 09.00    0.5
                  e      59 39.00
EHUE     2.90 357 iPc    59 14.50    0.9
                  e      59 45.80
EJIF     2.94 302 iPc    59 14.50    0.3
EALH     3.03  14 iPc    59 15.50    0.0
                  e      59 49.90
ELUQ     3.05 330 eP     59 16.20    0.5
                  e      59 51.00
EBAN     3.43 341 eP     59 22.10    0.9
EHOR     3.71 322 iPc    59 24.90   -0.1
                  e      00 06.50
EVIA     3.71 358 eP     59 24.00   -1.2
                  e      00 05.50
ACU      3.92  23 iPd    59 28.00    0.0
EVAL     4.42 308 iPd    59 35.00    0.0
                  e      00 21.20
ECHE     4.80  13 eP     59 41.00    0.6
GUD      5.89 347 iPd    59 55.30   -0.5
                  e      00 50.00
ETOR     5.90   2 iPc    59 55.10   -0.8
EPLA     5.92 331 iPc    59 55.50   -0.7
EROQ     6.29  20 eP     00 01.00   -0.3
ESEL     6.41  39 eP     00 03.00    0.0
       S.D. = 0.7   on   18 of  18 obs.
-----------------------------------------
?  MAR  23, 1993  10h 02m 31.53±10.46s
   35.106 N ±71.7km    2.093 W ±49.7km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR               (385)
       mbLg 2.6 (MDD).

EMEL     0.73 286 iPd    02 45.00   -0.9
                  e      02 56.00
EGUA     2.10 326 eP     03 07.50    0.3
                  e      03 33.00
ECOG     2.47 332 eP     03 12.90    0.3
                  e      03 40.50
EHUE     2.73 352 eP     03 17.20    0.9
                  e      03 48.40
ELUO     3.01 325 eP     03 20.00   -0.2
                  e      03 55.50
EJIF     3.06 297 eP     03 22.00    1.2
                  e      03 55.00
EPRU     3.15 307 eP     03 26.50    4.4X
                  e      04 02.90
EVIA     3.54 355 eP     03 26.50   -1.3
                  e      04 06.10
EHOR     3.72 318 eP     03 30.00   -0.2
                  e      04 11.00
EVAL     4.50 305 eP     03 41.00   -0.3
       S.D. = 0.9   on    9 of  10 obs.
-----------------------------------------
   MAR  23, 1993  10h 41m 21.10± 0.34s
   45.078 N ± 5.6km  151.558 E ± 5.1km
   DEPTH =  33.0km  (normal)
   4.9mb ( 54 obs.)  4.2Msz (  3 obs.)
 KURIL ISLANDS                     (221)

KUR      2.62 275 iPnd  42 03.00    1.1
       Z  14s      6.80um
       N  14s      5.40um
       E  14s      8.10um
                  iS     42 33.50
SHO      3.62 252 ePn    42 26.60   10.5X
KUSJ     5.32 251 iP+    42 39.80   -0.4
                  eS     43 37.70
```

```
SKR      6.37  27 ePn    42 51.80   -3.3X
ASAJ     6.44 265 iP+    42 58.80    2.8X
YSS      6.45 291 iPnd   42 56.30    0.1
       Z  16s      1.50um
       N  16s      0.80um
       E  15s      1.00um
HOOJ     6.57 249 P      42 58.80    1.0
                  eS     44 11.90
MRRJ     8.04 254 eP     43 18.30   -0.1
                  eS     44 47.30
PET      9.20  28 ePn    43 51.00   16.5X
AOMJ     9.38 245 eP     43 36.00   -0.9
                  eS     45 16.80
OFUJ     9.48 234 eP     43 37.00   -1.4
                  eS     45 18.10
OKH     10.17 330 ePn    43 46.00   -1.8
      Z  14s      0.90um
YAMJ    11.04 235 eP     43 58.10   -1.6
                  eS     46 02.20
NIIJ    12.27 235 P      44 15.40   -0.9
KAKJ    12.37 228 P      44 15.80   -1.8
                  S      46 23.30
CHJJ    13.12 231 P      44 26.50   -1.2
                  S      46 46.20
MAT     13.21 234 (P)    44 28.00   -0.9
                  (S)    46 52.00
MTMJ    13.42 236 P      44 31.60    0.0
MGD     15.05 359 eP     44 49.00   -3.8X
        0.8s      40.00nm          4.8mb
      Z  17s       0.50um          4.8MszX
TSRJ    15.21 237 P      44 52.50   -2.5X
MDJ     15.59 276 eP     45 00.20    0.4
        1.0s      28.00nm          4.4mb
TKSJ    17.43 237 P      45 23.90    0.7
SEY     17.86   1 eP     45 30.00    1.6
CN2     18.67 275 P      45 36.20   -2.2
        0.8s      23.00nm          4.4mb
      Z  18s       0.83um          4.9MszX
SNY     20.53 271 Pc     45 58.40   -0.6
        1.0s      30.00nm          4.6mb
YAK     21.18 331 eP     46 02.10   -3.4X
        0.9s      72.00nm          5.1mb
                  eS     49 50.00
BOD     26.18 313 eP     46 53.20   -0.8
BJI     26.41 272 eP     46 57.00    0.8
        1.0s      33.00nm          4.9mb
      Z  14s       0.29um          4.0MszX
TIA     27.42 263 eP     47 05.70    0.2
SSE     27.50 250 Pd     47 07.80    1.6
        1.0s      11.00nm          4.5mb
      Z  20s       0.60um          4.2Msz
NJ2     28.48 254 eP     47 16.50    1.4
HHC     29.36 276 P      47 24.00    0.9
        0.9s      38.00nm          5.1mb
      Z  18s       0.85um          4.4Msz
      N  15s       0.49um
                  S      52 13.00
TIY     30.03 270 Pc     47 30.00    0.9
      Z  24s       0.54um          4.1MszX
ZAK     32.43 297 eP     47 47.60   -2.3X
        1.0s       6.00nm          4.4mb
      Z  14s       0.49um          4.4MszX
      E  14s       0.48um
XAN     34.31 266 P      48 06.50    0.0
        1.0s      11.00nm          4.7mb
                  pP     48 13.00   22kmX
TTA     34.40  40 e(P)   48 05.90   -1.1
SVW     34.43  43 e(P)   48 07.20    0.0
IMA     35.80  35 eP     48 18.01   -0.9
        0.7s       2.30nm          4.2mb
KDC     36.06  49 e(P)   48 21.40    0.4
LZH     36.87 273 iPc    48 29.00    0.7
        1.4s      76.00nm          5.4mb
      Z  15s       0.20um          4.0MszX
                  sP     48 43.50
PMS     37.37  43 eP     48 31.20   -0.9
FBA     38.15  37 eP     48 38.38   -0.1
        0.8s       5.60nm          4.5mb
GTA     38.18 280 P      48 39.50    0.3
        1.0s      19.00nm          4.9mb
      Z  18s       0.29um          4.1Msz
CD2     39.67 266 iPc    48 52.60    1.0
        1.0s      70.00nm          5.4mb
GYA     40.30 258 P      48 57.60    0.6
        1.0s      14.00nm          4.7mb
LSA     49.29 273 P      50 11.00    1.7
        0.8s       8.00nm          4.8mb
```

23d 10h

CHTO 50.68 257 eP 50 19.60 0.2
SHL 51.25 269 iPc 50 23.80 -0.1
YKA 52.92 36 eP 50 34.50 -1.2
0.9s 3.50nm 4.3mb
DAG 58.28 357 eP 51 11.80 -2.4X
0.8s 5.22nm 4.7mb
NDI 59.67 281 iPd 51 25.00 0.5
BGMT 63.67 52 eP 51 51.90 0.4
KAF 64.50 335 iP 51 54.00 -2.3X
0.6s 6.30nm 4.9mb
HYB 65.94 271 eP 52 06.00 -0.2
NUR 66.25 334 eP 52 04.70 -2.8X
0.6s 12.60nm 5.2mb
WB2 66.58 198 eP 52 11.80 1.7
0.6s 4.90nm 4.8mb
WRA 66.58 198 P 52 12.80 2.7X
0.5s 2.20nm 4.5mb
BW06 66.61 52 eP 52 22.93 12.4X
GBA 69.30 269 P 52 28.00 0.7
NB2 69.45 341 P 52 25.60 -2.0
0.6s 9.80nm 5.0mb
HFS 69.64 339 eP 52 26.00 -2.7X
0.7s 29.20nm 5.5mb
Z 16s 0.17um 4.4MszX
LR 18 09.00
ASPA 70.28 197 eP 52 36.20 3.1X
0.8s 3.10nm 4.4mb
KIV 71.18 314 ePc 52 38.30 -0.2
1.1s 46.00nm 5.4mb
GRS 72.36 308 eP 52 45.00 -0.7
1.0s 20.00nm 5.1mb
OJC 76.25 330 eP 53 07.00 -0.7
UZH 76.67 328 eP 53 09.50 -0.5
KSP 76.90 333 iP 53 10.30 -1.0
SPC 76.96 330 iP 53 12.70 0.8
STK 77.13 189 eP 53 30.90 18.3X
1.5s 1.50nm
VRI 77.17 324 eP 53 14.50 1.6
CLL 77.53 335 iP 53 13.70 -1.0
1.0s 26.00nm 5.2mb
KAS 77.53 317 iPd 53 16.30 1.3
BRG 77.62 334 iP 53 14.60 -0.7
1.0s 14.00nm 4.9mb
MLR 77.80 324 eP 53 18.50 2.0
VRAC 78.12 332 eP 53 18.10 0.1
1.5s 180.40nm 5.9mb
PRU 78.20 333 P 53 18.50 0.0
e 53 22.60
MOX 78.53 335 eP 53 19.50 -0.8
1.2s 11.00nm 4.7mb
ZST 78.90 331 eP 53 22.00 -0.4
e 02 04.80
iSg 02 07.00
KHC 79.26 333 Pc 53 24.40 0.1
1.0s 10.50nm 4.8mb
e 53 28.70
e 56 10.40
GEC2 79.47 333 P 53 25.00 -0.6
1.2s 6.55nm 4.5mb
e 53 35.20
e 53 41.10
KBA 81.14 333 iPc 53 34.80 0.2
0.7s 11.10nm 5.0mb
i 53 47.00
i 53 51.10
PTJ 81.28 330 eP 53 33.60 -1.6
WATA 81.48 334 iPc 53 36.10 -0.2
WTTA 81.52 334 iPc 53 36.60 0.0
0.5s 9.30nm 5.1mb
i 53 53.10
MOTA 81.61 334 iPc 53 36.80 -0.2
0.7s 8.50nm 4.9mb
SQTA 81.69 334 iPc 53 37.50 0.1
CDF 81.78 337 eP 53 37.30 -0.5
0.7s 6.85nm 4.8mb
VBY 81.87 331 eP 53 37.90 -0.2
FLN 83.40 342 eP 53 45.70 -0.3
0.6s 7.20nm 5.0mb
LDF 83.48 342 eP 53 45.60 -0.8
0.6s 8.05nm 5.0mb
LOR 83.75 339 eP 53 47.70 -0.2
0.6s 6.75nm 5.0mb
GRR 83.83 342 eP 53 47.80 -0.4
0.7s 16.00nm 5.3mb
SSF 84.03 339 eP 53 49.20 -0.1
0.6s 3.45nm 4.7mb
AVF 84.32 339 eP 53 50.90 0.2

0.6s 6.20nm 5.0mb
SMF 84.33 338 eP 53 50.80 0.0
1.1s 37.60nm 5.5mb
LPL 84.57 336 eP 53 52.80 0.5
0.9s 13.10nm 5.1mb
LPG 84.58 336 eP 53 52.90 0.5
1.0s 13.80nm 5.1mb
ARVI 85.03 309 eP 53 55.50 1.0
MAF 85.05 339 eP 53 54.80 0.4
0.7s 13.80nm 5.3mb
TCF 85.08 339 eP 53 54.50 -0.1
0.8s 7.80nm 5.0mb
MFF 85.36 341 eP 53 56.10 0.2
0.8s 8.20nm 5.0mb
RMN 85.45 309 eP 53 57.30 0.5
MBH 85.87 309 eP 53 59.50 0.6
RJF 86.17 339 eP 53 59.80 -0.2
1.0s 9.40nm 5.0mb
CAF 86.39 339 eP 54 01.80 0.7
0.8s 9.40nm 5.1mb
LMR 86.63 335 eP 54 02.40 0.1
1.2s 22.30nm 5.3mb
LPO 86.84 339 eP 54 03.80 0.5
0.9s 10.15nm 5.1mb
ZOBO 136.08 62 ePKP 00 57.00 15.4X
LPB 136.28 62 PKP 00 37.00 -4.7X
CNCB 136.57 62 PKP 00 44.40 2.0
S.D. = 0.9 on 92 of 110 obs.

? MAR 23, 1993 11h 17m 00.61± 4.91s
35.207 N ±39.5km 2.386 W ±18.9km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 3.3 (MDD).

EMEL 0.48 281 iPd 17 10.96 0.7
e 17 16.50
ENIJ 1.77 5 iPd 17 30.60 -0.8
e 17 54.30
ECOG 2.28 336 iPc 17 39.36 0.4
e 18 08.00
EHUE 2.61 356 iPc 17 44.40 0.8
e 18 15.40
EALH 2.76 16 iPd 17 45.40 -0.3
e 18 17.70
EJIF 2.80 297 iPd 17 46.51 0.3
e 18 21.00
ELUQ 2.80 328 iPd 17 46.63 0.4
e 18 20.00
EPRU 2.90 308 iPd 17 47.87 0.2
e 18 23.20
EVIA 3.43 358 iPd 17 55.86 0.6
e 18 34.50
EHOR 3.48 319 iPd 17 54.90 -1.0
e 18 35.70
EVAL 4.24 305 iPc 18 05.24 -1.5
ECHE 4.52 14 iPd 18 11.10 0.4
ETOR 5.61 3 iPd 18 25.88 -0.3
S.D. = 0.8 on 13 of 13 obs.

---

* MAR 23, 1993 11h 32m 18.58± 0.81s
1.604 S ±10.4km 135.497 E ±16.9km
DEPTH = 33.0km (normal)
4.9mb (7 obs.) 4.2Msz (2 obs.)
IRIAN JAYA REGION, INDONESIA (196)

SWI 4.30 280 ePc 33 24.50 1.1
eS 34 34.00
MTN 11.98 201 eP 35 08.00 -2.1
WB2 18.26 183 eP 36 27.30 -4.0X
0.4s 13.20nm 4.4mb
CTA 21.17 151 iP 37 05.00 1.5
ASPA 21.99 184 iPc 37 12.40 0.7
0.8s 42.90nm 4.9mb
eS 41 15.60
STK 30.66 170 iPc 38 32.00 -0.3
0.5s 3.50nm 4.4mb
SSE 35.25 338 Pc 39 11.50 -0.7
0.9s 9.00nm 4.7mb
Z 20s 0.50um 4.3Msz
CHTO 41.26 301 eP 40 01.80 -0.8
BJI 45.06 339 eP 40 33.00 -0.2
1.5s 52.00nm 5.2mb
LZH 47.71 325 Pc 40 55.00 0.6
1.6s 25.00nm 5.0mb
Z 20s 0.20um 4.1Msz
pP 41 00.00 17kmX

SHL 50.08 306 iPc 41 12.50 -0.4
GBA 59.49 287 P 42 20.00 -1.3
YAK 63.60 357 eP 42 46.30 -1.9
0.9s 46.00nm 5.6mb
QUE 72.38 302 eP 43 46.50 2.5
eS 55 15.50
MAIO 79.69 307 iPd 44 26.30 1.3
CNCB 150.48 129 iPKPc 52 12.20 7.6X
LPB 150.55 129 ePKP 52 10.00 5.5X
ZOBO 150.67 128 PKPc 52 07.00 2.1X
S.D. = 1.5 on 14 of 18 obs.

MAR 23, 1993 12h 25m 53.50± 0.79s
40.901 S ± 6.2km 176.582 E ± 7.7km
DEPTH = 30.3 ± 3.6 km
NORTH ISLAND, NEW ZEALAND (159)
ML 3.8 (WEL).

PGZ 0.37 320 iPd 26 01.20 -0.7
MTW 0.86 252 Pd 26 10.40 1.0
MNG 0.88 288 Pc 26 09.00 -0.7
S 26 18.40
TEHZ 0.93 11 Pd 26 11.20 0.8
BLW 0.96 240 P 26 12.50 1.7
MOW 1.13 242 P 26 14.30 1.0
CAW 1.16 259 P 26 14.30 0.5
WAHZ 1.21 352 P 26 14.50 0.0
KIW 1.27 271 Pc 26 15.40 0.2
WEL 1.42 254 P 26 18.00 0.5
S 26 34.70
MRW 1.46 256 Pc 26 18.20 0.2
S 26 35.10
BSZ 1.67 311 P 26 21.20 0.1
TCW 1.77 259 P 26 22.30 -0.2
MOH 1.82 14 P 26 24.00 0.8
CNZ 1.88 335 P 26 24.20 0.1
NGZ 1.88 336 P 26 24.40 0.2
DIW 2.02 272 P 26 25.70 -0.5
PAHZ 2.07 10 P 26 26.80 -0.1
NOZ 2.54 27 P 26 33.30 -0.2
URZ 2.67 9 P 26 34.00 -1.3
S 27 03.10
KHZ 2.74 235 P 26 35.60 -0.6
MOZ 2.76 330 eP 26 36.20 -0.4
THZ 2.90 252 P 26 37.30 -1.4
QRZ 3.07 270 eP 26 39.90 -1.2
PUZ 3.11 25 P 26 40.40 -1.2
S 27 15.50
DSZ 3.70 255 P 26 48.30 -1.7
LTZ 3.73 238 P 26 49.00 -1.4
S 27 29.50
MQZ 4.04 225 eP 26 53.70 -1.1
S.D. = 0.9 on 28 of 28 obs.

& MAR 23, 1993 12h 38m 25.51s
61.358 N 147.411 W
DEPTH = 20.0km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.3 (AEIC), 3.3
(PMR).

KLU 0.73 79 iP 38 38.36 -1.1
eS 38 48.45
GHO 0.84 301 iP 38 40.28 -1.0
PLRM 0.86 287 iP 38 40.32 -1.3
eS 38 52.73
PMR 0.86 287 ePd 38 40.27 -1.3
S 38 51.69
PTE 0.93 238 iP 38 40.89 -1.8
eS 38 52.97
PMS 1.04 265 iP 38 43.23 -1.6
HIN 1.06 155 iP 38 43.42 -1.7
CVA 1.15 134 eP 38 44.84 -1.6
eS 39 00.67
PWA 1.22 285 eP 38 46.02 -1.4
MPA 1.29 228 eP 38 46.61 -1.8
eS 39 03.95
SLKM 1.62 239 ePc 38 51.82 -1.3
GLB 1.73 86 eP 38 54.24 -0.7
S 39 16.94
PAX 1.86 29 eP 38 56.65 -0.1
eS 39 20.78
HUR 1.93 328 eP 38 57.82 0.1
NKA 1.96 253 eP 38 58.42 0.3
MID 2.01 164 P 39 00.50 1.7
CRQM 2.16 104 eP 39 00.67 -0.6
eS 39 27.66

```
RND      2.16 343 eP     39 00.93  -0.2
CPAM     2.28 269 eP     39 02.24  -0.6
                  S      39 31.27
CRP      2.29 270 eP     39 01.97  -1.0
                  S      39 30.80
CKN      2.31 269 eP     39 02.12  -1.0
CKT      2.32 268 P      39 02.00  -1.4
CP2      2.33 270 eP     39 02.40  -1.2
BRLK     2.35 229 eP     39 01.68  -2.0
                  eS     39 28.51
CKL      2.38 268 P      39 02.70  -1.6
BGL      2.40 270 eP     39 03.42  -1.1
BALM     2.47  95 eP     39 04.31  -1.3
MCK      2.49 344 P      39 06.30   0.7
CNPM     2.64 228 eP     39 06.24  -1.6
DFR      2.68 256 P      39 06.50  -2.0
RSO      2.76 253 eP     39 07.63  -2.1
RS1      2.76 253 eP     39 07.80  -1.9
RDW      2.78 254 P      39 08.00  -2.0
NCT      2.81 256 P      39 08.30  -2.0
CTGM     2.97  95 eP     39 11.70  -0.9
HDA      3.07   4 P      39 15.10   1.2
INW      3.10 248 eP     39 12.34  -2.0
CCB      3.31 357 P      39 16.70  -0.5
NEA      3.32 347 P      39 16.20  -1.2
FBA      3.56 357 eP     39 19.95  -0.9
                  S      40 04.58
MDM      3.63 354 P      39 21.20  -0.8
GLM      3.64   0 P      39 23.10   1.0
PDB      3.70 248 eP     39 20.07  -2.8
SVW      3.98 270 eP     39 23.61  -3.2
TTA      4.33 295 eP     39 29.23  -2.7
KDC      4.45 218 eP     39 30.00  -3.4
IMA      5.49 332 eP     39 46.25  -2.0
YKA     15.39  71 eP     42 17.20  14.3
        0.6s     0.20nm
        48 obs. associated
-----------------------------------------
* MAR 23, 1993  13h 07m 38.52± 0.92s
   10.226 N ± 9.2km    69.688 W ± 9.5km
   DEPTH =  10.0km  (geophysicist)
   3.6mb (  1 obs.)
 VENEZUELA                         (101)

TOV      0.45 193 iPgc   07 47.10  -0.6
                  iSg    07 53.50
MORO     1.49  64 iPc    08 05.80   0.3
                  iS     08 28.80
SDV      1.63 215 iPnc   08 08.00   0.5
                  iSn    08 29.50
CEOS     1.79 132 eP     08 10.30   0.6
                  eS     08 32.90
LLAV     2.84  85 eP     08 26.50   1.6X
OLLA     2.85  94 eP     08 10.30 -14.7X
GUAN     3.99  93 eP     08 40.50  -0.6
YKA     61.32 338 eP     17 56.20  -0.2
        0.7s     0.30nm             3.6mb
     S.D. = 0.7  on   6 of   8 obs.
-----------------------------------------
? MAR 23, 1993  13h 11m 41.96± 1.55s
   11.207 N ± 9.3km    61.792 W ±28.3km
   DEPTH =  33.0km  (normal)
 WINDWARD ISLANDS                  ( 95)
     MD 3.0 (TRN).

TCE      0.51 176 eP     11 52.88   0.2
                  eS     12 01.63
TRN      0.67 145 eP     11 54.27  -0.7
                  eS     12 03.67
GRW      0.96   8 eP     11 59.12   0.0
                  eS     12 12.84
TBH      1.01 135 eP     12 00.43   0.6
                  eS     12 11.97
     S.D. = 0.9  on   4 of   4 obs.
-----------------------------------------
   MAR 23, 1993  13h 18m 17.41± 0.97s
   40.539 N ± 9.0km    27.944 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
     MD 2.8 (ISK).

BNT      0.18 186 iPg    18 22.00   0.5
EDC      0.20 198 iPg    18 22.50   0.7
                  iSg    18 24.50
KCT      0.43 132 iPg    18 24.70  -1.5
                  eSg    18 28.00
YLV      1.09  88 ePn    18 37.50  -0.4
HRT      1.34  77 iPn    18 42.80   0.7
EYL      1.69  88 ePn    18 48.00   0.8
SKO      5.11 288 ePn    19 30.00  -5.8X
                  i      19 40.00
OHR      5.45 278 ePn    19 40.00  -0.7
     S.D. = 1.1  on   7 of   8 obs.
-----------------------------------------
% MAR 23, 1993  13h 25m 50.22± 0.75s
   40.140 N ± 7.1km    29.389 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
     MD 2.7 (ISK).

YLV      0.43 358 iPg    25 59.00   0.1
                  eSg    26 06.50
EYL      0.72  54 ePn    26 04.50  -0.1
KCT      0.80 278 iPn    26 06.20   0.5
BNT      1.14 281 iPn    26 12.00   0.4
EDC      1.19 280 ePn    26 11.50  -0.8
ALT      1.22 153 ePn    26 13.00   0.0
     S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
? MAR 23, 1993  14h 47m 28.18± 1.36s
   40.769 N ±10.0km    23.811 E ±14.3km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

SOH      0.35 279 ePg    47 35.76   0.3
                  eSg    47 41.08
SRS      0.39 335 ePg    47 36.30   0.2
                  eSg    47 42.12
OUR      0.45 163 ePg    47 37.40   0.0
                  eSg    47 43.40
KNT      0.80 300 ePg    47 43.12  -0.5
                  eSg    47 55.60
     S.D. = 0.6  on   4 of   4 obs.
-----------------------------------------
? MAR 23, 1993  15h 25m 19.48± 2.60s
   7.256 S ±25.1km    99.095 E ±57.3km
   DEPTH =  33.0km  (normal)
   4.8mb (  5 obs.) 4.2Msz (  1 obs.)
 SOUTHWEST OF SUMATERA, INDONESIA(273)

PPI      6.88  11 eP     27 01.00   0.4
                  iS     28 16.60
KHT     21.90 359 eP     30 13.30   1.5
MBL     24.35 127 eP     30 36.00   0.3
        0.3s     4.00nm             4.5mb
LOE     24.64   6 eP     30 36.50  -2.0
CHTO    25.90 360 eP     30 50.80   0.4
LZH     43.34   6 eP     33 20.50   0.0
        1.2s    18.00nm             4.7mb
      Z  18s     0.30um             4.2Msz
      N  12s     0.17um
                  sP     33 26.50
STK     46.51 128 iPd    33 50.60   4.9X
        0.5s    10.20nm             5.0mb
BRS     54.56 118 iPc    34 49.00   1.9X
        0.5s     4.00nm             4.7mb
YAK     73.02  15 iPd    36 47.00  -0.6
        0.9s    26.00nm             5.2mb
YKA    119.63  17 ePKP   44 16.90   9.7X
        0.8s     0.50nm
     S.D. = 1.3  on   7 of  10 obs.
-----------------------------------------
? MAR 23, 1993  15h 26m 40.70± 1.68s
   6.723 S ±10.5km   130.327 E ±36.8km
   DEPTH = 133.2 ± 37.8 km
 BANDA SEA                         (280)

SWI      5.90   9 ePc    28 07.00   0.0
                  iS     29 11.50
MTN      6.14 173 eP     28 10.40   0.1
        0.3s   138.00nm             5.7mb X
                  eS     29 16.00
WB2     13.71 164 eP     29 49.80  -1.0
                  eS     32 14.30
ASPA    17.19 169 eP     30 35.40   1.1
                  e      32 29.20
                  eS     33 31.90
WARB    19.67 190 eP     31 01.50  -0.2
NANU    21.25 221 eP     31 17.50  -0.1
     S.D. = 1.1  on   6 of   6 obs.
-----------------------------------------
* MAR 23, 1993  15h 34m 10.18± 0.74s
   0.863 N ±12.2km   119.717 E ±14.7km
   DEPTH =  33.0km  (normal)
   4.7mb (  6 obs.) 4.3Msz (  2 obs.)
 MINAHASSA PENINSULA, SULAWESI     (265)

TSM      3.87 332 ePc    35 08.00  -0.9
        0.2s   277.50nm
KKM      6.22 326 ePd    35 44.00   1.7
BAG     15.47   3 eP     37 52.00   4.1X
IPM     19.03 282 ePc    38 32.00  -0.3
NST     24.29 308 eP     39 27.00   1.2
WB2     25.17 146 eP     39 28.20  -6.1X
        0.4s     5.20nm             4.5mb
KMI     29.17 327 Pd     40 11.40   0.4
        1.9s    50.00nm             4.9mb
      Z  18s     0.90um             4.4Msz
                  pP     40 22.50  41kmX
                  sP     40 26.00
SSE     30.10   3 eP     40 20.00   1.0
      Z  20s     0.50um             4.2Msz
                  eS     45 22.00
LZH     38.02 339 eP     41 27.50   0.2
        2.0s    20.00nm             4.6mb
STK     38.60 149 eP     41 32.50   0.5
        0.7s     2.70nm             4.2mb
BJI     39.13 356 eP     41 36.50   0.2
        1.2s    16.00nm             4.7mb
      Z  16s     0.29um             4.2MszX
                  eS     48 00.00
HYB     43.69 295 eP     42 13.50  -0.6
CAN     45.20 146 eP     42 26.60   0.5
YAK     61.47   5 eP     44 23.40  -2.2
        1.0s    25.00nm             5.3mb
MAIO    65.80 310 eP     44 53.00  -1.7
     S.D. = 1.2  on  13 of  15 obs.
-----------------------------------------
   MAR 23, 1993  15h 42m 42.44± 0.67s
   4.519 S ± 6.0km   151.829 E ± 6.7km
   DEPTH = 167.0 ±  6.6 km
   5.0mb ( 13 obs.)
 NEW BRITAIN REGION, P.N.G.        (192)

RAB      0.46  46 iPc+   43 06.50  -0.6
                  iS     44 19.00
PMG      6.71 223 eP     44 20.50   0.9
HNR      9.42 122 eP     44 54.00  -1.6
                  eS     46 46.00
CTA     16.40 199 iPc    46 26.00   1.4
        1.0s    25.00nm             4.5mb
BKM     20.71 130 iPc    47 13.50   2.3
SWI     20.86 279 ePd    47 14.00   1.3
RMQ     22.04 187 iPd    47 25.10   0.8
        0.6s    13.00nm             4.6mb
MTN     22.05 247 eP     47 11.00 -13.4X
                  e      47 25.00
DZM     22.47 142 iPd    47 29.00   0.5
BRS     22.76 178 iP     47 32.00   0.7
                  i      48 20.00
WB2     22.91 227 iPd    47 33.90   1.2
        0.6s   375.30nm             6.1mb X
                  eS     51 30.20
QLP     23.11 198 iPc    47 35.00   0.4
ARMA    25.76 180 iPc    48 00.40   0.8
CMS     27.41 191 iPc    48 13.30  -1.1
STK     28.87 198 iPd    48 26.40  -1.0
        0.5s     3.80nm             4.4mb
BWA     29.92 186 eP     48 36.10  -0.7
CAN     30.76 185 eP     48 44.00  -0.1
WARB    32.33 226 iPc    48 57.30  -0.6
        0.4s    28.00nm             5.4mb
TOO     33.40 189 eP     49 06.90  -0.2
        0.5s     7.00nm             4.6mb
FORT    34.40 218 iPc    49 14.90  -0.7
MBL     35.19 239 eP     49 21.70  -0.7
        0.4s    37.00nm             5.4mb
TAU     38.44 185 iPc    49 50.20   0.8
MEEK    38.61 232 iPc    49 50.80  -0.3
        0.5s    66.00nm             5.6mb
NANU    39.42 240 eP     49 57.10  -0.6
        0.5s    43.00nm             5.4mb
KLB     41.80 226 eP     50 16.00  -1.2
        0.4s     9.00nm             4.7mb
MRWA    41.88 230 iPc    50 17.10  -0.8
        0.4s    22.00nm             5.1mb
                  e      51 57.00
BAL     42.04 228 eP     50 18.20  -1.0
MUN     43.12 226 eP     50 27.10  -0.8
LEM     44.04 265 ePd    50 35.00  -0.8
LOE     54.03 295 iPd    51 53.00   1.0
```

23d 15h

KMI 56.03 304 Pd 52 08.00 1.4
1.6s 50.00nm 5.1mb
CHTO 56.99 296 iPc 52 13.20 0.0
1.2s 32.29nm 5.1mb
LZH 60.36 316 Pc 52 36.50 0.2
1.4s 45.00nm 5.1mb
Z 15s 0.29um 4.5MszX
sP 53 34.50
HYB 75.49 289 eP 54 10.00 -0.4
GBA 75.97 285 P 54 14.00 0.9
YKA 95.63 28 eP 55 49.50 -0.2
0.6s 0.30nm 3.8mb X
OBN 107.96 327 ePKP 01 10.00 18.5X
e 01 33.00
GEC2 123.31 328 PKP 01 20.60 -0.5
0.5s 1.10nm
BCAO 133.44 272 iPKPd 01 40.90 -0.6
0.2s 4.00nm
SIV 141.59 123 ePKP 02 09.00 12.5X
PPD 145.22 140 ePKP 02 02.40 -0.1
KIC 156.60 276 PKP 02 29.30 9.7X
0.7s 8.50nm
e 02 49.30
LKO 157.05 284 PKP 02 35.48 15.3X
S.D. = 0.9 on 38 of 43 obs.

% MAR 23, 1993 17h 21m 41.46± 0.80s
28.049 S ± 8.0km 26.813 E ±10.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.3 (PRE).

SEK 0.77 111 eP 21 57.00 0.0
S 22 06.80
BLF 1.19 207 iPc 22 04.00 -0.2
S 22 21.00
PRY 1.26 28 iPd 22 05.20 -0.2
S 22 22.70
FRS 2.14 217 eP 22 18.50 0.2
S 22 44.00
SLR 2.65 30 eP 22 26.00 0.2
S 22 56.00
S.D. = 0.3 on 5 of 5 obs.

? MAR 23, 1993 19h 09m 26.79± 9.61s
44.469 N ±13.1km 6.827 E ±66.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.3 (GEN).

PZZ 0.20 80 P 09 31.27 0.0
S 09 32.46
STV 0.42 122 P 09 35.47 0.0
S 09 40.09
BHB 0.49 40 P 09 36.65 0.0
S 09 42.00
ENR 0.49 119 P 09 36.71 0.0
S 09 42.06
S.D. = 0.1 on 4 of 4 obs.

& MAR 23, 1993 19h 26m 07.15s
36.170 N 118.022 W
DEPTH = 0.1km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 2.8 (PAS).

ISA 0.62 216 eP 26 19.11 -0.5
S 26 27.32
GSC 1.32 131 eP 26 31.11 -1.4
MEMM 1.66 334 eP 26 36.57 -1.1
S 26 58.19
PKEM 1.69 267 eP 26 38.25 0.1
BONR 1.80 353 eP 26 39.59 -0.3
BCH 1.95 240 eP 26 41.27 -0.6
SSK 1.97 172 ePn 26 42.31 -0.1
TNP 2.01 18 ePn 26 42.00 -1.0
ePg 26 43.65
CMB 2.65 315 eP 26 51.53 -0.4
ARN 3.05 294 eP 26 59.40 1.7
10 obs. associated

MAR 23, 1993 19h 55m 21.73± 0.54s
43.404 N ± 4.0km 5.460 E ± 4.2km
DEPTH = 6.1 ± 4.1 km
NEAR SOUTH COAST OF FRANCE (379)
ML 2.5 (STR).

GELF 0.03 229 Pg 55 23.06 -0.1
BERF 0.19 118 Pg 55 26.45 0.7
PUYF 0.22 54 Pg 55 25.92 -0.3
TREF 0.23 346 Pg 55 25.92 -0.5
CDR 0.35 39 ePgd 55 28.30 -0.5
PRAF 0.45 332 Pg 55 31.11 0.3
TAVF 0.48 64 Pg 55 31.63 0.2
VILF 0.49 22 Pg 55 31.63 0.1
GANF 0.68 29 Pg 55 35.24 -0.1
CALN 1.10 71 Pg 55 43.00 0.2
TOUF 1.43 64 Pn 55 48.48 0.0
Sg 56 09.20
AURF 1.44 70 Pn 55 48.48 0.0
Sg 56 08.60
SURF 1.45 42 Pg 55 49.94 1.2
Sg 56 10.24
SBF 1.51 72 Pn 55 49.22 -0.1
AUTN 1.54 67 Pn 55 50.09 0.1
Sg 56 12.28
SAOF 1.63 68 Pn 55 50.95 -0.1
PGF 2.73 107 Pn 56 05.84 -1.2
S.D. = 0.6 on 17 of 17 obs.

• MAR 23, 1993 20h 43m 08.04± 0.82s
7.522 N ±10.8km 137.153 E ±19.9km
DEPTH = 33.0km (normal)
4.2mb (4 obs.) 4.2Msz (2 obs.)
WESTERN CAROLINE ISLANDS (209)

KKM 20.84 267 ePd 47 49.40 -0.4
WB2 27.43 186 eP 48 52.90 -0.1
0.6s 3.00nm 4.1mb
MAT 28.90 2 eP 49 04.00 -2.1
ASPA 31.16 186 eP 49 25.80 -0.5
0.9s 2.60nm 4.0mb
BJI 37.43 333 eP 50 20.00 0.0
Z 18s 0.41um 4.3Msz
eS 56 08.00
LZH 41.63 318 Pc 50 55.50 0.4
1.4s 26.00nm 4.8mb
Z 18s 0.25um 4.1Msz
sP 51 03.00
YAK 54.66 356 eP 52 36.00 0.2
MAIO 75.65 305 eP 54 53.00 0.9
YKA 91.66 26 eP 56 14.50 1.5
0.8s 1.10nm 4.3mb
ZOBO 153.80 112 ePKP 03 07.00 8.1X
S.D. = 1.2 on 9 of 10 obs.

MAR 23, 1993 21h 02m 36.04± 0.32s
44.386 N ± 2.6km 7.316 E ± 3.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN), 2.0 (LDG).

STV 0.14 178 P 02 39.72 0.3
S 02 41.78
ENR 0.18 155 P 02 40.27 0.2
S 02 42.74
PZZ 0.19 308 P 02 41.10 0.7
S 02 44.21
ROB 0.41 103 P 02 45.06 0.7
S 02 50.80
BHB 0.46 355 P 02 45.21 -0.1
S 02 50.77
SBF 0.53 171 Pg 02 46.40 -0.4
Sg 02 53.20
IMI 0.63 139 P 02 48.02 -0.7
S 02 56.34
RRL 0.66 325 P 02 49.49 0.2
S 02 58.72
FIN 0.66 105 P 02 48.97 -0.3
S 02 58.03
RSP 0.77 357 P 02 50.90 -0.2
S 03 01.19
PCP 0.89 80 P 02 53.91 0.7
S 03 05.23
FRF 0.96 211 Pg 02 54.10 -0.1
Sg 03 05.20
LRG 1.16 217 Pg 02 57.50 -0.2
Sg 03 12.50
LPG 1.18 340 Pg 02 57.50 -0.8
LMR 1.20 209 Pg 02 57.90 -0.5
Sg 03 12.60
LPL 1.20 340 Pg 02 58.30 -0.3
CDR 1.32 238 eP 03 01.50 1.0
e 03 17.00
e 03 17.90
S.D. = 0.6 on 17 of 17 obs.

MAR 23, 1993 21h 27m 51.15± 0.40s
41.903 N ± 4.6km 20.511 E ± 4.1km
DEPTH = 10.3 ± 3.3 km
ALBANIA (391)
ML 2.9 (TTG).

PHP 0.22 194 iPgc 27 55.40 -0.6
iSg 27 58.90
LACI 0.66 246 ePg 28 04.50 0.3
iSg 28 16.00
PVY 0.80 330 iPgc 28 05.47 -1.2
iSg 28 18.61
ULC 0.94 274 iPgd 28 08.80 -0.3
iSg 28 24.11
TTG 1.07 300 iPgd 28 10.81 -0.4
iSg 28 28.17
IVA 1.07 335 iPgc 28 10.21 -1.1
iSg 28 27.12
FNA 1.29 149 ePb 28 14.14 -1.0
eSb 28 33.46
BDV 1.31 287 iPgc 28 15.30 0.0
iSg 28 36.49
NKY 1.44 310 iPgc 28 17.77 0.4
iSg 28 40.55
HCY 1.59 291 iPnc 28 20.24 0.9
iSn 28 44.61
PLE 1.65 330 iPnc 28 20.72 0.4
iSn 28 45.22
GRG 1.71 123 ePb 28 21.82 0.7
eSb 28 44.30
BRY 1.77 305 iPnc 28 22.86 0.8
iSn 28 48.92
KNT 1.94 112 ePb 28 24.29 -0.2
eSb 28 49.20
LIT 2.34 140 ePn 28 30.74 0.5
SOH 2.40 116 ePn 28 31.18 0.1
SRS 2.44 108 ePn 28 32.62 0.9
PAIG 3.11 128 ePn 28 41.02 0.0
AGG 3.19 154 ePn 28 42.06 -0.3
HVAR 3.26 294 i(Pn) 28 44.40 1.1
S.D. = 0.8 on 20 of 20 obs.

MAR 23, 1993 21h 35m 11.41± 0.51s
19.480 N ±10.9km 38.871 E ± 7.6km
DEPTH = 10.0km (geophysicist)
4.4mb (12 obs.)
RED SEA (554)
MD 4.1 (RYD).

ABHA 3.87 108 eP 36 13.33 0.8
KMTA 4.00 108 eP 36 13.33 -1.0
MAIO 24.67 43 eP 40 39.00 5.2X
BCAO 24.84 236 iPc 40 35.90 0.4
1.0s 10.00nm 4.4mb
OBN 35.60 358 ePc 42 12.00 1.1
1.3s 26.00nm 4.9mb
e 42 20.00
GEC2 35.62 331 P 42 10.50 -0.8
1.1s 3.41nm 4.1mb
BRG 37.01 334 e(P) 42 23.60 0.7
LBF 39.52 322 eP 42 43.40 -0.6
1.0s 12.20nm 4.5mb
CAF 39.65 318 eP 42 45.30 0.1
1.2s 15.75nm 4.6mb
LOR 39.74 322 eP 42 45.20 -0.6
0.9s 4.60nm 4.1mb
AVF 39.78 321 eP 42 46.20 0.1
1.1s 7.55nm 4.3mb
SSF 39.83 322 eP 42 46.90 0.3
1.2s 10.10nm 4.4mb
BGF 39.96 321 eP 42 47.60 -0.1
1.1s 18.80nm 4.7mb
MAF 39.96 320 eP 42 47.50 -0.2
0.9s 3.30nm 4.0mb
LZH 58.82 59 eP 45 13.00 0.2
2.0s 30.00nm 5.1mb
sP 45 28.50
YKA 95.65 348 eP 48 37.90 -0.4
0.7s 0.40nm 4.0mb
S.D. = 0.7 on 15 of 16 obs.

& MAR 23, 1993 22h 11m 41.49s
60.106 N 152.855 W
DEPTH = 97.3km

SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.06 244 P 11 54.50 0.8
S 12 04.80
INE 0.11 247 P 11 54.70 0.8
S 12 05.50
INW 0.14 255 P 11 54.70 0.8
S 12 05.50
RED 0.32 7 P 11 55.20 -1.0
RS1 0.36 8 P 11 55.70 -0.8
S 12 07.20
RSO 0.36 8 P 11 55.70 -0.9
RS2 0.36 8 P 11 55.70 -0.9
S 12 07.20
RDW 0.38 3 P 11 55.70 -0.9
S 12 07.70
NCT 0.46 355 eP 11 56.25 -0.8
eS 12 07.94
OPT 0.49 203 P 11 56.50 -0.7
S 12 07.80
DFR 0.49 10 eP 11 56.43 -0.9
eS 12 08.48
PDB 0.75 245 P 11 58.70 -0.6
S 12 11.90
AUL 0.78 202 P 11 59.00 -0.7
AUE 0.79 199 eP 11 58.51 -1.3
AUH 0.80 202 P 11 59.20 -0.8
AUW 0.80 203 P 11 59.00 -0.9
AUI 0.83 201 P 11 59.20 -0.9
XLV 0.87 138 P 11 59.50 -1.1
CNPM 1.00 125 P 12 00.80 -1.3
S 12 16.70
NKA 1.03 51 P 12 03.00 0.8
BRLK 1.05 108 P 12 02.00 -0.6
CKL 1.12 13 P 12 02.50 -1.0
CKT 1.14 16 P 12 02.90 -0.8
SPU 1.15 20 eP 12 02.70 -1.1
CKN 1.17 16 P 12 03.20 -0.8
BGL 1.18 11 P 12 03.50 -0.7
MCNL 1.19 220 P 12 03.00 -1.2
CP2 1.20 14 eP 12 03.73 -0.8
CPAM 1.21 17 eP 12 03.74 -0.7
CRP 1.21 16 eP 12 04.02 -0.6
CDD 1.25 199 P 12 03.50 -1.4
SLKM 1.37 72 P 12 05.30 -1.1
SYI 1.52 171 P 12 07.00 -1.2
SVW 1.70 308 P 12 09.50 -1.0
SEW 1.71 89 P 12 08.60 -2.0
SUA 1.71 36 eP 12 10.27 -0.5
PMS 1.98 53 P 12 13.30 -1.0
SKT 1.99 18 P 12 13.30 -1.0
PTE 2.04 66 eP 12 13.11 -1.9
PWA 2.13 42 P 12 15.60 -0.5
PLRM 2.36 49 P 12 16.20 -3.0
PWL 2.36 69 P 12 21.10 1.8
GHO 2.54 47 eP 12 19.98 -1.9
SML 2.79 50 P 12 22.20 -2.9
44 obs. associated

? MAR 23, 1993 22h 12m 03.43± 1.56s
47.246 N ±26.7km 153.753 E ±31.1km
DEPTH = 33.0km (normal)
4.0mb (5 obs.)
KURIL ISLANDS (221)

MAT 15.73 233 eP 15 44.00 0.0
0.7s 7.53nm 4.0mb
YKA 50.27 37 eP 20 58.00 0.0
1.0s 0.70nm 3.6mb
NB2 67.90 341 P 23 00.00 -0.4
0.6s 1.90nm 4.4mb
SLL 67.93 340 eP 23 00.10 -0.4
0.4s 1.80nm 4.5mb
CLL 76.19 336 e(P) 23 50.00 0.4
GEC2 78.20 334 P 24 01.40 0.5
0.5s 0.25nm 3.5mb
e 24 02.90
e 24 05.70
e 24 09.70
S.D. = 0.5 on 6 of 6 obs.

---

* MAR 23, 1993 22h 26m 22.42± 0.71s
1.818 S ± 8.6km 135.338 E ±17.7km
DEPTH = 33.0km (normal)
4.9mb (7 obs.) 4.3Msz (1 obs.)
IRIAN JAYA REGION, INDONESIA (196)
MTN 11.72 201 eP 29 10.40 -0.1
0.4s 46.00nm 6.0mb X
WB2 18.04 183 eP 30 31.00 -1.4
0.5s 9.30nm 4.2mb
eS 33 43.40
CTA 21.06 150 iP 31 07.00 0.8
STK 30.48 169 iPc 32 35.30 0.7
0.6s 2.00nm 4.1mb
CHTO 41.24 302 ePc 34 06.60 0.3
0.9s 10.23nm 4.6mb
KMI 41.41 312 Pc 34 08.50 0.6
2.0s 80.00nm 5.1mb
BJI 45.20 339 eP 34 37.00 -1.1
1.4s 29.00nm 5.0mb
Z 20s 0.36um 4.3Msz
LZH 47.79 325 Pc 34 59.50 0.6
1.5s 43.00nm 5.3mb
pP 35 13.00 50kmX
SHL 50.07 306 iPc 35 16.00 -0.7
HYB 59.11 291 eP 36 22.00 -0.6
GBA 59.40 287 P 36 24.00 -0.5
YAK 63.81 357 iPc 36 52.10 -1.3
1.1s 50.00nm 5.5mb
QUE 72.36 302 eP 37 49.30 1.6
MAIO 79.69 307 iPc 38 29.80 1.0
CNCB 150.46 130 PKP 46 15.00 6.6X
LPB 150.54 129 ePKP 46 14.00 5.7X
ZOBO 150.66 129 PKP 46 15.20 6.4X
S.D. = 1.0 on 14 of 17 obs.

MAR 23, 1993 23h 03m 50.74± 5.22s
35.107 N ±43.3km 2.368 W ±18.9km
DEPTH = 28.9 ± 8.5 km
STRAIT OF GIBRALTAR (385)
mbLg 3.1 (MDD). Felt (III) on
the Chafarinas Islands, Spain.

EMEL 0.52 292 iPd 04 00.69 -0.7
e 04 07.40
ENIJ 1.87 4 iPd 04 20.06 -1.2
e 04 41.50
EGUA 1.98 331 iPd 04 21.04 -1.9
e 04 45.30
ECOG 2.37 336 eP 04 53.90 25.3X
EHUE 2.71 356 iPd 04 33.98 0.7
e 05 04.20
EALH 2.85 15 eP 04 34.70 -0.5
EJIF 2.86 299 eP 04 37.15 1.8
e 05 08.40
ELUQ 2.89 328 iPd 04 36.96 1.1
EVIA 3.53 358 iPc 04 45.89 0.9
e 05 24.00
EHOR 3.57 320 iPd 04 44.40 -1.1
e 05 23.40
ACU 3.74 24 iPc 04 47.24 -0.7
e 05 30.00
EVAL 4.31 306 iPd 04 54.10 -1.9
e 05 41.00
ECHE 4.61 14 eP 05 00.65 0.3
e 05 50.50
GUD 5.70 346 iPd 05 14.79 -1.0
ETOR 5.71 2 eP 05 15.06 -0.8
e 06 16.00
S.D. = 1.3 on 14 of 15 obs.

MAR 23, 1993 23h 13m 51.84± 0.56s
15.468 S ± 6.4km 70.604 W ± 6.6km
DEPTH = 204.2 ± 6.4 km
4.6mb (22 obs.)
SOUTHERN PERU (117)

ARE 1.31 221 eP 14 24.00 -0.9
iS 14 48.00
ZOBO 2.52 109 iPd 14 38.10 0.9
i 15 16.00
LPB 2.63 114 iPd 14 38.80 0.5
i 15 14.80
CNCB 2.85 118 iPd 14 42.20 1.2
CCH 4.69 115 P 15 05.00 1.6
NNA 6.98 299 iPc 15 31.30 -1.4
0.8s 97.01nm 5.1mb
eS 16 43.00
ANT 8.20 179 iP 15 45.30 -3.3X
iS 16 13.80
YJA 8.23 145 iPc 15 48.60 -1.0
(S) 17 21.10
HJA 9.13 148 iPc 16 00.30 -0.4
(S) 17 35.50
SIV 9.19 95 iPd 16 12.00 10.4X
SLA 10.39 153 ePc 16 15.30 -1.8
CYA 13.66 162 ePc 16 59.80 1.3
RTLL 15.91 173 iPd 17 27.00 0.7
RTC8 16.03 174 iPc 17 28.20 0.4
CFA 16.21 173 e(P) 17 31.30 1.4
MRA 17.45 166 ePc 17 44.20 0.2
PEL 17.60 180 eP 17 44.50 -1.2
PPD 19.39 113 eP 18 01.80 -2.6
e 18 03.10
e 18 08.90
BAO 21.79 93 iPc 18 27.60 -0.7
e 19 09.90
e 24 12.10
e 25 38.10
e 26 12.00
BDF 21.87 94 iPc 18 28.80 -0.3
e 24 54.50
VAO 23.52 112 eP 18 44.40 -0.6
SDV 24.20 360 iPc 18 51.80 0.3
TOV 25.10 2 eP 18 55.30 -4.4X
SOB1 29.66 81 eP 19 39.90 -0.8
MIAR 54.32 337 iPd 22 59.29 -0.1
0.7s 8.25nm 4.5mb
FVM 56.33 341 eP 23 12.27 -1.5
0.9s 71.58nm 5.4mb
MEO 56.61 332 iPc 23 16.50 0.8
OCO 56.75 334 iPc 23 18.20 1.5
BNH 59.77 359 eP 23 35.93 -1.4
RSNY 59.83 357 eP 23 36.43 -1.4
0.8s 4.29nm 4.2mb
ALQ 60.60 326 eP 23 43.13 -0.3
0.9s 9.52nm 4.5mb
LMN 61.25 5 eP 23 48.50 1.1
CBM 62.15 2 eP 23 51.96 -1.3
0.7s 9.92nm 4.7mb
GOL 63.74 331 eP 24 05.47 1.3
0.7s 7.46nm 4.6mb
KDS 64.14 68 eP 24 05.00 -1.9
SRU 65.87 327 eP 24 16.66 -1.1
e 25 08.42
MSU 66.32 325 eP 24 20.46 -0.3
ePcP 24 49.74
e 25 10.82
RSSD 66.69 334 eP 24 22.82 -0.1
0.9s 22.84nm 4.9mb
DUG 67.87 326 eP 24 31.21 0.9
1.0s 7.18nm 4.4mb
e 25 19.69
BW06 68.11 330 eP 24 31.36 -0.5
0.9s 5.39nm 4.3mb
e 25 20.12
LIC 68.42 77 P 24 32.10 -1.9
0.9s 22.00nm 4.9mb
TIC 68.56 76 P 24 33.00 -1.9
KIC 68.73 77 P 24 34.02 -1.9
0.7s 33.00nm 5.2mb
HVU 68.99 327 eP 24 37.14 0.0
ULM 69.11 343 eP 24 37.00 -0.5
JAQ 69.13 357 eP 24 35.50 -2.0
DPW 76.01 329 eP 25 19.23 1.2
TIO 76.34 52 iPd 25 22.00 1.7
FCC 76.43 348 eP 25 23.50 3.5X
LON 77.12 327 (P) 25 25.45 1.3
AVE 77.33 50 iP 25 26.50 1.0
PAB 82.41 46 eP 25 54.00 1.5
YKA 84.99 341 P 26 05.20 0.3
0.8s 19.00nm 4.9mb
LFF 88.14 42 eP 26 21.30 0.8
0.6s 4.80nm 4.5mb
RJF 88.79 42 eP 26 24.20 0.6
0.8s 5.90nm 4.5mb
BGF 90.13 41 eP 26 30.50 0.7
0.7s 5.20nm 4.6mb
BCAO 90.34 86 iPd 26 32.70 1.2
0.8s 7.00nm 4.7mb
AVF 90.54 41 eP 26 32.10 0.4
0.8s 2.55nm 4.3mb
SMF 90.80 42 eP 26 33.40 0.5
0.8s 5.25nm 4.6mb
LPL 92.28 43 eP 26 41.70 1.7
0.8s 3.75nm 4.5mb
LPG 92.29 43 eP 26 41.90 1.8
0.6s 3.00nm 4.5mb
GEC2 97.80 42 P 27 05.30 0.4
0.7s 0.63nm 4.1mb

e 27 08.80
e 27 58.50
WB2 137.10 216 ePKP 32 53.20 0.2
0.6s 4.10nm
MAT 146.88 315 ePKP 33 13.00 3.4X
GBA 149.02 89 PKP 33 19.00 5.5X
HYB 150.37 82 ePKPd 33 22.00 6.4X
1.0s 40.00nm
S.D. = 1.2 on 59 of 66 obs.

% MAR 23, 1993 23h 35m 44.04± 0.67s
40.667 N ± 5.4km 23.402 E ± 6.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH 0.16 347 ePg 35 48.16 0.4
eSg 35 50.50
THE 0.33 264 ePg 35 51.12 0.2
eSg 35 55.60
SRS 0.47 18 ePg 35 53.44 -0.2
OUR 0.55 127 ePg 35 55.52 0.3
KNT 0.62 322 ePg 35 56.24 -0.4
eSg 36 04.56
PAIG 0.77 164 ePg 35 58.76 -0.3
S.D. = 0.4 on 6 of 6 obs.

? MAR 23, 1993 23h 39m 15.01± 7.28s
35.191 N ±53.8km 2.280 W ±33.4km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

EMEL 0.56 281 iPd 39 26.00 -0.4
ENIJ 1.78 2 iPc 39 45.30 -0.7
ECOG 2.33 334 eP 39 54.00 0.0
e 40 22.00
EHUE 2.63 355 eP 39 59.00 0.7
e 40 30.00
ELUQ 2.86 326 eP 40 02.20 0.7
e 40 34.00
EJIF 2.88 297 eP 40 02.50 0.7
EPRU 2.98 307 eP 40 04.00 0.9
e 40 37.00
EVIA 3.45 357 eP 40 10.90 1.0
e 40 49.50
EHOR 3.55 319 iPd 40 09.50 -1.8
EVAL 4.32 305 eP 40 21.80 -0.5
ETOR 5.62 2 eP 40 40.00 -0.7
S.D. = 1.0 on 11 of 11 obs.

MAR 24, 1993 00h 33m 49.73± 0.27s
33.023 N ± 5.3km 82.322 E ± 5.5km
DEPTH = 33.0km (normal)
4.6mb (20 obs.)
XIZANG (306)

GKN 5.39 158 P 35 11.20 1.2
KKN 5.81 153 P 35 16.40 0.4
DMN 5.91 155 P 35 18.00 0.5
GUN 5.95 148 P 35 18.80 0.6
PKI 6.05 153 P 35 19.80 0.2
NDI 6.16 227 ePn 35 24.00 3.2X
0.5s 13.38nm 4.9mb
eS 36 31.00
KSH 8.21 323 P 35 50.80 1.2
0.7s 39.00nm 5.6mb
Z 12s 1.49um 4.3Msz
S 37 25.00
LSA 8.24 111 P 35 51.80 1.4
1.2s 23.00nm 5.2mb
N 10s 1.62um
S 37 24.00
SHL 11.17 129 ePn 36 28.00 -2.3
iSn 38 25.00
WMQ 11.57 20 P 36 36.50 0.8
Z 14s 0.52um
sP 36 51.00
QUE 13.40 262 eP 37 02.40 2.1
eS 39 24.20
GTA 15.48 61 eP 37 31.00 3.7X
Z 18s 0.57um
MAIO 19.05 286 eP 38 12.00 0.1
GBA 19.84 194 P 38 20.00 -0.7
S 42 06.00
CHTO 20.54 129 eP 38 26.70 -1.4
1.1s 23.56nm 4.5mb
GYA 22.10 101 iPd 38 47.00 3.1X
1.0s 12.00nm 4.3mb
XAN 22.18 80 P 38 44.50 -0.1
0.6s 2.60nm 3.8mb
pP 38 52.00 27kmX
BTO 23.36 63 eP 38 57.90 1.7
CVO 44.36 304 eP 42 01.00 2.4X
MLR 44.54 303 ePc 42 03.00 2.8X
HFS 51.48 323 eP 42 52.30 -1.5
0.5s 1.90nm 4.3mb
PRU 51.73 310 eP 42 56.50 0.7
BRG 51.99 312 eP 42 58.40 0.6
GEC2 52.45 309 P 43 01.20 -0.2
1.0s 4.19nm 4.3mb
e 43 06.40
KHC 52.48 309 eP 43 01.90 0.4
NB2 52.68 325 P 43 01.40 -1.5
0.8s 4.80nm 4.5mb
GRB5 53.71 310 eP 43 11.30 0.7
BSF 57.16 309 eP 43 35.40 -0.3
0.9s 10.15nm 4.9mb
HAU 57.41 309 eP 43 37.00 -0.3
1.0s 7.60nm 4.7mb
LPG 57.81 306 eP 43 40.50 0.1
0.8s 5.50nm 4.7mb
LPL 57.81 306 eP 43 40.50 0.1
0.8s 8.20nm 4.8mb
SMF 59.42 308 eP 43 50.80 -0.5
0.8s 4.15nm 4.6mb
SSF 59.52 309 eP 43 51.50 -0.5
0.8s 4.85nm 4.7mb
AVF 59.70 309 eP 43 52.60 -0.6
0.9s 5.40nm 4.7mb
MAF 60.39 308 eP 43 58.00 0.1
TCF 60.61 308 eP 43 59.50 0.1
LSF 61.06 308 eP 44 02.00 -0.5
LDF 61.38 311 eP 44 04.20 -0.5
BCAO 65.69 259 iPc 44 32.10 -1.4
0.5s 10.00nm 5.2mb
WRA 72.39 129 P 45 15.10 0.4
0.7s 0.70nm 3.8mb
WB2 72.40 129 iPc 45 13.80 -0.9
0.7s 7.90nm 4.8mb
YKA 83.85 8 eP 46 16.00 -0.9
0.8s 2.40nm 4.4mb
KIC 84.12 274 P 46 19.70 0.6
LPB 148.67 294 (PKP) 53 36.00 3.8X
CNCB 148.75 294 PKP 53 37.00 4.5X
S.D. = 1.0 on 38 of 45 obs.

% MAR 24, 1993 00h 55m 18.08± 0.83s
46.568 N ± 5.3km 2.394 E ± 7.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.9 (LDG).

TCF 0.31 205 Pg 55 24.40 -0.1
Sg 55 29.00
BGF 0.31 92 Pg 55 24.90 0.3
Sg 55 29.50
MAF 0.37 161 Pg 55 25.70 0.1
Sg 55 31.20
AVF 0.70 71 Pg 55 31.70 -0.1
Sg 55 40.40
HYF 0.72 13 Pg 55 32.60 0.3
Sg 55 41.90
SSF 0.91 57 Pg 55 34.80 -0.7
Sg 55 46.80
SMF 1.00 85 Pg 55 37.20 0.2
Sg 55 50.70
LBF 1.16 68 Pg 55 39.80 -0.1
Sg 55 54.50
LOR 1.22 55 Pg 55 41.00 0.1
Sg 55 56.30
S.D. = 0.4 on 9 of 9 obs.

---

* MAR 24, 1993 01h 40m 32.10± 0.88s
7.078 S ±10.1km 129.005 E ±22.9km
DEPTH = 33.0km (normal)
5.2mb (7 obs.)
BANDA SEA (280)

AAI 3.46 346 ePc 41 24.00 -1.0
MTN 6.10 160 eP 42 03.00 0.6
WB2 13.80 158 iPc 43 43.40 -4.4X
1.0s 15.80nm 4.8mb
eS 46 12.00
KKM 18.24 315 ePc 44 46.50 1.9
WARB 19.13 186 eP 44 51.00 -4.4X
MEEK 21.82 206 eP 45 23.00 -0.5
1.0s 29.00nm 4.7mb
STK 27.33 156 eP 46 19.60 3.6X
0.5s 1.70nm 4.0mb X
PPI 29.28 282 ePc 46 30.80 -3.0X
CHTO 39.25 311 eP 47 59.90 0.4
KMI 40.96 322 Pc 48 15.50 1.6
1.3s 50.00nm 5.1mb
pP 48 23.00 25kmX
BJI 48.36 347 eP 49 13.00 0.4
2.0s 62.00nm 5.3mb
LZH 49.01 333 eP 49 18.50 0.5
1.2s 23.00nm 5.1mb
Z 15s 0.20um 4.2MszX
sP 49 21.00
GUN 54.26 312 P 49 57.20 -0.7
PKI 54.43 311 P 49 58.00 -1.1
KKN 54.64 311 P 49 59.80 -0.7
0.9s 49.00nm 5.5mb
DMN 54.68 311 P 50 00.20 -0.6
GKN 55.24 311 P 50 04.20 -0.6
0.9s 59.00nm 5.6mb
MAIO 77.97 309 eP 52 34.00 5.0X
CNCB 150.92 145 PKP 00 28.20 9.5X
LPB 151.08 144 ePKP 00 28.00 9.2X
ZOBO 151.25 144 PKP 00 28.60 9.3X
S.D. = 1.1 on 13 of 21 obs.

MAR 24, 1993 02h 32m 03.50± 0.66s
35.391 N ±10.2km 104.195 W ± 6.0km
DEPTH = 5.0km (geophysicist)
NEW MEXICO (496)
mbLg 3.0 (GS). MD 2.7 (SNM).
Felt (II) at Cuervo and Newkirk.

SPD 1.81 282 P 32 36.25 0.4
S 32 59.94
ALQ 1.91 257 ePnd 32 35.65 -1.5
Pg 32 39.77
S 32 57.48
LPM 2.28 242 P 32 42.40 -0.2
S 33 08.70
BNM 2.36 239 P 32 44.00 0.3
S 33 10.90
CRNM 2.54 236 P 32 47.20 1.0
S 33 16.90
SBM 2.84 241 P 32 52.60 1.9X
S 33 26.60
CLN7 2.99 174 P 32 58.30 5.8X
CLNB 3.13 175 P 32 59.70 5.2X
GOL 4.40 348 (Pn) 33 12.94 0.2
P* 33 23.97
ePg 33 28.22
S 34 21.43
WMOK 4.49 97 ePn 33 13.22 -0.5
P* 33 23.83
Pg 33 28.80
S 34 22.94
MEO 4.64 96 iPc 33 16.30 0.4
SRU 6.27 308 (P) 33 46.26 7.2X
MSU 7.11 298 (Pn) 33 56.56 5.6X
UYO 8.10 96 iPd 34 01.60 -3.0X
MIAR 8.76 92 ePnc 34 11.11 -2.6X
S 36 40.99
S.D. = 0.9 on 8 of 15 obs.

& MAR 24, 1993 02h 40m 14.90s
34.232 N 116.441 W
DEPTH = 4.9km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.6 (PAS). Felt.

PEC 0.69 241 ePd 40 27.52 -1.1
S 40 35.90
PLM 0.94 202 eP 40 32.22 -1.3
S 40 44.09
SSK 1.04 269 eP 40 33.84 -1.3
S 40 47.88
GSC 1.11 344 eP 40 35.31 -0.9
S 40 50.17
GLA 1.79 131 ePn 40 45.92 -0.8
5 obs. associated

& MAR 24, 1993 03h 12m 42.24s
66.206 N 140.596 W
DEPTH = 10.0km (geophysicist)
NORTHERN YUKON TERRITORY, CANADA(677)

<AEIC>. ML 3.9 (AEIC), 3.1
(PGC).

FYU 1.90 283 eP 13 15.67 0.7
S 13 39.41
DWY 2.22 167 P 13 21.40 1.8
DOT 2.96 211 eP 13 30.82 0.7
S 14 06.41
GLM 3.07 250 eP 13 30.87 -0.9
eS 14 10.40
HDA 3.22 239 eP 13 32.70 -1.2
eS 14 12.23
FBA 3.27 250 ePn 13 32.05 -2.4
Pg 13 40.87
S 14 15.02
CCB 3.39 246 eP 13 34.55 -1.7
eS 14 18.28
MDM 3.41 252 eP 13 35.28 -1.2
S 14 19.56
PAX 3.87 215 eP 13 42.71 -0.4
NEA 3.91 249 eP 13 43.25 -0.3
SDG 4.27 212 eP 13 49.71 0.9
TRF 4.98 241 eP 13 57.26 -1.6
BALM 5.25 189 eP 14 02.40 -0.3
CTGM 5.27 184 eP 14 02.87 -0.2
KLU 5.28 209 eP 14 03.62 0.5
SCM 5.29 217 eP 14 04.75 1.5
IMA 5.31 274 ePn 14 01.98 -1.7
Pg 14 20.09
S 15 26.07
TGL 5.56 191 eP 14 07.60 0.5
SML 5.57 221 eP 14 06.78 -0.4
HYT 5.58 164 P 14 08.60 1.2
CRQM 5.59 193 eP 14 08.62 1.0
VLZ 5.70 209 P 14 09.10 0.3
YAH 5.89 186 eP 14 12.63 0.8
YKA 11.81 96 eP 15 34.90 1.4
0.6s 2.80nm 4.7mb X
24 obs. associated

& MAR 24, 1993 03h 18m 34.92s
66.073 N 140.755 W
DEPTH = 10.0km (geophysicist)
NORTHERN YUKON TERRITORY, CANADA(677)
<AEIC>. ML 2.9 (AEIC).

FYU 1.87 287 eP 19 07.01 -0.2
S 19 32.07
DOT 2.81 212 eP 19 22.65 1.9
eS 19 55.76
GLM 2.97 252 eP 19 22.98 0.0
S 19 59.59
HDA 3.10 240 eP 19 24.09 -0.7
eS 20 03.46
FBA 3.16 251 eP 19 27.51 1.9
eS 20 04.72
5 obs. associated

• MAR 24, 1993 03h 48m 52.68± 2.78s
38.877 N ±28.9km 26.123 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

EDC 1.99 42 ePn 49 27.50 0.8
ALN 2.02 358 ePn 49 27.44 0.3
eSn 49 58.20
BNT 2.03 43 ePn 49 28.00 0.7
PAIG 2.16 300 ePn 49 29.00 -0.3
KCT 2.20 51 ePn 49 29.00 -0.9
SOH 2.88 313 ePn 49 39.52 0.0
SRS 2.96 320 ePn 49 40.16 -0.5
eSn 50 26.84
ISK 3.14 45 ePn 49 48.00 4.9X
DMK 3.20 22 ePn 49 43.00 -0.9
KNT 3.37 314 ePn 49 46.68 0.3
eSn 50 38.20
GRG 3.54 307 iPn 49 49.16 0.4
S.D. = 0.7 on 10 of 11 obs.

% MAR 24, 1993 04h 16m 35.92± 0.83s
16.500 N ±10.2km 61.522 W ±10.1km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

SEG 0.10 170 iPc 16 40.80 -0.9
S 16 42.60
DEG 0.48 113 iPc 16 46.65 0.3
S 16 53.70
PAG 0.49 198 eP 16 46.80 0.3
BPA 0.63 329 eP 16 48.50 0.1
S 16 56.70
MGH 0.70 288 eP 16 49.50 0.1
S.D. = 0.7 on 5 of 5 obs.

• MAR 24, 1993 04h 19m 06.42± 1.26s
51.134 N ±15.8km 15.795 E ± 7.7km
DEPTH = 10.0km (geophysicist)
POLAND (548)

BRG 1.20 258 iPg 19 29.00 0.3
iSg 19 48.60
PRU 1.40 215 ePg 19 34.00 2.1X
eSn 19 50.50
eSg 19 57.50
e 20 04.50
CLL 1.76 277 ePg 19 37.00 -0.2
eSg 20 03.00
KHC 2.46 216 ePn 19 47.00 -0.3
e 19 59.50
e 20 27.00
eSg 20 46.00
GEC2 2.66 211 Pn 19 50.30 0.1
Pg 20 00.80
Sg 20 40.40
MOX 2.69 261 ePg 19 56.30 5.8X
iSg 20 35.70
OJC 2.71 108 eP 19 50.80 0.1
eS 20 27.40
S.D. = 0.3 on 5 of 7 obs.

• MAR 24, 1993 04h 20m 56.90± 2.06s
45.078 S ± 8.7km 167.360 E ±15.5km
DEPTH = 131.0 ± 16.3 km
SOUTH ISLAND, NEW ZEALAND (162)

MSZ 0.57 44 Pc 21 16.80 0.1
S 21 30.10
BCZ 0.99 160 P 21 19.70 -0.3
S 21 35.10
TLC 1.22 96 Pc 21 22.80 0.3
CMCZ 1.36 94 Pc 21 24.00 0.1
MHZ 1.36 90 Pc 21 24.10 0.1
SBCZ 1.38 91 Pc 21 24.20 0.0
LRCZ 1.41 90 Pc 21 24.60 0.0
LSCZ 1.42 92 Pc 21 24.60 0.0
MSCZ 1.45 91 P 21 24.90 0.0
TUZ 1.82 120 Pc 21 29.30 0.2
S 21 50.10
BWZ 1.88 74 P 21 29.60 -0.2
SIZ 1.88 164 P 21 29.90 0.1
ODZ 2.33 90 Pc 21 35.10 -0.3
EWZ 2.96 59 P 21 42.70 -0.8
LTZ 4.22 59 P 22 01.30 0.8
S.D. = 0.4 on 15 of 15 obs.

MAR 24, 1993 04h 22m 57.63± 0.55s
16.525 N ± 5.4km 61.538 W ± 5.9km
DEPTH = 21.7 ± 9.1 km
LEEWARD ISLANDS (92)
MD 3.2 (TRN). ML 3.0 (FDF).

SEG 0.12 166 iPc 23 01.95 -0.1
S 23 03.70
SFG 0.42 129 iPc 23 06.70 0.3
DOG 0.50 189 ePd 23 07.55 -0.1
DEG 0.50 115 iPc 23 07.65 -0.1
S 23 14.90
PAG 0.51 196 ePd 23 07.70 -0.2
S 23 14.50
BPA 0.60 329 iPc 23 09.60 0.2
S 23 17.00
MGH 0.68 287 ePc 23 10.80 0.1
CPB 1.14 346 eP 23 17.98 -0.4
eS 23 32.44
NEV 1.16 302 eP 23 18.72 0.1
eS 23 34.00
MDN 1.21 174 eP 23 19.45 0.2
eS 23 34.96
S.D. = 0.3 on 10 of 10 obs.

% MAR 24, 1993 04h 24m 59.36± 0.93s
16.513 N ± 6.9km 61.547 W ± 7.0km
DEPTH = 21.2 ± 16.4 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

SEG 0.12 160 iPc 25 03.60 0.0
S 25 05.40
SFG 0.42 127 iPc 25 08.40 0.3
DOG 0.48 188 iPd 25 09.20 0.1
PAG 0.50 195 ePd 25 09.25 -0.1
S 25 16.00
DEG 0.51 113 iPc 25 09.35 -0.2
S 25 16.50
BPA 0.61 331 iPc 25 11.20 0.0
S 25 19.50
MGH 0.67 288 ePc 25 12.40 0.1
S.D. = 0.2 on 7 of 7 obs.

? MAR 24, 1993 04h 26m 55.61± 1.19s
16.514 N ± 9.4km 61.542 W ± 9.4km
DEPTH = 21.5 ± 19.3 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

SEG 0.12 162 iPc 26 59.90 0.0
S 27 01.50
PAG 0.50 195 eP 27 05.80 0.1
DEG 0.50 113 ePc 27 05.70 -0.1
S 27 12.80
BPA 0.61 330 eP 27 07.65 0.1
S 27 15.80
MGH 0.68 288 eP 27 08.50 -0.2
S.D. = 0.3 on 5 of 5 obs.

? MAR 24, 1993 04h 37m 03.46± 1.20s
16.521 N ± 9.4km 61.554 W ± 9.5km
DEPTH = 21.1 ± 19.5 km
LEEWARD ISLANDS (92)
ML 2.4 (FDF).

SEG 0.13 158 iPc 37 07.80 0.0
S 37 09.80
PAG 0.50 194 eP 37 13.80 0.2
S 37 20.30
DEG 0.52 114 ePc 37 13.70 -0.1
BPA 0.60 331 eP 37 15.40 0.2
S 37 23.70
MGH 0.66 287 eP 37 16.00 -0.3
S.D. = 0.5 on 5 of 5 obs.

• MAR 24, 1993 05h 25m 53.18± 1.13s
15.528 N ±11.3km 92.205 W ±13.3km
DEPTH = 33.0km (normal)
MEXICO-GUATEMALA BORDER REGION (62)
MD 4.1 (GCG).

TPX 0.62 185 eP 26 06.00 0.5
SCX 1.27 341 iP 26 14.50 -0.2
iS 26 35.00
BVA 1.74 119 eP 26 22.73 0.9
eS 26 40.80
IXG 2.16 128 eP 26 26.46 -1.3
eS 26 56.54
MRL 2.47 100 eP 26 33.29 1.1
YUP 2.67 119 eP 26 33.95 -1.0
eS 27 15.67
S.D. = 1.3 on 6 of 6 obs.

? MAR 24, 1993 05h 39m 19.89± 2.27s
51.119 N ±27.8km 15.842 E ± 9.0km
DEPTH = 10.0km (geophysicist)
POLAND (548)
MG 3.3 (WAR).

KSP 0.40 134 iPd 39 27.00 -1.0
0.4s 66.00nm
iS 39 35.90
BRG 1.22 259 iPg 39 41.80 -0.8
iSg 40 00.80
PRU 1.40 217 ePn 39 46.60 1.1
0.4s 25.30nm
e 39 49.00
Sg 40 10.00
i 40 17.50
CLL 1.80 277 ePn 39 47.00 -4.1X
ePg 39 50.00
eSg 40 15.00
KHC 2.47 217 ePn 40 06.00 5.2X
e 40 14.50

eSn 40 34.30
eSg 40 43.50
e 40 49.40
OJC 2.67 108 eP 40 04.50 0.8
iS 40 41.00
MOX 2.72 262 iPg 40 10.60 6.2X
iSg 40 48.20
VKA 2.87 174 iP 40 10.00 3.4X
iSg 40 58.20
S.D. = 1.9 on 4 of 8 obs.

? MAR 24, 1993 05h 42m 27.23± 5.15s
17.813 N ±41.7km 65.895 W ±25.4km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

CPD 0.23 355 iP 42 34.10 0.0
SJG 0.38 321 iP 42 35.50 -0.7
S 42 41.00
LPR 0.49 3 iP 42 37.90 0.1
S 42 44.90
PORP 0.75 289 iP 42 41.10 -0.2
S 42 52.10
APR 1.02 309 i(P) 42 46.00 0.8
S.D. = 0.8 on 5 of 5 obs.

? MAR 24, 1993 05h 51m 38.29± 6.78s
17.364 S ±41.5km 74.101 W ±59.5km
DEPTH = 10.0km (geophysicist)
OFF COAST OF PERU (114)

ARE 2.65 71 iPd 52 22.00 -0.2
iS 52 37.50
LPB 5.80 83 P 53 06.90 0.0
1.0s 120.00nm 5.6mb X
i 53 19.20
ZOBO 5.82 80 P 53 07.60 0.3
CNCB 5.88 86 P 53 08.30 0.2
NNA 5.97 333 eP 53 42.50 33.6X
0.5s 5.63nm
eS 55 04.80
CCH 7.61 91 eP 53 32.00 -0.2
SIV 12.56 86 eP 54 30.00 -10.0X
i 54 51.60
PPD 21.94 106 (P) 56 34.00 0.0
S.D. = 0.3 on 6 of 8 obs.

& MAR 24, 1993 06h 11m 27.40s
40.457 N 124.780 W
DEPTH = 17.0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.7 (BRK).

EKR 0.54 64 iPc 11 38.02 0.0
eS 11 45.42
FOX 0.60 84 iPc 11 39.18 0.1
eS 11 47.77
ARC 0.68 52 ePc 11 39.64 -0.8
eS 11 48.69
FHC 0.70 60 iPc 11 40.43 -0.3
eS 11 49.33
WDC 1.71 85 eP 11 53.69 -3.0
LBFM 2.36 67 eP 12 04.95 -1.3
MIN 2.43 92 eP 12 04.57 -2.5
ORV 2.68 109 (P) 12 05.00 -5.5
ARN 4.01 140 eP 12 26.02 -3.3
VGB 5.85 29 eP 12 57.79 2.4
MSU 9.94 97 eP 13 50.67 -2.0
11 obs. associated

? MAR 24, 1993 06h 38m 17.82± 2.04s
14.488 N ±23.9km 94.693 W ±12.9km
DEPTH = 36.8 ± 19.0 km
3.8mb (1 obs.)
OFF COAST OF CHIAPAS, MEXICO (68)

TPX 2.39 80 iP 38 54.50 -0.9
(S) 39 22.00
SCX 2.99 41 iP 39 04.50 0.6
iS 39 33.00
OXX 3.24 323 eP 39 07.00 -0.6
iS 39 41.00
BVA 3.93 87 eP 39 17.69 0.1
IXG 4.12 94 eP 39 20.72 0.5
eS 40 04.71
YUP 4.75 93 eP 39 29.12 0.0
MRL 4.87 83 eP 39 30.82 0.0
IISM 5.16 330 eP 39 34.00 -0.7
PPM 5.91 321 eP 39 47.00 1.2
(S) 40 40.00
YKA 49.98 348 eP 47 10.10 -0.1
0.5s 0.50nm 3.8mb
S.D. = 0.8 on 10 of 10 obs.

% MAR 24, 1993 07h 13m 51.21± 0.86s
44.539 N ± 6.1km 7.458 E ± 7.1km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

PZZ 0.26 263 P 13 56.78 0.3
S 14 00.71
STV 0.31 198 P 13 57.42 -0.1
S 14 01.90
ENR 0.31 185 P 13 57.51 0.0
S 14 02.27
BHB 0.33 335 P 13 57.69 -0.2
S 14 02.41
ROB 0.38 129 P 13 59.53 0.6
S 14 05.15
IMI 0.70 154 P 14 04.65 -0.6
S 14 13.76
S.D. = 0.5 on 6 of 6 obs.

? MAR 24, 1993 07h 23m 20.04± 4.01s
37.106 S ±22.4km 177.371 E ±17.2km
DEPTH = 225.0 ± 32.1 km
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 0.89 124 P 23 51.90 -0.1
URZ 1.17 190 Pc 23 52.50 -1.2
S 24 11.10
PUZ 1.19 144 P 23 53.80 -0.2
eS 24 13.20
KUZ 1.37 285 P 23 55.40 0.2
NOZ 1.60 161 P 23 57.40 0.3
WLZ 1.60 241 P 23 57.50 0.3
MOH 2.03 185 eP 24 01.50 0.4
WAHZ 2.71 197 eP 24 09.00 0.8
TEHZ 2.91 189 eP 24 11.20 0.8
PGZ 3.61 193 eP 24 18.60 0.1
MNG 3.80 202 eP 24 20.40 -0.5
eS 25 01.80
KIW 4.21 206 eP 24 25.30 -0.5
CAW 4.38 203 eP 24 27.20 -0.7
KHZ 6.07 208 eP 24 49.40 0.3
WB2 41.10 282 eP 31 16.50 33.0X
0.5s 1.30nm
S.D. = 0.7 on 14 of 15 obs.

• MAR 24, 1993 07h 28m 52.29± 1.56s
38.527 S ± 6.5km 178.297 E ±12.9km
DEPTH = 117.7 ± 13.0 km
OFF E. COAST OF N. ISLAND, N.Z. (160)

NOZ 0.22 246 Pc 29 07.70 -1.0
PUZ 0.45 356 P 29 09.50 -0.5
S 29 18.10
MAHZ 0.74 206 eP 29 12.90 0.9
HBZ 0.93 0 P 29 14.70 1.1
URZ 0.97 286 P 29 12.70 -1.4
S 29 23.30
PAHZ 1.03 251 Pc 29 14.10 -0.6
MOH 1.08 236 P 29 15.30 0.0
WHH 1.45 255 eP 29 19.40 -0.1
TTH 1.53 228 P 29 21.60 1.3
TEHZ 1.86 218 P 29 25.10 0.7
WAHZ 1.91 232 P 29 25.20 0.2
NGZ 2.20 252 P 29 29.30 0.4
CNZ 2.25 252 P 29 30.00 0.6
PGZ 2.61 216 P 29 34.60 0.6
KUZ 2.71 310 P 29 35.00 -0.3
MOZ 2.74 269 P 29 36.90 1.2
eS 30 05.70
MNG 3.02 225 P 29 39.20 -0.2
S 30 12.50
MTW 3.40 218 P 29 44.20 -0.3
KIW 3.50 227 eP 29 45.50 -0.4
BLW 3.57 217 eP 29 46.90 0.0
CAW 3.58 223 P 29 46.50 -0.5
MOW 3.72 218 eP 29 48.00 -0.9
MRW 3.86 225 eP 29 49.90 -0.9
eS 30 32.10
TCW 4.10 228 eP 29 54.00 0.0
eS 30 38.20
S.D. = 0.8 on 24 of 24 obs.

? MAR 24, 1993 07h 38m 43.99± 1.60s
31.264 S ±33.8km 68.795 W ±17.7km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.22 181 iPd 38 58.60 -0.2
S 39 09.00
RTLL 0.29 103 iPc 38 58.70 -0.1
S 39 09.20
ZON 0.30 160 iPd 38 59.10 0.3
eS 39 10.10
CFA 0.59 126 iPc 39 01.00 0.3
S 39 13.80
RTCV 0.63 160 ePc 39 01.00 -0.1
S 39 14.00
MRA 2.86 114 ePc 39 28.50 -0.1
S.D. = 0.3 on 6 of 6 obs.

MAR 24, 1993 08h 06m 35.37± 0.79s
39.912 N ± 8.1km 21.520 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)

LIT 0.77 75 ePg 06 50.28 -0.1
eSg 07 03.60
FNA 0.88 353 ePg 06 51.08 -1.2
eSg 07 04.50
AGG 1.09 145 ePg 06 55.00 -0.8
eSg 07 11.32
SRN 1.17 269 ePg 06 58.50 1.3
iSg 07 13.10
TPE 1.22 289 ePg 06 56.50 -1.6
GRG 1.24 33 ePb 06 58.32 -0.1
eSb 07 18.32
KNT 1.63 40 ePb 07 04.32 0.1
VLO 1.65 290 ePn 07 08.10 3.7X
PAIG 1.66 89 ePb 07 05.60 1.0
TIR 1.91 319 ePn 07 12.00 3.8X
PHP 1.95 336 ePn 07 10.30 1.4
SDA 2.63 325 ePn 07 22.50 4.0X
S.D. = 1.2 on 9 of 12 obs.

% MAR 24, 1993 08h 13m 55.24± 3.52s
44.109 N ±14.6km 6.872 E ±19.9km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 1.8 (GEN).

STV 0.35 67 P 14 02.45 0.1
S 14 07.17
ENR 0.41 73 P 14 03.51 0.0
S 14 09.04
PZZ 0.43 22 P 14 04.05 0.2
S 14 10.42
ROB 0.74 75 P 14 09.94 -0.1
S 14 18.97
IMI 0.76 105 P 14 10.51 0.0
S 14 20.03
BHB 0.78 21 P 14 10.69 -0.3
S 14 20.21
S.D. = 0.2 on 6 of 6 obs.

• MAR 24, 1993 08h 55m 37.41± 0.54s
2.659 S ± 7.9km 140.307 E ±11.2km
DEPTH = 33.0km (normal)
4.8mb (6 obs.)
NEAR NORTH COAST OF IRIAN JAYA (197)

PMG 9.56 135 eP 57 54.00 -1.8
MTN 13.60 221 eP 58 49.40 -1.0
0.4s 75.00nm 5.9mb X
eS 01 18.00
WB2 18.14 198 eP 59 48.30 -0.3
0.6s 103.40nm 5.2mb
eS 03 02.40
CTA 18.27 162 eP 59 43.00 -7.2X
ASPA 21.78 196 iPd 00 29.00 0.5
Z 22s 0.30um 3.7MszX
eS 04 26.00
RMQ 25.04 162 eP 01 03.00 2.7X
WARB 26.82 208 eP 01 17.00 0.2
0.4s 9.00nm 4.7mb
MBL 27.12 226 eP 01 21.00 1.5
BRS 27.33 155 iPd 01 25.20 3.7X

0.7s 15.00nm 4.8mb
i 01 33.00
STK 29.09 178 iPd 01 36.60 -0.6
0.6s 2.20nm 4.0mb
ADE 32.18 182 e(P) 02 04.80 0.3
BWA 32.50 167 eP 02 08.20 0.9
CAN 33.48 167 eP 02 16.30 0.4
MRWA 35.10 219 eP 02 30.00 0.2
0.6s 6.00nm 4.7mb
LZH 51.41 322 eP 04 43.00 1.3
1.5s 19.00nm 4.8mb
GUN 60.47 304 P 05 46.00 -1.2
PKI 60.74 304 P 05 49.40 0.4
KKN 60.93 304 P 05 51.40 1.3
DMN 61.01 304 P 05 49.40 -1.3
GKN 61.54 304 P 05 52.40 -1.8
GBA 64.40 286 P 06 13.00 0.0
KIC 144.97 277 PKP 15 12.60 -1.4
TIC 145.22 278 PKP 15 13.60 -0.9
LIC 145.27 277 PKP 15 13.80 -0.7
CNCB 146.02 126 PKP 15 17.90 1.5
LPB 146.08 125 PKP 15 18.00 1.7
ZOBO 146.18 125 PKP 15 17.60 0.9
1.2s 15.20nm
SIV 151.89 132 ePKP 15 42.00 17.2X
S.D. = 1.1 on 24 of 28 obs.

% MAR 24, 1993 09h 08m 38.65± 0.69s
37.120 N ± 6.4km 3.701 W ± 6.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.8 (MDD).

ECOG 0.19 34 iPgc 08 42.00 -0.9
EGUA 0.31 159 ePg 08 44.00 -1.0
eSg 08 47.80
ELUQ 0.63 314 ePg 08 50.50 -0.8
eSg 09 00.20
EBAN 1.04 356 ePg 08 58.60 0.2
eSg 09 13.00
ENIJ 1.20 97 ePg 09 02.40 1.3
eSg 09 18.00
EPRU 1.23 263 ePn 09 02.20 0.6
EHOR 1.42 300 ePn 09 05.00 0.6
eSn 09 23.00
EVIA 1.79 32 ePn 09 10.00 0.1
eSn 09 33.80
S.D. = 1.0 on 8 of 8 obs.

• MAR 24, 1993 09h 36m 20.62± 1.01s
31.554 S ±16.1km 67.215 W ±11.5km
DEPTH = 162.3 ± 11.0 km
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.88 266 ePc 36 45.20 -0.7
S 37 01.00
RTLL 1.10 281 iPc 36 47.80 0.1
S 37 05.00
ZON 1.25 270 eP 37 07.40 18.3X
eS 38 32.40
RTCB 1.36 272 iPd 36 50.70 0.6
S 37 10.00
MRA 1.54 124 iPd 36 51.90 0.1
S 37 12.00
CYA 3.34 22 ePc 37 13.30 0.0
(S) 37 52.00
FSA 5.55 11 e(P) 37 11.00 -31.3X
VAO 19.89 70 (P) 40 51.00 9.6X
UYO 70.23 336 iPc 47 17.60 -0.1
MEO 72.29 333 iPd 47 35.00 5.0X
S.D. = 0.7 on 6 of 10 obs.

% MAR 24, 1993 09h 37m 16.22± 0.91s
47.275 N ±13.5km 11.266 E ± 6.8km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.1 (VIE).

SQTA 0.07 216 iPgc 37 18.30 -0.4
iSg 37 20.00
MOTA 0.13 302 iPgd 37 19.60 0.1
iSg 37 22.30
WATA 0.22 74 iPgd 37 20.50 -0.6
iSg 37 23.90
WTTA 0.25 92 iPgc 37 21.10 -0.6
iSg 37 25.10
KBA 1.43 97 iPgc 37 43.70 1.3

iSg 38 03.40
S.D. = 1.1 on 5 of 5 obs.

% MAR 24, 1993 09h 59m 39.85± 1.27s
33.693 S ± 5.0km 71.574 W ± 9.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.7 (SAN).

LCCH 0.22 1 iPd 59 44.80 0.2
iS 59 50.96
LNV 0.29 153 iPd 59 45.81 -0.2
iS 59 52.86
TACH 0.53 86 iPd 59 50.92 0.3
(S) 00 02.00
CHCH 0.80 108 eP 59 55.05 -0.4
(S) 00 12.28
ROCH 0.86 33 iP 59 56.15 -0.4
iS 00 11.54
PCH 0.89 86 iP+ 59 56.93 0.0
(S) 00 11.58
CACH 0.91 118 iP 59 58.03 0.6
iS 00 15.23
PEL 0.92 54 iPd 59 57.71 0.2
iS 00 15.01
FCH 1.13 72 iP 00 00.98 -0.3
(S) 00 19.84
JACH 1.30 39 iP 00 04.06 0.0
iS 00 24.75
S.D. = 0.4 on 10 of 10 obs.

• MAR 24, 1993 10h 01m 39.52± 1.78s
32.612 S ±24.6km 67.073 W ± 9.8km
DEPTH = 110.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)

MRA 1.17 81 ePc 02 03.00 0.2
S 02 18.20
CFA 1.41 315 e(P) 02 05.60 0.0
S 02 27.00
RTCV 1.45 301 eP 02 04.70 -1.4
ZON 1.73 308 iPc 02 09.50 -0.1
eS 02 33.50
RTLL 1.74 317 eP 02 10.70 0.9
S 02 34.00
RTCB 1.85 307 ePd 02 12.00 0.9
S 02 36.20
CYA 4.30 15 eP 02 43.50 -0.4
S 04 00.70
S.D. = 1.0 on 7 of 7 obs.

? MAR 24, 1993 10h 52m 24.51± 1.10s
19.731 N ±20.5km 77.586 W ±52.0km
DEPTH = 33.0km (normal)
3.5mb (1 obs.)
CUBA REGION (85)
MD 3.5 (HOJ).

BBJ 1.37 167 iPd 52 47.53 -0.1
S 53 03.66
STH 1.80 156 iPd 52 53.79 0.0
S 53 15.77
GWJ 1.83 154 iPd 52 54.34 0.0
S 53 17.84
PCJ 2.02 169 iPd 52 56.99 0.1
S 53 19.46
YKA 49.73 339 eP 01 15.30 0.0
0.8s 0.40nm 3.5mb
S.D. = 0.1 on 5 of 5 obs.

MAR 24, 1993 11h 18m 17.73± 0.54s
16.440 N ± 6.6km 98.651 W ± 6.1km
DEPTH = 33.0km (normal)
4.6mb (16 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 1.23 290 iP 18 33.75 -5.0X
iS 18 53.00
OXX 1.95 71 iP 18 50.50 1.1
iS 19 23.50
III 2.08 338 iP 18 51.50 0.4
iS 19 23.00
PPM 2.61 1 iP 19 00.50 1.5
(S) 19 40.50
IIA 2.69 360 eP 19 01.50 1.8
(S) 19 39.50
IISM 2.81 25 iP 19 02.75 1.5

UNM 2.92 350 (P) 19 03.00 -0.2
(S) 19 47.00
CRX 3.11 342 eP 19 06.50 0.6
MRX 4.05 324 eP 19 16.50 -2.4
(S) 20 08.00
CGX 5.61 306 eP 19 41.50 0.3
SCX 5.78 86 (P) 19 51.00 7.6X
TPX 6.34 103 (P) 19 59.00 7.6X
AGX 6.42 328 (P) 19 56.50 4.1X
UYO 18.05 11 iPd 22 26.50 -1.2
WMOK 18.22 360 ePd 22 27.91 -1.9
0.6s 5.07nm 3.8mb
MEO 18.27 0 iPc 22 30.70 0.3
MIAR 18.60 13 eP 22 32.04 -2.3X
0.9s 15.98nm 4.2mb
FNO 18.77 3 iPc 22 36.20 -0.4
OCO 19.04 3 iPd 22 39.80 0.1
TUC 19.25 327 eP 22 41.95 -0.5
0.8s 10.26nm 4.1mb
ALQ 19.71 341 ePc 22 47.12 -0.5
0.8s 15.24nm 4.4mb
OLY 20.04 17 eP 22 49.74 -1.1
ACO 20.18 359 iPc 22 51.20 -1.2
GLA 22.07 321 eP 23 11.77 0.1
ELC 22.37 20 eP 23 13.53 -1.0
FVM 22.65 17 eP 23 17.06 -0.2
0.9s 48.67nm 5.0mb
PLM 23.53 319 eP 23 27.15 1.1
GOL 23.90 347 eP 23 30.25 0.5
0.8s 26.02nm 4.8mb
PEC 24.07 320 eP 23 31.58 0.5
1.4s 40.02nm 4.8mb
GSC 24.81 323 eP 23 39.05 0.6
SRU 24.86 338 ePc 23 38.81 -0.1
ARUT 24.94 331 ePc 23 40.64 0.9
MSU 24.99 334 eP 23 40.51 0.3
TPNV 25.69 326 eP 23 47.82 1.1
CEH 26.05 38 eP 23 49.74 -0.1
1.1s 29.38nm 4.8mb
ISA 26.05 321 eP 23 51.70 1.7
0.9s 14.03nm 4.6mb
DAU 26.27 338 eP 23 52.39 0.1
DUG 26.68 335 eP 23 54.56 -1.2
1.1s 10.84nm 4.4mb
BCH 26.74 318 eP 23 57.03 0.6
BW06 27.86 343 ePc 24 05.83 -0.8
1.0s 27.50nm 4.9mb
RSSD 27.97 352 eP 24 07.53 0.0
0.8s 3.26nm 4.1mb
HVU 28.03 337 eP 24 07.78 -0.3
KVN 28.23 327 eP 24 10.12 0.2
LCCM 31.33 342 eP 24 37.90 0.4
LBFM 31.90 326 eP 24 41.83 -0.7
ULM 33.80 3 eP 25 00.50 1.8
EEO 34.23 24 eP 25 05.50 3.0X
RSNY 34.63 31 eP 25 05.26 -0.7
NEW 35.17 338 eP 25 10.01 -0.6
0.9s 7.59nm 4.6mb
DPW 35.23 337 eP 25 10.87 -0.3
SES 35.31 346 eP 25 12.00 0.2
JAQ 41.35 20 eP 26 01.50 -0.5
FCC 42.39 4 eP 26 13.50 3.1X
ZOBO 44.31 136 P 26 28.00 0.7
LPB 44.51 136 eP 26 30.00 1.3
CNCB 44.79 136 P 26 29.00 -2.1
YKA 47.35 350 eP 26 48.30 -1.8
1.0s 6.60nm 4.6mb
SIV 49.12 129 eP 27 14.00 9.5X
RES 58.29 1 eP 28 11.00 -0.2
ADK 69.88 320 eP 29 24.40 -2.9X
0.9s 15.63nm 5.1mb
OBN 99.30 24 eP 31 54.00 -3.7X
1.0s 18.00nm 5.6mb
i 32 09.00
i 32 59.00
i 33 12.00
GBA 149.90 8 PKP 38 05.00 3.0X
S.D. = 1.0 on 51 of 62 obs.

• MAR 24, 1993 11h 35m 54.82± 0.62s
31.766 S ±13.0km 177.441 W ±11.7km
DEPTH = 52.8km (2 depth phases)
4.8mb (9 obs.)
KERMADEC ISLANDS REGION (177)

RAO 2.54 351 eP 36 33.00 -1.4
S 37 07.10

24d 11h

URZ 7.87 213 eP 37 37.30 -11.9X
eS 39 02.70
MNG 10.52 211 eP 38 10.30 -15.3X
eS 40 02.70
KHZ 12.83 212 eP 38 43.20 -13.3X
eS 40 54.10
DZM 17.29 300 iPc 39 57.90 3.7X
BRS 26.22 272 iPc 41 28.00 1.3
1.5s 5.00nm 3.8mb
i 41 41.50 55km
ARMA 26.48 265 iPd 41 30.80 1.7
0.8s 9.00nm 4.4mb
RMQ 29.92 271 iPc 42 00.50 0.5
0.5s 16.00nm 5.0mb
TOO 30.89 249 eP 42 07.10 -1.4
CMS 31.18 261 iPc 42 10.10 -1.0
1.0s 21.00nm 4.8mb
BFD 33.25 249 eP 42 25.50 -3.6X
CTA 34.51 281 iP 42 39.00 -1.1
1.0s 32.50nm 5.2mb
i 42 52.10 51km
STK 34.66 259 iPc 42 40.40 -0.9
0.8s 5.00nm 4.5mb
NVL 77.54 183 eP 47 45.00 -1.0
e 48 10.00 96kmX
MAT 79.63 325 eP 47 58.00 0.0
1.0s 18.00nm 5.0mb
BJI 94.23 315 eP 49 11.00 1.9
1.0s 11.00nm 5.2mb
ZOBO 97.15 114 P 49 24.00 0.1
Z 24s 0.10um 4.2MszX
LR 21 10.00
YKA 106.47 26 ePdiff50 03.00 -0.7
0.6s 0.40nm 4.7mb
YKA 106.47 26 ePKP 54 14.10 -0.4
1.0s 0.50nm
RES 118.40 17 ePKP 54 38.00 1.1
LMN 127.14 54 ePKP 54 58.50 3.9X
pP 55 11.50
KAF 145.99 340 iPKP 55 29.50 0.9
0.6s 9.20nm
OBN 146.55 324 ePKP 55 31.00 1.3
1.0s 35.00nm
i 55 34.00
i 55 45.00
e 56 00.00
e 56 11.00
e 04 24.00
e 06 02.00
NUR 147.76 340 iPKP 55 35.00 3.5X
0.8s 37.90nm
BCAO 148.95 212 iPKPc 55 34.00 -0.9
0.5s 15.00nm
i 55 38.00
i 55 50.80
NB2 150.17 352 PKP 55 40.90 5.6X
0.9s 12.20nm
HRI 152.04 282 ePKP 55 47.00 7.9X
JVI 152.20 279 ePKP 55 47.70 8.4X
SAGI 152.49 275 ePKP 55 47.40 7.7X
LIC 153.62 163 PKP 55 49.38 7.7X
KIC 153.82 163 PKP 55 49.96 8.0X
TIC 154.02 163 PKP 55 50.36 8.1X
S.D. = 1.2 on 18 of 32 obs.

& MAR 24, 1993 12h 00m 31.87s
60.410 N 153.210 W
DEPTH = 133.3km
SOUTHERN ALASKA (2)
<AEIC>.

NCT 0.21 42 iP 00 49.72 0.8
eS 01 04.31
RDW 0.21 70 eP 00 49.72 0.7
RS1 0.23 77 iP 00 49.80 0.7
RS2 0.23 76 eP 00 49.74 0.7
RSO 0.23 77 eP 00 49.54 0.5
RDN 0.24 65 eP 00 49.70 0.7
DFR 0.32 55 eP 00 49.77 0.6
INW 0.35 174 iP 00 50.13 0.8
eS 01 04.93
ILIM 0.35 159 iP 00 50.09 0.8
eS 01 05.23
INE 0.36 168 eP 00 50.15 0.7
eS 01 05.40
OPT 0.76 181 eP 00 52.63 -0.7
PDB 0.79 219 iP 00 52.65 -0.9
eS 01 09.16
CKL 0.90 28 eP 00 53.74 -0.8
CKT 0.93 31 eP 00 53.81 -1.0
BGL 0.95 25 eP 00 54.35 -0.6
CKN 0.96 31 eP 00 54.60 -0.4
CP2 0.98 29 eP 00 54.88 -0.5
CPAM 1.00 31 eP 00 54.64 -0.8
CRP 1.00 31 eP 00 54.73 -0.9
NKA 1.03 70 eP 00 55.97 0.4
AUL 1.04 186 eP 00 55.13 -0.6
AUW 1.05 187 iP 00 55.10 -0.7
AUH 1.06 186 eP 00 55.29 -0.7
AUE 1.06 185 iP 00 55.03 -0.8
CNPM 1.33 131 eP 00 57.07 -1.6
eS 01 17.19
BRLK 1.33 118 eP 00 58.04 -0.7
eS 01 16.63
MCNL 1.35 205 iP 00 57.76 -1.2
eS 01 18.61
SVW 1.38 302 eP 00 57.40 -1.8
SLKM 1.48 85 eP 00 58.86 -1.5
eS 01 18.58
CDD 1.50 189 iP 00 59.08 -1.5
SUA 1.60 48 eP 01 00.63 -1.2
eS 01 23.37
SYI 1.85 167 eP 01 02.79 -1.8
eS 01 27.53
SEW 1.90 98 eP 01 02.87 -2.3
GHO 2.49 55 eP 01 09.44 -3.2
eS 01 39.42
KDC 2.70 172 (P) 01 25.76 10.6
YKA 18.38 67 eP 04 34.10 -4.6
0.4s 1.20nm 3.6mb X
36 obs. associated

% MAR 24, 1993 12h 07m 48.84± 0.77s
26.410 S ± 6.0km 27.387 E ± 8.3km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.3 (PRE).

PRY 0.52 172 eP 07 59.00 -0.3
S 08 04.80
KSR 0.70 321 eP 08 02.90 0.1
S 08 11.50
SLR 1.05 50 eP 08 09.10 -0.1
S 08 21.60
SEK 1.92 174 eP 08 23.10 0.5
S 08 46.50
SWZ 2.00 247 eP 08 23.60 -0.2
S 08 48.60
S.D. = 0.4 on 5 of 5 obs.

% MAR 24, 1993 13h 19m 18.39± 2.40s
41.484 N ±19.5km 22.342 E ± 7.9km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)

KNT 0.53 127 ePg 19 28.64 -0.4
eSg 19 37.72
GRG 0.53 175 ePg 19 29.36 0.3
FNA 1.01 227 ePg 19 37.40 -0.2
eSg 19 52.90
SOH 1.01 131 ePg 19 37.36 -0.2
eSg 19 52.84
SRS 1.01 111 ePg 19 37.76 0.2
eSg 19 50.52
OUR 1.69 132 ePb 19 48.44 0.3
S.D. = 0.4 on 6 of 6 obs.

? MAR 24, 1993 13h 40m 44.52± 4.11s
35.126 N ±29.4km 28.718 E ±28.3km
DEPTH = 33.0km (normal)
EASTERN MEDITERRANEAN SEA (371)
ML 3.7 (CSS).

ELL 1.89 30 iPn 41 15.20 0.1
YER 2.04 350 iPn 41 17.20 0.0
BCK 2.78 32 ePn 41 27.60 -0.1
KHL 3.26 11 ePn 41 31.00 -3.5X
CSS 3.79 91 eP 41 42.00 0.0
eS 42 27.00
S.D. = 0.1 on 4 of 5 obs.

MAR 24, 1993 14h 01m 08.80± 0.84s
42.462 N ± 8.1km 24.206 E ± 9.5km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS 1.42 199 ePb 01 35.32 0.7
iSb 01 57.28
KNT 1.63 217 ePb 01 36.96 -0.6
eSb 02 00.80
SOH 1.76 202 ePn 01 39.48 -0.1
ALN 2.08 138 ePn 01 44.28 0.1
eSn 02 16.40
OUR 2.13 185 iPn 01 44.96 0.1
DMK 2.72 102 eP 01 53.00 -0.3
MLR 3.28 22 eP 02 01.50 0.2
BZS 3.66 330 ePc 02 04.00 -2.7X
S.D. = 0.5 on 7 of 8 obs.

---

* MAR 24, 1993 14h 24m 08.14± 1.17s
20.024 N ±30.5km 93.308 E ±22.0km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
MYANMAR (296)

CHTO 5.45 102 eP 25 29.30 0.0
GUN 10.38 321 P 26 38.00 -0.1
PKI 10.42 318 P 26 38.60 -0.2
DMN 10.64 317 P 26 42.20 0.5
KKN 10.66 318 P 26 43.60 1.7X
GKN 11.22 317 P 26 49.20 -0.2
WB2 56.51 132 eP 33 49.80 0.0
0.7s 2.10nm 4.3mb
S.D. = 0.3 on 6 of 7 obs.

---

* MAR 24, 1993 14h 44m 51.80± 1.30s
37.894 N ±11.1km 21.202 E ± 9.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.4 (ATH).

VLS 0.56 300 ePg 45 01.50 -1.7
AGG 1.43 38 ePb 45 18.24 0.4
eSb 45 41.40
IGT 1.77 338 ePn 45 23.80 1.1
eSn 45 54.20
VLI 1.81 130 ePg 45 24.00 0.7
KEK 2.12 329 ePg 45 32.00 4.3X
SRN 2.19 335 ePn 45 34.00 5.2X
LIT 2.42 24 ePn 45 34.32 2.3
iSn 46 08.60
KZN 2.45 10 ePn 45 34.00 1.5
TPE 2.57 339 ePn 45 35.20 1.1
PAIG 2.80 43 ePn 45 36.36 -1.1
eSn 46 14.40
FNA 2.89 3 ePn 45 38.84 0.1
VLO 2.89 333 ePn 45 51.30 12.6X
OUR 3.26 41 ePn 45 42.28 -1.6
SOH 3.37 29 ePn 45 45.24 -0.3
KNT 3.52 21 ePn 45 47.00 -0.6
eSn 46 33.90
TIR 3.60 344 ePn 45 59.70 10.9X
SRS 3.71 29 ePn 45 49.44 -1.0
PHP 3.83 351 ePn 46 04.50 12.4X
RZN 4.66 34 iPg 47 02.00 58.0X
VTS 4.94 17 iP 46 07.00 -0.9
S.D. = 1.3 on 14 of 20 obs.

% MAR 24, 1993 14h 59m 05.45± 0.77s
16.514 N ± 6.3km 61.543 W ± 6.6km
DEPTH = 19.2 ± 14.7 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

SEG 0.12 162 iPc 59 09.47 0.0
SFG 0.42 128 iPc 59 14.32 0.2
DOG 0.48 188 iPd 59 15.15 -0.1
PAG 0.50 195 ePc 59 15.28 -0.2
S 59 21.90
DEG 0.51 113 iPc 59 15.27 -0.3
BPA 0.61 330 ePc 59 17.31 0.0
MGG 0.63 160 ePd 59 17.92 0.3
MGH 0.68 288 ePd 59 18.49 0.0
S.D. = 0.2 on 8 of 8 obs.

MAR 24, 1993 15h 14m 16.77± 0.55s
40.491 S ± 4.1km 175.906 E ± 5.3km
DEPTH = 111.7 ± 8.0 km
NORTH ISLAND, NEW ZEALAND (159)

PGZ 0.31 115 Pc 14 31.60 -1.0

MNG 0.35 248 P 14 29.40 -3.8X
S 14 35.40
MTW 0.73 205 P 14 35.80 0.0
KIW 0.84 243 P 14 36.50 -0.3
TEHZ 0.86 54 P 14 36.80 -0.2
WAHZ 0.86 24 P 14 36.00 -1.1
CAW 0.89 226 Pd 14 37.50 0.3
BLW 0.94 200 P 14 38.60 0.9
BSZ 1.02 312 Pc 14 37.30 -1.2
WEL 1.17 227 P 14 41.00 0.8
MRW 1.17 230 Pd 14 40.90 0.7
S 14 54.20
TTH 1.18 37 P 14 40.70 0.4
DRZ 1.24 348 P 14 40.70 -0.7
CNZ 1.32 348 P 14 41.70 -0.3
NGZ 1.33 350 Pc 14 42.00 -0.2
DIW 1.54 258 P 14 44.70 0.1
MOH 1.66 36 eP 14 47.40 1.4
WHH 1.67 16 eP 14 46.50 0.3
PAHZ 1.86 29 eP 14 48.90 0.4
NRZ 1.91 307 eP 14 50.20 1.1
MOZ 2.16 336 eP 14 52.80 0.4
TAZ 2.30 12 eP 14 54.60 0.4
URZ 2.42 23 P 14 55.30 -0.4
NOZ 2.49 42 eP 14 56.50 -0.2
QRZ 2.59 261 P 14 57.40 -0.7
THZ 2.60 240 P 14 59.00 0.8
KHZ 2.62 222 P 14 59.10 0.7
DSZ 3.34 247 eP 15 08.10 -0.1
HBZ 3.44 34 eP 15 09.40 0.0
LTZ 3.56 229 P 15 11.60 0.5
MQZ 4.02 216 eP 15 16.80 -0.6
S 16 00.50
ODZ 5.97 219 eP 15 42.70 -1.4
BWZ 6.01 226 eP 15 43.90 -0.7
WB2 40.87 287 iPc 21 56.70 7.5X
0.3s 9.30nm 5.0mb X
S.D. = 0.7 on 32 of 34 obs.

? MAR 24, 1993 15h 33m 49.81± 5.29s
60.563 N ±12.4km 4.286 E ±37.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.7 (BER).

ASK 0.46 100 iP 33 58.89 -0.2
eS 34 01.14
BER 0.55 109 eP 34 00.83 -0.1
eS 34 05.03
EGD 0.55 122 eP 34 01.65 0.7
eS 34 06.70
HYA 1.11 56 eP 34 11.05 0.5
eS 34 26.00
ODD1 1.34 118 eP 34 14.30 -0.2
eS 34 29.79
NRA0 3.58 84 ePn 34 45.62 -0.8
ePg 34 53.78
eLg 35 44.14
S.D. = 0.7 on 6 of 6 obs.

% MAR 24, 1993 16h 05m 50.66± 2.38s
40.304 N ±14.0km 21.536 E ±16.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.50 346 ePg 06 00.72 0.0
eSg 06 08.20
LIT 0.76 105 ePg 06 05.60 0.1
eSg 06 14.88
GRG 0.93 45 ePg 06 08.60 0.2
eSg 06 20.40
KNT 1.34 50 ePb 06 15.20 -0.2
eSb 06 32.88
PAIG 1.69 102 ePb 06 20.20 -0.1
S.D. = 0.2 on 5 of 5 obs.

% MAR 24, 1993 16h 53m 33.69± 0.85s
40.742 N ± 7.2km 23.448 E ± 7.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH 0.11 318 ePg 53 37.06 0.5
THE 0.38 253 ePg 53 41.50 0.0
eSg 53 46.50
SRS 0.39 16 ePg 53 41.62 -0.1
eSg 53 47.10
OUR 0.58 135 ePg 53 45.34 0.0
eSg 53 53.50
KNT 0.59 315 ePg 53 45.26 -0.4
eSg 53 53.18
S.D. = 0.5 on 5 of 5 obs.

? MAR 24, 1993 17h 06m 10.25± 4.29s
58.970 N ±37.2km 5.960 E ±10.7km
DEPTH = 5.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.7 (BER).

KMY 0.44 304 eP 06 18.19 -0.9
eS 06 23.20
ODD1 1.01 20 eP 06 28.56 -1.2
eS 06 42.67
EGD 1.36 344 eP 06 36.45 0.7
eS 06 52.75
ASK 1.57 346 eP 06 40.15 1.4
eS 06 58.81
NRA0 3.33 55 ePn 07 03.95 0.0
ePg 07 12.40
eSn 07 41.90
eLg 07 58.43
S.D. = 1.5 on 5 of 5 obs.

? MAR 24, 1993 17h 09m 31.58± 1.51s
33.997 N ±18.8km 139.179 E ±19.3km
DEPTH = 33.0km (normal)
4.1mb (4 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT 2.66 343 iPd 10 12.50 -0.6
eS 10 46.00
BJI 19.31 295 eP 13 56.00 -0.7
Z 20s 0.30um
eS 17 32.00
YAK 28.68 351 eP 15 29.00 1.8
1.8s 30.00nm 4.7mb
GUN 45.69 277 P 17 52.80 1.2
PKI 46.20 277 P 17 54.60 -1.1
KKN 46.23 278 P 17 56.20 0.5
DMN 46.44 277 P 17 54.20 -3.2X
GKN 46.68 278 P 17 59.00 -0.2
YKA 67.34 29 eP 20 24.20 -0.9
0.9s 1.30nm 4.0mb
NB2 76.26 337 P 21 17.70 -0.6
0.7s 2.10nm 4.3mb
GEC2 84.30 327 P 22 02.00 0.6
0.8s 0.83nm 3.9mb
e 22 11.20
ZOBO 149.78 61 ePKP 29 28.00 12.0X
LPB 149.96 61 ePKP 29 24.00 8.0X
CNCB 150.23 62 ePKP 29 24.00 7.4X
S.D. = 1.1 on 10 of 14 obs.

---

* MAR 24, 1993 18h 37m 10.77± 0.80s
19.752 N ±10.9km 38.618 E ±10.7km
DEPTH = 10.0km (geophysicist)
4.5mb (10 obs.)
RED SEA (554)

MAIO 24.64 44 eP 42 34.00 1.2
BCAO 24.80 235 iPc 42 36.00 1.6
1.2s 14.00nm 4.5mb
GEC2 35.26 331 P 44 07.70 0.0
1.4s 6.60nm 4.3mb
OBN 35.32 358 eP 44 09.00 1.1
BRG 36.66 334 e(P) 44 19.80 0.5
CLL 37.38 333 e(P) 44 23.00 -2.3
BSF 38.05 325 eP 44 31.50 0.3
LBF 39.16 322 eP 44 40.20 -0.2
1.0s 8.40nm 4.4mb
CAF 39.29 318 eP 44 42.20 0.7
LOR 39.38 322 eP 44 42.10 -0.1
SSF 39.47 322 eP 44 42.70 -0.2
BGF 39.60 321 eP 44 44.40 0.4
1.1s 19.55nm 4.7mb
MAF 39.60 320 eP 44 44.40 0.3
0.8s 4.45nm 4.2mb
LPO 39.74 317 eP 44 46.00 0.8
LFF 40.14 317 eP 44 49.30 0.9
0.9s 14.10nm 4.6mb
LSF 40.25 320 eP 44 50.00 0.6
LDF 42.36 322 eP 44 50.00 -16.6X
LPF 42.63 321 eP 45 08.20 -0.6
0.9s 15.40nm 4.7mb
FLN 42.65 322 eP 45 08.30 -0.7
0.8s 11.95nm 4.7mb
GRR 42.69 321 eP 45 08.70 -0.6
KIC 44.14 258 P 45 21.00 -0.6
TIC 44.29 259 P 45 22.30 -0.5
LIC 44.46 258 P 45 23.50 -0.6
LZH 58.89 59 eP 47 11.50 -1.2
1.2s 23.00nm 5.2mb
sP 47 15.00
TRT 77.74 103 ePc 49 25.50 15.4X
TSM 78.46 90 eP 49 28.00 13.9X
YKA 95.33 348 eP 50 35.50 -0.7
0.9s 0.50nm 4.0mb
S.D. = 0.9 on 24 of 27 obs.

MAR 24, 1993 18h 43m 57.75± 0.13s
20.492 N ± 2.2km 121.458 E ± 2.9km
DEPTH = 33.0km (normal)
5.3mb (104 obs.) 4.5Msz (13 obs.)
PHILIPPINE ISLANDS REGION (248)
Felt (III RF) at Bosco, Batan.

BBP 0.48 96 iPd 44 12.80 4.8X
iS 44 23.00
PIP 2.30 200 ePc 44 35.00 0.9
eS 44 59.80
CVP 2.79 173 ePd 44 44.00 2.9X
eS 45 13.00
SZP 3.07 198 ePd 44 47.00 1.9
BAG 4.14 192 eP 45 00.90 0.4
iS 45 48.50
QZH 5.16 330 Pnd 45 13.50 -1.2
Z 10s 2.54um
Sn 46 08.70
QVP 5.85 184 iPc 45 30.00 5.5X
TGY 6.37 185 eP 45 37.00 5.1X
PGP 6.97 184 ePc 45 41.00 0.8
HKC 7.02 286 iP 45 38.40 -2.6X
MCO 7.54 284 iP 45 45.30 -2.9X
iS 47 04.30
GZH 7.97 290 iPc 45 50.90 -3.3X
Z 20s 2.37um
PLP 9.87 159 ePc 46 23.00 2.5
SSE 10.56 359 Pd 46 28.80 -1.1
1.4s 67.00nm 5.7mb
Z 22s 2.80um 4.7MszX
N 16s 1.50um
E 16s 1.60um
S 48 24.00
QIZ 11.03 264 Pc 46 33.30 -3.1X
0.6s 30.00nm 5.7mb
N 15s 2.17um
E 15s 1.09um
NJ2 11.75 349 Pc 46 44.40 -1.6
Z 20s 1.78um
WHN 11.88 329 eP 46 42.50 -5.3X
Z 16s 1.78um 4.2MszX
N 10s 0.90um
E 10s 0.82um
KAGJ 13.61 37 eP 46 51.40 -19.4X
DAV 13.91 163 eP 47 15.90 1.0
KUMJ 14.62 33 eP 47 32.70 8.6X
GYA 14.81 296 iPd 47 25.20 -1.6
1.2s 170.00nm 5.3mb
Z 24s 1.41um 4.4Msz
N 12s 0.85um
E 12s 0.82um
KKM 15.24 200 ePc 47 36.00 3.7X
SHNJ 16.05 30 P 47 48.20 5.7X
TIA 16.12 347 Pc 47 45.00 1.6
1.2s 740.00nm 5.7mb
Z 20s 2.42um 4.9MszX
TSM 16.47 193 eP 47 46.00 -2.1
TKSJ 17.47 37 P 48 00.60 0.1
XAN 17.48 323 P 48 01.30 0.7
1.5s 61.00nm 4.5mb
Z 15s 0.94um 5.1Msz
pP 48 06.00
PP 48 15.00
KMI 17.86 288 Pd 48 05.50 -0.1
2.0s 310.00nm 5.1mb
Z 18s 2.00um 4.0MszX
N 10s 0.90um
E 11s 0.70um
pP 48 12.00
sP 48 15.00
eS 51 24.00
sS 51 32.00

24d 18h

YONJ 18.06 33 P 48 09.40 1.6
DL2 18.35 0 eP 48 11.00 -0.4
1.0s 140.00nm 5.1mb
Z 16s 0.71um 4.2Msz
N 12s 0.67um
WKYJ 18.53 40 eP 48 16.80 3.1X
TIY 18.87 337 Pd 48 18.00 0.2
1.2s 300.00nm 5.4mb
Z 16s 3.80um 4.4Msz
N 15s 2.43um
sP 48 32.50
LOE 18.91 264 eP 48 18.20 -0.1
CD2 19.00 307 iPd 48 18.90 -0.5
1.0s 210.00nm 5.3mb
Z 14s 2.15um 4.4MszX
E 12s 1.20um
S 51 48.00
TSRJ 19.69 37 eP 48 29.00 1.8
BJI 20.00 348 Pc 48 30.00 -0.4
1.0s 790.00nm 6.0mb
Z 20s 1.56um 4.4Msz
E 14s 0.67um
eS 52 12.00
IIDJ 20.79 41 eP 48 41.10 2.4
NST 20.82 260 eP 48 39.00 -0.1
CHTO 21.27 269 ePd 48 46.90 3.3X
1.2s 163.19nm 5.3mb
eS 52 33.20
SNY 21.35 4 Pc 48 42.00 -2.2
1.0s 51.00nm 4.9mb
Z 14s 1.18um 4.4MszX
E 15s 0.96um
sP 48 57.60
S 52 40.00
MTMJ 21.47 38 eP 48 46.00 0.3
BDT 21.49 265 eP 48 43.00 -2.8X
1.2s 168.50nm 5.3mb
MAT 21.68 39 iPd 48 48.30 0.6
0.7s 41.10nm 5.0mb
eS 52 45.00
CHJJ 21.82 41 eP 48 49.60 0.5
LZH 21.90 319 iPc 48 51.00 1.0
1.2s 66.00nm 4.9mb
Z 16s 0.63um 4.1MszX
E 10s 0.46um
sP 49 05.00
PcP 52 49.00
SS 53 24.50
ScS 00 05.00
HHC 21.97 340 iPc 48 51.00 0.3
1.0s 270.00nm 5.6mb
Z 19s 2.45um 4.6Msz
N 16s 1.44um
E 16s 0.92um
pP 48 59.00 29kmX
sP 49 04.00
PP 49 15.00
BTO 22.29 337 P 48 54.00 0.2
0.9s 120.00nm 5.3mb
N 15s 1.47um
E 15s 1.50um
sP 49 08.00
KHT 22.51 259 iPd 48 57.00 1.0
NIIJ 22.62 39 eP 48 56.90 0.0
KAKJ 22.66 42 eP 48 56.10 -1.2
GUMO 23.39 103 e(P) 49 05.10 0.5
Z 22s 0.69um 4.1MszX
PJG 23.39 103 e(P) 49 05.60 1.0
GUA 23.45 103 e(P) 49 05.60 0.4
CN2 23.48 7 P 49 04.60 -0.7
0.8s 23.00nm 4.7mb
Z 18s 1.49um 4.5Msz
N 17s 1.04um
E 17s 0.53um
eS 53 18.00
YAMJ 23.85 38 eP 49 09.20 0.2
SNG 24.14 240 eP 49 12.50 0.6
1.1s 126.58nm 5.4mb
VLA 24.20 19 iPd 49 14.50 2.3
i 49 29.00
i 49 44.00
i 50 02.00
MDJ 24.99 14 eP 49 19.70 -0.1
0.8s 76.00nm 5.3mb
Z 18s 1.56um 4.6Msz
N 18s 1.53um
IPM 25.40 234 ePd 49 23.60 -0.4

OFUJ 25.41 39 eP 49 23.50 -0.4
KGM 25.51 226 ePc 49 25.00 0.0
AOMJ 25.70 35 eP 49 27.40 0.9
GTA 26.47 320 eP 49 33.50 -0.4
1.2s 10.00nm 4.3mb X
Z 20s 0.87um 4.3Msz
pP 49 45.00 44kmX
MRRJ 27.40 33 eP 49 41.80 -0.4
HOOJ 28.54 35 P 49 52.60 0.2
PPI 29.30 227 eP 49 58.70 -0.8
ASAJ 29.42 32 P 49 59.90 -0.5
KUSJ 29.79 36 P 50 04.00 0.3
LEM 30.37 208 ePd 50 10.00 0.8
YSS 31.61 28 iPc+ 50 18.80 -0.9
1.1s 210.00nm 5.9mb
Z 18s 0.60um 4.3Msz
N 18s 0.50um
E 18s 0.40um
CIT 32.04 351 eP 50 22.50 -1.0
KUR 32.91 35 iPd 50 31.00 0.0
1.0s 470.00nm 6.3mb
Z 20s 1.90um 4.8Msz
N 20s 1.90um
E 20s 1.90um
ZAK 33.11 339 iPc 50 33.00 0.3
1.3s 26.00nm 5.0mb
Z 17s 1.18um 4.7MszX
N 17s 0.79um
E 17s 0.89um
e 51 55.20
eS 55 37.00
GUN 33.19 290 P 50 34.00 -0.2
PKI 33.58 289 P 50 36.60 -0.9
KKN 33.71 290 P 50 38.00 -0.5
DMN 33.85 289 P 50 39.20 -0.6
GKN 34.30 290 P 50 42.00 -1.5
IRK 34.41 341 ePc 50 42.20 -1.8
1.2s 75.00nm 5.5mb
Z 16s 1.27um 4.8MszX
N 17s 1.02um
E 14s 1.27um
e 50 53.20
e 50 58.20
MOY 35.00 338 ePc 50 48.90 -0.1
1.5s 52.00nm 5.2mb
WMQ 36.46 317 P 51 02.50 0.9
pP 51 06.50 13kmX
sP 51 13.00
UER 37.67 332 iPd 51 11.50 0.0
1.2s 52.00nm 5.3mb
eS 57 00.00
BOD 37.69 354 iPc 51 10.20 -1.4
1.0s 27.00nm 5.1mb
SKR 40.60 34 eP 51 35.60 -0.3
1.0s 290.00nm 6.0mb
Z 16s 1.10um 4.8MszX
e 51 45.00
HYB 40.61 273 ePd 51 36.00 -0.5
1.0s 70.00nm 5.4mb
e 51 57.00
YAK 41.89 6 iPc 51 44.70 -1.6
0.8s 210.00nm 5.9mb
Z 16s 0.70um 4.6MszX
N 16s 0.40um
eS 57 57.00
WRA 42.12 162 P 51 47.50 -1.2
0.7s 5.20nm 4.4mb
WB2 42.12 162 iPd 51 46.90 -1.8
0.4s 20.70nm 5.2mb
eS 57 58.70
ELT 42.39 329 iPc 51 50.60 0.1
1.3s 55.00nm 5.1mb
Z 14s 0.80um 4.8MszX
e 53 30.00
e 53 46.00
eS 58 07.00
e 01 47.00
GBA 42.54 268 P 51 53.00 0.8
KSH 43.18 306 P 52 00.50 3.1X
1.0s 60.00nm 5.3mb
Z 16s 1.07um 4.8MszX
PET 43.24 32 eP 51 58.00 0.6
0.6s 100.00nm 5.7mb
Z 20s 0.50um 4.4Msz
MGD 44.71 20 iPc 52 08.00 -1.3
0.9s 200.00nm 6.0mb
e 52 24.00

POO 44.80 276 iPd 52 09.50 -1.1
FRU 44.97 311 eP 52 13.60 1.9
1.8s 30.00nm 4.9mb
e 52 24.00
ASPA 45.54 164 iPc 52 15.20 -1.1
0.5s 26.90nm 5.4mb
eScP 57 41.50
WARB 46.67 174 eP 52 24.00 -1.2
0.4s 16.00nm 5.3mb
MEEK 46.93 183 eP 52 26.00 -1.2
0.6s 11.00nm 5.0mb
CTA 47.07 147 iPd 52 29.00 0.6
1.0s 12.50nm 4.9mb
MRWA 49.70 186 eP 52 47.00 -1.7
0.6s 10.00nm 5.0mb
QUE 49.81 293 eP 52 50.60 0.7
BAL 51.01 185 eP 52 57.00 -1.6
0.6s 13.00nm 5.1mb
COOL 51.08 180 eP 52 57.50 -1.7
TIK 51.33 3 iPc 52 59.00 -1.6
1.8s 224.00nm 5.8mb
Z 18s 1.00um 4.9Msz
i 53 10.00
eS 00 15.00
FORT 51.37 173 iPd 53 00.90 -0.4
0.6s 28.00nm 5.4mb
KLB 51.91 184 eP 53 04.00 -1.4
0.6s 8.00nm 4.9mb
MUN 52.41 186 eP 53 14.00 4.8X
NRI 52.94 346 iPc 53 10.60 -2.2
i 53 23.00
i 53 30.00
e 54 19.00
i 55 13.00
RMQ 53.68 149 iPd 53 18.00 -0.7
STK 55.54 159 iPd 53 31.20 -1.0
0.7s 3.70nm 4.5mb
MAIO 55.87 301 iPd 53 35.60 0.8
CMS 56.72 155 eP 53 40.00 -0.7
1.0s 7.00nm 4.6mb
SVE 57.18 325 iPc 53 44.00 0.3
1.0s 120.00nm 5.9mb
N 16s 0.50um
i 54 03.70
e 54 37.50
ADE 57.54 163 e(P) 53 46.50 0.1
ARU 58.19 324 iPc 53 50.00 -0.8
1.0s 100.00nm 5.8mb
e 54 04.00
ARMA 58.35 149 eP 53 53.50 1.2
ILT 59.98 22 iP 54 00.50 -2.5X
1.0s 100.00nm 5.9mb
e 02 08.00
BWA 60.34 154 eP 54 06.40 0.5
i 54 15.30
BFD 60.71 161 iPd 54 07.20 -1.1
0.5s 8.00nm 5.1mb
CAN 61.35 154 eP 54 12.60 -0.1
i 54 21.10
CNB 61.49 154 iPc 54 13.50 -0.3
0.8s 33.00nm 5.5mb
TOO 62.03 159 iPd 54 17.00 -0.3
0.9s 59.00nm 5.7mb
GRS 66.00 305 eP 54 44.00 0.4
1.3s 30.00nm 5.2mb
GRO 66.04 309 eP 54 45.00 1.5
KER 66.13 299 eP 54 45.00 0.6
SDN 66.64 38 eP 54 44.80 -2.2
PYA 67.85 310 eP 54 55.00 0.0
i 55 20.00
KIV 68.13 310 iPc 54 57.30 0.4
1.3s 51.00nm 5.5mb
Z 20s 0.20um 4.3Msz
BRW 68.13 20 ePd 54 56.18 0.0
TTA 68.58 29 iPc 54 59.16 -0.1
0.6s 25.08nm 5.5mb
SVW 68.88 31 eP 55 01.20 0.1
IMA 69.39 26 iPc 55 04.17 -0.1
0.8s 13.87nm 5.1mb
MOS 69.88 323 eP 55 07.00 -0.2
e 55 25.00
RSO 70.34 32 iPd 55 09.94 -0.3
CP2 70.49 31 eP 55 10.94 -0.2
CRP 70.53 31 eP 55 10.75 -0.6
OBN 70.54 323 iPc 55 10.00 -1.3
1.0s 53.00nm 5.6mb
i 55 18.00

i 55 31.00
KDC 70.83 34 eP 55 12.13 -0.8
0.8s 47.72nm 5.6mb
PMR 71.93 30 ePd 55 18.11 -1.3
0.8s 68.81nm 5.7mb
FBA 71.97 27 eP 55 18.51 -1.2
0.8s 29.76nm 5.3mb
KEV 72.49 339 iP 55 22.10 -0.6
0.8s 26.40nm 5.3mb
SDF 73.20 336 iP 55 26.30 -0.6
KAF 74.48 331 iP 55 33.80 -0.6
0.6s 11.30nm 5.0mb
DHH 74.56 73 eP 55 36.51 0.9
NUR 75.67 330 iP 55 40.40 -0.8
0.5s 10.50nm 5.1mb
MNK 75.94 323 eP 55 40.00 -2.9X
CSS 77.07 303 eP 55 50.00 0.3
MOR7 77.93 337 eP 55 52.42 -1.3
VRI 78.76 315 ePc 56 00.00 1.3
CVO 79.14 315 eP 56 02.50 1.7
UPP 79.20 330 iP 56 00.00 -0.7
i 56 20.50
MLR 79.40 315 ePc 56 03.50 1.1
JMB 79.91 312 iP 56 05.00 0.0
DAG 80.06 351 eP 56 04.00 -1.1
0.5s 12.68nm 5.2mb
CMP 80.07 315 ePd 56 08.00 2.1
UZH 80.71 318 ePc 56 09.20 0.1
1.0s 50.00nm 5.5mb
i 56 19.00
RZN 81.48 311 iP 56 14.00 0.5
PGB 81.57 312 iP 56 15.00 1.2
NB2 81.60 333 P 56 12.70 -0.8
0.9s 51.10nm 5.5mb
OJC 81.66 321 iP 56 14.40 0.3
0.8s 98.00nm 5.9mb
i 56 18.70
i 56 23.70
SPC 81.78 319 iP 56 16.30 1.4
NAO 81.86 332 P 56 13.19 -1.7
AVY 82.15 247 iPc 56 17.80 0.5
MMB 82.21 311 iP 56 17.00 -0.1
VTS 82.22 312 iP 56 19.00 1.7
RES 82.25 9 eP 56 17.00 0.3
1.0s 14.00nm 5.0mb
VTY 82.38 246 iPc 56 18.90 0.4
KKB 82.56 312 iP 56 20.00 1.1
KSP 83.47 322 iPc 56 23.70 0.3
1.0s 65.00nm 5.7mb
i 56 44.20
SRO 83.49 319 iP 56 25.10 1.6
VRAC 83.93 320 eP 56 26.90 1.2
1.4s 250.60nm 6.2mb
ZST 84.08 319 eP 56 27.10 0.6
VKA 84.53 320 eP 56 29.50 0.7
i 56 30.10
i 56 50.40
MUD 84.72 329 iPd 56 30.10 0.6
0.7s 46.00nm 5.8mb
BRG 84.81 323 iPc 56 30.40 0.3
1.0s 50.00nm 5.7mb
i 56 50.60
PRU 84.85 322 Pc 56 31.00 0.6
1.2s 35.60nm 5.4mb
e 56 51.00
CLL 85.14 323 iPc 56 32.00 0.2
1.2s 68.00nm 5.7mb
i 56 51.90
PTJ 85.75 318 iP 56 35.90 0.9
KHC 85.79 321 P 56 35.50 0.3
1.0s 12.10nm 5.1mb
e 56 45.00
i 56 56.00
e 57 11.50
GEC2 85.85 321 e(P) 56 36.20 0.7
0.9s 17.70nm 5.3mb
MOX 86.23 323 eP 56 37.50 0.3
1.6s 28.00nm 5.2mb
e 56 56.60
HOF 86.24 323 eP 56 38.00 0.7
YKA 86.26 23 P 56 36.90 -0.2
0.9s 16.00nm 5.2mb
VBY 86.36 317 eP 56 38.50 0.5
KBA 86.86 319 e(P) 56 37.00 -3.6X
FUR 87.59 321 eP 56 44.60 0.7
WTTA 87.81 320 i(P) 56 44.90 -0.3
0.8s 13.80nm 5.3mb

WATA 87.81 320 iPd 56 44.90 -0.2
SQTA 88.08 320 iPc 56 46.00 -0.4
0.7s 7.30nm 5.1mb
MOTA 88.09 320 iPc 56 46.00 -0.5
0.8s 6.70nm 5.0mb
WTS 88.18 326 eP 56 47.00 0.4
0.8s 12.10nm 5.3mb
OSS 88.98 320 iPd 56 51.30 0.5
ENN 89.30 325 eP 56 52.00 0.0
1.0s 22.00nm 5.4mb
VDL 89.48 320 P 56 54.90 1.7
WLF 89.76 324 iPc 56 54.16 0.0
1.2s 491.50nm 6.7mb X
id 57 15.06
CDF 89.79 323 eP 56 54.30 -0.2
1.1s 22.45nm 5.4mb
SNF 90.32 325 P 56 57.90 1.2
BSF 90.37 322 eP 56 56.70 -0.5
1.1s 10.00nm 5.0mb
DOU 90.38 325 Pd 56 57.40 0.4
0.9s 30.00nm 5.6mb
HAU 90.53 323 eP 56 57.50 -0.3
1.1s 13.45nm 5.2mb
Z 18s 0.25um 4.7Msz
MMK 90.60 320 iPd 56 59.10 0.6
DIX 90.92 321 iPd 57 00.50 0.5
EKA 91.07 332 P 57 00.00 -0.1
0.8s 12.60nm 5.3mb
EMS 91.21 321 P 57 02.69 1.5
LPG 91.62 320 eP 57 03.60 0.4
0.7s 9.15nm 5.3mb
LPL 91.62 320 eP 57 03.40 0.3
1.3s 24.20nm 5.4mb
PGF 91.73 317 eP 57 03.80 0.3
1.1s 24.40nm 5.5mb
LOR 92.35 323 eP 57 05.70 -0.5
1.2s 20.85nm 5.4mb
Z 19s 0.22um 4.6Msz
LBF 92.44 323 eP 57 06.30 -0.3
1.1s 26.35nm 5.6mb
SSF 92.66 323 eP 57 07.40 -0.2
SMF 92.70 322 eP 57 07.60 -0.2
1.2s 23.80nm 5.5mb
AVF 92.90 323 eP 57 08.40 -0.3
1.1s 19.55nm 5.4mb
HYF 93.03 323 eP 57 09.70 0.4
BGF 93.32 323 eP 57 10.40 -0.3
MAF 93.67 322 eP 57 12.50 0.2
0.9s 10.80nm 5.3mb
LDF 93.77 325 eP 57 12.10 -0.6
1.0s 10.60nm 5.2mb
TCF 93.84 323 eP 57 13.20 0.1
0.8s 7.00nm 5.1mb
NEW 93.88 35 eP 57 13.80 0.5
0.9s 9.65nm 5.2mb
LPF 94.60 325 eP 57 15.90 -0.6
0.8s 11.95nm 5.4mb
RJF 94.80 322 eP 57 18.00 0.5
1.2s 30.35nm 5.6mb
Z 19s 0.17um 4.5Msz
MFF 94.97 324 eP 57 18.30 0.1
1.0s 11.20nm 5.2mb
FCC 95.77 18 eP 57 28.50 6.8X
NAV 118.80 20 (PKP) 02 45.65 1.1
KIC 120.80 291 PKP 02 47.96 -1.0
TIC 120.91 291 PKP 02 48.10 -1.1
LIC 121.11 291 PKP 02 48.42 -1.2
TOV 147.94 21 ePKP 03 41.30 2.3
SDV 148.48 23 ePKPc 03 41.00 0.9
SOB1 159.61 301 (PKP) 03 54.00 -1.0
BDF 168.80 294 iPKPc 04 03.00 -0.1
BAO 168.87 294 ePKP 04 02.80 -0.3
ZOBO 169.98 67 PKP 04 06.00 1.6
Z 20s 0.26um
SKS 09 06.00
LR 50 36.00
LPB 170.12 68 PKP 04 10.00 5.8X
e 09 10.00
CNCB 170.33 69 PKP 04 07.70 3.2X
S.D. = 1.0 on 210 of 234 obs.

MAR 24, 1993 18h 50m 02.56± 0.94s
35.259 N ± 9.0km 3.600 W ± 7.2km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.8 (MDD).

EMEL 0.53 85 iPg 50 14.50 1.3
eSg 50 23.00
EGUA 1.57 1 ePn 50 29.00 -1.6
eSn 50 48.50
PLAT 1.96 297 eP 50 38.00 1.9
ECOG 2.01 1 ePn 50 37.20 0.1
eSn 51 00.00
ENIJ 2.05 33 ePn 50 36.50 -1.0
eSn 51 01.00
IFR 2.15 216 iPg 50 38.00 -1.1
iSg 51 01.50
ALJ 2.15 312 eP 50 38.00 -1.1
EPRU 2.16 323 ePn 50 40.00 0.9
eSn 51 03.80
LIJA 2.20 319 eP 50 40.00 0.3
ELUQ 2.36 347 ePn 50 41.50 -0.5
eSn 51 08.00
EHOR 2.88 333 ePn 50 50.00 0.7
eSn 51 22.00
EVAL 3.44 313 ePn 50 54.50 -2.8X
eSn 51 33.00
S.D. = 1.2 on 11 of 12 obs.

MAR 24, 1993 19h 07m 44.27± 0.57s
47.611 N ± 4.6km 7.231 E ± 4.6km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.4 (LDG), 1.8 (STR).

BBS 0.24 128 Pg 07 49.83 0.4
MOF 0.25 345 Pg 07 49.48 -0.1
BSF 0.37 307 Pg 07 51.40 -0.5
Sg 07 56.50
LOMF 0.38 227 Pg 07 51.78 -0.3
FEL 0.59 63 ePg 07 55.66 -0.6
ECH 0.61 355 Pg 07 56.10 -0.4
Sg 08 05.17
HAU 0.71 304 Pg 07 58.50 0.1
Sg 08 08.20
CDF 0.80 2 Pg 08 00.36 0.5
WLS 0.81 6 Pg 08 00.33 0.4
Sg 08 12.54
VITF 1.03 306 Pg 08 04.42 0.6
Sg 08 17.93
LBF 2.30 255 Pg 08 27.30 4.4X
Sg 08 55.90
LOR 2.31 263 Pg 08 27.90 4.9X
Sg 08 57.10
SMF 2.51 249 Pg 08 31.10 5.4X
Sg 09 02.40
SSF 2.59 259 Pg 08 32.90 6.0X
Sg 09 05.80
S.D. = 0.5 on 10 of 14 obs.

% MAR 24, 1993 19h 13m 36.90± 0.78s
40.359 N ±20.4km 28.076 E ± 5.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

BNT 0.12 269 iPg 13 40.00 0.1
EDC 0.16 266 iPg 13 40.50 -0.1
iSg 13 42.50
KCT 0.24 117 iPg 13 42.00 -0.1
eSg 13 46.00
YLV 1.01 78 ePg 13 55.60 -0.5
eSg 14 10.10
EYL 1.60 82 ePn 14 06.00 0.6
S.D. = 0.6 on 5 of 5 obs.

MAR 24, 1993 19h 45m 13.86± 0.27s
27.933 S ± 3.6km 66.818 W ± 6.4km
DEPTH = 173.1km (8 depth phases)
4.5mb (7 obs.)
CATAMARCA PROVINCE, ARGENTINA (130)

CYA 1.04 120 iPd 45 42.20 0.7
(S) 46 20.30
FSA 1.98 22 iPc 45 51.60 1.1
RTPR 2.38 174 iPd 45 55.80 0.7
SLA 3.41 21 iPc 46 09.00 1.1
(S) 46 46.00
e 46 47.80
RTLL 3.68 203 iPd 46 11.00 -0.3
(S) 46 27.50
CFA 3.86 198 iPd 46 13.90 0.2
S 46 55.00

24d 19h

RTCB 3.94 205 iPc 46 15.30 0.6
(S) 46 31.00
ZON 3.95 204 iPc 46 15.00 0.3
eS 46 55.00
RTCV 4.19 200 iPc 46 18.00 0.1
RTBS 4.36 211 iPc 46 20.90 0.9
MRA 4.57 168 ePc 46 22.50 -0.2
HJA 4.87 16 iPc 46 28.60 1.9
S 47 19.20
ANT 5.31 322 iP 46 31.80 -0.7
iS 47 29.30
JACH 5.75 214 iP 46 39.09 0.7
YJA 5.86 12 iPc 46 41.80 1.6
FCH 6.15 208 iP- 46 44.96 1.0
PEL 6.17 212 iPd 46 43.84 -0.1
ROCH 6.19 215 iP+ 46 43.60 -0.7
SAN 6.42 210 iP+ 46 47.12 0.0
PCH 6.50 208 iP+ 46 48.46 0.2
IHA 6.56 218 eP 46 47.10 -1.9
TACH 6.71 211 iP+ 46 49.96 -1.1
CHCH 6.83 208 iP+ 46 52.55 0.0
LCCH 6.87 215 iPd 46 51.71 -1.4
CACH 6.97 207 iP+ 46 54.63 0.1
LNV 7.18 212 iP+ 46 54.97 -2.3
CCH 10.52 4 P 47 40.50 -1.0
CNCB 11.12 354 iPc 47 49.00 -0.6
S 49 49.00
LPB 11.41 354 P 47 52.50 -0.7
ZOBO 11.65 354 P 47 54.60 -2.0
ARE 12.21 338 eP 48 02.00 -1.5
SIV 13.02 25 iPc 48 24.40 10.8X
PPD 15.23 71 eP 48 40.90 -0.4
e 48 42.10
VAO 18.58 79 eP 49 18.50 -1.8
e 49 25.00
BAO 21.30 59 iPd 49 45.70 -2.3
i 49 52.70 26kmX
i 49 54.00
i 50 20.10
e 50 50.20
e 56 56.10
e 59 09.00
BDF 21.35 59 iPd 49 46.00 -2.5
i 49 53.30 27kmX
e 56 56.30
CDCB 21.56 74 iPc 49 49.70 -0.8
i 49 51.40 6kmX
SOB1 30.71 58 eP 51 11.20 -3.5X
UYO 67.08 335 iPd 55 50.80 0.4
MIAR 67.10 336 eP 55 50.02 -0.5
0.8s 6.47nm 4.5mb
e 55 58.60 27kmX
OLY 67.25 338 eP 55 50.76 -0.7
MEO 69.23 332 iPc 56 03.50 -0.2
RSNY 72.47 354 eP 56 23.03 0.1
0.8s 10.09nm 4.6mb
e 56 33.38
epP 57 04.95 174km
ALQ 72.90 327 eP 56 26.62 0.8
0.7s 5.79nm 4.4mb
epP 57 09.95 180km
LMN 73.46 1 eP 56 32.00 3.5X
CBM 74.52 359 eP 56 34.99 0.3
0.8s 9.21nm 4.6mb
e 56 43.59
ipP 57 17.54 175km
MAW 77.65 162 P 56 53.79 1.8
SRU 78.18 327 iP 56 56.76 1.2
epP 57 39.11 173km
SSK 78.35 319 (P) 56 58.56 2.0
MSU 78.53 325 iP 56 58.73 1.2
epP 57 41.59 175km
RSSD 79.39 334 eP 57 02.85 0.8
0.8s 8.32nm 4.5mb
HVU 81.33 327 eP 57 13.25 1.1
JAO 81.76 355 eP 57 13.50 -0.4
pP 57 56.00 172km
ULM 81.99 342 ePc 57 18.50 3.2X
BUL 85.36 110 iPd 57 34.20 1.0
0.9s 8.40nm 4.5mb
i 58 15.10 163km
BCAO 87.96 84 ePc 57 48.00 2.3
0.5s 3.00nm 4.5mb
i 58 28.00 158kmX
DPW 88.44 328 eP 57 48.29 1.0
epP 58 31.81 174km
FCC 89.30 346 eP 57 54.50 3.5X

ASPA 124.94 203 iPKPd 03 55.30 0.0
WB2 128.18 206 iPKPc 04 01.80 0.2
0.8s 5.10nm
GBA 143.82 106 PKP 04 29.00 -1.5
e 05 16.00
YAK 144.19 347 ePKP 04 28.00 -1.8
0.7s 80.00nm
e 05 12.00
HYB 146.48 101 ePKPd 04 37.00 2.0
1.0s 40.00nm
e 05 20.00
NDI 148.40 80 iPKPc 04 42.40 4.7X
S.D. = 1.2 on 58 of 64 obs.

% MAR 24, 1993 19h 58m 49.24± 0.87s
40.471 N ± 6.7km 21.404 E ± 8.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.31 356 ePg 58 55.50 -0.3
eSg 59 02.20
GRG 0.90 57 ePg 59 06.32 -0.2
LIT 0.91 114 ePg 59 05.30 -1.4
eSg 59 18.80
IGT 1.25 222 ePb 59 12.52 0.1
eSb 59 28.80
KNT 1.33 58 ePb 59 14.10 0.4
AGG 1.61 153 ePb 59 17.70 -0.2
eSb 59 38.50
PAIG 1.83 107 ePb 59 22.36 1.5
S.D. = 1.0 on 7 of 7 obs.

? MAR 24, 1993 20h 27m 33.07± 3.79s
11.034 N ±28.3km 70.396 W ±25.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)

TOV 1.37 154 ePnc 27 58.50 0.2
iPP 27 59.30
iSn 28 18.90
MORO 2.05 94 eP 28 07.50 -0.6
eS 28 36.20
SDV 2.15 186 ePn 28 08.90 -0.7
CEOS 2.84 134 eP 28 19.90 0.5
eS 28 51.00
OLLA 3.67 106 eP 28 30.80 -0.5
SOB1 35.57 123 (P) 34 34.00 1.1
S.D. = 0.9 on 6 of 6 obs.

MAR 24, 1993 20h 40m 42.50± 0.67s
46.212 N ± 6.6km 15.426 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.4 (LJU), 2.1 (TRI). ML 2.0 (VIE).

PTJ 0.48 130 iPgc 40 52.40 0.0
iSg 41 00.50
ZAG 0.55 135 e(Pg) 40 53.50 -0.2
iSg 41 01.00
LJU 0.64 255 iPg 40 55.20 -0.2
iSg 41 03.60
VBY 0.72 190 ePg 40 57.00 0.4
iSg 41 08.00
CEY 0.84 236 eP 41 03.60 4.8X
eSg 41 11.00
VOY 1.08 261 iPgc 41 02.70 -0.2
eSg 41 19.20
TRI 1.26 247 ePg 41 05.80 -0.2
eSg 41 24.30
KBA 1.68 302 iPnd 41 12.70 0.5
iPg 41 14.80
iSg 41 36.10
GEC2 2.88 337 Pn 41 29.20 -0.2
Pg 41 35.20
Sg 42 14.80
S.D. = 0.4 on 8 of 9 obs.

MAR 24, 1993 22h 01m 41.83± 0.31s
44.201 N ± 2.4km 7.531 E ± 2.4km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN), 2.1 (LDG).

ENR 0.08 288 P 01 43.84 0.0
S 01 45.31
STV 0.15 286 P 01 45.26 0.2
S 01 47.37
SAOF 0.22 175 Pg 01 46.18 -0.1
Sg 01 49.33
AUTN 0.22 200 Pg 01 46.57 0.2
Sg 01 50.05
ROB 0.26 69 P 01 47.55 0.4
S 01 51.12
TOUF 0.28 227 Pg 01 47.61 0.1
Sg 01 51.77
SBF 0.35 192 Pg 01 49.00 0.2
Sg 01 53.70
AURF 0.35 205 Pg 01 48.93 0.1
IMI 0.39 138 P 01 49.70 0.0
S 01 55.42
PZZ 0.43 315 P 01 51.03 0.5
S 01 57.04
REVF 0.48 194 Pg 01 50.90 -0.5
Sg 01 57.29
FIN 0.49 89 P 01 51.67 0.1
S 01 58.86
BHB 0.67 343 P 01 54.60 -0.6
S 02 03.52
PCP 0.80 65 P 01 57.59 -0.3
S 02 08.21
FRF 0.91 225 Pg 01 59.70 0.1
Sg 02 11.50
LRG 1.13 229 Pg 02 03.20 -0.2
Sg 02 19.60
LMR 1.14 221 Pg 02 03.40 -0.2
Sg 02 19.00
LPG 1.41 337 Pg 02 02.30 -6.2X
LPL 1.43 337 Pg 02 02.90 -5.8X
S.D. = 0.3 on 17 of 19 obs.

% MAR 24, 1993 22h 39m 26.62± 0.98s
16.531 N ± 7.8km 61.537 W ±10.3km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.2 (FDF).

SEG 0.13 167 eP 39 30.80 1.0
DEG 0.51 115 eP 39 36.50 -0.4
S 39 43.00
PAG 0.52 195 eP 39 36.50 -0.6
BPA 0.60 329 eP 39 38.70 0.0
MGG 0.65 161 eP 39 39.50 0.0
S.D. = 0.9 on 5 of 5 obs.

---

* MAR 24, 1993 22h 40m 39.62± 1.61s
51.187 N ±16.2km 15.863 E ± 6.2km
DEPTH = 5.0km (geophysicist)
POLAND (548)
ML 3.6 (GRF), 3.2 (VIE).

KSP 0.44 142 iP 40 47.60 -0.8
0.3s 43.00nm
iS 40 56.00
BRG 1.25 256 iPg 41 03.40 0.1
iSg 41 23.50
PRU 1.47 216 ePn 41 07.00 0.3
0.4s 30.80nm
ePg 41 08.50
e 41 12.80
Sn 41 26.00
Sg 41 31.70
e 41 33.80
i 41 39.00
CLL 1.80 275 ePn 41 08.00 -3.5X
iPg 41 11.50
iSg 41 41.00
VRAC 1.94 166 Pn 41 13.90 0.4
eSg 41 45.00
KHC 2.53 216 ePn 41 22.00 0.0
ePg 41 32.00
Sn 41 56.50
Sg 42 09.60
OJC 2.68 110 iP 41 24.60 0.4
iS 42 00.40
GEC2 2.73 212 Pn 41 25.60 0.6
Pg 41 31.20
Sg 42 15.00
MOX 2.74 260 ePg 41 31.90 6.8X
iSg 42 11.20
VKA 2.94 174 ePg 41 35.50 7.6X
eSg 42 16.00
ZST 3.10 164 eP 42 25.40 55.3X
GRF 3.32 245 e(Pn) 41 32.40 -0.9

```
                e(Pg)  41 44.80
                eSg    42 30.20
SPC      3.45 124 eP   41 42.40    7.1X
                e      42 21.50
    S.D. = 0.7  on   8 of  13 obs.
---------------------------------------
  MAR  24, 1993  22h 43m 27.86± 0.21s
  71.685 N ± 3.5km  130.539 E ± 3.8km
  DEPTH =  10.0km  (geophysicist)
  4.8mb ( 50 obs.) 4.2Msz (  1 obs.)
 NEAR N. COAST OF EASTERN SIBERIA(670)
     Felt (V) at Tiksi, Russia.

TIK      0.53 265 iPc  43 39.10    0.5
                i      43 48.00
YAK      9.72 182 iP   45 50.30   -0.3
     0.9s    50.00nm          5.9mb X
   Z  11s     2.00um          4.3Msz
SEY     12.11 126 eP   46 32.50    9.4X
   Z  12s     0.50um
                i      48 49.40
NRI     14.10 281 ePd  46 44.00   -5.4X
     1.4s    72.00nm          5.2mb
BOD     15.44 214 eP   47 02.80   -4.2X
     0.6s    30.00nm          4.8mb
ILT     17.48  77 eP   47 36.00    3.3X
     1.2s    27.00nm          4.3mb
CIT     21.15 210 eP   48 14.50   -0.4
IRK     22.67 225 ePc  48 32.80    2.7X
     1.3s    32.00nm          4.7mb
                eS     52 30.00
ZAK     24.67 225 ePc  48 50.00    0.6
                e      53 18.00
YSS     25.40 160 eP   49 03.50    7.0X
UER     25.85 238 eP   49 00.00   -0.6
NVS     26.12 255 eP   49 01.80   -1.3
     1.6s    65.00nm          5.1mb
                eS     53 28.00
                e      54 45.00
ELT     26.58 250 iPd  49 06.80   -0.5
     1.5s    36.00nm          4.8mb
MDJ     27.15 181 eP   49 13.30    0.6
CN2     28.07 188 eP   49 25.00    4.0X
     0.8s     5.80nm          4.4mb
   Z  16s     0.88um          4.4MszX
                esP    49 35.00
RES     31.17  21 eP   49 50.00    1.7
     1.0s     2.00nm          4.0mb
KLU     31.85  65 eP   49 54.83    0.3
BJI     32.54 201 eP   50 01.00    0.4
     1.0s    11.00nm          4.7mb
   Z  14s     0.59um          4.4MszX
WMQ     34.68 240 P    50 19.50    0.2
     1.0s     9.80nm          4.7mb
   Z  16s     0.78um          4.5MszX
                pP     50 23.50  14kmX
                S      55 40.00
                ScS    00 40.00
TIY     35.29 205 eP   50 27.00    2.4
   Z  16s     0.71um          4.5MszX
   N  20s     0.92um
GTA     35.86 223 eP   50 30.50    1.0
   Z  12s     0.60um          4.6MszX
   E  10s     0.22um
KAF     36.80 310 iP   50 37.10    0.2
     0.5s    13.20nm          5.0mb
LZH     38.27 216 eP   50 49.50   -0.2
     1.4s    24.00nm          4.7mb
   Z  13s     0.74um          4.7MszX
   E  12s     0.54um
                sP     50 54.00
NUR     38.59 310 iP   50 52.10    0.2
     0.6s    11.20nm          4.8mb
YKA     38.87  42 eP   50 54.70    0.4
     0.4s     1.80nm          4.1mb
FRU     39.38 254 eP   51 05.00    6.2X
     1.4s    70.00nm          5.1mb
XAN     39.41 209 P    51 02.60    3.5X
   Z  15s     0.59um          4.5MszX
NJ2     40.19 195 eP   51 04.50   -1.0
OBN     40.19 297 eP   51 05.00   -0.3
     1.5s    35.00nm          4.8mb
UPP     40.81 315 iP   51 10.20    0.0
NB2     41.11 320 P    51 13.30    0.4
     0.6s     7.40nm          4.6mb
MNK     43.72 303 eP   51 26.00   -8.1X
FCC     46.18  30 eP   51 57.00    3.3X
```

```
KIV     48.34 285 eP    52 11.80    0.7
CLL     49.70 313 iP    52 21.40    0.1
                  i     52 27.60
SPC     49.91 306 iP    52 23.90    0.7
        0.8s    20.40nm          5.2mb
GUN     50.15 234 P     52 26.00    0.5
GKN     50.38 236 P     52 26.80   -0.2
KKN     50.42 235 P     52 27.00   -0.4
PKI     50.60 235 P     52 28.20   -0.6
        0.5s    12.00nm          5.1mb
DMN     50.64 235 P     52 28.80   -0.3
        0.6s    28.00nm          5.4mb
GRS     51.26 279 eP    52 32.00   -1.6
                  e     53 53.00
ZST     51.62 308 eP    52 37.40    1.5
GRF     51.62 314 eP    52 37.00    1.0
        1.3s    11.00nm          4.6mb
      Z  18s     0.20um          4.2Msz
SRO     51.67 307 eP    52 37.60    1.3
GEC2    51.83 311 P     52 38.20    0.5
        0.9s     5.50nm          4.5mb
VG8     52.89  57 eP    52 46.57    1.0
QUE     53.39 255 eP    52 49.50   -0.1
JAQ     53.44  19 eP    52 48.50   -1.0
KBA     53.57 311 iPc   52 52.00    1.2
        0.9s    17.40nm          5.0mb
CDF     53.71 316 eP    52 51.80    0.2
        1.0s     7.60nm          4.7mb
WTTA    53.80 312 iPc   52 53.20    0.7
        1.0s    13.80nm          4.9mb
SQTA    53.94 313 iPc   52 54.10    0.7
        1.0s     8.70nm          4.7mb
ULM     54.02  35 ePc   52 55.80    2.0
PTJ     54.04 308 eP    52 54.50    0.4
BSF     54.36 316 eP    52 56.20   -0.3
        0.7s     3.95nm          4.6mb
FLN     54.97 322 eP    53 00.30   -0.5
        0.9s    12.30nm          4.9mb
LDF     55.06 322 eP    53 01.00   -0.5
        0.4s     5.55nm          4.9mb
GRR     55.40 323 eP    53 03.50   -0.4
        0.6s     7.95nm          4.9mb
LOR     55.52 319 eP    53 04.30   -0.6
        0.8s     6.30nm          4.7mb
LBF     55.77 318 eP    53 06.00   -0.7
        0.8s     9.25nm          4.9mb
LPF     55.78 323 eP    53 06.60    0.0
        0.7s    15.65nm          5.1mb
SSF     55.79 319 eP    53 06.30   -0.5
        1.0s    13.80nm          4.9mb
AVF     56.08 319 eP    53 08.30   -0.6
        0.8s     6.45nm          4.7mb
SMF     56.12 318 eP    53 08.30   -0.9
BGF     56.41 319 eP    53 10.70   -0.6
        0.6s     3.05nm          4.5mb
MAF     56.79 319 eP    53 13.70   -0.3
        0.7s     3.30nm          4.5mb
TCF     56.80 319 eP    53 13.60   -0.5
        0.6s     2.80nm          4.5mb
MFF     56.97 321 eP    53 15.40    0.1
        0.6s     7.20nm          4.9mb
LSF     56.97 320 eP    53 14.70   -0.6
        0.7s     7.40nm          4.8mb
RJF     57.88 320 eP    53 21.40   -0.3
        0.7s     4.50nm          4.6mb
CAF     58.13 319 eP    53 23.70    0.2
        0.7s     5.50nm          4.7mb
RSSD    58.25  44 eP    53 23.51   -1.1
        0.6s     2.36nm          4.4mb
LFF     58.39 320 eP    53 25.40    0.2
        0.6s     9.55nm          5.0mb
LPO     58.54 320 eP    53 26.70    0.4
        0.7s     6.40nm          4.8mb
EEO     60.12  23 eP    53 39.00    1.8
EPF     60.30 320 eP    53 38.00   -0.6
        0.6s    11.80nm          5.2mb
SRU     61.51  51 eP    53 46.86   -0.1
HYB     62.09 238 eP    53 49.50   -1.4
LMN     62.26  12 eP    53 54.50    2.8X
FVM     66.87  34 eP    54 20.64   -1.1
        0.9s    14.31nm          5.2mb
ELC     67.76  33 eP    54 26.50   -0.8
WMOK    68.38  42 eP    54 30.47   -0.8
        0.8s     8.62nm          5.0mb
OLY     69.10  36 eP    54 34.94   -0.7
UYO     69.82  39 iPc   54 39.70   -0.3
GBTN    70.17  30 eP    54 41.69   -0.5
```

```
JSC     71.98  27 iPd   54 52.50   -0.5
LTX     72.49  48 eP    54 56.31    0.0
GOGA    72.50  29 (P)   54 55.40   -0.7
        0.4s     9.61nm          5.2mb
PMG     81.67 163 eP    56 05.00   17.8X
WRA     91.43 176 P     56 35.30    0.5
        0.8s     3.30nm          4.7mb
ZOBO   123.51  22 ePKP  02 26.00   -1.2
CNCB   124.04  22 PKP   02 29.00    0.9
    S.D. = 0.8  on  80 of  93 obs.
----------------------------------------
* MAR  24, 1993  22h 45m 44.79± 1.13s
  70.102 N ±10.0km   14.849 W ±15.6km
  DEPTH =  10.0km  (geophysicist)
  4.2mb (  4 obs.)
 JAN MAYEN ISLAND REGION          (639)

DAG      6.80 352 eP    47 26.80    0.0
SDF     14.96  80 iP    49 17.50   -0.1
KAF     18.12  96 eP    49 57.40   -0.2
        0.8s    11.70nm          4.1mb
NUR     18.70 101 eP    50 04.80    0.0
        0.9s    17.80nm          4.3mb
ENN     21.71 142 eP    50 36.00   -1.4
        1.0s    16.00nm          4.4mb
CLL     22.86 131 e(P)  50 49.00    0.1
MOX     23.12 134 e(P)  50 55.00    3.5X
                  i     52 29.40
KSP     24.16 127 eP    51 01.30   -0.2
                  id    52 19.00
PRU     24.47 130 eP    51 05.50    1.0
                  e     52 29.00
                  e     52 46.00
KHC     25.01 132 eP    51 11.00    1.2
                  e     51 16.50
                  e     52 37.00
GEC2    25.31 132 P     51 12.30   -0.4
        1.2s     4.87nm          4.1mb
    S.D. = 0.8  on  10 of  11 obs.
----------------------------------------
% MAR  24, 1993  22h 59m 53.43± 0.62s
  42.518 N ± 5.0km   18.709 E ± 4.8km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
     ML 1.8 (TTG).

HCY      0.17 246 iPgc  59 57.34    0.0
                  iS    00 00.13
NKY      0.36  36 iPgc  00 00.62   -0.3
                  iSg   00 06.57
BRY      0.40 342 iPgc  00 01.66    0.0
                  iSg   00 07.77
TTG      0.42 102 iPgc  00 01.68   -0.3
                  iSg   00 08.17
ULC      0.68 144 iPgd  00 06.96    0.0
                  iSg   00 17.14
PVY      0.94  85 iPgc  00 11.68    0.3
                  iSg   00 25.63
IVA      0.95  68 iPgd  00 11.76    0.3
                  iSg   00 26.13
PLE      0.95  32 iPgc  00 11.83    0.1
                  iSg   00 26.39
    S.D. = 0.3  on   8 of   8 obs.
----------------------------------------
? MAR  24, 1993  23h 10m 25.86± 1.09s
  39.170 N ± 7.6km   29.532 E ±12.4km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
     MD 2.8 (ISK).

ALT      0.46 104 ePg   10 35.20   -0.1
                  eSg   10 41.70
KHL      0.85 180 iPg   10 42.30    0.1
                  eSg   10 52.30
YLV      1.40 355 ePn   10 51.10   -0.4
EYL      1.48  19 ePn   10 53.00    0.4
    S.D. = 0.6  on   4 of   4 obs.
----------------------------------------
* MAR  24, 1993  23h 55m 11.07± 1.43s
  14.064 N ±20.8km   91.965 W ± 9.0km
  DEPTH =  86.3 ±  9.2 km
  4.4mb (  1 obs.)
 GUATEMALA                        ( 70)

TPX      0.88 341 iP    55 27.50   -1.9
                  iS    55 42.00
TER      1.27  79 ePd   55 33.48   -0.6
```

24d 23h

PCG 1.36 76 ePc 55 35.23 -0.2
BVA 1.42 65 ePc 55 36.37 0.1
IXG 1.47 86 ePc 55 36.68 -0.1
GCG 1.48 69 ePc 55 37.42 0.4
eS 55 57.10
YUP 2.10 86 ePc 55 45.73 0.5
MRL 2.42 65 ePc 55 49.52 0.0
SCX 2.73 346 iP 55 56.06 2.4
iS 56 28.50
OXX 5.48 304 iP 56 34.07 2.0
iS 57 33.58
IISM 7.13 314 iP 56 53.46 -1.2
(S) 58 05.05
PPM 8.09 309 iP 57 10.08 1.6
IIA 8.17 309 (P) 57 06.00 -2.9
III 8.38 302 iP 57 13.50 1.4
UYO 20.14 354 iPd 59 39.50 -1.2
MEO 21.48 345 iPc 59 53.00 -1.2
EEO 34.23 16 eP 01 51.00 0.5
LMN 39.09 30 eP 02 33.00 1.6
JAQ 41.67 14 eP 03 07.50 15.1X
SIV 42.71 133 eP 03 17.00 15.6X
YKA 50.97 347 eP 04 04.60 -1.0
0.5s 1.90nm 4.4mb
SOB1 55.69 112 (P) 04 41.00 -0.2
S.D. = 1.5 on 20 of 22 obs.

% MAR 25, 1993 00h 18m 52.77± 1.21s
15.374 N ±10.0km 122.576 E ±13.2km
DEPTH = 33.0km (normal)
PHILIPPINE ISLANDS REGION (248)

QVP 1.69 244 iPd 19 21.00 0.6
iS 19 46.00
TGY 2.03 232 ePd 19 24.00 -1.4
iS 19 53.00
BCP 2.16 299 eP 19 40.00 12.7X
CVP 2.43 343 iPc 19 31.00 0.0
eS 20 01.00
PGP 2.44 220 eP 19 32.00 0.8
PLP 4.79 150 eP 20 04.50 0.0
S.D. = 1.2 on 5 of 6 obs.

? MAR 25, 1993 00h 19m 48.59± 4.46s
15.732 N ±37.9km 98.992 W ±14.3km
DEPTH = 10.0km (geophysicist)
OFF COAST OF GUERRERO, MEXICO (65)

ACX 1.40 324 iP 20 14.00 -0.2
iS 20 32.50
OXX 2.56 58 iP 20 31.32 0.3
iS 21 00.63
III 2.67 350 iP 20 32.50 -0.1
iS 21 02.50
PPM 3.33 6 iP 20 42.00 -0.3
(S) 21 22.41
IIT 3.33 11 iP 20 42.49 0.4
iS 21 17.60
IIA 3.41 5 iP 20 44.15 1.2
iS 21 22.61
UNM 3.58 357 (P) 20 52.50 6.9X
iS 21 26.00
IISM 3.59 25 iP 20 43.97 -1.4
iS 21 25.00
CRX 3.71 350 (P) 20 50.00 2.5X
MRX 4.47 332 (P) 21 00.60 2.7X
S.D. = 1.0 on 7 of 10 obs.

& MAR 25, 1993 01h 10m 20.28s
58.637 N 154.429 W
DEPTH = 97.7km
3.0mb (1 obs.)
ALASKA PENINSULA (12)
<AEIC>.

CDD 0.50 54 eP 10 35.19 -0.9
MCNL 0.55 5 eP 10 35.72 -0.7
eS 10 47.24
AUI 0.87 36 eP 10 38.40 -1.0
eS 10 52.05
eS 10 52.19
AUW 0.89 34 iP 10 38.77 -0.8
AUH 0.89 35 iP 10 38.80 -0.9
S 10 52.62
AUE 0.91 37 eP 10 39.00 -0.8
eS 10 54.15
AUL 0.91 34 eP 10 38.85 -1.0
PDB 1.16 6 iP 10 41.49 -1.2
eS 10 57.37
OPT 1.19 31 eP 10 42.03 -1.0
eS 10 58.86
KDC 1.36 130 ePc 10 42.50 -2.5
eS 10 58.66
INW 1.58 24 eP 10 46.59 -1.4
eS 11 07.08
INE 1.59 26 eP 10 46.71 -1.4
eS 11 07.03
CNPM 1.87 60 eP 10 49.49 -2.2
S 11 12.71
RS1 2.02 24 eP 10 52.37 -1.3
RS2 2.02 24 iP 10 52.36 -1.4
S 11 17.62
RSO 2.02 24 eP 10 52.33 -1.4
BRLK 2.15 57 eP 10 52.62 -2.6
eS 11 17.30
SVW 2.55 347 eP 10 58.06 -2.6
NKA 2.66 36 eP 11 01.20 -0.9
CKL 2.78 21 eP 11 02.09 -1.7
CKT 2.81 23 eP 11 02.27 -1.9
SPU 2.82 24 eP 11 02.22 -2.1
BGL 2.83 20 eP 11 02.98 -1.5
CKN 2.83 23 eP 11 03.22 -1.3
SLKM 2.85 47 eP 11 01.70 -3.0
CP2 2.86 22 eP 11 02.63 -2.4
CPAM 2.87 23 eP 11 03.24 -1.8
CRP 2.88 22 eP 11 03.11 -2.1
MPA 3.18 52 eP 11 06.73 -2.4
SUA 3.38 32 eP 11 10.08 -2.1
PTE 3.53 48 eP 11 10.52 -3.5
PMS 3.58 41 P 11 11.80 -3.0
SKT 3.65 22 eP 11 13.14 -2.6
S 11 56.18
PWA 3.78 35 P 11 15.00 -2.5
PMR 3.98 40 eP 11 14.93 -5.2
eS 11 54.15
GHO 4.18 39 eP 11 19.38 -3.6
MID 4.26 76 P 11 20.70 -3.2
SML 4.40 41 eP 11 22.07 -3.9
HIN 4.41 63 eP 11 22.25 -3.9
SCM 4.77 45 eP 11 27.33 -3.9
CVA 4.81 63 eP 11 27.36 -4.2
SGAM 5.05 64 eP 11 30.58 -4.4
KLU 5.13 52 eP 11 31.96 -4.3
RAGM 5.27 66 eP 11 33.82 -4.2
KAIM 5.29 72 eP 11 34.76 -3.6
GLB 6.02 58 eP 11 44.04 -4.4
CRQM 6.10 65 eP 11 45.62 -4.0
SNH 6.12 70 eP 11 46.03 -3.7
BALM 6.55 63 eP 11 51.35 -4.4
YKA 19.71 62 eP 14 39.50 -4.5
0.7s 0.60nm 3.0mb
50 obs. associated

---

* MAR 25, 1993 01h 50m 14.98± 0.79s
31.410 S ±20.1km 68.838 W ±13.8km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.08 157 iPd 50 29.50 0.0
S 50 40.70
ZON 0.19 135 iPd 50 29.80 0.1
eS 50 40.80
RTLL 0.32 76 iPc 50 30.00 0.0
S 50 41.00
RTCV 0.52 150 e(P) 50 31.00 -0.2
S 50 43.80
CFA 0.55 111 eP 50 31.50 0.1
S 50 44.90
RTBS 0.58 244 iPd 50 31.50 -0.1
RTPR 2.29 62 e(P) 50 51.70 -0.1
S.D. = 0.1 on 7 of 7 obs.

---

* MAR 25, 1993 02h 09m 20.27± 0.40s
49.888 S ±15.9km 114.991 W ±13.9km
DEPTH = 10.0km (geophysicist)
4.9mb (9 obs.) 5.2Msz (2 obs.)
SOUTHERN EAST PACIFIC RISE (684)
Mw 5.5 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 20S, 36C
Centroid Location:
Origin Time 02:09:30.4 0.4
Lat 49.83S 0.07 Lon 115.35W 0.09
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**17 Nm
Mrr=-0.20 0.09 Mtt= 0.95 0.09
Mff=-0.75 0.07 Mrt=-0.39 0.18
Mrf= 0.76 0.22 Mtf= 1.40 0.09
Principal Axes:
T Val= 1.74 Plg= 1 Azm=330
N 0.22 64 238
P -1.96 26 61
Best Double Couple:Mo=1.9*10**17
NP1:Strike=102 Dip=71 Slip= -18
NP2: 199 73 -160

SPA 40.31 180 iPc 17 00.10 1.0
1.0s 26.50nm 4.9mb
ARE 48.32 62 eP 18 04.00 -0.1
CNCB 50.08 66 P 18 18.70 0.7
LPB 50.23 66 P 18 19.00 0.0
Z 20s 3.55um 5.4Msz
LR 33 22.00
ZOBO 50.41 65 P 18 18.90 -1.6
1.2s 43.92nm 5.3mb
S 25 32.00
LR 33 24.00
SIV 54.89 72 P 19 03.60 10.3X
PPD 56.60 85 eP 19 03.00 -2.6X
BAO 63.40 83 eP 19 51.00 -1.4
BDF 63.44 83 iPd 19 51.60 -1.0
BRS 70.94 250 iP 20 35.00 -4.7X
SOB1 72.77 84 (P) 20 42.00 -8.7X
STK 74.15 239 eP 20 57.60 -0.9
0.7s 1.30nm 4.1mb
OLP 76.63 245 eP 21 12.00 -0.8
0.8s 34.00nm 5.5mb
TUC 81.92 4 eP 21 41.72 0.7
1.4s 13.50nm 4.8mb
ASPA 84.79 239 eP 21 54.10 -2.0
1.1s 7.40nm 4.8mb
eS 32 23.00
ALQ 84.80 7 eP 22 00.00 4.2X
1.0s 1.88nm 4.3mb
MEO 85.55 13 iPc 22 00.00 0.6
SRU 88.71 3 eP 22 15.11 0.3
BW06 92.41 4 eP 22 30.54 -1.4
1.0s 3.76nm 4.7mb
RSSD 94.11 8 iPd 22 40.10 0.3
1.0s 7.26nm 5.0mb
YKA 112.03 0 ePKP 27 56.60 0.6
0.4s 0.10nm
MOTA 144.91 73 iPKPd 28 55.80 -2.7X
1.1s 40.10nm
i 28 57.80
SOTA 144.93 73 i(PKP)28 55.90 -2.6X
1.1s 38.10nm
i 28 58.00
WATA 145.20 73 iPKPd 28 56.70 -2.3
i 28 58.70
i 29 03.80
WTTA 145.21 73 iPKPd 28 57.00 -2.1
1.1s 41.40nm
i 28 58.90
i 29 04.00
FUR 145.35 72 ePKP 28 59.60 0.5
HYB 145.82 203 ePKP 29 01.50 0.7
GRF 145.90 69 ePKP 28 59.80 -0.2
1.3s 19.00nm
KBA 146.19 74 iPKPc 29 01.50 0.7
1.2s 16.60nm
MOX 146.48 68 ePKP 29 01.50 0.6
1.3s 13.00nm
GEC2 147.10 72 e(PKP)29 02.70 0.7
1.2s 14.20nm
KHC 147.13 71 PKPd 29 03.90 1.9
1.4s 14.50nm
e 29 14.50
CLL 147.52 67 ePKP 29 03.00 0.5
1.8s 28.00nm
BRG 147.95 68 ePKP 29 06.20 3.0X
PRU 148.02 70 ePKP 29 05.50 2.2
OHR 148.20 89 iPKP 29 04.50 0.5
1.2s 78.00nm
LZH 148.80 259 ePKP 29 09.00 3.7X
3.0s 66.00nm
Z 20s 0.30um 5.1Msz
pPKP 29 15.00
ePP 31 06.00
ZST 148.97 74 ePKP 29 08.20 3.3X

SKO 149.05 88 iPKP 29 08.80 3.6X
i 29 13.50
KSP 149.36 69 ePKP 29 11.10 5.7X
VAY 149.45 90 iPKP 29 09.40 3.6X
SRO 149.59 76 ePKP 29 11.80 6.0X
MBH 149.67 120 ePKP 29 12.30 5.7X
SHWJ 150.49 120 PKP 29 13.80 5.8X
MZDA 151.07 119 ePKP 29 15.10 6.6X
SPC 151.27 74 ePKP 29 14.60 6.0X
HMDT 151.90 118 ePKP 29 16.70 6.9X
MLR 153.55 84 ePKP 29 08.00 -3.9X
VRI 154.20 84 ePKP 29 12.00 -0.6
QUE 160.27 185 ePKP 29 35.50 14.7X
MAIO 165.84 161 ePKP 29 27.00 1.3
S.D. = 1.2 on 30 of 51 obs.

& MAR 25, 1993 02h 32m 27.00s
37.860 N 122.263 W
DEPTH = 8.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.3 (BRK). Felt at Berkeley.

BKS 0.03 53 iPc 32 28.59 -0.1
eS 32 29.91
ZSP 0.09 3 iPd 32 29.43 0.2
eS 32 31.69
PCC 0.37 195 iPd 32 34.45 -0.1
eS 32 39.89
STAN 0.46 171 ePd 32 36.19 -0.1
eS 32 42.92
MHC 0.72 136 ePc 32 40.34 -1.0
eS 32 51.86
GCC 0.86 166 ePd 32 42.85 -0.8
eS 32 54.29
SAO 1.27 149 eP 32 48.39 -2.4
CMB 1.49 83 ePc 32 52.28 -1.9
eS 33 11.38
8 obs. associated

& MAR 25, 1993 02h 37m 24.90s
37.853 N 122.262 W
DEPTH = 9.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.3 (BRK). Felt at Berkeley.

BKS 0.03 42 iPc 37 26.53 -0.2
eS 37 27.84
ZSP 0.09 3 iPd 37 27.39 0.0
eS 37 29.51
PCC 0.36 195 iPd 37 32.37 0.0
eS 37 37.07
STAN 0.45 171 ePd 37 34.04 -0.1
iS 37 40.66
MHC 0.71 136 ePc 37 38.32 -0.8
GCC 0.85 166 iPd 37 40.27 -1.1
eS 37 52.09
SAO 1.27 149 iPd 37 46.31 -2.2
CMB 1.50 82 ePd 37 49.99 -2.0
8 obs. associated

MAR 25, 1993 03h 42m 59.07± 1.21s
29.892 N ± 8.9km 138.887 E ±20.7km
DEPTH = 412.6 ± 12.4 km
4.2mb (9 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT 6.66 355 iPd 44 40.00 0.0
0.6s 17.33nm 4.3mb
eS 45 57.00
WB2 49.74 186 iPc 51 13.10 -0.4
0.2s 12.50nm 4.9mb
i 51 45.70
MBL 53.97 202 eP 51 45.00 0.6
STK 61.49 177 eP 52 35.60 -0.1
0.6s 3.40nm 4.1mb
RES 70.02 13 eP 53 29.50 0.7
1.0s 3.00nm 3.9mb
YKA 71.06 28 eP 53 34.00 -1.0
0.7s 2.50nm 4.0mb
KAF 73.69 333 iP 53 50.00 -0.3
0.5s 4.40nm 4.3mb
SES 79.03 38 eP 54 20.00 0.1
HFS 79.70 335 eP 54 22.80 -0.3
0.4s 7.40nm 4.7mb
NB2 79.93 337 P 54 24.50 0.1
0.7s 6.90nm 4.5mb
LCCM 81.11 42 eP 54 31.50 0.5
GEC2 87.61 327 ePd 55 03.00 0.0
1.0s 1.17nm 3.7mb
e 55 18.60
S.D. = 0.6 on 12 of 12 obs.

MAR 25, 1993 04h 16m 40.05± 0.33s
44.333 N ± 2.6km 7.305 E ± 3.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN), 1.6 (LDG), 1.5 (STR).

STV 0.09 171 P 16 43.87 1.1
S 16 45.80
ENR 0.13 142 P 16 44.19 0.8
S 16 46.37
PZZ 0.23 320 P 16 46.07 1.1
S 16 49.60
TOUF 0.32 187 Pg 16 46.94 0.1
Sg 16 50.76
SAOF 0.39 152 Pg 16 47.90 -0.2
Sg 16 52.86
ROB 0.41 95 P 16 48.64 0.2
S 16 53.87
AURF 0.45 178 Pg 16 48.98 -0.2
Sg 16 55.07
SBF 0.48 169 Pg 16 49.69 -0.1
Sg 16 55.50
BHB 0.51 357 P 16 49.59 -0.8
S 16 56.18
IMI 0.60 135 P 16 51.52 -0.6
S 16 59.10
CALN 0.65 207 Pg 16 53.14 0.0
FIN 0.66 100 P 16 52.70 -0.5
S 17 01.22
RRL 0.69 328 P 16 53.75 -0.2
S 17 03.06
RSP 0.82 358 P 16 56.09 0.1
S 17 06.23
FRF 0.91 212 Pg 16 57.10 -0.3
Sg 17 08.60
PCP 0.91 76 P 16 57.71 0.2
S 17 08.82
LMR 1.15 210 Pg 17 01.40 -0.2
Sg 17 16.20
LPG 1.23 342 Pg 17 00.00 -3.1X
LPL 1.25 341 Pg 17 01.00 -2.5X
CDR 1.29 240 eP 17 03.50 -0.5
e 17 20.90
S.D. = 0.6 on 18 of 20 obs.

? MAR 25, 1993 04h 43m 39.63± 5.42s
39.073 N ±29.3km 24.116 E ±40.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.92 339 ePg 43 57.54 0.4
eSg 44 07.42
AGG 1.39 268 ePb 44 05.26 0.2
eSb 44 21.30
LIT 1.62 310 iPb 44 08.10 -0.3
eSb 44 26.20
SOH 1.84 342 ePb 44 11.58 0.0
SRS 2.08 349 ePb 44 15.06 0.1
KNT 2.29 336 ePn 44 17.62 -0.4
S.D. = 0.4 on 6 of 6 obs.

MAR 25, 1993 05h 12m 24.88± 0.39s
69.928 N ± 8.1km 15.923 W ± 7.1km
DEPTH = 10.0km (geophysicist)
4.4mb (20 obs.) 4.1Msz (2 obs.)
JAN MAYEN ISLAND REGION (639)

AKU 4.34 192 iP 13 30.00 -2.3
0.8s 307.84nm
iS 14 21.90
DAG 6.93 355 eP 14 07.80 -1.0
SDF 15.36 79 iP 16 07.80 4.9X
EKA 15.72 152 P 16 13.00 5.4X
0.8s 6.20nm 3.9mb
KAF 18.47 94 eP 16 41.20 -0.8
0.9s 18.20nm 4.3mb
NUR 19.03 99 eP 16 48.00 -0.9
0.4s 2.30nm 3.8mb
ENN 21.80 140 eP 17 18.00 -0.4
1.0s 25.00nm 4.6mb
RES 22.73 318 eP 17 31.00 3.5X
1.0s 3.00nm 3.8mb
CLL 23.03 129 e(P) 17 32.00 1.4
BRG 23.68 128 e(P) 17 48.80 11.8X
GRF 24.05 133 e(P) 17 48.70 8.1X
0.9s 9.00nm 4.4mb
Z 19s 0.50um 4.0Msz
CDF 24.32 140 eP 17 44.80 1.6
1.2s 12.20nm 4.4mb
KSP 24.36 125 eP 17 43.00 -0.5
PRU 24.65 128 eP 17 48.00 1.7
LOR 24.70 147 eP 17 45.20 -1.7
1.2s 10.70nm 4.4mb
Z 22s 0.90um 4.2Msz
LBF 25.00 147 eP 17 48.50 -1.3
1.0s 7.20nm 4.3mb
AVF 25.07 148 eP 17 50.50 0.1
1.0s 5.00nm 4.2mb
KHC 25.17 130 eP 17 55.00 3.6X
e 18 14.50
LSF 25.27 151 eP 17 54.60 2.3
1.3s 29.95nm 4.8mb
SMF 25.30 147 eP 17 52.20 -0.4
1.2s 18.45nm 4.6mb
TCF 25.35 150 eP 17 52.70 -0.4
1.1s 11.00nm 4.5mb
GEC2 25.47 131 ePc 17 55.80 1.5
0.9s 2.77nm 3.9mb
e 18 02.30
e 18 05.70
e 18 15.80
e 18 18.70
JAO 30.84 270 eP 18 43.00 0.3
FCC 33.08 291 eP 19 07.00 4.8X
YKA 36.19 309 eP 19 27.70 -1.2
0.9s 7.20nm 4.5mb
EEO 38.04 266 eP 19 50.50 6.0X
ULM 40.69 284 eP 20 11.00 4.5X
FBA 41.36 331 eP 20 12.23 0.4
1.3s 6.98nm 4.2mb
RSSD 48.76 287 (P) 21 11.75 0.3
FVM 49.60 271 eP 21 19.80 2.0
0.9s 7.64nm 4.7mb
BW06 51.76 291 eP 21 33.70 -0.7
0.9s 4.13nm 4.4mb
MIAR 53.79 272 eP 21 49.52 0.2
1.7s 7.41nm 4.4mb
EMUT 54.84 290 eP 21 58.39 1.0
MEO 55.30 277 e(P) 22 01.10 0.7
SRU 55.38 290 eP 22 00.67 -0.5
WMOK 55.41 277 eP 22 00.45 -0.8
0.9s 6.44nm 4.7mb
MSU 56.46 291 eP 22 09.11 0.1
KIC 63.90 168 (P) 22 59.80 0.0
LIC 64.02 168 (P) 23 00.00 -0.5
S.D. = 1.2 on 30 of 39 obs.

MAR 25, 1993 05h 23m 14.32± 0.52s
69.814 N ± 9.3km 16.249 W ± 9.0km
DEPTH = 10.0km (geophysicist)
4.3mb (12 obs.) 3.8Msz (1 obs.)
JAN MAYEN ISLAND REGION (639)

AKU 4.21 191 iP 24 19.30 -0.5
1.0s 216.67nm
iS 25 12.10
DAG 7.03 355 eP 24 58.00 -1.7
0.3s 12.99nm 5.6mb X
SDF 15.49 78 iP 26 54.80 0.8
APO 15.52 112 eP 26 56.70 2.3
0.5s 1.70nm 3.6mb
KAF 18.57 93 eP 27 30.60 -2.2
0.9s 20.00nm 4.3mb
NUR 19.13 99 eP 27 36.00 -3.5X
1.1s 35.90nm 4.5mb
ENN 21.78 140 eP 28 07.00 -0.7
1.0s 32.00nm 4.7mb
RES 22.74 318 eP 28 19.00 2.0
1.0s 2.00nm 3.6mb
CLL 23.05 128 e(P) 28 20.00 -0.2
MOX 23.28 131 eP 28 26.00 3.5X
BRG 23.70 128 eP 28 33.10 6.5X
2.0s 44.00nm 4.7mb
GRF 24.06 133 eP 28 29.10 -0.9
1.7s 38.00nm 4.7mb
Z 19s 0.30um 3.8Msz

```
25d  05h

CDF      24.30 140 eP      28 35.40    2.9X
KSP      24.39 124 ePc     28 33.00   -0.3
PRU      24.67 128 eP      28 35.00   -0.9
                   e       30 15.00
LBF      24.97 146 eP      28 40.60    1.7
         0.8s    4.15nm           4.2mb
KHC      25.19 130 eP      28 41.70    0.7
LSF      25.23 150 eP      28 45.10    3.7X
         1.2s   22.90nm           4.7mb
YKA      36.18 309 eP      30 16.60   -1.6
         1.0s    4.20nm           4.2mb
IMA      41.24 335 eP      31 01.90    1.5
         1.0s    2.50nm           3.9mb
FBA      41.41 331 eP      31 02.40    0.8
BW06     51.69 290 eP      32 22.00   -1.4
         1.0s    1.67nm           3.9mb
SRU      55.32 289 eP      32 50.29    0.1
MSU      56.40 290 eP      32 58.61    0.6
     S.D. = 1.4  on   19 of  24 obs.
--------------------------------------
% MAR 25, 1993  05h 29m 45.93± 1.07s
   40.302 N ±10.1km    29.414 E ±11.3km
   DEPTH =  33.0km  (normal)
 TURKEY                           (366)
      MD 2.6 (ISK).

YLV       0.27 353 iPg     29 53.60    0.2
                   eSg     29 58.80
KCT       0.81 267 iPg     30 00.70   -0.2
BNT       1.14 273 iPn     30 06.30    0.6
EDC       1.19 273 ePn     30 05.50   -0.8
ALT       1.36 156 ePn     30 07.80   -1.0
                   eSg     30 12.80
KHL       1.98 178 ePn     30 19.00    1.2
     S.D. = 1.1  on    6 of   6 obs.
--------------------------------------
% MAR 25, 1993  05h 42m 41.40± 0.55s
   43.069 N ± 6.0km    0.830 W ± 4.3km
   DEPTH =  10.0km  (geophysicist)
 PYRENEES                         (378)
      ML 1.3 (STR).

ISSF      0.05 148 Pg      42 43.65    0.0
MADF      0.08   6 Pg      42 43.96    0.1
                   Sg      42 45.65
ATE       0.10  80 Pg      42 44.04   -0.1
                   Sg      42 45.89
BOH       0.14 284 Pg      42 44.72    0.0
                   Sg      42 46.99
ELYF      0.16 311 Pg      42 45.04    0.0
                   Sg      42 47.36
ESCF      0.19  87 Pg      42 45.54    0.0
                   Sg      42 48.29
LHE       0.22 135 Pg      42 46.30    0.1
                   Sg      42 49.33
OGE       0.28  69 Pg      42 47.36    0.1
JAU       0.34  95 Pg      42 48.36   -0.1
                   Sg      42 53.19
     S.D. = 0.1  on    9 of   9 obs.
--------------------------------------
   MAR 25, 1993  05h 44m 08.32± 0.46s
   37.625 N ± 4.6km    21.329 E ± 3.3km
   DEPTH =  10.0km  (geophysicist)
   4.3mb (  9 obs.)  4.4Msz (  1 obs.)
 SOUTHERN GREECE                  (368)
      ML 4.0 (THE), 4.0 (TIR), MD
      3.9 (ATH).

VLS       0.80 314 ePg     44 24.50    0.6
VLI       1.57 125 ePb     44 37.70    1.4
AGG       1.60  29 ePb     44 36.88    0.1
                   eSb     44 59.68
ATH       1.92  79 ePb     44 42.00    0.6
IGT       2.06 338 iPn     44 44.38    1.0
                   eSn     45 13.20
KEK       2.40 331 ePb     44 51.00    2.7X
SRN       2.48 336 ePn     44 51.30    2.0
                   iSn     45 21.50
LIT       2.63  20 ePn     44 52.17    0.6
                   eSn     45 26.40
KZN       2.70   7 ePn     44 54.00    1.4
TPE       2.86 339 iPnc    44 56.50    1.7
                   iSn     45 34.00
PAIG      2.94  38 ePn     44 55.80   -0.1
                   eSn     45 33.80
FNA       3.15   1 ePn     44 59.96    1.0
                   eSn     45 38.96
```

```
VLO       3.18 334 ePn     45 05.50    6.2X
                   iSn     45 48.70
THE       3.26  22 ePn     45 00.76    0.3
                   eSn     45 40.88
OUR       3.40  37 ePn     45 02.46    0.0
GRG       3.43  14 ePn     45 03.08    0.2
                   eSn     45 46.70
OHR       3.51 353 iPn     45 05.00    1.0
        1.0s    458.00nm
                   i       45 12.00
                   i       45 17.50
                   i       45 47.20
                   i       45 54.00
                   i       46 03.50
                   Lg      46 14.00
SOH       3.56  26 ePn     45 05.52    0.8
KNT       3.74  19 ePn     45 07.80    0.5
                   eSn     45 53.08
LCI       3.77 317 P       45 10.25    2.5
VAY       3.81  14 iPn     45 08.70    0.4
TIR       3.89 344 iPnc    45 10.50    1.2
                   iSn     45 59.00
SRS       3.90  26 ePn     45 10.04    0.4
                   eSn     45 57.70
GRI       4.04 289 P       45 11.82    0.2
PHP       4.11 351 iPnc    45 14.00    1.5
                   iSn     46 06.60
LACI      4.20 343 ePn     45 13.80    0.1
SKO       4.34   1 iPn     45 15.30   -0.5
        0.6s    110.00nm
                   iPg     45 29.70
                   i       45 35.50
                   i       45 47.10
                   iSn     46 03.60
                   iSg     46 23.30
                   Lg      46 38.50
MMB       4.37  24 iPc     45 16.00   -0.3
KKB       4.45  17 iPc     45 17.00   -0.3
ORI       4.52 304 P       45 19.82    1.4
ULC       4.62 340 iPnc    45 18.47   -1.3
                   iSn     46 09.82
SDA       4.64 343 ePn     45 20.10    0.1
                   iSn     46 20.00
ATN       4.67 278 P       45 20.20   -0.4
RDO       4.79  42 ePn     44 54.00  -28.3X
RZN       4.83  32 iPc     45 22.00   -0.9
ALN       4.91  47 iPn     45 23.85    0.0
TTG       5.05 342 iPnd    45 24.32   -1.6
                   iSn     46 21.20
PVY       5.07 349 iPnd    45 26.20   -0.1
                   iSn     46 23.63
MEU       5.12 266 P       45 26.37   -0.7
PZI       5.15 265 P       45 25.29   -2.0
MGR       5.16 301 P       45 28.25    0.9
VTS       5.17  16 iPd     45 28.00    0.4
PLD       5.17  29 eP      45 28.00    0.4
MNO       5.26 275 P       45 28.62   -0.5
HCY       5.28 337 iPnc    45 26.92   -2.2
                   iSn     46 24.61
IVA       5.35 349 iPnd    45 29.85   -0.4
                   iSn     46 30.30
NKY       5.48 342 ePn     45 30.01   -2.0
                   iSn     46 30.95
SGO       5.52 304 P       45 34.20    1.6
BRY       5.68 339 ePn     45 32.45   -2.5
                   iSn     46 35.01
BNT       5.81  60 eP      45 37.00    0.3
PLE       5.89 346 iPnd    45 36.35   -1.4
                   iSn     46 42.16
KCT       6.07  62 eP      45 41.00    0.7
JMB       6.29  38 iP      45 20.00  -23.4X
PVL       6.37  27 eP      45 42.00   -2.4
DMK       6.49  48 eP      45 45.20   -1.0
KHL       6.51  81 eP      45 47.00    0.4
HVAR      6.68 328 ePn     45 48.10   -0.8
                   iSn     57 00.10
ALT       7.05  76 eP      45 55.00    0.8
SDI       7.08 307 P       45 55.93    1.3
HRT       7.22  61 eP      45 56.30   -0.2
EYL       7.47  64 eP      45 58.00   -2.0
CMP       8.13  19 ePc     46 10.00    0.9
MLR       8.59  22 ePd     46 16.00    0.4
CVO       8.95  22 eP      46 27.00    6.4X
VBY       9.09 332 ePn     46 21.70   -0.7
                   i       46 28.10
PTJ       9.19 336 eP      46 21.00   -2.9X
CEY       9.61 330 e(P)    46 34.50    4.9X
```

```
                   e(S)    48 13.50
LJU       9.82 331 e(Pn)   46 37.50    5.0X
                   e(Sn)   48 19.50
VOY      10.06 329 e(Pn)   46 27.10   -8.8X
                   e       46 35.60
                   eSn     48 19.60
KBA      11.13 331 eP      46 56.00    5.3X
WTTA     11.99 326 i(Pn)   47 06.10    3.8X
                   i       49 05.70
                   i       49 10.60
GEC2     12.51 336 Pn      47 10.70    1.5
                   Sn      49 23.90
KHC      12.80 336 eP      47 17.50    4.5X
                   e       47 34.00
                   e       49 34.00
BSF      14.75 318 eP      47 46.60    7.9X
HAU      15.09 318 eP      47 49.00    5.9X
         1.0s   12.80nm           4.3mb
SSF      16.17 311 eP      48 03.10    6.0X
         0.9s   10.00nm           3.9mb
WLF      16.25 323 P       48 06.00    7.9X
OBN      20.33  26 eP      48 51.00    3.9X
      Z  21s     1.80um          4.4Msz
      N  20s     1.10um
      E  20s     0.80um
                   e       49 07.00
NUR      23.00   4 eP      49 11.00   -3.0X
         0.4s    4.90nm           4.4mb
HFS      23.05 350 eP      49 12.90   -1.6
         0.5s    6.00nm           4.4mb
EKA      24.25 325 P       49 27.00    0.9
         0.7s    6.20nm           4.3mb
NB2      24.29 348 P       49 24.80   -1.7
         0.5s    1.70nm           3.9mb
KAF      24.71   6 eP      49 28.30   -2.2
         0.8s   12.90nm           4.6mb
BCAO     33.13 185 iPd     50 48.00    1.1
         0.5s    3.00nm           4.5mb
KIC      39.12 224 P       51 37.20   -0.5
LIC      39.39 224 P       51 39.70   -0.3
YKA      74.13 340 eP      55 44.40   -1.7
         0.6s    0.30nm           3.5mb
     S.D. = 1.2  on   69 of  87 obs.
--------------------------------------
? MAR 25, 1993  05h 54m 09.69± 1.18s
   70.249 N ±27.1km    15.571 W ±13.9km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  5 obs.)
 JAN MAYEN ISLAND REGION          (639)

SDF      15.18  80 eP      57 45.00   -0.4
SLL      15.33 115 eP      57 51.90    4.5X
         0.5s    2.60nm           3.8mb
KAF      18.37  95 iP      58 26.20    0.5
         0.9s   14.30nm           4.1mb
NUR      18.97 101 eP      58 33.00    0.0
         0.9s   12.70nm           4.1mb
RES      22.58 317 eP      59 17.00    6.2X
         1.0s    2.00nm           3.6mb
KSP      24.45 126 eP      59 29.00   -0.2
YKA      36.09 309 eP      01 12.80    0.0
         1.0s    4.60nm           4.3mb
     S.D. = 0.5  on    5 of   7 obs.
--------------------------------------
   MAR 25, 1993  06h 03m 34.64± 0.40s
   69.771 N ±10.6km    16.187 W ± 9.7km
   DEPTH =  10.0km  (geophysicist)
   4.4mb ( 13 obs.)  3.9Msz (  1 obs.)
 JAN MAYEN ISLAND REGION          (639)

AKU       4.17 191 iP      04 38.80   -0.8
         0.7s  128.42nm
                   iS      05 31.00
SLL      15.33 113 eP      07 15.00    2.6X
         0.5s    2.30nm           3.8mb
SDF      15.48  78 iP      07 09.00   -5.2X
KAF      18.55  93 iP      07 49.40   -3.4X
         0.9s   14.90nm           4.2mb
NUR      19.10  99 eP      07 55.00   -4.5X
ENN      21.74 140 eP      08 27.00   -0.6
         1.0s   31.00nm           4.7mb
RES      22.79 318 eP      08 39.00    1.2
         1.4s   14.00nm           4.3mb
CLL      23.01 128 eP      08 39.00   -1.1
BRG      23.66 128 eP      08 47.10    0.6
         1.8s   38.00nm           4.7mb
GRF      24.01 133 eP      08 50.50    0.6
```

2.2s 98.00nm 5.0mb
Z 19s 0.40um 3.9Msz
CDF 24.25 140 eP 08 53.40 1.0
KSP 24.35 124 eP 08 52.00 -1.2
PRU 24.62 128 eP 08 56.00 0.2
SSF 24.75 147 eP 09 03.10 5.9X
0.9s 4.10nm 4.1mb
KHC 25.14 130 eP 09 03.50 2.6X
e 09 13.00
SMF 25.22 146 eP 09 03.70 2.1
TCF 25.26 149 eP 09 14.50 12.5X
1.2s 15.75nm
GEC2 25.44 130 eP 09 03.00 -0.7
1.3s 7.31nm 4.2mb
e 09 06.90
e 09 16.40
e 09 23.60
YKA 36.22 309 eP 10 37.50 -1.4
0.9s 5.10nm 4.4mb
IMA 41.29 335 e(P) 11 20.50 -0.6
FBA 41.46 331 eP 11 22.21 -0.1
1.5s 15.22nm 4.5mb
SES 45.45 297 eP 11 56.00 1.0
RSSD 48.71 287 eP 12 21.10 0.2
1.0s 6.78nm 4.6mb
BW06 51.73 291 eP 12 42.71 -1.3
1.3s 6.83nm 4.4mb
EMUT 54.81 290 eP 13 07.19 0.3
SRU 55.35 289 eP 13 10.44 -0.3
MSU 56.43 291 eP 13 17.89 -0.7
ARUT 57.50 291 eP 13 27.64 1.5
TUC 61.63 286 eP 13 54.74 0.2
LZH 65.87 50 eP 14 19.50 -2.8X
2.0s 34.00nm 5.2mb
Z 25s 0.27um 4.4MszX
S.D. = 1.0 on 22 of 30 obs.

• MAR 25, 1993 06h 48m 34.07± 1.67s
8.086 S ±11.3km 74.448 W ±17.5km
DEPTH = 159.3 ± 15.8 km
4.8mb (4 obs.)
PERU-BRAZIL BORDER REGION (112)

PSO 9.65 343 eP 50 50.50 -0.3
BOG 12.63 2 eP 51 35.00 5.4X
FUQ 13.48 3 eP 51 47.50 6.9X
SDV 17.28 13 eP 52 28.10 0.5
HJA 17.37 151 ePd 52 27.80 -0.5
TOV 18.35 15 eP 52 39.40 0.1
ePP 52 43.60
MORO 19.80 18 ePc 52 57.70 3.3X
PPD 26.24 124 eP 53 58.40 2.2
BAO 26.93 109 iPc 54 03.00 0.3
i 54 36.90
e 01 29.80
e 02 48.70
BDF 27.02 109 eP 54 03.00 -0.5
e 54 36.00
SOB1 33.18 94 eP 54 56.90 -0.9
SES 66.33 335 eP 59 08.00 0.5
LIC 70.67 81 P 59 34.08 -0.8
TIC 70.76 80 P 59 34.66 -0.7
1.0s 24.00nm 5.0mb
KIC 70.98 80 P 59 36.10 -0.6
YKA 76.84 342 eP 00 08.60 -0.9
0.5s 0.30nm 3.3mb X
LPO 85.56 44 eP 00 55.90 0.4
0.7s 7.60nm 4.6mb
LPL 89.58 44 eP 01 15.60 0.6
0.8s 6.30nm 4.7mb
LPG 89.59 44 eP 01 15.90 0.7
1.0s 11.20nm 4.8mb
GBA 151.86 76 PKP 08 14.00 8.5X
e 08 55.00
LZH 152.09 3 ePKP 08 22.00 16.4X
1.8s 21.00nm
S.D. = 0.9 on 16 of 21 obs.

MAR 25, 1993 06h 48m 45.77± 0.35s
9.415 S ± 7.2km 74.267 W ± 9.6km
DEPTH = 33.0km (normal)
5.0mb (8 obs.)
CENTRAL PERU (116)

NNA 3.60 224 iPd 49 40.50 -0.1
eS 50 24.00
ARE 7.51 159 eP 50 49.00 12.9X
ZOBO 9.08 139 iPc 50 58.10 -0.1
1.1s 26.10nm 5.3mb
LPB 9.28 140 P 51 02.20 1.4
1.0s 80.00nm 5.9mb
CNCB 9.57 141 P 51 04.50 -0.4
i 54 37.20
CCH 11.19 136 P 51 26.10 -0.8
SIV 14.43 118 Pd 52 15.60 5.8X
i 52 18.40
MEO 49.62 334 iPc 57 36.20 0.0
WMOK 49.67 333 eP 57 35.82 -0.7
1.2s 15.90nm 4.9mb
ACO 51.48 334 iPc 57 50.50 0.2
ALQ 53.60 327 eP 58 06.54 0.2
1.1s 18.37nm 5.0mb
TUC 54.19 322 eP 58 09.90 -0.7
0.9s 4.99nm 4.5mb
EEO 55.97 356 eP 58 26.50 3.3X
SRU 58.87 327 eP 58 43.46 -0.6
MSU 59.34 326 eP 58 47.21 -0.2
EMUT 59.54 328 eP 58 49.75 1.0
ARUT 59.54 325 eP 58 49.63 0.9
RSSD 59.73 336 eP 58 51.70 1.8
1.2s 21.52nm 5.2mb
GSC 59.92 320 (P) 58 54.07 2.8X
DAU 60.21 328 eP 58 53.00 -0.4
BW06 61.12 331 eP 58 59.38 -0.1
1.1s 9.65nm 4.8mb
ULM 62.33 345 eP 59 10.50 3.3X
JAQ 62.98 359 eP 59 10.50 -0.9
LCCM 64.52 332 eP 59 13.80 -8.1X
LBFM 66.81 323 eP 59 36.29 -0.4
SES 67.61 336 eP 59 44.00 2.6X
DPW 69.01 330 eP 59 53.06 2.9X
FCC 69.81 349 eP 00 00.00 5.3X
RMW 70.57 328 (P) 00 02.53 2.8X
FBA 91.58 336 eP 01 59.33 9.1X
1.3s 9.67nm 5.0mb
S.D. = 0.8 on 19 of 30 obs.

MAR 25, 1993 07h 08m 18.93± 0.09s
41.800 N ± 1.9km 143.467 E ± 1.8km
DEPTH = 33.9km (43 depth phases)
5.8mb (155 obs.) 5.9Msz (78 obs.)
HOKKAIDO, JAPAN REGION (224)
Mw 6.0 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 39S, 94C
Centroid Location:
Origin Time 07:08:23.2 0.2
Lat 41.62N 0.02 Lon 143.84E 0.02
Dep 33.0 BDY Half-duration 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 4.89 0.12 Mtt=-0.22 0.18
Mff=-4.67 0.17 Mrt= 2.53 0.27
Mrf= 8.86 0.41 Mtf=-3.72 0.15
Principal Axes:
T Val= 10.18 Plg=59 Azm=273
N 1.53 9 19
P -11.71 29 115
Best Double Couple:Mo=1.1*10**18
NP1:Strike=229 Dip=18 Slip= 121
NP2: 17 74 80

HOOJ 0.60 347 iPd 08 33.10 2.2
KUSJ 1.59 35 iP+ 08 45.60 0.5
eS 09 06.00
MRRJ 1.89 290 iP+ 08 52.30 2.9X
eS 09 17.40
SAP 2.02 309 iP 08 54.40 3.1X
iS 09 21.20
ASAJ 2.39 346 iP+ 08 58.60 2.0
AOMJ 2.64 243 eP 09 02.40 2.3
OFUJ 3.04 207 iP+ 09 05.70 -0.1
S 09 42.50
SHO 3.21 49 iPnd 09 06.60 -1.5
eS 09 41.00
YAMJ 4.48 217 eP 09 26.10 -0.1
KUR 4.69 42 iPnd- 09 29.00 -0.1
iS 10 22.00
YSS 5.24 354 ePnc+ 09 35.60 -1.4
Z 16s 132.70um
N 16s 109.60um
E 16s 34.60um
eS 10 36.00
NIIJ 5.71 219 P 09 43.40 -0.2
KAKJ 6.15 206 P 09 46.20 -3.6X
S 10 51.10
MAJO 6.65 220 eP 09 56.77 -0.1
MAT 6.65 220 iPc 09 56.60 -0.3
eS 11 12.00
CHJJ 6.72 213 P 09 57.10 -0.7
MTMJ 6.81 222 P 09 59.20 0.0
IIDJ 7.66 216 P 10 11.80 0.8
TSRJ 8.56 226 P 10 23.70 0.2
VLA 8.66 283 iPnc 10 26.00 1.2
i 12 12.00
WKYJ 9.79 222 eP 10 38.60 -1.8
YONJ 10.24 233 eP 10 46.80 0.1
MDJ 10.51 290 eP 10 51.40 1.1
Z 20s 101.00um
E 15s 50.60um
TKSJ 10.78 227 eP 10 52.90 -1.0
OKH 11.76 358 iPnc 11 06.00 -1.2
Z 17s 69.50um
iS 13 23.00
SHNJ 12.39 236 P 11 17.20 1.4
SKR 12.44 40 ePn 11 13.40 -2.9X
Z 20s 28.10um 4.5MszX
N 22s 35.40um
E 20s 20.70um
CN2 13.38 285 eP 11 28.20 -0.7
1.0s 220.00nm 6.0mb
Z 16s 88.90um 4.0MszX
N 16s 19.40um
E 16s 55.90um
esP 11 40.00
eS 14 01.00
KUMJ 13.66 231 P 11 32.30 -0.3
KAGJ 14.63 228 P 11 43.70 -1.6
SNY 14.83 277 iPc 11 48.00 0.1
1.4s 270.00nm 5.4mb
Z 21s 48.60um 5.1Msz
N 16s 18.80um
E 15s 27.50um
PET 15.18 37 eP 11 57.00 4.7X
Z 20s 23.70um
N 18s 19.80um
E 20s 28.80um
DL2 16.89 267 iPc 12 14.00 -0.2
1.0s 800.00nm 5.8mb
Z 20s 15.70um 4.5MszX
N 13s 10.70um
E 14s 11.70um
S 15 19.00
MGD 18.87 11 eP+ 12 33.00 -5.6X
1.1s 510.00nm 5.7mb
Z 15s 16.00um 4.4MszX
N 15s 18.00um
eS 15 56.00
BJI 20.67 274 ePc 12 55.50 -2.8X
1.0s 440.00nm 5.8mb
E 15s 32.20um
SSE 20.81 246 Pc 12 56.00 -3.7X
1.0s 120.00nm 5.2mb
Z 20s 22.40um 5.5Msz
N 16s 21.60um
E 14s 8.70um
pP 13 12.00 74kmX
TIA 21.18 263 Pc 13 00.80 -2.7X
1.0s 110.00nm 5.2mb
Z 22s 24.10um 5.5Msz
N 13s 5.03um
E 13s 7.26um
sP 13 15.00
S 16 49.00
SEY 21.79 11 iPc 13 05.50 -3.9X
1.1s 490.00nm 5.8mb
i 13 20.00 63kmX
iS 17 02.00
i 17 20.00
YAK 21.86 342 iPc 13 05.40 -4.7X
1.0s 670.00nm 6.0mb
Z 19s 27.00um 5.7Msz
N 19s 28.70um
i 13 28.00 109kmX
iPPP 13 48.00
iS 16 58.00
eSS 17 38.00
NJ2 21.89 252 Pc 13 08.00 -2.6X
Z 18s 20.30um 5.6Msz
N 14s 8.20um
E 16s 27.30um

25d 07h

```
                  S     17 02.00
CIT    22.66 307 eP     13 16.00  -2.3
   Z  18s   41.30um          5.9Msz
   N  15s   14.40um
   E  19s   66.60um
SMY    23.31  52 (P)    13 24.56   0.1
       1.3s 997.48nm         6.2mb
   Z  21s   10.31um          5.3Msz
HHC    23.91 278 iPd    13 29.40  -1.2
       1.2s 190.00nm         5.5mb
   Z  20s   44.50um          5.9Msz
   N  13s    7.67um
   E  18s   23.20um
                  pP    13 36.00  23kmX
                  S     17 44.00
TIY    24.13 271 Pd     13 31.00  -1.7
       1.2s 100.00nm         5.2mb
   Z  19s   33.20um          5.8Msz
   N  16s    9.38um
   E  17s   10.80um
                  S     17 50.00
BOD    24.52 321 iPc    13 33.60  -2.5X
       1.2s 137.00nm         5.4mb
TATO   24.76 234 eP     13 39.11   0.4
BTO    25.11 279 iPd    13 40.50  -1.6
       1.2s 120.00nm         5.4mb
   N  15s    9.93um
   E  16s   23.90um
                  S     18 01.00
                  SS    19 02.50
WHN    25.93 254 Pd     13 49.20  -0.5
       1.0s 320.00nm         5.9mb
   Z  20s   35.40um          5.9Msz
   N  22s   12.80um
   E  18s   25.60um
                  sP    14 00.00
                  eS    18 12.00
BBP    28.00 227 ePc    14 07.50  -1.2
GUMO   28.13 177 eP     14 06.10  -3.8X
   Z  22s    5.48um          5.1Msz
                  eS    18 50.20
XAN    28.19 265 P      14 08.80  -1.6
       1.1s  46.00nm         5.1mb
   Z  25s   16.30um          5.5MszX
   N  15s    9.01um
   E  15s   11.40um
                  pP    14 16.00  25km
IRK    28.34 305 iP+    14 11.00  -0.5
       1.4s 420.00nm         5.9mb
   Z  18s   34.32um          6.0Msz
   N  16s    7.90um
   E  18s   28.60um
                  epP   14 18.00  25km
                  e     15 04.00
                  eS    18 59.00
                  esS   19 18.00
                  e     20 30.00
ZAK    28.86 301 iPc+   14 15.50  -0.6
       1.0s 127.00nm         5.6mb
   Z  17s   45.45um          6.2MszX
   E  18s   62.62um
                  e     15 13.00 300kmX
CVP    30.32 224 ePc    14 29.00  -0.5
MOY    30.35 304 iPc    14 29.90   0.5
       1.0s 180.00nm         5.8mb
TIK    30.78 351 iPc    14 28.00  -5.0X
       1.4s  33.00nm         4.9mb
   Z  18s   25.00um          5.9Msz
                  ePPP  15 26.00
                  e     19 32.00
LZH    31.14 273 iPc    14 36.00  -0.8
       1.5s 240.00nm         5.8mb
   Z  18s   19.30um          5.8Msz
   E  14s   11.80um
                  pP    14 43.00  24km
                  sP    14 46.00
                  PP    15 33.00
                  ScS   25 11.00
GZH    31.30 243 P      14 38.80   0.7
       1.2s  51.00nm         5.2mb
   Z  20s   17.50um          5.7Msz
   N  15s    4.74um
   E  13s    6.26um
                  S     19 45.00
HKC    31.30 241 P      14 38.80   0.7
                  S     20 48.00
BCP    32.03 225 eP     14 46.00   1.3
GTA    32.97 281 P      14 52.00  -0.7
       1.0s  76.00nm         5.5mb
   Z  18s   45.70um          6.2Msz
   E  16s   16.40um
                  pP    15 00.00  28km
                  sP    15 04.00
                  PP    15 56.00
                  PcP   17 35.00
                  S     20 07.00
ILT    33.06  25 iPc    14 49.40  -3.5X
       1.0s 110.00nm         5.7mb
   Z  18s    6.50um          5.4Msz
   N  14s    2.40um
   E  18s    6.50um
                  i     15 04.00  58kmX
                  i     16 05.00
                  iS    20 02.00
CD2    33.51 264 eP     14 56.10  -1.3
   Z  18s   13.10um          5.7Msz
   N  14s   11.20um
GYA    33.80 255 iPc    14 59.00  -1.0
       1.0s 110.00nm         5.7mb
   Z  18s   28.10um          6.0Msz
   N  18s   12.20um
   E  18s   13.80um
                  sP    15 10.00
                  PP    16 14.00
                  S     20 15.00
                  ScS   25 23.60
TGY    33.81 222 eP     14 55.00  -5.1X
PLP    34.55 213 ePd    15 05.50  -0.9
UER    34.65 304 iPc    15 06.60  -0.3
       1.3s 280.00nm         6.0mb
                  e     16 26.60 434kmX
                  PPP   16 48.00
                  eS    20 38.40
OIZ    36.47 242 Pc     15 24.00   1.4
   N  18s    6.19um
   E  17s   10.40um
                  S     21 08.00
KMI    37.44 257 iPc    15 30.50  -0.5
       2.0s 410.00nm         5.9mb
   Z  20s   22.10um          6.0Msz
   N  15s    6.40um
   E  15s    8.60um
                  pP    15 40.00  32km
                  S     21 16.00
                  sS    21 30.00
DAV    38.04 210 eP     15 36.30   0.5
CTB    38.46 212 ePc    15 54.00  14.6X
ELT    39.27 307 iPc    15 45.60  -0.2
       1.6s 644.00nm         6.1mb
   Z  18s   20.00um          6.0Msz
   N  26s   11.00um
   E  18s   19.00um
                  e     17 39.00
                  eS    21 42.00
NRI    39.52 333 iPc    15 44.00  -3.6X
       1.2s 193.00nm         5.7mb
   E  21s   78.00um
                  e     15 58.00  54kmX
                  (PPP) 17 43.00
                  eS    21 44.00
                  iSS   24 33.00
                  i     25 52.00
WMQ    40.31 292 iPc    15 54.80   0.2
       1.2s 220.00nm         5.8mb
   Z  20s   58.80um          6.4Msz
   N  14s   10.20um
   E  14s   20.00um
                  PP    17 29.00
                  PcS   21 44.00
TTA    40.64  38 ePc    15 56.84  -0.2
       1.3s  60.24nm         5.2mb
SVW    40.80  41 iPc    15 58.94   0.6
       1.0s 101.03nm         5.5mb
BRW    41.42  25 eP     16 01.71  -1.5
                  e     16 14.93  50kmX
IMA    41.80  33 ePc    16 05.99  -0.6
       1.0s  83.30nm         5.4mb
RSO    42.23  41 eP     16 10.14  -0.1
CP2    42.43  40 iPc    16 12.36   0.4
CRP    42.47  40 eP     16 11.52  -0.7
KDC    42.61  45 eP     16 11.89  -1.2
       1.1s 152.81nm         5.6mb
KKM    43.07 222 ePc    16 19.50   2.0
LOE    43.10 248 eP     16 17.00  -0.6
SLKM   43.47  41 eP     16 18.44  -1.8
LSA    43.53 271 Pc     16 22.80   1.2
       1.0s  70.00nm         5.4mb
   Z  18s   21.30um          6.1Msz
   N  16s   15.00um
   E  17s    6.53um
                  pP    16 32.80  34km
                  sP    16 37.00
                  PP    18 04.00
                  S     22 51.00
                  ScS   26 18.00
TSM    43.79 218 ePc    16 24.50   1.3
PMR    43.90  40 iPd    16 22.53  -1.0
       0.8s  65.03nm         5.5mb
   Z  19s    6.67um          5.6Msz
                  e     16 41.81  79kmX
CHTO   44.13 253 iPc    16 26.20   0.3
       1.2s  68.75nm         5.3mb
                  eS    23 02.00
COL    44.26  35 eP     16 29.02   2.6X
FBA    44.26  35 iPc    16 26.20  -0.2
       0.9s 130.53nm         5.8mb
KLU    45.44  39 ePc    16 35.23  -0.8
RAB    46.45 168 e(P)   16 48.00   3.6X
KHT    47.08 249 eP     16 50.30   0.9
PRZ    47.16 294 eP     16 50.00   0.0
       1.0s  60.00nm         5.5mb
   Z  19s   60.00um          6.6Msz
   N  19s   37.00um
   E  19s   57.00um
                  e     18 42.00 637kmX
                  eS    23 56.00
BALM   47.22  40 eP     16 49.76  -0.4
FRU    49.59 296 iPc+   17 09.00   0.3
       1.8s 260.00nm         6.0mb
   Z  18s   26.50um          6.3Msz
                  e     17 20.80  42km
                  e     19 06.00
                  eS    24 32.00
                  eSS   27 46.00
KSH    50.06 291 P      17 12.40  -0.1
       0.7s 150.00nm         6.1mb
   Z  18s   40.20um          6.5Msz
   N  16s   28.50um
   E  16s   27.70um
                  pP    17 22.00  32km
                  sP    17 26.00
                  PcP   18 26.00
                  PP    19 10.00
                  PcS   22 24.00
                  ScS   26 52.00
PMG    51.07 175 eP     17 22.00   2.0
SNG    51.22 240 eP     17 22.10   0.8
       1.4s 306.98nm         6.1mb
                  eS    24 44.00
SIT    51.79  43 (P)    17 27.96   2.9X
       1.3s 134.89nm         5.8mb
   Z  19s    4.81um          5.5Msz
                  e     17 41.23  49kmX
SVE    52.71 317 iPc    17 31.00  -1.1
       3.2s 840.00nm         6.2mb X
   Z  21s   11.00um          5.9Msz
   N  19s    6.50um
   E  19s    8.00um
                  e     19 35.00 705kmX
                  eS    25 00.00
                  e     27 20.00
KIP    52.78  94 eP     17 32.99   0.0
HON    52.84  94 P      17 40.00   6.5X
   Z  20s    7.04um          5.7Msz
IPM    52.94 237 ePc    17 34.50   0.3
HNR    53.18 160 eP     17 47.00  11.1X
KGM    53.53 233 ePc    17 39.40   0.8
       0.2s 190.20nm         6.7mb
ARU    53.90 317 iPc+   17 40.00  -0.8
       1.1s 1550.00nm        6.9mb X
   Z  18s   14.00um          6.1Msz
   N  18s    4.00um
   E  18s   11.00um
                  i     17 51.00  37km
                  e     18 45.00
                  eS    25 11.00
NDI    54.43 279 iPc    17 44.50  -0.6
       0.8s 335.82nm         6.4mb
                  eS    25 32.00
MTN    55.55 195 eP     17 52.00  -1.2
KHKI   56.07 214 eP     17 55.20  -1.8
```

			e	21 08.00	
KBS	56.25	350	iPc	17 58.20	0.5
SJI	57.20	218	iPd	18 05.20	0.1
			e	19 54.50	560kmX
PPI	57.25	234	eP	18 04.00	-1.5
			e	19 49.20	532kmX
RES	57.59	16	ePc	18 06.30	-0.9
	0.8s	53.00nm			5.6mb
LEM	58.44	223	ePc	18 13.00	-1.0
YKA	58.91	32	eP	18 15.40	-1.2
	1.1s	26.60nm			5.3mb
KEV	59.57	339	iP	18 19.60	-1.4
	0.6s	76.90nm			6.0mb
	Z 20s	10.00um			5.9Msz
			eS	26 28.00	
			LR	48 30.00	
HYB	59.99	267	iPc	18 23.50	-1.1
	1.0s	120.00nm			6.0mb
			e	19 09.50	200kmX
QUE	61.11	286	eP	18 31.80	-0.5
			eS	27 10.80	
DAG	61.17	355	eP	18 30.00	-1.9
	0.8s	50.75nm			5.7mb
SDF	61.24	337	iP	18 30.80	-1.7
CTA	61.63	177	iP-	18 37.00	1.5
	Z 24s	7.75um			5.8MszX
			eS	26 49.00	
			eSS	28 45.00	
TRO	61.73	341	eP	18 34.32	-1.4
PGC	61.94	49	eP	18 37.00	-0.4
WB2	62.01	190	iPc	18 36.40	-1.7
	0.8s	2.00nm			4.3mb X
			eP'P'	47 56.10	
WRA	62.01	190	P	18 36.80	-1.3
	1.1s	6.10nm			4.6mb X
MCW	62.27	48	eP	18 39.01	-0.7
ASH	62.81	298	P	18 43.00	-0.4
	1.4s	420.00nm			6.4mb
	Z 17s	22.80um			6.4MszX
	N 17s	12.60um			
	E 17s	14.40um			
			e	18 53.00	32km
			e	21 08.00	
			ePPP	22 30.00	
			eS	27 10.00	
			e	27 25.00	
			PS	27 35.00	
			e	27 46.00	
GMW	62.91	49	eP	18 43.61	-0.3
MAIO	62.95	296	iPc	18 43.80	-0.6
			eS	27 48.00	
JCW	63.04	48	P	18 44.38	-0.4
GBA	63.22	264	P	18 46.00	-0.3
BMW	63.25	51	P	18 46.12	-0.1
KAT	63.49	300	iP+	18 49.00	1.2
	Z 16s	12.00um			6.2MszX
	N 16s	20.00um			
	E 16s	14.00um			
			eS	27 30.00	
			ePS	27 54.00	
			e	28 36.00	
RMW	63.52	49	eP	18 47.58	-0.4
			e	19 04.37	63kmX
KMOR	63.56	51	P	18 48.90	0.6
FMW	63.89	50	P	18 50.10	-0.5
TDL	63.90	50	P	18 51.77	1.1
LON	63.91	50	eP	18 49.68	-0.9
SHW	63.98	50	eP	18 51.34	0.2
MTMW	64.08	51	P	18 53.26	1.5
LOF	64.16	341	eP	18 51.71	-0.1
ETW	64.26	48	P	18 53.26	0.3
ASR	64.37	50	P	18 53.39	-0.3
MOS	64.39	323	iPc	18 53.00	-0.5
	1.5s	610.00nm			6.5mb
	Z 18s	16.00um			6.3Msz
	N 18s	6.70um			
	E 18s	10.00um			
WTV	64.42	48	P	18 54.74	0.8
EBG	64.52	49	P	18 56.23	1.6
SSOR	64.60	52	P	18 55.36	0.2
SAW	64.73	48	P	18 54.94	-0.9
KAF	64.81	332	iP	18 54.60	-1.5
	0.7s	153.60nm			6.2mb
MXC	64.87	49	P	18 57.71	0.9
PUL	64.91	329	ePc	18 55.50	-1.3
	1.3s	590.00nm			6.5mb
	Z 20s	11.00um			6.0Msz
	N 20s	7.50um			
	E 20s	4.90um			
			eS	27 32.00	
			eSS	31 42.00	
BVW	64.97	49	P	19 00.68	3.2X
VBEM	64.99	51	P	18 57.51	-0.2
WAH2	65.18	49	P	18 58.26	-0.4
VGB	65.20	50	ePc	18 58.63	-0.3
CRF	65.24	49	P	18 59.20	0.1
OBN	65.25	323	iPc	18 58.00	-1.0
	1.0s	240.00nm			6.2mb
	Z 18s	15.00um			6.2Msz
	N 17s	8.40um			
	E 18s	7.80um			
			e	21 20.00	763kmX
			(S)	27 36.00	
			ePS	28 06.00	
			eSS	31 45.00	
HBO	65.25	53	P	19 00.68	1.2
MOR7	65.29	340	iPc	18 57.64	-1.5
DPW	65.29	47	P	18 58.83	-0.7
GBL	65.33	49	P	19 00.68	1.0
CROR	65.38	51	P	18 59.91	-0.3
ET3	65.63	49	P	19 02.17	0.5
NEW	65.65	46	iPd	19 00.92	-0.9
	1.2s	130.68nm			5.9mb
ASPA	65.73	190	iPc	19 01.10	-1.3
	0.9s	11.80nm			5.0mb
	Z 21s	3.70um			5.6Msz
VIPM	65.87	51	P	19 03.06	-0.4
FHC	65.98	56	ePd	19 04.99	1.0
	0.9s	133.41nm			6.0mb
			epP	19 13.58	28km
MBL	66.35	204	eP	19 05.50	-0.9
LNOR	66.41	49	P	19 06.42	-0.3
NUR	66.50	332	iP	19 05.60	-1.3
	0.8s	230.40nm			6.3mb
	Z 21s	18.00um			6.3Msz
			eS	28 09.00	
			LR	50 30.00	
MAK	66.81	307	iP+	19 08.60	-0.6
			i	19 36.00	110kmX
			e	21 37.00	
			ePS	28 30.00	
			e	29 03.00	
BAK	66.86	304	iPd	19 12.00	2.5
	Z 17s	6.58um			5.9MszX
	N 15s	11.95um			
	E 14s	10.95um			
			eS	28 06.00	
LBFM	66.96	55	ePc	19 09.79	-0.7
WDC	67.01	56	eP	19 23.01	12.5X
	Z 21s	1.80um			5.3Msz
			eS	28 08.01	
			eSKS	29 17.01	
			eSS	32 32.01	
			eLQ	35 44.01	
WDC	67.01	56	ePc	19 10.44	-0.1
	0.9s	40.36nm			5.5mb
	Z 20s	2.46um			5.4Msz
DZM	67.02	157	iPc	19 06.70	-4.0X
SHE	67.49	305	iPc	19 13.50	0.0
	0.8s	250.00nm			6.4mb
	Z 16s	5.00um			5.8MszX
	N 16s	12.00um			
	E 15s	7.00um			
			iS	28 03.00	
SES	67.52	42	ePc	19 12.60	-1.0
	1.1s	83.00nm			5.7mb
GRO	67.65	309	iPc+	19 14.50	0.0
	1.0s	110.00nm			5.9mb
			i	19 26.50	41km
			iPPP	23 18.00	
			e	29 11.00	
OLP	68.04	179	eP	19 16.20	-0.7
	0.7s	47.00nm			5.7mb
RMQ	68.12	175	iPd	19 17.40	0.0
	0.4s	16.00nm			5.5mb
TEH	68.65	299	eP	19 21.00	-0.1
PYA	68.75	310	iPc+	19 20.50	-0.8
			i	19 32.00	38km
			e	19 39.00	
			ePPP	23 34.00	
			iPS	29 20.00	
BKS	68.80	58	eP	19 41.09	19.3X
	Z 20s	2.10um			5.4Msz
			eS	28 23.09	
			iS	36 09.56	
			eLQ	36 23.09	
			eLR	40 26.09	
KIV	69.00	311	iPc	19 23.40	0.4
	1.6s	1074.00nm			6.7mb
			e	19 34.50	37km
			eS	28 25.50	
FCC	69.04	28	ePc	19 24.50	1.7
MTA	69.16	308	iPc+	19 24.40	0.5
	0.8s	260.00nm			6.3mb
	Z 19s	1.50um			5.3Msz
	N 19s	3.50um			
	E 19s	2.50um			
			eS	28 29.40	
			e	29 24.00	
UPP	69.37	334	iPc	19 23.40	-1.4
BRS	69.38	171	iP-	19 26.00	0.8
	Z 18s	10.00um			6.1Msz
			eS	28 30.00	
WARB	69.41	196	eP	19 25.00	-0.4
ARN	69.56	58	ePc	19 26.18	-0.3
			epP	19 36.02	32km
GRS	69.58	305	iPc	19 27.00	0.3
	1.0s	200.00nm			6.1mb
	Z 18s	4.80um			5.8Msz
	N 18s	4.15um			
	E 18s	5.24um			
			e	21 58.00	
			eS	28 32.00	
CMB	69.87	57	eP	19 39.68	11.3X
	Z 21s	2.10um			5.4Msz
			ePcP	19 59.68	
			ePP	21 59.68	
			eS	28 36.68	
			eSKS	29 41.68	
			eSS	33 03.68	
			eLQ	36 38.68	
			eLR	40 55.68	
CMB	69.87	57	ePc	19 28.03	-0.3
	1.1s	45.21nm			5.4mb
	Z 20s	2.79um			5.5Msz
LCCM	69.97	46	iPc	19 28.60	-0.4
MNK	70.00	325	iP	19 25.00	-3.7X
	Z 18s	14.10um			6.3Msz
			e	22 06.00	
			eS	28 34.00	
SLL	70.24	336	eP	19 28.80	-1.4
	1.3s	308.20nm			6.2mb
NB2	70.40	338	P	19 30.10	-1.1
	0.9s	135.10nm			6.0mb
KVN	70.65	55	ePc	19 33.48	0.2
			epP	19 44.15	35km
NAO	70.69	338	P	19 29.78	-3.1X
SOC	70.91	312	iPc+	19 34.00	-0.5
	1.3s	250.00nm			6.1mb
			e	19 45.00	36km
			e	22 10.00	
			ePPP	23 54.00	
			eS	28 48.00	
			e	29 31.00	
MEMM	71.00	56	ePc	19 36.03	0.9
			ipP	19 46.52	34km
PHAM	71.21	59	eP	19 36.56	0.1
BONR	71.21	56	ePc	19 37.00	0.2
PKEM	71.25	58	eP	19 38.04	1.3
			epP	19 47.00	29km
ANN	71.40	314	iP	19 36.50	-0.9
	1.2s	100.00nm			5.7mb
			e	19 48.00	38km
			eS	28 55.00	
			e	29 36.00	
PTI	71.60	49	eP	19 39.31	0.4
TNP	71.80	55	iPc	19 40.18	-0.1
	0.9s	63.16nm			5.6mb
			epP	19 49.55	30km
BCH	71.81	59	eP	19 40.35	0.1
AKU	71.90	352	iPc	19 40.20	0.2
	1.0s	62.50nm			5.6mb
KONO	72.01	337	eP	19 40.80	0.0
HVU	72.08	50	eP	19 41.59	-0.2
ARMA	72.25	173	eP	19 43.40	0.8
	0.8s	12.00nm			4.9mb
KER	72.28	300	iPc	19 42.30	-0.7
ISA	72.54	58	ePc	19 43.41	-1.1
	1.0s	21.67nm			5.1mb
	Z 20s	2.13um			5.4Msz
			epP	19 54.05	35km

25d 07h

			e	20 02.34	
TBZ	72.54	310	eP	19 43.00	-1.3
CMS	72.96	178	eP	19 47.00	0.4
SIM	73.05	316	eP	19 46.00	-1.2
Z	20s	8.80um			6.0Msz
N	20s	7.30um			
E	20s	10.20um			
			e	19 59.00	45kmX
			e	22 30.00	
			eS	30 00.00	
TPNV	73.11	55	eP	19 48.30	0.4
	0.9s	124.43nm			5.9mb
			epP	19 57.79	30km
BW06	73.23	47	iPc	19 47.77	-0.8
	0.8s	20.65nm			5.2mb
STK	73.34	182	eP	19 48.60	-0.2
	1.0s	4.40nm			4.4mb X
			eS	29 13.30	
GSC	73.82	57	ePc	19 51.81	-0.1
			epP	20 02.11	33km
DAU	73.84	50	eP	19 51.66	-0.6
SSK	73.95	58	eP	19 52.90	0.0
BSD	74.00	332	iPc	19 52.40	-0.1
	0.9s	150.00nm			6.0mb
KIS	74.26	320	iPc+	19 53.00	-1.1
	1.4s	460.00nm			6.3mb
Z	18s	7.20um			6.0Msz
N	20s	8.60um			
			i	20 06.00	45kmX
ARUT	74.28	53	ePc	19 54.74	0.1
COP	74.38	334	iPc	19 54.40	-0.3
	0.7s	183.56nm			6.2mb
Z	20s	8.65um			6.0Msz
LVV	74.46	324	iP	19 55.00	-0.3
Z	16s	9.30um			6.2MszX
N	17s	5.30um			
E	17s	8.00um			
			e	20 09.00	49kmX
			e	22 48.00	
			eS	29 32.00	
			iPS	30 18.00	
EMUT	74.49	50	iPc	19 56.00	0.0
PEC	74.50	58	ePc	19 55.11	-0.7
	0.9s	56.05nm			5.6mb
			epP	20 05.05	32km
MSU	74.55	52	ePc	19 56.71	0.3
			epP	20 07.29	34km
ULM	74.67	35	ePc	19 57.90	1.4
PLM	75.03	59	ePc	19 58.83	-0.3
SRU	75.12	51	iPc	19 59.47	-0.1
			epP	20 10.31	35km
RSSD	75.25	43	eP	19 58.38	-1.9
	1.3s	114.47nm			5.7mb
Z	19s	2.66um			5.6Msz
DHR	75.30	292	eP	19 58.00	-2.5X
			eS	29 35.00	
KAS	75.67	313	Pc	20 03.60	1.1
CFR	75.91	319	eP	20 03.00	-0.6
OJC	75.96	327	eP	20 04.00	0.1
	1.3s	394.00nm			6.2mb
			e	20 16.10	41km
			i	20 22.30	
BWA	75.99	176	eP	20 05.20	1.1
			i	20 14.70	30km
UZH	76.10	324	iPc	20 04.50	-0.2
	1.5s	124.00nm			5.7mb
Z	15s	11.80um			6.3MszX
E	15s	15.50um			
			i	20 16.70	41km
			i	20 21.50	
			e	23 00.00	
			eS	29 36.00	
			eSP	30 05.00	
VRI	76.11	320	ePc	20 05.00	0.2
CVO	76.41	320	ePc	20 08.00	1.5
ADE	76.52	184	iPc	20 07.60	0.6
GLA	76.52	58	ePd	20 07.22	-0.2
SPC	76.56	326	iPc	20 08.60	1.1
	1.4s	117.00nm			5.7mb
			i(PP)	23 02.60	
GAZ	76.57	308	eP	20 09.00	1.5
BRNL	76.70	331	ePc	20 08.20	0.3
ISR	76.73	320	iPc	20 10.00	1.6
MLR	76.77	320	iPc	20 09.50	0.9
KSP	76.87	329	iPc	20 08.90	-0.1
	1.3s	232.00nm			6.0mb
			e	22 49.80	

CAN	76.91	175	eP	20 09.30	0.1
			e	20 17.30	26km
CNB	76.93	175	eP	20 14.00	4.6X
PSN	76.98	318	iP	20 10.00	0.4
CMP	77.36	320	ePc	20 13.00	1.2
TNR	77.44	321	ePc	20 13.00	0.8
EDR	77.57	342	eP	20 12.60	-0.1
GOL	77.63	47	iPd	20 13.89	0.2
	1.3s	48.17nm			5.4mb
Z	21s	4.55um			5.8Msz
ADAT	77.73	309	eP	20 15.30	1.4
CLL	77.74	331	iPc	20 13.40	-0.3
	1.5s	270.00nm			6.1mb
Z	20s	9.00um			6.1Msz
			i	20 25.10	39km
			e(S)	30 00.00	
BRG	77.74	330	iPd	20 13.30	-0.4
	2.0s	200.00nm			5.8mb
Z	20s	10.00um			6.1Msz
N	20s	7.50um			
E	20s	6.50um			
			i	20 24.70	38km
			eS	30 00.00	
DEV	77.90	322	ePd	20 16.00	1.3
VRAC	77.97	328	iPc	20 15.70	0.7
	2.1s	1162.80nm			6.5mb
			i	20 27.60	40km
EDU	78.02	342	ePc	20 14.90	-0.2
	1.1s	72.00nm			5.6mb
EYL	78.18	314	iP	20 16.50	0.0
PRU	78.23	329	iPc	20 16.90	0.5
	1.5s	149.50nm			5.8mb
Z	18s	10.90um			6.2Msz
N	19s	8.80um			
E	17s	4.00um			
			e	20 28.70	39km
			e	22 29.20	
			S	30 11.00	
ELO	78.25	342	iPc	20 16.30	-0.1
	1.2s	107.00nm			5.7mb
HRT	78.26	315	iP	20 17.80	1.0
GZR	78.33	322	iPd	20 17.00	-0.2
BUD	78.40	325	ePd	20 17.80	0.4
ISK	78.41	315	iP	20 15.80	-1.8
SRO	78.44	326	iP	20 19.00	1.4
ZST	78.65	327	iPc	20 19.10	0.4
	1.4s	93.60nm			5.6mb
WIT	78.65	335	eP	20 19.50	0.9
EAB	78.65	342	ePc	20 18.70	0.1
CTT	78.68	316	iP	20 18.80	-0.3
EBL	78.73	341	ePc	20 19.00	-0.1
PVL	78.74	319	iP	20 20.00	0.7
EAU	78.76	342	ePc	20 19.20	0.0
	1.3s	81.00nm			5.6mb
MOX	78.79	331	iPc	20 19.60	0.1
	1.7s	210.00nm			5.9mb
Z	20s	6.80um			6.0Msz
			eS	30 14.00	
VKA	78.91	327	iPc	20 20.90	0.7
	5.0s	3433.00nm			6.6mb X
Z	20s	3.40um			5.7Msz
			i	20 34.70	48kmX
			LR	59 30.00	
MJMA	78.92	295	iPc	20 12.60	-8.1X
HOF	78.97	331	iPc	20 20.60	0.1
	1.3s	167.00nm			5.9mb
JAQ	79.00	22	eP	20 19.00	-1.6
TOO	79.01	178	eP	20 21.50	0.8
	0.6s	10.00nm			5.0mb
EKA	79.15	341	Pc	20 21.40	0.0
	0.8s	36.30nm			5.4mb
SSR	79.21	322	ePd	20 22.00	0.1
SOP	79.28	327	iPd	20 23.00	0.8
ALT	79.29	313	eP	20 22.80	0.2
KHC	79.30	329	iPc	20 23.00	0.7
	1.3s	120.50nm			5.7mb
Z	18s	11.50um			6.3Msz
N	18s	5.00um			
E	18s	5.00um			
			e	21 01.20	154kmX
			S	30 20.00	
WTS	79.30	334	iPc	20 22.20	0.0
	0.8s	89.40nm			5.8mb
			e	20 35.00	43km
			e	23 21.00	
KCT	79.37	315	iP	20 22.80	-0.1
GEC2	79.48	329	e(P)	20 23.40	0.0

	0.8s	18.60nm			5.1mb
BNT	79.52	315	iP	20 24.20	0.5
TUC	79.55	56	ePc	20 24.54	0.5
	1.5s	71.59nm			5.4mb
Z	21s	3.05um			5.6Msz
EDC	79.56	316	eP	20 23.50	-0.3
GRF	79.72	331	iPc	20 25.30	0.7
	1.2s	212.00nm			6.0mb
Z	20s	5.10um			5.9Msz
BHL	79.72	306	P	20 22.00	-3.0
			S	30 24.00	
PGB	79.80	319	iPc	20 26.00	0.8
KDZ	79.86	318	eP	20 26.00	0.6
FAM	79.95	308	eP	20 26.00	0.0
KMR	79.95	328	iP+	20 26.50	0.7
ALN	80.09	317	eP	20 26.80	0.1
HRI	80.11	306	iPc	20 27.70	0.7
KHL	80.13	313	iP	20 26.50	-0.6
BCK	80.16	312	eP	20 26.90	-0.3
RZN	80.18	318	iPc	20 28.00	0.6
VTS	80.24	320	iPc	20 29.00	1.3
TNS	80.26	333	iPc	20 27.20	-0.3
ALQ	80.34	52	eP	20 28.16	-0.3
	1.0s	30.21nm			5.2mb
Z	19s	1.09um			5.2Msz
CSS	80.36	309	eP	20 28.20	-0.1
SHMJ	80.47	305	P	20 28.70	-0.2
WIM	80.60	342	ePc	20 29.20	0.0
ENN	80.64	334	iPc	20 29.50	0.1
	1.0s	100.00nm			5.8mb
BHG	80.72	329	iPc	20 30.90	1.0
	1.5s	352.00nm			6.1mb
MMB	80.74	319	iPc	20 31.00	0.8
KKB	80.85	319	iPc	20 28.00	-2.7X
PTJ	80.95	326	iPc	20 31.00	-0.2
FUR	80.96	330	iPc	20 31.80	0.6
	1.1s	178.00nm			6.0mb
Z	19s	11.00um			6.2Msz
			eS	30 54.70	
PPCY	80.99	309	eP	20 31.80	0.3
MAMI	81.00	306	iPc	20 32.40	0.7
ZAG	81.00	326	iPc	20 31.80	0.4
ELL	81.05	312	iP	20 32.00	0.0
KBA	81.06	328	iPc	20 32.20	0.3
	1.3s	119.00nm			5.7mb
			i	20 41.70	30km
			i	20 44.00	
			i	22 00.80	
			i	23 25.20	
			iPP	23 37.80	
UCC	81.11	335	P-	20 33.00	1.1
			e	20 43.00	32km
SRS	81.16	318	eP	20 32.24	-0.1
WME	81.20	341	eP	20 32.40	0.1
DMU	81.34	343	iPc	20 33.40	0.4
	1.2s	153.00nm			5.9mb
SNF	81.39	335	iPc	20 33.21	-0.1
			i	20 45.12	39km
PLE	81.47	322	iPc	20 34.90	0.8
KNT	81.47	319	eP	20 34.12	0.1
SOH	81.51	318	eP	20 33.80	-0.4
VAY	81.51	319	iPc	20 34.70	0.6
	1.2s	287.00nm			6.2mb
WLF	81.51	334	iPd	20 34.65	0.7
			ic	20 46.69	40km
LANF	81.53	332	P	20 34.11	-0.1
WATA	81.54	329	iPc	20 34.70	0.3
VBY	81.56	326	ePc	20 34.00	-0.3
OUR	81.56	318	iP	20 34.52	0.1
SKO	81.56	320	iPc	20 35.20	0.8
	1.0s	211.00nm			6.1mb
Z	20s	5.89um			5.9Msz
			iPcP	20 46.70	
			iPP	23 42.50	
			iS	30 59.00	
			iScS	31 06.50	
			i	37 18.00	
			i	40 40.00	
			LR	00 06.00	
WTTA	81.57	329	iPc	20 35.00	0.4
	0.9s	60.00nm			5.6mb
			i	20 51.50	59kmX
IVA	81.59	322	iPc	20 35.40	0.7
DOU	81.65	335	Pc	20 34.80	0.1
	1.0s	50.00nm			5.5mb
			e	20 48.80	48kmX
			S	31 09.00	

VOY	81.69	327	e(P)c	20 34.40	-0.7
MOTA	81.71	329	iPc	20 35.40	0.1
	0.9s		160.00nm		6.0mb
CEY	81.71	327	ePc	20 34.50	-0.7
SOTA	81.77	329	iPc	20 35.80	0.2
	0.9s		75.00nm		5.7mb
YRH	81.79	341	eP	20 35.50	0.1
	1.3s		115.00nm		5.7mb
DLF	81.81	342	iPc	20 35.90	0.4
	0.8s		134.00nm		6.0mb
THE	81.84	319	eP	20 35.72	-0.1
GRG	81.87	319	eP	20 46.68	10.6X
DCN	81.94	343	iPc	20 36.50	0.4
	0.9s		134.00nm		6.0mb
HAE	82.00	340	eP	20 36.50	0.0
TRI	82.01	327	e(P)c	20 35.60	-1.0
			e(PcP)	20 42.70	
			e(PP)	24 00.00	
			e(SS)	36 04.00	
			eLR	48 00.00	
PAIG	82.02	318	eP	20 36.60	-0.2
HCG	82.02	340	ePc	20 36.80	0.1
NKY	82.05	322	iPc	20 36.86	-0.2
MKT	82.07	305	iPc	20 38.20	0.9
OGA	82.13	329	iPc	20 38.00	0.4
	1.0s		63.00nm		5.6mb
HTR	82.15	340	ePc	20 37.40	0.1
WLS	82.18	332	P	20 37.33	-0.2
BRY	82.19	323	iPc	20 37.44	-0.4
CDF	82.20	332	P	20 37.60	-0.1
TTG	82.23	322	iPc	20 37.93	0.1
SHWJ	82.25	304	P	20 38.60	0.2
PHP	82.26	321	iPc	20 38.10	0.0
ETA	82.30	342	eP	20 38.40	0.4
LIBD	82.31	332	P	20 38.26	0.1
SLE	82.32	331	iPc	20 38.20	-0.1
FEL	82.40	332	P	20 38.62	-0.2
ECH	82.41	332	P	20 38.62	-0.1
SDA	82.42	321	iPc	20 38.00	-0.8
HGH	82.43	340	ePc	20 38.70	0.0
LIT	82.48	318	eP	20 38.64	-0.6
FNA	82.51	320	eP	20 39.16	-0.3
OHR	82.53	320	iPc	20 39.60	0.0
	0.9s		239.00nm		6.3mb
HCY	82.57	322	iPc	20 39.15	-0.5
ZLA	82.60	331	iPc	20 39.90	0.1
ULC	82.60	322	iPc	20 39.60	-0.3
OSS	82.62	330	iPc	20 40.40	0.3
LACI	82.64	321	iPc	20 40.30	0.3
MOF	82.73	332	P	20 40.23	-0.3
ECB	82.73	342	iPc	20 40.80	0.5
TIR	82.79	321	iPc	20 41.00	0.2
ECP	82.81	342	iPc	20 41.20	0.5
VITF	82.81	333	P	20 40.49	-0.3
BSF	82.87	332	iPc	20 40.90	-0.3
	1.0s		39.40nm		5.5mb
HAU	82.87	333	iPc	20 41.10	-0.1
	0.9s		39.95nm		5.5mb
Z	22s		6.55um		6.0Msz
LLS	82.89	330	iPc	20 41.70	0.2
HVAR	82.91	324	eP	20 40.20	-1.2
BBS	82.93	332	P	20 41.60	0.1
VDL	83.04	330	ePc	20 42.70	0.4
MBH	83.06	304	iPc	20 43.20	0.7
ACO	83.18	46	iPd	20 42.60	-0.4
LOMF	83.27	332	P	20 43.21	-0.1
SAL	83.38	329	P	20 55.75	12.1X
TPE	83.54	320	eP	20 45.50	0.8
TMA	83.58	330	iPc	20 44.80	-0.2
VLO	83.65	320	eP	20 45.60	0.4
SRN	83.87	320	iPc	20 46.30	0.0
VAL	83.89	344	iP	20 47.10	0.9
MMK	83.97	331	iPc	20 47.40	0.3
DIX	84.14	331	ePc	20 48.40	0.4
EEO	84.16	28	eP	20 49.00	1.3
FG3	84.31	323	P	20 48.90	0.3
ORX	84.32	330	P	20 47.87	-0.8
EMS	84.33	331	iPc	20 49.00	0.2
PGD	84.34	327	P	20 50.13	1.2
LOR	84.35	334	eP	20 48.70	0.0
	1.1s		136.75nm		6.0mb
Z	23s		10.55um		6.2MszX
FLN	84.38	337	iPc	20 48.70	-0.1
	0.7s		38.05nm		5.7mb
Z	22s		5.63um		5.9Msz
BRT	84.40	322	P	20 49.25	0.2
LDF	84.43	337	iPc	20 48.90	-0.1
	0.9s		52.75nm		5.7mb
CRE	84.45	327	P	20 49.95	0.6
LCI	84.49	321	P	20 49.36	0.0
BOB	84.50	329	P	20 49.99	0.5
LBF	84.56	333	iPc	20 49.70	-0.1
	0.9s		82.55nm		5.9mb
FIR	84.61	327	eP	20 51.00	1.0
			eS	31 10.00	
ASS	84.62	326	P	20 50.61	0.5
BDI	84.64	328	P	20 50.31	0.1
SSF	84.65	334	iPc	20 50.30	0.1
	0.8s		48.90nm		5.7mb
HYF	84.75	334	iPc	20 51.20	0.5
RSL	84.76	331	P	20 51.02	0.1
LSD	84.77	331	P	20 51.63	0.5
GRR	84.83	337	iPc	20 51.20	0.2
	0.9s		66.15nm		5.8mb
WMOK	84.84	47	ePc	20 51.22	-0.1
	1.1s		58.63nm		5.7mb
Z	20s		2.85um		5.7Msz
			epP	21 00.35	29km
LPL	84.87	331	iPc	20 52.10	0.5
	1.0s		84.80nm		5.9mb
LPG	84.88	331	iPc	20 52.40	0.7
	1.0s		107.20nm		6.0mb
AQU	84.89	325	P	20 52.24	0.7
SMF	84.90	333	iPc	20 51.70	0.3
	0.9s		106.45nm		6.0mb
MEO	84.91	47	iPd	20 51.60	-0.1
AVF	84.94	334	eP	20 52.00	0.4
	0.9s		129.05nm		6.1mb
PII	84.95	328	P	20 51.29	-0.4
OCO	84.96	46	iPd	20 53.80	1.9
FG4	84.96	323	P	20 52.63	0.8
RSP	84.99	331	P	20 51.22	-0.8
DUI	85.00	324	P	20 52.68	0.6
PCP	85.03	329	P	20 51.49	-0.7
HLW	85.17	306	e(P)	20 52.00	-1.0
MNS	85.18	326	P	20 52.63	-0.3
FNO	85.20	46	iPc	20 53.60	0.5
LPF	85.20	337	iPc	20 53.40	0.5
	1.4s		235.25nm		6.2mb
CKI	85.23	330	P	20 52.79	-0.3
SDI	85.25	325	P	20 53.20	-0.1
BHB	85.26	330	P	20 51.76	-1.5
BNI	85.29	331	P	20 54.09	0.5
BGF	85.31	334	iPc	20 53.90	0.4
	0.7s		29.30nm		5.6mb
RRL	85.37	331	P	20 54.42	0.3
ORI	85.40	322	P	20 55.08	1.0
FIN	85.44	329	P	20 53.18	-1.0
GRN	85.46	332	P	20 55.29	0.9
ROB	85.50	330	P	20 53.46	-1.1
RFI	85.50	324	P	20 55.27	0.8
SGO	85.52	323	P	20 54.58	0.0
DOI	85.55	330	P	20 53.52	-1.3
PLDF	85.57	333	P	20 55.44	0.6
PZZ	85.60	330	P	20 53.50	-1.7
AGO	85.66	334	P	20 55.96	0.7
MAF	85.70	334	iPc	20 56.30	0.9
	1.2s		217.20nm		6.2mb
ENR	85.72	330	P	20 53.78	-1.9
SURF	85.73	330	P	20 56.07	0.2
STV	85.74	330	P	20 53.50	-2.3
MGR	85.75	323	P	20 54.97	-0.8
TCF	85.76	334	iPc	20 56.40	0.7
	1.1s		60.55nm		5.7mb
TDS	85.77	322	P	20 56.45	0.6
IMI	85.82	330	P	20 55.70	-0.4
SSB	85.86	332	P	20 56.65	0.4
SAOF	85.88	330	P	20 55.98	-0.4
AUTN	85.92	330	P	20 56.59	-0.3
COLF	85.94	333	P	20 57.51	0.8
PYM	85.97	333	P	20 57.45	0.6
TOUF	85.97	330	P	20 56.70	-0.4
LSF	86.01	335	iPc	20 57.50	0.5
	0.9s		132.35nm		6.2mb
SBF	86.03	330	P	20 56.96	-0.2
AURF	86.05	330	P	20 56.96	-0.3
REVF	86.16	330	P	20 58.04	0.2
SLM	86.20	39	P	21 10.00	12.0X
Z	20s		1.71um		5.4Msz
MFF	86.22	336	iPc	20 58.80	0.8
	1.0s		133.20nm		6.1mb
ELF	86.29	31	P	20 58.30	-0.1
CALN	86.33	330	P	20 58.54	-0.2
LBL	86.34	333	P	20 59.64	0.9
GRI	86.41	321	P	20 59.38	0.3
LDN	86.47	31	P	20 59.10	-0.2
DLA	86.47	31	P	20 59.60	0.3
PGF	86.54	328	P	20 59.02	-0.8
FRF	86.58	330	iPc	20 59.60	-0.2
	1.0s		58.40nm		5.8mb
FVM	86.63	40	P	21 00.02	-0.1
	1.2s		71.21nm		5.8mb
Z	19s		5.74um		6.0Msz
LRG	86.78	330	iPc	21 00.90	0.2
	0.9s		110.05nm		6.1mb
Z	21s		6.93um		6.0Msz
CDR	86.81	331	ePc	21 01.10	0.2
LMR	86.83	330	iPc	21 01.10	0.1
	1.0s		116.40nm		6.1mb
RJF	86.85	334	iPc	21 01.90	0.8
	0.9s		62.75nm		5.8mb
Z	23s		14.50um		6.3MszX
CAF	87.01	334	iPc	21 03.10	1.2
	0.9s		148.75nm		6.2mb
SOI	87.18	321	P	21 02.75	0.0
CBM	87.30	21	eP	21 02.70	-0.5
	1.0s		39.06nm		5.6mb
Z	19s		5.68um		6.0Msz
LFF	87.43	334	iPc	21 05.00	1.1
	0.9s		125.15nm		6.2mb
LPO	87.51	334	iPc	21 05.40	1.1
	0.9s		106.80nm		6.1mb
RSNY	87.54	26	eP	21 03.87	-0.6
	0.9s		19.84nm		5.4mb
Z	20s		2.91um		5.7Msz
ELC	87.76	39	eP	21 05.08	-0.5
			e	21 20.89	55kmX
MIAR	87.76	44	iPc	21 05.52	-0.1
	0.9s		34.89nm		5.6mb
Z	21s		2.63um		5.6Msz
OLY	88.08	42	ePc	21 06.76	-0.4
BNH	88.54	24	ePc	21 09.05	-0.2
			epP	21 20.25	36km
			esP	21 25.40	
LESF	88.95	333	P	21 12.26	1.0
GRBF	89.03	333	P	21 12.25	0.5
LMN	89.16	19	eP	21 15.00	2.8X
EPF	89.26	334	iPc	21 13.00	0.2
	0.8s		22.05nm		5.5mb
MCWV	89.88	32	P	21 30.00	14.3X
Z	20s		3.23um		5.8Msz
EGRA	90.22	334	eP	21 16.44	-0.7
HRV	90.33	25	P	21 30.00	12.3X
Z	19s		1.76um		5.5Msz
TBR	90.67	28	eP	21 17.90	-1.4
			epP	21 28.15	32km
			e	21 35.46	
GPD	90.70	28	ePd	21 19.55	0.1
GMTN	90.91	28	eP	21 20.50	0.1
EROQ	91.21	333	eP	21 20.38	-1.4
NAV	91.50	34	eP	21 22.65	-0.5
ETOR	92.03	335	eP	21 25.85	0.2
ECHE	92.78	333	eP	21 20.40	-8.7X
GUD	92.85	336	eP	21 29.39	-0.1
CEH	93.42	33	eP	21 31.90	-0.1
	0.7s		13.40nm		5.5mb
Z	20s		1.61um		5.5Msz
ACU	93.56	332	eP	21 26.87	-5.8X
GOGA	93.62	38	P	21 40.00	7.0X
Z	20s		3.26um		5.8Msz
PAB	93.91	336	eP	21 34.00	-0.4
			ePP	25 28.00	
			eS	32 00.00	
EPLA	93.95	337	eP	21 34.95	0.5
EALH	94.49	333	eP	21 37.49	0.6
ENIJ	95.56	333	eP	21 41.19	-0.7
EGUA	96.14	334	eP	21 43.91	-0.6
EPRU	96.55	335	eP	21 48.82	2.4
EJIF	97.10	335	eP	21 55.29	6.4X
PAF	111.19	222	ePdiff	22 48.00	-3.2X
			eSP	37 09.00	
			eSS	43 27.00	
BCAO	112.08	298	ePKPd	26 48.00	-4.8X
	0.7s		6.00nm		
			i	27 04.10	
			i	27 34.00	
MTD	117.23	271	iPKPc	27 13.00	10.3X
LSZ	118.82	275	ePKP	27 06.00	0.2
			i	28 25.00	
BUL	121.51	270	ePKP	27 10.40	-0.4
BFT	123.67	264	ePKP	27 15.00	0.0

25d 07h

0.6s 11.00nm
TIC 123.84 321 PKP 27 14.24 -1.1
KIC 123.96 321 PKP 27 14.62 -0.9
1.0s 14.00nm
e 28 53.00
LIC 124.21 321 Pdiff 24 07.80 17.7X
LIC 124.21 321 PKP 27 15.0B -1.0
1.1s 19.00nm
Z 19s 3.00um 6.0Msz
SLR 125.01 265 iPKPc 27 15.70 -1.7
1.1s 80.00nm
Z 20s 6.66um 6.3Msz
KSR 126.12 266 ePKP 27 14.00 -5.7X
PRY 126.28 265 ePKP 27 13.00 -6.9X
1.1s 30.00nm
SEK 126.92 263 iPKPc 27 20.70 -0.4
0.8s 46.00nm
BLF 128.41 263 iPKPd 27 23.70 -0.2
0.8s 40.00nm
FRS 129.39 263 iPKPc 27 27.20 1.7
1.1s 30.00nm
SPA 131.60 180 iPKPc 27 27.60 -1.2
0.8s 8.75nm
CER 135.64 262 ePKP 27 35.00 -2.3
1.0s 80.00nm
ZOBO 142.82 56 PKP 27 46.80 -4.8X
1.3s 15.77nm
Z 20s 1.81um 5.8Msz
LR 17 08.00
LPB 143.02 57 ePKP 27 49.00 -2.7X
Z 23s 3.03um 6.0MszX
LR 17 06.00
CNCB 143.31 57 PKP 27 49.20 -3.1X
CCH 144.88 55 ePKP 27 56.00 1.3
SIV 146.72 47 iPKPc 28 10.60 13.2X
i 28 25.30
SOB1 147.31 8 ePKP 27 58.30 -0.1
e 28 00.50
e 28 07.10
YJA 148.81 60 ePKPd 28 02.80 1.6
HJA 149.61 61 ePKPd 28 04.00 2.3
FSA 151.13 66 e(PKP)28 06.00 2.1
BAO 152.11 24 ePKP 28 06.20 0.3
i 28 12.10
i 28 21.90
e 28 55.90
e 29 38.80
e 32 01.60
BDF 152.17 24 ePKP 28 06.60 0.7
i 28 13.00
i 28 22.00
e 28 56.00
e 31 59.30
RTCB 152.28 79 ePKPd 28 12.70 7.0X
RTLL 152.44 78 ePKPd 28 12.50 6.6X
CFA 152.76 78 e(PKP)28 13.10 6.8X
VAO 159.32 28 (PKP) 28 17.00 2.1
S.D. = 0.8 on 502 of 560 obs.

% MAR 25, 1993 09h 22m 56.16± 0.62s
26.368 S ± 5.1km 27.404 E ± 6.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.7 (PRE).

PRY 0.56 174 iPc 23 07.70 0.3
S 23 14.70
KSR 0.68 318 iPc 23 10.00 0.3
S 23 18.60
SLR 1.01 52 iPd 23 15.60 -0.3
S 23 27.10
SEK 1.96 174 iPc 23 31.00 0.5
S 23 54.50
SWZ 2.03 246 eP 23 32.00 0.5X
S 23 56.70
BFT 2.47 75 eP 23 38.00 0.1
S 24 07.00
BLF 2.94 201 eP 23 43.90 -0.6
S 24 18.00
FRS 3.84 208 eP 23 56.90 -0.3
S.D. = 0.5 on 7 of 8 obs.

---

* MAR 25, 1993 09h 37m 34.31± 0.80s
7.161 S ± 9.5km 129.640 E ± 9.6km
DEPTH = 137.4 ± 6.5 km
4.4mb (6 obs.)
BANDA SEA (280)

MTN 5.84 166 iPd 39 00.10 0.3
eS 40 01.00
WSI 9.58 254 iPd 39 50.00 -0.1
WB2 13.50 161 iPc 40 37.80 -3.8X
eS 43 01.10
MBL 16.84 213 eP 41 23.00 -0.3
0.3s 6.00nm 4.4mb
ASPA 16.91 166 iPd 41 23.60 -0.7
eS 44 20.70
WARB 19.13 188 eP 41 49.00 -0.4
0.4s 10.00nm 4.5mb
NANU 20.48 220 iPd 42 03.70 0.6
0.3s 9.00nm 4.7mb
MEEK 22.03 207 eP 42 19.50 1.0
0.3s 3.00nm 4.2mb
eS 46 21.00
QLP 23.79 146 iPc 42 36.30 0.7
0.5s 57.00nm 5.3mb
MRWA 25.43 209 eP 42 50.00 -1.0
STK 27.00 157 eP 43 05.10 -0.2
0.5s 2.20nm 4.0mb
eS 48 20.30
YKA 108.05 26 ePKP 55 45.80 -1.1
0.6s 0.20nm
KIC 134.71 272 PKP 56 39.90 0.6
LIC 134.98 272 PKP 56 39.80 0.0
TIC 135.00 272 PKP 56 40.40 0.5
SIV 154.67 155 PKP 57 24.30 11.9X
S.D. = 0.7 on 14 of 16 obs.

---

* MAR 25, 1993 09h 50m 51.79± 0.79s
6.658 N ±23.6km 72.903 W ±19.1km
DEPTH = 182.8 ± 16.7 km
3.8mb (1 obs.)
NORTHERN COLOMBIA (99)

FUQ 1.44 215 iPc 51 22.50 -1.6
BOG 2.33 210 iPc 51 35.00 1.5
eS 52 06.00
SDV 3.16 45 iPnc 51 43.70 0.5
eSn 52 21.70
TOV 4.37 45 ePnd 51 59.10 0.6
eSn 52 50.80
CEOS 5.10 62 iPd 52 07.80 -0.2
MORO 6.17 47 eP 52 21.50 -0.5
GUAC 6.58 57 iPd 52 27.70 0.2
OLLA 6.90 61 eP 52 31.30 -0.2
GUAN 7.89 65 eP 52 44.40 -0.4
YKA 63.49 340 eP 01 04.10 -0.1
0.5s 0.70nm 3.8mb
S.D. = 1.0 on 10 of 10 obs.

---

* MAR 25, 1993 09h 56m 01.76± 1.06s
8.452 S ±12.8km 119.815 E ± 9.1km
DEPTH = 146.5 ± 10.2 km
4.9mb (3 obs.)
FLORES REGION, INDONESIA (286)

WSI 1.31 159 iPd 56 30.00 0.7
iS 56 48.80
KHKI 4.16 271 ePd 57 05.00 0.2
eS 57 56.00
e 02 21.60
TRT 7.15 275 ePc 57 45.20 0.2
SJI 8.00 275 iPd 58 00.60 4.2X
iS 59 27.00
e 00 51.00
MTN 11.95 112 eP 58 48.00 -0.5
0.4s 171.00nm 6.0mb X
eS 00 50.00
MBL 12.63 180 eP 58 56.30 -1.2
eS 01 07.00
NANU 14.62 196 eP 59 21.00 -1.8
eS 01 56.00
MEEK 18.12 183 eP 00 06.00 0.5
0.3s 22.00nm 5.0mb
iPP 00 11.20
eS 03 15.00
WB2 18.12 131 iPc 00 04.60 -0.9
eS 03 15.80
WARB 18.79 161 eP 00 13.00 0.5
0.4s 17.00nm 4.7mb
eS 03 36.00
ASPA 20.27 140 iPc 00 28.50 0.7
0.5s 23.10nm 4.9mb
eS 04 04.90
MRWA 20.97 189 eP 00 48.00 13.3X
0.2s 12.00nm
eS 04 21.00
BAL 22.23 187 eP 01 02.50 15.4X
0.4s 16.00nm
eS 04 49.00
COOL 22.35 177 eP 00 49.00 0.7
KLB 23.10 184 eP 00 57.00 1.5
MUN 23.65 188 eP 01 23.00 22.2X
eS 05 23.00
GBA 47.44 297 P 04 23.00 -0.6
PPD 148.48 196 (PKP) 15 35.00 5.4X
S.D. = 1.1 on 13 of 18 obs.

MAR 25, 1993 09h 58m 38.86± 0.54s
43.433 N ± 3.7km 5.465 E ± 4.1km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.8 (STR).

GELF 0.06 209 Pg 58 40.43 0.0
PUYF 0.20 60 Pg 58 42.83 -0.1
TREF 0.20 343 Pg 58 42.83 -0.1
BERF 0.20 126 Pg 58 43.35 0.3
CDR 0.33 42 ePgc 58 44.90 -0.5
PRAF 0.43 330 Pg 58 47.64 0.2
VILF 0.46 23 Pg 58 47.64 -0.4
TAVF 0.47 67 Pg 58 48.16 -0.1
GANF 0.65 30 Pg 58 51.62 -0.2
CALN 1.08 72 Pg 59 00.29 0.5
TOUF 1.42 65 Pn 59 05.17 -0.3
Sg 59 25.67
AURF 1.43 71 Pn 59 06.14 0.6
Sg 59 25.67
SURF 1.43 42 Pg 59 06.75 1.1
Sg 59 27.20
SBF 1.49 73 Pn 59 07.01 0.6
AUTN 1.53 68 Pn 59 07.49 0.4
Sg 59 28.09
SAOF 1.61 69 Pn 59 07.72 -0.4
PGF 2.74 108 Pn 59 23.02 -1.4
S.D. = 0.6 on 17 of 17 obs.

% MAR 25, 1993 11h 30m 29.61± 0.64s
43.431 N ± 4.3km 5.472 E ± 4.8km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.7 (STR).

GELF 0.06 214 Pg 30 30.85 -0.4
PUYF 0.20 58 Pg 30 33.47 -0.2
BERF 0.20 126 Pg 30 34.08 0.4
TREF 0.20 342 Pg 30 33.71 -0.1
CDR 0.33 41 ePgd 30 35.70 -0.5
PRAF 0.43 330 Pg 30 38.87 0.6
VILF 0.46 23 Pg 30 39.04 0.2
TAVF 0.47 66 Pg 30 39.33 0.4
GANF 0.65 29 Pg 30 42.12 -0.5
S.D. = 0.5 on 9 of 9 obs.

MAR 25, 1993 11h 41m 28.44± 0.72s
41.640 N ± 5.1km 143.751 E ± 9.5km
DEPTH = 46.7 ± 7.5 km
4.3mb (5 obs.)
HOKKAIDO, JAPAN REGION (224)

HOOJ 0.82 335 iPd 41 43.30 -0.4
eS 41 54.60
KUSJ 1.62 26 P 41 55.00 0.0
eS 42 14.80
MRRJ 2.14 292 P 42 02.30 -0.1
eS 42 29.00
ASAJ 2.61 342 eP 42 09.50 0.4
AOMJ 2.77 248 P 42 12.40 1.0
eS 42 46.20
OFUJ 3.01 213 P 42 14.90 0.1
S 42 50.50
YAMJ 4.49 221 eP 42 35.30 -0.4
NIIJ 5.73 221 eP 42 53.60 0.5
KAKJ 6.10 208 eP 42 56.40 -1.9
eS 44 03.80
MAT 6.67 222 eP 43 06.00 -0.3
eS 44 16.00
CHJJ 6.70 215 eP 43 07.30 0.5
S 44 19.60
MTMJ 6.84 224 eP 43 09.30 0.4
IIDJ 7.66 219 eP 43 20.90 0.6
eS 44 49.70

```
BJI     20.89 275 eP     46 05.50  -3.5X
      1.4s     24.00nm            4.3mb
    Z 16s      0.47um             4.0MszX
IMA     41.82  33 eP     49 15.90   1.0
FBA     44.27  35 eP     49 35.73   1.1
      0.9s      4.69nm            4.3mb
RES     57.69  16 eP     51 16.00   0.0
YKA     58.93  32 eP     51 24.20  -0.6
      0.6s      0.60nm            3.9mb
GBA     63.42 265 P      51 56.00   0.4
KAF     65.05 333 eP     52 04.80  -0.9
      0.6s      4.70nm            4.7mb
NUR     66.74 332 eP     52 16.00  -0.5
NB2     70.63 338 P      52 39.80  -0.8
      0.9s      3.70nm            4.3mb
SIV    146.67  47 ePKP   01 21.00  15.8X
    S.D. = 0.8  on  21 of  23 obs.
----------------------------------------
   MAR 25, 1993  12h 28m 03.85± 0.14s
   36.013 N ± 3.2km   71.110 E ± 2.0km
   DEPTH =  93.8km  (  7 depth phases)
   5.3mb (122 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)
      Mw 5.1 (HRV). Felt at Chitral
      and Peshawar, Pakistan.
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 28S, 33C
      Centroid Location:
      Origin Time      12:28: 6.6 0.6
      Lat 35.72N 0.07 Lon  71.07E 0.06
      Dep  97.1 5.0 Half-duration  1.0
      Moment Tensor;  Scale 10**16 Nm
        Mrr= 4.06 0.24  Mtt=-1.74 0.46
        Mff=-2.32 0.40  Mrt=-0.25 0.52
        Mrf= 2.89 0.47  Mtf=-3.70 0.41
       Principal Axes:
        T  Val=  5.58  Plg=60  Azm=240
        N        0.55     27        34
        P       -6.13     12       130
      Best Double Couple:Mo=5.9*10**16
       NP1:Strike=250 Dip=41 Slip= 134
       NP2:       18     62        59

KSH      5.17  47 P      29 22.00   1.7
      0.5s     52.00nm            5.0mb
                  S      30 14.50
QUE      6.78 212 eP     29 41.30  -1.3
                  e(S)   31 02.50
FRU      7.33  21 iPc    29 50.50   0.5
      1.5s    600.00nm            6.0mb
                  eS     31 10.00
PRZ      8.58  39 eP     30 06.50  -0.8
      0.6s    120.00nm            5.8mb
                  eS     31 38.00
NDI      8.95 143 iPd    30 07.50  -4.6X
      0.5s    376.76nm            6.5mb X
                  eS     31 42.00
MAIO     9.40 275 iPd    30 16.20  -2.2
      0.5s     56.12nm            5.7mb
                  eS     31 57.00
ASH     10.39 285 eP     30 27.50  -4.1X
      0.8s    350.00nm            6.3mb X
                  iS     32 21.50
KAT     12.19 290 iP-    30 51.50  -4.0X
                  eS     32 59.00
GKN     13.97 121 P      31 13.40  -5.6X
DMN     14.54 121 P      31 22.20  -4.2X
KKN     14.55 120 P      31 19.80  -6.7X
PKI     14.78 121 P      31 22.40  -7.1X
GUN     14.90 119 P      31 24.60  -6.5X
WMO     14.91  53 P      31 28.00  -2.9X
      1.0s     28.00nm            4.4mb
TEH     15.99 275 eP     31 47.00   2.3
BAK     17.22 291 eP     32 10.00  10.3X
LSA     17.96 105 P      32 06.50  -2.8X
      1.0s     68.00nm            4.8mb
    Z 12s      1.15um             5.3Msz
    N 10s      0.97um
                  S      35 22.00
                  SS     35 48.00
SHE     18.22 291 iPc    32 09.00  -2.8X
      1.0s    110.00nm            5.1mb
                  iS     35 40.00
MAK     19.52 298 eP     32 28.50   2.3
      1.5s    560.00nm            5.7mb
    Z 12s      1.50um             4.5MszX
```

```
                   eS     36 02.00
HYB     19.67 158 iPd    32 27.00  -0.9
      1.0s    250.00nm            5.5mb
                   eS     35 51.00
KER     19.68 272 iPc    32 28.60   0.5
GRS     19.88 288 iPc    32 36.00   5.9X
ELT     20.26  27 iPc    32 31.80  -1.8
      1.2s    168.00nm            5.2mb
                   e      32 58.00 149kmX
                   eS     36 12.00
                   e      36 44.00
                   e      36 51.00
DHR     20.35 247 ePc    32 34.00  -0.9
                   eS     36 12.00
GRO     20.84 298 iPc+   32 41.20   1.5
      1.0s    710.00nm            6.0mb
                   ipP    32 58.00  78kmX
                   iS     36 30.00
MTA     21.22 294 iPc+   32 45.20   1.7
      0.8s    300.00nm            5.7mb
                   e      33 13.00 146kmX
SVE     21.97 345 iPc    32 53.00   2.2
      1.9s    320.00nm            5.4mb
    Z  13s      1.00um            4.4MszX
    N  13s      0.50um
    E  13s      0.50um
                   i      33 17.00 117kmX
ARU     22.08 341 iPc+   32 53.30   1.3
      1.0s    680.00nm            6.0mb
                   e      33 10.00  75kmX
                   e      33 26.00
                   eS     36 55.00
PYA     22.85 299 eP     33 01.00   1.5
      1.0s    150.00nm            5.3mb
    Z  16s      1.00um            4.4MszX
                   i      33 14.00  54kmX
                   i      33 32.00
GTA     22.92  73 P      33 01.50   1.1
      1.0s     57.00nm            4.9mb
    Z  20s      0.87um            4.2Msz
GBA     23.03 164 Pd     33 03.00   1.6
KIV     23.09 299 iPc    33 03.20   1.1
      0.9s    130.00nm            5.3mb
    Z  17s      0.50um            4.0MszX
                   i      33 17.00  58kmX
                   i      33 25.50
RYD     23.88 249 iPc    33 10.00   0.2
                   eS     37 20.00
MJMA    24.29 253 iPc    33 13.00  -0.7
SOC     25.17 297 eP     33 22.50   0.7
      1.0s    140.00nm            5.4mb
QASM    25.54 255 ePd    33 24.00  -1.4
MOY     26.39  44 ePc    33 34.10   1.2
      0.9s     60.00nm            5.1mb
LZH     26.40  80 iPc    33 34.50   1.1
      1.2s     38.00nm            4.8mb
    Z  10s      0.43um            4.3MszX
                   pP     33 56.00  97km
ANN     27.05 300 eP     33 38.00  -1.0
      0.7s     40.00nm            5.1mb
                   e      39 38.00
GAZ     27.16 283 eP     33 42.00   1.9
ZAK     27.25  48 iPc    33 41.00   0.3
      1.0s     35.00nm            4.9mb
    Z  13s      0.29um            4.0MszX
    E  11s      0.29um
CD2     27.63  91 iPc    33 45.00   0.5
IRK     28.51  45 ePc    33 51.00  -1.2
      1.6s     31.00nm            4.7mb
HRI     29.13 275 eP     33 59.10   1.1
KAS     29.48 292 iPc    34 02.20   1.2
CHTO    29.91 118 ePd    34 03.50  -1.5
      1.0s     20.75nm            4.8mb
DSI     29.92 272 eP     34 05.90   1.0
MOS     30.09 322 iPc    34 07.00   0.8
      1.5s    180.00nm            5.6mb
                   e      35 05.00 300kmX
                   e      35 17.00
OBN     30.34 320 iPc    34 08.50   0.2
      0.7s    140.00nm            5.8mb
KMTA    30.63 242 iPc    34 11.30  -0.2
CSS     30.66 279 eP     34 10.50  -0.9
BTO     30.70  70 eP     34 12.00   0.2
    N  15s      0.51um
    E  15s      0.44um
                   ePP    35 09.50
XAN     30.90  82 P      34 13.50  -0.1
```

```
      1.0s     18.00nm            4.8mb
SAGI    30.95 270 eP     34 14.90   0.9
BDT     30.99 120 eP     34 12.00  -2.4X
      1.1s     49.90nm            5.2mb
PPCY    31.46 280 eP     34 18.80   0.4
HHC     31.85  69 P      34 23.00   1.1
      1.2s     30.00nm            4.9mb
    Z 26s      0.99um             4.4MszX
                  eS     39 28.00
EYL     32.25 291 eP     34 22.60  -2.8
KHT     32.41 124 eP     34 27.00   0.1
HRT     32.60 291 iP     34 27.40  -0.9
LOE     32.84 116 iPd    34 29.50  -1.1
YLV     32.85 291 iP     34 30.60   0.0
NST     32.85 121 eP     34 31.00   0.3
TIY     32.92  75 Pc     34 32.00   0.8
    Z 26s      0.85um             4.3MszX
                  S      39 40.00
ELL     33.00 284 iP     34 30.00  -2.0
KHL     33.02 287 iP     34 32.00  -0.1
ITU     33.07 292 iPc    34 33.00   0.7
KIS     33.11 303 iPc    34 32.00  -0.6
      1.0s    200.00nm            5.9mb
KOT     33.34 271 eP     34 35.70   0.9
KSL     33.38 283 eP     34 34.00  -1.1
CFR     33.54 299 eP     34 35.00  -1.3
CIT     33.93  48 eP     34 39.00  -0.8
VRI     34.55 300 ePd    34 46.00   0.9
NRI     34.72  10 iPc    34 46.20   0.0
      1.0s     91.00nm            5.6mb
                  e      36 19.00 537kmX
                  i      37 16.00
CVO     34.94 300 ePc    34 50.50   2.1
MNK     34.95 315 eP     34 48.00  -0.3
MLR     35.10 300 iPc    34 52.50   2.6
ALN     35.33 292 iP     34 51.48  -0.2
PUL     35.36 325 ePd    34 52.50   0.8
      1.0s    340.00nm            6.2mb
                  e      36 28.00 528kmX
PRK     35.39 289 eP     34 53.50   1.3
BJI     35.44  70 eP     34 53.50   0.9
      1.0s     22.00nm            5.0mb
    Z 24s      0.96um             4.5MszX
    N 10s      0.25um
                  ePcP   37 20.00
                  ScP    40 56.00
PVL     35.63 296 eP     34 56.00   1.8
RDO     35.68 292 eP     34 55.50   0.9
CMP     35.74 299 ePd    34 57.00   1.8
BOD     35.77  39 iPc    34 53.10  -2.2
      0.9s     41.00nm            5.4mb
RZN     36.23 293 iPc    35 00.00   0.5
WHN     36.34  86 Pd     35 01.30   1.0
NPS     36.73 283 eP     35 04.00   0.4
TIA     36.90  76 Pc     35 01.20  -3.8X
OUR     36.96 291 eP     35 05.56   0.2
MMB     36.97 293 iP     35 06.00   0.4
SRS     37.14 293 eP     35 07.40   0.4
DEV     37.22 301 ePd    35 10.00   2.4
VTS     37.24 295 iPc    35 09.00   1.0
PAIG    37.25 291 eP     35 08.44   0.6
SOH     37.36 292 eP     35 09.20   0.3
KKB     37.42 294 iPc    35 10.00   0.7
UZH     37.61 305 eP     35 12.20   1.4
      1.2s     40.00nm            5.2mb
                  i      37 26.20
KNT     37.65 293 eP     35 11.64   0.4
QIZ     38.00 106 eP     35 17.60   3.2X
GRG     38.05 293 eP     35 14.92   0.2
KAF     38.08 328 iP     35 15.30   0.7
      0.9s    117.40nm            5.8mb
LIT     38.12 291 eP     35 15.44   0.2
NUR     38.27 325 iP     35 16.80   0.6
      0.5s     95.00nm            6.0mb
AGG     38.44 290 eP     35 17.92   0.0
VLI     38.47 286 eP     35 17.00  -1.2
SKO     38.62 294 iP     35 19.80   0.4
      1.2s     43.00nm            5.2mb
KZN     38.63 292 eP     35 20.00   0.4
GZH     38.65  98 P      35 22.00   2.3
FNA     38.85 293 eP     35 21.48   0.1
SPC     38.97 306 eP     35 23.50   1.1
                  i(pP)  35 54.50 139kmX
OJC     39.27 308 iP     35 25.00   0.3
      0.8s     74.00nm            5.6mb
                  i      35 27.30   8kmX
                  i      35 31.50
```

25d 12h

SNG	39.39	130	eP	35 25.70	-0.3
NJ2	39.46	82	Pc	35 27.60	1.2
	0.8s		16.00nm		4.9mb
DL2	39.79	70	P	35 30.60	1.5
	0.8s		65.00nm		5.5mb
Z	20s		0.31um		4.1Msz
			eS	41 30.00	
SRO	40.28	304	iP	35 34.80	1.8
SDF	40.32	335	iP	35 34.00	1.0
SNY	40.71	65	Pd	35 37.00	0.5
Z	20s		0.61um		4.5Msz
ZST	41.08	305	e(P)	35 33.50	-6.0X
			e	36 10.60	170kmX
			e	37 19.20	
KEV	41.29	338	iP	35 42.10	1.2
	0.7s		84.10nm		5.7mb
KSP	41.51	309	ePc	35 43.40	0.4
SSE	41.65	82	Pc	35 46.00	1.6
	0.9s		47.00nm		5.3mb
Z	18s		0.50um		4.4Msz
			pP	36 06.50	85km
			S	41 58.00	
IPM	41.67	132	ePc	35 45.90	1.2
	0.8s		46.90nm		5.4mb
CN2	41.76	62	eP	35 45.20	0.1
	1.0s		10.00nm		4.6mb
Z	20s		0.61um		4.5Msz
			epP	36 07.00	92km
PTJ	42.05	301	eP	35 48.60	0.9
HVAR	42.08	297	eP	35 48.20	0.4
VBY	42.59	301	ePc	35 52.50	0.6
			iPcP	37 42.40	
PRU	42.66	307	P	35 53.50	1.1
			e	36 23.50	133kmX
			e	37 42.50	
			e	38 05.00	
ROI	42.70	292	P	35 53.20	0.3
TDS	42.85	292	P	35 54.90	0.8
CSI	42.86	292	P	35 55.10	0.9
BRG	42.99	309	iP	35 55.60	0.5
	1.0s		34.00nm		5.1mb
			i	36 07.80	44kmX
MMN	43.06	292	P	35 56.60	0.8
GEC2	43.28	306	e(P)	35 58.00	0.3
	0.6s		2.70nm		4.3mb
MGR	43.33	293	Pc	35 58.40	0.4
KHC	43.34	306	eP	35 58.50	0.5
			e	36 19.50	88km
			e	37 44.50	
SGO	43.42	294	Pc	35 59.70	1.0
SOI	43.45	290	Pc	35 59.20	0.3
CLL	43.57	309	iPc	35 59.70	-0.1
	0.9s		26.00nm		5.1mb
			i	36 30.90	139kmX
RBL	43.63	302	P	36 01.10	0.6
KBA	43.71	303	iPc	36 01.30	0.1
	0.5s		6.80nm		4.7mb
			i	37 45.80	590kmX
SLL	43.73	323	eP	36 00.80	-0.2
	0.5s		72.40nm		5.8mb
COP	43.85	316	eP	36 01.00	-1.0
	0.7s		68.49nm		5.6mb
ATN	43.88	290	P	36 02.90	0.4
BHG	43.94	304	eP	36 03.00	0.1
FVI	44.15	303	P	36 04.80	0.2
MOR7	44.20	331	eP	36 05.11	0.4
YAK	44.33	35	iPc	36 04.10	-1.7
	0.7s		134.00nm		5.9mb
			iS	42 32.00	
			ePS	42 50.00	
MOX	44.48	308	iPc	36 07.80	0.6
	1.5s		36.00nm		5.0mb
			e	36 38.60	136kmX
			e	37 48.60	
MDJ	44.57	60	eP	36 06.90	-1.0
	1.5s		37.00nm		5.0mb
NB2	44.82	323	P	36 09.20	-0.6
GRF	44.82	307	iPc	36 11.40	1.5
	1.2s		27.00nm		5.0mb
Z	21s		0.10um		3.7Msz
ASS	44.83	298	P	36 11.70	1.6
WTTA	44.84	304	i(P)	36 09.70	-0.6
	0.5s		11.70nm		5.0mb
			i	37 49.00	541kmX
MNS	44.96	297	P	36 11.70	0.6
CTI	45.01	302	P	36 11.20	-0.4
GIB	45.01	290	P	36 11.40	-0.3
KGM	45.09	131	ePd	36 13.00	0.7
OGA	45.31	303	iPc	36 13.50	-0.6
	0.5s		13.00nm		5.0mb
PGD	45.34	299	P	36 16.10	1.8
PPI	45.37	137	iP	36 14.40	-0.2
	0.6s		5.00nm		4.5mb
KONO	45.52	321	eP	36 15.00	-0.2
MUD	45.68	317	eP	36 17.00	0.4
			e	36 31.00	53kmX
			i	36 48.00	
			e	38 41.00	
OSS	45.94	303	iPc	36 18.70	-0.3
TIK	46.19	22	iPc	36 20.00	-0.4
	1.0s		18.00nm		4.9mb
			i	42 59.00	
VDL	46.43	303	ePd	36 22.80	-0.1
TNS	46.54	308	ePc	36 25.10	1.5
LLS	46.68	304	ePc	36 24.20	-0.7
BOB	46.77	301	P	36 26.50	1.1
SLE	46.87	305	P	36 26.34	0.2
TMA	46.90	303	ePc	36 25.80	-0.8
VAI	47.02	302	P	36 26.50	-0.8
MMK	47.53	303	P	36 30.80	-0.9
CDF	47.57	306	eP	36 31.10	-0.6
	0.9s		10.95nm		4.7mb
PGF	47.57	298	eP	36 31.70	-0.1
	0.6s		28.05nm		5.3mb
ORX	47.61	302	P	36 29.83	-2.3
ORO	47.61	302	P	36 30.20	-1.9
FIN	47.75	300	P	36 32.03	-1.1
OIX	47.91	303	ePc	36 34.30	-0.3
BAG	47.93	101	eP	36 37.00	2.1
BSF	47.99	305	eP	36 34.60	-0.4
	0.6s		27.80nm		5.3mb
IMI	48.04	300	P	36 34.95	-0.5
WLF	48.09	308	P	36 36.00	0.4
			e	37 05.00	125kmX
LSD	48.21	302	P	36 36.88	0.0
CVP	48.22	98	eP	36 38.80	1.9
EMS	48.24	303	ePc	36 36.80	-0.2
HAU	48.25	305	eP	36 36.50	-0.4
	0.5s		11.95nm		5.0mb
BHB	48.27	301	P	36 35.05	-2.0
ENR	48.30	300	P	36 36.83	-0.6
STV	48.36	300	P	36 37.06	-0.8
SBF	48.37	300	eP	36 37.80	-0.1
	0.6s		28.85nm		5.3mb
SHNJ	48.46	74	eP	36 39.20	0.6
PZZ	48.46	301	P	36 36.46	-2.2
LPG	48.48	302	eP	36 39.10	0.1
	0.6s		26.60nm		5.3mb
LPL	48.49	302	eP	36 39.10	0.1
	0.6s		16.25nm		5.1mb
RRL	48.58	301	P	36 39.12	-0.6
BNI	48.63	302	P	36 39.80	-0.2
KUMJ	48.80	76	P	36 41.50	0.2
FRF	49.00	300	eP	36 42.20	-0.5
	0.5s		12.60nm		5.1mb
DOU	49.01	309	P	36 43.10	0.4
KBS	49.11	347	iPc	36 46.00	3.0
LMR	49.15	299	eP	36 43.70	-0.2
LRG	49.23	300	eP	36 44.40	0.0
KAGJ	49.35	77	eP	36 45.60	0.0
YONJ	49.91	72	eP	36 47.90	-1.9
LBF	50.03	305	eP	36 49.70	-0.9
	0.5s		6.10nm		4.9mb
LOR	50.05	305	eP	36 49.80	-0.9
	0.6s		4.95nm		4.7mb
SMF	50.20	304	eP	36 51.40	-0.4
	0.8s		39.10nm		5.5mb
SSF	50.33	305	eP	36 52.10	-0.7
	0.9s		16.05nm		5.1mb
AVF	50.49	304	eP	36 53.50	-0.5
	0.8s		35.05nm		5.4mb
TKSJ	50.79	73	eP	36 56.70	0.3
HYF	50.86	305	eP	36 56.70	-0.1
BGF	50.89	304	eP	36 56.30	-0.7
	0.6s		10.30nm		5.0mb
KKM	50.93	115	eP	37 01.00	3.2X
MAF	51.16	304	eP	36 59.00	-0.1
	0.5s		11.60nm		5.2mb
TCF	51.38	304	eP	37 00.60	-0.2
	0.6s		16.95nm		5.3mb
CAF	51.83	302	eP	37 04.20	-0.1
	0.6s		13.70nm		5.2mb
LSF	51.85	304	eP	37 03.50	-0.8
	0.5s		12.95nm		5.2mb
WKYJ	51.90	72	eP	37 05.00	0.1
RJF	52.10	303	eP	37 05.70	-0.6
	1.0s		21.60nm		5.1mb
LDF	52.34	307	eP	37 06.80	-1.2
	0.6s		10.80nm		5.1mb
LPO	52.50	302	eP	37 08.80	-0.4
	0.6s		7.20nm		4.9mb
FLN	52.53	308	eP	37 08.30	-1.1
	0.7s		17.55nm		5.2mb
EKA	52.70	316	Pc	37 09.30	-1.2
	1.0s		27.10nm		5.2mb
LFF	52.73	303	eP	37 10.80	-0.1
	0.5s		19.10nm		5.4mb
GRR	52.87	307	eP	37 10.80	-1.0
	0.7s		13.55nm		5.1mb
MFF	52.87	305	eP	37 10.80	-1.1
	0.6s		9.75nm		5.0mb
YSS	52.99	54	iPd	37 12.10	-0.6
	0.8s		70.00nm		5.7mb
HAE	53.04	312	eP	37 12.10	-0.9
MAT	53.05	68	eP	37 12.00	-1.4
	1.0s		40.00nm		5.4mb
LPF	53.08	307	eP	37 12.10	-1.3
	0.5s		4.80nm		4.8mb
MRRJ	53.19	60	eP	37 13.40	-0.8
HGH	53.29	312	eP	37 14.10	-0.7
HTR	53.46	312	eP	37 15.10	-1.0
EPF	53.57	301	eP	37 16.20	-0.9
	0.7s		12.55nm		5.1mb
HCG	53.64	313	eP	37 16.30	-1.1
YAMJ	53.84	66	P	37 19.10	0.0
EROQ	54.23	298	iPc	37 22.23	0.3
EGRA	54.29	300	iPd	37 18.63	-3.7X
MGD	54.60	37	eP	37 23.00	-1.4
	0.6s		20.00nm		5.3mb
OFUJ	54.72	64	eP	37 24.60	-1.0
HOOJ	54.76	60	eP	37 25.10	-0.7
DMU	55.15	315	eP	37 27.80	-0.7
ECP	55.29	313	eP	37 28.20	-1.2
ECB	55.48	313	eP	37 30.00	-0.8
DCN	55.50	315	eP	37 30.30	-0.7
ECHE	55.64	297	iPd	37 31.41	-0.8
ECRI	55.69	301	iPd	37 32.58	0.0
EVIA	57.10	297	iPc	37 42.20	-0.5
ENIJ	57.52	295	iPd	37 45.17	-0.4
GUD	57.54	299	iPc	37 45.00	-0.8
BCAO	57.57	250	iPc	37 44.40	-1.8
	0.5s		80.00nm		6.0mb
			i	38 12.00	114kmX
EBAN	58.21	296	iPc	37 49.71	-0.7
ECOG	58.40	295	iPc	37 50.56	-1.3
EGUA	58.58	295	iPc	37 51.58	-1.4
AVY	58.95	206	iPc	37 56.30	0.5
EPLA	59.12	299	iPd	37 56.79	0.1
VTY	59.16	206	iPc	37 57.70	0.5
EHOR	59.41	297	iPc	37 57.72	-0.9
EPRU	59.75	296	eP	38 00.91	-0.1
IFR	61.13	292	iPc	38 11.50	0.8
AVE	62.94	293	iP	38 21.50	-1.0
			i	38 36.00	52kmX
TIO	63.91	290	iPc	38 28.40	-0.7
			i	38 53.50	100km
ILT	64.15	23	iPc	38 28.80	-1.2
	1.0s		38.00nm		5.3mb
			i	39 00.00	128kmX
LSZ	65.18	226	iPd	38 37.90	0.5
	0.5s		9.30nm		5.0mb
BRW	67.75	15	eP	38 50.88	-1.9
			epP	39 15.37	96km
BUL	68.82	223	iPc	38 59.30	-1.0
	1.0s		135.00nm		5.8mb
RES	69.19	356	eP	39 02.50	0.9
	0.7s		4.00nm		4.4mb
IMA	72.56	18	ePc	39 21.46	-0.8
	0.9s		17.50nm		4.9mb
BFT	72.59	218	iPc	39 23.90	0.9
	1.3s		90.00nm		5.5mb
MBL	73.19	133	eP	39 25.00	-1.3
SLR	73.53	220	iPc	39 28.10	-0.2
	1.2s		50.00nm		5.2mb
KSR	74.36	221	iPc	39 30.60	-2.6X
	1.0s		84.00nm		5.5mb
TTA	74.45	20	eP	39 32.79	-0.4
	1.1s		15.44nm		4.8mb
KIC	74.85	267	Pc	39 35.10	-1.0
	0.7s		46.00nm		5.5mb
FBA	74.91	16	eP	39 33.85	-1.8

	0.9s	46.22nm			5.3mb
PRY	74.92	220 iPc	39 35.10	-1.3	
	1.3s	80.00nm			5.4mb
LIC	75.16	267 P	39 36.80	-1.1	
	0.6s	29.00nm			5.3mb
SEK	75.98	219 iPc	39 43.10	0.7	
	0.6s	85.00nm			5.8mb
SVW	76.01	21 eP	39 42.20	0.2	
MEEK	76.75	137 eP	39 47.00	0.4	
	0.7s	12.00nm			4.9mb
CP2	76.85	20 eP	39 46.84	-0.1	
CRP	76.87	20 eP	39 45.63	-1.3	
BLF	77.35	219 iPc	39 50.20	0.3	
	0.5s	58.00nm			5.7mb
RSO	77.36	21 eP	39 49.26	-0.5	
KDS	77.37	276 iPc	39 49.00	-1.2	
PMR	77.40	18 eP	39 48.45	-1.2	
	1.0s	33.99nm			5.2mb
WIN	77.46	230 iPc	39 52.40	1.6	
	1.0s	90.00nm			5.6mb
PMS	77.58	19 eP	39 49.80	-0.9	
	1.1s	37.60nm			5.2mb
SLKM	78.03	20 eP	39 51.82	-1.4	
KLU	78.28	17 eP	39 54.56	-0.1	
FRS	78.31	220 iPc	39 58.20	3.2X	
	0.6s	57.00nm			5.6mb
BALM	79.51	16 ePd	40 01.44	0.1	
KDC	79.67	22 eP	40 01.69	-0.4	
	0.9s	29.37nm			5.1mb
GRM	80.56	217 iPc	40 09.00	1.9	
	0.6s	50.00nm			5.5mb
POF	80.91	224 iPc	40 11.00	2.1	
	1.1s	80.00nm			5.5mb
WRA	81.66	122 P	40 03.00	-10.1X	
	1.4s	0.50nm			
WRA	81.66	122 P	40 09.10	-4.0X	
	1.1s	1.00nm			3.6mb X
WRA	81.66	122 P	40 21.20	8.1X	
	2.3s	1.20nm			3.3mb X
WB2	81.67	122 iPd	40 12.80	-0.3	
	0.4s	65.30nm			5.8mb
		epP	40 40.50	107kmX	
YKA	81.73	3 eP	40 13.10	0.4	
	0.7s	54.50nm			5.5mb
CER	84.31	221 eP	40 26.00	-0.4	
	0.6s	76.00nm			5.8mb
TUH	84.34	222 iPc	40 24.00	-2.5	
	1.3s	60.00nm			5.4mb
FCC	84.77	352 eP	40 31.50	3.1X	
JAO	86.06	341 eP	40 34.50	-0.4	
LMN	89.33	331 eP	40 54.50	3.7X	
OLP	92.85	121 iPc	41 07.30	0.1	
	0.7s	65.00nm			6.1mb
ULM	93.34	352 eP	41 11.50	2.3	
EEO	93.46	340 eP	41 13.50	3.6X	
SES	93.94	1 ePc	41 12.10	0.1	
STK	94.43	126 eP	41 13.50	-0.8	
	0.7s	2.60nm			4.8mb
ADE	94.60	130 e(P)	41 15.50	0.4	
NEW	95.78	6 eP	41 20.65	0.1	
	1.1s	19.40nm			5.5mb
		epP	41 47.40	100km	
RMW	96.10	9 eP	41 21.66	-0.4	
LCCM	98.48	2 eP	41 33.60	0.7	
RSSD	100.12	356 ePdiff	41 41.90	1.6	
	0.8s	5.28nm			5.2mb
		epP	42 08.91		
SPA	125.83	180 iPKPc	46 54.30	-1.0	
	0.9s	23.64nm			
PPD	128.44	269 (PKP)	47 02.00	0.5	
ZOBO	138.85	288 PKP	47 21.80	-0.3	
LPB	138.96	287 PKP	47 21.00	-1.0	
CNCB	139.04	287 PKP	47 22.30	0.0	
CFA	146.11	265 ePKPd	47 34.00	0.4	

S.D. = 1.0 on 295 of 322 obs.

% MAR 25, 1993 13h 18m 21.76± 0.79s
26.209 S ± 7.4km 28.161 E ± 8.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.3 (PRE).

SLR	0.48 13 iPd	18 32.00	0.5
	S	18 38.50	
KSR	1.19 286 eP	18 44.00	-0.5
	S	19 01.00	
BFT	1.77 73 eP	18 53.00	-0.5
	S	19 15.50	
SEK	2.16 193 eP	18 58.90	-0.1
BLF	3.38 211 eP	19 17.00	0.6

S.D. = 0.8 on 5 of 5 obs.

& MAR 25, 1993 13h 34m 35.44s
45.035 N 122.607 W
DEPTH = 20.6km
5.5mb (105 obs.) 5.4Msz (28 obs.)
WASHINGTON-OREGON BORDER REGION (28)

Mw 5.6 (HRV). <SEA-P>. ML 5.7 (SEA), 5.5 (BRK). Mo=1.6*10**17 Nm (BRK). Numerous people were treated for minor injuries. Damage (VII) at Canby, Molalla, Mount Angel and Newberg, Oregon. Slight damage (VI) at Amity, Aurora, Boring, Cascadia, Dayton, Donald, Dundee, Estacada, Grande Ronde, Lake Oswego, Mill City, Mulino, Oregon City, Portland, Salem, Silverton and West Linn, Oregon. Also damage to several bridges in the McMinnville, Oregon area. Landslides were reported near Mount Hood, Oregon. Felt (V) throughout a wide area of northwestern Oregon including Brightwood, Corvallis, Dallas, Detroit, Government Camp, Gresham, Hillsboro, Idanha, Mill City, Milwaukie, Nehalem, Pacific City, Rainer and Sandy. Also felt (V) at Camas, Kalama and Underwood, Washington. Felt south as far as Coos Bay, Oregon and north to Seattle, Wasthington.

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 28S, 51C
Centroid Location:
Origin Time 13:34:45.7 0.5
Lat 45.17N 0.04 Lon 122.07W 0.05
Dep 15.0 FIX Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr= 1.66 0.07 Mtt=-2.80 0.08
Mff= 1.14 0.11 Mrt=-1.25 0.31
Mrf= 1.49 0.17 Mtf=-0.43 0.07
Principal Axes:

	Val=	Plg=	Azm=
T	3.17	50	251
N	-0.05	36	100
P	-3.13	14	359

Best Double Couple:Mo=3.2*10**17

	Strike=	Dip=	Slip=
NP1:	51	44	32
NP2:	297	68	129

SSOR	0.21	150 Pd	34 40.58	-0.3
GT2	0.27	63 Pc	34 41.57	-0.2
PGO	0.45	14 Pd	34 44.72	0.2
TDH	0.63	66 Pc	34 47.55	-0.3
VLMM	0.64	38 Pd	34 48.04	0.1
TKO	0.69	300 Pd	34 48.87	0.2
VBEM	0.72	88 Pc	34 49.38	0.0
FBO	0.73	178 Pd	34 48.83	-0.5
BPO	0.76	120 Pd	34 50.07	0.1
VLL	0.78	57 Pd	34 50.42	0.1
MPOR	0.86	232 Pd	34 51.60	0.0
VFP	0.86	70 Pc	34 51.45	-0.2
KMOR	0.86	314 Pd	34 51.69	0.0
MTMW	1.03	16 Pd	34 54.11	-0.4
LVP	1.04	8 Pd	34 54.25	-0.5
RVW	1.12	355 Pd	34 55.49	-0.4
GULW	1.14	38 Pd	34 55.92	-0.4
CDFW	1.15	20 Pd	34 56.20	-0.2
CROR	1.15	92 Pc	34 56.54	0.1
JLK	1.16	16 Pd	34 55.98	-0.5
		S	37 02.41	
TCO	1.17	142 Pd	34 57.10	0.2
FL2	1.18	9 Pd	34 56.66	-0.2
HSR	1.18	15 Pd	34 56.62	-0.3
SHW	1.19	13 Pd	34 56.80	-0.2
REMW	1.20	14 Pd	34 57.09	-0.2
ESD	1.21	15 Pd	34 57.08	-0.2
HBO	1.21	170 Pd	34 57.12	-0.2
NLO	1.21	331 Pd	34 57.82	0.6
YEL	1.21	14 Pd	34 57.16	-0.2
STD	1.23	12 Pd	34 57.41	-0.2
SOSW	1.25	15 Pd	34 57.62	-0.2
ERK	1.28	8 Pd	34 58.21	-0.1
GMO	1.32	116 Pd	34 59.52	0.6
ASR	1.32	32 Pd	34 59.05	0.1
TDL	1.34	12 Pd	34 59.30	0.1
VGB	1.38	69 P	35 00.68	1.1
CZM	1.40	3 Pd	35 00.15	0.2
BMW	1.50	343 Pd	35 01.55	0.1
VIPM	1.51	110 Pd	35 02.39	0.7
HSO	1.55	193 Pd	35 02.09	0.0
GL2	1.56	53 Pd	35 03.65	1.4
LMW	1.65	8 Pd	35 04.61	1.0
GLK	1.68	24 Pd	35 05.16	1.1
NCOR	1.70	141 Pc	35 05.63	1.3
LON	1.80	18 Pd	35 06.88	1.1
WPW	1.82	24 Pd	35 07.44	1.4
REMR	1.86	16 Pd	35 08.04	1.3
RCS	1.94	18 Pd	35 09.13	1.2
RVC	1.96	13 Pd	35 09.63	1.6
DBO	1.97	194 P	35 08.93	0.7
CPW	1.97	349 Pd	35 09.27	1.0
JBO	2.00	77 Pc	35 09.70	1.1
FMW	2.01	19 Pd	35 10.37	1.5
ONR	2.01	337 P	35 10.16	1.4
GHW	2.02	7 Pd	35 10.01	1.2
YAKW	2.08	44 Pd	35 11.38	1.6
NAC	2.11	36 Pd	35 11.66	1.5
MEW	2.17	359 Pd	35 13.01	2.0
PATW	2.17	66 P	35 12.72	1.6
MXC	2.24	46 Pd	35 13.48	1.5
GSM	2.24	14 Pd	35 13.91	1.8
BRVW	2.34	51 Pd	35 14.98	1.5
SMW	2.34	348 Pd	35 15.35	1.9
EBG	2.35	36 Pd	35 15.25	1.6
PRW	2.36	59 Pc	35 15.40	1.6
TWW	2.43	29 P	35 20.34	5.6
RMW	2.49	13 Pd	35 17.48	1.9
RSW	2.51	56 P	35 18.85	2.9
GMW	2.52	357 Pd	35 17.63	1.7
SPW	2.53	6 P	35 18.85	2.7
MDW	2.54	51 P	35 17.68	1.4
TBM	2.55	32 Pd	35 18.30	1.8
BVW	2.60	46 P	35 18.47	1.2
HDW	2.63	353 Pc	35 19.10	1.4
OSR	2.64	340 P	35 19.06	1.2
GBL	2.70	54 P	35 21.82	3.3
WIW	2.71	58 P	35 21.82	3.1
MJ2	2.73	55 Pc	35 17.91	-1.1
WAH2	2.74	50 P	35 21.82	2.8
PGW	2.79	0 Pd	35 21.88	2.1
HTW	2.83	12 P	35 22.11	1.7
BLH	2.83	8 Pc	35 24.14	3.8
		S	36 59.09	
CRF	2.87	50 Pd	35 22.25	1.3
OSD	2.89	345 Pd	35 22.95	1.6
OT2	2.90	53 P	35 24.79	3.5
OOW	2.92	339 P	35 22.65	1.0
BLN	2.98	355 Pd	35 24.95	2.4
ET3	2.99	58 P	35 26.28	3.6
ETW	3.02	31 Pd	35 24.43	1.3
WRD	3.09	50 P	35 24.84	0.7
EPH	3.12	41 Pd	35 25.84	1.3
LNOR	3.15	73 P	35 25.45	0.4
OFK	3.16	338 P	35 26.72	1.7
OBC	3.17	342 P	35 26.15	0.9
JCW	3.19	8 P	35 27.98	2.4
STW	3.20	347 P	35 27.44	1.8
WTV	3.24	34 Pd	35 27.30	1.1
OTR	3.28	339 P	35 27.90	1.1
CBSW	3.29	32 P	35 33.70	6.7
OHW	3.29	1 P	35 29.10	2.2
CMW	3.41	5 P	35 30.68	2.0
NLW	3.42	26 P	35 30.60	1.7
SAW	3.47	39 Pd	35 30.31	0.8
RPW	3.50	12 P	35 31.35	1.4
		S	37 06.93	
OSP	3.53	338 P	35 32.56	2.3
DHW2	3.54	33 P	35 31.56	1.0
OD2	3.59	48 Pd	35 31.37	0.2
MCW	3.65	358 P	35 33.49	1.4
PGC	3.66	351 P	35 32.50	0.3
LBFM	3.72	172 iPd	35 35.21	1.9
MBW	3.78	7 P	35 35.89	1.8
DPW	4.16	45 P	35 39.36	0.0
FHC	4.35	194 iPc	35 43.76	1.8

25d 13h

```
WDC     4.45 179 ePd    35 44.87   1.4
EKR     4.48 195 iPd    35 44.65   0.8
FOX     4.63 193 iPd    35 47.21   1.3
MIN     4.75 171 iPd    35 49.92   2.2
                 eS     36 50.32
EBI     4.87  66 iPnc   35 50.82   1.3
NEW     4.97  48 eP     35 49.97  -0.8
ORV     5.54 171 iPd    36 00.84   2.1
                 eS     37 25.19
STID    5.61  97 ePn    35 58.40  -1.6
NCM     5.99  66 ePnd   36 04.20  -1.0
NTYM    6.64 180 eP     36 15.18   0.9
KVN     6.85 149 eP     36 19.67   2.2
MCMT    6.93  88 iPc    36 18.27  -0.3
HBMT    7.08  80 ePc    36 20.74   0.0
ZSP     7.09 178 eP     36 22.65   2.1
BUT     7.12  79 eP     36 21.55   0.3
BKS     7.16 178 ePc    36 23.41   1.8
                 eS     38 41.44
CMB     7.19 166 iPd    36 22.85   0.8
                 eS     37 47.19
LRM     7.19  80 eP     36 21.79  -0.5
BGMT    7.48  85 eP     36 25.78  -0.5
LCCM    7.59  80 iPc    36 27.35  -0.4
STAN    7.63 177 eP     36 32.45   4.3
                 eS     38 15.60
HRY     7.71  74 eP     36 28.31  -1.0
ARN     7.72 174 eP     36 30.36   0.9
MHC     7.72 174 ePc    36 31.36   1.8
                 eS     38 22.10
BONR    7.78 154 eP     36 33.43   2.9
TPMT    7.78  88 eP     36 30.66   0.1
MEMM    7.86 158 ePd    36 35.38   4.0
HVU     7.86 111 (P)    36 33.52   1.9
GCC     8.01 176 eP     36 35.40   1.9
TNP     8.03 148 ePd    36 35.86   1.8
SXM     8.07  78 ePc    36 35.36   0.8
MEMT    8.22  82 ePc    36 36.26  -0.4
SAO     8.31 174 eP     36 39.63   2.0
FRI     8.33 164 eP     36 40.11   2.2
LLA     8.50 171 ePc    36 43.22   2.8
PRS     8.74 173 ePc    36 46.01   2.3
PRI     9.01 170 eP     36 54.01   6.6
PHAM    9.34 169 eP     36 53.36   1.4
TPNV    9.40 147 eP     36 55.39   2.6
SES     9.46  51 P      36 53.00  -0.6
        1.0s   105.00nm          6.1mb
DAU     9.54 115 eP     36 57.55   2.5
BW06    9.69  99 eP     36 58.75   1.8
                 eS     39 46.66
ISA     9.88 160 ePd    37 01.93   2.6
ARUT    9.99 133 eP     37 03.17   2.2
BCH    10.03 168 eP     37 04.15   2.7
MSU    10.15 126 eP     37 04.46   1.2
EMUT   10.16 117 eP     37 05.38   2.0
GSC    10.68 154 ePd    37 12.39   2.0
SRU    10.75 119 eP     37 13.10   1.6
SSK    11.45 159 eP     37 23.66   2.7
PEC    11.89 157 eP     37 28.95   2.1
PLM    12.48 157 eP     37 36.92   2.0
RSSD   13.27  87 eP     37 44.48  -0.9
        1.0s    54.67nm          5.5mb
GLA    13.40 151 eP     37 48.65   1.8
GOL    13.81 107 eP     37 53.10   0.6
        1.3s   173.15nm          5.7mb
SIT    14.42 331 (P)    38 03.23   3.2
        1.2s   350.88nm          5.8mb
TUC    15.68 140 eP     38 18.55   1.7
ALQ    15.93 124 eP     38 21.54   1.4
        1.5s   414.80nm          5.4mb
ULM    18.70  64 ePc    38 55.40   1.0
ACO    19.55 107 iPc    39 03.90  -0.8
BALM   19.81 331 eP     39 08.08   0.7
WMOK   20.91 111 eP     39 16.51  -2.4
        0.9s   159.85nm          5.4mb
MEO    21.01 111 iPc    39 18.40  -1.5
OCO    21.33 108 iPc    39 24.10   1.0
KLU    21.39 329 ePc    39 25.67   2.0
FNO    21.53 108 iPd    39 25.10  -0.1
FCC    22.10  41 eP     39 32.00   1.3
KDC    22.35 315 eP     39 35.83   2.7
        1.0s    80.40nm          5.1mb
SLKM   22.53 323 eP     39 37.03   2.0
                 epP    39 42.85  21kmX
PMS    22.65 325 iPc    39 38.50   2.3
        1.3s   536.90nm          5.9mb
                 ic     39 44.90
```

```
PMR    22.68 326 eP     39 39.05   2.7
        1.3s   355.84nm          5.7mb
   Z   19s      3.95um           4.9Msz
                 epP    39 44.38  19kmX
RSO    23.61 322 ePc    39 48.49   2.8
CRP    23.73 324 ePc    39 49.36   2.5
CP2    23.77 324 eP     39 49.91   2.7
COL    24.29 334 eP     39 53.97   2.0
FBA    24.29 334 ePc    39 53.80   1.8
        1.7s   260.83nm          5.5mb
                 epP    39 59.90  22kmX
CCM    24.38  96 eP     39 53.18   0.0
        0.7s    70.33nm          5.4mb
MIAR   24.52 105 eP     39 54.10  -0.4
        0.8s    56.62nm          5.2mb
                 ePcP   43 34.25
                 epPcP  43 39.00
FVM    24.99  95 eP     39 57.82  -1.2
        1.1s   193.64nm          5.7mb
SVW    25.15 321 ePc    40 02.16   1.7
        1.0s   307.47nm          5.9mb
                 epP    40 07.49  19kmX
OLY    25.46 101 eP     40 02.71  -0.8
TTA    26.13 325 ePc    40 11.12   1.6
        1.6s   274.54nm          5.7mb
                 epP    40 16.72  20kmX
ELC    26.16  95 eP     40 08.79  -1.1
IMA    26.93 332 ePc    40 18.28   1.4
        1.0s    45.78nm          5.1mb
                 epP    40 24.24  21kmX
EEO    30.09  71 eP     40 46.00   0.6
BRW    31.05 339 eP     40 54.16   0.6
JAQ    31.22  57 eP     40 52.50  -2.8
NAV    32.12  89 eP     41 02.12  -1.3
GOGA   32.17  97 eP     41 02.31  -1.5
        0.7s    11.02nm          4.9mb
PPM    32.68 135 (P)    41 10.00   1.0
III    32.85 137 (P)    41 09.00  -1.1
JSC    33.27  94 eP     41 11.81  -1.6
CVL    33.47  86 eP     41 14.63  -0.4
RSNY   33.73  73 eP     41 15.00  -2.3
        1.0s    32.85nm          5.2mb
CEH    33.99  90 eP     41 17.73  -1.9
        0.8s    24.34nm          5.2mb
   Z   18s      1.75um           4.8Msz
CBN    34.14  85 e(P)   41 20.00  -0.9
                 e      46 25.00
GPD    35.01  79 eP     41 27.11  -1.3
TBR    35.13  79 eP     41 27.51  -1.9
                 e      41 31.75
OXX    35.31 134 (P)    41 34.00   2.6
ADK    35.79 301 eP     41 35.21   0.4
        0.8s   171.35nm          6.0mb
ILT    36.64 328 iPc    41 43.20   1.4
        1.0s    84.00nm          5.5mb
                 i      41 49.00
                 iS     47 28.00
                 iSSS   50 20.00
CBM    37.27  67 eP     41 45.24  -2.1
        1.2s    30.65nm          5.0mb
   Z   18s      3.41um           5.2Msz
HON    37.45 243 P      42 00.00  10.9
   Z   18s      2.24um           5.0Msz
KKH    37.48 239 (P)    41 50.67   1.4
LMN    39.79  68 eP     42 10.00   1.6
SMY    41.10 304 (P)    42 18.95  -0.1
        0.8s    85.66nm          5.5mb
DAG    49.67  17 eP     43 26.50  -0.6
        1.0s    12.00nm          4.9mb
PET    49.79 309 eP     43 28.00  -0.3
        1.0s    50.00nm          5.5mb
   Z   20s      1.30um           4.9Msz
                 e      45 26.00
                 eS     50 36.00
MGD    50.85 320 ePc+   43 37.00   0.8
        1.0s    60.00nm          5.5mb
   Z   18s      2.70um           5.3Msz
   N   18s      1.70um
   E   18s      2.10um
                 e      45 30.00
                 ePPP   46 30.00
                 eS     50 54.00
TIK    53.32 338 iPc    43 54.00  -0.6
        1.5s    72.00nm          5.4mb
   Z   18s      1.80um           5.2Msz
                 i      44 00.00
                 i      45 59.00
```

```
                 eS     51 32.00
                 ePS    51 43.00
TOV    57.22 111 eP     44 23.90   0.2
SDV    57.33 112 eP     44 24.60   0.0
CAR    58.61 108 iPc    44 36.00   2.5
YAK    58.65 328 iPc    44 32.50  -0.6
        1.2s   125.00nm          5.9mb
   Z   20s      1.40um           5.1Msz
   E   21s      1.40um
                 e      45 22.00
                 e      46 48.00
                 eS     52 33.00
YSS    61.66 309 iPc+   44 54.30   0.4
        1.0s    90.00nm          5.9mb
   Z   19s      1.10um           5.0Msz
   N   19s      0.50um
   E   19s      0.70um
                 e      45 10.00
                 eS     53 18.00
KEV    63.38  11 iP     45 07.40   2.4
        0.8s    29.30nm          5.5mb
   Z   15s      2.70um           5.5MszX
                 LR     15 40.00
ASAJ   63.46 307 eP     45 06.50   0.6
NRI    63.66 348 iP     45 06.00  -0.8
        1.7s   165.00nm          5.9mb
   Z   22s      6.10um           5.7Msz
   N   22s      1.70um
   E   26s      7.00um
                 e      45 23.00
                 e      45 45.00
                 e      47 25.00
                 iS     53 41.00
                 eSS    57 52.00
PMO    64.02 207 iPc    45 10.70   1.0
        1.4s   335.50nm          6.3mb
RUV    64.02 207 iPc    45 10.80   1.1
        1.0s   293.60nm          6.4mb
VAH    64.15 207 iPc    45 11.60   1.1
        1.2s   405.80nm          6.4mb
SDF    65.43  13 iP     45 18.00  -0.4
PPN    66.88 208 iPc    45 28.80   0.7
        1.2s   289.20nm          6.3mb
EBH    66.88  32 eP     45 27.00  -0.8
        1.2s    38.00nm          5.4mb
PPT    66.97 208 iPc    45 29.60   1.0
        0.9s   178.20nm          6.2mb
AFR    67.00 208 iPc    45 29.80   0.9
        1.0s   228.00nm          6.3mb
PAE    67.05 208 iPc    45 30.20   1.0
        1.3s   300.40nm          6.3mb
TVO    67.06 208 iPc    45 30.30   1.0
        1.1s   215.90nm          6.2mb
BOD    67.16 331 eP     45 29.00  -0.5
        1.5s   124.00nm          5.8mb
OFUJ   67.19 303 eP     45 30.50   0.5
EAU    67.21  32 eP     45 28.80  -1.0
EDI    67.25  32 eP     45 29.20  -0.8
DMU    67.27  35 eP     45 29.30  -0.9
EBL    67.41  32 eP     45 30.40  -0.7
        1.2s    31.00nm          5.3mb
ESY    67.47  32 eP     45 29.60  -1.9
DCN    67.52  36 eP     45 30.90  -0.9
EKA    67.70  33 Pc     45 31.60  -1.3
        2.3s   106.20nm          5.6mb
NB2    67.85  22 P      45 33.10  -0.8
        1.0s    27.10nm          5.4mb
DLF    67.86  36 eP     45 33.00  -0.9
ETA    68.43  36 eP     45 37.00  -0.5
EC8    68.43  36 eP     45 36.60  -0.9
ECP    68.74  36 eP     45 38.20  -1.2
APO    68.99  21 eP     45 39.80  -1.1
        0.7s    23.00nm          5.5mb
KAF    70.32  15 iP     45 48.60  -0.3
        0.8s    26.20nm          5.4mb
UPP    70.51  20 iP     45 49.60  -0.5
CHJJ   70.78 302 P      45 52.50   0.3
MAT    70.92 303 iPc    45 53.30   0.2
        0.8s    23.88nm          5.4mb
                 eS     55 12.00
MTMJ   71.13 303 P      45 54.00  -0.4
NUR    71.48  16 iP     45 55.70  -0.2
        0.8s    43.10nm          5.6mb
   Z   18s      2.00um           5.4Msz
                 LR     15 30.00
IIDJ   71.81 302 P      46 02.80   4.3
CIT    71.92 327 eP     45 59.00   0.2
```

e 55 26.00
PUL 73.22 14 eP 46 06.00 -0.2
1.4s 90.00nm 5.6mb
e 46 11.00
FLN 73.79 36 eP 46 09.80 0.1
Z 20s 1.75um 5.3Msz
GRR 73.92 36 eP 46 10.90 0.4
0.8s 28.75nm 5.4mb
WTS 73.99 30 eP 46 11.50 0.7
1.0s 39.70nm 5.4mb
WKYJ 74.06 302 eP 46 12.70 1.0
LDF 74.07 36 eP 46 11.40 0.0
1.0s 26.80nm 5.2mb
LPF 74.12 36 eP 46 12.10 0.4
1.0s 39.40nm 5.4mb
YONJ 74.65 304 eP 46 15.60 0.6
ENN 74.68 31 eP 46 07.50 -7.3
1.0s 51.00nm 5.5mb
DOU 74.73 32 Pd 46 16.00 0.8
0.7s 11.10nm 5.0mb
EMON 74.78 43 eP 46 14.84 -0.8
IRK 75.01 332 iPc 46 17.40 0.6
1.9s 113.00nm 5.6mb
Z 17s 1.16um 5.2MszX
N 19s 1.17um
E 18s 0.70um
i 46 24.00
e 46 39.40
eS 55 52.00
TKSJ 75.15 303 eP 46 18.60 0.7
MFF 75.62 37 eP 46 20.80 0.5
1.0s 32.40nm 5.3mb
ERUA 75.65 44 iPc 46 20.71 0.1
WLF 75.67 32 P 46 21.00 0.5
TNS 76.04 30 ePc 46 23.10 0.4
HYF 76.25 35 eP 46 24.50 0.6
MOY 76.58 334 ePc 46 27.90 2.3
1.7s 155.00nm 5.8mb
LSF 76.61 36 eP 46 26.00 0.1
1.0s 28.80nm 5.3mb
CLL 76.65 27 iPc 46 26.40 0.4
1.1s 61.00nm 5.6mb
LOR 76.74 34 eP 46 27.30 0.6
1.2s 136.85nm 5.9mb
Z 18s 2.08um 5.5Msz
MOX 76.77 28 ePc 46 27.20 0.5
1.8s 104.00nm 5.6mb
Z 18s 2.10um 5.5Msz
eS 56 25.00
SSF 76.77 35 eP 46 27.40 0.6
1.2s 86.00nm 5.7mb
SHNJ 76.77 305 P 46 26.70 -0.3
ARE 76.79 130 eP 46 30.00 2.4
VITF 76.80 32 P 46 27.38 0.4
LANF 76.84 31 P 46 27.89 0.7
TCF 76.86 36 eP 46 27.70 0.3
1.0s 35.00nm 5.4mb
BGF 76.91 35 eP 46 27.90 0.3
1.0s 43.80nm 5.5mb
AVF 76.92 35 eP 46 27.90 0.3
1.0s 56.20nm 5.6mb
HOFF 76.93 31 P 46 28.74 1.1
ZAK 76.95 332 iPc 46 28.50 0.8
2.0s 87.00nm 5.5mb
Z 22s 1.65um 5.3Msz
N 22s 0.50um
E 20s 0.70um
eS 56 18.00
LBF 77.02 34 eP 46 28.60 0.4
1.3s 83.40nm 5.6mb
MAF 77.06 36 eP 46 28.90 0.4
HAU 77.11 32 eP 46 29.20 0.5
1.3s 66.05nm 5.5mb
Z 20s 2.70um 5.6Msz
CDF 77.12 32 P 46 29.41 0.6
HOF 77.14 28 eP 46 29.60 0.8
WLS 77.15 32 P 46 29.41 0.5
ECH 77.24 32 P 46 29.93 0.5
SMF 77.24 35 eP 46 29.60 0.2
1.1s 51.75nm 5.5mb
LFF 77.32 37 eP 46 30.50 0.7
0.9s 41.95nm 5.5mb
BRG 77.33 27 iPc 46 30.20 0.4
1.1s 70.00nm 5.6mb
i 46 34.40
RJF 77.36 37 eP 46 30.30 0.2
1.3s 75.45nm 5.6mb

Z 20s 3.00um 5.6Msz
BSF 77.42 32 eP 46 31.00 0.5
1.0s 56.80nm 5.6mb
GRF 77.45 29 iPc 46 31.50 1.0
1.1s 84.00nm 5.7mb
Z 20s 1.20um 5.2Msz
e 46 36.30
MOF 77.53 32 P 46 31.20 0.1
ECRI 77.69 41 P 46 33.31 1.2
LPO 77.71 37 eP 46 32.60 0.6
1.2s 59.50nm 5.5mb
LOMF 77.83 32 P 46 33.08 0.3
FEL 77.84 32 P 46 33.08 0.2
CAF 77.89 37 eP 46 33.40 0.3
1.0s 56.00nm 5.6mb
EPLA 77.93 45 P 46 33.97 0.6
BBS 78.00 32 P 46 34.18 0.6
KUMJ 78.07 304 P 46 33.70 -0.5
KSP 78.08 25 iPc 46 34.20 0.2
1.2s 60.00nm 5.5mb
ic 46 39.10
SLE 78.11 31 ePc 46 34.90 0.7
MNK 78.21 17 eP 46 32.00 -2.5
Z 18s 2.20um 5.5Msz
MOS 78.22 11 eP 46 34.00 -0.6
Z 20s 1.60um 5.3Msz
e 46 41.00
e 46 49.00
PRU 78.29 27 Pc 46 35.90 0.8
1.2s 37.90nm 5.3mb
Z 18s 2.40um 5.6Msz
N 17s 1.60um
E 18s 1.60um
e 46 40.70
e 47 15.00
ZLA 78.31 32 ePc 46 36.20 0.9
GUD 78.44 43 P 46 36.93 0.7
SVE 78.49 358 iPc 46 36.00 0.0
1.9s 200.00nm 5.8mb
eS 56 32.00
ePS 57 24.00
ZOBO 78.51 127 P 46 36.20 -1.3
S 56 36.00
LR 14 00.00
EPF 78.66 39 eP 46 37.60 0.3
1.3s 40.05nm 5.3mb
OBN 78.69 12 eP 46 37.00 -0.2
1.1s 80.00nm 5.7mb
Z 16s 2.30um 5.6MszX
N 16s 1.70um
E 16s 1.20um
e 46 53.00
e 49 35.00
UER 78.69 338 iPc 46 38.60 1.3
1.7s 122.00nm 5.7mb
eS 56 40.00
KHC 78.72 28 Pc 46 38.00 0.5
1.3s 39.20nm 5.3mb
Z 20s 2.70um 5.6Msz
N 20s 1.60um
E 20s 1.00um
e 46 42.50
e 47 09.50
S 56 42.00
LPB 78.73 127 P 46 46.00 7.6
Z 22s 2.22um 5.5Msz
LR 14 20.00
FUR 78.77 29 eP 46 39.00 1.2
1.0s 88.00nm 5.7mb
Z 17s 2.00um 5.5MszX
e 46 43.80
ARU 78.93 359 iPc 46 38.00 -0.5
2.0s 380.00nm 6.1mb
Z 18s 1.50um 5.4Msz
N 18s 1.00um
i 46 44.00
EMS 78.93 33 ePc 46 40.00 1.0
KAGJ 79.01 303 P 46 39.40 0.0
GEC2 79.01 28 e(P) 46 39.60 0.4
0.9s 22.50nm 5.2mb
ELT 79.02 343 iPc 46 39.70 0.7
e 46 46.00
eS 56 39.00
CNCB 79.02 127 P 46 41.00 0.8
EGRA 79.03 40 iPd 46 42.11 2.9
LLS 79.05 32 ePc 46 40.90 1.3
LESF 79.07 38 P 46 40.56 1.0

DIX 79.11 33 ePc 46 41.40 1.4
RSL 79.13 34 P 46 40.76 0.7
PAB 79.19 44 iPc 46 40.30 0.0
1.4s 81.40nm 5.6mb
eS 54 46.00
SALF 79.25 39 P 46 41.94 1.3
ETOR 79.30 42 iPc 46 41.45 0.5
LPL 79.32 34 eP 46 42.20 1.1
0.9s 26.35nm 5.3mb
GRBF 79.34 38 P 46 41.62 0.6
LPG 79.34 34 eP 46 42.60 1.3
1.4s 58.40nm 5.4mb
MMK 79.35 33 ePd 46 43.00 1.7
MOTA 79.41 30 iPc 46 42.20 0.7
1.1s 48.30nm 5.4mb
EVAL 79.48 47 P 46 42.34 0.5
VRAC 79.52 26 iPc 46 42.70 0.9
2.1s 710.70nm 6.3mb
i 46 47.50
LSD 79.53 33 P 46 43.35 1.1
VDL 79.55 31 ePc 46 43.90 1.6
SQTA 79.55 30 iPc 46 43.30 1.1
1.0s 62.00nm 5.6mb
i 46 48.00
WATA 79.58 30 iPc 46 43.20 0.8
i 46 48.10
OSS 79.62 31 ePc 46 44.20 1.5
TMA 79.65 32 ePc 46 43.80 1.0
OJC 79.66 23 eP 46 42.50 -0.1
e 46 48.10
WTTA 79.67 30 iPc 46 43.90 1.0
1.0s 58.50nm 5.6mb
i 46 48.80
BHG 79.70 29 iPc 46 43.90 1.0
1.1s 59.00nm 5.5mb
ORX 79.70 33 P 46 44.22 1.2
OGA 79.79 30 eP 46 44.70 1.1
RSP 79.83 33 P 46 44.81 1.1
RRL 79.83 34 P 46 45.00 1.1
EHOR 80.06 46 P 46 45.66 0.7
BHB 80.09 34 P 46 45.87 0.9
SURF 80.21 34 P 46 47.37 1.5
BJI 80.23 318 eP 46 45.00 -0.8
Z 28s 1.38um 5.2MszX
N 16s 0.69um
eS 56 56.00
PZZ 80.30 34 P 46 47.38 1.1
ETER 80.35 38 iPd 46 47.61 1.2
KBA 80.42 29 iPc 46 47.00 0.1
1.1s 43.10nm 5.4mb
i 46 52.50
i 47 02.10
CDR 80.45 35 ePc 46 47.60 0.7
CCH 80.53 126 eP 46 52.00 4.0
ZST 80.67 26 iPc 46 48.30 0.3
0.8s 19.80nm 5.2mb
LIJA 80.69 46 eP 46 49.50 1.1
SPC 80.71 24 eP 46 49.60 1.1
EPRU 80.73 46 P 46 49.86 1.3
ALJ 80.76 47 eP 46 49.50 0.7
ROB 80.78 34 P 46 49.16 0.4
ECHE 80.78 42 P 46 50.33 1.5
EVIA 80.80 43 P 46 49.88 0.9
PCP 80.84 33 P 46 48.98 0.0
LRG 80.88 35 eP 46 49.90 0.8
1.1s 61.05nm 5.5mb
Z 20s 2.75um 5.6Msz
FRF 80.91 35 eP 46 49.80 0.5
SOP 80.95 27 eP 46 51.20 1.7
SBF 80.97 34 eP 46 50.10 0.4
0.7s 34.30nm 5.5mb
FIN 80.99 33 P 46 49.62 -0.2
LMR 81.04 35 eP 46 50.60 0.6
ECOG 81.33 45 P 46 52.93 1.1
MAL 81.33 46 iPd 46 53.00 1.4
iS 57 04.00
SRO 81.38 25 iPc 46 53.40 1.7
EGUA 81.68 45 P 46 55.25 1.8
UZH 81.79 23 iPc 46 55.00 1.2
1.0s 74.00nm 5.7mb
Z 15s 3.30um 5.8MszX
N 15s 1.70um
E 15s 1.50um
i 47 00.00
i 47 10.00
ACU 81.90 42 eP 46 56.72 2.1
GUMO 82.29 281 eP 46 56.10 -0.8

25d 13h

PTJ 82.33 28 iP 46 56.90 0.1
AVE 82.39 50 iP 46 57.50 0.3
SIV 82.42 121 iPc 47 10.60 13.1
VBY 82.44 28 eP 46 57.70 0.4
FIR 82.52 32 eP 46 59.00 1.3
IFR 83.44 48 iPd 47 04.00 1.1
TIO 84.27 51 iPc 47 07.50 0.4
DEV 84.47 23 ePc 47 10.00 2.4
KIS 84.95 19 eP 47 10.00 0.0
Z 14s 2.00um 5.7MszX
CVO 85.41 21 eP 47 14.50 2.1
VRI 85.51 21 ePd 47 14.00 1.1
CMP 85.62 22 ePd 47 17.00 3.5
MLR 85.66 22 eP 47 15.00 1.2
CFR 86.50 20 eP 47 18.00 0.3
SKO 87.60 26 iP 47 23.40 0.2
Z 16s 1.70um 5.6MszX
i 47 47.50
LR 28 00.00
OHR 88.18 27 iP 47 25.50 -0.5
1.3s 91.00nm 5.9mb
VAY 88.55 25 iP 47 28.50 0.8
FNA 88.66 27 eP 47 28.54 0.2
KNT 88.79 25 eP 47 29.46 0.6
GRG 88.83 26 eP 47 29.70 0.6
LZH 88.98 324 Pc 47 31.00 0.9
2.0s 57.00nm 5.5mb
Z 20s 1.74um 5.5Msz
N 15s 1.04um
sP 47 37.50
PP 50 59.00
eSKS 57 52.00
eS 58 10.00
SRS 89.04 25 eP 47 29.90 -0.2
SOH 89.24 25 eP 47 31.10 0.0
LIT 89.64 26 eP 47 32.90 0.0
PAIG 90.16 25 eP 47 34.86 -0.5
SOC 90.37 13 eP 47 37.00 0.7
2.0s 210.00nm 6.1mb
e 47 43.00
PYA 90.41 10 iPd 47 37.00 0.5
Z 20s 1.50um 5.4Msz
KIV 90.43 11 ePc 47 37.50 0.8
1.1s 35.00nm 5.5mb
SOB1 90.64 102 eP 47 37.80 0.0
FRU 91.18 347 iPc 47 41.80 1.8
2.0s 110.00nm 5.9mb
DZM 92.79 241 iPc 47 49.90 2.3
GRS 95.26 9 eP 48 01.00 1.9
e 48 16.00
MAIO 99.02 358 eP 48 18.00 2.0
WB2 112.93 264 iPKPc 53 11.50 -1.1
0.8s 3.60nm
STK 115.57 250 ePKP 53 17.60 0.2
0.7s 2.00nm
ASPA 115.67 262 ePKP 53 17.10 -0.8
1.1s 5.80nm
BCAO 119.76 46 iPKPd 53 25.20 -0.7
0.9s 9.00nm
SPA 134.84 180 iPKPc 53 52.90 -0.4
0.8s 20.83nm
LSZ 141.44 49 iPKPc 54 03.20 -3.8
BUL 145.62 53 iPKPd 54 13.90 -0.2
1.0s 70.00nm
NVL 146.08 155 iPKPd 54 13.50 0.3
1.5s 270.00nm
POF 146.67 75 iPKPc 54 17.00 1.6
0.6s 19.00nm
TUH 148.40 82 iPKPc 54 17.20 -0.8
1.0s 40.00nm
CER 148.53 82 iPKPc 54 20.00 1.7
0.8s 160.00nm
KSR 148.92 62 iPKPd 54 20.00 0.7
1.0s 52.00nm
SUR 149.05 79 e(PKP)54 19.70 0.3
SLR 149.68 60 iPKPd 54 21.00 0.6
0.8s 153.00nm
Z 18s 4.06um 6.3Msz
i 54 25.00
PRY 150.03 63 ePKP 54 19.60 -1.4
1.3s 90.00nm
i 54 24.60
FRS 150.53 70 iPKPc 54 29.10 7.7
1.0s 150.00nm
BLF 150.69 68 iPKPc 54 27.00 5.1
0.8s 93.00nm
BFT 150.72 58 iPKPd 54 23.00 0.9
1.0s 84.00nm
i 54 28.50
SEK 151.10 65 iPKPc 54 28.00 5.5
0.8s 86.00nm
AVY 152.74 20 iPKPc 54 32.80 7.6
VTY 152.85 21 iPKPc 54 32.90 7.6
GRM 153.55 74 ePKP 54 25.00 -0.7
0.5s 46.00nm
454 obs. associated

---

* MAR 25, 1993 13h 50m 57.33± 1.06s
29.525 S ± 6.9km 71.292 W ±11.2km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
Felt (III) at La Serena, Coquimbo, Vicuna, Ballenas and Ovalle.

RTRS 1.72 112 iPd 51 26.40 1.1
RTCB 2.91 133 eP 51 43.70 1.3
ZON 3.02 132 eP 51 47.50 3.5X
eS 52 24.50
RTLL 3.03 127 iPd 51 45.20 1.1
JACH 3.20 169 eP 51 46.13 -0.5
iS 52 26.78
CFA 3.35 129 e(P) 51 49.30 0.6
IHA 3.50 185 eP 51 52.50 1.7X
eS 52 33.20
PEL 3.64 172 eP 51 51.60 -1.2
iS 52 36.06
SAN 3.95 172 eP 51 58.27 1.1
RTPR 4.22 102 eP 52 00.10 -0.8
CHCH 4.43 173 eP 52 03.19 -0.8
CACH 4.62 173 eP 52 06.70 0.0
(S) 53 14.88
CYA 4.94 79 iPc 52 09.80 -1.4
S 53 05.40
MRA 5.59 122 ePc 52 18.50 -1.8
FSA 5.80 55 e(P) 52 24.00 0.7
ANT 5.85 8 eP 52 16.00 -8.0X
ZOBO 13.49 13 P 54 09.00 -0.5
SIV 16.42 37 iPd 55 01.30 14.3X
PPD 19.46 72 eP 55 21.00 -3.3X
GBA 147.02 112 PKP 10 38.00 1.2
S.D. = 1.2 on 15 of 20 obs.

& MAR 25, 1993 13h 55m 11.77s
45.054 N 122.629 W
DEPTH = 13.6km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.2 (SEA).

SHW 1.17 13 eP 55 33.00 -0.4
VGB 1.39 70 eP 55 37.12 0.4
eS 55 55.30
BMW 1.48 344 (P) 55 38.33 0.3
LON 1.79 18 eP 55 42.82 0.3
4 obs. associated

& MAR 25, 1993 14h 00m 36.01s
45.047 N 122.631 W
DEPTH = 20.3km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.2 (SEA).

SHW 1.18 13 eP 00 57.27 -0.2
eS 01 13.53
VGB 1.39 70 eP 01 00.94 0.6
LON 1.80 18 eP 01 07.74 1.5
3 obs. associated

& MAR 25, 1993 14h 20m 56.07s
45.027 N 122.603 W
DEPTH = 19.9km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 3.0 (SEA). Felt in the epicentral area.

SSOR 0.20 149 Pc 21 01.06 -0.3
GT2 0.27 61 Pd 21 02.20 -0.1
S 21 05.59
PGO 0.45 14 Pd 21 05.38 0.1
TDH 0.63 65 Pd 21 08.21 -0.2
VLMM 0.65 38 Pd 21 08.70 0.0
S 21 17.96
TKO 0.69 300 Pc 21 09.54 0.1
FBO 0.72 179 Pd 21 09.32 -0.5
VBEM 0.72 87 P 21 09.99 0.0
BPO 0.75 120 P 21 10.62 0.1
VLL 0.79 56 Pd 21 10.98 0.0
S 21 22.28
MPOR 0.85 233 Pd 21 12.13 0.0
VFP 0.86 70 Pd 21 12.04 -0.2
KMOR 0.87 315 Pc 21 12.38 -0.1
MTMW 1.04 15 Pd 21 14.76 -0.5
LVP 1.05 7 Pd 21 14.92 -0.6
RVW 1.13 355 Pd 21 16.18 -0.5
GULW 1.14 38 Pd 21 16.58 -0.4
CROR 1.15 92 P 21 17.26 0.2
CDFW 1.16 20 Pd 21 16.90 -0.3
JLK 1.16 16 P 21 16.77 -0.5
TCO 1.17 142 Pd 21 17.63 0.2
FL2 1.18 9 Pd 21 17.42 -0.2
HSR 1.18 14 P 21 17.47 -0.2
SHW 1.19 12 P 21 17.60 -0.2
HBO 1.20 170 Pd 21 17.60 -0.3
REMW 1.21 14 P 21 17.92 -0.2
ESD 1.21 15 P 21 17.80 -0.3
NLO 1.22 331 Pc 21 18.51 0.4
YEL 1.22 14 P 21 17.89 -0.3
STD 1.24 12 Pd 21 18.11 -0.3
SOSW 1.25 15 Pd 21 18.39 -0.2
ERK 1.29 8 Pd 21 18.94 -0.2
GMO 1.31 116 P 21 20.18 0.7
TDL 1.35 11 Pd 21 20.03 0.0
VGB 1.38 69 P 21 21.29 1.0
RNO 1.38 217 P 21 20.65 0.3
CZM 1.41 3 P 21 20.89 0.2
VIPM 1.51 109 P 21 23.09 0.8
BMW 1.51 343 P 21 22.41 0.2
HSO 1.54 193 Pd 21 22.62 -0.1
GL2 1.56 53 P 21 24.39 1.4
LMW 1.66 7 Pd 21 25.34 1.0
GLK 1.69 24 Pd 21 25.88 1.0
LON 1.81 18 Pd 21 27.60 1.0
WPW 1.83 23 P 21 28.13 1.3
REMR 1.87 16 Pd 21 28.75 1.2
RCS 1.94 18 P 21 30.26 1.5
DBO 1.96 194 P 21 30.79 2.0
RVC 1.97 13 P 21 30.39 1.6
CPW 1.98 349 P 21 30.17 1.1
JBO 2.00 76 P 21 31.20 1.9
FMW 2.01 18 P 21 31.05 1.4
GHW 2.03 6 P 21 31.30 1.7
NAC 2.11 35 P 21 33.43 2.5
MEW 2.18 359 P 21 33.99 2.2
MXC 2.24 45 P 21 34.55 1.8
GSM 2.25 14 P 21 34.89 1.9
SMW 2.35 348 P 21 36.40 2.1
EBG 2.36 36 P 21 36.65 2.2
RMW 2.50 13 (P) 21 36.21 -0.2
eS 22 11.07
GMW 2.52 357 P 21 38.52 1.8
MDW 2.54 50 P 21 38.49 1.5
TBM 2.56 32 P 21 39.66 2.4
CRF 2.88 50 P 21 43.16 1.5
MCW 3.66 358 eP 21 54.63 1.7
LBFM 3.72 172 eP 21 56.31 2.4
DPW 4.16 45 (P) 22 05.95 5.9
eS 23 05.69
67 obs. associated

& MAR 25, 1993 14h 58m 05.03s
45.037 N 122.626 W
DEPTH = 20.6km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.4 (SEA), 2.3 (GS).

SHW 1.19 13 eP 58 26.50 -0.1
eS 58 41.32
VGB 1.39 69 eP 58 29.72 0.4
eS 58 48.43
BMW 1.50 344 eP 58 31.60 0.7
eS 58 48.89
LON 1.81 18 eP 58 36.52 1.1
eS 58 59.43
4 obs. associated

% MAR 25, 1993 15h 01m 02.63± 1.61s
47.384 N ±22.5km 11.736 E ± 6.5km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.6 (VIE).

WATA	0.12	246	iPgc	01 05.30	-0.4
			iSg	01 08.60	
WTTA	0.14	209	iPgc	01 05.80	-0.3
			iSg	01 08.40	
SOTA	0.39	246	iPgc	01 11.50	0.8
			i	01 16.60	
MOTA	0.43	265	iPgd	01 11.30	-0.2
			iSg	01 18.60	
KBA	1.14	105	iPgc	01 24.20	0.1
			iSg	01 41.50	

S.D. = 0.7 on 5 of 5 obs.

& MAR 25, 1993 15h 35m 12.25s
45.033 N 122.606 W
DEPTH = 14.4km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 3.2 (SEA). Felt (IV) at Scotts Mills and (III) at Donald, Oregon. Felt in the epicentral area.

SSOR	0.20	150	Pc	35 17.15	-0.1
GT2	0.27	63	P	35 18.26	0.0
PGO	0.45	14	Pd	35 21.40	0.0
TDH	0.63	66	Pc	35 24.21	-0.4
			S	35 32.75	
VLMM	0.64	38	P	35 24.70	-0.1
TKO	0.69	300	Pc	35 25.46	-0.1
			S	35 35.75	
FBO	0.72	178	Pd	35 25.40	-0.7
			S	35 35.42	
VBEM	0.72	87	Pc	35 26.06	-0.1
BPO	0.76	120	Pc	35 26.72	-0.1
			S	35 39.31	
VLL	0.78	56	Pc	35 27.04	-0.1
MPOR	0.86	232	Pd	35 28.13	-0.3
VFP	0.86	70	Pc	35 28.08	-0.4
KMOR	0.87	314	Pd	35 28.32	-0.3
MTMW	1.03	15	Pd	35 30.86	-0.5
LVP	1.04	8	P	35 30.88	-0.7
RVW	1.12	355	Pd	35 32.18	-0.7
GULW	1.14	38	P	35 32.78	-0.5
CROR	1.15	92	ePc	35 33.10	-0.3
CDFW	1.15	20	P	35 33.07	-0.4
JLK	1.16	16	P	35 32.81	-0.8
TCO	1.17	142	Pd	35 33.75	-0.1
FL2	1.18	9	Pd	35 33.41	-0.5
HSR	1.18	14	P	35 33.55	-0.4
SHW	1.19	12	iPc	35 33.82	-0.3
			eS	35 47.89	
REMW	1.20	14	P	35 34.03	-0.4
HBO	1.21	170	Pd	35 33.70	-0.7
ESD	1.21	15	P	35 33.93	-0.5
NLO	1.21	331	P	35 34.40	0.0
YEL	1.21	14	P	35 34.08	-0.5
STD	1.23	12	Pd	35 34.19	-0.7
SOSW	1.25	15	Pd	35 34.45	-0.6
ERK	1.29	8	Pd	35 34.92	-0.8
GMO	1.32	116	P	35 36.19	-0.1
ASR	1.33	32	P	35 35.89	-0.4
TDL	1.35	12	Pd	35 36.07	-0.6
VGB	1.38	69	iPc	35 37.30	0.3
			eS	35 54.47	
RNO	1.38	216	P	35 36.70	-0.4
CZM	1.40	3	P	35 37.09	-0.2
VTHM	1.46	83	P	35 38.30	0.2
KOSW	1.46	11	Pd	35 37.94	-0.2
BMW	1.51	343	eP	35 38.18	-0.6
			eS	35 56.50	
VIPM	1.51	110	Pc	35 39.00	0.0
HSO	1.55	193	P	35 38.64	-0.8
GL2	1.56	53	Pc	35 40.41	0.8
LMW	1.65	8	P	35 41.33	0.4
GLK	1.68	24	P	35 41.96	0.5
LON	1.81	18	eP	35 43.51	0.4
			eS	36 05.04	
WPW	1.82	24	P	35 43.98	0.5
REMR	1.86	16	P	35 44.76	0.6
RCS	1.94	18	P	35 46.47	1.2
RVC	1.96	13	P	35 46.24	0.8
DBO	1.97	194	P	35 45.56	0.0
CPW	1.98	349	P	35 45.99	0.4
JBO	2.00	77	P	35 46.39	0.4
FMW	2.01	19	P	35 47.26	1.1
YAKW	2.08	44	P	35 48.83	1.7
NAC	2.11	36	P	35 48.91	1.4
MEW	2.17	359	P	35 50.03	1.7
PATW	2.17	66	P	35 49.29	0.9
MXC	2.24	46	P	35 50.21	0.8
GSM	2.24	14	P	35 50.99	1.4
SMW	2.34	348	P	35 52.15	1.2
EBG	2.35	36	P	35 52.04	1.0
RMW	2.49	13	(P)	35 54.54	1.6
			eS	36 26.84	
RSW	2.51	56	P	35 53.85	0.5
GMW	2.52	357	(P)	35 54.29	1.0
			eS	36 24.96	
MDW	2.54	51	P	35 54.23	0.6
TBM	2.55	32	P	35 55.71	1.8
BVW	2.60	46	P	35 55.72	1.1
HDW	2.63	353	P	35 56.58	1.5
GBL	2.70	53	P	35 56.75	0.8
MJ2	2.73	55	P	35 57.21	0.8
WAH2	2.74	50	P	35 57.88	1.4
LOCW	2.78	52	P	35 58.07	1.0
HTW	2.83	11	P	35 59.19	1.4
CRF	2.87	50	P	35 59.04	0.7
OT2	2.90	53	P	35 59.47	0.8
JCW	3.20	8	P	36 04.39	1.4
LBFM	3.72	172	(P)	36 12.65	2.0
DPW	4.16	45	(P)	36 15.81	-0.9
			eS	37 15.36	

80 obs. associated

MAR 25, 1993 15h 47m 23.65± 0.85s
38.414 N ± 7.6km 21.965 E ± 9.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.0 (ATH).

AGG	0.67	25	ePg	47 37.10	0.1
			eSg	47 46.14	
VLS	1.11	258	ePb	47 43.80	-0.6
IGT	1.69	312	iPb	47 56.02	2.6X
			eSb	48 22.58	
LIT	1.73	13	ePb	47 54.46	0.5
			iSb	48 17.22	
VLI	1.86	155	ePn	47 56.50	0.7
KZN	1.90	356	ePn	47 58.00	1.6
PAIG	2.02	41	ePb	47 56.54	-1.5
FNA	2.41	349	ePn	48 05.06	1.3
OUR	2.47	39	ePn	48 04.22	-0.4
KNT	2.84	14	ePn	48 09.70	-0.1
OHR	2.84	342	ePn	48 08.50	-1.4
VAY	2.94	9	ePn	48 15.40	4.2X

S.D. = 1.2 on 10 of 12 obs.

% MAR 25, 1993 16h 21m 36.03± 0.71s
26.379 S ± 6.7km 27.381 E ± 7.4km
DEPTH = 10.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.3 (PRE).

PRY	0.55	171	eP	21 46.50	-0.9
			S	21 53.40	
KSR	0.67	319	eP	21 49.00	-0.5
			S	21 56.00	
SLR	1.03	52	iPc	21 55.50	-0.1
			S	22 06.70	
SEK	1.95	174	iPc	22 10.00	0.4
			S	22 33.00	
SWZ	2.00	246	eP	22 11.10	0.7
			S	22 35.70	
BFT	2.49	75	eP	22 18.00	0.5
			S	22 47.00	

S.D. = 0.8 on 6 of 6 obs.

? MAR 25, 1993 16h 28m 56.18± 8.35s
31.418 S ±29.3km 68.894 W ±55.7km
DEPTH = 109.0 ± 59.1 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB	0.11	130	iPd	29 12.00	0.2
			S	29 21.80	
ZON	0.22	125	iPd	29 11.80	-0.3
			eS	29 22.80	
RTLL	0.37	77	iPc	29 12.50	0.0
			S	29 22.20	
RTCV	0.54	146	iPd	29 13.50	0.0
			S	29 26.00	
CFA	0.59	109	iPc	29 13.90	0.1
			S	29 25.60	
RTPR	2.33	62	ePd	29 33.90	0.0

S.D. = 0.2 on 6 of 6 obs.

? MAR 25, 1993 16h 37m 28.82± 1.86s
30.975 S ±24.5km 68.263 W ±21.9km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	0.40	206	eP	37 39.50	1.6
CFA	0.63	178	ePc	37 41.00	-0.3
			S	37 52.00	
ZON	0.67	212	iPd	37 40.80	-1.1
			eS	37 51.80	
RTCB	0.69	222	iPd	37 42.00	-0.2
			S	37 54.00	
RTPR	1.65	67	ePd	37 55.90	0.0
			S	38 18.30	

S.D. = 1.4 on 5 of 5 obs.

? MAR 25, 1993 16h 39m 24.22± 5.19s
34.940 S ±51.2km 71.135 W ±28.7km
DEPTH = 110.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.9 (SAN).

CACH	0.93	28	iP+	39 45.08	-0.1
			iS	40 00.47	
LNV	1.01	347	iP+	39 45.77	0.0
			iS	40 01.43	
CHCH	1.08	22	iP	39 46.51	-0.1
			iS	40 02.71	
FCH	1.75	24	iP+	39 55.10	0.2
			iS	40 19.33	
PEL	1.83	12	iP+	39 56.06	0.5
			iS	40 20.31	
JACH	2.30	11	eP	40 01.13	-0.5
			iS	40 30.07	

S.D. = 0.4 on 6 of 6 obs.

MAR 25, 1993 16h 43m 10.33± 1.34s
38.085 N ± 3.9km 38.540 E ± 3.1km
DEPTH = 19.6 ± 11.8 km
4.4mb (24 obs.)
TURKEY (366)
Felt at Diyarbakir and Elazig.

GAZ	1.39	230	iPn	43 35.50	0.8
ADAT	2.73	249	ePn	43 51.20	-2.7X
TBZ	3.06	18	iPn	43 52.00	-6.5X
FAM	4.78	231	eP	44 25.00	2.0
			eS	45 47.20	
KAS	4.93	313	eP	44 25.00	-0.2
CSS	5.23	235	eP	44 29.00	-0.4
			eS	45 54.50	
HRI	5.32	206	iPc	44 30.40	-0.4
SOC	5.56	9	eP	44 38.00	3.9X
			eS	45 50.00	
ATZ	5.89	208	eP	44 38.20	-0.5
			eS	46 20.20	
MTA	6.02	51	iPd	44 39.00	-1.4
	0.8s			30.00nm	5.1mb
MML	6.19	205	iPc	44 43.50	0.6
GRS	6.25	75	eP	44 45.00	1.0
	1.0s			70.00nm	5.4mb
BCK	6.33	267	eP	44 47.00	2.0
ZNT	6.50	207	eP	44 46.70	-0.7
			eS	46 37.10	
KIV	6.65	27	(P)	44 49.00	-0.5
	0.8s			8.00nm	4.7mb
Z	11s			0.30um	4.2Msz
			eS	46 15.40	
GPA	6.76	292	eP	44 50.00	-1.0
PYA	6.85	28	eP	45 04.00	11.8X
EYL	6.95	293	eP	44 53.00	-0.8
KHL	7.10	275	eP	44 57.00	1.1
HRT	7.39	294	eP	44 59.50	-0.3
KER	7.86	116	iPc	45 04.70	-1.8
ISR	11.41	312	eP	45 56.50	1.3
VRI	11.73	315	eP	45 58.00	-1.6
MLR	11.96	312	eP	46 02.00	-0.7
CVO	12.01	314	eP	46 03.00	-0.4
OHR	14.01	288	eP	46 30.00	0.0
ASH	15.62	84	eP	46 52.50	1.6
UZH	15.80	317	eP	46 57.50	4.4X
MAIO	16.79	90	eP	47 06.00	0.0
OBN	17.07	356	eP	47 10.00	0.8
	1.0s			21.00nm	4.2mb
SPC	17.23	316	eP	47 15.20	3.7X
SRO	17.67	310	eP	47 16.60	-0.1

25d 16h

ZST 18.57 310 eP 47 27.60 -0.2
KSP 20.27 316 eP 47 46.20 -1.0
KBA 20.54 304 iPc 47 49.90 -0.4
1.0s 18.20nm 4.4mb
i 47 55.80
PRU 20.86 312 P 47 53.20 -0.1
e 47 57.50
GEC2 20.90 309 ePc 47 52.80 -1.1
0.8s 4.46nm 3.9mb
e 47 55.90
e 47 59.30
e 48 02.00
KHC 21.08 310 P 47 55.00 -0.7
e 48 35.00
BRG 21.59 314 eP 48 01.60 0.9
1.4s 24.00nm 4.4mb
e 48 05.80
WTTA 21.71 304 iPc 48 03.40 1.2
1.2s 40.80nm 4.7mb
CLL 22.32 315 iP 48 07.50 -0.5
1.5s 14.00nm 4.2mb
ARU 22.68 30 eP 48 11.00 -0.5
SVE 23.78 31 ePd 48 24.00 1.9
2.0s 60.00nm 4.8mb
e 49 10.00
NUR 24.10 343 eP 48 29.00 3.7X
0.4s 1.10nm 3.8mb
LPG 24.71 298 eP 48 35.80 4.1X
0.7s 5.30nm 4.3mb
LPL 24.73 298 eP 48 35.20 3.4X
QUE 24.73 100 eP 48 33.70 1.8
CDF 24.84 305 eP 48 33.10 0.4
0.9s 5.90nm 4.2mb
BSF 25.04 303 eP 48 34.70 0.1
KAF 25.21 346 eP 48 36.60 0.6
0.5s 3.10nm 4.2mb
HAU 25.37 303 eP 48 37.50 -0.1
1.1s 12.20nm 4.5mb
LBF 26.80 301 eP 48 50.70 -0.2
0.8s 4.45nm 4.2mb
SMF 26.85 300 eP 48 52.30 1.0
LOR 26.91 301 eP 48 51.10 -0.8
SSF 27.12 301 eP 48 53.50 -0.3
1.0s 8.80nm 4.4mb
AVF 27.20 300 eP 48 55.00 0.5
FRU 27.72 69 eP 49 03.00 3.7X
2.0s 40.00nm 4.8mb
ELT 35.91 49 eP 50 11.80 0.9
2.0s 25.00nm 4.8mb
BCAO 38.14 214 ePc 50 29.20 -0.9
0.8s 4.00nm 4.3mb
GKN 39.58 91 P 50 41.60 -0.6
DMN 40.13 91 P 50 46.40 -0.5
KKN 40.18 91 P 50 46.60 -0.7
PKI 40.38 91 P 50 48.40 -0.7
GUN 40.60 90 P 50 50.20 -0.7
NRI 40.92 24 ePd 50 55.00 2.6
0.8s 12.00nm 4.7mb
ZAK 46.57 53 eP 51 43.00 4.6X
1.6s 11.00nm 4.6mb
KIC 50.31 242 (P) 52 06.80 -1.0
BOD 51.41 42 eP 52 14.60 -1.1
0.7s 9.00nm 4.8mb
YKA 77.46 348 eP 55 05.50 0.0
0.8s 0.70nm 3.8mb
S.D. = 1.0 on 58 of 69 obs.

MAR 25, 1993 17h 10m 18.27± 0.45s
0.943 N ± 7.1km 128.996 E ±10.5km
DEPTH = 33.0km (normal)
4.9mb (13 obs.)
HALMAHERA, INDONESIA (267)

DAV 6.99 331 eP 12 02.60 1.6
KKM 13.72 292 ePc 13 38.00 5.0X
MTN 13.86 171 eP 13 30.00 -4.8X
0.4s 50.00nm 5.6mb X
BAG 17.46 332 eP 14 24.50 3.2X
TRT 18.44 242 ePd 14 33.10 0.0
ASPA 24.92 169 iPc 15 40.10 0.1
1.1s 66.10nm 5.1mb
eS 20 06.60
NANU 26.80 209 eP 15 56.00 -1.4
WARB 27.06 185 eP 16 01.50 1.7
0.7s 42.00nm 5.2mb
PPI 28.63 267 eP 16 14.20 0.1
MEEK 29.19 199 eP 16 18.50 -0.6
0.8s 10.00nm 4.6mb
QLP 31.06 153 eP 16 34.90 -0.7
HNR 32.50 109 P 16 45.00 -3.4X
CHTO 34.41 303 eP 17 04.30 -0.6
STK 34.76 161 iPc 17 07.10 -0.6
2.3s 1.50nm 3.5mb X
KMI 34.94 316 eP 17 11.00 1.3
1.8s 40.00nm 5.0mb
sP 17 23.00
CMS 35.99 155 eP 17 18.00 -0.2
BRS 36.29 143 iPc 17 19.50 -1.3
1.0s 5.00nm 4.4mb
MAT 36.43 13 eP 17 23.00 1.1
0.9s 15.97nm 4.9mb
ADE 36.86 167 iPd 17 26.50 0.9
ARMA 37.91 147 iPc 17 35.00 0.5
0.7s 18.00nm 5.0mb
BFD 39.95 163 eP 17 51.80 0.5
1.0s 15.00nm 4.7mb
BJI 40.63 345 eP 17 55.00 -1.8
1.2s 16.00nm 4.6mb
CAN 40.63 155 eP 17 57.00 0.0
TOO 41.25 160 iPd 18 03.60 1.6
0.8s 12.00nm 4.7mb
LZH 42.04 329 Pc 18 08.50 -0.1
1.4s 40.00nm 5.0mb
sP 18 12.00
HYB 52.21 291 eP 19 28.00 -0.7
GBA 52.54 286 P 19 30.00 -1.1
YAK 60.92 0 eP 20 27.80 -2.2
1.5s 43.00nm 5.4mb
QUE 65.54 303 eP 21 06.20 4.8X
MAIO 72.99 308 eP 21 49.00 2.0
YKA 101.07 25 ePdiff24 14.30 8.3X
0.7s 0.60nm 4.3mb
CNCB 157.02 134 ePKP 30 26.00 12.7X
ZOBO 157.25 133 ePKP 30 17.00 3.3X
S.D. = 1.2 on 25 of 33 obs.

MAR 25, 1993 17h 15m 59.75± 0.24s
1.118 N ± 3.7km 129.140 E ± 5.1km
DEPTH = 20.3km (11 depth phases)
5.1mb (34 obs.) 4.5Msz (7 obs.)
HALMAHERA, INDONESIA (267)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 21S, 30C
Centroid Location:
Origin Time 17:16: 5.2 1.6
Lat 1.52N 0.13 Lon 128.63E 0.15
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 0.41 0.97 Mtt= 6.59 0.61
Mff=-7.00 1.34 Mrt=-5.71 2.54
Mrf=-1.59 1.87 Mtf= 1.92 0.83
Principal Axes:
T Val= 10.34 Plg=30 Azm=171
N -2.96 58 9
P -7.38 8 266
Best Double Couple:Mo=8.9*10**16
NP1:Strike=312 Dip=63 Slip= 17
NP2: 214 75 151

DAV 6.91 329 eP 17 46.20 3.7X
BIP 7.62 338 ePc 17 50.50 -2.0
eS 18 53.50
CTB 7.79 321 ePd 17 59.00 4.1X
SLKI 9.29 167 iPc 19 13.00 57.3X
TSM 11.69 286 ePd 18 48.50 0.0
0.5s 173.30nm 6.6mb X
KKM 13.79 291 ePc 19 21.50 4.8X
WSI 13.88 219 e(P) 19 22.00 4.3X
MTN 14.01 172 eP 19 12.50 -7.0X
0.4s 167.00nm 6.1mb
KHKI 16.45 235 ePd 19 51.80 0.7
e 22 19.00
BAG 17.38 331 eP 20 04.00 1.0
CVP 17.98 337 eP 20 13.50 3.1X
TRT 18.65 242 ePc 20 17.10 -1.4
SJI 19.43 243 iPc 20 29.00 1.0
e 21 58.00
WB2 21.55 167 iPd 20 48.70 -1.4
0.8s 115.20nm 5.3mb
LEM 22.88 250 ePd 21 04.50 1.0
MBL 23.94 202 eP 21 10.00 -3.6X
QZH 25.79 338 P 21 31.80 0.6
0.9s 65.00nm 5.3mb
KGM 25.83 272 ePc 21 34.00 2.3
QIZ 25.97 314 eP 21 33.50 0.5
N 14s 0.79um
GZH 26.69 326 P 21 39.80 0.3
CTA 26.94 142 iPc 21 42.50 0.6
i 22 08.00 118kmX
NANU 27.02 209 eP 21 40.00 -2.5
WARB 27.25 185 eP 21 45.00 0.3
0.7s 70.00nm 5.4mb
IPM 28.28 278 eP 21 55.50 1.3
PPI 28.78 267 eP 21 58.20 -0.5
MEEK 29.40 199 eP 22 07.00 2.9X
0.8s 28.00nm 5.1mb
KAGJ 29.95 3 P 22 09.20 0.3
SSE 30.75 347 Pc 22 20.50 4.5X
1.0s 15.00nm 4.8mb
Z 20s 0.50um 4.2Msz
N 10s 0.20um
E 10s 0.20um
QLP 31.15 153 eP 22 18.90 -0.7
KUMJ 31.29 3 P 22 19.10 -1.6
LOE 31.44 303 eP 22 24.00 1.8
HNR 32.42 110 eP 22 33.00 2.1
WHN 32.46 336 Pd 22 32.00 1.1
1.0s 18.00nm 5.0mb
SHNJ 32.89 3 P 22 34.20 -0.4
TKSJ 33.02 7 eP 22 35.90 0.1
KHT 33.09 296 eP 22 37.50 0.8
GYA 33.20 321 P 22 38.80 1.2
1.0s 19.00nm 5.0mb
pP 22 45.60 23km
RMQ 33.34 147 iPd 22 38.10 -0.6
TSRJ 34.83 10 P 22 51.50 0.0
STK 34.88 161 eP 22 50.30 -1.6
0.5s 6.60nm 4.8mb
KMI 34.92 315 eP 22 53.00 0.4
1.5s 50.00nm 5.2mb
CHJJ 35.94 14 eP 23 00.70 -0.2
CMS 36.09 155 eP 23 01.00 -1.2
0.6s 9.00nm 4.8mb
MTMJ 36.19 12 eP 23 02.90 -0.2
MAT 36.23 12 eP 23 03.00 -0.4
0.8s 23.88nm 5.1mb
eS 31 21.00
BRS 36.34 143 iPd 23 04.00 -0.4
1.0s 8.00nm 4.6mb
ipPd 23 10.00 20km
TIA 36.65 344 Pd 23 07.00 0.1
ADE 37.00 167 iPc 23 10.30 0.4
XAN 37.83 332 Pc 23 16.50 -0.3
1.0s 36.00nm 5.1mb
ARMA 37.98 148 eP 23 18.00 -0.3
0.4s 48.00nm 5.7mb
i 23 19.30 4kmX
i 23 24.10
CD2 38.16 323 iPc 23 19.60 -0.1
YAMJ 38.21 14 eP 23 21.70 1.7
DL2 38.23 351 eP 23 20.00 -0.1
0.8s 98.00nm 5.6mb
OFUJ 39.48 15 eP 23 36.90 6.3X
TIY 39.53 339 eP 23 30.90 -0.2
BWA 39.72 155 ePKP 23 39.00 6.4X
i 23 44.10 17km
BFD 40.08 163 iPd 23 35.80 0.3
1.0s 45.00nm 5.1mb
BJI 40.50 345 eP 23 39.00 0.1
1.2s 65.00nm 5.2mb
Z 22s 0.62um 4.4Msz
CAN 40.73 155 ePKP 23 43.00 2.1
i 23 47.30 15km
SNY 40.83 354 eP 23 41.40 -0.2
Z 22s 0.62um 4.4Msz
CNB 40.88 154 eP 23 45.00 2.8X
TOO 41.36 160 iPd 23 47.50 1.4
0.4s 24.00nm 5.3mb
i 23 53.20 19km
LZH 41.96 329 iPc 23 52.40 1.2
1.5s 130.00nm 5.4mb
Z 30s 0.60um 4.3MszX
eS 30 05.00
CN2 42.62 356 eP 23 56.70 0.4
1.0s 4.60nm 4.2mb
Z 20s 0.67um 4.5Msz
HHC 42.63 340 P 23 57.00 0.4
1.0s 36.00nm 5.1mb
Z 20s 0.62um 4.5Msz

N 10s 0.19um
BTO 42.96 339 eP 23 57.40 -1.8
MDJ 43.31 0 eP 24 02.60 0.7
GTA 46.56 328 P 24 28.00 -0.2
1.0s 24.00nm 5.2mb
Z 24s 0.60um 4.5MszX
pP 24 33.00 17km
YSS 47.22 13 (P) 24 38.50 5.4X
GUN 49.20 307 P 24 48.80 -0.5
PKI 49.44 306 P 24 50.20 -0.9
KKN 49.63 306 P 24 51.20 -1.2
DMN 49.70 306 P 24 52.40 -0.6
GKN 50.24 306 P 24 56.40 -0.6
HYB 52.28 291 eP 25 11.00 -1.4
1.0s 30.00nm 5.2mb
CIT 52.36 348 eP 25 13.20 0.7
GBA 52.63 286 P 25 15.00 0.0
ZAK 53.78 340 eP 25 19.00 -3.9X
1.3s 11.00nm 4.7mb
IRK 55.05 342 eP 25 30.00 -2.3X
MOY 55.67 339 eP 25 36.30 -0.4
WMQ 56.23 325 P 25 41.00 0.0
Z 24s 0.57um 4.6MszX
pP 25 46.00 16km
sP 25 58.00
eS 33 30.00
BOD 57.80 351 eP 25 50.00 -1.8
1.2s 14.00nm 4.9mb
YAK 60.75 0 eP 26 11.30 -0.7
1.9s 193.00nm 5.9mb
MGD 61.16 12 eP 26 14.00 -1.0
e 26 21.00 23km
KSH 61.55 315 P 26 18.00 -0.2
0.6s 20.00nm 5.4mb
ELT 62.88 333 eP 26 25.30 -1.3
0.9s 19.00nm 5.2mb
QUE 65.57 303 eP 26 46.50 1.7
TIK 70.41 360 eP 27 14.00 0.1
1.6s 26.00nm 5.1mb
Z 18s 0.60um 4.9Msz
e 27 39.00 97kmX
iS 36 35.00
MAIO 73.00 308 eP 27 30.00 -0.4
NRI 73.44 346 iPd 27 31.00 -1.1
1.3s 18.00nm 5.0mb
Z 20s 0.80um 5.0Msz
E 20s 0.80um
e 27 38.00 23km
ILT 75.52 18 eP 27 46.00 1.8
i 27 54.00 26km
SVE 77.43 328 ePd 27 59.00 4.0X
ARU 78.39 328 eP 28 03.00 2.7X
SVW 81.91 28 (P) 28 27.32 8.2X
TTA 82.14 26 eP 28 22.58 2.3
AVY 82.23 251 iPc 28 21.70 -0.1
VTY 82.43 251 iPc 28 23.20 0.5
GRS 83.73 309 eP 28 33.00 3.9X
e 28 50.00 61kmX
IMA 83.79 24 eP 28 32.01 3.2X
SLKM 84.42 29 eP 28 34.97 3.0X
PMR 85.08 28 (P) 28 37.56 2.4X
PYA 86.40 314 eP 28 41.00 -1.2
i 28 49.00 25km
KAF 95.01 333 eP 29 19.30 -2.7X
1.1s 13.80nm 5.3mb
YKA 100.85 25 ePdiff29 53.20 4.8X
1.1s 1.30nm 4.4mb
SLL 101.47 333 ePdiff29 50.10 -1.1
0.4s 2.60nm 5.1mb
KIC 133.37 280 (PKP) 35 25.30 8.0X
CNCB 157.04 134 PKP 36 06.70 9.9X
LPB 157.13 133 ePKP 36 07.00 10.3X
ZOBO 157.27 132 PKP 36 05.20 8.0X
S.D. = 1.1 on 80 of 109 obs.

? MAR 25, 1993 17h 37m 17.49± 3.77s
48.782 N ±12.7km 10.455 E ±36.0km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.2 (FUR).

FUR 0.82 138 ePg 37 33.60 0.1
GRF 1.04 29 e(Pg) 37 37.10 0.0
eSg 37 53.50
HOF 1.79 31 ePn 37 50.60 1.9
MOX 2.01 22 ePn 37 50.40 -1.5
ePg 37 56.50
iSg 38 21.70
KHC 2.09 79 eP 37 52.50 -0.5
e 37 58.50
e 38 19.00
eSg 38 26.50
GEC2 2.15 87 Pn 37 53.90 0.0
Pg 37 58.30
Sg 38 28.50
S.D. = 1.4 on 6 of 6 obs.

& MAR 25, 1993 18h 08m 54.64s
45.020 N 122.600 W
DEPTH = 5.8km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.2 (SEA).

SHW 1.20 12 eP 09 16.18 -1.3
eS 09 32.48
VGB 1.38 68 eP 09 20.01 -0.5
eS 09 37.10
BMW 1.52 343 eP 09 20.41 -2.1
eS 09 40.26
LON 1.82 17 eP 09 26.21 -0.5
eS 09 50.65
4 obs. associated

? MAR 25, 1993 18h 50m 21.79± 2.09s
8.939 S ±63.8km 128.381 E ±96.6km
DEPTH = 217.1 ± 27.6 km
4.9mb (4 obs.)
TIMOR SEA (290)

MTN 4.73 145 iPd 51 34.00 0.2
eS 52 36.00
WB2 12.37 153 iPd 53 11.50 -0.5
0.3s 19.20nm 4.9mb
eS 55 35.10
WARB 17.23 185 eP 54 20.00 9.1X
QLP 23.10 141 iPc 55 10.10 0.3
0.7s 30.00nm 5.0mb
CHTO 40.04 314 ePd 58 04.20 26.7X
0.9s 9.80nm
KMI 42.08 324 Pd 57 55.00 0.7
1.5s 50.00nm 4.8mb
LZH 50.39 334 iPd 58 58.50 -0.7
1.4s 60.00nm 4.9mb
sP 59 31.00
S.D. = 1.2 on 5 of 7 obs.

MAR 25, 1993 19h 44m 17.91± 0.24s
11.062 S ± 4.7km 163.256 E ± 5.4km
DEPTH = 31.9km (8 depth phases)
5.2mb (32 obs.) 4.8Msz (3 obs.)
SOLOMON ISLANDS (193)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 34S, 56C
Centroid Location:
Origin Time 19:44:19.5 0.5
Lat 10.84S 0.06 Lon 163.59E 0.07
Dep 15.0 FIX Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr= 6.30 0.43 Mtt=-5.59 0.45
Mff=-0.71 0.59 Mrt= 8.83 1.51
Mrf= 5.57 1.27 Mtf=-1.28 0.38
Principal Axes:
T Val= 12.49 Plg=59 Azm=321
N -0.81 7 62
P -11.68 30 156
Best Double Couple:Mo=1.2*10**17
NP1:Strike=267 Dip=16 Slip= 115
NP2: 61 75 83

HNR 3.64 296 eP 45 16.00 2.6
eS 46 04.00
BKM 8.15 144 iPc 46 14.30 -2.7
DZM 11.37 165 iPd 46 57.70 -3.6X
iS 48 59.10
PMG 15.93 274 eP 48 05.00 3.6X
CTA 18.66 239 iPc- 48 37.50 1.9
Z 18s 13.06um
i 48 40.00
e 48 53.50
eS 52 06.00
BRS 19.00 210 iPc+ 48 40.00 0.3
1.0s 7.00nm 3.8mb X
ic 49 07.50
eS 52 21.00
RMQ 20.56 220 iPd 48 57.20 0.5
0.9s 80.00nm 5.1mb
ARMA 22.09 208 eP 49 12.70 0.5
0.5s 25.00nm 4.9mb
QLP 23.66 227 iPc 49 29.30 1.7
1.8s 833.00nm 6.0mb
CMS 25.94 216 eP 49 49.50 0.3
0.9s 56.00nm 5.2mb
CNB 27.25 205 eP 50 05.50 4.2X
0.9s 19.00nm 4.7mb
CAN 27.41 206 eP 50 06.50 3.8X
epP 50 13.00 23km
e 50 23.00
STK 28.80 221 iPc 50 15.70 0.5
1.0s 4.30nm 4.1mb X
W82 29.18 249 iPd 50 17.60 -1.2
1.2s 17.00nm 4.6mb
i 50 29.90 47kmX
i 50 39.00
e 53 25.50
GUA 30.47 323 eP 50 29.30 -1.0
GUMO 30.54 323 eP 50 30.10 -0.8
eS 55 58.90
ASPA 30.62 242 iPc 50 29.80 -1.8
1.1s 23.50nm 4.9mb
Z 17s 2.00um 4.8MszX
epP 50 40.50 39km
TOO 30.85 208 eP 50 34.00 0.5
0.8s 37.00nm 5.2mb
BFD 31.99 212 eP 50 44.40 0.9
0.9s 11.00nm 4.8mb
ADE 32.64 219 eP 50 50.00 0.8
WARB 37.66 241 eP 51 31.50 -0.6
0.7s 35.00nm 5.3mb
MBL 42.79 251 eP 52 14.60 0.0
0.8s 85.00nm 5.5mb
e 52 25.00 36km
MEEK 44.75 243 eP 52 30.00 -0.5
0.7s 52.00nm 5.5mb
NANU 46.91 249 eP 52 47.00 -0.6
KKM 49.81 288 ePd 53 11.00 0.7
BAG 50.27 302 eP 53 13.00 -0.9
TKSJ 52.70 329 eP 53 32.00 0.2
MAT 52.90 335 (P) 53 32.00 -1.2
eS 01 09.00
YONJ 53.95 330 eP 53 40.80 -0.2
SSE 58.19 317 Pd 54 10.80 -0.6
0.8s 26.00nm 5.4mb
Z 20s 0.50um 4.6Msz
sP 54 32.50
S 02 14.00
YSS 60.66 344 eP 54 28.00 -0.2
1.0s 30.00nm 5.4mb
Z 17s 0.50um 4.7MszX
N 17s 0.60um
(S) 02 38.00
KGM 61.00 279 eP 54 30.00 -1.1
IPM 63.84 281 ePd 54 48.90 -1.2
BJI 66.98 322 eP 55 10.00 0.2
1.4s 0.24nm 3.1mb X
Z 16s 0.70um 5.0MszX
eS 04 04.00
KMI 69.05 302 Pd 55 24.00 0.6
1.5s 70.00nm 5.5mb
pP 55 34.00 32km
CHTO 70.00 295 eP 55 27.80 -1.2
LZH 72.97 313 eP 55 47.50 0.8
1.6s 59.00nm 5.3mb
Z 18s 0.45um 4.8Msz
E 14s 0.29um
pP 55 58.00 34km
sP 56 02.50
CIT 75.93 331 eP 56 04.20 0.9
YAK 77.42 345 eP 56 11.10 -0.1
1.0s 40.00nm 5.4mb
SVW 78.90 19 eP 56 20.40 0.9
0.8s 26.25nm 5.3mb
SPA 79.01 180 iPc 56 20.50 0.3
1.1s 42.86nm 5.4mb
BOD 79.47 336 eP 56 22.70 0.1
1.7s 25.00nm 4.9mb
ILT 79.82 7 iPc 56 24.00 -0.2
TTA 80.16 18 eP 56 27.05 0.7
1.3s 11.37nm 4.7mb
ZAK 80.33 326 iPc 56 27.50 0.2

25d 19h

1.6s 22.00nm 4.9mb
Z 15s 0.20um 4.6MszX
E 16s 0.29um
IRK 80.75 328 ePc 56 28.10 -1.4
2.0s 29.00nm 4.9mb
PMS 81.04 21 e(P) 56 30.60 -0.3
MOY 82.23 326 eP 56 37.90 0.7
IMA 83.19 16 eP 56 42.74 0.6
0.8s 4.79nm 4.7mb
MAW 83.78 202 P 56 48.59 3.6X
FBA 84.11 19 eP 56 46.23 -0.4
0.8s 12.92nm 5.2mb
GUN 84.20 300 P 56 48.00 -0.3
PKI 84.51 299 P 56 49.40 -0.5
0.8s 36.00nm 5.6mb
KKN 84.68 300 P 56 50.40 -0.2
DMN 84.78 299 P 56 50.80 -0.3
ARN 85.15 51 eP 56 53.28 0.8
e 57 04.43 36km
GKN 85.28 300 P 56 52.80 -0.7
TIK 85.64 350 eP 56 54.00 -0.1
2.0s 41.00nm 5.3mb
Z 20s 0.50um 4.9Msz
i 57 04.00 31km
LBFM 86.12 47 eP 56 58.64 1.2
CMB 86.22 50 eP 56 58.11 0.3
0.9s 9.68nm 5.0mb
SSK 87.26 55 eP 57 03.61 0.5
GMW 87.50 41 eP 57 05.23 1.5
PEC 87.60 55 eP 57 04.51 -0.1
0.7s 14.20nm 5.4mb
PLM 87.71 56 eP 57 06.18 0.9
ELT 91.12 324 eP 57 19.60 -1.0
1.3s 15.00nm 5.2mb
ARUT 91.47 52 eP 57 24.62 1.8
HVU 92.83 48 eP 57 30.02 1.0
LCCM 94.29 44 eP 57 36.60 1.0
NRI 95.12 340 eP 57 40.00 1.3
1.5s 14.00nm 5.2mb
e 57 48.00 25km
YKA 96.11 28 eP 57 41.70 -1.7
0.8s 3.20nm 4.8mb
KAF 120.37 338 ePKP 03 05.60 -1.6
0.5s 2.20nm
NUR 122.01 337 ePKP 03 09.00 -1.3
0.7s 7.30nm
ZOBO 122.36 117 PKP 03 13.00 -0.1
NB2 126.05 344 PKP 03 17.40 -0.9
0.8s 3.00nm
SIV 128.55 121 PKP 03 36.60 12.2X
KHC 134.45 332 ePKP 03 35.50 0.8
GEC2 134.60 332 ePKP 03 34.70 -0.3
0.7s 1.45nm
e 03 36.50
e 03 40.30
e 03 44.10
BCAO 144.45 262 iPKPc 03 51.90 -1.9
0.2s 44.00nm
i 04 02.10
SOB1 148.65 129 ePKP 04 01.20 0.6
e 04 15.20
e 04 26.50
KIC 167.25 249 (PKP) 04 22.60 0.1
LIC 167.46 248 (PKP) 04 22.80 0.1
S.D. = 1.0 on 75 of 81 obs.

% MAR 25, 1993 20h 00m 55.77± 0.76s
44.388 N ± 6.8km 7.316 E ± 8.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

STV 0.14 178 P 00 59.12 -0.1
S 01 01.09
ENR 0.18 155 P 00 59.62 -0.2
S 01 02.18
PZZ 0.19 307 P 01 00.49 0.4
S 01 03.60
ROB 0.41 103 P 01 04.47 0.3
S 01 10.33
BHB 0.46 355 P 01 04.66 -0.4
S 01 11.43
S.D. = 0.5 on 5 of 5 obs.

& MAR 25, 1993 20h 08m 00.43s
45.041 N 122.635 W
DEPTH = 18.3km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.0 (SEA).

SHW 1.19 14 eP 08 20.35 -1.8
eS 08 37.11
VGB 1.39 69 eP 08 24.98 -0.1
eS 08 43.95
BMW 1.49 344 eP 08 26.05 -0.4
eS 08 44.80
LON 1.80 18 eP 08 29.32 -1.6
4 obs. associated

MAR 25, 1993 20h 16m 55.62± 0.34s
29.625 N ± 6.0km 80.551 E ± 5.0km
DEPTH = 33.0km (normal)
4.6mb (12 obs.)
NEPAL-INDIA BORDER REGION (309)
ML 4.2 (NDI).

NDI 3.06 253 iPd 17 47.50 4.7X
0.4s 110.17nm
LSA 9.22 87 P 19 16.40 6.6X
0.8s 10.00nm 5.1mb
QUE 11.82 276 eP 19 44.70 -0.3
eS 21 51.00
HYB 12.29 189 eP 19 50.50 -0.7
1.0s 30.00nm 5.4mb
eS 22 01.50
POO 12.62 210 eP 19 56.50 0.8
WMQ 15.27 20 P 20 34.20 3.8X
Z 20s 0.54um
GBA 16.20 191 P 20 41.00 -1.4
S 23 27.00
GTA 18.60 53 eP 21 11.00 -1.4
Z 18s 0.40um
MAIO 18.86 296 eP 21 16.00 0.4
CD2 20.08 81 eP 21 29.80 0.6
KMI 20.20 98 eP 21 30.00 -0.7
1.2s 40.00nm 4.6mb
GYA 23.25 91 P 22 02.00 0.9
XAN 24.47 72 P 22 12.50 -0.3
1.0s 2.80nm 3.8mb
Z 15s 0.54um 4.2MszX
pP 22 23.00 39kmX
BTO 26.36 58 eP 22 31.00 0.4
MLR 45.23 306 eP 25 15.00 3.4X
KAF 47.68 329 eP 25 30.50 0.0
0.8s 6.60nm 4.7mb
NUR 48.02 327 eP 25 33.00 -0.2
GEC2 53.46 311 eP 26 14.90 0.1
0.6s 0.48nm 3.7mb
LPG 58.64 308 eP 26 52.20 0.1
0.5s 4.10nm 4.8mb
LPL 58.65 308 eP 26 52.30 0.2
0.6s 6.95nm 4.9mb
BCAO 63.57 259 ePd 27 26.00 0.3
0.8s 4.00nm 4.6mb
WRA 71.51 127 P 28 16.90 1.5
0.7s 0.50nm 3.7mb
WB2 71.52 127 iPc 28 16.10 0.7
0.8s 4.30nm 4.5mb
KIC 82.81 273 (P) 29 20.60 2.2X
YKA 87.40 7 eP 29 39.40 -1.0
0.7s 1.20nm 4.3mb
S.D. = 0.8 on 20 of 25 obs.

• MAR 25, 1993 20h 20m 08.44± 1.47s
23.693 S ± 7.4km 70.475 W ±14.3km
DEPTH = 70.4 ± 12.2 km
4.5mb (1 obs.)
NEAR COAST OF NORTHERN CHILE (122)
Felt (III) at Antofagasta and
(II) at Mejillones.

SLA 4.66 104 ePd 21 20.00 1.9
S 22 41.00
HJA 4.68 85 e(P) 21 21.20 3.0X
FSA 4.70 121 eP 21 20.00 1.5
(S) 21 43.00
YJA 4.83 73 ePc 21 23.00 2.3
CYA 6.33 139 ePc 21 40.10 -1.2
CNCB 7.23 19 P 21 53.70 -0.6
ARE 7.26 352 eP 21 50.00 -4.3X
LPB 7.46 18 P 21 57.70 0.4
1.0s 270.00nm 5.9mb X
Z 20s 1.42um 4.8MszX
LR 24 30.00
RTPR 7.47 153 ePd 21 55.10 -1.8
CCH 7.48 34 P 22 01.50 4.1X
ZOBO 7.69 17 P 21 59.10 -1.5
Z 24s 0.55um
LR 24 38.00
RTLL 7.81 167 eP 22 02.00 0.3
(S) 23 40.00
RTCB 7.90 170 e(P) 22 07.00 3.9X
S 22 48.00
ZON 7.98 169 eP 22 07.50 3.4X
CFA 8.13 166 e(P) 22 02.20 -3.9X
RTCV 8.32 169 e(P) 22 11.80 3.1X
MDZ 9.27 171 e(P) 22 28.90 7.2X
PEL 9.42 181 ePd 22 15.00 -8.8X
MRA 9.65 155 ePd 22 23.00 -3.8X
SIV 11.70 51 P 23 02.00 7.4X
PPD 17.74 88 eP 24 10.20 -2.1
VAO 21.59 93 eP 24 53.20 -1.0
e 25 05.10
BAO 22.62 73 eP 25 03.60 -0.8
i 25 06.80
i 25 16.00
e 31 03.50
SOB1 31.72 68 eP 26 27.20 -0.7
LMN 69.40 4 eP 31 14.00 3.4X
LIC 70.39 74 P 31 17.60 0.3
Z 20s 0.13um 4.2Msz
EEO 70.43 354 eP 31 21.50 4.6X
TIC 70.59 73 P 31 19.00 0.5
KIC 70.70 74 P 31 19.40 0.2
JAQ 77.30 357 eP 31 57.00 0.5
FCC 84.45 348 eP 32 38.50 4.4X
YKA 92.77 341 eP 33 14.10 0.5
0.5s 0.90nm 4.5mb
ASPA 127.31 208 ePKP 39 16.50 9.3X
WB2 130.33 211 ePKP 39 14.50 1.5
0.5s 3.10nm
GBA 148.05 103 PKP 39 49.00 4.1X
MAT 152.19 304 ePKP 39 59.00 8.3X
S.D. = 1.4 on 19 of 36 obs.

& MAR 25, 1993 20h 31m 50.66s
59.483 N 152.664 W
DEPTH = 90.2km
SOUTHERN ALASKA (2)
<AEIC>.

OPT 0.33 301 iPd 32 03.91 -0.6
eS 32 13.96
AUE 0.38 251 iPd 32 04.19 -0.6
AUL 0.41 256 iPd 32 04.40 -0.6
AUH 0.42 254 iPd 32 04.46 -0.6
eS 32 14.35
AUI 0.42 250 iPd 32 04.30 -0.7
iS 32 14.89
AUW 0.43 255 iPd 32 04.52 -0.6
XLV 0.48 93 eP 32 04.60 -0.9
INE 0.61 341 iPc 32 05.85 -1.0
eS 32 17.38
ILIM 0.62 346 iPc 32 05.69 -1.0
eS 32 17.36
INW 0.63 338 ePc 32 06.04 -0.9
eS 32 18.63
CNPM 0.73 86 iPc 32 06.86 -0.9
eS 32 19.06
CDD 0.75 223 iPd 32 07.06 -0.9
PDB 0.83 292 ePd 32 07.68 -1.1
eS 32 21.01
SYI 0.89 171 iPd 32 08.64 -0.7
eS 32 22.31
MCNL 0.91 252 iPd 32 08.50 -1.1
eS 32 22.31
BRLK 0.95 72 ePc 32 08.99 -1.1
eS 32 22.75
RS1 0.98 357 iPc 32 09.90 -0.8
iS 32 24.88
RSO 0.98 357 iPc 32 09.89 -0.8
eS 32 24.73
RS2 0.98 357 iPc 32 09.96 -0.8
eS 32 24.49
NKA 1.45 29 eP 32 17.04 0.9
SLKM 1.60 49 eP 32 16.99 -1.2
CKL 1.73 5 iPc 32 19.15 -0.7
SPU 1.73 10 iPc 32 19.09 -0.8
CKT 1.74 7 ePc 32 19.21 -0.8
SEW 1.74 68 eP 32 18.50 -1.4
KDC 1.74 177 (P) 32 21.10 1.2

			eS	32 39.34	
CKN	1.76	8	eP	32 19.88	-0.4
BGL	1.79	4	eP	32 20.21	-0.5
CPAM	1.80	8	eP	32 20.39	-0.4
CP2	1.80	7	eP	32 20.32	-0.6
CRP	1.81	8	eP	32 19.96	-1.1
MPA	1.94	57	eP	32 21.59	-1.0
SUA	2.20	25	ePd	32 25.68	-0.6
PTE	2.29	51	ePc	32 26.06	-1.2
PMS	2.35	40	P	32 27.20	-0.9
SKT	2.57	12	eP	32 30.05	-1.1
PWA	2.57	31	P	32 33.20	2.1
PMR	2.74	38	(P)	32 32.15	-1.3
GHO	2.94	37	eP	32 35.19	-1.1
SML	3.16	41	eP	32 37.39	-1.9
HIN	3.23	71	eP	32 37.98	-2.3

41 obs. associated

MAR 25, 1993 20h 53m 24.89± 0.40s
42.359 N ± 3.7km 12.634 E ± 3.5km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.7 (TRI), 3.3 (FIR), 3.3 (ROM). ML 3.4 (LDG).

MNS	0.04	54	P	53 27.45	0.4
RMP	0.55	175	P	53 36.38	0.3
AQU	0.57	90	P	53 35.95	-0.5
RDP	0.60	174	P	53 37.31	0.2
ASS	0.71	2	P	53 37.86	-1.1
CRE	1.36	339	P	53 50.09	0.1
DUI	1.53	117	P	53 54.38	2.1X
RSM	1.57	355	P	53 55.43	2.6X
PGD	1.66	337	P	53 57.72	3.5X
SFI	1.66	340	P	53 54.56	0.4
FIR	1.74	325	ePn	53 55.00	-0.3
			iSn	54 28.00	
BDI	2.26	320	P	54 03.69	0.7
PGF	2.70	275	Pn	54 09.40	0.2
HVAR	2.93	72	iPn	54 12.70	0.4
RIY	3.24	22	e(Pn)	54 16.40	-0.3
BOB	3.34	317	P	54 20.93	2.7X
TRI	3.45	13	ePnd	54 18.60	-1.0
			ePg	54 30.20	
			eSn	55 00.10	
			eSg	55 19.60	
CEY	3.62	20	ePn	54 21.60	-0.5
			eSn	55 04.00	
VBY	3.67	30	ePn	54 24.00	1.1
			iSn	55 06.50	
CTI	3.75	349	P	54 23.96	-0.2
VOY	3.78	13	iPnc	54 24.10	-0.5
			e(Pg)	54 37.50	
			eSn	55 08.20	
			e	55 09.60	
CKI	3.79	305	P	54 26.43	1.9
LJU	3.93	20	e(Pn)	54 27.00	0.5
			ePg	54 40.00	
			eSn	55 12.20	
MDI	4.01	329	P	54 27.14	-0.5
SBF	4.09	293	Pn	54 28.00	-0.9
			Sn	55 12.60	
RBL	4.14	9	P	54 28.80	-0.7
FVI	4.23	1	P	54 30.40	-0.4
PTJ	4.27	33	e(Pn)	54 39.30	7.8X
			eSn	55 26.50	
DOI	4.47	300	P	54 35.59	1.3
FRF	4.55	287	Pn	54 33.60	-1.8
LMR	4.61	284	Pn	54 34.40	-1.8
OGA	4.65	346	ePn	54 37.10	0.1
LRG	4.74	285	Pn	54 37.30	-0.7
KBA	4.75	6	iPnc	54 37.60	-0.7
			iSn	55 26.10	
			i	55 30.40	
			i	55 34.20	
WTTA	4.96	352	iPnc	54 41.80	0.6
			i	55 26.00	
			i	55 40.40	
SQTA	4.97	349	iPnc	54 41.90	0.6
WATA	5.03	352	iPnd	54 43.20	0.9
MOTA	5.10	348	iPnc	54 44.00	0.7
LPG	5.28	308	Pn	54 47.10	1.1
LPL	5.30	309	Pn	54 47.00	0.7
GEC2	6.53	6	Pn	55 01.10	-2.3X
			Pg	55 19.60	
			Sn	56 15.10	
KHC	6.80	5	Pn	55 04.50	-2.7X
			e	55 28.00	
			e	56 06.50	
BSF	6.86	325	Pn	55 07.00	-1.0X
			Sn	56 23.70	
CDF	7.13	330	Pn	55 09.20	-2.6X
HAU	7.18	324	Pn	55 10.40	-2.1X
			Sn	56 30.10	
GRF	7.40	353	e(Pn)	55 13.50	-2.0X
SMF	7.61	307	Pn	55 19.40	1.0X
LBF	7.71	310	Pn	55 16.30	-3.6X
PRU	7.74	9	eP	55 58.00	37.7X
			eSg	56 42.50	
LOR	7.94	311	Pn	55 21.50	-1.5X
MOX	8.32	356	eP	55 26.20	-2.2X

Z 18s 0.30um
S.D. = 0.9 on 35 of 51 obs.

& MAR 25, 1993 21h 03m 59.74s
45.039 N 122.615 W
DEPTH = 20.7km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.6 (SEA), 2.7 (GS).

SSOR	0.21	149	P	04 05.53	0.2
GT2	0.27	64	P	04 06.16	0.1
PGO	0.44	15	Pd	04 09.03	0.2
TDH	0.64	66	Pc	04 12.17	0.0
			S	04 20.80	
VLMM	0.64	39	Pd	04 12.45	0.2
			S	04 21.76	
TKO	0.68	300	Pd	04 12.87	0.0
			S	04 22.80	
VBEM	0.73	88	Pc	04 14.09	0.3
			S	04 24.48	
FBO	0.73	178	Pd	04 13.49	-0.2
			S	04 23.55	
BPO	0.76	120	P	04 14.83	0.4
VLL	0.79	57	Pd	04 14.93	0.2
			S	04 25.66	
MPOR	0.85	232	P	04 15.93	0.1
KMOR	0.86	314	Pd	04 15.71	-0.2
VFP	0.86	71	P	04 16.07	0.1
MTMW	1.03	16	Pd	04 18.33	-0.4
			S	04 32.49	
LVP	1.04	8	Pd	04 18.52	-0.5
RVW	1.11	355	Pd	04 19.58	-0.6
GULW	1.14	39	P	04 20.41	-0.2
CDFW	1.15	20	P	04 20.40	-0.3
JLK	1.15	16	P	04 20.26	-0.5
CROR	1.16	92	P	04 21.96	1.2
FL2	1.17	9	Pd	04 20.83	-0.3
HSR	1.17	15	P	04 21.06	-0.1
TCO	1.18	142	P	04 21.90	0.6
SHW	1.18	13	eP	04 20.89	-0.4
			eS	04 38.02	
REMW	1.20	14	P	04 21.45	-0.1
NLO	1.20	331	Pd	04 21.82	0.4
ESD	1.20	16	P	04 21.42	-0.1
YEL	1.21	14	P	04 21.45	-0.2
HBO	1.21	170	Pd	04 21.79	0.1
STD	1.23	13	P	04 21.65	-0.2
SOSW	1.24	15	Pd	04 21.86	-0.2
ERK	1.28	9	P	04 22.29	-0.3
ASR	1.32	32	P	04 23.52	0.3
GMO	1.33	116	P	04 24.57	1.3
TDL	1.34	12	Pd	04 23.49	0.0
VGB	1.38	69	eP	04 24.91	1.0
			eS	04 43.10	
RNO	1.39	216	P	04 24.75	0.7
CZM	1.40	3	P	04 24.42	0.3
KOSW	1.45	12	Pd	04 25.35	0.4
BMW	1.50	344	eP	04 25.07	-0.6
			eS	04 45.39	
VIPM	1.52	110	P	04 27.30	1.3
HSO	1.55	193	P	04 26.89	0.5
GL2	1.56	53	P	04 28.22	1.6
LMW	1.64	8	Pd	04 28.78	1.0
GLK	1.68	24	P	04 29.52	1.2
LON	1.80	18	ePd	04 31.08	1.0
			eS	04 55.41	
WPW	1.82	24	P	04 31.66	1.3
REMR	1.86	17	P	04 32.19	1.2
RCS	1.93	18	P	04 33.94	1.7
RVC	1.96	13	P	04 33.68	1.4
CPW	1.97	350	Pd	04 33.35	0.9
FMW	2.00	19	P	04 34.92	1.8
JBO	2.01	77	P	04 36.53	3.5
MXC	2.24	46	P	04 38.11	1.8
SMW	2.34	348	P	04 39.60	1.9
EBG	2.35	37	P	04 40.00	2.1
RMW	2.49	13	(P)	04 41.59	1.7
GMW	2.51	357	(P)	04 40.49	0.3
			S	05 12.28	
HDW	2.63	354	P	04 43.77	1.8
MCW	3.65	358	(P)	04 56.50	0.2

60 obs. associated

MAR 25, 1993 21h 44m 04.49± 0.81s
38.688 N ± 8.9km 26.261 E ± 5.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

EDC	2.07	36	iPn	44 39.50	-0.2
BNT	2.10	37	ePn	44 39.20	-1.0
ALN	2.21	356	iPn	44 41.96	0.2
			eSn	45 17.80	
YER	2.23	133	ePn	44 43.20	1.1
KCT	2.25	45	ePn	44 43.30	1.0
PAIG	2.35	303	iPn	44 42.96	-0.8
			eSn	45 21.56	
OUR	2.41	314	ePn	44 44.40	-0.2
KHL	2.59	97	iPn	44 45.50	-1.7
CTT	2.97	33	ePn	44 53.30	0.8
YLV	3.05	51	ePn	44 57.00	3.3X
SOH	3.09	314	ePn	44 54.28	0.0
			eSn	45 40.60	
SRS	3.18	321	ePn	44 55.88	0.4
ISK	3.21	41	ePn	45 03.00	7.2X
HRT	3.38	50	eP	45 12.00	13.6X
EYL	3.55	57	ePn	45 10.00	9.2X
KNT	3.58	315	ePn	45 01.32	0.2
VAY	3.87	314	ePn	45 16.40	11.2X

S.D. = 0.9 on 12 of 17 obs.

---

* MAR 25, 1993 22h 32m 14.91± 1.12s
23.562 S ±15.5km 67.280 W ±11.7km
DEPTH = 203.1 ± 14.0 km
3.8mb (1 obs.)
CHILE-ARGENTINA BORDER REGION (127)

HJA	1.76	79	ePd	32 51.50	0.0
			S	33 19.20	
SLA	2.00	126	iPd	32 49.50	-4.7X
			S	33 15.10	
FSA	2.76	156	iP	32 55.80	-6.5X
ANT	2.88	267	iP+	33 03.70	0.0
			iS	33 40.70	
CNCB	6.75	354	P	33 54.00	0.8
			e	35 25.00	
LPB	7.04	354	eP	33 56.00	-0.8
ZOBO	7.28	354	eP	33 33.00	-27.3X
			i	35 34.90	
SIV	9.53	39	P	34 43.00	14.0X
BAO	19.79	70	iPc	36 31.30	-0.4
BDF	19.86	70	eP	36 32.80	0.4
YKA	93.63	340	eP	45 12.60	4.0X

0.6s 0.50nm 3.8mb
S.D. = 0.9 on 6 of 11 obs.

MAR 25, 1993 22h 35m 34.71± 0.40s
24.099 S ± 4.5km 66.947 W ± 6.9km
DEPTH = 198.5 ± 5.4 km
4.6mb (7 obs.)
SALTA PROVINCE, ARGENTINA (129)

SLA	1.47	116	iPd	36 09.80	1.3
			(S)	36 27.50	
HJA	1.67	58	iPd	36 10.80	0.7
FSA	2.15	157	iPd	36 17.00	2.0
			(S)	36 43.00	
YJA	2.34	35	iPd	36 17.80	0.2
ANT	3.20	276	iP+	36 26.20	-0.9
			iS	37 03.50	
CYA	4.45	167	iPd	36 44.00	1.3
CCH	6.72	7	P	37 11.70	-0.7
			i	37 32.40	
CNCB	7.31	352	iPd	37 20.70	0.2
			S	38 42.00	
RTLL	7.33	190	iPc	37 19.50	-0.6
			S	37 40.50	
RTCB	7.54	192	ePc	37 22.50	-0.5
			S	37 44.00	
CFA	7.57	188	eP	37 22.40	-0.9
ZON	7.58	191	eP	37 22.90	-0.5

25d 22h

LPB 7.60 352 P 37 23.80 -0.4
1.0s 120.00nm 5.1mb
S 38 47.30
ZOBO 7.85 352 iPd 37 26.80 -0.9
S 38 51.80
RTBS 7.85 196 e(P)c 37 28.00 0.9
MRA 8.35 173 e(P) 37 32.00 -1.4
ARE 8.71 330 eP 37 37.00 -1.4
iS 39 08.50
MDZ 8.91 190 e(P) 37 41.20 0.4
PEL 9.59 199 eP 37 48.00 -1.6
SIV 9.77 35 iPd 38 01.40 9.4X
PPD 14.54 85 iPc 38 53.70 1.1
e 38 59.10
NNA 15.27 320 eP 39 02.00 0.3
0.7s 10.27nm 4.4mb
eS 41 36.50
VAO 18.35 91 iPc 39 34.70 -2.3
i 39 37.10
e 39 38.80
BAO 19.70 68 iPd 39 48.90 -2.0
e 40 20.00
i 40 47.20
BDF 19.76 68 iPd 39 39.00 -12.5X
e 43 22.80
CDCB 20.94 84 eP 40 02.90 -0.3
SOB1 28.94 64 eP 41 14.20 -3.5X
LTX 63.78 324 iP 45 47.59 -0.2
LIC 67.42 72 P 46 09.32 -1.9
0.4s 4.00nm 4.5mb
KIC 67.74 72 P 46 11.30 -1.8
0.5s 7.00nm 4.7mb
LMN 69.64 2 eP 46 26.00 1.9
SRU 74.93 326 eP 46 56.24 0.6
MSU 75.34 325 eP 46 59.14 1.1
BW06 77.26 329 eP 47 08.75 0.1
0.7s 2.47nm 4.0mb
JAO 77.94 355 eP 47 11.00 -0.8
ULM 78.33 342 eP 47 16.50 2.5
MCMT 80.37 329 eP 47 26.90 1.5
FCC 85.57 346 ePc 47 54.50 3.4X
BCAO 87.67 84 iPd 48 03.00 0.6
0.8s 11.00nm 4.7mb
LSZ 88.43 106 iPd 48 08.10 2.0
YKA 94.23 340 eP 48 31.90 0.2
0.5s 2.70nm 4.7mb
GBA 144.81 101 PKP 54 50.00 -0.1
HYB 147.12 95 ePKPd 54 57.00 3.1X
1.0s 25.00nm
PKI 154.90 76 PKP 55 00.00 -5.5X
S.D. = 1.3 on 38 of 44 obs.

MAR 25, 1993 23h 13m 03.10± 0.32s
20.702 S ± 4.3km 178.988 W ± 4.5km
DEPTH = 653.8 ± 4.8 km
5.1mb (25 obs.)
FIJI ISLANDS REGION (181)

SVA 3.53 316 iPc 14 29.90 0.1
KRO 3.70 335 iPc 14 30.50 -0.5
TVI 3.89 345 iPc 14 32.20 0.0
NDE 4.40 338 iPc 14 35.60 0.1
DZM 13.64 262 iPc 16 00.50 2.9X
KUZ 16.64 195 eP 16 27.50 1.9
e 16 38.20
HBZ 17.00 187 eP 16 29.80 0.9
WLZ 17.74 194 P 16 37.30 1.5
NOZ 18.04 188 eP 16 39.40 0.9
MNG 20.41 192 eP 16 58.50 -1.6
ORZ 21.32 198 eP 17 08.60 0.3
THZ 22.09 196 eP 17 14.00 -1.3
KHZ 22.55 195 P 17 17.60 -1.6
LTZ 23.21 196 P 17 23.40 -1.7
BWZ 25.49 199 P 17 43.50 -1.5
MHZ 26.16 199 P 17 50.10 -0.9
SBCZ 26.18 199 eP 17 50.10 -1.0
LSCZ 26.18 199 P 17 50.30 -0.8
TLC 26.34 199 eP 17 52.30 -0.3
BRS 26.60 250 iPc 17 56.00 1.1
0.5s 7.00nm 4.5mb
AFR 27.76 88 iPc 18 05.00 0.1
0.9s 229.30nm 5.8mb
PAE 27.92 89 iPc 18 06.30 0.0
0.5s 49.00nm 5.4mb
PPT 27.94 89 iPc 18 06.60 0.1
0.7s 148.20nm 5.7mb
PPN 28.09 89 iPc 18 07.60 -0.1
0.5s 45.80nm 5.4mb
ARMA 28.15 244 iPd 18 09.10 0.8
0.3s 14.00nm 5.1mb
TVO 28.21 89 iPc 18 08.80 0.0
0.6s 142.10nm 5.8mb
RMO 30.07 253 iPd 18 25.30 0.8
0.7s 22.00nm 4.9mb
PMO 30.10 84 iPc 18 25.10 0.3
0.8s 91.30nm 5.4mb
VAH 30.29 85 iPc 18 26.40 0.1
0.7s 70.30nm 5.4mb
TPT 30.36 84 iPc 18 27.30 0.3
0.8s 95.10nm 5.5mb
RUV 30.53 85 iPc 18 28.60 0.2
0.7s 123.90nm 5.6mb
CAN 31.63 236 eP 18 37.80 0.2
BWA 31.81 238 iPd 18 33.20 -5.9X
CMS 33.24 244 iPc 18 51.70 0.7
0.5s 24.00nm 5.1mb
OLP 34.11 253 iPd 18 58.90 0.6
0.6s 149.00nm 5.8mb
i 19 04.40
TOO 35.03 234 iPd 19 06.90 1.2
0.7s 52.00nm 5.2mb
STK 36.87 244 iPd 19 22.10 1.3
0.6s 9.70nm 4.5mb
BFD 37.16 235 eP 19 23.00 -0.1
ASPA 43.57 257 iPd 20 14.20 0.0
0.6s 25.30nm 4.8mb
iS 25 56.80
eScS 29 03.20
OPA 46.85 27 ePd 20 38.26 -0.8
MTN 48.24 271 eP 20 48.50 -1.1
WARB 49.89 253 eP 21 01.00 -0.6
0.3s 3.00nm 4.1mb
MBL 56.81 258 eP 21 49.00 -1.3
NANU 60.45 255 eP 22 14.50 0.1
SPA 69.42 180 iPc 23 10.80 1.3
0.7s 99.61nm 5.4mb
WKYJ 69.65 321 P 23 11.40 0.3
MAT 69.83 324 iPd 23 11.40 -0.6
0.7s 13.70nm 4.5mb
OFUJ 69.95 328 P 23 11.80 -0.8
TKSJ 70.40 320 P 23 15.60 0.2
YONJ 71.58 320 P 23 22.60 0.4
RSO 83.63 13 iPd 24 26.28 0.4
TUC 83.83 52 eP 24 29.32 2.0
SLKM 84.22 14 ePd 24 28.27 -0.3
CP2 84.47 13 eP 24 29.24 -0.7
CRP 84.49 13 iPc 24 29.26 -0.7
TTA 85.30 10 iPd 24 33.86 0.1
0.9s 3.51nm 4.0mb X
PMR 85.43 14 iPc 24 34.02 -0.2
1.0s 18.64nm 4.7mb
BALM 86.64 17 iPc 24 40.56 0.3
IMA 88.60 10 iPd 24 49.32 0.1
0.6s 3.45nm 4.3mb
FBA 88.64 13 iPd 24 48.59 -0.6
0.8s 15.18nm 4.8mb
BW06 89.75 44 iPd 24 55.93 0.8
0.6s 1.59nm 4.1mb
YKA 97.08 25 eP 25 27.40 -0.4
0.6s 0.70nm 4.1mb
ZOBO 102.84 113 ePdiff25 45.00 -10.3X
e 26 00.00
LMN 121.29 48 ePKP 30 47.50 2.4X
SOB1 129.20 122 ePKP 30 51.20 -10.1X
e 31 01.00
e 33 23.60
KPL 143.08 6 ePKP 31 23.70 -1.7
KSB 143.23 6 ePKP 31 24.20 -1.5
EKA 145.28 4 PKPc 31 31.80 2.5X
1.4s 18.40nm
SPC 147.69 336 ePKP 31 43.80 10.2X
e 34 12.30
CLL 148.04 346 ePKP 31 39.00 5.2X
BRG 148.21 344 e(PKP)31 41.00 6.9X
PRU 148.87 343 ePKP 31 40.50 5.4X
MOX 148.97 347 ePKP 31 47.10 11.8X
1.5s 13.00nm
SRO 149.55 337 ePKP 31 49.90 13.7X
ZST 149.66 338 ePKP 31 50.00 13.6X
e 34 17.90
KHC 149.91 343 ePKP 31 38.00 1.2
e 31 52.00
GEC2 150.13 343 ePKP 31 38.00 0.8
0.9s 0.97nm
e 31 43.40
e 31 52.50
CDF 151.90 351 ePKP 31 47.40 7.6X
0.5s 2.60nm
FLN 151.98 2 ePKP 31 47.20 7.5X
0.4s 3.50nm
LDF 152.16 2 ePKP 31 47.50 7.5X
0.4s 1.90nm
GRR 152.34 3 ePKP 31 48.20 7.9X
0.4s 3.15nm
LPF 152.68 3 ePKP 31 49.00 8.3X
0.6s 5.05nm
BCAO 156.51 229 iPKPd 31 47.00 0.1
0.7s 9.00nm
i 32 21.00
LIC 164.46 157 PKP 31 55.54 0.4
PKPab 32 56.40
KIC 164.69 158 PKP 31 55.76 0.4
0.9s 18.50nm
PKPab 32 57.20
TIC 164.85 156 PKP 31 55.84 0.4
0.9s 14.50nm
PKPab 32 58.00
S.D. = 0.9 on 68 of 86 obs.

? MAR 25, 1993 23h 23m 33.84± 2.14s
36.774 S ±29.9km 177.528 E ±21.6km
DEPTH = 160.0km (geophysicist)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 1.03 143 P 23 59.10 -0.1
PUZ 1.42 156 P 24 03.80 0.1
S 24 26.10
KUZ 1.45 271 P 24 03.20 0.0
URZ 1.52 192 P 24 03.70 -0.1
S 24 28.00
NOZ 1.88 168 P 24 07.90 0.1
GBA 106.03 275 PKP 41 57.00 17.2X
YKA 112.80 28 ePKP 42 00.00 8.8X
0.4s 0.40nm
S.D. = 0.2 on 5 of 7 obs.

% MAR 25, 1993 23h 49m 28.42± 0.82s
26.381 S ± 8.2km 27.322 E ± 7.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.1 (PRE).

KSR 0.64 323 eP 49 40.90 -0.4
S 49 48.90
SLR 1.08 54 iPc 49 48.90 -0.3
S 50 04.00
SEK 1.95 172 iPc 50 02.00 -0.7
S 50 26.50
SWZ 1.96 245 eP 50 03.40 0.7
S 50 27.20
BFT 2.54 75 eP 50 12.00 0.8
S 50 42.00
S.D. = 0.9 on 5 of 5 obs.

MAR 26, 1993 00h 03m 43.67± 1.95s
2.810 N ± 5.1km 128.541 E ± 7.5km
DEPTH = 214.1 ± 19.9 km
5.0mb (18 obs.)
HALMAHERA, INDONESIA (267)

MTN 15.77 171 eP 07 15.30 -0.6
0.4s 96.00nm 5.6mb
TRT 19.00 237 ePd 07 51.00 -0.5
WB2 23.32 166 iPd 08 33.40 -0.6
0.5s 30.80nm 5.2mb
ASPA 26.83 169 iPc 09 05.80 -0.5
0.5s 26.50nm 5.2mb
CTA 28.64 143 iP 09 27.20 4.6X
WARB 28.88 184 eP 09 24.30 -0.3
TKSJ 31.44 9 P 09 46.80 -0.1
KHT 31.84 294 iPd 09 52.00 1.3
YONJ 32.54 8 P 09 56.60 0.1
KMI 33.31 314 Pd 10 05.00 1.4
1.2s 70.00nm 5.2mb
FORT 33.40 181 iPc 10 03.50 -0.5
0.6s 61.00nm 5.4mb
MRWA 34.04 200 eP 10 08.50 -1.0
MAT 34.73 14 eP 10 14.00 -1.3
0.8s 29.85nm 5.0mb
BAL 35.10 198 eP 10 18.00 -0.3
KLB 35.72 196 eP 10 23.30 -0.2

MUN 36.53 198 eP 10 30.20 -0.1
STK 36.66 161 eP 10 30.90 -0.6
0.5s 15.50nm 4.9mb
BRS 38.04 144 iPc 10 43.00 -0.2
BJI 38.72 345 eP 10 48.50 0.0
1.0s 44.00nm 5.0mb
ADE 38.77 167 e(P) 10 50.00 0.9
ARMA 39.72 148 iPd 10 57.60 0.6
0.5s 13.00nm 4.7mb
LZH 40.22 328 iPd 11 02.50 1.4
1.5s 121.00nm 5.2mb
sP 11 39.50
ScP 16 27.50
BWA 41.49 155 iPd 11 13.00 1.6
BFD 41.86 163 iPd 11 15.00 0.7
0.9s 19.00nm 4.6mb
CAN 42.50 155 eP 11 19.70 0.1
TOO 43.15 160 iPc 11 26.80 2.0
0.4s 9.00nm 4.6mb
DZM 44.53 126 iPc 11 36.80 0.7
GUN 47.73 306 P 12 02.00 0.5
PKI 47.97 305 P 12 03.40 0.1
KKN 48.16 305 P 12 04.90 0.2
DMN 48.23 305 P 12 05.60 0.3
GKN 48.77 305 P 12 09.60 0.3
GBA 51.60 285 P 12 30.00 -0.6
NDI 55.13 303 iPd 12 55.00 -1.3
0.6s 26.67nm 5.1mb
THZ 59.87 143 P 13 28.30 -0.9
QUE 64.16 302 eP 13 58.50 0.5
MAIO 71.50 307 iPd 14 42.80 -0.5
KAF 93.24 333 iP 16 33.40 -1.3
0.6s 4.40nm 4.7mb
NUR 94.38 331 iP 16 39.10 -0.8
0.5s 2.60nm 4.7mb
YKA 99.58 25 eP 17 03.20 -0.3
0.8s 0.60nm 4.1mb
HFS 99.67 333 eP 17 02.00 -2.0
0.4s 2.90nm 5.1mb
NB2 100.41 334 Pdiff 17 05.20 -2.0X
0.8s 2.50nm 4.7mb
KIC 132.47 281 PKP 22 35.80 0.6
TIC 132.70 282 PKP 22 36.00 0.4
LIC 132.78 281 PKP 22 36.30 0.6
ZON 147.13 152 ePKP 22 45.10 -15.9X
CFA 147.28 153 e(PKP)22 52.80 -8.4X
S.D. = 0.9 on 43 of 47 obs.

% MAR 26, 1993 00h 07m 08.07± 0.79s
33.787 S ± 5.4km 70.606 W ± 8.6km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.3 (SAN).

CHCH 0.15 195 iP 07 12.17 0.5
iS 07 14.55
CACH 0.33 179 iP 07 14.41 -0.5
iS 07 18.66
FCH 0.53 30 iP 07 19.44 0.6
iS 07 27.65
PEL 0.64 354 eP 07 20.14 -0.9
iS 07 32.40
LNV 0.69 256 iP 07 21.54 -0.2
iS 07 31.38
LCCH 0.86 291 iP 07 25.13 0.5
iS 07 37.59
S.D. = 0.8 on 6 of 6 obs.

? MAR 26, 1993 00h 22m 02.64± 3.25s
32.639 S ±15.1km 71.762 W ±26.0km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.1 (SAN).

LCCH 0.85 169 iPd 22 18.99 0.0
iS 22 33.72
JACH 0.99 93 iPd 22 19.67 -1.8X
iS 22 37.19
PEL 1.04 119 iP+ 22 22.14 -0.1
iS 22 40.64
LNV 1.35 167 iP+ 22 26.43 -0.9
FCH 1.41 119 eP 22 27.91 -0.8
CHCH 1.59 145 iP 22 31.72 0.8
iS 22 56.39
CACH 1.77 147 eP 22 34.69 1.1
iS 23 03.87
RTBS 2.19 64 e(P)c 22 39.50 0.0
S.D. = 0.9 on 7 of 8 obs.

MAR 26, 1993 00h 28m 07.21± 0.68s
33.424 S ± 7.9km 69.988 W ± 5.6km
DEPTH = 10.1 ± 4.6 km
CHILE-ARGENTINA BORDER REGION (127)
MD 4.1 (SAN).

FCH 0.27 291 iP+ 28 13.13 0.1
SAN 0.56 267 iP+ 28 18.72 0.0
iS 28 26.93
PEL 0.65 295 iP+ 28 19.52 -0.7
iS 28 29.17
CHCH 0.75 227 iPd 28 22.26 0.3
iS 28 33.96
CACH 0.86 216 iP 28 24.42 0.6
iS 28 37.52
JACH 0.90 325 iP+ 28 23.04 -1.4
iS 28 35.22
MDZ 1.10 61 i(P) 28 24.60 -3.2
LNV 1.30 246 iPd 28 30.93 -0.3
iS 28 49.76
LCCH 1.32 267 iPd 28 31.49 -0.1
iS 28 50.16
IHA 1.44 286 eP 28 32.90 -0.4
iS 28 52.70
RTBS 1.81 15 ePc 28 38.80 0.1
eS 29 04.00
RTCV 1.98 39 e(P) 28 42.00 0.8
ZON 2.18 31 iPd 28 46.10 2.1
eS 29 16.10
RTCB 2.18 28 iPd 28 44.50 0.4
S 29 15.00
CFA 2.34 40 ePc 28 47.70 1.4
S 29 17.00
RTLL 2.45 32 iPc 28 49.00 1.1
S 29 20.00
MRA 3.74 75 ePd 29 04.90 -1.3
S 30 00.10
CYA 6.13 37 e(P) 29 38.80 -1.3
S.D. = 1.3 on 18 of 18 obs.

? MAR 26, 1993 00h 50m 11.80± 0.92s
44.298 N ± 7.9km 7.377 E ± 7.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.3 (GEN).

STV 0.07 215 P 50 13.51 0.0
S 50 15.25
ENR 0.08 157 P 50 13.78 0.1
S 50 15.84
PZZ 0.29 316 P 50 17.63 0.0
S 50 20.69
ROB 0.35 90 P 50 18.91 0.0
S 50 24.17
S.D. = 0.1 on 4 of 4 obs.

MAR 26, 1993 01h 10m 49.26± 0.29s
1.119 N ± 4.7km 129.050 E ± 6.7km
DEPTH = 33.0km (normal)
5.0mb (30 obs.) 4.5Msz (11 obs.)
HALMAHERA, INDONESIA (267)
Mw 5.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 25S, 38C
Centroid Location:
Origin Time 01:10:56.6 1.2
Lat 1.58N 0.08 Lon 128.81E 0.09
Dep 38.3 6.6 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 0.77 0.48 Mtt= 5.18 0.45
Mff=-5.95 0.79 Mrt=-1.15 0.95
Mrf=-0.59 0.75 Mtf= 5.89 0.46
Principal Axes:
T Val= 7.95 Plg=10 Azm=157
N 0.54 80 337
P -8.49 0 67
Best Double Couple:Mo=8.2*10**16
NP1:Strike=201 Dip=83 Slip= 173
NP2: 292 83 7

DAV 6.87 330 eP 12 30.00 -0.3
BIP 7.59 339 ePd 12 38.00 -2.4
CTB 7.74 321 ePd 12 47.00 4.5X
KKM 13.71 291 ePd 14 08.50 4.7X
MTN 14.03 172 eP 14 01.50 -6.4X
KHKI 16.38 235 eP 14 40.00 1.6
e 17 52.00
BAG 17.34 332 eP 14 53.00 2.3
e(S) 18 38.00
CVP 17.95 337 eP 15 02.00 3.9X
TRT 18.57 242 ePd 15 04.50 -1.2
SJI 19.35 243 ePc 15 17.00 1.9
e 16 55.50
GUMO 19.96 51 eP 15 22.40 0.7
1.7s 195.70nm 5.2mb
Z 28s 1.05um 4.0Msz
PJG 19.96 51 eP 15 22.60 0.9
WB2 21.57 166 iPc 15 35.90 -2.3
0.9s 34.20nm 4.8mb
eS 19 21.60
LEM 22.80 249 ePd 15 58.70 8.1X
ASPA 25.08 169 iPd 16 11.60 -0.9
0.8s 37.60nm 5.0mb
Z 19s 1.80um 4.6Msz
eS 20 42.90
QIZ 25.91 315 eP 16 21.20 0.9
N 16s 1.26um
eS 20 42.00
GZH 26.64 326 eP 16 32.00 5.1X
Z 24s 1.35um 4.4MszX
CTA 26.99 142 eP 16 31.00 0.8
i 16 37.00
eS 21 03.00
WARB 27.24 185 eP 16 31.00 -1.5
PPI 28.69 267 e(P) 16 47.00 1.3
SSE 30.73 347 eP 17 04.00 0.4
Z 20s 0.90um 4.4Msz
N 12s 0.50um
QLP 31.19 153 eP 17 07.40 -0.4
1.6s 625.00nm 6.2mb X
NJ2 32.24 344 Pc 17 20.00 3.2X
N 10s 0.45um
HNR 32.51 109 eP 17 18.00 -1.4
TKSJ 33.03 8 P 17 30.70 7.0X
GYA 33.14 321 P 17 25.00 0.0
1.0s 12.00nm 4.8mb
Z 20s 0.75um 4.4Msz
S 22 44.00
RMQ 33.39 147 eP 17 29.00 2.0
YONJ 34.14 6 P 17 32.80 -0.6
TSRJ 34.85 10 eP 17 43.90 4.5X
KMI 34.85 315 eP 17 40.00 0.1
1.5s 40.00nm 5.1mb
Z 20s 1.00um 4.6Msz
E 15s 0.40um
pP 17 49.50 32kmX
eS 23 14.00
STK 34.91 161 eP 17 38.90 -1.1
0.6s 3.60nm 4.5mb
e 17 44.90
eS 23 30.40
CMS 36.13 155 eP 17 50.10 -0.2
0.8s 13.00nm 4.9mb
MTMJ 36.21 12 eP 17 53.60 2.5
MAT 36.25 13 eP 17 50.00 -1.4
Z 20s 0.71um 4.4Msz
eS 23 36.00
BRS 36.39 143 iPd 17 51.50 -1.2
0.9s 4.00nm 4.3mb
ipP 17 57.00 19kmX
ADE 37.02 167 e(P) 17 59.00 1.1
XAN 37.78 332 P 18 03.50 -0.8
1.0s 21.00nm 5.0mb
Z 18s 1.29um 4.8Msz
pP 18 10.20 23kmX
sP 18 15.50
PP 19 36.00
S 23 56.00
sS 24 13.00
ScS 28 10.00
ARMA 38.03 147 iPd 18 07.00 0.5
0.6s 88.00nm 5.8mb
CD2 38.11 323 eP 18 06.60 -0.5
DL2 38.22 351 eP 18 08.20 0.4
eS 24 06.00
TIY 39.50 339 eP 18 18.80 0.1
Z 24s 1.08um 4.6MszX
E 15s 0.32um
S 24 25.00
BWA 39.75 155 eP 18 27.40 6.6X
BFD 40.10 163 eP 18 24.50 0.9

26d 01h

1.0s 48.00nm 5.2mb
BJI 40.47 345 eP 18 25.00 -1.5
1.5s 86.00nm 5.3mb
Z 20s 0.60um 4.4Msz
eS 24 32.00
eSS 27 22.00
CAN 40.77 155 eP 18 34.90 5.8X
SNY 40.82 354 Pd 18 29.50 0.2
Z 24s 0.90um 4.5MszX
CNB 40.92 154 iPd 18 36.60 6.3X
1.0s 32.00nm 5.0mb
TOO 41.40 160 eP 18 40.10 5.9X
0.8s 34.00nm 5.1mb
VLA 41.89 3 eP 18 43.00 4.9X
2.0s 91.00nm 5.2mb
e 18 51.00
e 18 56.00
LZH 41.92 329 Pc 18 39.50 0.9
1.5s 100.00nm 5.3mb
Z 30s 1.07um 4.5MszX
E 15s 0.43um
PP 20 25.00
eS 25 02.00
HHC 42.60 340 P 18 44.40 0.2
1.4s 37.00nm 4.9mb
CN2 42.62 356 eP 18 48.00 3.9X
1.0s 9.30nm 4.5mb
Z 22s 0.63um 4.5Msz
epP 18 56.00 27kmX
BTO 42.92 339 eP 18 49.70 2.9X
DZM 43.15 125 iPc 18 43.20 -5.7X
MDJ 43.31 1 eP 18 49.50 -0.2
LSA 45.89 312 P 19 12.00 0.8
GTA 46.51 329 P 19 15.50 -0.1
1.0s 13.00nm 4.8mb
Z 24s 1.21um 4.8MszX
E 15s 0.33um
pP 19 21.00 18kmX
sP 19 24.50
GUN 49.13 307 P 19 36.20 -0.3
PKI 49.37 306 P 19 36.20 -2.1X
DMN 49.63 306 P 19 39.60 -0.6
CIT 52.34 348 eP 20 00.50 0.4
GBA 52.54 286 P 20 00.00 -2.1
ZAK 53.75 340 eP 20 11.00 0.6
2.5s 48.00nm 5.1mb
Z 21s 0.48um 4.5Msz
E 21s 0.35um
MOY 55.64 339 eP 20 23.50 -0.7
WMQ 56.18 325 P 20 27.80 -0.6
1.2s 12.00nm 4.8mb
Z 24s 0.57um 4.6MszX
sP 20 36.50
BOD 57.78 351 eP 20 37.50 -1.9
1.2s 25.00nm 5.1mb
MGD 61.18 12 eP 21 02.50 -0.3
1.0s 50.00nm 5.6mb
e 21 37.00
KSH 61.49 315 eP 21 09.50 4.0X
1.0s 24.00nm 5.3mb
ELT 62.84 333 eP 21 12.00 -2.0
1.4s 18.00nm 5.0mb
QUE 65.49 303 eP 21 32.50 0.5
TIK 70.41 360 eP 22 00.00 -1.6
1.6s 26.00nm 5.0mb
Z 18s 0.50um 4.8Msz
e 22 23.00
MAIO 72.93 308 eP 22 18.00 0.4
NRI 73.42 346 ePd 22 18.50 -1.2
1.0s 24.00nm 5.1mb
Z 20s 1.10um 5.1Msz
E 20s 1.00um
SVE 77.38 328 eP 22 42.00 -0.4
ARU 78.34 328 eP 22 54.00 6.3X
AVY 82.15 251 eP 23 13.00 4.0X
VTY 82.34 251 iPc 23 13.60 3.7X
CRP 83.63 28 (P) 23 19.90 4.1X
GRS 83.66 309 eP 23 17.00 0.6
IMA 83.82 24 (P) 23 18.69 2.0
0.8s 4.09nm 4.6mb
SLKM 84.46 29 eP 23 24.59 4.8X
PMR 85.12 28 eP 23 24.11 1.1
1.0s 19.74nm 5.3mb
MLR 98.38 316 eP 24 32.00 6.6X
YKA 100.88 25 ePdiff24 38.20 2.0
0.8s 1.00nm 4.4mb
GEC2 105.56 322 ePKP 29 12.40 1.5
0.7s 0.48nm
e 29 18.60
e 29 23.60
CNCB 157.10 134 ePKP 30 51.00 6.6X
ZOBO 157.33 133 (PKP) 31 01.00 16.2X
SIV 162.17 146 (PKP) 31 02.00 12.8X
S.D. = 1.2 on 60 of 88 obs.

---

* MAR 26, 1993 01h 23m 05.44± 2.24s
43.238 N ±18.5km 21.044 E ±11.8km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.7 (TTG).

IVA 0.92 247 iPgd 23 21.76 -1.3
iSg 23 32.28
PVY 1.02 231 iPgc 23 23.68 -1.1
iSg 23 36.11
PLE 1.21 275 iPgd 23 27.73 -0.3
iSg 23 42.68
SKO 1.30 167 iPn 23 30.00 0.5
i 23 32.00
iSg 23 48.80
TTG 1.54 239 iPgc 23 32.90 0.0
iSg 23 52.76
NKY 1.56 255 iPgd 23 33.26 -0.1
iSg 23 53.57
ULC 1.84 227 iPnc 23 38.62 1.3
iSn 24 01.88
BRY 1.86 260 iPnc 23 37.56 -0.2
iSn 24 02.60
BDV 1.89 240 iPnc 23 39.40 1.3
iSn 24 03.26
HCY 2.03 248 iPnc 23 41.06 1.0
iSn 24 06.57
OHR 2.13 185 ePn 23 41.00 -0.6
VAY 2.23 149 ePn 23 42.40 -0.5
S.D. = 1.0 on 12 of 12 obs.

& MAR 26, 1993 01h 36m 33.35s
34.270 N 118.556 W
DEPTH = 9.4km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS), 2.7 (GS).
Felt.

SSK 0.72 94 ePc 36 46.54 -1.1
PEC 1.22 108 eP 36 54.54 -1.6
ISA 1.39 3 eP 36 57.91 -1.0
BCH 1.55 306 eP 37 00.28 -1.0
PLM 1.68 122 eP 37 02.09 -1.1
GSC 1.77 54 eP 37 03.03 -1.4
PHAM 2.17 316 eP 37 10.52 0.3
TPNV 3.27 34 ePg 37 35.61 9.7
MEMM 3.40 355 ePg 37 34.61 7.0
9 obs. associated

& MAR 26, 1993 01h 36m 47.31s
34.264 N 118.569 W
DEPTH = 8.9km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS). Felt.

SSK 0.73 94 (P) 37 00.57 -1.3
PEC 1.23 107 (P) 37 08.47 -1.8
ISA 1.40 3 eP 37 11.50 -1.5
BCH 1.55 307 (P) 37 15.70 0.5
PLM 1.69 122 (P) 37 15.48 -1.8
5 obs. associated

? MAR 26, 1993 01h 38m 04.29± 1.75s
6.441 S ±93.5km 125.549 E ±143.km
DEPTH = 554.8 ± 57.2 km
5.0mb (4 obs.)
BANDA SEA (280)

MTN 8.41 140 iPd 40 07.00 -0.1
0.4s 93.00nm 5.3mb
WB2 15.91 148 eP 41 22.50 0.2
0.1s 8.70nm 5.2mb
ASPA 18.92 156 iPd 41 51.20 0.0
0.3s 6.40nm 4.7mb
STK 29.42 151 iPc 43 24.80 -0.1
0.3s 3.50nm 4.5mb
GUN 51.31 314 P 46 20.20 0.1
PKI 51.46 313 P 46 21.00 -0.1
DMN 51.70 313 P 46 22.60 -0.2
GKN 52.26 313 P 46 26.80 0.1
S.D. = 0.2 on 8 of 8 obs.

% MAR 26, 1993 02h 49m 20.12± 2.17s
39.176 N ±11.1km 27.882 E ±18.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.1 (ISK).

KCT 1.13 19 iPn 49 41.30 0.0
EDC 1.17 359 ePn 49 42.50 0.6
BNT 1.18 1 iPn 49 42.20 0.1
KHL 1.54 123 iPn 49 47.40 -0.3
ALT 1.74 93 ePn 49 51.20 0.6
YLV 1.80 39 ePn 49 50.70 -0.8
ISK 2.09 25 ePn 49 55.00 -0.6
HRT 2.14 39 ePn 49 56.00 -0.4
GPA 2.18 59 ePn 49 57.00 0.1
EYL 2.23 51 ePn 49 58.70 0.9
S.D. = 0.6 on 10 of 10 obs.

---

* MAR 26, 1993 02h 52m 39.34± 1.01s
45.811 N ±10.0km 14.785 E ± 8.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.3 (LJU), 2.0 (TRI). ML 2.0
(VIE).

CEY 0.26 254 e(Pg) 52 44.50 -0.4
iSg 52 49.00
LJU 0.29 323 ePg 52 45.40 0.0
eSg 52 49.10
VBY 0.45 133 iPg 52 48.50 0.0
iSg 52 56.00
VOY 0.66 290 ePg 52 52.50 -0.1
eSg 53 02.70
TRI 0.72 262 e(Pg) 52 54.00 0.5
eSg 53 04.40
KBA 1.61 322 iPgd 53 11.40 3.3X
iSg 53 31.90
S.D. = 0.4 on 5 of 6 obs.

? MAR 26, 1993 04h 29m 42.54± 2.59s
16.143 N ±12.0km 61.151 W ±23.3km
DEPTH = 32.0 ± 17.8 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

SFG 0.12 338 ePc 29 48.20 -0.1
DEG 0.19 28 ePc 29 49.05 0.1
MGG 0.27 215 ePd 29 49.85 0.0
DOG 0.46 256 eP 29 52.60 0.1
BPA 1.12 323 ePd 30 02.10 0.0
S 30 16.40
S.D. = 0.1 on 5 of 5 obs.

MAR 26, 1993 04h 35m 15.06± 0.46s
44.528 N ± 4.5km 114.236 W ± 5.8km
DEPTH = 5.0km (geophysicist)
WESTERN IDAHO (33)
ML 3.3 (GS), 3.7 (BUT). Felt
(III) at Challis and Clayton.

STID 0.61 228 ePc 35 26.99 -0.4
PCID 0.73 213 iPc 35 28.74 -0.9
MCMT 1.03 73 iPc 35 34.70 -0.5
HBMT 1.71 42 ePnd 35 46.23 0.3
BGMT 1.71 65 ePn 35 46.01 0.1
LRM 1.81 44 ePnd 35 47.46 0.1
BUT 1.90 38 ePn 35 48.68 0.1
iPg 35 51.60
eSn 36 13.80
iSg 36 17.10
LCCM 2.12 51 ePn 35 51.73 -0.1
MEMT 2.55 64 ePn 35 57.70 -0.3
NCM 2.66 355 ePn 36 00.40 0.9
HRY 2.76 37 ePn 36 00.40 -0.5
HVU 2.95 158 eP 36 04.06 0.5
BW06 3.82 116 ePn 36 15.40 -0.7
NEW 4.24 333 (P) 36 40.50 18.8X
DPW 4.33 322 (P) 36 30.37 7.3X
DUG 4.46 166 eP 36 26.60 1.6
S 37 32.92
SES 6.26 19 P 36 50.00 -0.3
0.6s 2.10nm 4.2mb X
S.D. = 0.7 on 15 of 17 obs.

& MAR 26, 1993 05h 04m 33.45s

62.639 N 149.371 W

DEPTH = 61.9km

CENTRAL ALASKA (1)

<AEIC>. ML 2.9 (AEIC), 3.2 (PMR).

HUR	0.36	340	iPd	04 44.36	0.0
			eS	04 52.54	
RND	0.81	17	iPc	04 49.08	-0.2
			eS	05 00.94	
GHO	0.89	166	iPc	04 50.39	0.0
TRF	0.92	333	iPd	04 50.68	-0.1
			eS	05 03.60	
SML	0.97	149	iPc	04 51.08	-0.2
			eS	05 05.86	
PWA	1.02	194	P	04 52.00	0.1
PLRM	1.06	174	iPc	04 52.44	0.0
			eS	05 08.83	
PMR	1.06	174	iPd	04 52.37	-0.1
			S	05 08.38	
MCK	1.12	10	iPc	04 53.25	0.0
SKT	1.21	238	iPd	04 54.42	-0.1
			eS	05 10.65	
SCM	1.25	129	iPc	04 55.03	-0.2
SUA	1.35	209	iPd	04 57.00	0.5
PMS	1.40	184	P	04 57.50	0.3
SDG	1.78	92	iPd	05 03.18	0.8
PTE	1.79	175	eP	05 02.70	0.2
PAX	1.82	78	iPd	05 03.79	0.7
			eS	05 27.40	
THY	1.83	63	eP	05 04.30	1.2
CGLM	1.83	224	P	05 05.10	2.0
CRP	1.90	225	eP	05 04.12	-0.1
			S	05 29.92	
CPAM	1.91	225	eP	05 04.91	0.6
CP2	1.94	226	eP	05 04.66	-0.1
TZL	1.94	106	eP	05 05.55	1.0
SPU	1.94	222	ePc	05 04.68	0.1
CKN	1.95	224	eP	05 05.70	1.0
NEA	1.95	4	iPc	05 03.78	-1.0
CKT	1.97	224	ePc	05 05.72	0.6
BGL	1.99	227	eP	05 05.95	0.6
KLU	1.99	124	iPd	05 04.93	-0.5
CKL	2.02	225	ePd	05 06.02	0.2
HDA	2.08	30	iPc	05 05.82	-0.7
VLZ	2.09	135	iPd	05 05.74	-0.9
NKA	2.10	206	eP	05 10.21	3.4
CCB	2.13	18	iPc	05 06.27	-1.0
MPA	2.16	180	eP	05 08.04	0.4
SLKM	2.18	191	eP	05 08.65	0.7
FBA	2.38	16	eP	05 09.55	-1.1
			S	05 37.11	
MDM	2.38	12	iPc	05 10.01	-0.8
			eS	05 37.08	
GLM	2.52	20	iPc	05 11.76	-1.0
SEW	2.54	181	eP	05 13.63	0.6
DOT	2.61	65	ePd	05 14.14	0.1
HIN	2.64	147	ePd	05 13.28	-1.1
RDW	2.72	219	eP	05 17.34	1.6
RS2	2.72	218	eP	05 17.37	1.6
RSO	2.72	218	eP	05 16.98	1.2
CVA	2.72	139	eP	05 14.56	-1.0
RS1	2.72	218	eP	05 17.31	1.5
GLB	2.88	112	iPd	05 17.14	-0.8
SGAM	2.93	135	eP	05 17.05	-1.5
BRLK	2.98	195	P	05 17.70	-1.6
TTA	3.07	278	P	05 19.30	-1.3
ILIM	3.09	216	eP	05 21.57	0.6
INE	3.14	216	eP	05 23.53	1.9
INW	3.15	217	eP	05 24.19	2.4
RAGM	3.19	133	eP	05 21.45	-0.8
CNPM	3.25	197	eP	05 23.16	0.0
SVW	3.34	245	P	05 23.20	-1.1
CRQM	3.52	120	eP	05 26.11	-0.9
KAIM	3.62	136	P	05 26.70	-1.6
TGL	3.64	118	eP	05 27.52	-1.2
PDB	3.69	221	eP	05 29.88	0.7
BALM	3.70	113	eP	05 27.74	-1.7
AUL	3.82	213	eP	05 28.60	-2.4
AUH	3.84	213	P	05 33.70	2.3
AUW	3.84	213	eP	05 32.27	1.0
IMA	3.92	333	eP	05 31.19	-1.4
CTGM	4.17	110	eP	05 34.78	-1.3
MCNL	4.23	217	eP	05 37.02	0.2
FYU	4.33	22	eP	05 37.38	-0.8
YKA	15.91	75	eP	08 11.70	-2.7
	0.5s	0.20nm			2.5mb

69 obs. associated

? MAR 26, 1993 05h 14m 06.88± 7.19s

44.429 N ±23.6km 7.067 E ±76.8km

DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)

ML 1.4 (GEN).

PZZ	0.08	18	P	14 09.51	0.0
			S	14 11.62	
STV	0.26	135	P	14 12.40	0.0
			S	14 16.29	
ENR	0.32	129	P	14 13.68	0.0
			S	14 18.44	
BHB	0.44	19	P	14 15.74	0.0
			S	14 21.91	

S.D. = 0.1 on 4 of 4 obs.

& MAR 26, 1993 05h 18m 26.15s

45.031 N 122.608 W

DEPTH = 17.2km

WASHINGTON-OREGON BORDER REGION (28)

<SEA-P>. MD 2.8 (SEA), 2.6 (GS).

SHW	1.19	13	ePd	18 47.42	-0.6
VGB	1.38	69	eP	18 51.27	0.6
BMW	1.51	343	eP	18 52.06	-0.4
			eS	19 12.11	
LON	1.81	18	eP	18 57.76	0.9
GMW	2.52	357	eP	19 08.30	1.3
MCW	3.65	358	(P)	19 25.15	2.0

6 obs. associated

? MAR 26, 1993 05h 57m 16.75± 2.50s

22.377 S ±24.3km 69.530 W ±23.1km

DEPTH = 33.0km (normal)

3.9mb (1 obs.)

NORTHERN CHILE (123)

CNCB	5.72	15	P	58 41.00	-1.2
CCH	5.91	33	P	58 41.50	-3.1X
LPB	5.97	13	eP	58 46.00	0.4
ZOBO	6.20	13	P	58 49.80	0.8
SIV	10.21	53	P	59 44.20	0.1
YKA	91.82	341	eP	10 22.10	0.0
	0.4s	0.20nm			3.9mb

S.D. = 1.1 on 5 of 6 obs.

• MAR 26, 1993 06h 57m 39.10± 0.98s

32.166 N ± 7.7km 35.262 E ±12.8km

DEPTH = 10.0km (geophysicist)

DEAD SEA REGION (373)

SHMJ	0.70	37	P	57 53.00	0.0
LISJ	0.94	169	P	57 57.30	0.3
DHLJ	1.35	175	P	58 04.30	0.4
SHWJ	1.79	173	P	58 10.40	0.0
HSHJ	2.74	177	P	58 23.10	-0.9
KOT	3.69	234	ePn	58 37.50	0.1

S.D. = 0.6 on 6 of 6 obs.

& MAR 26, 1993 08h 00m 05.32s

45.034 N 122.616 W

DEPTH = 16.7km

WASHINGTON-OREGON BORDER REGION (28)

<SEA-P>. MD 2.8 (SEA), 2.7 (GS).

SHW	1.19	13	eP	00 26.81	-0.3
			eS	00 42.86	
VGB	1.38	69	eP	00 30.54	0.6
BMW	1.50	344	eP	00 31.35	-0.3
LON	1.81	18	eP	00 36.67	0.7
RMW	2.49	13	(P)	00 46.63	0.8
GMW	2.52	357	eP	00 47.40	1.2
			eS	01 20.25	
MCW	3.65	358	eP	01 03.44	1.1

7 obs. associated

• MAR 26, 1993 08h 24m 00.27± 1.25s

50.635 N ±14.4km 13.947 E ± 8.4km

DEPTH = 10.0km (geophysicist)

CZECH AND SLOVAK REPUBLICS (547)

HOF	1.36	257	iPgc	24 25.50	0.2
KSP	1.51	81	iP	24 27.00	-0.3
	0.5s	45.00nm			
			i	24 31.00	
			iS	24 48.00	
GEC2	1.80	185	Pg	24 31.00	-0.7
			Sg	24 54.40	
VRAC	2.16	127	ePn	24 37.00	0.2
	0.2s	5.50nm			
			eSg	25 04.90	
VKA	2.83	146	iP	24 46.90	0.5
			e	25 20.50	
			i(Sg)	25 27.30	
BHG	3.00	194	iPnc	24 56.80	8.1X
ZST	3.19	139	i(P)	25 39.10	47.6X
TNS	3.54	265	ePnd	25 10.90	14.5X
			eSn	25 52.60	
			e	26 00.60	
KBA	3.58	187	iP	25 53.50	56.3X
	0.5s	15.80nm			
WTTA	3.70	205	iP	25 52.40	53.5X
	0.8s	14.60nm			
SPC	4.32	107	eP	25 51.60	43.9X

S.D. = 0.7 on 5 of 11 obs.

MAR 26, 1993 09h 25m 53.61± 0.73s

5.607 S ± 3.0km 153.273 E ± 3.7km

DEPTH = 39.6 ± 6.3 km

5.4mb (53 obs.) 4.8Msz (19 obs.)

NEW IRELAND REGION, P.N.G. (190)

Mw 5.3 (HRV).

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 28S, 46C

Centroid Location:

Origin Time 09:26: 1.5 0.4

Lat 5.32S 0.06 Lon 153.42E 0.04

Dep 23.5 2.9 Half-duration 1.2

Moment Tensor; Scale 10**16 Nm

Mrr=-8.25 0.40 Mtt=-1.62 0.53

Mff= 9.87 0.51 Mrt=-2.83 0.85

Mrf= 0.20 1.01 Mtf= 4.74 0.43

Principal Axes:

T	Val= 11.60	Plg= 2	Azm=110
N	-2.11	24	201
P	-9.49	66	15

Best Double Couple:Mo=1.1*10**17

NP1:	Strike=177	Dip=48	Slip=-123
NP2:	42	52	-59

RAB	1.79	322	iPc+	26 24.30	1.7
			iS	26 36.00	
FINC	5.48	259	eP	27 15.90	1.0
LAT	6.32	260	iPc	27 27.00	0.1
PMG	7.14	238	iPc	27 37.50	-0.8
			eS	28 58.00	
			e	33 07.00	
YYYY	7.29	265	eP	27 42.20	1.6
MDG	7.47	272	eP	27 44.80	1.9
HNR	7.63	120	eP	27 46.00	0.8
			eS	29 27.00	
CTA	15.93	205	iPc	29 39.50	2.8X
			i	29 52.00	
			eS	32 51.00	
BKM	18.92	131	iP	30 14.00	0.1
PVC	19.01	131	iP	30 16.10	1.1
DZM	20.74	143	iPd	30 33.00	-0.6
			i	34 25.70	
GUA	20.75	336	e(P)	30 32.00	-1.7
	1.1s	202.53nm			5.4mb
GUMO	20.82	336	e(P)	30 39.30	5.0X
	Z 22s	0.39um			3.7MszX
PJG	20.82	336	e(P)	30 39.50	5.2X
RMQ	21.21	191	iPd	30 38.20	-0.1
	0.9s	79.00nm			5.1mb
BRS	21.67	181	iPc	30 32.20	-10.7X
	1.5s	10.00nm			
			e	30 51.00	88kmX
			e(PP)	32 06.00	
			eS	34 42.00	
SLKI	21.95	263	ePd	31 06.50	20.8X
QLP	22.57	201	iPd	30 51.90	0.0
	1.0s	346.00nm			5.8mb
			i	31 11.10	88kmX
MTN	23.00	250	eP	30 56.00	-0.1
	0.3s	254.00nm			6.2mb
			e	31 02.00	
WB2	23.27	231	eP	30 58.40	-0.4
	0.5s	17.70nm			4.8mb
WRA	23.28	231	P	30 59.00	0.2

26d 09h

ARMA	24.73	183 iPc	31 13.90	1.0
	1.0s	66.00nm		5.1mb
CMS	26.68	194 iPc	31 29.70	-1.2
	1.1s	42.00nm		5.0mb
STK	28.33	201 iPd	31 44.00	-1.9
	1.2s	6.60nm		4.2mb X
		eS	36 33.50	
BWA	29.03	188 eP	31 51.70	-0.5
		e	32 04.50	
CNB	29.78	186 iPd	31 59.00	0.0
	0.5s	12.00nm		4.9mb
CAN	29.83	187 iPd	31 58.80	-0.6
		e	32 11.30	
TOO	32.60	192 eP	32 22.90	-0.8
	0.5s	5.00nm		4.6mb
WARB	32.64	228 eP	32 23.00	-1.2
	0.4s	13.00nm		5.2mb
BFD	32.92	196 eP	32 25.00	-1.4
WSI	32.92	261 ePd	32 27.90	1.2
FORT	34.47	220 eP	32 39.00	-1.0
	0.6s	25.00nm		5.3mb
TAU	37.52	187 iPd	33 06.50	1.0
BCP	39.02	305 eP	33 22.00	3.3X
BAG	39.04	305 eP	33 19.00	0.1
URZ	39.06	150 eP	33 17.80	-0.7
COOL	39.27	226 eP	33 19.00	-1.4
NOZ	39.80	149 P	33 24.60	0.0
TCW	40.12	155 P	33 27.30	0.0
NANU	40.13	241 eP	33 26.00	-1.6
	0.5s	15.00nm		5.0mb
		e	33 35.00	
MNG	40.15	153 P	33 27.40	-0.2
PGZ	40.51	153 P	33 30.00	-0.4
MTW	40.60	154 P	33 30.50	-0.7
BLW	40.76	154 P	33 31.70	-0.8
BWZ	41.41	162 P	33 37.20	-0.6
KLB	42.10	228 eP	33 42.00	-1.7
MRWA	42.32	232 eP	33 44.10	-1.4
		e	33 55.00	
BAL	42.41	230 eP	33 44.50	-1.7
WKYJ	42.99	338 P	33 49.80	-1.2
TKSJ	43.37	337 P	33 53.40	-0.6
MUN	43.44	228 eP	33 53.40	-1.2
KUMJ	43.52	332 P	33 55.50	0.3
CHJJ	43.55	343 P	33 53.90	-1.5
TSRJ	44.04	340 P	33 58.40	-0.9
MAT	44.24	343 eP	33 59.00	-2.0
	1.0s	15.00nm		4.7mb
Z	20s	0.71um		4.6Msz
MTMJ	44.40	342 P	34 01.40	-1.0
NIIJ	44.66	344 P	34 03.20	-1.1
YONJ	44.66	337 P	34 03.90	-0.5
SHNJ	44.73	334 P	34 04.70	-0.2
YAMJ	45.26	345 P	34 08.70	-0.4
LEM	45.39	266 ePd	34 21.50	10.8X
OFUJ	45.74	347 P	34 12.00	-0.9
SSE	47.66	322 Pc	34 32.00	3.8X
	1.0s	17.00nm		5.0mb
Z	20s	0.90um		4.7Msz
		S	41 18.00	
		esS	41 32.00	
QIZ	49.28	301 eP	34 43.00	2.1
NJ2	49.76	321 Pc	34 45.00	0.6
Z	17s	0.58um		4.6MszX
		S	41 43.00	
ASAJ	50.42	350 eP	34 49.20	0.0
VLA	52.23	340 iPc	35 02.00	-0.9
	2.0s	114.00nm		5.5mb
		e	35 26.00	99kmX
		i	36 13.00	
		e	42 27.00	
YSS	53.22	351 iPd	35 08.80	-1.4
	1.1s	40.00nm		5.3mb
Z	19s	0.50um		4.6Msz
		i	36 18.00	
TIA	53.64	324 Pd	35 12.80	-0.7
E	20s	0.73um		
MDJ	54.34	339 eP	35 18.00	-0.5
	1.5s	70.00nm		5.5mb
SNY	54.43	333 eP	35 19.00	-0.2
Z	18s	0.95um		4.9Msz
		S	42 53.00	
CN2	55.22	336 eP	35 24.00	-1.0
	1.0s	24.00nm		5.2mb
Z	22s	0.63um		4.6Msz
		epP	35 32.50	28kmX
		PcP	36 25.80	
		eS	43 05.00	
GYA	55.26	308 P	35 26.40	0.7
	1.2s	16.00nm		4.9mb
Z	24s	0.86um		4.7MszX
BJI	56.82	326 eP	35 35.00	-1.5
	1.5s	34.00nm		5.2mb
Z	22s	0.62um		4.7Msz
		eS	43 24.00	
		eSS	47 10.00	
AFR	56.84	107 iPc	35 37.30	0.3
	0.9s	154.00nm		6.0mb
PPT	57.04	107 iPc	35 38.80	0.3
	0.8s	96.20nm		5.9mb
PPN	57.17	107 iPc	35 39.90	0.5
	0.7s	78.90nm		5.9mb
TIY	57.45	322 iPd	35 41.00	-0.1
	1.1s	41.00nm		5.4mb
Z	20s	1.25um		5.0Msz
E	20s	0.97um		
		S	43 36.00	
XAN	57.53	317 P	35 41.00	-0.7
	0.7s	18.00nm		5.2mb
Z	20s	0.91um		4.9Msz
		pP	35 47.00	20kmX
		sP	35 50.70	
		S	43 32.00	
		sS	43 49.00	
		ScS	45 24.00	
		eSS	47 22.00	
KMI	57.83	304 eP	35 44.50	0.3
	2.0s	100.00nm		5.5mb
Z	20s	0.90um		4.9Msz
		pP	35 53.00	28kmX
		sP	35 55.00	
		eS	43 46.00	
PMO	58.48	104 iPc	35 49.00	0.4
TPT	58.75	104 iPc	35 50.80	0.4
	0.8s	89.20nm		5.9mb
VAH	58.75	104 iPc	35 50.60	0.2
	1.1s	133.80nm		6.0mb
CHTO	58.76	296 ePd	35 50.70	0.2
	1.1s	35.34nm		5.4mb
RUV	58.99	104 iPc	35 52.40	0.3
	0.9s	110.10nm		6.0mb
CD2	59.62	311 eP	35 56.00	-0.3
Z	18s	0.73um		4.9Msz
		S	44 05.00	
HHC	59.97	324 Pd	35 58.80	0.2
	1.0s	40.00nm		5.5mb
Z	25s	0.69um		4.7MszX
		eS	44 10.00	
BTO	60.72	323 P	36 04.00	0.3
LZH	62.13	316 iPd	36 14.00	0.5
	1.6s	100.00nm		5.7mb
Z	18s	0.54um		4.8Msz
N	12s	0.28um		
		eS	44 38.00	
ADK	62.75	20 (P)	36 20.35	3.4X
MGD	65.53	359 eP	36 33.50	-1.4
	0.7s	30.00nm		5.5mb
		e	37 06.00	134kmX
GTA	66.56	317 P	36 43.00	0.8
	1.0s	66.00nm		5.7mb
Z	18s	0.69um		4.9Msz
		pP	36 50.00	22kmX
		sP	36 55.50	
		S	45 32.00	
		sS	45 46.00	
CIT	66.59	335 eP	36 43.00	1.0
LSA	69.08	305 iPd	36 59.40	0.8
	1.0s	40.00nm		5.4mb
		S	45 58.00	
YAK	69.83	348 iPd	37 02.00	0.1
	1.6s	324.00nm		6.1mb
ZAK	70.42	329 iPd	37 06.80	1.1
	1.1s	44.00nm		5.4mb
Z	17s	0.20um		4.4MszX
E	17s	0.39um		
		eS	46 00.00	
BOD	70.67	339 iPd	37 06.50	-0.6
	1.4s	90.00nm		5.6mb
IRK	71.04	331 ePc	37 09.50	0.0
	1.4s	29.00nm		5.1mb
Z	18s	0.31um		4.6Msz
MOY	72.36	329 ePd	37 18.10	0.8
	1.2s	56.00nm		5.4mb
GUN	72.94	301 P	37 21.40	-0.3
KKN	73.42	301 P	37 24.00	-0.3
DMN	73.52	301 P	37 24.40	-0.6
GKN	74.02	301 P	37 27.40	-0.4
UER	75.97	326 eP	37 39.50	1.3
	1.5s	50.00nm		5.3mb
		eS	42 25.20	
WMQ	76.65	317 P	37 43.00	0.7
	1.5s	56.00nm		5.4mb
Z	20s	0.56um		4.9Msz
		pP	37 51.50	27kmX
		S	47 28.00	
		SKS	47 48.00	
		SS	52 28.00	
HYB	77.20	289 iPd	37 45.50	-0.3
	1.0s	50.00nm		5.5mb
SVW	77.37	23 eP	37 45.70	-0.2
GBA	77.64	285 P	37 49.00	0.9
TTA	78.34	21 eP	37 50.20	-1.1
	0.8s	6.28nm		4.7mb
TIK	78.74	352 iPd	37 52.00	-1.1
	2.0s	184.00nm		5.7mb
Z	16s	0.30um		4.7MszX
		i	38 05.00	
		e	38 29.00	
		e	40 48.00	
		eS	47 49.00	
		e	48 04.00	
SLKM	79.20	25 eP	37 55.15	-0.8
PMS	79.86	24 eP	37 58.30	-1.2
	0.7s	19.00nm		5.2mb
PMR	80.22	24 eP	38 00.33	-1.0
	0.9s	14.62nm		5.0mb
		epP	38 25.45	96kmX
NDI	80.54	300 iP	38 20.00	16.3X
	0.8s	26.12nm		
ELT	81.02	326 iPd	38 06.40	0.7
		eS	48 13.00	
IMA	81.06	19 eP	38 05.33	-0.6
	1.2s	12.51nm		4.8mb
		epP	38 33.12	107kmX
KLU	81.50	25 eP	38 07.29	-0.9
		epP	38 36.88	115kmX
POO	81.80	290 iPc	38 11.50	1.0
FBA	82.46	22 iPd	38 10.98	-2.0
	0.9s	13.65nm		5.0mb
		epP	38 40.21	113kmX
BALM	82.84	26 (P)	38 13.60	-1.6
BRW	83.42	14 (P)	38 19.34	1.5
KSH	83.80	311 P	38 23.20	2.6X
	1.2s	100.00nm		5.8mb
Z	24s	0.81um		5.0MszX
		eSKS	48 43.00	
SPA	84.43	180 iPd	38 23.80	0.6
	1.0s	195.00nm		6.2mb
NRI	86.72	341 iPd-	38 33.80	-0.5
	1.8s	66.00nm		5.6mb
Z	22s	1.40um		5.3Msz
E	22s	1.20um		
		e	39 10.00	
		eS	49 08.00	
		eSS	54 44.00	
QUE	89.62	300 eP	38 49.00	-0.3
YKA	95.92	28 eP	39 16.00	-1.3
	0.8s	2.30nm		4.7mb
SVE	96.10	326 ePc	39 18.90	0.7
MAIO	96.33	306 iPc	39 20.60	0.8
ARU	97.22	326 eP	39 22.00	-1.3
KAF	111.54	336 ePdiff	40 27.00	-0.1
	0.4s	1.80nm		
KAF	111.54	336 iPKP	44 24.70	-0.4
	0.6s	2.90nm		
NUR	113.06	335 ePKP	44 28.80	0.8
HRI	116.00	304 ePKP	44 36.70	2.0
PRNI	117.15	301 ePKP	44 38.70	1.8
RMN	117.44	301 ePKP	44 39.20	1.7
HFS	117.60	339 ePKP	44 35.50	-1.2
	0.4s	2.20nm		
NB2	117.83	340 PKP	44 36.00	-1.2
	0.7s	3.90nm		
MLR	119.57	320 ePKPd	44 41.00	-0.2
SPC	121.25	326 iPKP	44 46.00	1.7
ZST	123.54	326 iPKP	44 33.80	-14.7X
		i	48 37.20	
BRG	123.60	330 iPKP	44 48.80	0.3
CLL	123.78	331 iPKPd	44 49.30	0.5
	0.8s	14.00nm		
GEC2	124.98	328 e(PKP)	44 51.90	0.5

```
      0.6s     8.50nm
GRF   125.70 331 ePKP  44 54.00   1.3
    Z  19s     0.20um             4.8Msz
VBY   126.11 324 ePKP  44 54.00   0.4
WTTA  127.05 328 iPKPc 44 56.00   0.4
      0.7s    12.10nm
CDF   128.47 332 ePKP  44 58.00  -0.1
BSF   129.11 331 ePKP  44 58.90  -0.5
HAU   129.20 332 ePKP  44 59.60   0.2
      0.5s     6.70nm
    Z  21s     0.28um             4.9Msz
LPL   130.76 329 ePKP  45 03.10   0.4
      0.7s     7.95nm
LPG   130.76 329 ePKP  45 03.50   0.7
      0.6s     7.50nm
LOR   130.89 333 ePKP  45 03.10   0.5
      0.7s     7.40nm
    Z  20s     0.17um             4.8Msz
LBF   131.04 332 ePKP  45 03.30   0.3
SSF   131.20 333 ePKP  45 03.80   0.6
      0.9s    13.60nm
SMF   131.36 332 ePKP  45 03.90   0.4
AVF   131.47 333 ePKP  45 03.90   0.2
      0.7s     2.55nm
PGF   131.49 325 ePKP  45 04.90   0.8
LDF   131.56 337 ePKP  45 03.90   0.1
FLN   131.56 337 ePKP  45 04.10   0.3
      0.4s     5.20nm
    Z  20s     0.20um             4.8Msz
BGF   131.88 333 ePKP  45 05.10   0.6
      0.6s     7.30nm
GRR   132.01 337 ePKP  45 05.20   0.5
      0.6s     8.85nm
MAF   132.26 333 ePKP  45 06.30   1.0
      0.5s     1.45nm
LMR   132.36 327 ePKP  45 06.00   0.5
TCF   132.37 333 ePKP  45 06.20   0.7
      0.6s     5.60nm
LPF   132.37 337 ePKP  45 06.10   0.7
      0.6s    14.35nm
LSF   132.71 333 ePKP  45 07.30   1.2
      0.7s     6.70nm
MFF   133.16 335 ePKP  45 07.50   0.6
      0.6s     4.95nm
CNCB  133.53 119 ePKP  44 57.00 -12.2X
                 i     45 11.20
LPB   133.55 119 PKP   45 10.80   1.7
ZOBO  133.64 119 PKP   44 59.00 -10.4X
                 i     45 11.10
LPO   134.06 332 ePKP  45 10.00   1.3
      0.8s    12.20nm
CCH   134.87 121 ePKP  45 13.00   1.5
BCAO  134.90 271 iPKPc 45 09.10  -2.2
      1.0s    10.00nm
                 i     45 10.90
SIV   139.80 123 ePKP  45 24.00   3.7X
PPD   143.47 140 ePKP  45 23.60  -3.0X
                 e     45 25.60
                 e     45 29.70
VAO   145.36 146 ePKP  45 30.70   0.8
                 e     45 37.80
IFR   145.73 327 iPKPd 45 32.50   2.1
AVE   147.11 329 ePKP  45 31.00  -1.3
                 i     45 38.00
CDCB  148.82 146 iPKPd 45 40.00   4.5X
                 e     45 47.60
TIO   148.87 326 iPKPd 45 40.50   5.1X
                 i     45 58.00
BAO   150.19 135 iPKPc 45 39.00   1.3
                 i     45 43.50
                 e     45 49.20
BDF   150.23 136 iPKPc 45 39.20   1.4
                 i     45 43.90
                 e     45 49.80
                 e     45 56.80
                 e     46 03.00
KIC   158.12 273 PKP   45 49.00   0.5
                 PKPab 46 22.50
TIC   158.39 274 PKP   45 49.30   0.5
LIC   158.41 273 PKP   45 49.20   0.4
SOB1  159.60 136 ePKP  45 51.40   1.2
KDS   164.09 297 ePKP  45 55.50   0.9
    S.D. = 1.0  on 169 of 187 obs.
```

```
• MAR 26, 1993  09h 41m 04.86± 1.24s
  36.690 S ±11.2km  177.217 E ±15.2km
  DEPTH = 275.9 ± 11.4 km
  3.9mb ( 1 obs.)
 OFF E. COAST OF N. ISLAND, N.Z. (160)

KUZ      1.20 267 P      41 42.80  -1.2
HBZ      1.25 137 P      41 43.20  -1.1
URZ      1.57 183 P      41 46.20  -0.2
                  eS     42 17.30
PUZ      1.61 149 P      41 46.40  -0.4
                  S      42 16.90
NOZ      2.03 162 P      41 50.30   0.2
PAHZ     2.17 183 P      41 51.90   0.6
WHH      2.26 194 eP     41 52.30   0.1
MOH      2.44 181 P      41 54.60   0.8
NGZ      2.79 207 eP     41 59.30   1.9
CNZ      2.83 207 P      42 00.20   2.4
TTH      2.86 186 eP     41 58.90   1.0
WAHZ     3.08 192 P      42 00.30   0.1
PGZ      3.99 190 eP     42 10.50   0.3
MNG      4.15 199 P      42 11.40  -0.6
                  eS     43 04.70
KIW      4.54 203 eP     42 15.60  -0.9
MTW      4.66 196 eP     42 17.00  -0.9
CAW      4.72 200 eP     42 18.10  -0.6
DIW      4.85 211 eP     42 20.30   0.1
MRW      4.94 203 P      42 20.60  -0.7
                  S      43 21.10
TCW      5.07 206 eP     42 23.20   0.5
ORZ      5.52 220 eP     42 27.60  -0.7
THZ      6.07 212 eP     42 35.50   0.4
KHZ      6.39 205 eP     42 38.80   0.0
                  eS     43 53.00
DSZ      6.57 218 eP     42 40.60  -0.6
LTZ      7.18 211 eP     42 48.00  -0.7
                  eS     44 09.00
MQZ      7.83 205 eP     42 55.90  -0.8
                  eS     44 22.20
WB2     40.89 282 eP     48 22.80   0.8
        0.5s      3.40nm          3.9mb
      S.D. = 0.9  on  27 of  27 obs.
```

```
? MAR 26, 1993  09h 52m 48.57± 0.85s
  45.678 N ±28.9km   26.587 E ±17.8km
  DEPTH = 130.0km  (geophysicist)
 ROMANIA                          (358)

VRI     0.21  27 iPc    53 05.60  -0.4
CVO     0.32 297 iPc    53 06.50   0.1
BRD     0.36 116 iPc    53 08.00   1.5
MLR     0.49 248 iPc    53 07.50  -0.5
ISR     0.54 183 eP     53 08.30   0.1
CFR     1.21 114 iPd    53 13.00  -0.8
      S.D. = 1.0  on   6 of   6 obs.
```

```
• MAR 26, 1993  10h 13m 57.83± 0.70s
  24.048 N ± 7.6km  121.789 E ±14.4km
  DEPTH = 33.0km  (normal)
  4.2mb ( 3 obs.)
 TAIWAN                           (244)

QZH      3.05 288 Pnc    14 45.50   0.7
                  Sn     15 19.00
BBP      3.59 177 ePc    14 52.00  -0.6
                  eS     15 29.00
CVP      6.31 180 eP     15 32.00   0.9
                  eS     16 44.40
SSE      7.04 356 P      15 42.50   1.3
      Z  18s      0.50um
                  eS     16 55.00
GZH      7.81 265 eP     16 00.00   8.0X
NJ2      8.38 343 Pc     15 59.00  -1.0
                  S      17 31.00
WHN      9.25 316 eP     16 10.00  -2.0
      E  12s      0.39um
XAN     15.01 314 eP     17 30.40   1.1
                  sP     17 37.80
CD2     17.39 297 eP     18 06.10   6.5X
GTA     24.07 315 eP     19 15.00   3.7X
                  sP     19 23.00
WRA     45.40 163 P      22 15.10  -0.2
        0.5s      0.20nm          3.3mb
WB2     45.41 163 eP     22 14.80  -0.5
        0.4s      2.20nm          4.4mb
YKA     82.88  23 eP     26 20.30   0.1
        0.6s      1.90nm          4.4mb
      S.D. = 1.2  on  10 of  13 obs.
```

```
& MAR 26, 1993  10h 26m 15.15s
  62.742 N            149.387 W
  DEPTH = 70.3km
 CENTRAL ALASKA                    ( 1)
        <AEIC>.

HUR      0.26 334 ePc    26 26.16  -0.1
                  eS     26 34.66
RND      0.71  20 iPd    26 30.13  -0.4
                  eS     26 41.55
TRF      0.82 330 iPc    26 31.81  -0.1
                  eS     26 44.79
GHO      1.00 167 iPc    26 33.84  -0.1
                  eS     26 48.95
MCK      1.02  11 eP     26 34.11   0.0
                  eS     26 48.65
SML      1.06 152 iPc    26 34.40  -0.3
                  eS     26 49.95
PWA      1.12 192 P      26 35.40   0.0
                  S      26 52.80
PLRM     1.16 174 iPc    26 35.93   0.0
                  eS     26 52.63
PMR      1.16 174 iPc    26 35.90  -0.1
SKT      1.26 234 iPd    26 37.18  -0.1
                  eS     26 53.91
SCM      1.33 133 iPc    26 38.14  -0.1
                  eS     26 56.75
SUA      1.43 207 ePc    26 40.13   0.4
                  eS     27 00.78
PMS      1.51 183 P      26 40.70   0.1
THY      1.79  66 eP     26 44.91   0.4
SDG      1.79  95 ePd    26 44.95   0.4
                  eS     27 08.59
PAX      1.81  81 iPd    26 44.91   0.0
NEA      1.85   4 iPc    26 44.33  -0.9
PTE      1.89 175 eP     26 46.06   0.2
CGLM     1.90 222 eP     26 48.08   2.0
CRP      1.97 223 iPc    26 47.73   0.5
TZL      1.97 109 eP     26 47.80   0.8
CPAM     1.98 222 iPc    26 47.76   0.6
HDA      1.99  32 iPd    26 46.54  -0.8
CP2      2.00 224 ePc    26 47.89   0.3
SPU      2.01 220 ePc    26 47.73   0.2
CKN      2.02 222 eP     26 49.04   1.4
CCB      2.04  20 ePc    26 46.86  -1.0
CKT      2.04 222 eP     26 48.16   0.1
BGL      2.05 225 eP     26 48.94   0.7
KLU      2.06 126 ePd    26 47.77  -0.5
CKL      2.09 223 ePc    26 48.80   0.1
VLZ      2.17 137 eP     26 48.46  -1.2
MPA      2.26 180 eP     26 51.73   0.8
SLKM     2.28 190 eP     26 52.42   1.2
FBA      2.28  17 P      26 50.50  -0.7
MDM      2.28  12 iPc    26 50.57  -0.8
GLM      2.42  21 iPc    26 52.33  -1.0
DOT      2.58  67 ePd    26 55.30  -0.2
SEW      2.65 181 eP     26 56.81   0.5
DFR      2.67 218 eP     26 57.23   0.4
HIN      2.73 148 eP     26 56.10  -1.4
REF      2.76 216 eP     26 59.45   1.3
NCT      2.76 219 iPc    26 59.54   1.4
RDW      2.80 217 eP     26 59.83   1.2
RS2      2.80 217 eP     26 59.85   1.2
RSO      2.80 217 eP     27 00.24   1.6
RS1      2.80 217 eP     27 00.32   1.6
CVA      2.80 140 eP     26 57.58  -1.0
GLB      2.93 114 ePc    26 59.66  -0.7
TMW      2.97  76 P      27 01.50   0.6
SGAM     3.01 137 eP     26 59.75  -1.6
TTA      3.05 276 P      27 01.20  -0.8
ILIM     3.18 214 eP     27 05.22   1.4
INE      3.22 215 eP     27 06.48   2.0
RAGM     3.27 134 eP     27 04.47  -0.6
CNPM     3.35 196 eP     27 06.11  -0.1
SVW      3.37 244 P      27 05.80  -0.8
CRQM     3.58 121 eP     27 09.16  -0.4
TGL      3.70 120 eP     27 09.99  -1.2
BALM     3.75 114 eP     27 10.28  -1.6
PDB      3.76 220 eP     27 12.47   0.5
IMA      3.82 333 eP     27 11.70  -1.2
        62 obs. associated
```

```
• MAR 26, 1993  11h 23m 21.05± 0.54s
  16.301 N ±14.6km   93.527 W ± 8.3km
  DEPTH = 156.0 ± 10.9 km
  3.5mb ( 1 obs.)
 CHIAPAS, MEXICO                  ( 61)
```

26d 11h

SCX	0.96	63	iP	23 46.83	0.5
			iS	24 03.88	
TPX	1.85	139	iP	23 55.50	0.3
OXX	3.16	285	iP	24 11.71	0.3
			iS	24 45.90	
TER	3.39	126	eP	24 17.10	2.9X
IXG	3.64	125	eP	24 18.39	0.8
MRL	3.89	108	eP	24 20.01	-0.9
YUP	4.16	120	eP	24 23.72	-0.7
			eS	25 01.86	
IISM	4.54	307	iP	24 28.00	-1.3
			(S)	25 18.93	
IIT	5.30	301	iP	24 40.41	0.8
PPM	5.59	300	iP	24 45.84	2.1X
IIA	5.65	301	iP	24 45.00	1.0
			(S)	25 17.00	
III	6.04	291	iP	24 49.00	-0.4
			(S)	25 35.00	
ACX	6.10	276	(P)	24 35.23	-14.8X
UNM	6.17	300	(P)	24 50.50	-0.8
CRX	6.62	299	(P)	25 02.50	5.0X
MRX	8.04	296	(P)	25 18.00	1.9X
MEO	18.96	347	iPd	27 32.50	-0.2
YKA	48.46	347	eP	31 50.00	0.7
	0.6s		0.60nm		3.5mb

S.D. = 0.9 on 13 of 18 obs.

MAR 26, 1993 11h 45m 14.26± 0.39s
37.604 N ± 4.4km 21.423 E ± 2.8km
DEPTH = 10.0km (geophysicist)
4.6mb (39 obs.) 4.3Msz (2 obs.)
SOUTHERN GREECE (368)
ML 4.7 (TTG), 4.6 (ATH), 4.4 (THE). Felt in Akhoia, Arkadhia, Ilio, Messinio and Zakinthos Provinces.

VLS	0.87	311	ePg	45 31.20	0.1
VLI	1.50	126	ePb	45 44.50	3.3X
AGG	1.59	26	ePb	45 43.16	0.7
			eSb	46 05.90	
ATH	1.85	78	ePb	45 47.20	0.9
IGT	2.11	336	ePn	45 51.12	1.1
			eSn	46 18.80	
KEK	2.46	329	ePn	45 55.00	0.0
SRN	2.53	334	iPnc	45 57.70	1.7
LIT	2.63	18	ePn	45 59.16	1.7
			eSn	46 31.00	
KZN	2.71	6	ePn	46 00.50	1.8
TPE	2.90	338	iPnc	46 02.00	0.6
PAIG	2.91	37	iPn	46 01.98	0.5
			eSn	46 38.50	
FNA	3.18	359	ePn	46 06.28	1.0
			eSn	46 45.44	
VLO	3.23	333	iPn	46 09.50	3.5X
THE	3.25	21	ePn	46 06.84	0.6
			eSn	46 47.16	
OUR	3.38	35	ePn	46 09.84	1.8
GRG	3.43	12	ePn	46 09.60	0.7
OHR	3.54	352	iPnc	46 11.50	1.1
			i	46 23.20	
			i	47 12.50	
SOH	3.55	24	ePn	46 11.72	1.2
KNT	3.73	17	ePn	46 14.00	0.8
			eSn	46 58.80	
VAY	3.82	13	iPnc	46 15.00	0.7
LCI	3.84	316	P	46 14.97	0.3
SRS	3.89	25	ePn	46 16.56	1.2
			eSn	47 02.20	
TIR	3.93	343	iPnc	46 17.00	1.1
NPS	4.11	123	ePn	46 18.50	0.1
GRI	4.12	289	P	46 22.12	3.5X
PRK	4.15	65	ePn	46 20.00	1.1
PHP	4.15	350	iPnc	46 18.40	-0.6
LACI	4.24	342	ePn	46 20.00	-0.3
SOI	4.28	278	P	46 20.29	-0.5
MMB	4.36	23	iP	46 22.00	-0.1
SKO	4.36	0	iPnc	46 22.00	-0.1
			i	46 27.50	
GMB	4.43	279	P	46 25.29	2.1
KKB	4.45	16	iP	46 23.00	-0.2
TDS	4.48	299	P	46 28.19	4.5X
ORI	4.60	304	P	46 28.45	3.1X
BRT	4.63	316	P	46 26.56	0.7
ULC	4.66	340	iPnd	46 24.73	-1.7
			iSn	47 17.62	
SDA	4.68	342	ePn	46 25.70	-0.9
ATN	4.75	279	P	46 28.45	0.8
RDO	4.76	41	ePn	46 25.00	-2.7X
RZN	4.81	31	iP	46 28.00	-0.5
ALN	4.87	46	ePn	46 28.52	-0.7
			eSn	47 26.80	
BDV	5.08	338	iPnd	46 30.00	-2.2
			iSn	47 26.88	
KDZ	5.08	36	iP	46 32.00	-0.3
TTG	5.10	342	iPnd	46 30.98	-1.5
			iSn	47 28.54	
PVY	5.11	348	iPnc	46 32.50	-0.2
			iSn	47 30.94	
MEU	5.20	266	P	46 33.99	0.0
PZI	5.22	266	P	46 32.11	-2.2X
MGR	5.23	301	P	46 36.68	2.3
HCY	5.33	336	ePn	46 33.24	-2.6X
			iSn	47 32.34	
MNO	5.34	276	P	46 35.52	-0.6
PGB	5.37	22	iP	46 38.00	1.6
IVA	5.39	348	iPnc	46 36.34	-0.4
			iSn	47 37.77	
YER	5.48	93	eP	46 42.20	4.2X
NKY	5.52	341	iPnc	46 36.75	-1.9
			iSn	47 38.74	
SGO	5.60	304	P	46 39.79	0.2
BRY	5.73	338	iPnc	46 39.27	-2.3
			iSn	47 42.80	
PLE	5.93	346	iPnc	46 43.17	-1.1
			iSn	47 49.95	
PVL	6.35	27	iP	47 49.00	58.9X
FG2	6.39	313	P	46 52.31	1.6
DMK	6.45	47	eP	46 53.50	1.9
KSL	6.71	100	ePn	46 55.00	-0.2
DUI	6.73	309	P	46 57.65	2.0
HVAR	6.74	327	iPnd	46 52.60	-3.0X
RFI	6.84	305	P	46 59.97	3.0X
YLV	6.85	62	eP	46 56.90	-0.5
ALT	6.98	75	eP	47 00.40	1.2
SDI	7.16	307	P	47 03.34	1.8
BCK	7.29	88	eP	47 04.00	0.6
DRA	7.38	16	ePc	47 10.00	5.4X
GPA	7.43	66	eP	47 04.00	-1.3
AQU	7.77	310	P	47 23.01	12.8X
GZR	7.85	7	ePc	48 09.50	58.3X
PSN	7.95	38	eP	47 12.00	-0.6
			i	00 14.00	
CMP	8.12	18	ePd	47 17.00	2.0
MNS	8.23	308	P	47 18.17	1.6
ISR	8.45	25	eP	47 22.00	2.4
MLR	8.58	22	ePd	47 22.50	1.1
ASS	8.63	312	P	47 24.70	2.5
ARV	8.73	315	P	47 23.01	-0.5
CVO	8.94	22	eP	47 17.00	-9.4X
BRD	8.96	26	eP	47 29.00	2.4X
CFR	9.10	32	eP	47 30.00	1.5
VBY	9.14	332	ePn	47 26.00	-3.1X
VRI	9.16	24	ePd	47 31.00	1.7
			e	58 28.50	
PTJ	9.24	336	e(Pn)	47 26.40	-4.1X
SFI	9.62	314	P	47 40.11	4.5X
CEY	9.66	329	eP	47 35.00	-1.3
			eS	49 20.00	
LJU	9.87	331	eP	47 36.30	-2.9X
			eS	49 25.00	
TRI	9.92	327	eP	47 37.10	-2.7X
CSS	9.97	102	eP	47 44.00	3.4X
			eS	49 35.00	
BUD	10.03	351	ePn	47 38.00	-3.3X
VOY	10.12	329	iPc	47 40.40	-2.3
			eS	49 28.90	
KAS	10.25	65	eP	47 46.50	1.9
PSZ	10.37	354	eP	47 42.80	-3.3X
SRO	10.46	348	eP	47 45.70	-1.5
RBL	10.58	329	P	47 47.61	-1.4
KIS	10.90	28	eP	48 05.00	11.9X
	Z 11s		5.40um		
	E 11s		2.90um		
FVI	11.03	327	P	47 54.72	-0.3
UZH	11.04	3	eP	47 53.60	-1.6
	0.6s		12.00nm		5.4mb
CTI	11.14	322	P	47 55.54	-1.1
KBA	11.19	330	iPc	47 54.50	-2.9X
			iS	49 54.80	
BOB	11.51	312	P	48 07.77	6.1X
SPC	11.61	356	e(P)	48 00.70	-2.4
BHG	11.90	331	iPc	48 04.60	-2.2
OGA	12.03	324	eP	48 15.20	6.3X
SIM	12.03	48	eP	48 20.00	11.3X
WTTA	12.05	326	iPc	48 05.10	-4.0X
			iS	50 15.60	
VRAC	12.21	345	eP	48 06.90	-4.1X
OSS	12.33	321	P	48 14.39	1.5
LVV	12.35	8	eP	48 20.00	7.1X
			e	50 36.00	
HRI	12.45	106	eP	48 12.10	-2.3X
VDL	12.55	319	P	48 22.00	6.3X
GEC2	12.56	336	Pn	48 12.70	-3.1X
GAZ	12.57	87	eP	48 16.00	0.1
TMA	12.62	316	P	48 20.00	3.2X
KHC	12.85	336	eP	48 15.50	-4.1X
	Z 16s		4.50um		
	N 15s		2.00um		
	E 16s		3.30um		
			e	48 30.00	
			e	48 43.00	
			e	49 04.50	
DSI	12.97	114	eP	48 17.00	-4.3X
LLS	13.04	319	ePc	48 26.50	4.1X
SAGI	13.22	120	eP	48 20.10	-4.6X
			eS	50 40.40	
PRU	13.33	340	eP	48 24.50	-1.4
	Z 18s		4.00um		
	N 17s		2.40um		
	E 18s		1.80um		
			e	48 54.50	
			e	51 14.00	
DIX	13.43	313	Pd	48 28.30	0.7
LPG	13.51	310	eP	48 30.00	1.3
	0.7s		11.25nm		5.0mb
LPL	13.53	310	eP	48 30.60	1.7
	0.7s		7.60nm		4.8mb
EMS	13.71	313	eP	48 31.70	0.6
KSP	13.73	346	eP	48 39.50	8.3X
GRF	14.14	332	eP	48 33.10	-3.5X
	Z 18s		3.00um		
			i	48 44.40	
BRG	14.30	340	eP	48 36.20	-2.4
			e	48 45.60	
MOX	14.80	335	eP	48 44.40	-0.8
			eS	52 00.00	
BSF	14.81	318	eP	48 43.80	-1.7
	1.1s		28.35nm		4.7mb
CDF	14.93	321	eP	48 45.60	-1.5
	0.9s		10.00nm		4.3mb
CLL	14.95	339	eP	48 46.00	-1.1
			i	48 52.80	
HAU	15.15	318	eP	48 48.50	-1.4
	0.7s		26.90nm		4.8mb
	Z 18s		1.45um		6.0Msz
TNS	15.67	328	iPd	49 02.00	5.4X
SMF	15.84	310	eP	49 00.90	2.1
LBF	15.92	312	eP	49 01.10	1.2
	0.9s		17.05nm		4.2mb
LOR	16.14	312	eP	49 03.80	1.2
	0.8s		7.95nm		3.9mb
	Z 22s		1.13um		5.1MszX
AVF	16.20	310	eP	49 05.50	2.0
	0.6s		3.95nm		3.7mb
SSF	16.24	311	eP	49 06.20	2.3X
	0.9s		26.05nm		4.4mb
WLF	16.32	322	iPd	49 09.79	5.0X
	0.9s		16.60nm		4.2mb
BGF	16.41	309	eP	49 09.30	3.2X
	0.6s		8.05nm		4.0mb
MNK	16.84	13	eP	49 12.00	0.6
	Z 12s		3.70um		
ENN	17.18	325	eP	49 19.00	3.3X
	1.0s		28.00nm		4.3mb
			e	49 48.00	
KIV	17.29	62	iPc	49 19.80	2.5X
	1.3s		30.00nm		4.3mb
	Z 15s		0.30um		3.9MszX
DOU	17.36	321	P	49 19.80	1.8
	0.7s		31.10nm		4.5mb
			Lg	55 08.00	
WTS	17.69	329	eP	49 23.00	1.0
	1.0s		16.70nm		4.1mb
MFF	18.31	306	eP	49 33.10	3.2X
	0.7s		8.25nm		4.0mb
MTA	18.44	70	eP	49 32.00	0.5
LDF	19.12	312	eP	49 38.90	-0.8
	0.9s		16.70nm		4.3mb
GRO	19.30	65	eP	49 40.00	-2.0
	Z 12s		1.00um		

```
     N  20s      1.50um
     E  20s      1.00um
FLN    19.41 312 eP     49 41.60  -1.7
       1.0s     30.40nm            4.5mb
     Z  23s      0.88um            5.0MszX
LPF    19.43 310 eP     49 43.40  -0.1
       0.8s     11.30nm            4.2mb
GRR    19.47 311 eP     49 42.70  -1.3
       0.6s      8.75nm            4.2mb
GRS    19.56  77 eP     49 44.00  -1.3
       2.0s     60.00nm            4.5mb
                 eS     53 27.00
PAB    20.22 283 ePg    49 50.00  -2.2
                 eSg    50 17.00
OBN    20.32  26 eP     49 50.00  -2.9X
       1.0s     42.00nm            4.7mb
     Z  16s      1.80um            4.5MszX
     N  14s      1.40um
     E  11s      1.20um
                 e      50 13.00
                 ePPP   50 29.00
                 (S)    53 30.00
MOS    21.18  26 eP     50 00.00  -1.8
                 e      50 20.00
SHE    21.30  73 iPc    50 05.00   1.9
       1.8s     60.00nm            4.7mb
                 iS     54 05.00
UPP    22.41 355 iP     50 11.20  -2.8X
       0.6s    100.00nm            5.5mb
PUL    22.90  12 (P)    50 22.00   3.1X
       1.0s    180.00nm            5.5mb
     Z  16s      1.60um            4.6MszX
     N  16s      1.50um
     E  16s      0.80um
                 e      50 53.00
                 eS     54 22.00
NUR    23.02   4 iP     50 17.40  -2.7X
       0.4s     16.50nm            4.9mb
                 e      54 24.00
HFS    23.08 350 eP     50 18.30  -2.4
       0.4s     16.90nm            4.9mb
     Z  19s      0.57um            4.0Msz
                 LR     58 10.00
EKA    24.31 325 Pd     50 32.30  -0.3
       0.7s     22.50nm            4.9mb
NB2    24.32 348 P      50 30.40  -2.4
       0.7s     16.80nm            4.8mb
KAF    24.72   5 iP     50 34.80  -1.8X
       0.6s     19.00nm            4.9mb
SDF    30.00   4 iP     51 23.00  -1.8X
MAIO   30.32  81 eP     51 25.00  -3.1X
ARU    31.03  41 eP     51 32.00  -2.0
     Z  12s      1.00um            4.7MszX
     N  12s      1.00um
     E  12s      1.00um
SVE    32.23  41 ePd    51 43.00  -1.6
BCAO   33.12 185 iPd    51 53.00   0.3
       0.2s     12.00nm            5.5mb
TIC    39.08 225 P      52 43.66   0.4
KIC    39.16 224 P      52 44.38   0.4
LIC    39.43 224 P      52 46.66   0.5
     Z  20s      0.90um            4.6Msz
KSH    42.17  70 eP     53 05.50  -3.2X
ELT    46.48  49 eP     53 41.00  -2.0
       1.4s     39.00nm            5.3mb
NRI    47.19  26 eP     53 48.00  -0.4
                 e      55 38.00
WMQ    49.41  61 eP     54 05.00  -1.2
     Z  16s      1.81um            5.2MszX
     N  10s      0.29um
GKN    53.11  81 P      54 28.20  -6.3X
DMN    53.66  81 P      54 35.40  -3.2X
KKN    53.71  81 P      54 35.60  -3.3X
GUN    54.13  80 P      54 38.80  -3.3X
GBA    54.99 100 P      54 47.00  -1.1
ZAK    57.40  49 eP     55 05.60   0.6
       1.5s     13.00nm            4.7mb
GTA    59.47  62 eP     55 18.50  -1.3
BOD    60.46  38 eP     55 21.60  -4.5X
       1.2s     14.00nm            5.0mb
RES    60.52 344 eP     55 26.00  -0.3
       0.9s      3.00nm            4.4mb
LMN    61.90 308 eP     55 44.00   7.9X
JAQ    64.50 319 eP     55 52.00  -1.1
HHC    66.77  56 eP     56 10.00   1.9
XAN    68.45  63 P      56 16.00  -2.6
                 pP     56 22.00   19kmX
```

```
                 sP     56 26.50
FCC    70.10 330 ePd    56 30.50   2.3
CN2    73.76  47 eP     56 48.20  -2.1
MGD    74.13  24 eP     56 51.50  -0.7
                 e      57 02.00
YKA    74.17 340 eP     56 50.40  -2.0
       0.7s      1.10nm            4.0mb
ULM    76.58 324 eP     57 08.50   2.2
IMA    76.59 358 eP     57 05.97  -0.3
       0.6s      3.10nm            4.6mb
YSS    80.75  36 eP     57 35.00   6.0X
BALM   80.82 352 (P)    57 29.06  -0.3
NEW    86.89 334 eP     58 00.00  -0.3
       1.0s      7.00nm            4.8mb
MCMT   88.15 329 eP     58 04.10  -2.6X
   S.D. = 1.4  on 134 of 200 obs.
------------------------------------------
MAR 26, 1993  11h 56m 12.93± 0.34s
37.707 N ± 3.9km   21.384 E ± 2.6km
DEPTH = 10.0km  (geophysicist)
4.6mb ( 38 obs.)
SOUTHERN GREECE                       (368)
   ML 4.6 (TTG), 4.2 (THE). Felt
   in Akhaia, Arkadhia, Ilia,
   Messinia and Zakinthos
   Provinces.
VLS     0.78 307 ePg    56 29.20   1.0
AGG     1.51  29 iPb    56 40.30   0.3
                 eSb    57 03.05
VLI     1.58 128 ePb    56 41.80   0.7
ATH     1.87  81 ePb    56 44.80  -0.4
IGT     2.00 336 iPn    56 48.94   1.8
                 eSn    57 16.10
SRN     2.42 334 iPnc   56 55.70   2.5
LIT     2.54  20 ePn    56 55.53   0.7
                 eSn    57 28.78
KZN     2.61   7 ePn    56 57.50   1.5
TPE     2.80 338 iPnd   57 08.50  10.0X
PAIG    2.85  38 ePn    56 58.89  -0.4
FNA     3.07 360 ePn    57 03.50   1.1
VLO     3.12 333 ePn    57 09.50   6.4X
THE     3.17  22 ePn    57 04.21   0.5
                 eSn    57 44.46
OUR     3.31  37 ePn    57 05.50  -0.3
                 iSn    57 47.53
GRG     3.34  13 ePn    57 06.82   0.6
OHR     3.43 353 iPn    57 08.50   1.0
                 i      57 19.60
                 i      58 10.30
SOH     3.47  26 ePn    57 09.05   1.0
                 iSn    57 51.69
KNT     3.64  18 ePn    57 11.14   0.6
VAY     3.72  14 iPn    57 12.00   0.3
                 i      57 58.40
                 iSn    58 08.40
LCI     3.74 316 P      57 12.71   0.7
SRS     3.81  26 ePn    57 13.37   0.4
TIR     3.82 343 iPnc   57 14.70   1.7
PHP     4.04 350 ePn    57 15.90  -0.2
GRI     4.06 287 P      57 22.20   5.7X
PRK     4.13  67 ePn    57 21.00   3.6X
NPS     4.19 124 ePn    57 19.00   0.7
SOI     4.23 277 P      57 17.93  -0.9X
SKO     4.26   1 iPn    57 18.50  -0.8
                 i      57 20.20
SKO     4.26   1 iPb    57 25.50   6.2X
                 i      57 29.50
                 i      58 11.50
MMB     4.28  24 iP     57 19.00  -0.6
KKB     4.36  17 iP     57 22.00   1.3
GMB     4.39 278 P      57 20.96  -0.3
TDS     4.40 298 P      57 23.88   2.5
ORI     4.51 303 P      57 24.61   1.7
BRT     4.53 316 P      57 23.87   0.7
ULC     4.56 340 iPnd   57 21.85  -1.6
                 iSn    58 13.59
SDA     4.58 342 ePn    57 21.50  -2.2X
RDO     4.70  42 ePn    57 26.50   0.9
RZN     4.73  32 iP     57 26.00  -0.2
ALN     4.82  47 ePn    57 26.62  -0.6
BDV     4.97 338 iPnc   57 27.05  -2.3X
                 iSn    58 22.89
TTG     4.99 342 iPnc   57 28.29  -1.3
                 iSn    58 24.64
PVY     5.00 348 iPnd   57 29.71  -0.2
                 iSn    58 26.97
```

```
KDZ     5.02  37 iP     57 29.00  -1.0
PLD     5.08  29 eP     57 31.00   0.1
MGR     5.15 300 P      57 32.95   1.0
MEU     5.17 265 P      58 30.62  58.3X
PZI     5.20 264 P      57 29.40  -3.2X
HCY     5.23 336 iPnd   57 30.36  -2.6X
                 iSn    58 28.15
IVA     5.28 348 iPnd   57 33.69  -0.2
                 iSn    58 33.90
PGB     5.29  23 eP     57 34.00   0.1
NKY     5.42 341 iPnd   57 33.87  -1.9
                 iSn    58 34.71
SGO     5.51 303 P      57 38.52   1.5
YER     5.52  94 eP     57 28.20  -9.0X
BRY     5.62 338 iPnd   57 36.37  -2.3X
                 iSn    58 38.61
FG4     5.69 309 P      57 44.11   4.6X
EDC     5.69  60 eP     57 41.00   1.4
BNT     5.73  61 eP     57 42.00   1.8
PLE     5.82 346 iPnd   57 40.27  -1.1
                 iSn    58 45.92
GIB     5.83 275 P      57 41.95   0.4
KCT     6.00  63 eP     57 44.90   1.1
DMK     6.40  48 eP     57 44.00  -5.6X
KHL     6.46  82 eP     57 51.40   1.0
HVAR    6.63 327 iPn    57 52.00  -0.8
DUI     6.64 309 P      57 53.52   0.5
RFI     6.75 304 P      57 58.79   4.3X
KSL     6.76 101 ePn    57 56.00   1.4
ITU     6.81  58 iPnc   57 56.00   0.7
                 iSg    00 00.00
ISK     6.82  58 eP     57 53.00  -2.5
YLV     6.83  63 eP     57 54.90  -0.8
ELL     6.87  95 eP     57 59.00   2.7X
ALT     6.99  76 eP     57 54.00  -3.9X
SDI     7.07 307 P      58 00.97   2.0
HRT     7.14  62 eP     58 00.90   0.9
DRA     7.29  16 ePd    58 03.00   1.0
BCK     7.31  89 eP     58 02.00  -0.5
AQU     7.68 310 P      58 15.75   8.2X
CMP     8.04  19 ePc    58 11.00  -1.5
MNS     8.15 308 P      58 19.17   5.1X
TNR     8.23  14 ePc    58 18.00   2.9X
ISR     8.37  26 ePd    58 20.00   2.8X
                 e      28 40.00
MLR     8.49  22 ePd    58 19.50   0.5
                 e      28 40.00
ARV     8.64 315 P      58 21.01   0.1
CVO     8.86  22 eP     58 26.00   2.1
BRD     8.88  27 ePc    58 27.00   2.9X
                 e      28 55.00
CFR     9.03  32 eP     58 42.00  15.8X
VBY     9.04 331 iPn    58 29.80   3.5X
ZAG     9.05 335 e(Pn)  58 25.00  -1.5
PTJ     9.13 335 ePn    58 24.00  -3.7X
                 i(Sn)  00 29.80
SFI     9.52 314 P      58 40.75   7.7X
CEY     9.56 329 eP     58 34.00   0.5
                 eS     00 15.00
LJU     9.77 331 eP     58 41.00   4.6X
                 e(S)   00 21.00
FIR     9.79 311 eP     58 44.00   7.4X
                 eS     00 51.00
TRI     9.81 327 e(P)   58 35.50  -1.5
BUD     9.92 351 ePn    58 43.50   5.0X
VOY    10.01 329 e(P)   58 40.30   0.4
                 eS     00 25.70
CSS    10.02 102 eP     58 36.00  -4.0X
                 eS     00 40.70
KAS    10.24  65 eP     58 43.50   0.5
PSZ    10.27 354 eP     58 39.10  -4.2X
SRO    10.35 348 eP     58 43.20  -1.2
RBL    10.48 329 P      58 45.86  -0.4
PGF    10.64 301 eP     58 53.30   4.7X
FVI    10.93 327 P      58 53.90   1.6
ZST    10.94 345 eP     58 58.60   6.1X
                 e      59 09.00
UZH    10.94   3 eP     58 50.50  -2.0
       0.7s      8.00nm            5.2mb
CTI    11.04 322 P      58 54.97   1.0
KBA    11.08 330 i(P)   58 59.50   4.9X
                 iS     00 53.60
VKA    11.18 342 eP     59 04.00   8.2X
                 iS     00 59.10
                 LR     06 20.00
HLW    11.39 130 eP     58 53.00  -5.7X
                 e(S)   02 52.00
```

26d 11h

SPC 11.51 356 iPc 58 59.30 -1.1
WTTA 11.95 326 iPc 59 06.30 0.0
iS 01 08.00
VRAC 12.10 345 eP 59 05.50 -2.7X
1.7s 161.40nm 6.0mb X
e 59 24.30
GEC2 12.45 336 Pn 59 12.60 -0.4
HRI 12.51 106 eP 59 08.40 -5.5X
OJC 12.56 355 eP 59 21.40 7.0X
Z 12s 4.80um
e 03 41.00
GAZ 12.59 88 eP 59 14.00 -0.9
KHC 12.74 336 eP 59 14.50 -2.3X
1.3s 21.10nm 5.2mb
e 59 29.00
JVI 12.84 113 eP 59 11.90 -6.3X
LLS 12.94 319 ePd 59 25.10 5.4X
PRU 13.22 340 eP 59 21.00 -2.2X
e 00 10.30
SAGI 13.30 120 eP 59 17.40 -7.0X
eS 01 22.60
DIX 13.34 313 ePc 59 25.30 0.3
LPG 13.42 310 eP 59 29.90 3.8X
LPL 13.44 310 eP 59 29.10 2.7X
EMS 13.61 312 ePc 59 29.70 1.1
KSP 13.62 346 eP 59 36.70 8.2X
ZLA 13.66 320 ePd 59 38.00 9.0X
SLE 13.79 321 ePc 59 36.60 5.8X
GRF 14.04 332 eP 59 33.00 -0.9
Z 18s 5.00um
i 59 42.30
BBS 14.11 318 P 59 32.65 -2.2
FEL 14.11 320 P 59 32.90 -2.1
BRG 14.19 340 eP 59 34.20 -1.7
1.0s 16.00nm 4.7mb
e 59 43.00
e 59 55.00
LOMF 14.40 317 P 59 35.64 -3.2X
MOF 14.55 319 P 59 38.60 -2.1
MOX 14.69 335 eP 59 45.00 2.5
1.9s 48.00nm 4.7mb
BSF 14.71 318 eP 59 41.70 -1.2
1.2s 62.80nm 5.0mb
ECH 14.77 320 P 59 40.89 -2.6X
CDF 14.83 321 P 59 42.26 -2.2X
CLL 14.84 339 eP 59 45.00 0.6
2.3s 52.00nm 4.6mb
e 59 50.00
HOFF 14.86 323 P 59 43.10 -1.5X
AYN 15.05 122 ePc 59 42.50 -4.8X
eS 01 45.30
HAU 15.06 318 eP 59 45.60 -1.7X
1.0s 54.00nm 4.9mb
VITF 15.38 318 P 59 49.07 -2.4X
TNS 15.57 328 ePd 59 59.70 5.8X
SMF 15.75 310 eP 59 59.70 3.4X
0.7s 7.05nm 4.0mb
LBF 15.83 311 eP 59 59.30 1.9
LOR 16.04 312 eP 00 00.40 0.3
0.8s 9.65nm 4.0mb
SSF 16.15 311 eP 00 02.60 1.1
1.0s 37.80nm 4.5mb
CAF 16.19 303 eP 00 06.30 4.3X
0.9s 8.70nm 3.9mb
WLF 16.22 322 iPc 00 07.95 5.7X
1.2s 21.10nm 4.1mb
MAF 16.35 307 eP 00 06.90 2.9X
MNK 16.75 13 eP 00 12.00 3.1X
Z 14s 10.40um
N 14s 8.70um
eS 03 28.00
ENN 17.08 325 eP 00 17.00 3.9X
1.0s 26.00nm 4.3mb
DOU 17.26 321 P 00 18.60 3.1X
Lg 06 49.00
KIV 17.27 62 eP 00 17.40 1.7
1.4s 19.00nm 4.0mb
PYA 17.55 62 eP 00 20.00 0.9
WTS 17.58 329 eP 00 28.00 8.6X
0.8s 9.10nm 4.0mb
MFF 18.23 306 eP 00 30.00 2.5X
MTA 18.44 70 eP 00 31.00 0.9
ECRI 18.89 293 iPd 00 38.20 2.5
LDF 19.03 312 eP 00 36.60 -0.7
0.9s 20.00nm 4.3mb
GRO 19.28 65 eP 00 44.00 3.5X
FLN 19.32 312 eP 00 39.50 -1.4

LPF 19.34 309 eP 00 40.60 -0.5
0.9s 19.00nm 4.4mb
GRR 19.38 310 eP 00 40.30 -1.3
GRS 19.57 77 eP 00 41.00 -3.0X
2.0s 70.00nm 4.6mb
ECOG 19.79 276 eP 00 47.50 1.1
EGUA 19.86 275 eP 00 44.50 -2.5X
PAB 20.17 283 eP 00 51.00 0.7
OBN 20.24 26 iPc 00 50.00 -0.7
1.8s 120.00nm 4.9mb
i 01 10.00
i 01 25.70
MOS 21.10 26 eP 00 54.00 -5.6X
Z 14s 10.80um 5.4MszX
e 01 34.00
EPRU 21.16 276 eP 00 52.70 -7.8X
EPLA 21.48 285 eP 01 03.00 -0.7
IFR 21.93 267 iP 01 11.00 2.6X
i 03 12.00
HAE 22.06 318 eP 01 08.90 -0.5
ERUA 22.28 291 eP 01 16.20 4.5X
UPP 22.30 355 iP 01 09.20 -2.5X
0.8s 100.00nm 5.3mb
HTR 22.47 318 eP 01 11.70 -1.7
HCG 22.80 318 eP 01 15.80 -0.9
PUL 22.81 12 (P) 01 21.00 4.3X
0.8s 140.00nm 5.5mb
e 01 25.00
e 01 49.00
NUR 22.92 4 eP 01 15.00 -2.7X
e 07 28.00
HFS 22.98 350 eP 01 14.80 -3.6X
0.7s 18.40nm 4.7mb
Z 17s 2.33um 4.7MszX
LR 10 11.00
AVE 23.81 268 iP 01 28.00 1.3
i 03 33.20
NB2 24.22 348 P 01 28.10 -2.3
0.7s 11.60nm 4.6mb
TIO 24.55 263 iP 01 36.00 2.0
i 03 38.50
KAF 24.62 6 iP 01 32.30 -2.0
0.7s 16.10nm 4.8mb
SDF 29.90 4 iP 02 21.00 -1.6
MAIO 30.33 81 eP 02 29.00 2.1
i 04 26.00
ARU 30.97 41 eP 02 30.00 -2.2
Z 12s 5.00um 5.4MszX
N 12s 3.00um
E 12s 3.50um
e 05 17.00
e 09 22.00
SVE 32.17 41 ePd 02 40.00 -2.7
BCAO 33.22 185 iPc 02 50.90 -1.3
0.2s 24.00nm 5.8mb X
i 04 53.00
i 07 40.50
KDS 39.04 239 eP 03 48.00 6.4X
TIC 39.13 224 P 03 41.08 -1.3
0.8s 10.50nm 4.6mb
KIC 39.21 224 P 03 41.58 -1.5
0.8s 13.50nm 4.7mb
LIC 39.48 224 P 03 44.14 -1.2
0.7s 16.00nm 4.8mb
ELT 46.44 49 eP 04 38.00 -3.3X
1.5s 36.00nm 5.2mb
NRI 47.11 26 ePc 04 42.00 -4.4X
1.6s 23.00nm 5.0mb
WMQ 49.39 61 eP 05 02.40 -2.2
GKN 53.12 81 P 05 28.00 -5.2X
DMN 53.67 81 P 05 32.80 -4.6X
KKN 53.73 81 P 05 33.00 -4.7X
GUN 54.14 80 P 05 36.20 -4.7X
GBA 55.04 100 P 05 44.00 -3.2X
e 07 47.00
LSA 57.39 76 P 06 01.30 -3.2X
GTA 59.45 62 eP 06 14.00 -4.3X
TIK 59.86 20 eP 06 04.00 -16.6X
Z 16s 3.50um 5.6MszX
e 08 34.00
BOD 60.40 38 eP 06 18.60 -5.8X
0.9s 11.00nm 5.0mb
RES 60.41 344 eP 06 23.50 -0.8
0.7s 2.00nm 4.4mb
JAO 64.40 319 eP 06 50.00 -1.1
CD2 66.31 68 iPc 06 58.50 -5.3X
KMI 68.58 74 eP 07 25.50 7.1X

1.4s 20.00nm 5.1mb
KMI 68.58 74 eP 07 20.50 2.1
1.4s 20.00nm 5.1mb
CHTO 69.08 82 eP 07 20.50 -0.8
FCC 70.00 330 eP 07 35.50 9.3X
CN2 73.71 47 eP 07 52.60 3.9X
1.0s 3.50nm 4.4mb
YKA 74.06 340 eP 07 47.70 -2.7X
0.9s 1.80nm 4.1mb
ULM 76.48 324 eP 08 04.00 -0.4
IMA 76.48 358 eP 08 05.31 1.0
0.7s 2.40nm 4.4mb
OIZ 77.43 76 eP 08 09.00 -1.2
YSS 80.68 36 (P) 08 23.30 -4.0X
SES 82.79 332 eP 08 38.00 -0.4
RSSD 84.75 324 eP 08 47.88 -0.8
1.0s 4.29nm 4.6mb
NEW 86.78 334 P 08 58.00 -0.5
1.0s 5.00nm 4.7mb
S.D. = 1.3 on 127 of 223 obs.

MAR 26, 1993 11h 58m 15.17± 0.21s
37.589 N ± 3.1km 21.391 E ± 2.1km
DEPTH = 10.0km (geophysicist)
5.2mb (96 obs.) 5.2Msz (31 obs.)
SOUTHERN GREECE (368)
Mw 5.4 (HRV). ML 4.8 (ATH), 4.8 (THE). Two people were slightly injured and damage in the Pirgos-Amalios area. Felt in Akhaia, Arkadhia, Ilia, Messinia and Zakinthos Provinces.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 25S, 44C
Centroid Location:
Origin Time 11:58:20.9 0.5
Lat 37.61N 0.07 Lon 21.18E 0.08
Dep 15.0 FIX Half-duration 1.4
Moment Tensor; Scale 10**17 Nm
Mrr= 0.52 0.06 Mtt= 1.05 0.08
Mff=-1.57 0.07 Mrt= 0.09 0.20
Mrf= 0.80 0.34 Mtf= 0.57 0.07
Principal Axes:
T Val= 1.28 Plg=24 Azm=342
N 0.65 60 203
P -1.93 18 80
Best Double Couple:Mo=1.6*10**17
NP1:Strike=122 Dip=60 Slip= 5
NP2: 30 86 150

VLS 0.86 313 ePg 58 32.50 0.7
VLI 1.51 125 ePb 58 45.00 2.7X
AGG 1.61 27 iPb 58 45.22 1.5
eSb 59 02.78
ATH 1.88 78 ePn 58 50.00 2.4
IGT 2.11 337 iPb 58 53.58 2.6X
LIT 2.65 19 iPn 59 02.10 3.4X
KZN 2.73 6 ePn 59 04.00 4.1X
PAIG 2.94 37 ePn 59 03.70 0.9
FNA 3.19 360 iPn 59 08.18 1.8
THE 3.28 21 ePn 59 09.02 1.5
OUR 3.41 36 iPn 59 10.26 0.9
GRG 3.45 13 ePn 59 12.50 2.4
OHR 3.55 353 iPn 59 08.70 -2.7X
i 59 19.70
i 00 09.50
SOH 3.57 25 iPn 59 14.06 2.3
KNT 3.75 18 ePn 59 15.94 1.6
LCI 3.83 317 P 59 15.20 -0.2
VAY 3.84 13 iPn 59 17.30 1.8
i 00 07.00
iSn 00 12.30
SRS 3.92 25 ePn 59 17.74 1.1
GRI 4.10 289 P 00 08.01 48.7X
NPS 4.12 123 ePn 59 23.00 3.5
SOI 4.25 278 P 59 21.00 -0.4
eSn 00 08.50
ROI 4.27 299 P 59 23.90 2.2
SKO 4.38 0 ePn 59 18.00 -5.2X
iPb 59 23.00
iPg 59 29.50
i 59 36.60
iSn 00 05.50
iSg 00 15.00
iSg 00 22.00
MMB 4.38 24 iP 59 23.00 -0.3

GMB	4.41	279	P	59 25.12	1.3
TDS	4.46	299	P	59 23.90	-0.5
CSI	4.55	300	P	59 28.20	2.5
ULC	4.67	340	iPnc	59 25.62	-1.8
			iSn	00 17.30	
ATN	4.73	279	P	59 31.27	3.1X
MMN	4.81	300	P	59 23.50	-5.8X
RZN	4.83	31	iP	59 29.00	-0.8
BDV	5.09	338	iPnd	59 30.72	-2.5X
			iSn	00 26.40	
TTG	5.10	342	iPnc	59 31.89	-1.5
			iSn	00 28.35	
KDZ	5.11	36	iP	59 32.00	-1.6
PVY	5.12	348	iPnc	59 33.59	-0.2
			iSn	00 31.56	
MEU	5.17	267	P	59 34.24	-0.3
PLD	5.18	28	iP	58 38.00	-56.5X
MGR	5.22	301	P	59 35.70	0.6
MNO	5.32	276	P	59 36.36	-0.4
HCY	5.34	336	iPnd	59 33.69	-3.1X
			iSn	00 31.65	
IVA	5.40	348	iPnd	59 37.49	-0.3
			iSn	00 38.26	
NKY	5.53	341	iPnd	59 37.65	-2.0
			iSn	00 38.34	
SGO	5.58	304	P	59 42.20	1.9
BRY	5.74	339	iPnc	59 39.76	-2.8X
			iSn	00 42.32	
BNT	5.79	59	eP	59 44.00	0.8
GIB	5.85	276	P	59 44.40	0.3
FG3	5.87	316	P	59 46.63	2.3
PLE	5.93	346	iPnc	59 44.21	-1.0
			iSn	00 50.12	
KCT	6.05	62	eP	59 47.60	0.8
FG2	6.38	313	P	59 53.25	1.7
DMK	6.48	47	iP	59 53.00	0.1
DUI	6.72	309	P	59 58.00	1.6
KSL	6.73	100	ePn	59 59.00	2.6X
HVAR	6.74	328	i(Pn)	59 51.50	-5.0X
CVT	6.83	273	P	59 57.90	0.2
YLV	6.88	62	eP	59 55.90	-2.8X
ALT	7.01	75	eP	00 00.40	-0.1
SDI	7.15	307	P	00 03.20	0.9
HRT	7.19	61	eP	00 04.40	1.4
EYL	7.44	64	eP	00 06.40	-0.1
GPA	7.46	66	eP	00 06.00	-0.6
AQU	7.76	310	P	00 09.70	-1.2
MNS	8.22	308	P	00 17.60	0.2
ARV	8.73	315	P	00 24.10	-0.2
CRE	9.37	313	P	00 39.99	6.7X
SFI	9.61	314	P	00 35.40	-1.0
CEY	9.66	330	eP	00 36.50	-0.7
			eS	02 18.50	
LJU	9.87	331	e(P)	00 37.50	-2.6X
			eS	02 23.00	
TRI	9.91	327	P	00 35.97	-4.7X
CSS	9.99	102	eP	00 28.80	-13.0X
			eS	02 28.00	
VOY	10.12	329	e(P)	00 40.00	-3.6X
			eS	02 27.30	
CEI	10.12	4	eP	01 37.00	53.5X
KAS	10.28	65	eP	00 47.00	1.1
SRO	10.47	349	i(P)	00 46.40	-1.8
			i	00 53.30	
			i	02 39.80	
			i	02 52.30	
			LR	12 05.00	
BZK	10.65	62	iP	00 53.00	2.3
PGF	10.71	301	eP	00 53.60	1.9
	1.4s	196.90nm			6.3mb X
VVI	10.72	324	P	00 50.15	-1.7X
FVI	11.03	327	P	00 55.50	-0.4
ZST	11.06	345	P	00 52.70	-3.6X
ADAT	11.13	88	eP	00 59.60	2.2
CTI	11.14	322	P	00 57.60	0.1
KBA	11.19	330	i(P)	01 01.70	3.4X
			iS	02 58.30	
SAL	11.41	318	P	01 02.60	1.5
BNN	11.46	79	eP	01 05.00	3.0X
BOB	11.50	312	P	01 02.00	-0.4
SPC	11.63	356	eP	01 02.20	-2.0X
KMR	11.73	335	iP-	01 02.50	-3.0X
BHG	11.90	331	iPd	01 05.50	-2.3X
MDI	11.96	317	P	01 08.70	0.2
CKI	12.02	309	P	01 07.90	-1.6
OGA	12.03	324	iPc	01 11.90	2.2
WTTA	12.05	326	iPc	01 12.80	2.9X

			iS	03 18.30	
SIM	12.06	48	eP	01 11.00	1.0
			e	03 21.00	
BHL	12.16	103	P	01 02.00	-9.4X
			S	04 10.00	
VRAC	12.22	345	iPnc	01 07.70	-4.3X
	2.1s	307.00nm			6.2mb X
			i	01 13.60	
SBF	12.30	305	eP	01 14.90	1.7
	1.5s	218.35nm			6.2mb
OSS	12.33	321	ePc	01 17.30	3.6X
LVV	12.37	8	eP	01 18.00	3.9X
	Z 11s	7.50um			
	N 11s	7.10um			
	E 11s	7.20um			
			e	03 40.00	
VAI	12.53	315	P	01 16.00	-0.2
VDL	12.54	319	ePd	01 18.20	1.6
GEC2	12.56	336	Pn	01 17.10	0.4
			Sn	03 30.20	
GAZ	12.59	87	eP	01 21.00	3.9X
TMA	12.62	316	ePd	01 16.90	-0.7
FRF	12.69	303	eP	01 22.30	3.9X
	1.0s	48.40nm			5.7mb
LMR	12.70	302	eP	01 22.80	4.3X
	1.2s	78.55nm			5.8mb
DOI	12.71	307	P	01 18.10	-0.6
ORO	12.84	313	P	01 20.80	0.3
LRG	12.84	302	eP	01 25.20	4.8X
	1.2s	121.40nm			6.0mb
	Z 20s	4.85um			6.1Msz
KHC	12.85	336	eP	01 16.50	-4.0X
	1.0s	26.80nm			5.4mb
	Z 16s	10.50um			5.3Msz
	N 14s	7.50um			
	E 14s	10.50um			
			e	01 20.50	
			e	01 30.00	
			e	01 38.40	
			e	01 54.00	
			e	02 21.50	
			e	03 32.00	
LLS	13.04	319	ePc	01 29.40	6.2X
MASJ	13.16	112	P	01 21.00	-3.7X
PRU	13.34	341	P	01 27.50	0.6
	Z 17s	14.80um			
	N 16s	9.70um			
	E 15s	6.00um			
			e	03 38.00	
			e	04 22.00	
DIX	13.43	314	ePc	01 28.20	-0.2
LPG	13.50	310	eP	01 32.80	3.3X
	0.8s	44.05nm			5.5mb
LPL	13.52	310	eP	01 33.00	3.3X
	0.6s	24.35nm			5.4mb
EMS	13.70	313	ePd	01 34.00	2.1
KSP	13.74	346	iP	01 29.00	-3.3X
	1.0s	36.00nm			5.2mb
			i	01 39.00	
			i	01 46.00	
ZLA	13.75	320	ePc	01 40.70	8.2X
SLE	13.89	321	ePc	01 39.60	5.3X
ANN	14.00	54	eP	01 36.50	0.8
GRF	14.14	332	eP	01 32.40	-5.2X
			i	01 45.60	
BRG	14.30	341	iP	01 37.50	-2.1
	1.8s	52.00nm			4.9mb
			i	01 43.50	
MOX	14.80	335	eP	01 51.20	5.0X
	1.5s	190.00nm			5.4mb
	Z 18s	6.30um			4.8MszX
			eS	04 08.00	
BSF	14.81	318	eP	01 46.40	0.0
	0.6s	49.05nm			5.2mb
CDF	14.93	321	eP	01 46.60	-1.3
	0.8s	55.05nm			5.1mb
CLL	14.95	339	iP	01 53.20	5.1X
	1.7s	280.00nm			5.5mb
	Z 17s	9.00um			5.7Msz
			eS	04 50.00	
SOC	15.15	61	eP	01 57.00	6.3X
	1.5s	70.00nm			4.8mb
	Z 13s	3.20um			4.9MszX
	N 13s	4.10um			
	E 12s	4.10um			
HAU	15.15	318	eP	01 49.70	-1.0
	1.0s	179.20nm			5.4mb

	Z 19s	5.65um			4.3Msz
TNS	15.67	328	ePc	02 02.20	4.7X
			i	02 03.10	
			i	02 09.20	
			eS	04 45.80	
SMF	15.83	310	eP	02 00.80	1.2
	0.9s	36.55nm			4.6mb
BRNL	15.87	342	eP	02 03.40	3.4X
LBF	15.91	312	eP	02 03.00	2.3
	0.8s	41.90nm			4.6mb
LOR	16.13	312	eP	02 05.40	2.0
	0.9s	34.05nm			4.5mb
AVF	16.19	310	eP	02 03.50	-0.7
	1.1s	41.50nm			4.5mb
SSF	16.23	311	eP	02 06.50	1.8
	1.1s	102.55nm			4.9mb
CAF	16.26	303	eP	02 04.20	-0.9
	0.9s	33.75nm			4.5mb
WLF	16.31	323	iPd	02 11.08	5.4X
	1.2s	159.50nm			5.0mb
			i	02 18.35	
BGF	16.40	309	eP	02 06.10	-0.7
	1.0s	69.00nm			4.7mb
MAF	16.43	308	eP	02 07.70	0.5
	1.6s	90.15nm			4.7mb
TCF	16.68	307	eP	02 10.90	0.5
	1.4s	66.20nm			4.6mb
RJF	16.75	304	eP	02 11.10	-0.2
	1.2s	52.05nm			4.5mb
	Z 23s	3.65um			5.2Msz
BNS	16.76	327	iPc	02 16.00	4.6X
	1.3s	440.00nm			5.4mb
LPO	16.77	301	eP	02 15.20	3.7X
	1.0s	41.20nm			4.5mb
HYF	16.85	311	eP	02 16.10	3.5X
MEM	17.03	325	iPd	02 18.04	3.3X
	2.5s	224.50nm			4.9mb
			ic	02 26.50	
LSF	17.09	307	eP	02 16.60	0.9
	0.9s	41.75nm			4.6mb
LFF	17.15	302	eP	02 17.40	1.1
	1.3s	88.10nm			4.7mb
ENN	17.18	325	ePc	02 18.00	1.4
	1.0s	295.00nm			5.4mb
			id	02 27.80	
EGRA	17.27	292	eP	02 14.55	-3.3X
KIV	17.32	62	iPc	02 18.50	-0.1
	1.5s	193.00nm			5.0mb
	Z 15s	2.20um			5.3MszX
			eS	05 34.30	
DOU	17.36	321	P	02 21.80	2.9X
	0.7s	54.40nm			4.8mb
			S	05 42.00	
			Lg	08 10.00	
ECHE	17.59	283	eP	02 23.23	1.3
WTS	17.69	329	eP	02 23.50	0.6
	1.0s	89.70nm			4.9mb
			e	08 42.00	
SNF	17.78	322	P	02 27.90	3.8X
UCC	17.93	323	P	02 29.00	3.0X
			S	05 53.00	
BSD	18.07	348	iP	02 27.00	-0.7
	0.6s	43.00nm			4.8mb
MFF	18.30	306	eP	02 30.90	0.3
	1.1s	93.55nm			4.9mb
WIT	18.36	331	eP	02 42.00	10.7X
ETOR	18.44	287	P	02 33.90	1.3
DBN	18.45	327	eP	02 45.00	12.6X
	Z 20s	3.50um			
			eS	06 15.00	
MTA	18.47	70	iPd	02 34.00	1.2
	0.8s	70.00nm			4.9mb
ENIJ	18.78	275	eP	02 33.98	-2.7X
EVIA	18.82	281	P	02 38.84	1.6
ECRI	18.94	293	P	02 39.00	0.5
EHUE	18.97	278	P	02 40.13	1.1
COP	19.09	344	eP	02 37.00	-3.1X
	Z 18s	6.19um			
			iS	06 14.00	
LDF	19.11	312	eP	02 39.40	-1.1
	0.7s	48.95nm			4.9mb
GRO	19.33	65	eP	02 42.00	-1.2
	1.0s	220.00nm			5.4mb
	Z 12s	6.00um			5.7Msz
	N 21s	7.00um			
	E 14s	3.50um			
			iS	06 21.00	

26d 12h

```
FLN     19.40 312 eP     02 42.50  -1.6
        1.1s  142.10nm           5.2mb
   Z   17s     2.10um            3.9MszX
LPF     19.42 310 eP     02 42.30  -2.0
        0.7s   39.25nm           4.8mb
GRR     19.46 311 eP     02 42.90  -1.9
        0.8s   43.90nm           4.8mb
GRS     19.59  77 eP     02 44.00  -2.5X
        1.4s  240.00nm           5.3mb
   Z   12s     3.04um            6.3Msz
TAB     19.69  81 eP     02 46.00  -1.6
ECOG    19.81 277 P      02 49.52   0.7
EBAN    19.87 279 P      02 48.47  -0.9
EGUA    19.88 275 P      02 48.75  -0.7
GUD     20.03 287 P      02 50.45  -0.7
PAB     20.20 284 iPd    02 52.00  -0.9
                  eS     06 53.00
ELUQ    20.32 278 P      02 52.58  -1.6
OBN     20.34  26 iPd    02 50.80  -3.3X
        1.5s  357.00nm           5.5mb
   Z   14s     8.60um            5.3MszX
   N   14s     5.80um
   E   16s     3.60um
                  e      03 09.00
                  eS     06 30.00
                  eSS    06 57.00
                  e      07 06.00
                  e      07 18.00
MAK     20.55  67 eP-    03 00.00   3.7X
   Z   14s     0.30um            3.8MszX
   N   14s     2.50um
   E   14s     2.00um
                  eSS    07 09.00
                  eSSS   07 16.00
MAL     20.57 275 eP     02 59.00   2.4
                  iS     06 42.00
MUD     20.58 340 iPd    02 55.30  -1.2
        1.1s   67.00nm           4.9mb
EHOR    21.06 279 P      02 59.86  -1.8
EPRU    21.17 276 P      03 04.63   1.7
SHE     21.33  73 iPc    03 07.00   2.7X
        1.2s  350.00nm           5.6mb
EJIF    21.46 275 eP     03 02.58  -3.1X
EPLA    21.51 285 P      03 05.32  -1.0
HGH     22.09 317 eP     03 10.60  -1.3
HAE     22.16 318 eP     03 11.20  -1.3
EVAL    22.27 279 P      03 17.78   3.9X
BAK     22.30  74 eP     03 12.00  -2.0
ERUA    22.33 291 eP     03 15.39   1.0
UPP     22.42 355 iP     03 11.40  -3.7X
        0.9s  300.00nm           5.8mb
HTR     22.56 318 eP     03 15.40  -1.2
HCG     22.89 318 eP     03 18.40  -1.4
PUL     22.92  12 ePd    03 18.00  -2.0
        1.0s  110.00nm           5.3mb
   Z   17s     6.70um            5.2MszX
   N   18s     6.70um
   E   15s     4.00um
                  i      03 23.00
                  e      03 47.00
                  ePPP   03 56.00
                  eS     07 23.00
                  e      08 30.00
NUR     23.03   4 eP     03 17.60  -3.5X
        0.4s   22.80nm           5.1mb
HFS     23.09 350 eP     03 18.40  -3.3X
        0.4s   63.60nm           5.5mb
EZAM    23.47 291 P      03 26.70   1.1
YRH     23.66 318 eP     03 26.60  -0.7
WME     23.78 320 eP     03 24.90  -3.5X
YRC     23.84 319 eP     03 23.80  -5.2X
KMY     24.02 339 eP     03 29.65  -1.0
TEH     24.09  85 e(P)   03 32.00   0.2
NAO     24.20 347 P      03 31.52  -0.9
ECP     24.29 316 eP     03 37.00   3.6X
ESK     24.32 325 eP     03 33.30  -0.3
        0.6s   84.00nm           5.5mb
NB2     24.33 348 P      03 30.90  -2.9X
WIM     24.36 321 eP     03 34.80   0.7
ETA     24.44 317 eP     03 41.00   6.2X
EBL     24.52 326 eP     03 35.30  -0.3
ECB     24.60 316 eP     03 40.00   3.6X
EDI     24.68 326 eP     03 36.60  -0.5
        1.2s   44.00nm           5.0mb
KAF     24.74   6 iP     03 34.90  -2.8X
        0.6s   55.70nm           5.4mb
DLF     24.89 318 eP     03 40.00   0.8
        1.1s  174.00nm           5.6mb
EDU     24.99 327 eP     03 39.10  -1.0
        1.2s   65.00nm           5.2mb
BER     24.99 341 eP     03 41.87   1.8
EBH     25.02 326 eP     03 38.90  -1.5
        1.2s   48.00nm           5.1mb
ELO     25.24 326 eP     03 42.20  -0.4
DCN     25.31 318 eP     03 43.10   0.0
        1.0s  162.00nm           5.7mb
EAB     25.35 325 eP     03 42.60  -1.0
DHR     26.76 107 ePc    03 59.00   2.1
KAT     27.28  76 iP-    04 15.50  13.9X
                  i      04 19.00
                  eS     08 39.00
ASH     29.10  78 eP     04 07.00 -11.0X
                  e      09 10.00
                  e      10 38.00
SVE     32.26  41 iPc    04 43.00  -2.7X
        1.0s  220.00nm           6.0mb
                  e      06 01.70
AKU     36.23 334 e(P)   05 27.80   8.1X
        0.9s   17.51nm           4.9mb
TIC     39.05 225 P      05 43.88  -0.1
        1.0s   47.50nm           5.1mb
KIC     39.13 224 P      05 44.26  -0.4
LIC     39.40 224 P      05 46.56  -0.3
        0.5s   31.50nm           5.2mb
KSH     42.20  70 P      06 03.70  -6.1X
        0.7s   70.00nm           5.5mb
   Z   13s     1.82um            5.1MszX
   N   13s     1.41um
   E   10s     0.96um
                  sS     12 27.00
                  SS     15 20.00
                  ScS    16 06.00
ELT     46.51  49 iPc    06 41.50  -2.6X
        1.0s  164.00nm           6.0mb
   Z   13s     1.50um            5.1MszX
                  eS     13 24.00
NRI     47.21  26 iPd    06 48.50  -1.0
        1.2s   48.00nm           5.5mb
   Z   20s     4.70um            5.5Msz
                  e      08 44.00
WMQ     49.44  61 P      07 07.40   0.1
        1.0s   42.00nm           5.4mb
   Z   20s     1.60um            5.0Msz
LSZ     52.97 172 iP     07 34.00  -0.2
GKN     53.14  81 P      07 31.40  -4.2X
DMN     53.69  81 P      07 36.00  -3.7X
HYB     53.70  96 eP     07 36.00  -3.6X
        1.0s   50.00nm           5.5mb
KKN     53.74  81 P      07 35.80  -4.2X
GUN     54.15  80 P      07 39.00  -4.2X
MTD     54.92 168 eP     07 49.00   0.5
GBA     55.01 100 P      07 47.00  -2.2
MOY     55.62  48 eP     07 36.00 -17.2X
IRK     57.36  46 eP     08 00.00  -5.7X
        1.5s   15.00nm           4.8mb
   Z   14s     1.12um            5.1MszX
   N   12s     0.54um
   E   12s     1.16um
                  e      09 00.00
                  e      11 36.00
LSA     57.42  76 P      08 03.50  -3.4X
        0.7s   30.00nm           5.4mb
BUL     57.82 172 iPc    08 09.00  -0.3
GTA     59.50  62 P      08 17.50  -3.4X
        1.0s   19.00nm           5.2mb
   Z   24s     1.45um            5.0MszX
   E   10s     0.40um
                  S      16 26.00
                  sS     16 36.00
WIN     59.97 185 iPc    08 24.00  -0.2
        1.4s   60.00nm           5.5mb
BOD     60.49  38 eP     08 18.20  -9.0X
RES     60.52 344 eP     08 26.50  -0.8
        0.9s    6.00nm           4.7mb
AVY     61.43 151 iPc    08 34.50   0.2
VTY     61.50 152 eP     08 34.90   0.2
LMN     61.89 308 eP     08 38.50   1.6
SLR     63.32 173 iPc    08 47.20   0.6
        1.2s   30.00nm           5.4mb
   Z   20s    10.00um            6.0Msz
KSR     63.33 174 eP     08 43.00  -3.7X
CBM     63.45 310 eP     08 45.96  -1.3
        0.7s    7.43nm           5.0mb
   Z   20s     0.55um            4.7Msz
BFT     63.46 171 e(P)   08 32.00 -15.7X
LZH     63.85  63 eP     08 47.00  -3.3X
        1.5s   32.00nm           5.3mb
   Z   24s     0.90um            4.9MszX
   N   12s     0.50um
                  sP     08 53.00
PRY     64.43 174 iPd    08 54.00   0.1
        1.0s   50.00nm           5.7mb
JAO     64.49 319 ePd    08 52.60  -1.4
YAK     65.31  30 iPc    08 55.00  -4.1X
        0.8s  131.00nm           6.2mb
   Z   19s     2.00um            5.3Msz
   N   17s     1.60um
   E   19s     1.90um
                  e      09 30.00
                  e      11 19.00
                  eS     17 37.00
SEK     65.82 174 iPc    09 02.70  -0.2
        1.3s  120.00nm           5.9mb
BTO     65.91  56 eP     09 01.40  -2.0
CD2     66.35  68 eP     09 03.10  -3.2X
                  S      17 43.00
BLF     66.50 175 eP     09 04.00  -3.2X
        0.8s   26.00nm           5.5mb
BNH     66.50 309 ePc    09 06.88  -0.2
POF     66.63 181 eP     09 08.00   0.2
        0.3s    8.00nm           5.4mb
HHC     66.80  56 P      09 06.00  -3.2X
        0.8s   16.00nm           5.3mb
   Z   22s     1.29um            5.1Msz
   N   11s     0.54um
   E   11s     0.44um
FRS     67.09 176 iPc    09 11.70   1.0
        1.3s   40.00nm           5.4mb
HRV     67.75 307 P      09 20.00   5.0X
   Z   20s     0.69um            4.9Msz
XAN     68.48  63 P      09 17.00  -2.7X
        1.0s   11.00nm           5.0mb
   Z   20s     0.85um            5.0Msz
   N   12s     0.52um
   E   12s     0.51um
                  pP     09 23.00  19kmX
                  sP     09 26.60
                  S      18 14.00
                  ScS    19 10.00
                  SS     22 34.00
RSNY    68.53 310 eP     09 19.37  -0.4
        1.0s    8.16nm           4.9mb
   Z   19s     0.52um            4.8Msz
KMI     68.61  74 eP     09 22.50   1.7
        1.0s   20.00nm           5.3mb
   Z   30s     1.10um            4.9MszX
TIY     68.99  58 iPd    09 22.00  -0.9
   Z   20s     1.37um            5.2Msz
   N   16s     0.72um
   E   17s     0.90um
EEO     70.07 314 eP     09 32.50   3.3X
FCC     70.10 330 ePc    09 30.50   1.4
BJI     70.22  54 eP     09 26.00  -4.2X
   Z   28s     1.38um            5.1MszX
   N   14s     1.64um
                  eS     18 36.00
CER     70.61 182 eP     09 16.00 -16.5X
        0.5s   25.00nm
GYA     70.86  71 P      09 30.80  -3.7X
   Z   24s     1.14um            5.0MszX
KHT     71.08  86 eP     09 32.30  -3.5X
BRW     71.40 359 eP     09 35.90  -0.9
CN2     73.79  47 eP     09 48.80  -2.6X
        0.8s   23.00nm           5.3mb
   Z   20s     1.22um            5.2Msz
   N   10s     0.52um
   E   10s     0.40um
                  epP    09 54.80  19kmX
                  eS     19 20.00
SNY     73.85  50 Pd     09 49.00  -2.7X
   Z   18s     1.42um            5.3Msz
   N   17s     1.88um
   E   18s     2.13um
MGD     74.16  24 eP     09 51.00  -2.2
        0.8s   70.00nm           5.7mb
   Z   18s     1.10um            5.2Msz
   N   16s     1.20um
   E   18s     0.70um
                  e      12 40.00
                  eS     19 25.00
                  e      20 10.00
```

eSS 24 08.00
YKA 74.18 340 eP 09 51.50 -1.8
0.9s 6.10nm 4.6mb
SOB1 74.44 245 eP 09 55.90 0.3
MCWV 74.54 308 P 10 10.00 14.2X
Z 19s 1.09um 5.2Msz
CVL 74.64 306 eP 09 56.24 -0.2
MDJ 75.64 44 eP 10 02.50 0.4
Z 20s 1.35um 5.2Msz
CEH 76.28 305 P 10 20.00 14.2X
Z 21s 0.63um 4.9Msz
NJ2 76.52 60 Pd 10 07.00 -0.2
Z 20s 0.65um 4.9Msz
ULM 76.58 324 eP 10 08.50 1.3
IMA 76.60 358 eP 10 06.30 -0.9
FBA 77.49 355 eP 10 12.00 0.0
SSE 78.68 60 eP 10 18.00 -1.2
sP 10 26.80
IPM 79.01 93 ePd 10 20.50 -0.7
TTA 79.80 359 eP 10 24.10 -0.6
GOGA 80.65 305 P 10 40.00 10.3X
Z 21s 0.48um 4.8Msz
KLU 80.73 354 eP 10 28.00 -1.7
YSS 80.77 36 ePc 10 28.70 -1.4
0.8s 30.00nm 5.4mb
e 29 18.00
BALM 80.83 352 eP 10 29.30 -1.0
PWA 80.85 356 eP 10 29.50 -0.7
PMR 80.87 355 eP 10 29.48 -0.8
1.1s 32.90nm 5.3mb
Z 19s 0.74um 5.1Msz
CRP 81.35 357 eP 10 31.37 -1.7
CP2 81.36 357 eP 10 31.39 -1.8
PPI 81.57 97 eP 10 34.50 -0.2
SVW 81.62 359 eP 10 33.00 -1.3
0.9s 14.00nm 5.0mb
ELC 81.76 311 eP 10 34.97 -0.5
FVM 82.01 312 eP 10 36.53 -0.2
0.7s 13.02nm 5.1mb
SLKM 82.01 356 eP 10 35.37 -1.0
RSO 82.18 357 eP 10 37.12 -0.3
KGM 82.37 93 eP 10 38.00 -1.0
SES 82.90 332 eP 10 41.00 -0.2
SIT 83.68 347 P 10 50.00 5.0X
Z 20s 1.23um 5.3Msz
BDF 83.82 245 eP 10 49.00 2.5X
BAO 83.87 245 iPc 10 48.80 2.1
i 10 53.90
OLY 84.30 311 eP 10 49.06 0.5
RSSD 84.85 324 eP 10 51.27 -0.2
1.0s 4.29nm 4.6mb
MIAR 86.21 311 P 11 10.00 11.9X
Z 21s 0.74um 5.1Msz
NEW 86.89 334 eP 11 01.07 -0.2
0.8s 28.27nm 5.5mb
LCCM 86.93 329 eP 11 02.00 0.4
SMY 86.97 16 P 11 10.00 8.5X
Z 20s 1.04um 5.2Msz
CVP 87.34 70 eP 11 03.00 -0.8
DPW 87.60 334 eP 11 04.12 -0.6
GOL 88.87 322 P 11 20.00 8.7X
Z 19s 0.97um 5.2Msz
WMOK 89.10 315 eP 11 12.03 -0.1
0.8s 10.00nm 5.1mb
Z 19s 1.28um 5.4Msz
LON 89.79 336 eP 11 14.19 -1.0
HVU 90.62 328 eP 11 19.15 -0.1
DAU 91.07 326 eP 11 21.40 -0.1
LEM 91.13 98 iPd 11 08.00 -13.9X
SRU 91.79 325 eP 11 23.35 -1.4
DUG 91.94 327 eP 11 25.35 0.0
0.9s 6.28nm 5.0mb
Z 20s 1.26um 5.4Msz
MSU 93.03 325 eP 11 30.06 -0.4
ALQ 93.10 319 P 11 40.00 9.2X
Z 19s 0.41um 4.9Msz
SIV 93.79 253 P 11 47.00 13.2X
ARUT 94.19 326 eP 11 36.01 0.2
WDC 95.48 333 P 11 50.00 8.6X
Z 19s 1.57um 5.5Msz
CMB 96.90 331 P 12 00.00 12.0X
Z 22s 0.60um 5.0Msz
TUC 97.39 321 P 12 00.00 9.7X
Z 19s 0.94um 5.3Msz
ISA 98.16 328 P 12 00.00 6.3X
Z 21s 1.16um 5.3Msz
SAO 98.42 331 P 12 00.00 5.2X

Z 17s 0.82um 5.3MszX
WRA 119.83 93 PKP 17 06.20 -1.4
0.6s 0.40nm
WB2 119.83 93 ePKP 17 06.10 -1.5
0.8s 3.00nm
HON 121.40 359 PKP 17 20.00 9.5X
Z 20s 0.49um 5.1Msz
DZM 146.19 73 iPKPc 17 56.90 0.2
S.D. = 1.2 on 215 of 345 obs.

• MAR 26, 1993 12h 01m 16.18± 1.52s
37.603 N ±11.5km 21.958 E ±15.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.8 (ATH).

VLI 1.18 138 ePb 01 38.00 -0.2
VLS 1.22 298 ePb 01 23.50 -15.5X
ATH 1.44 75 ePn 01 43.00 0.7
AGG 1.45 12 eP 01 41.62 -0.8
eS 02 02.42
IGT 2.31 327 eP 01 54.86 0.0
LIT 2.53 9 eP 01 59.46 1.5
PAIG 2.68 30 eP 01 58.90 -1.2
S.D. = 1.3 on 6 of 7 obs.

? MAR 26, 1993 12h 19m 14.19±19.34s
37.021 N ±159.km 21.603 E ±20.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)

AGG 2.08 16 ePb 19 49.10 -0.4
eSb 20 10.90
IGT 2.70 339 ePn 19 58.40 0.0
eSn 20 31.10
LIT 3.15 12 ePn 20 05.02 0.2
eSn 20 41.50
PAIG 3.33 29 ePn 20 07.34 0.0
iSn 20 44.78
KNT 4.26 13 ePn 20 20.70 0.2
S.D. = 0.4 on 5 of 5 obs.

MAR 26, 1993 12h 26m 31.02± 0.91s
37.624 N ± 8.0km 21.348 E ± 5.7km
DEPTH = 10.0km (geophysicist)
4.4mb (13 obs.)
SOUTHERN GREECE (368)
ML 4.0 (THE), 3.9 (ATH).

VLS 0.82 313 ePg 26 47.40 0.6
AGG 1.60 29 ePb 26 59.18 -0.2
eSb 27 21.14
ATH 1.91 79 ePb 27 04.00 0.1
eSb 27 30.00
IGT 2.06 338 ePn 27 06.66 0.5
eSn 27 34.90
KEK 2.41 330 ePg 27 17.00 5.9X
SRN 2.49 335 ePn 27 12.70 0.6
LIT 2.63 19 ePn 27 16.14 1.9
eSn 27 48.00
KZN 2.70 7 ePn 27 16.00 0.7
TPE 2.86 339 ePn 27 24.00 6.5X
PAIG 2.93 38 iPn 27 17.50 -1.0
eSn 27 55.10
FNA 3.16 0 ePn 27 22.14 0.4
eSn 28 00.34
VLO 3.19 334 ePn 27 25.50 3.4X
THE 3.26 22 ePn 27 23.46 0.4
eSn 28 02.80
OUR 3.40 36 iPn 27 25.34 0.3
GRG 3.43 13 ePn 27 25.37 -0.2
eSn 28 06.70
OHR 3.51 353 iPn 27 27.00 0.3
i 27 38.20
i 28 10.50
SOH 3.55 25 ePn 27 27.78 0.4
KNT 3.73 18 ePn 27 30.00 0.1
eSn 28 13.70
VAY 3.81 14 iPn 27 30.40 -0.6
TIR 3.89 343 ePn 27 32.00 -0.1
SRS 3.90 26 iPn 27 32.02 -0.2
eSn 28 18.90
PHP 4.12 350 ePn 27 35.00 -0.3
NPS 4.17 123 ePn 27 40.00 3.9X
ULC 4.63 340 iPnd 27 40.37 -2.2
iSn 28 31.37
SDA 4.65 343 ePn 27 43.30 0.5

ALN 4.90 47 ePn 27 45.22 -1.2
eSn 28 41.42
BDV 5.04 338 iPnc 27 45.27 -3.1X
iSn 28 40.13
TTG 5.06 342 iPnc 27 46.72 -1.9
iSn 28 42.61
PVY 5.08 348 iPnd 27 48.45 -0.6
iSn 28 46.05
HCY 5.29 336 iPnc 27 48.17 -3.8X
iSn 28 45.37
IVA 5.36 349 iPnd 27 52.20 -0.8
iSn 28 52.68
NKY 5.49 342 iPnd 27 52.17 -2.7X
iSn 28 52.52
BRY 5.69 339 ePn 27 54.17 -3.6X
iSn 28 55.93
PLE 5.89 346 iPnd 27 58.99 -1.5
iSn 29 04.38
KHL 6.50 81 eP 28 11.00 1.9
HVAR 6.69 328 i(Pn) 28 07.00 -4.7X
ALT 7.03 76 eP 28 15.00 -1.7
CVO 8.95 22 eP 28 46.00 2.8X
VBY 9.10 332 ePn 28 42.00 -3.2X
VRI 9.16 24 eP 28 48.00 1.8
PTJ 9.19 336 iP 28 42.10 -4.6X
GEC2 12.52 336 ePnc 29 28.50 -3.5X
0.6s 1.82nm 4.5mb
LPG 13.45 310 eP 29 48.80 4.1X
LPL 13.47 310 eP 29 48.10 3.2X
GRF 14.10 332 eP 29 53.40 0.6
e 30 00.00
BSF 14.76 318 eP 30 07.30 5.7X
0.6s 6.75nm 4.4mb
CDF 14.88 321 eP 30 08.50 5.4X
CLL 14.91 339 iP 30 08.40 5.0X
HAU 15.10 318 eP 30 11.40 5.5X
0.8s 17.60nm 4.5mb
Z 20s 0.40um 3.9Msz
SMF 15.78 310 eP 30 18.10 3.3X
LBF 15.86 312 eP 30 19.10 3.2X
SSF 16.18 311 eP 30 22.90 2.9X
WLF 16.27 323 P 30 26.00 5.1X
DOU 17.31 321 P 30 36.30 2.2
0.9s 25.00nm 4.3mb
LDF 19.06 312 eP 30 54.50 -1.3X
0.9s 14.90nm 4.2mb
FLN 19.35 312 eP 30 58.10 -1.3X
0.8s 13.15nm 4.3mb
NUR 23.00 4 eP 31 33.70 -3.0X
0.4s 6.10nm 4.5mb
HFS 23.05 350 eP 31 33.10 -4.1X
0.4s 5.00nm 4.4mb
EKA 24.26 325 Pd 31 48.00 -0.9X
0.7s 11.00nm 4.6mb
NB2 24.29 348 P 31 46.80 -2.5X
0.6s 5.90nm 4.4mb
KAF 24.71 6 iP 31 51.30 -1.9X
0.5s 7.00nm 4.6mb
BCAO 33.13 185 ePc 33 09.00 -0.6
0.6s 6.00nm 4.7mb
i 33 14.90
LIC 39.40 224 (P) 34 02.40 -0.3X
YKA 74.13 340 eP 38 06.40 -2.5X
0.6s 0.40nm 3.6mb
S.D. = 1.1 on 32 of 64 obs.

• MAR 26, 1993 12h 38m 09.18± 1.20s
37.807 N ± 8.5km 21.617 E ±11.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.3 (ATH).

AGG 1.34 25 ePb 38 33.72 -0.1
eSb 38 55.88
VLI 1.51 135 ePb 38 35.60 -0.7
ATH 1.67 84 ePb 38 40.00 1.4
IGT 1.99 330 ePn 38 43.52 0.2
eSn 39 10.60
KEK 2.38 324 ePg 38 52.00 3.2X
LIT 2.39 16 ePn 38 49.10 0.1
eSn 39 21.10
KZN 2.50 3 ePn 38 50.00 -0.6
PAIG 2.66 37 ePn 38 52.56 -0.3
OUR 3.12 35 iPn 38 58.78 -0.6
GRG 3.20 11 iPn 38 59.28 -1.3
SOH 3.30 24 ePn 39 02.64 0.7
OHR 3.36 349 ePn 39 04.20 1.4

26d 12h

KNT 3.49 16 ePn 39 04.50 -0.1
VAY 3.59 12 ePn 39 05.70 -0.2
S.D. = 0.9 on 13 of 14 obs.

MAR 26, 1993 12h 46m 33.70± 1.11s
37.692 N ± 9.0km 21.407 E ± 8.6km
DEPTH = 10.0km (geophysicist)
3.6mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.7 (THE), 3.6 (ATH).

VLS 0.81 307 ePg 46 49.00 -0.4
VLI 1.56 128 ePb 47 01.60 0.1
ATH 1.85 81 ePb 47 06.00 0.3
IGT 2.02 336 ePn 47 15.60 7.4X
eSn 47 43.00
LIT 2.55 19 ePn 47 17.56 1.8
eSn 47 48.68
KZN 2.63 6 ePn 47 17.00 0.1
PAIG 2.85 38 ePn 47 19.44 -0.6
eSn 47 53.10
FNA 3.09 360 ePn 47 24.16 0.7
OUR 3.31 36 ePn 47 25.80 -0.8
OHR 3.45 352 ePn 47 32.80 4.3X
SOH 3.47 25 ePn 47 28.84 0.0
KNT 3.65 18 ePn 47 30.84 -0.6
SRS 3.82 26 ePn 47 33.20 -0.6
SKO 4.27 0 ePn 47 43.00 2.7X
NB2 24.24 348 P 51 48.30 -3.1X
0.5s 0.80nm 3.6mb
S.D. = 0.8 on 11 of 15 obs.

---

* MAR 26, 1993 12h 48m 17.65± 0.87s
24.260 S ±10.5km 67.319 W ±10.5km
DEPTH = 187.9 ± 8.3 km
4.8mb (1 obs.)
CHILE-ARGENTINA BORDER REGION (127)

SLA 1.73 106 iPd 48 53.00 0.0
S 49 18.80
HJA 2.04 60 iPd 48 56.00 0.0
FSA 2.17 147 iPd 48 58.00 0.6
YJA 2.67 39 iPd 49 03.20 -0.5
S 49 37.50
ANT 2.89 280 iP+ 49 04.70 -1.0
iS 49 38.50
CCH 6.93 9 eP 50 05.00 7.0X
e 51 12.00
CNCB 7.44 355 P 50 06.00 0.9
S 51 29.00
LPB 7.72 354 P 50 09.20 0.5
ZOBO 7.97 354 Pc 50 12.30 0.1
PPD 14.89 85 e(P) 51 41.90 1.6
VAO 18.69 90 eP 52 22.80 -1.4
e 52 24.50
BAO 20.07 68 iPd 52 37.00 -1.5
e 52 47.10
e 53 07.10
e 53 19.50
BDF 20.14 68 iPd 52 38.00 -1.1
e 52 46.90
KIC 68.11 72 P 58 59.00 -0.5
BCAO 88.03 84 iPd 00 50.50 2.3
0.6s 8.00nm 4.8mb
GBA 145.11 101 PKP 07 36.00 1.2X
S.D. = 1.3 on 14 of 16 obs.

MAR 26, 1993 12h 49m 12.99± 0.45s
37.609 N ± 4.8km 21.366 E ± 3.4km
DEPTH = 10.0km (geophysicist)
4.5mb (21 obs.)
SOUTHERN GREECE (368)
ML 4.3 (ATH), 4.3 (TTG), 4.2
(THE).

VLS 0.84 313 ePn 49 31.00 1.9
VLI 1.54 125 ePb 49 46.00 5.5X
AGG 1.60 28 ePb 49 41.76 0.3
eSb 50 04.00
ATH 1.90 78 ePn 49 46.00 0.3
eSn 50 14.00
IGT 2.08 337 ePn 49 49.88 1.5
eSn 50 19.92
SRN 2.51 335 iPnc 49 56.50 2.1
LIT 2.64 19 ePn 49 57.00 0.7
iSn 50 31.48
KZN 2.71 7 ePn 49 59.50 2.0
TPE 2.88 339 ePn 50 07.00 7.2X
PAIG 2.94 37 ePn 50 00.76 0.2
eSn 50 38.68
FNA 3.17 0 ePn 50 04.96 1.1
eSn 50 43.36
VLO 3.21 334 ePn 50 07.50 3.2X
THE 3.26 22 ePn 50 06.08 0.9
eSn 50 45.80
OUR 3.40 36 ePn 50 07.28 0.2
GRG 3.44 13 ePn 50 08.44 0.8
OHR 3.52 353 iPn 50 09.80 0.9
i 50 20.00
SOH 3.56 25 ePn 50 10.80 1.4
KNT 3.74 18 ePn 50 12.96 0.9
LCI 3.80 317 P 50 13.60 0.7
VAY 3.82 14 iPn 50 13.40 0.3
SRS 3.91 26 ePn 50 14.88 0.6
TIR 3.91 343 ePn 50 15.00 0.7
iSn 51 22.50
PHP 4.13 350 ePn 50 17.00 -0.5
iSn 51 22.00
NPS 4.15 123 ePn 50 20.00 2.2X
LACI 4.22 343 iPnc 50 18.60 -0.1
iSn 51 30.00
SOI 4.23 278 P 50 19.88 1.0
SKO 4.36 1 iPnc 50 20.90 0.2
iPb 50 26.50
iPg 50 36.60
iSn 51 07.50
i 51 15.60
iSb 51 20.00
MMB 4.37 24 iP 50 21.00 0.0
GMB 4.39 279 P 50 22.07 0.8
KKB 4.45 17 iP 50 22.00 -0.1
BRT 4.59 317 P 50 26.60 2.5
ULC 4.64 340 iPnd 50 23.59 -1.2
iSn 51 10.87
SDA 4.66 343 ePn 50 25.00 -0.1
ATN 4.70 279 P 50 28.56 2.9X
RZN 4.82 31 iP 50 28.00 0.5
BDV 5.06 338 iPnc 50 29.11 -1.5
iSn 51 20.43
TTG 5.08 342 iPnc 50 29.91 -1.0
iSn 51 21.77
PVY 5.09 348 iPnc 50 31.39 0.1
iSn 51 24.69
PLD 5.17 29 iP 50 33.00 0.8
PZI 5.17 266 P 50 31.11 -1.2
MGR 5.19 301 P 50 35.84 3.3X
MNO 5.29 276 P 50 34.70 0.5
HCY 5.31 336 iPnd 50 32.04 -2.2
iSn 51 25.78
IVA 5.37 348 iPnd 50 35.21 0.0
iSn 51 31.36
NKY 5.50 342 iPnd 50 35.78 -1.3
iSn 51 32.08
BRY 5.71 339 iPnd 50 38.08 -1.9
iSn 51 36.17
PLE 5.91 346 iPnd 50 42.06 -0.7
iSn 51 43.22
PVL 6.37 27 iP 50 47.00 -2.1
DMK 6.48 48 eP 50 48.00 -2.7X
KHL 6.48 81 iP 50 52.40 1.5
DUI 6.69 309 P 50 57.00 3.2X
HVAR 6.71 328 iPnd 50 51.10 -2.8X
ELL 6.87 95 eP 51 01.00 4.6X
ALT 7.02 75 eP 50 59.40 0.9
DRA 7.39 16 eP 51 25.00 21.5X
EYL 7.45 64 eP 51 02.00 -2.4
GPA 7.47 66 eP 51 05.00 0.4
CMP 8.13 19 ePc 51 13.00 -0.9
ISR 8.47 26 eP 51 20.00 1.4
e 16 42.00
MLR 8.59 22 ePc 50 57.00 -23.3X
e 15 53.50
CVO 8.96 22 eP 51 32.00 6.7X
BRD 8.97 27 eP 51 27.00 1.5
VBY 9.12 332 iPn 51 29.90 2.4
VRI 9.17 24 eP 51 30.00 1.8
e 15 51.50
PTJ 9.21 336 iP 51 25.20 -3.7X
CEY 9.64 330 eP 51 32.60 -2.1
eS 53 18.50
LJU 9.85 331 e(P) 51 28.00 -9.5X
e(S) 53 25.00
TRI 9.89 327 e(P) 51 35.50 -2.6X
e 53 19.30
CSS 10.01 102 eP 51 49.50 9.6X
VOY 10.09 329 e(P) 51 26.00 -15.0X
e(S) 53 23.30
KAS 10.29 65 eP 51 45.00 1.2
PSZ 10.36 354 eP 51 40.50 -4.2X
SRO 10.44 349 iP 51 44.50 -1.2
ZST 11.03 345 e(P) 52 02.20 8.5X
UZH 11.04 3 eP 51 43.50 -10.4X
KBA 11.16 330 iPc 51 55.20 -0.5
iS 53 52.40
SPC 11.60 356 eP 52 16.40 14.7X
GEC2 12.53 336 Pn 52 11.40 -2.8X
Sn 54 23.80
KHC 12.82 336 eP 52 14.50 -3.5X
Z 16s 1.70um
N 14s 1.00um
E 16s 1.50um
e 52 18.90
e 52 46.00
e 53 24.00
e 55 35.00
LPG 13.47 310 eP 52 32.30 5.4X
LPL 13.49 310 eP 52 32.00 4.9X
BRG 14.28 341 eP 52 44.60 7.5X
MOX 14.78 335 eP 52 41.70 -1.9
BSF 14.78 318 eP 52 46.60 2.8X
0.6s 7.20nm 4.4mb
CDF 14.90 321 eP 52 48.10 2.7X
0.7s 6.40nm 4.2mb
CLL 14.93 339 eP 52 46.00 0.4
i 52 51.30
HAU 15.12 318 eP 52 50.30 2.1
0.6s 16.60nm 4.6mb
Z 18s 0.50um 4.7MszX
SMF 15.80 310 eP 53 01.10 4.1X
LBF 15.89 312 eP 53 02.60 4.4X
LOR 16.10 312 eP 53 03.90 3.0X
0.8s 7.10nm 3.8mb
Z 22s 0.40um 5.0Msz
SSF 16.20 311 eP 53 06.10 3.9X
WLF 16.29 323 P 53 09.00 5.9X
ENN 17.15 325 eP 53 19.00 5.0X
1.0s 28.00nm 4.3mb
KIV 17.33 62 eP 53 17.10 0.6
1.9s 28.00nm 4.1mb
MFF 18.27 306 eP 53 29.90 1.8
0.9s 9.15nm 3.9mb
MTA 18.49 70 eP 53 32.00 1.3
e 57 00.00
LDF 19.08 312 eP 53 38.10 0.1
FLN 19.37 312 eP 53 41.40 -0.2
0.8s 13.70nm 4.3mb
Z 21s 0.25um 4.6Msz
LPF 19.39 310 eP 53 41.40 -0.4
GRR 19.43 311 eP 53 41.60 -0.7
GRS 19.60 77 eP 53 44.00 -0.5
1.3s 40.00nm 4.5mb
PAB 20.18 283 eP 53 51.00 0.5
OBN 20.33 26 eP 53 50.00 -1.8
e 54 13.50
MOS 21.19 26 eP 54 00.00 -0.7
e 54 20.00
HAE 22.13 318 eP 54 09.50 -0.6
UPP 22.40 355 iP 54 10.70 -2.0
HTR 22.53 318 eP 54 13.40 -0.7
HCG 22.86 318 eP 54 17.10 -0.3
NUR 23.02 4 eP 54 16.00 -2.8X
0.5s 13.60nm 4.7mb
EKA 24.28 325 Pd 54 31.00 -0.1
0.7s 13.10nm 4.7mb
NB2 24.31 348 P 54 29.50 -1.9
0.6s 8.10nm 4.5mb
KAF 24.72 6 iP 54 33.40 -1.9
0.6s 16.10nm 4.9mb
ARU 31.06 41 eP 55 30.00 -3.0X
SVE 32.26 41 iPc 55 41.00 -2.5
BCAO 33.12 185 iPd 55 51.90 0.5
0.2s 24.00nm 5.8mb X
i 55 59.00
TIC 39.05 224 P 56 42.22 0.4
KIC 39.13 224 P 56 42.96 0.5
0.9s 11.00nm 4.5mb
LIC 39.40 224 P 56 45.22 0.5
ELT 46.51 49 eP 57 39.00 -3.0X
1.0s 14.00nm 5.0mb
NRI 47.20 26 eP 57 45.50 -1.7
1.0s 10.00nm 4.9mb

WMQ 49.45 61 eP 58 06.80 1.6
GBA 55.04 100 P 58 44.00 -3.2X
LSA 57.43 76 P 59 02.10 -2.7X
ZAK 57.43 49 eP 59 00.50 -3.4X
1.6s 11.00nm 4.6mb
GTA 59.51 62 eP 59 15.50 -3.3X
1.0s 6.00nm 4.7mb
TIK 59.96 20 eP 59 18.00 -3.3X
1.0s 60.00nm 5.7mb X
BOD 60.49 38 eP 59 20.10 -4.9X
0.9s 10.00nm 4.9mb
CD2 66.36 68 eP 00 01.40 -2.8X
XAN 68.49 63 P 00 15.00 -2.6X
sP 00 22.90
CHTO 69.11 82 eP 00 18.60 -3.0X
CN2 73.79 47 eP 00 46.60 -2.6
1.0s 2.30nm 4.2mb
MGD 74.15 24 eP 00 49.00 -2.0
YKA 74.15 340 eP 00 51.10 0.1
0.8s 1.00nm 3.9mb
YSS 80.77 36 eP 01 26.20 -1.7
S.D. = 1.3 on 87 of 134 obs.

---

* MAR 26, 1993 13h 15m 19.87± 1.42s
37.822 N ±10.9km 21.688 E ±13.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.5 (THE). MD 3.4 (ATH).

VLS 0.94 293 ePg 16 32.00 54.2X
AGG 1.30 23 ePb 15 45.32 1.4
iSb 16 06.08
VLI 1.49 137 ePb 15 46.00 -0.6
ATH 1.61 84 ePb 15 50.00 1.6
eSb 16 12.00
LIT 2.36 15 ePn 16 02.28 3.0X
eSn 16 34.20
KEK 2.40 323 ePb 16 00.50 0.7
PAIG 2.61 36 ePn 16 03.32 0.5
FNA 2.97 355 ePn 16 11.12 3.2X
OUR 3.08 35 ePn 16 07.40 -2.0
GRG 3.18 10 ePn 16 07.80 -3.1X
SOH 3.26 23 ePn 16 10.90 -1.2
OHR 3.36 348 ePn 16 13.70 0.3
SKO 4.15 357 ePn 16 24.00 -0.6
S.D. = 1.4 on 9 of 13 obs.

% MAR 26, 1993 13h 30m 47.94± 0.75s
26.782 S ± 6.5km 26.772 E ± 7.7km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

BFS 0.12 174 iPc 30 51.70 1.2
S 30 52.90
PRY 0.64 103 eP 30 59.90 -0.9
S 31 07.60
KSR 0.92 7 eP 31 05.50 -0.6
SWZ 1.35 253 eP 31 13.90 0.4
S 31 30.70
SLR 1.71 53 eP 31 20.00 1.3
S 31 40.90
SEK 1.71 154 iPc 31 18.90 0.2
S 31 39.00
BLF 2.37 192 eP 31 27.80 -0.5
FRS 3.22 203 eP 31 39.10 -1.0
S.D. = 1.1 on 8 of 8 obs.

? MAR 26, 1993 14h 14m 24.40± 0.95s
26.135 S ± 9.3km 28.129 E ± 9.3km
DEPTH = 10.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

SLR 0.42 19 iPc 14 33.60 0.6
S 14 40.20
KSR 1.14 283 iPd 14 45.50 -0.4
S 15 04.50
BFT 1.78 76 eP 14 55.00 -0.6
S 15 17.50
SEK 2.23 192 eP 15 02.50 0.5
S.D. = 1.0 on 4 of 4 obs.

& MAR 26, 1993 16h 54m 31.57s
45.036 N 122.617 W
DEPTH = 14.1km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 3.0 (SEA), 3.0 (GS).

SSOR 0.21 148 Pd 54 36.47 -0.1
GT2 0.27 64 P 54 37.68 0.0
PGO 0.45 15 P 54 40.74 0.0
TDH 0.64 66 Pc 54 43.74 -0.3
S 54 52.29
VLMM 0.65 39 P 54 46.44 2.2
TKO 0.68 300 Pd 54 44.63 -0.1
FBO 0.73 178 Pc 54 44.77 -0.8
VBEM 0.73 88 P 54 47.92 2.3
BPO 0.76 120 Pd 54 46.19 -0.1
S 54 57.54
VLL 0.79 57 Pc 54 46.54 -0.1
S 54 57.72
MPOR 0.85 232 Pc 54 47.32 -0.4
KMOR 0.86 315 Pd 54 47.57 -0.2
VFP 0.86 70 Pc 54 47.65 -0.3
MTMW 1.03 16 Pc 54 50.18 -0.5
LVP 1.04 8 P 54 50.37 -0.6
RVW 1.12 355 P 54 51.49 -0.7
GULW 1.14 39 P 54 52.25 -0.4
CDFW 1.15 20 P 54 52.35 -0.4
CROR 1.16 92 P 54 52.90 0.0
JLK 1.16 16 P 54 52.21 -0.7
FL2 1.18 9 Pd 54 52.78 -0.5
HSR 1.18 15 P 54 52.95 -0.3
TCO 1.18 142 Pd 54 53.13 -0.2
SHW 1.19 13 ePd 54 53.04 -0.4
S 55 08.67
REMW 1.20 14 P 54 53.41 -0.3
NLO 1.20 331 Pd 54 53.70 0.0
ESD 1.21 16 P 54 53.34 -0.4
S 55 10.69
HBO 1.21 170 Pc 54 53.06 -0.8
YEL 1.21 14 P 54 53.31 -0.6
STD 1.23 13 Pd 54 53.63 -0.6
SOSW 1.25 16 P 54 53.80 -0.6
ERK 1.28 9 P 54 54.23 -0.8
GMO 1.33 116 P 54 55.46 -0.3
ASR 1.33 32 P 54 55.34 -0.4
TDL 1.34 12 P 54 55.42 -0.6
RNO 1.38 216 P 54 55.92 -0.5
VGB 1.38 69 eP 54 56.82 0.4
S 55 15.84
CZM 1.40 3 P 54 56.38 -0.3
KOSW 1.46 12 Pd 54 57.28 -0.2
BMW 1.50 344 eP 54 57.39 -0.7
S 55 17.46
HSO 1.55 193 P 54 58.37 -0.4
GL2 1.56 53 P 55 00.04 1.0
LMW 1.65 8 Pd 55 00.74 0.5
GLK 1.68 24 P 55 01.47 0.7
LON 1.80 18 eP 55 03.10 0.6
S 55 25.55
WPW 1.82 24 P 55 03.73 0.9
REMR 1.86 17 P 55 04.37 0.9
RCS 1.94 18 P 55 05.69 1.0
RVC 1.96 13 P 55 05.82 1.1
DBO 1.97 193 P 55 04.95 0.1
CPW 1.97 350 P 55 05.32 0.4
FMW 2.01 19 P 55 06.90 1.3
NAC 2.11 36 P 55 09.15 2.3
MXC 2.24 46 P 55 10.44 1.7
GSM 2.24 14 P 55 10.52 1.6
SMW 2.34 348 P 55 11.44 1.2
BRVW 2.34 51 P 55 11.30 1.1
RMW 2.49 13 ePn 55 11.89 -0.4
GMW 2.52 357 eP 55 13.20 0.6
S 55 46.43
TBM 2.55 33 P 55 15.40 2.1
HDW 2.63 354 P 55 15.64 1.3
GBL 2.70 54 P 55 16.28 0.9
LOCW 2.79 52 P 55 17.65 1.1
ET3 3.00 58 P 55 20.08 0.6
JCW 3.19 8 P 55 24.13 1.8
MCW 3.65 358 eP 55 29.70 0.9
DPW 4.16 46 (P) 55 46.16 10.1
BW06 9.70 99 eP 56 52.54 -1.2
68 obs. associated

MAR 26, 1993 17h 22m 42.61± 1.05s
14.812 S ± 6.8km 167.436 E ± 7.9km
DEPTH = 147.0 ± 9.0 km
4.9mb (12 obs.)
VANUATU ISLANDS (186)

BKM 2.94 165 iPd 23 29.20 -0.5
iS 24 05.00
DZM 7.28 187 iPd 24 28.00 0.3
iS 25 49.70
HNR 9.07 305 eP 24 52.00 0.6
eS 26 38.00
CTA 20.87 252 iPd 27 15.50 0.9
1.0s 12.50nm 4.3mb
RMQ 20.96 233 iPd 27 16.60 1.2
0.6s 67.00nm 5.2mb
ARMA 21.27 220 eP 27 20.00 1.4
1.0s 43.00nm 4.8mb
RIV 23.99 215 eP 27 45.40 0.6
QLP 24.61 238 iPd 27 51.20 0.4
0.6s 135.00nm 5.6mb
CMS 25.81 226 iPd 28 02.00 0.2
0.6s 55.00nm 5.3mb
BWA 25.99 218 eP 28 01.80 -1.7
CNB 26.08 215 eP 28 04.30 -0.1
0.4s 9.00nm 4.7mb
CAN 26.29 216 eP 28 06.30 0.1
STK 29.07 230 iPd 28 31.40 0.1
0.4s 24.10nm 5.3mb
TOO 29.88 217 iPc 28 38.40 0.0
0.8s 12.00nm 4.7mb
TUZ 31.10 177 P 28 48.50 -0.4
0.8s 44.00nm 5.2mb
BFD 31.39 220 eP 28 51.80 0.2
0.5s 5.00nm 4.5mb
WB2 31.95 256 iPd 28 54.60 -2.1
0.7s 9.90nm 4.7mb
e 31 42.80
WARB 39.70 247 iPd 30 01.50 -0.6
0.4s 6.00nm 4.7mb
MEEK 46.90 247 eP 30 59.00 -1.2
NANU 49.57 253 eP 31 20.30 -0.5
MAT 58.05 332 (P) 32 21.00 -1.5
CHTO 75.26 294 eP 34 12.20 0.8
KAF 125.33 339 ePKP 41 25.40 -1.6
NUR 127.00 338 iPKP 41 29.90 -0.4
0.4s 2.40nm
HAU 143.39 339 ePKP 41 59.00 -2.2
FLN 144.71 346 ePKP 42 02.70 -0.6
0.4s 3.80nm
ORX 144.73 335 PKP 42 02.40 -1.2
LDF 144.79 346 ePKP 42 03.40 -0.1
0.6s 4.05nm
LOR 144.87 340 ePKP 42 03.40 -0.3
LBF 145.08 340 ePKP 42 04.00 -0.1
0.9s 12.30nm
GRR 145.15 346 ePKP 42 04.10 0.0
0.6s 8.75nm
SSF 145.17 341 ePKP 42 04.60 0.4
0.9s 26.35nm
LSD 145.21 335 PKP 42 05.20 0.6
HYF 145.25 342 ePKP 42 05.00 0.7
LPL 145.33 336 ePKP 42 05.60 0.8
0.5s 7.45nm
LPG 145.34 336 ePKP 42 05.70 0.8
0.6s 9.30nm
PCP 145.37 333 PKP 42 05.70 1.0
SMF 145.42 340 ePKP 42 05.20 0.6
AVF 145.45 341 ePKP 42 04.90 0.3
0.5s 2.75nm
LPF 145.53 346 ePKP 42 05.60 0.9
0.7s 14.10nm
BHB 145.67 335 PKP 42 04.97 -0.2
FIN 145.78 333 PKP 42 05.29 -0.1
RRL 145.80 335 PKP 42 06.62 1.0
BGF 145.82 341 ePKP 42 06.30 1.0
0.5s 4.65nm
ROB 145.86 333 PKP 42 05.11 -0.4
PZZ 146.01 334 PKP 42 06.43 0.6
IMI 146.15 333 PKP 42 06.62 0.6
TCF 146.26 341 ePKP 42 07.70 1.6X
LSF 146.50 342 ePKP 42 08.10 1.7X
MFF 146.64 344 ePKP 42 08.70 2.1X
0.7s 9.50nm
RJF 147.36 341 ePKP 42 10.90 3.1X
0.4s 2.75nm
BCAO 147.70 255 iPKPd 42 11.80 2.5X
0.3s 13.00nm
i 42 16.20
i 42 49.00
LFF 147.92 342 ePKP 42 12.40 3.7X
LPO 148.02 341 ePKP 42 12.60 3.7X
0.5s 5.30nm
S.D. = 0.9 on 47 of 54 obs.

26d 17h

& MAR 26, 1993 17h 39m 21.56s
45.048 N 122.633 W
DEPTH = 21.4km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 3.1 (SEA), 3.1 (GS).
Felt (IV) at Scotts Mills; (III)
at Mount Angel and Portland;
(II) at Silverton, Oregon.

SSOR 0.23 147 P 39 29.92 2.5
GT2 0.28 67 P 39 29.92 1.8
TDH 0.64 68 P 39 35.86 1.7
VLMM 0.65 40 P 39 37.34 3.2
TKO 0.66 299 P 39 37.34 2.9
FBO 0.74 177 P 39 37.34 1.6
VBEM 0.74 89 P 39 38.83 3.0
SHW 1.18 14 ePd 39 42.83 -0.1
eS 39 59.01
VGB 1.39 70 iPc 39 46.97 1.1
eS 40 05.40
BMW 1.49 344 eP 39 47.12 -0.1
eS 40 06.40
LON 1.80 18 eP 39 52.75 1.0
S 40 16.71
RMW 2.48 13 eP 40 01.30 -0.2
GMW 2.50 358 eP 40 02.81 1.0
iS 40 35.66
MCW 3.64 358 (P) 40 19.36 1.4
LBFM 3.74 171 (P) 40 26.39 6.8
DPW 4.16 46 (P) 40 25.88 0.4
16 obs. associated

• MAR 26, 1993 18h 35m 49.01± 0.74s
5.844 S ± 8.3km 148.346 E ± 9.4km
DEPTH = 127.9 ± 6.8 km
4.5mb (3 obs.)
NEW BRITAIN REGION, P.N.G. (192)

FINC 0.91 212 eP 36 09.20 -1.9
LAT 1.57 239 iPc 36 18.70 0.6
YYYY 2.40 260 eP 36 30.70 2.2
PMG 3.73 198 iPd 36 44.60 -1.3
RAB 4.14 67 iPc 36 52.00 0.5
0.8s 358.21nm
MTN 18.35 246 eP 39 56.30 -0.2
WB2 19.53 223 iPc 40 08.60 -0.4
0.3s 239.80nm 6.0mb X
eS 43 43.40
RMQ 20.53 179 eP 40 19.50 0.3
e 40 32.40
QLP 20.99 190 iPc 40 24.20 0.4
0.9s 119.00nm 5.3mb
CMS 25.62 185 eP 41 09.00 0.8
STK 26.66 193 eP 41 18.50 0.7
0.5s 2.90nm 4.1mb
WARB 28.96 223 eP 41 39.00 0.4
e 41 45.00
NANU 35.76 239 eP 42 38.00 0.4
MAT 43.22 348 eP 43 40.00 1.0
1.0s 8.00nm 4.4mb
GUN 68.91 303 P 46 41.80 -1.0
KKN 69.37 302 P 46 44.60 -0.8
DMN 69.46 302 P 46 45.30 -0.7
GKN 69.98 302 P 46 48.00 -1.1
BAO 153.22 143 ePKP 55 34.60 8.1X
BDF 153.25 143 ePKP 55 34.90 8.4X
S.D. = 1.1 on 18 of 20 obs.

& MAR 26, 1993 18h 43m 47.83s
45.056 N 122.626 W
DEPTH = 17.2km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.4 (SEA), 2.5 (GS).

SHW 1.17 13 eP 44 08.61 -0.7
S 44 23.76
VGB 1.38 70 eP 44 11.13 -1.2
S 44 31.28
BMW 1.48 344 eP 44 12.96 -0.8
S 44 33.27
LON 1.79 18 eP 44 17.98 -0.2
S 44 41.63
GMW 2.50 358 (P) 44 26.29 -2.0
5 obs. associated

? MAR 26, 1993 18h 50m 53.66± 0.62s
18.385 N ± 9.5km 44.358 E ± 8.6km
DEPTH = 10.0km (geophysicist)
3.9mb (2 obs.)
WESTERN ARABIAN PENINSULA (555)
Felt at Jizan, Saudi Arabia.

DHJN 1.10 229 eP 51 14.06 -0.4
KMTA 1.44 262 eP 51 19.52 -0.4
ABHA 1.53 265 eP 51 25.58 4.2X
RYD 6.64 18 ePc 52 32.50 -1.3
iS 54 15.00
MJMA 7.48 6 eP 52 45.30 -0.3
eS 54 48.00
QASM 7.71 354 eP 52 33.00 -15.7X
eS 54 22.00
DHR 9.52 33 eP 53 52.00 38.2X
eS 55 50.00
KER 16.09 8 eP 54 41.00 -0.7
MAIO 22.29 34 iPd 55 54.20 1.4
QUE 23.66 56 eP 56 11.30 4.9X
eS 00 26.80
GKN 38.09 68 P 58 14.60 -0.1
DMN 38.47 69 P 58 18.00 0.0
KKN 38.64 68 P 58 19.60 0.2
GUN 39.18 68 P 58 23.50 -0.6
GEC2 39.20 328 ePc 58 25.20 1.6
0.9s 2.19nm 3.8mb
YKA 97.69 350 eP 04 30.50 0.7
0.6s 0.20nm 3.9mb
S.D. = 0.9 on 12 of 16 obs.

% MAR 26, 1993 19h 24m 04.80± 1.99s
39.119 N ±11.0km 27.825 E ±16.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.3 (ISK).

KCT 1.20 20 iPn 24 27.50 0.3
EDC 1.23 1 iPn 24 27.50 -0.1
BNT 1.24 3 iPn 24 28.20 0.4
KHL 1.55 120 ePn 24 32.70 0.2
ALT 1.78 91 ePn 24 35.60 -0.3
YLV 1.87 39 ePn 24 36.10 -1.1
ISK 2.16 26 ePn 24 40.60 -0.7
HRT 2.21 39 ePn 24 43.00 0.9
GPA 2.24 58 ePn 24 43.00 0.4
EYL 2.31 50 ePn 24 43.70 0.2
DMK 2.70 359 ePn 24 49.00 0.0
S.D. = 0.6 on 11 of 11 obs.

& MAR 26, 1993 19h 37m 36.15s
62.639 N 149.137 W
DEPTH = 60.0km
CENTRAL ALASKA (1)
<AEIC>. ML 2.8 (AEIC), 3.1
(PMR).

HUR 0.41 326 eP 37 47.24 -0.1
eS 37 56.02
RND 0.78 9 eP 37 51.23 -0.4
eS 38 03.32
GHO 0.88 173 eP 37 52.26 -0.5
S 38 05.31
SML 0.92 155 eP 37 52.61 -0.6
TRF 0.97 328 eP 37 53.88 -0.2
S 38 07.63
PLRM 1.05 180 eP 37 54.40 -0.6
S 38 09.47
PMR 1.05 180 ePd 37 53.97 -1.0
S 38 08.81
PWA 1.05 200 P 37 54.70 -0.3
MCK 1.10 5 eP 37 55.65 -0.1
SCM 1.17 133 eP 37 56.03 -0.7
eS 38 13.49
SKT 1.30 240 eP 37 58.37 0.0
SUA 1.40 213 P 37 59.70 -0.2
S 38 19.60
PMS 1.41 188 P 37 59.70 -0.3
SDG 1.67 92 eP 38 03.78 0.3
eS 38 25.84
PAX 1.72 77 eP 38 04.43 0.2
eS 38 25.70
THY 1.73 62 eP 38 04.94 0.6
PTE 1.78 178 eP 38 04.45 -0.6
TZL 1.83 107 eP 38 06.30 0.5
KLU 1.90 126 eP 38 05.76 -1.1
NEA 1.95 1 eP 38 06.37 -1.0
CRP 1.98 227 eP 38 07.07 -1.0
CPAM 1.99 227 eP 38 08.22 0.2
SPU 2.01 225 eP 38 08.00 -0.3
VLZ 2.01 137 eP 38 06.76 -1.5
eS 38 33.41
CP2 2.01 228 eP 38 07.26 -1.3
CKN 2.02 227 eP 38 08.62 0.1
HDA 2.03 28 eP 38 07.58 -0.9
CKT 2.05 227 eP 38 09.01 0.1
S 38 36.29
BGL 2.07 230 P 38 09.75 0.6
CKL 2.09 228 eP 38 10.33 0.8
S 38 37.92
CCB 2.10 16 eP 38 08.36 -1.2
NKA 2.15 209 eP 38 12.62 2.4
MPA 2.16 183 eP 38 09.93 -0.4
SLKM 2.20 194 eP 38 10.71 -0.3
FBA 2.35 14 eP 38 10.47 -2.5
eS 38 37.58
MDM 2.36 9 eP 38 12.34 -0.9
GLM 2.48 17 eP 38 13.74 -1.2
SEW 2.55 184 eP 38 15.22 -0.6
HIN 2.58 150 eP 38 14.37 -1.9
CVA 2.65 141 eP 38 15.73 -1.5
DFR 2.66 221 eP 38 17.32 -0.2
NCT 2.76 223 eP 38 19.47 0.5
GLB 2.78 113 eP 38 18.01 -1.2
RDW 2.79 221 eP 38 20.93 1.5
RSO 2.79 220 eP 38 21.05 1.6
RS2 2.79 220 eP 38 20.80 1.4
RS1 2.79 220 eP 38 20.96 1.5
SGAM 2.85 137 eP 38 18.45 -1.7
RAGM 3.11 135 eP 38 22.01 -1.9
TTA 3.17 278 eP 38 22.51 -2.3
INE 3.20 218 eP 38 26.04 0.7
CNPM 3.29 199 eP 38 25.62 -0.7
CRQM 3.42 121 eP 38 26.92 -1.5
SVW 3.43 246 eP 38 26.80 -1.6
TGL 3.55 119 eP 38 28.17 -1.9
BALM 3.60 114 eP 38 28.48 -2.3
PDB 3.76 223 eP 38 33.86 0.9
IMA 3.97 332 eP 38 33.65 -2.3
CTGM 4.07 111 eP 38 35.64 -1.7
YAH 4.21 120 eP 38 37.67 -1.8
FYU 4.29 21 eP 38 39.32 -1.0
61 obs. associated

? MAR 26, 1993 20h 11m 24.97± 3.02s
20.882 S ±46.1km 67.149 W ±96.6km
DEPTH = 200.0km (geophysicist)
SOUTHERN BOLIVIA (125)

YJA 2.00 130 ePd 12 04.30 0.0
HJA 2.83 145 ePc 12 13.00 0.0
S 12 50.30
CNCB 4.12 349 iPc 12 29.80 0.4
LPB 4.42 348 P 12 33.00 0.0
ZOBO 4.66 348 iPc 12 36.00 -0.3
S.D. = 0.4 on 5 of 5 obs.

? MAR 26, 1993 21h 08m 28.61± 2.84s
39.195 N ±15.6km 27.932 E ±30.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

KCT 1.10 17 iPn 08 49.80 0.5
EDC 1.15 357 ePn 08 49.50 -0.6
BNT 1.16 360 ePn 08 50.80 0.5
KHL 1.52 124 ePn 08 56.00 0.1
YLV 1.76 39 ePn 08 59.00 -0.4
S.D. = 0.7 on 5 of 5 obs.

• MAR 26, 1993 21h 26m 10.37± 1.38s
35.366 S ±14.6km 179.007 E ±16.3km
DEPTH = 265.4 ± 10.2 km
3.6mb (2 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 2.30 194 P 26 55.00 -2.1
PUZ 2.77 192 P 27 00.70 -1.1
S 27 49.20
KUZ 3.00 242 P 27 04.10 0.0
URZ 3.27 207 P 27 06.90 -0.1
eS 27 59.10
NOZ 3.34 193 eP 27 07.70 -0.1
WLZ 3.71 227 eP 27 14.40 2.4
PAHZ 3.82 204 eP 27 14.00 0.7

MAHZ 3.92 193 eP 27 15.00 0.6
MOH 4.04 201 eP 27 16.20 0.4
TTH 4.51 202 eP 27 22.70 1.4
MOZ 4.60 226 eP 27 25.90 3.6X
NGZ 4.67 215 eP 27 24.20 0.8
WAHZ 4.81 205 eP 27 24.70 -0.2
BSZ 5.48 215 eP 27 35.10 2.1
PGZ 5.67 202 eP 27 35.30 0.0
MNG 5.94 207 eP 27 38.10 -0.5
eS 28 57.30
KIW 6.37 209 eP 27 43.20 -0.7
MTW 6.41 204 P 27 43.90 -0.5
CAW 6.52 207 eP 27 45.20 -0.6
DIW 6.75 215 eP 27 48.70 0.0
MRW 6.76 209 P 27 48.50 -0.3
S 29 16.00
WEL 6.78 208 eP 27 48.80 -0.3
TCW 6.92 211 P 27 50.20 -0.6
ORZ 7.47 221 eP 27 57.60 -0.1
THZ 7.98 215 eP 28 04.80 0.7
eS 29 45.10
KHZ 8.23 210 eP 28 07.40 0.2
eS 29 48.30
LTZ 9.07 213 eP 28 17.70 -0.2
MOZ 9.67 209 eP 28 24.00 -1.4
eS 30 20.60
WB2 42.07 279 eP 33 36.50 -1.5
0.3s 3.70nm 4.2mb
WRA 42.08 279 P 33 37.30 -0.8
0.6s 0.40nm 3.0mb
BCAO 144.32 215 ePKPd 45 17.90 1.1
0.2s 4.00nm
KAF 148.21 336 ePKP 45 20.10 -1.6X
0.4s 1.50nm
NUR 149.92 335 ePKP 45 25.30 1.0
0.3s 2.60nm
LIC 150.76 172 (PKP) 45 35.80 8.8X
KIC 150.93 172 (PKP) 45 36.00 8.7X
NB2 153.14 347 PKP 45 32.60 3.5X
0.4s 0.40nm
S.D. = 1.0 on 31 of 36 obs.

• MAR 26, 1993 21h 37m 05.02± 2.69s
32.518 S ±14.5km 67.956 W ±12.4km
DEPTH = 141.1 ± 30.1 km
MENDOZA PROVINCE, ARGENTINA (139)

RTCV 0.82 323 iPd 37 27.20 -0.6
MDZ 0.84 244 iP 37 27.50 -0.4
iS 37 41.80
CFA 0.94 345 ePc 37 29.00 0.3
S 37 47.20
ZON 1.15 327 iPd 37 30.60 -0.1
eS 37 49.60
RTCB 1.25 325 iPd 37 31.70 -0.1
S 37 45.00
RTLL 1.26 340 iPc 37 32.00 0.2
S 37 46.20
RTBS 1.53 304 e(P)c 37 35.30 0.8
MRA 1.90 87 ePd 37 39.20 0.4
S 38 04.00
CYA 4.47 25 ePc 38 11.60 -0.5
S 39 02.30
S.D. = 0.6 on 9 of 9 obs.

• MAR 26, 1993 22h 13m 04.15± 1.75s
37.506 N ±15.8km 21.199 E ±18.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.3 (ATH).

VLS 0.83 324 ePb 13 20.00 -0.1
VLI 1.60 119 ePn 13 32.50 0.0
KEK 2.46 334 ePg 13 52.00 7.1X
KZN 2.83 9 ePn 13 51.00 0.7
OHR 3.61 355 ePn 14 01.50 0.1
VAY 3.95 15 ePn 14 05.40 -0.7
SKO 4.46 2 ePn 14 01.20 -12.2X
S.D. = 0.7 on 5 of 7 obs.

• MAR 26, 1993 22h 23m 56.17± 1.05s
28.007 S ±12.3km 177.736 W ±17.3km
DEPTH = 33.0km (normal)
4.4mb (5 obs.)
KERMADEC ISLANDS REGION (177)

RAO 1.25 187 P 24 17.60 0.2
S 24 35.10
CMS 31.73 255 eP 30 19.50 0.2
STK 35.31 254 eP 30 50.80 0.5
0.8s 2.20nm 4.1mb
ASPA 43.52 264 iPc 31 58.50 -0.1
1.4s 13.60nm 4.5mb
WB2 44.28 270 iPc 32 03.80 -0.9
0.6s 6.10nm 4.6mb
WRA 44.29 270 P 32 04.60 -0.2
0.7s 1.00nm 3.8mb
SPA 62.15 180 iPd 34 16.10 -0.3
1.0s 17.50nm 5.1mb
BJI 91.39 315 eP 37 01.00 1.1
NB2 146.42 352 PKP 43 32.90 -0.5
0.9s 2.00nm
BCAO 151.90 216 iPKPc 43 49.00 5.7X
0.8s 11.00nm
S.D. = 0.7 on 9 of 10 obs.

MAR 26, 1993 22h 52m 46.93± 0.18s
30.692 N ± 3.5km 50.886 E ± 2.4km
DEPTH = 29.6km (9 depth phases)
5.1mb (96 obs.) 4.8Msz (24 obs.)
NORTHERN IRAN (348)
Mw 5.1 (HRV). Considerable
damage in Bovir Ahmadi va
Kohkiluyeh Province.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 21C
Centroid Location:
Origin Time 22:52:49.7 0.6
Lat 30.54N 0.08 Lon 50.65E 0.10
Dep 33.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 2.04 0.33 Mtt=-5.09 0.49
Mff= 3.05 0.46 Mrt=-1.76 1.23
Mrf= 0.82 0.80 Mtf= 2.81 0.39
Principal Axes:
T Val= 3.97 Plg= 9 Azm=285
N 2.44 74 160
P -6.40 13 17
Best Double Couple:Mo=5.2*10**16
NP1:Strike= 61 Dip=74 Slip= -3
NP2: 152 88 -164

DHR 4.42 189 iPc 53 55.50 1.8
iS 54 52.00
KER 4.85 320 iPd 53 59.70 -0.2
eS 54 56.00
MJMA 6.90 227 iPd 54 25.60 -3.1X
OASM 7.93 236 iPd 54 39.60 -3.6X
eS 55 56.00
TAB 8.26 334 eP 54 50.00 2.1
i 55 24.50
MAIO 9.11 50 iPc 54 59.60 0.2
0.6s 49.10nm 5.9mb
eS 56 41.00
ASH 9.51 38 P 55 05.00 0.1
1.0s 210.00nm 6.3mb X
GRS 9.54 338 eP 55 05.00 -0.6
1.5s 70.00nm 5.7mb
KAT 9.57 26 eP 55 03.00 -2.7X
Z 11s 10.00um
N 11s 11.00um
eS 56 59.00
SHE 10.09 350 eP 55 14.50 1.7
1.0s 120.00nm 6.1mb
iS 57 10.00
MTA 12.03 338 eP 55 40.00 0.8
MAK 12.61 348 (P) 55 36.00 -11.0X
iS 58 10.00
MASJ 13.03 278 P 55 48.20 -4.5X
SHMJ 13.04 283 P 55 49.00 -3.7X
AYN 13.06 266 iPd 55 51.00 -2.0
eS 58 10.00
GAZ 13.06 303 eP 55 49.00 -4.0X
HRI 13.11 285 eP 55 49.50 -4.4X
SHWJ 13.27 273 P 55 51.00 -5.0X
BHL 13.28 288 P 55 53.00 -3.0X
S 00 14.00
GRO 13.30 343 eP 55 58.00 1.9
1.0s 160.00nm 6.0mb
Z 11s 19.00um 4.4MszX
E 15s 18.50um
eS 58 24.00
DSI 13.31 278 eP 55 54.00 -2.4
QUE 13.87 88 eP 56 06.50 2.6
eS 00 31.00
eSS 04 43.90
BADA 13.99 265 eP 56 03.00 -2.3
SAGI 14.01 272 eP 56 02.50 -3.1X
KMTA 14.44 212 ePd 56 08.00 -3.5X
DHJN 14.62 209 ePd 56 10.50 -3.4X
PYA 14.69 337 iPc 56 15.50 1.1
1.0s 100.00nm 5.2mb
Z 12s 3.00um 4.4MszX
N 12s 1.00um
E 12s 2.50um
KIV 14.75 336 iPd 56 16.90 1.6
1.3s 480.00nm 5.8mb
iS 59 04.60
FAM 14.83 291 eP 56 17.00 0.8
CSS 15.36 291 eP 56 23.50 0.3
SOC 15.63 328 iPc+ 56 27.20 0.6
1.2s 210.00nm 5.2mb
Z 13s 4.60um 4.7MszX
N 16s 3.90um
E 14s 4.50um
eS 59 28.00
PPCY 16.14 290 eP 56 38.00 4.8X
HLW 16.91 272 eP 56 42.00 -0.9
ANN 17.74 327 eP 56 54.00 0.8
1.0s 30.00nm 4.4mb
Z 17s 1.70um 5.0MszX
N 15s 1.80um
E 17s 1.70um
eS 00 10.00
BCK 18.10 297 eP 56 55.00 -2.9
ELL 18.45 295 eP 57 03.00 0.8
ALT 18.95 302 eP 57 08.00 -0.3
KHL 19.16 299 iP 57 10.30 -0.4
GPA 19.26 305 eP 57 12.40 0.5
SIM 19.39 322 eP+ 57 13.00 -0.3
Z 16s 2.20um
e 00 49.00
EYL 19.48 306 eP 57 14.00 -0.5
YER 19.81 295 eP 57 17.20 -0.8
HRT 19.92 306 iP 57 18.50 -0.6
ISK 20.44 306 iP 57 25.10 0.6
ARO 20.47 203 ePd 57 26.00 0.9
KCT 20.63 304 eP 57 26.50 0.0
BNT 20.98 304 iP 57 31.60 1.5
EDC 21.02 304 iP 57 33.50 3.1X
DMK 21.64 307 eP 57 36.00 -0.7
NPS 21.66 289 ePn 57 38.00 1.0
PRK 21.85 300 ePn 57 41.00 2.2
KSH 22.27 60 P 57 42.60 -0.5
1.2s 120.00nm 5.2mb
Z 15s 4.84um 5.0MszX
N 13s 16.90um
PP 58 09.00
PcP 01 39.00
S 01 45.00
sS 01 55.00
SS 02 26.00
PcS 05 12.00
ALN 22.51 304 e(P) 57 46.20 0.9
NDI 22.95 88 iPd 57 50.00 0.2
0.7s 164.38nm 5.6mb
eS 02 02.50
KDZ 23.21 305 iP 57 53.00 0.8
DIM 23.26 306 iP 57 42.00 -10.7X
KIS 23.54 320 iPc+ 57 55.00 -0.3
0.6s 140.00nm 5.7mb
Z 17s 1.00um 4.3MszX
E 16s 1.10um
e 58 30.00 179kmX
iS 02 09.00
OUR 23.84 301 i(P) 57 59.52 1.2
PLD 23.86 306 iP 58 00.00 1.5
ISR 23.90 314 eP 57 53.00 -5.9X
PAIG 23.96 300 e(P) 57 54.60 -4.9X
VRI 24.15 316 ePc 58 03.00 1.7
AAE 24.34 210 iP 58 07.20 3.5X
SRS 24.34 303 e(P) 58 04.72 1.5
PGB 24.39 306 iP 58 05.00 1.3
SOH 24.43 302 e(P) 58 05.68 1.5
MLR 24.44 314 ePc 58 06.00 1.8
CVO 24.46 315 ePd 58 07.50 3.2X
THE 24.67 301 e(P) 58 08.08 1.7
AGG 24.79 297 e(P) 58 08.08 0.5
KNT 24.86 303 e(P) 58 09.24 1.0
LIT 24.89 300 e(P) 58 08.96 0.4

26d 22h

```
PRZ    24.92  54 eP     58 10.50   1.5
       0.6s    30.00nm           5.1mb
               eS       02 34.50
KKB    24.93 304 iP     58 09.00   0.1
VAY    25.14 303 iP     58 12.30   1.5
       1.0s   113.00nm           5.4mb
GRG    25.17 302 i(P)   58 11.52   0.4
FNA    25.88 301 e(P)   58 18.56   0.7
SKO    26.13 304 iPc    58 21.00   0.9
       1.0s   106.00nm           5.4mb
     Z 13s      2.17um           4.9MszX
               LR       09 34.00
ARU    26.27  10 eP     58 24.00   2.8X
       1.6s   120.00nm           5.3mb
     Z 20s      3.00um           4.8Msz
     N 18s      2.00um
     E 18s      1.00um
               e        58 33.00  32km
               e        59 05.00
               e        59 22.00
               e        04 10.00
GZR    26.39 312 ePd    58 22.00  -0.6
IGT    26.40 298 e(P)   58 22.76   0.1
OBN    26.44 341 iPc    58 22.20  -0.6
       1.0s   161.00nm           5.6mb
     Z 18s      2.00um           4.7Msz
     N 17s      1.80um
     E 16s      0.70um
               i        59 15.80 284kmX
               eS       03 02.50
               i        03 19.00
SRN    26.72 299 eP     58 26.50   1.0
MOS    26.74 343 eP     58 26.00   0.5
     Z 18s      1.80um           4.7Msz
               e        59 15.00 254kmX
PHP    26.78 303 iPc    58 26.30   0.2
TPE    26.79 299 eP     58 35.00   8.8X
SVE    26.99  12 ePc    58 29.50   1.7
       2.3s    80.00nm           4.9mb
     Z 14s      2.00um           4.8MszX
     N 15s      1.50um
     E 15s      0.50um
               eS       03 04.00
               eSS      04 20.00
TIR    27.12 302 iPc    58 30.00   0.8
VLO    27.21 300 eP     58 34.30   4.3X
LACI   27.30 302 iPc    58 30.90   0.1
TIM    27.53 311 eP     58 37.00   4.2X
SDA    27.55 303 eP     58 33.50   0.4
LVV    27.78 321 eP     58 54.00  18.9X
     Z 16s      1.48um           4.7MszX
     N 15s      1.00um
     E 15s      0.90um
               e        59 30.00 176kmX
               e        03 14.00
UZH    28.14 318 eP     58 38.00  -0.3
     Z 15s      1.30um           4.6MszX
     E 19s      2.90um
               e        58 47.30  33km
               e        58 51.50
               e        59 26.00
HYB    28.42 111 eP     58 41.00  -0.2
       1.0s    50.00nm           5.2mb
MNK    28.65 331 eP     58 43.00   0.2
TDS    29.48 297 P      58 52.00   1.5
GKN    29.48  87 P      58 49.70  -1.1
GBA    29.78 119 P      58 52.00  -1.4
DMN    29.98  87 P      58 54.40  -1.0
KKN    30.08  87 P      58 55.00  -1.3
MGR    30.13 298 P      58 56.20  -0.1
SRO    30.18 314 e(P)   58 57.20   0.6
               i        59 09.00  44kmX
               e        05 40.30
OJC    30.33 319 eP     58 57.50  -0.5
               e        59 11.70  57kmX
SGO    30.37 299 P      58 59.20   0.8
GUN    30.57  86 P      58 59.60  -1.1
PTJ    31.05 309 eP     59 02.90  -1.5
ZST    31.08 314 eP     59 04.20  -0.3
DUI    31.16 301 P      59 06.50   1.0
VBY    31.41 308 eP     59 07.90   0.4
VRAC   31.81 316 eP     59 11.20   0.3
       2.0s   136.00nm           5.5mb
WMO    31.83  55 P      59 11.20  -0.1
       1.0s    21.00nm           5.0mb
     Z 16s      2.07um           4.9MszX
     N 10s      1.45um
```

```
               pP       59 18.00  24km
               sP       59 23.00
               PP       00 13.50
               S        04 26.00
               sS       04 33.00
               SS       06 17.00
               ScS      09 36.00
LJU    32.04 309 eP     59 13.50   0.4
AQU    32.05 302 P      59 14.60   1.4
PUL    32.20 341 (P)    59 14.00  -0.2
       1.8s    80.00nm           5.3mb
     Z 18s      1.60um           4.8Msz
     N 18s      0.90um
     E 15s      1.00um
               e        00 32.00 424kmX
               e        02 06.00
VOY    32.47 309 eP     59 17.20   0.3
ARV    32.57 304 P      59 18.10   0.4
MNS    32.58 302 P      59 17.80   0.0
KSP    32.61 318 eP     59 17.00  -0.9
ASS    32.70 303 P      59 19.20   0.3
RBL    32.79 309 P      59 19.60  -0.1
KBA    33.12 310 iPc    59 21.40  -1.2
       0.9s    34.00nm           5.3mb
               i        59 22.40   3kmX
               i        59 27.20
               i        59 32.80
PRU    33.30 316 eP     59 25.50   1.5
     Z 15s      1.20um           4.7MszX
               e        59 43.60  76kmX
               e        00 17.50
               e        08 07.00
FVI    33.36 309 P      59 24.30  -0.2
GEC2   33.42 314 eP     59 23.60  -1.5
       0.5s     1.61nm           4.2mb
               e        59 26.80  11kmX
               e        59 29.00
               e        59 34.80
               e        59 39.70
               e        59 43.60
               e        59 50.10
SFI    33.43 304 P      59 27.00   1.9
KHC    33.59 314 Pc     59 26.50   0.0
       1.4s    36.50nm           5.1mb
     Z 16s      1.50um           4.8MszX
     N 16s      0.80um
     E 16s      1.50um
               e        59 38.00  42kmX
               e        00 16.50
               e        04 53.00
               e        05 51.50
               e        08 24.00
BHG    33.60 311 iPc    59 26.50  -0.1
       1.6s    76.00nm           5.4mb
FIR    33.83 304 eP     59 30.00   1.4
BRG    33.99 317 eP     59 27.00  -2.9
CTI    33.99 308 P      59 29.50  -0.6
ELT    34.11  38 eP     59 29.80  -1.0
       1.0s    56.00nm           5.4mb
     Z 14s      6.60um           5.5MszX
               e        00 38.00 354kmX
               e        02 04.00
               eS       04 57.00
WTTA   34.29 310 iPd    59 31.30  -1.5
       0.9s    44.80nm           5.4mb
               i        59 32.10   3kmX
BDI    34.34 304 P      59 33.00  -0.1
PII    34.34 304 P      59 32.00  -1.0
WATA   34.35 310 i(P)   59 32.30  -0.9
NUR    34.55 337 eP     59 33.70  -0.8
       0.4s     3.90nm           4.7mb
SQTA   34.56 310 i(P)   59 34.00  -1.0
               i        59 37.10  11kmX
OGA    34.60 309 iPc    59 35.40  -0.1
MOTA   34.66 310 iPd    59 34.10  -1.8
       0.8s    39.10nm           5.4mb
               i        59 35.10   3kmX
               i        59 41.00
LSA    34.69  81 P      59 36.50  -0.2
     Z 12s      2.90um           5.2MszX
               S        05 08.00
CLL    34.70 317 iP     59 35.50  -0.5
       1.1s    14.00nm           4.8mb
FUR    34.76 312 iPc    59 36.20  -0.4
       1.0s    67.00nm           5.5mb
OSS    35.15 309 ePc    59 40.30   0.2
GRF    35.23 314 ePd    59 40.40  -0.2
```

```
       1.0s    33.00nm           5.2mb
     Z 20s      0.70um           4.4Msz
KAF    35.26 340 iP     59 40.10  -0.5
       0.3s     2.80nm           4.7mb
MDI    35.26 307 P      59 40.60  -0.2
BOB    35.27 305 P      59 42.00   0.9
BSD    35.29 324 iP     59 41.70   0.7
       0.5s    10.00nm           5.0mb
MOX    35.29 316 eP     59 39.60  -1.5
       1.6s    22.00nm           4.8mb
     Z 19s      0.80um           4.5Msz
PGF    35.31 301 eP     59 40.40  -1.0
TMA    35.89 307 ePc    59 45.90  -0.6
VAI    35.92 307 P      59 45.70  -0.7
LLS    35.96 309 iPc    59 46.50  -0.5
ZLA    36.49 310 ePc    59 50.90  -0.4
SBF    36.58 303 eP     59 51.10  -1.0
       1.1s   117.70nm           5.7mb
UPP    36.68 332 iP     59 51.40  -1.2
DIX    36.89 307 ePc    59 54.70  -0.3
TNS    37.10 314 ePc    59 57.00   0.6
EMS    37.22 307 ePc    59 57.40  -0.2
BNI    37.26 305 P      59 59.60   1.7
LPG    37.26 306 eP     59 56.60  -1.5
       0.9s    36.35nm           5.2mb
LPL    37.28 306 eP     59 56.60  -1.6
       1.1s    52.25nm           5.3mb
CDF    37.41 311 eP     59 57.30  -1.8
       1.1s    18.80nm           4.9mb
BSF    37.61 310 eP     59 58.90  -1.9
       1.2s    32.15nm           5.0mb
UER    37.93  44 eP     00 04.00   0.8
       1.1s    50.00nm           5.3mb
               eS       05 57.00
HAU    37.94 310 eP     00 01.30  -2.2
     Z 22s      0.70um           4.4Msz
WLF    38.40 313 iPc    00 07.05  -0.2
       1.0s    15.10nm           4.8mb
WTS    38.57 316 eP     00 09.50   0.9
       1.0s    41.00nm           5.2mb
ENN    38.80 314 eP     00 11.50   1.0
       1.0s    19.00nm           4.8mb
MUD    38.80 324 eP     00 10.60   0.2
       1.0s    22.00nm           4.9mb
WIT    38.89 318 eP     00 13.00   1.7
LBF    39.37 308 eP     00 13.60  -1.8
SMF    39.42 307 eP     00 14.10  -1.7
       0.8s    34.25nm           5.1mb
DOU    39.48 313 P      00 16.30   0.1
       1.0s    22.20nm           4.9mb
LOR    39.48 308 eP     00 14.40  -2.0
       0.7s     9.25nm           4.6mb
     Z 21s      0.85um           4.6Msz
SDF    39.54 345 iP     00 17.20   0.7
SSF    39.70 308 eP     00 16.50  -1.6
       1.1s    34.45nm           5.0mb
SNF    39.76 313 P      00 19.20   0.7
AVF    39.77 308 eP     00 17.00  -1.7
       0.9s    17.35nm           4.8mb
UCC    39.77 314 P      00 19.00   0.4
NB2    39.97 331 P      00 19.10  -1.1
       0.6s     3.30nm           4.3mb
BGF    40.09 307 eP     00 19.80  -1.6
BCAO   40.13 236 iPc    00 22.00   0.0
       1.0s    25.00nm           4.9mb
               i        01 58.00 533kmX
MAF    40.25 307 eP     00 21.50  -1.2
HYF    40.31 308 eP     00 21.10  -2.1
TCF    40.50 307 eP     00 23.40  -1.4
       1.1s    14.90nm           4.6mb
CAF    40.50 305 eP     00 23.60  -1.2
GTA    40.57  64 P      00 26.00   0.4
       1.0s    38.00nm           5.1mb
     Z 18s      1.99um           5.0Msz
     E 12s      0.63um
               pP       00 34.00  27km
               sP       00 40.00
               PcP      02 30.00
               S        06 36.00
RJF    40.91 305 eP     00 27.20  -0.9
     Z 22s      0.98um           4.6Msz
KEV    41.38 348 eP     00 30.00  -1.6
LFF    41.44 305 eP     00 31.60  -0.9
       1.1s    25.40nm           4.9mb
EBR    41.63 298 eP     00 36.00   2.0
EROQ   41.69 298 eP     00 36.50   2.0
MOY    42.14  45 eP     00 39.80   1.7
```

```
         1.4s    52.00nm               5.1mb
MFF     42.15 307 eP     00 36.50  -1.7
EGRA    42.19 300 iPc    00 35.90  -2.7
LDF     42.30 310 eP     00 37.50  -1.9
         0.7s    13.45nm               4.8mb
FLN     42.55 310 eP     00 39.60  -1.9
         0.6s    15.85nm               4.9mb
     Z  23s       0.52um               4.4MszX
GRR     42.77 310 eP     00 41.70  -1.6
         0.5s     7.85nm               4.7mb
ECHE    42.82 297 iPc    00 45.60   1.7
LPF     42.86 309 eP     00 42.10  -1.9
ELIZ    43.06 302 iPd    00 44.00  -1.8
ZAK     43.39  48 eP     00 48.70   0.4
         2.2s    67.00nm               5.0mb
     Z  14s       4.79um               5.6MszX
     E  14s       4.60um
                  e      02 32.00 581kmX
                  eS     07 19.00
                  eSSS   10 42.00
ETOR    43.56 298 iPd    00 51.20   1.3
ECRI    43.80 301 eP     00 52.00   0.2
ENIJ    44.08 293 iPd    00 55.30   1.2
LZH     44.10  68 Pc     00 54.30  -0.1
         2.0s    91.00nm               5.2mb
     Z  24s       1.38um               4.8MszX
     N  13s       1.10um
                  pP     01 03.00  29km
                  PP     02 40.00
                  PcS    06 32.00
                  eS     07 28.00
EVIA    44.10 295 eP     00 55.10   0.8
NRI     44.13  18 iPd    00 55.00   1.0
         2.0s    37.00nm               4.9mb
     N  16s       2.70um
     E  22s       3.60um
                  e      01 03.00  27km
                  e      02 35.00
                  eS     07 29.00
                  e      10 45.00
HAE     44.24 315 eP     00 53.80  -1.4
IRK     44.27  45 eP     00 56.80   1.4
         2.2s    59.00nm               5.0mb
     Z  14s       2.66um               5.3MszX
     N  15s       1.08um
     E  13s       2.49um
                  e      01 02.00  17kmX
                  e      02 41.00
EHUE    44.27 294 eP     00 56.00   0.3
HGH     44.35 314 eP     00 56.50   0.4
HTR     44.69 315 eP     00 57.20  -1.6
CHTO    44.91  94 ePd    01 00.50  -0.5
         1.1s    68.02nm               5.5mb
CD2     45.05  76 eP     01 01.50  -0.5
     Z  20s       1.31um               4.9Msz
     N  12s       1.02um
EKA     45.11 319 P      01 02.00  -0.1
         1.1s    15.70nm               4.8mb
ECOG    45.11 294 eP     01 02.40  -0.1
EBAN    45.16 295 iPc    01 03.90   1.1
GUD     45.16 298 iPc    01 03.60   0.7
EGUA    45.17 293 iPd    01 03.00   0.1
PAB     45.42 297 iPc    01 05.50   0.6
ELUQ    45.62 294 iPd    01 06.70   0.2
KMI     45.83  84 Pc     01 07.00  -1.5
         1.4s   120.00nm               5.6mb
     Z  20s       1.40um               4.9Msz
     N  15s       0.90um
     E  15s       0.60um
                  pP     01 15.00  27km
                  eS     07 53.00
                  sS     08 02.00
EHOR    46.35 295 iPc    01 12.10   0.0
KHT     46.41  99 eP     01 12.00  -0.8
EPRU    46.47 293 iPd    01 13.00  -0.2
EPLA    46.69 298 iPc    01 14.50  -0.3
EJIF    46.75 293 iPd    01 15.50   0.2
DLF     46.79 316 eP     01 16.00   0.6
DMU     47.07 317 eP     01 19.00   1.4
DCN     47.24 316 eP     01 19.00   0.0
EVAL    47.56 295 eP     01 22.10   0.4
BTO     48.26  61 P      01 28.00   0.7
     N  15s       1.47um
     E  15s       1.15um
XAN     48.57  70 Pd     01 28.90  -0.8
         0.7s    18.00nm               5.2mb
     N  16s       1.55um
```

```
     E  16s       0.97um
                  eS     08 29.00
                  eSS    11 55.00
GYA     48.75  80 P      01 29.80  -1.4
         1.0s    29.00nm               5.3mb
     Z  20s       0.94um               4.8Msz
                  S      08 34.00
HHC     49.39  61 P      01 37.00   1.0
         1.2s    28.00nm               5.2mb
     Z  17s       1.43um               5.0MszX
     N  13s       0.94um
     E  13s       0.76um
                  eS     08 40.00
AVY     49.42 184 iPc    01 37.50   1.1
VTY     49.58 184 iPc    01 39.10   1.5
BOD     50.49  38 eP     01 42.00  -2.0
         1.2s    45.00nm               5.3mb
TIY     50.59  64 Pc     01 45.50   0.3
     Z  21s       1.52um               5.0Msz
     N  18s       1.68um
LSZ     50.65 209 iP     01 47.00   1.2
MTD     50.72 204 iPd    01 46.80   0.5
BJI     52.99  61 eP     02 02.50  -0.6
         1.5s    52.00nm               5.3mb
     Z  20s       1.50um               5.0Msz
     N  14s       2.05um
IPM     53.80 109 ePc    02 06.50  -2.8X
         0.7s    25.40nm               5.3mb
WHN     53.93  73 eP     02 09.50  -0.5
     Z  16s       2.37um               5.3MszX
     E  14s       0.97um
                  eS     09 40.00
QIZ     54.21  88 eP     02 12.00  -0.3
TIA     54.59  65 P      02 14.00  -0.9
     Z  22s       1.26um               4.9Msz
BUL     54.89 206 iPd    02 17.00  -0.4
DAG     55.72 345 eP     02 22.50  -0.1
         0.8s     5.97nm               4.7mb
LKO     56.43 261 P      02 28.24  -0.3
         0.6s     9.00nm               5.0mb
NJ2     57.14  70 Pc     02 32.80  -0.4
     Z  20s       0.89um               4.9Msz
     N  15s       1.11um
     E  15s       0.82um
DL2     57.36  61 eP     02 34.50  -0.2
         1.0s    44.00nm               5.5mb
     Z  16s       0.60um               4.8MszX
     N  16s       1.26um
     E  18s       1.23um
                  eS     10 32.00
KIC     57.37 257 P      02 34.66  -0.5
TIK     57.41  22 eP     02 34.00  -0.7
         2.0s    32.00nm               5.0mb
     Z  18s       2.00um               5.3Msz
                  e      02 44.00  33km
                  e      03 25.00
                  e      06 03.00
                  e      12 22.00
TIC     57.45 257 P      02 35.20  -0.5
         0.8s    13.50nm               5.0mb
LIC     57.68 257 P      02 36.80  -0.5
         0.6s    12.50nm               5.1mb
     Z  20s       0.44um               4.6Msz
SNY     58.06  57 Pd     02 38.10  -1.4
         1.0s     9.20nm               4.8mb
     Z  18s       1.18um               5.0Msz
     E  16s       2.28um
                  S      10 42.00
YAK     58.23  33 eP     02 38.50  -2.0
         1.5s    55.00nm               5.4mb
     Z  16s       0.80um               4.9MszX
     E  12s       0.40um
                  e      03 38.00 267kmX
                  eS     10 39.00
SSE     59.33  70 Pd     02 47.50  -1.0
         1.0s    11.00nm               4.9mb
     Z  20s       0.90um               4.9Msz
     N  12s       0.50um
BFT     59.50 202 iPd    02 51.00   1.0
         0.6s    14.00nm               5.3mb
SLR     60.13 204 eP     02 54.00  -0.3
         1.0s    20.00nm               5.2mb
     Z  18s       4.74um               5.7Msz
PRY     61.51 204 e(P)   03 02.50  -1.1
WIN     62.10 216 iPc    03 09.00   1.3
         1.0s    30.00nm               5.4mb
SEK     62.74 203 iPc    03 12.00   0.2
```

```
         0.7s    33.00nm               5.6mb
BLF     63.96 204 eP     03 19.50  -0.3
         0.7s    22.00nm               5.4mb
POF     66.61 209 eP     03 39.00   2.3
         0.3s     7.00nm               5.2mb
GRM     67.68 202 eP     03 34.00  -9.5X
MGD     68.58  32 eP     03 47.00  -1.7
     Z  16s       1.40um               5.3MszX
     N  16s       1.40um
     E  16s       1.20um
                  e      04 00.00  45kmX
YSS     69.42  47 eP     03 53.00  -1.1
         1.2s    40.00nm               5.4mb
                  e      04 04.00  36km
MAT     70.52  59 (P)    04 01.00  -0.1
         0.8s     9.70nm               4.9mb
     Z  20s       0.35um               4.6Msz
RES     72.52 351 ePd    04 14.20   1.8
         1.0s     4.00nm               4.4mb
BRW     76.43   9 (P)    04 36.51   1.6
IMA     81.71  10 eP     05 03.63  -0.1
         0.7s     9.60nm               4.9mb
FBA     83.61   8 eP     05 15.05   1.7
         0.9s    11.20nm               5.0mb
JAO     84.02 331 eP     05 18.00   2.3
LMN     84.13 321 eP     05 22.00   5.6X
SVW     86.01  13 eP     05 28.47   2.9X
         1.0s    21.96nm               5.3mb
YKA     86.41 353 eP     05 28.20   0.8
         0.8s     3.60nm               4.7mb
PMR     86.62   9 eP     05 30.02   1.6
         1.3s    37.24nm               5.5mb
KLU     87.13   8 eP     05 32.25   1.2
SLKM    87.50  10 eP     05 34.49   1.7
BALM    87.97   6 eP     05 35.93   0.8
WRA     94.58 110 P      06 07.10   0.8
         0.6s     0.40nm               4.0mb X
WB2     94.59 110 iPc    06 06.50   0.2
         0.5s     3.90nm               5.1mb
ZOBO   122.86 270 PKP    11 43.20   0.2
     Z  20s       0.35um               5.0Msz
                  LR     51 16.00
LPB    122.96 269 ePKP   11 45.00   2.0
CNCB   122.98 269 PKP    11 45.80   2.6X
      S.D. = 1.2  on 259 of 289 obs.
-------------------------------------
? MAR 26, 1993  23h 42m 56.85± 2.26s
  29.812 S ±17.9km   68.518 W ±25.1km
  DEPTH = 110.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTLL     1.51 178 ePc    43 24.00  -0.3
                  S      43 44.50
RTCB     1.69 188 eP     43 26.50   0.1
                  S      43 46.00
CFA      1.81 172 eP     43 28.10   0.2
                  S      43 51.80
CYA      2.74  61 ePd    43 40.20   0.0
                  S      44 09.80
MRA      3.54 138 ePc    43 50.80   0.0
      S.D. = 0.2  on   5 of   5 obs.
-------------------------------------
* MAR 26, 1993  23h 56m 58.60± 2.05s
  36.640 N ±24.5km   71.015 E ±12.9km
  DEPTH = 226.7 ± 30.4 km
  4.5mb (  9 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)
QUE      7.28 209 eP     58 44.50   1.1
                  eS     00 05.40
MAIO     9.29 271 iPc    59 08.00  -1.4
                  eS     00 50.00
GKN     14.37 123 P      00 13.00  -0.4
         0.4s    19.00nm               4.8mb
DMN     14.94 123 P      00 22.60   2.1
         0.4s    16.00nm               4.8mb
KKN     14.94 122 P      00 19.20  -1.2
         0.5s    23.00nm               4.9mb
GUN     15.28 121 P      00 24.00  -0.6
         0.4s    13.00nm               4.7mb
KAF     37.52 327 eP     03 52.60   0.7
         0.4s     1.30nm               3.9mb
NUR     37.72 324 iP     03 54.00   0.4
         0.4s     6.70nm               4.6mb
NB2     44.28 323 P      04 47.00  -0.1
         0.6s     3.20nm               3.9mb
YKA     81.11   3 eP     08 49.60   0.4
```

0.5s 1.20nm 3.9mb
WB2 82.06 122 eP 08 53.80 -1.1
0.4s 3.20nm 4.4mb
S.D. = 1.3 on 11 of 11 obs.

? MAR 27, 1993 00h 58m 46.77± 2.90s
20.983 S ±65.3km 179.368 E ±52.3km
DEPTH = 601.2 ± 20.2 km
4.6mb (8 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN 3.08 344 eP 00 17.40 10.5X
KRO 3.65 0 eP 00 09.60 -0.9
MBU 4.04 351 eP 00 14.80 1.7
TVI 4.07 8 ePc 00 12.40 -1.0
DZM 12.08 263 iPc 01 33.80 7.5X
ARMA 26.64 244 iPd 03 43.20 1.9
0.4s 5.00nm 4.5mb
CMS 31.74 244 eP 04 24.30 -0.3
0.4s 6.00nm 4.6mb
QLP 32.56 253 iPd 04 32.10 0.5
0.7s 48.00nm 5.2mb
STK 35.36 244 iPd 04 54.60 -0.2
0.3s 3.30nm 4.4mb
ASPA 42.01 258 iPd 05 48.80 0.2
0.6s 20.10nm 4.8mb
eS 11 26.10
WB2 42.08 263 iPc 05 49.50 0.3
0.3s 22.20nm 5.2mb
eS 11 34.70
WARB 48.33 253 iPd 06 35.30 -1.8
0.4s 7.00nm 4.5mb
NANU 58.89 256 iPd 07 50.20 -1.3
0.4s 9.00nm 4.4mb
NB2 139.12 351 PKP 16 53.80 -13.4X
0.7s 0.90nm
PRU 148.66 341 ePKP 17 23.80 0.3
GEC2 149.92 341 ePKP 17 26.20 0.6
0.5s 0.69nm
e 17 36.00
S.D. = 1.3 on 13 of 16 obs.

---

* MAR 27, 1993 01h 35m 44.07± 1.34s
37.674 N ±11.4km 21.337 E ±11.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.1 (ATH).

VLS 0.78 311 ePb 35 59.00 -0.2
AGG 1.56 30 ePb 36 11.00 -0.8
iSb 36 29.96
VLI 1.59 126 ePn 36 12.50 0.1
LIT 2.58 20 ePn 36 28.00 1.3
eSn 36 59.30
KZN 2.65 7 ePn 36 33.00 5.3X
PAIG 2.90 38 ePn 36 30.36 -0.7
SOH 3.51 26 ePn 36 40.12 0.3
S.D. = 1.0 on 6 of 7 obs.

---

* MAR 27, 1993 01h 46m 17.29± 0.89s
6.083 S ±15.5km 147.949 E ±10.3km
DEPTH = 111.4 ± 10.6 km
5.0mb (4 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC 0.54 190 eP 46 35.10 0.4
LAT 1.11 238 eP 46 34.40 -5.6X
YYYY 1.98 265 eP 46 50.60 -0.1
MDG 2.31 291 eP 46 54.90 0.0
PMG 3.39 193 iPd 47 03.60 -5.8X
RAB 4.60 66 eP 47 25.50 -0.3
WB2 19.09 223 iPd 50 31.40 -2.6
0.5s 19.60nm 4.7mb
eS 53 56.10
RMQ 20.31 178 eP 50 47.00 0.4
QLP 20.69 189 eP 50 50.10 -0.3
0.6s 141.00nm 5.5mb
ASPA 22.10 216 iPc 51 04.50 0.0
0.4s 29.60nm 5.0mb
eS 55 03.90
WARB 28.52 223 eP 52 05.50 1.1
0.5s 19.00nm 5.0mb
MRWA 37.93 229 eP 53 27.00 1.3
S.D. = 1.3 on 10 of 12 obs.

MAR 27, 1993 02h 18m 07.42± 0.92s
17.410 N ± 6.4km 61.749 W ± 9.4km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
MD 2.7 (TRN). ML 3.0 (FDF).

CP8 0.24 342 eP 18 12.85 0.3
eS 18 16.09
BPA 0.38 196 eP 18 16.24 1.1
S 18 21.00
MGH 0.82 213 eP 18 23.00 -0.3
S 18 33.60
NEV 0.83 251 ePd 18 22.80 -0.7
DEG 1.28 149 ePd 18 30.28 -0.8
S 18 47.99
PAG 1.37 177 ePd 18 32.77 0.1
S 18 50.67
MGG 1.54 164 eP 18 35.22 0.3
S.D. = 0.8 on 7 of 7 obs.

---

* MAR 27, 1993 03h 55m 08.50± 1.99s
38.471 S ±11.0km 175.750 E ± 7.6km
DEPTH = 203.2 ± 19.9 km
NORTH ISLAND, NEW ZEALAND (159)

PATZ 0.41 78 P 55 35.50 -0.4
UTU 0.45 50 P 55 35.80 -0.1
WLZ 0.61 349 P 55 37.20 0.5
S 55 54.90
WHH 0.71 126 P 55 36.30 -1.0
URZ 1.09 79 Pc 55 38.70 -0.7
S 55 57.60
PAHZ 1.09 111 Pc 55 39.40 -0.1
WAHZ 1.31 159 Pc 55 41.40 0.2
TTH 1.36 142 P 55 42.00 0.5
NRZ 1.66 238 P 55 45.10 0.9
TEHZ 1.73 152 P 55 45.20 0.3
NOZ 1.80 95 P 55 46.20 0.7
PUZ 2.01 79 eP 55 47.80 0.1
S 56 12.80
PGZ 2.18 169 P 55 49.60 0.2
TCW 2.96 202 P 55 58.10 -0.2
ORZ 3.42 226 eP 56 03.40 -0.4
THZ 3.95 213 eP 56 09.90 -0.4
S 56 56.00
S.D. = 0.6 on 16 of 16 obs.

& MAR 27, 1993 04h 00m 03.34s
59.785 N 153.673 W
DEPTH = 138.4km
SOUTHERN ALASKA (2)
<AEIC>.

OPT 0.26 120 iPc 00 22.09 1.0
eS 00 36.20
PDB 0.26 271 iPc 00 21.60 0.6
eS 00 36.12
INW 0.39 44 iPc 00 22.25 0.6
eS 00 37.23
INE 0.41 48 iPc 00 22.46 -0.9
eS 00 37.73
AUL 0.42 163 eP 00 23.14 -0.1
AUW 0.43 166 eP 00 22.69 -0.5
AUH 0.44 164 P 00 23.50 0.1
ILIM 0.47 50 iPc 00 22.52 -1.0
eS 00 38.31
AUI 0.47 164 eP 00 22.82 -0.6
MCNL 0.69 210 iPd 00 23.89 -0.9
eS 00 39.70
RED 0.78 35 iPc 00 24.64 -0.9
eS 00 41.21
eS 00 41.65
RS1 0.82 34 eP 00 25.12 -0.9
RS2 0.82 34 iPc 00 25.09 -0.9
RSO 0.82 34 iPc 00 25.09 -0.9
RDW 0.82 31 ePc 00 25.01 -1.0
NCT 0.86 25 iPc 00 25.30 -0.9
DFR 0.95 31 ePc 00 26.11 -0.8
eS 00 44.24
XLV 1.05 108 eP 00 26.99 -0.7
CNPM 1.26 101 ePc 00 28.58 -1.3
SYI 1.35 150 eP 00 29.73 -1.0
eS 00 49.72
BRLK 1.41 90 ePc 00 30.30 -1.1
eS 00 50.45
NKA 1.55 51 eP 00 33.83 1.0
CKL 1.56 24 iPd 00 32.43 -0.8
CKT 1.60 26 eP 00 32.57 -1.0
BGL 1.61 23 eP 00 33.25 -0.5
SPU 1.61 29 iPd 00 32.69 -1.0
CKN 1.62 26 eP 00 33.23 -0.6
SVW 1.64 325 P 00 33.20 -0.8
CP2 1.64 25 eP 00 33.19 -1.0
eS 00 46.85
CPAM 1.66 27 iPd 00 33.57 -0.7
CRP 1.67 26 eP 00 32.59 -1.8
SLKM 1.87 66 ePc 00 35.25 -1.5
KDC 2.13 163 (P) 00 36.90 -2.9
SEW 2.15 80 iPc 00 38.59 -1.4
SUA 2.22 39 iPc 00 40.08 -0.9
MPA 2.27 70 ePc 00 40.23 -1.2
SKT 2.44 25 iPd 00 42.48 -1.2
PMS 2.51 52 P 00 42.90 -1.6
PTE 2.55 63 eP 00 42.99 -2.0
PWA 2.64 43 P 00 46.50 0.3
PMR 2.88 49 eP 00 47.42 -1.8
GHO 3.07 47 eP 00 49.22 -2.6
SML 3.31 50 eP 00 52.65 -2.3
HIN 3.64 77 eP 00 56.93 -2.4
SCM 3.73 54 eP 00 58.87 -1.6
VLZ 3.88 66 eP 01 00.52 -1.8
TRF 4.02 22 eP 01 02.69 -1.8
CVA 4.03 76 eP 01 01.83 -2.6
KLU 4.18 63 eP 01 03.98 -2.6
SGAM 4.29 77 eP 01 05.29 -2.7
50 obs. associated

MAR 27, 1993 04h 06m 26.76± 0.27s
44.368 N ± 2.1km 7.304 E ± 3.1km
DEPTH = 12.8 ± 2.9 km
NORTHERN ITALY (545)
ML 2.3 (LDG), 2.2 (GEN).

STV 0.12 173 P 06 30.09 -0.2
S 06 32.02
ENR 0.16 149 P 06 30.83 0.0
S 06 33.16
PZZ 0.20 313 P 06 31.51 0.0
S 06 34.49
TOUF 0.36 187 Pg 06 34.09 -0.3
Sg 06 38.57
ROB 0.41 100 P 06 35.49 0.1
S 06 41.44
SAOF 0.42 155 Pg 06 35.80 0.3
Sg 06 40.56
BHB 0.47 356 P 06 35.68 -0.8
S 06 42.27
AURF 0.48 178 Pg 06 35.97 -0.7
Sg 06 42.57
SBF 0.51 169 Pg 06 32.00 -5.2X
Sg 06 43.30
IMI 0.62 137 P 06 38.65 -0.4
S 06 47.21
RRL 0.67 326 P 06 39.76 -0.1
S 06 49.19
FIN 0.67 103 P 06 39.70 -0.1
S 06 48.95
CALN 0.68 206 Pg 06 41.16 1.0
Sg 06 49.06
RSP 0.78 358 P 06 41.59 -0.3
S 06 51.89
PCP 0.91 78 P 06 44.52 0.6
S 06 56.79
FRF 0.94 211 Pg 06 44.20 -0.2
Sg 06 55.50
LSD 1.09 355 P 06 48.00 0.8
LRG 1.14 217 Pg 06 47.80 0.0
Sg 07 01.90
LMR 1.18 209 Pg 06 48.20 -0.4
Sg 07 02.80
LPG 1.20 341 Pg 06 49.20 0.2
LPL 1.22 341 Pg 06 49.00 -0.3
CDR 1.31 239 eP 06 51.30 0.6
e 07 07.60
S.D. = 0.5 on 21 of 22 obs.

? MAR 27, 1993 04h 14m 05.18± 0.87s
44.405 N ± 8.0km 7.278 E ±15.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

PZZ 0.16 308 P 14 09.05 0.1
S 14 11.47
STV 0.16 168 P 14 08.82 -0.2
S 14 11.06

ENR	0.21	150	P	14 09.90	0.2
			S	14 12.66	
BHB	0.44	359	P	14 14.03	-0.1
			S	14 20.26	

S.D. = 0.3 on 4 of 4 obs.

---

* MAR 27, 1993 05h 16m 05.00± 1.70s
37.286 N ±13.2km 21.563 E ±13.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.2 (ATH). ML 3.1 (THE).

VLS	1.18	319	ePb	16 27.00	0.0
VLI	1.24	117	ePb	16 28.00	0.0
AGG	1.84	19	ePb	16 37.10	0.3
			eSb	17 01.90	
LIT	2.90	14	ePn	16 52.94	0.8
			eSn	17 24.00	
KZN	3.02	3	ePn	16 57.00	3.2X
PAIG	3.12	32	ePn	16 53.78	-1.3
OUR	3.58	31	ePn	17 02.70	1.0
GRG	3.72	10	ePn	17 02.90	-0.9

S.D. = 1.0 on 7 of 8 obs.

& MAR 27, 1993 05h 40m 32.84s
45.028 N 122.592 W
DEPTH = 14.4km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.3 (SEA), 2.4 (GS).

SHW	1.19	12	eP	40 54.32	-0.4
			S	41 09.96	
VGB	1.37	69	eP	40 57.37	-0.1
			S	41 15.31	
BMW	1.51	343	eP	40 58.76	-0.7
			S	41 18.71	
LON	1.81	17	eP	41 04.11	0.4
			S	41 27.25	
GMW	2.52	357	eP	41 14.83	0.8
			S	41 46.75	

5 obs. associated

MAR 27, 1993 05h 45m 45.75± 1.19s
24.681 N ± 6.4km 122.391 E ±10.8km
DEPTH = 78.9 ± 12.7 km
4.5mb (8 obs.)
TAIWAN REGION (243)

QZH	3.46	275	iPnd	46 37.40	-1.0
BBP	4.24	185	ePc	46 48.30	-1.0
			eS	47 33.50	
SSE	6.48	351	Pc	47 20.50	0.1
	0.8s		26.00nm		4.7mb
CVP	6.96	184	eP	47 28.80	1.7
			eS	48 45.00	
HKC	7.91	254	iP	47 39.00	-1.1
GYA	14.31	280	P	49 07.20	1.3
			PP	49 16.20	
XAN	14.98	312	eP	49 16.00	1.5
CD2	17.61	295	eP	49 47.00	-0.4
CN2	19.24	7	eP	50 06.40	0.0
	0.9s		13.00nm		4.2mb
WRA	45.86	164	P	54 02.00	0.1
	0.5s		5.10nm		4.7mb
WB2	45.86	164	iPd	54 01.70	-0.2
	0.5s		2.80nm		4.4mb
			iPcP	55 37.30	
ASPA	49.34	166	iPd	54 29.30	0.2
	0.4s		12.00nm		5.3mb
CNB	64.91	156	eP	56 18.70	-0.3
TOO	65.62	160	iPd	56 23.90	0.4
	0.4s		8.00nm		5.0mb
YKA	82.09	23	eP	57 57.30	-1.2
	0.7s		1.00nm		3.8mb
GEC2	83.16	321	ePKP	58 04.30	-0.1
	0.9s		1.10nm		3.8mb

S.D. = 1.0 on 16 of 16 obs.

MAR 27, 1993 06h 06m 02.53± 0.84s
33.565 S ± 7.0km 68.156 W ± 6.1km
DEPTH = 10.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)
MD 4.4 (SAN).

MDZ	0.89	319	iP	06 19.20	-0.5
			i	06 28.40	
RTCV	1.73	349	ePc	06 32.90	0.0
FCH	1.80	277	iP+	06 34.44	0.3
			iS	06 56.84	
CFA	1.95	358	ePd	06 36.00	-0.1
			S	07 04.30	
ZON	2.06	347	eP	06 37.70	0.0
			eS	07 04.70	
SAN	2.10	272	iP	06 37.96	-0.2
			iS	07 05.82	
CACH	2.11	254	eP+	06 38.75	0.3
			iS	07 05.30	
CHCH	2.11	259	iP+	06 38.55	0.1
			iS	07 05.92	
RTCB	2.14	345	eP	06 39.00	0.1
			S	07 04.50	
PEL	2.16	281	eP+	06 39.23	0.1
			iS	07 07.72	
RTBS	2.19	330	e(P)c	06 40.10	0.6
JACH	2.23	293	iP	06 40.89	0.8
			iS	07 10.57	
RTLL	2.24	353	ePd	06 39.80	-0.5
			S	07 06.00	
MRA	2.36	61	ePd	06 42.60	0.8
LNV	2.74	261	iP+	06 46.26	-1.1
			iS	07 23.77	
LCCH	2.85	271	iP	06 48.50	-0.4
			iS	07 26.74	
RTRS	3.56	341	ePd	06 59.90	1.0
CYA	5.49	22	ePd	07 25.00	-1.4
			(S)	08 31.30	

S.D. = 0.7 on 18 of 18 obs.

---

* MAR 27, 1993 06h 14m 59.17± 4.34s
1.195 N ±19.1km 126.894 E ±15.8km
DEPTH = 134.0 ± 39.2 km
5.1mb (5 obs.)
NORTHERN MOLUCCA SEA (266)

MTN	14.57	163	eP	18 20.00	-0.1
	0.4s		73.00nm		5.3mb
WB2	22.24	161	iPd	19 45.40	-0.4
	0.7s		62.70nm		5.1mb X
			eS	23 09.00	
ASPA	25.63	165	iPc	20 16.90	-1.2
	0.4s		23.70nm		5.1mb
			eS	24 47.70	
WARB	27.22	180	eP	20 33.00	0.5
CTA	28.42	139	iP	20 45.50	2.2
MEEK	28.80	196	eP	20 47.00	0.3
MRWA	31.99	198	eP	21 15.00	0.3
KLB	33.74	194	eP	21 30.10	0.3
MUN	34.51	196	eP	21 37.00	0.6
STK	35.72	158	iPc	21 45.50	-1.2
	0.7s		20.40nm		5.0mb
CMS	37.14	153	iPd	21 57.10	-1.5
	0.4s		4.00nm		4.6mb
ARMA	39.29	145	iPd	22 17.40	0.7
	0.9s		33.00nm		5.1mb
BWA	40.78	152	iPc	22 29.10	0.3
CAN	41.79	152	iPc	22 36.40	-0.7
HYB	50.16	292	ePc	23 43.50	0.2
GBA	50.45	287	P	23 45.00	-0.5
THZ	59.62	141	P	24 47.60	-3.8X
YKA	101.72	25	ePdiff	28 32.20	-5.5X
	0.4s		0.10nm		3.9mb X

S.D. = 1.0 on 16 of 18 obs.

---

* MAR 27, 1993 06h 16m 45.86± 1.52s
37.673 N ±11.9km 21.304 E ±11.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.4 (ATH), 3.2 (THE).

VLS	0.76	312	ePg	16 59.70	-1.0
AGG	1.57	31	ePb	17 12.76	-1.1
			eSb	17 34.40	
VLI	1.61	126	ePb	17 14.70	0.2
ATH	1.93	80	ePn	17 19.50	0.4
KEK	2.35	330	ePg	17 33.50	8.4X
LIT	2.59	21	ePn	17 29.80	1.2
			eSn	18 03.12	
KZN	2.66	8	ePn	17 31.20	1.7
PAIG	2.92	39	ePn	17 31.44	-1.7
FNA	3.11	1	ePn	17 37.40	1.5
GRG	3.39	14	ePn	17 40.32	0.5
OHR	3.46	354	ePn	17 55.20	14.4X
SOH	3.52	26	ePn	17 40.68	-1.1
VAY	3.77	15	ePn	17 44.50	-0.8

S.D. = 1.3 on 11 of 13 obs.

? MAR 27, 1993 06h 30m 46.15± 8.63s
27.445 S ±53.7km 71.286 W ±52.2km
DEPTH = 50.0km (geophysicist)
NEAR COAST OF NORTHERN CHILE (122)

RTRS	3.15	150	ePc	31 35.80	1.3
			S	32 12.60	
RTCB	4.57	152	eP	31 55.10	0.5
			S	32 47.00	
RTLL	4.58	148	ePc	31 55.00	0.3
			S	32 46.50	
ZON	4.68	152	eP	31 59.70	3.7X
CFA	4.92	148	ePc	31 59.70	0.1
CYA	4.96	103	ePd	32 00.50	0.4
			S	32 53.80	
RTCV	5.01	152	e(P)	32 01.00	0.2
PEL	5.70	175	eP	32 10.00	-0.5
			iS	33 17.00	
MDZ	5.82	159	e(P)	32 15.80	3.7X
MRA	6.92	137	ePd	32 25.20	-2.3

S.D. = 1.2 on 8 of 10 obs.

MAR 27, 1993 06h 48m 52.36± 0.76s
44.621 N ± 6.4km 114.415 W ± 9.2km
DEPTH = 5.0km (geophysicist)
WESTERN IDAHO (33)
ML 3.3 (GS), 3.6 (BUT). Felt at
Challis and Clayton.

STID	0.60	213	iPc	49 04.26	-0.1
PCID	0.75	200	iPc	49 07.01	-0.7
HBMT	1.73	47	ePn	49 24.11	0.5
BGMT	1.79	69	ePn	49 23.73	-0.7
LRM	1.84	48	iPnc	49 25.38	0.3
BUT	1.91	43	ePn	49 26.60	0.6
			ePg	49 29.50	
			eSn	49 51.70	
			eSg	49 54.90	
TPMT	1.96	86	ePn	49 26.00	-0.9
LCCM	2.17	55	ePn	49 29.36	-0.4
NCM	2.56	358	ePn	49 38.90	3.6X
MEMT	2.63	67	ePn	49 35.55	-0.9
HRY	2.77	40	ePn	49 38.67	0.4
HVU	3.08	157	eP	49 42.99	0.2
			eS	50 21.09	
BW06	3.98	116	(P)	49 56.36	0.8
DUG	4.58	164	eP	50 04.83	0.8
DAU	4.81	150	(P)	50 12.78	5.3X
			eSg	51 19.73	
SES	6.21	20	P	50 36.00	9.0X
	2.0s		1.00nm		3.3mb X
MSU	6.33	164	(P)	50 32.54	3.7X

S.D. = 0.7 on 13 of 17 obs.

MAR 27, 1993 06h 50m 57.79± 0.59s
37.250 N ± 5.6km 21.372 E ± 5.6km
DEPTH = 10.0km (geophysicist)
4.6mb (12 obs.)
SOUTHERN GREECE (368)
MD 3.9 (ATH).

VLS	1.11	326	ePn	51 19.30	0.6
VLI	1.36	112	ePn	51 30.00	7.2X
AGG	1.92	23	iPb	51 30.64	-0.3
			eSb	51 52.80	
ATH	2.00	68	ePn	51 34.00	2.1
IGT	2.42	341	ePn	51 40.56	2.5
			eSn	52 07.00	
KEK	2.75	334	ePn	51 44.00	1.2
SRN	2.84	338	ePn	51 45.50	1.6
			iSn	52 15.50	
LIT	2.98	17	iPn	51 47.72	1.8
			eSn	52 19.12	
KZN	3.07	6	ePn	51 48.00	0.7
TPE	3.22	341	ePn	51 55.00	5.6X
PAIG	3.23	33	ePn	51 50.64	1.2
			eSn	52 26.48	
FNA	3.53	0	ePn	51 54.04	0.2
			eSn	52 31.64	
THE	3.60	20	ePn	51 54.96	0.2
OUR	3.69	33	ePn	51 56.60	0.5
GRG	3.79	12	ePn	51 57.20	-0.3
			iSn	52 39.08	
OHR	3.88	354	iPn	51 59.10	0.3
			i	52 09.00	

27d 06h

i 53 02.10
SOH 3.89 23 ePn 51 59.56 0.7
NPS 3.96 119 ePn 52 07.20 7.3X
KNT 4.08 16 ePn 52 02.24 0.7
VAY 4.17 13 iPn 51 58.70 -4.1X
SRS 4.23 23 ePn 52 03.28 -0.4
TIR 4.26 345 ePn 52 04.50 0.4
iSn 52 52.00
PRK 4.34 61 ePn 52 08.00 2.7X
PHP 4.49 351 ePn 52 07.50 0.1
iSn 52 58.50
LACI 4.57 344 ePn 52 07.30 -1.1
MMB 4.70 22 eP 52 10.00 -0.5
SKO 4.72 1 iPn 52 09.20 -1.5
iSn 52 59.30
KKB 4.80 15 iPc 52 22.00 10.2X
SDA 5.01 344 ePn 52 14.00 -0.7
RDO 5.06 38 ePn 52 16.50 1.1
RZN 5.13 29 iPc 52 16.00 -0.7
KDZ 5.39 34 eP 52 19.00 -1.2
PLD 5.49 27 eP 52 28.00 6.5X
PVL 6.69 26 eP 52 37.00 -1.4
HVAR 7.02 329 i(Pn) 52 43.60 0.6
MLR 8.92 21 eP 53 14.50 4.8X
VBY 9.44 333 ePn 53 15.40 -1.3
eSn 54 57.00
VRI 9.50 23 ePc 53 20.00 2.4X
HRI 12.40 104 eP 53 57.40 0.2
HMDT 12.65 109 eP 54 00.30 -0.2
GEC2 12.87 337 Pn 54 00.50 -2.9X
Sn 56 16.40
KHC 13.16 337 eP 54 07.00 -0.2
e 54 18.00
MBH 13.51 120 eP 54 13.30 1.3
BSF 15.05 319 eP 54 36.70 4.5X
0.5s 3.00nm 4.0mb
CLL 15.27 340 eP 54 40.00 5.2X
1.2s 8.00nm 4.0mb
HAU 15.39 319 eP 54 36.00 -0.5
0.7s 6.50nm 4.1mb
LBF 16.13 313 eP 54 53.60 7.5X
SSF 16.45 312 eP 54 56.50 6.4X
UPP 22.75 355 iP 55 59.10 -1.9
NUR 23.37 4 eP 56 05.10 -1.9
EKA 24.57 325 Pc 56 20.50 1.7
2.1s 65.40nm 4.9mb
NB2 24.66 348 P 56 17.60 -2.0
0.5s 2.40nm 4.1mb
KAF 25.08 5 iP 56 22.80 -0.7
0.5s 3.40nm 4.3mb
BCAO 32.76 185 iPc 57 34.00 0.9
0.2s 16.00nm 5.6mb
i 57 45.00
LIC 39.15 224 (P) 58 33.00 5.6X
GKN 53.21 80 P 00 18.20 -0.5
0.6s 19.00nm 5.2mb
DMN 53.76 81 P 00 22.40 -0.4
0.5s 20.00nm 5.4mb
KKN 53.81 80 P 00 22.40 -0.8
0.5s 9.00nm 5.0mb
PKI 54.01 81 P 00 23.60 -1.2
GUN 54.23 80 P 00 25.80 -0.6
0.4s 12.00nm 5.3mb
YKA 74.49 340 eP 02 37.40 -0.3
0.7s 0.50nm 3.7mb
S.D. = 1.1 on 46 of 61 obs.

• MAR 27, 1993 07h 23m 30.73± 0.53s
0.872 N ±12.4km 125.412 E ±17.0km
DEPTH = 24.7km (2 depth phases)
4.9mb (6 obs.) 4.2Msz (1 obs.)
NORTHERN MOLUCCA SEA (266)

DAV 6.18 2 eP 25 03.00 0.2
WB2 22.47 158 iPc 28 29.10 -0.6
0.7s 33.90nm 4.9mb
eS 32 37.30
ASPA 25.75 162 eP 29 04.20 2.9X
0.7s 19.80nm 4.9mb
eS 33 42.20
CTA 29.17 137 iPc 29 35.00 2.5
KMI 32.57 320 Pc 30 01.50 -1.2
2.0s 60.00nm 5.2mb
Z 25s 0.80um 4.3MszX
pP 30 09.00 26km
STK 36.00 156 eP 30 30.20 -1.7
0.5s 2.90nm 4.5mb

BJI 39.88 349 eP 30 57.00 -7.2X
ARMA 39.89 143 eP 31 04.00 -0.6
0.9s 15.00nm 4.7mb
LZH 40.35 333 eP 31 05.00 -3.4X
1.5s 57.00nm 5.1mb
Z 20s 0.35um 4.2Msz
pP 31 12.00 24km
BWA 41.21 151 eP 31 15.90 0.6
CAN 42.21 151 eP 31 23.20 -0.3
GUN 46.41 309 P 31 57.80 0.0
PKI 46.62 308 P 31 59.40 0.0
KKN 46.82 308 P 32 00.60 -0.3
DMN 46.87 308 P 32 01.40 0.0
GKN 47.42 308 P 32 05.60 0.0
GBA 49.13 287 P 32 21.00 2.2
YAK 61.08 2 eP 33 34.00 -10.7X
1.0s 20.00nm
OBN 88.61 325 eP 36 22.00 -0.8
S.D. = 1.2 on 15 of 19 obs.

• MAR 27, 1993 07h 24m 12.69± 2.57s
38.815 N ±19.6km 26.474 E ±15.2km
DEPTH = 22.1 ± 8.7 km
AEGEAN SEA (365)
MD 3.2 (ATH).

PRK 0.46 340 iPc 24 22.00 -0.1
eS 24 30.00
EDC 1.87 35 ePn 24 43.50 -0.3
BNT 1.90 36 ePn 24 43.80 -0.5
KCT 2.04 45 ePn 24 46.80 0.5
RDD 2.44 343 eP 24 52.00 0.1
KHL 2.44 101 ePn 24 52.00 0.0
YLV 2.84 51 ePn 25 01.00 3.3X
ISK 3.00 41 eP 25 03.00 3.1X
DMK 3.16 18 ePn 25 02.20 0.0
S.D. = 0.4 on 7 of 9 obs.

• MAR 27, 1993 08h 08m 08.52± 1.31s
19.013 S ±16.3km 122.784 E ±10.6km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

NANU 7.65 241 eP 10 03.50 0.8
0.2s 3.00nm 5.1mb X
eS 11 25.00
WARB 7.98 154 eP 10 08.10 0.8
0.3s 10.00nm 5.6mb X
eS 11 31.00
MEEK 8.51 206 eP 10 17.00 2.3X
eS 11 56.30
WB2 10.95 97 eP 10 43.50 -4.9X
eS 12 37.70
ASPA 11.35 116 eP 10 53.50 -0.3
eS 12 53.30
MRWA 11.90 210 eP 11 00.00 -1.2
eS 13 06.00
GBA 55.19 303 P 17 44.00 -0.1
S.D. = 1.2 on 5 of 7 obs.

? MAR 27, 1993 08h 10m 08.25±13.76s
37.428 N ±112.km 21.495 E ±20.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.2 (THE).

AGG 1.72 22 ePb 10 37.50 -0.9
eSb 10 58.38
IGT 2.29 337 iPn 10 45.94 -0.7
LIT 2.78 16 ePn 10 54.62 1.0
eSn 11 27.62
PAIG 3.03 34 ePn 10 56.34 -0.7
FNA 3.35 358 ePn 11 02.02 0.2
GRG 3.59 11 ePn 11 02.98 -2.2
SOH 3.68 23 ePn 11 06.10 -0.4
VAY 3.98 12 ePn 11 10.00 -0.5
S.D. = 1.1 on 8 of 8 obs.

% MAR 27, 1993 08h 15m 45.52± 3.25s
39.026 N ±17.1km 27.336 E ±25.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.2 (ISK).

EDC 1.38 17 iPn 16 11.50 0.7
BNT 1.40 19 ePn 16 12.00 0.9
KCT 1.45 33 iPn 16 11.30 -0.5

KHL 1.85 112 ePn 16 18.00 0.4
ALT 2.16 88 ePn 16 21.30 -0.9
YLV 2.20 45 ePn 16 22.80 0.1
ISK 2.43 32 ePn 16 24.00 -1.8
HRT 2.54 44 ePn 16 28.00 0.6
GPA 2.62 60 ePn 16 29.80 1.2
EYL 2.66 54 ePn 16 29.00 -0.3
DMK 2.81 6 ePn 16 31.00 -0.3
S.D. = 1.0 on 11 of 11 obs.

MAR 27, 1993 08h 19m 54.32± 0.37s
39.186 N ± 3.7km 27.969 E ± 3.6km
DEPTH = 33.0km (normal)
TURKEY (366)
MD 3.8 (ISK).

KCT 1.10 16 iPn 20 13.80 0.3
EDC 1.16 356 iPn 20 13.50 -0.8
BNT 1.17 358 iPn 20 14.80 0.4
KHL 1.49 125 iPn 20 19.60 0.5
ALT 1.67 94 iPn 20 21.80 0.0
YLV 1.75 38 iPn 20 22.80 -0.1
GBZT 1.96 35 ePn 20 26.00 0.1
iSg 20 57.60
CTT 1.99 10 iPn 20 26.30 0.0
ISK 2.05 24 ePn 20 25.30 -1.9
YER 2.06 173 iPn 20 27.20 -0.2
ITU 2.08 22 iPnc 20 28.00 0.5
iSg 21 00.00
HRT 2.09 38 iPn 20 26.80 -1.0
GPA 2.11 58 iPn 20 28.80 0.7
EYL 2.18 50 ePn 20 29.30 0.3
ALN 2.26 320 ePn 20 30.50 0.4
eSn 21 04.80
DMK 2.64 357 iPn 20 35.20 -0.3
BCK 2.69 129 ePn 20 36.00 -0.2
ELL 2.88 147 ePn 20 39.00 0.0
KDZ 3.14 322 iPd 20 43.00 0.4
OUR 3.28 292 ePn 20 44.33 -0.3
PAIG 3.40 284 ePn 20 46.90 0.6
iSn 21 39.54
PLD 3.83 321 iP 20 52.00 -0.4
SRS 3.87 301 ePn 20 52.38 -0.6
eSn 21 50.70
SOH 3.90 296 ePn 20 52.86 -0.6
VAY 4.65 299 ePn 20 50.00 -14.0X
KAS 4.94 62 eP 21 24.00 15.7X
MLR 6.48 347 eP 21 32.00 2.1
VRI 6.74 353 ePd 21 28.00 -5.5X
CVO 6.76 349 eP 21 36.50 2.7X
GUN 48.82 85 P 28 00.00 -38.9X
S.D. = 0.8 on 25 of 30 obs.

& MAR 27, 1993 09h 03m 51.81s
61.128 N 150.627 W
DEPTH = 47.0km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.0 (AEIC), 3.2
(PMR).

SUA 0.34 351 iPc 04 01.14 -0.1
eS 04 09.66
NKA 0.49 218 ePc 04 04.05 1.3
PMS 0.53 77 P 04 03.20 -0.2
PWA 0.64 34 P 04 04.30 -0.4
S 04 14.10
SLKM 0.65 162 iPd 04 04.19 -0.8
eS 04 14.92
CGLM 0.69 286 eP 04 05.11 -0.4
eS 04 16.13
SPU 0.69 275 iPd 04 04.83 -0.7
eS 04 15.59
CPAM 0.74 281 ePc 04 05.76 -0.5
eS 04 17.49
CRP 0.75 281 eP 04 05.24 -1.2
S 04 17.00
CKN 0.76 278 iPd 04 05.98 -0.4
CKT 0.77 276 iPd 04 05.83 -0.7
CP2 0.79 281 eP 04 06.04 -1.0
PTE 0.82 108 iPd 04 06.61 -0.6
CKL 0.83 275 iPd 04 06.68 -0.8
PLRM 0.86 56 iPd 04 06.75 -0.9
eS 04 19.72
PMR 0.86 56 eP 04 06.33 -1.3
S 04 18.52
SGL 0.86 280 iPd 04 07.09 -0.8
MPA 0.89 135 ePd 04 07.49 -0.7

eS 04 20.70
SKT 0.96 334 iPc 04 08.31 -0.8
eS 04 21.72
RDT 1.03 238 eP 04 09.05 -1.2
GHO 1.04 51 iPd 04 09.40 -0.9
eS 04 23.84
DFR 1.14 243 P 04 10.60 -1.1
SEW 1.18 150 P 04 10.60 -1.6
RDN 1.21 240 P 04 11.50 -1.3
S 04 28.10
RSO 1.24 238 P 04 12.10 -1.1
S 04 28.80
RS2 1.24 238 P 04 12.10 -1.1
RS1 1.24 238 P 04 12.10 -1.1
RDW 1.25 240 P 04 12.30 -1.1
NCT 1.26 244 P 04 12.50 -0.9
RED 1.27 237 iPd 04 12.41 -1.1
SML 1.30 57 iPd 04 12.66 -1.2
BRLK 1.37 185 P 04 13.80 -1.2
ILIM 1.56 229 iPd 04 16.59 -1.0
eS 04 37.28
INE 1.61 229 P 04 17.30 -1.1
S 04 38.30
INW 1.63 230 P 04 17.60 -1.0
S 04 38.70
CNPM 1.64 191 P 04 17.20 -1.4
S 04 37.50
SCM 1.73 64 iPd 04 18.55 -1.5
HUR 1.91 14 P 04 22.80 0.2
OPT 1.96 222 P 04 22.60 -0.7
S 04 46.80
VLZ 2.08 88 iPd 04 22.78 -2.1
HIN 2.15 108 P 04 23.50 -2.5
PDB 2.22 234 P 04 25.80 -1.1
AUE 2.24 219 P 04 25.30 -1.9
AUL 2.24 220 P 04 26.80 -0.4
AUH 2.26 220 P 04 27.50 0.0
AUW 2.26 220 P 04 27.00 -0.5
AUI 2.28 219 P 04 27.00 -0.7
KLU 2.30 79 P 04 25.70 -2.4
TRF 2.34 4 eP 04 28.51 -0.2
SVW 2.42 272 P 04 28.00 -1.8
RND 2.43 19 eP 04 30.82 0.8
CVA 2.46 102 eP 04 28.45 -1.8
CDD 2.67 216 iPd 04 32.13 -1.3
MCNL 2.69 225 eP 04 32.66 -1.0
SGAM 2.73 101 eP 04 30.64 -3.6
MCK 2.73 16 P 04 35.50 1.3
MID 2.73 127 P 04 34.50 0.3
SDG 2.79 58 ePd 04 33.38 -1.7
RAGM 3.01 102 eP 04 34.38 -3.9
PAX 3.05 50 eP 04 37.59 -1.2
TTA 3.12 308 ePc 04 37.43 -2.3
GLB 3.31 82 eP 04 39.46 -2.9
KDC 3.52 197 (Pn) 04 42.31 -3.0
WRH 3.55 18 eP 04 44.84 -1.0
CRQM 3.67 93 eP 04 44.46 -3.3
HDA 3.70 26 eP 04 46.61 -1.3
CCB 3.76 19 ePc 04 47.46 -1.3
TGL 3.82 92 eP 04 46.24 -3.5
FBA 4.00 18 eP 04 49.68 -2.5
BALM 4.02 88 eP 04 48.87 -3.7
GLM 4.14 19 eP 04 53.02 -1.2
CTGM 4.52 88 eP 04 56.59 -3.0
IMA 5.14 346 ePn 05 03.06 -5.3
ePg 05 06.74
YKA 16.94 70 eP 07 44.70 -1.9
0.6s 0.40nm 2.7mb
74 obs. associated

MAR 27, 1993 09h 05m 26.22± 0.40s
32.580 N ± 5.8km 141.572 E ± 8.8km
DEPTH = 33.0km (normal)
4.8mb (11 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT 4.83 326 iPc 06 40.00 1.5
eS 07 31.00
SHO 11.99 18 eP 08 28.00 10.3X
0.5s 20.00nm
YSS 14.45 3 eP 08 48.00 -2.1
GUMO 19.14 170 eP 09 49.60 0.1
PJG 19.14 170 eP 09 50.40 0.9
GUA 19.20 170 eP 09 50.00 -0.2
0.8s 179.10nm 5.4mb
CIT 28.09 322 eP 11 07.50 -9.3X
MGD 28.20 10 eP 11 20.00 2.4
YAK 30.43 349 iPd 11 37.10 -0.4
1.4s 20.00nm 4.7mb
BOD 31.38 332 eP 11 46.00 0.1
ZAK 33.29 314 eP 12 03.30 0.7
1.4s 12.00nm 4.6mb
ELT 44.18 315 eP 13 33.80 0.4
1.2s 12.00nm 4.6mb
NVS 46.09 317 iPc 13 48.50 -0.2
GUN 47.88 280 P 14 03.00 -0.6
PKI 48.39 280 P 14 06.60 -0.9
KKN 48.42 280 P 14 06.80 -0.8
0.9s 31.00nm 5.3mb
DMN 48.63 280 P 14 08.20 -1.1
WB2 52.68 189 iPd 14 36.30 -3.4X
0.3s 17.50nm 5.5mb
i 14 48.60
SVE 58.62 320 ePd 15 22.00 -0.1
ARU 59.81 320 eP 15 30.00 -0.3
GBA 61.09 268 P 15 39.00 -0.7
QUE 62.49 290 eP 15 49.50 0.5
MAIO 65.80 299 eP 16 11.00 0.5
RES 66.88 14 eP 16 17.00 0.3
1.0s 2.00nm 4.2mb
YKA 67.61 29 eP 16 19.80 -1.6
0.6s 0.70nm 3.9mb
GRS 73.75 307 eP 17 00.00 0.9
e 17 07.00
KIV 73.95 312 eP 17 01.10 1.0
1.4s 37.00nm 5.2mb
e 17 13.80
SES 75.51 39 eP 17 09.00 0.1
LCCM 77.58 43 eP 17 20.50 -0.2
NB2 78.34 338 P 17 24.10 -0.4
1.1s 7.00nm 4.6mb
KSP 83.96 329 eP 17 54.70 0.5
CLL 85.02 330 iPc 17 59.00 -0.4
1.1s 10.00nm 4.9mb
ZOBO 148.61 66 PKP 25 12.60 3.7X
LPB 148.78 66 PKP 25 18.00 9.1X
CNCB 149.04 67 PKP 25 14.80 5.3X
S.D. = 0.9 on 29 of 35 obs.

---

* MAR 27, 1993 09h 16m 59.44± 1.14s
37.515 N ± 9.8km 21.555 E ±16.4km
DEPTH = 10.0km (geophysicist)
4.1mb (3 obs.)
SOUTHERN GREECE (368)
ML 3.6 (THE).

AGG 1.62 22 ePb 17 28.50 0.3
eSb 17 50.24
IGT 2.23 335 ePn 17 38.04 1.0
eSn 18 08.68
LIT 2.68 16 ePn 17 43.92 0.5
eSn 18 18.50
PAIG 2.93 34 ePn 17 47.20 0.4
FNA 3.27 358 ePn 17 52.00 0.2
eSn 18 32.60
GRG 3.50 11 ePn 17 55.10 0.1
SOH 3.59 22 ePn 17 54.92 -1.3
OHR 3.64 351 ePn 17 55.00 -2.0
VAY 3.88 11 iPn 18 01.30 0.9
NB2 24.43 348 P 22 15.80 -3.3X
0.7s 1.10nm 3.6mb
KAF 24.80 5 iP 22 19.40 -3.1X
0.6s 2.60nm 4.1mb
BCAO 33.04 186 ePc 23 37.10 -0.1
0.8s 4.00nm 4.4mb
S.D. = 1.1 on 10 of 12 obs.

---

* MAR 27, 1993 09h 22m 53.86± 1.47s
37.588 N ±12.1km 21.305 E ±10.9km
DEPTH = 10.0km (geophysicist)
3.6mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.6 (ATH), 3.5 (THE).

VLS 0.82 316 ePg 23 09.00 -0.7
VLI 1.57 123 ePb 23 22.00 0.2
AGG 1.64 29 ePb 23 20.98 -1.9
eSb 23 44.14
ATH 1.95 78 ePn 23 28.00 0.7
eSn 23 53.50
IGT 2.09 339 ePn 23 31.18 1.9
eSn 24 01.00
KEK 2.43 331 ePg 23 41.20 7.0X
LIT 2.67 20 ePn 23 38.90 1.2
eSn 24 10.30
KZN 2.74 7 ePn 23 38.00 -0.7
PAIG 2.98 38 ePn 23 41.22 -0.8
iSn 24 17.50
FNA 3.19 1 ePn 23 46.62 1.5
GRG 3.47 14 ePn 23 49.60 0.6
OHR 3.54 354 ePn 23 50.50 0.5
SOH 3.60 26 ePn 23 51.70 0.8
KNT 3.78 19 ePn 23 53.40 0.0
VAY 3.85 14 iPn 23 53.00 -1.4
NB2 24.32 348 P 28 10.50 -1.9
0.8s 1.20nm 3.6mb
S.D. = 1.3 on 15 of 16 obs.

? MAR 27, 1993 09h 35m 08.09± 7.37s
37.743 N ±51.3km 21.599 E ±44.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.3 (ATH). ML 3.1 (THE).

VLS 0.91 299 ePn 36 20.50 55.0X
AGG 1.40 24 ePb 35 33.40 -0.3
eSb 35 53.10
VLI 1.48 133 ePb 36 35.20 60.5X
ATH 1.69 82 ePn 35 37.60 -0.2
LIT 2.46 16 ePn 35 49.20 0.4
eSn 36 21.60
KZN 2.56 3 ePn 35 48.00 -2.4
FNA 3.04 357 ePn 35 58.96 1.8
OUR 3.18 35 ePn 35 59.84 0.7
GRG 3.27 11 ePn 36 00.48 0.1
VAY 3.65 12 ePn 36 02.70 -3.1X
S.D. = 1.6 on 7 of 10 obs.

MAR 27, 1993 09h 42m 59.11± 0.14s
24.680 N ± 3.0km 95.100 E ± 3.1km
DEPTH = 114.7km (9 depth phases)
5.0mb (77 obs.)
MYANMAR (296)

LSA 6.11 326 Pd 44 29.10 0.2
CHTO 6.84 148 iPnd 44 38.90 0.5
KMI 6.95 85 Pc 44 45.00 4.9X
1.5s 470.00nm 5.8mb
BDT 8.25 153 eP 44 55.00 -2.5X
GUN 8.88 293 Pc 45 03.60 -2.8X
PKI 9.17 290 P 45 06.40 -3.9X
KKN 9.34 291 Pc 45 09.20 -3.4X
DMN 9.44 290 Pd 45 10.40 -3.5X
LOE 9.52 138 eP 45 18.00 3.3X
CD2 9.86 49 eP 45 18.70 -0.6
GKN 9.95 292 Pc 45 17.20 -3.4X
NST 10.13 151 eP 45 23.80 1.0
KHT 10.38 161 eP 45 26.20 0.1
GYA 10.59 78 iPd 45 30.00 0.9
1.0s 19.00nm 4.8mb
LZH 13.64 31 eP 46 07.50 -1.5
1.5s 46.00nm 4.6mb
Z 16s 0.44um 4.6Msz
sP 46 38.00
QIZ 14.79 109 P 46 29.30 5.6X
0.8s 38.00nm 4.7mb
GTA 15.22 14 eP 46 29.50 0.4
Z 12s 0.30um
pP 46 33.50
PP 46 44.00
sS 49 29.50
SS 49 40.00
NDI 16.47 288 iPc 46 42.00 -2.7X
0.6s 30.00nm 4.7mb
iS 49 32.00
HYB 17.04 248 iPd 46 52.00 0.2
1.0s 6.00nm 3.8mb X
iS 49 44.50
WHN 18.02 67 Pd 47 05.00 1.3
0.8s 120.00nm 5.2mb
SNG 18.19 162 eP 47 07.90 2.2
TIY 19.67 45 P 47 21.40 -0.1
GBA 19.97 240 P 47 25.00 0.4
S 50 55.00
WMQ 20.03 344 iPd 47 26.00 0.8
BTO 20.20 35 eP 47 25.00 -1.9
IPM 20.78 163 ePd 47 34.50 1.6
HHC 21.19 36 eP 47 35.40 -1.5
KSH 21.83 317 P 47 44.00 0.7
PcP 51 41.50
SS 52 20.00

27d 09h

```
NJ2     22.13   65 Pc      47 47.40    1.3
        0.4s     13.00nm            4.6mb
TIA     22.14   54 eP      47 47.30    1.1
PRZ     22.49  326 eP      47 52.50    2.8X
        0.6s     60.00nm            5.1mb
               eS          51 54.00
SSE     23.90   69 P       48 03.50    0.2
        1.0s     53.00nm            4.9mb
FRU     24.75  322 eP      48 15.00    3.7X
        1.6s     20.00nm            4.3mb
               e           48 53.50 197kmX
               e           53 41.00
QUE     25.54  289 eP      48 20.50    1.5
               e(S)        53 10.50
ZAK     26.43   12 iPd     48 28.00    1.3
               e           48 51.60 109km
MOY     27.34    8 eP      48 37.00    2.1
IRK     28.43   12 eP      48 45.00    0.2
        1.0s     27.00nm            4.9mb
CN2     31.26   45 eP      49 09.80   -0.1
MAIO    32.62  299 eP      49 23.00    1.0
TKSJ    35.02   66 P       49 42.60    0.1
BOD     35.85   17 iPc     49 48.80   -0.4
        0.6s      8.00nm            4.8mb
TSRJ    36.75   63 P       49 57.30    0.2
MTMJ    38.33   62 eP      50 10.20   -0.2
MAT     38.65   62 eP      50 12.00   -1.0
        1.2s     20.31nm            4.8mb
SVE     40.60  331 ePc     50 31.00    2.3
               e           52 07.00 531kmX
ARU     41.26  330 eP      50 36.00    1.9
NRI     44.93  356 iPc     51 03.90    0.2
        0.5s     34.00nm            5.4mb
               e           52 43.00 539kmX
               e           57 41.00
KIV     46.53  308 eP      51 17.70    0.8
        0.8s     15.00nm            4.8mb
               e           51 43.20 109km
TIK     50.69   13 iPc     51 47.00   -1.3
        1.4s     33.00nm            5.1mb
               i           52 21.00 148kmX
               e           53 51.00
NANU    50.98  155 iPd     51 51.20    0.1
MEEK    55.84  154 eP      52 26.00   -0.9
MRWA    57.23  158 eP      52 35.50   -1.1
VRI     57.91  310 ePc     52 41.00   -0.3
               ed          16 37.50
ISR     58.08  309 eP      52 44.00    1.4
               e           16 38.50
CVO     58.29  310 eP      52 45.00    1.0
MLR     58.48  310 ePc     52 46.00    0.5
WRA     58.53  136 P       52 45.50   -0.4
        0.5s      7.30nm            5.0mb
WB2     58.54  136 iPd     52 45.30   -0.7
        0.5s     61.10nm            5.9mb
KAF     58.59  329 iP      52 45.80    0.0
        0.5s      6.10nm            4.9mb
BAL     58.74  158 eP      52 46.00   -1.2
WARB    59.04  147 iPc     52 49.00   -0.3
        0.3s     14.00nm            5.5mb
NUR     59.24  327 iP      52 50.10   -0.2
        0.2s      5.30nm            5.3mb
SDF     59.30  335 iP      52 51.00    0.4
KEV     59.51  338 iP      52 52.80    0.8
        0.6s     30.00nm            5.5mb
MUN     59.84  159 eP      52 53.30   -1.4
KLB     60.00  158 eP      52 54.00   -1.8
COOL    60.62  154 eP      52 58.50   -1.5
UZH     60.71  313 ePc     53 00.00   -0.5
        1.0s     26.00nm            5.2mb
PMG     61.02  117 eP      53 03.00    0.0
UPP     62.74  326 iP      53 13.70   -0.1
MOR7    63.81  334 eP      53 20.83   -0.1
LOF     64.21  336 iPc     53 24.63    1.2
KSP     64.34  316 iPd     53 25.00    0.5
               e           53 53.00 113km
VRAC    64.37  315 eP      53 25.00    0.3
        1.0s     83.60nm            5.6mb
BRG     65.80  317 iP      53 33.50   -0.4
        1.0s     20.00nm            5.0mb
               i           54 03.00 120km
NB2     65.80  328 P       53 33.20   -0.6
        0.7s     23.90nm            5.2mb
NAO     66.02  328 P       53 32.77   -2.3
CLL     66.31  317 iPc     53 36.40   -0.8
        1.3s     15.00nm            4.8mb
               e           54 07.00 125km

GEC2    66.32  315 e(P)    53 37.20   -0.2
        0.7s     13.80nm            5.0mb
KHC     66.35  315 eP      53 36.50   -1.0
               e           53 50.00  47kmX
CTA     66.76  127 iPc     53 40.00   -0.4
        1.0s     15.00nm            4.9mb
               i           54 12.00 131kmX
MOX     67.30  317 eP      53 43.30   -0.1
        2.3s     60.00nm            5.1mb
GRF     67.74  316 iPc     53 46.70    0.4
        1.0s     17.00nm            4.9mb
               e(pP)       54 15.30 115km
OGA     68.50  313 eP      53 50.10   -1.1
        1.0s     14.00nm            4.8mb
OSS     69.13  313 ePc     53 54.40   -0.7
QLP     69.62  134 eP      53 58.40    0.4
VDL     69.63  313 eP      53 57.60   -0.5
LLS     69.85  313 ePc     53 58.80   -0.7
TMA     70.13  312 iPc     54 00.30   -0.9
CDF     70.57  315 iPc     54 03.30   -0.4
        0.8s     16.80nm            4.9mb
PCP     70.77  311 P       54 03.57   -1.4
ORX     70.86  312 P       54 03.52   -2.0
WLF     70.94  317 iPc     54 06.46    0.7
        1.1s     52.50nm            5.3mb
PGF     71.01  309 iPc     54 05.90   -0.5
        0.5s     10.95nm            4.9mb
BSF     71.04  315 iPc     54 06.00   -0.6
        0.9s     14.10nm            4.8mb
FIN     71.09  311 P       54 05.35   -1.5
DIX     71.12  313 iPc     54 07.40    0.1
HAU     71.28  315 eP      54 07.50   -0.4
        0.8s     17.35nm            4.9mb
DAG     71.38  347 eP      54 07.50   -0.5
        1.2s     34.38nm            5.0mb
IMI     71.40  310 P       54 08.05   -0.7
EMS     71.44  313 ePc     54 08.90   -0.2
LSD     71.46  312 P       54 09.15   -0.2
RSP     71.48  312 P       54 07.96   -1.3
BHB     71.56  311 P       54 07.92   -1.7
ENR     71.63  311 P       54 08.51   -1.6
STK     71.67  139 eP      54 09.40   -0.9
        0.6s      4.60nm            4.5mb
STV     71.69  311 P       54 08.24   -2.3
HNR     71.71  110 eP      54 11.00    0.2
LPG     71.72  312 eP      54 10.90    0.0
        0.7s     22.60nm            5.1mb
SBF     71.73  310 iPc     54 10.20   -0.5
LPL     71.73  312 iPc     54 10.90    0.0
        0.6s     29.60nm            5.3mb
PZZ     71.77  311 P       54 08.10   -2.9X
RRL     71.87  312 P       54 10.80   -0.9
FRF     72.36  310 iPc     54 13.90   -0.4
        0.7s     14.10nm            4.9mb
LMR     72.53  310 iPc     54 14.90   -0.4
LRG     72.59  310 iPc     54 15.50   -0.2
        0.5s     20.25nm            5.2mb
RMQ     72.60  131 iPc     54 17.00    1.1
        0.8s     32.00nm            5.2mb
               iPcP        54 47.20
LOR     73.10  315 iPc     54 18.10   -0.5
        0.6s      8.50nm            4.7mb
LBF     73.12  314 iPc     54 18.20   -0.5
        0.5s      9.10nm            4.8mb
SMF     73.31  314 iPc     54 19.50   -0.3
        0.5s     18.80nm            5.1mb
SSF     73.40  315 Pc      54 20.10   -0.2
        0.8s     38.40nm            5.3mb
AVF     73.58  314 iPc     54 21.10   -0.3
        0.9s     34.05nm            5.1mb
EDR     73.69  326 eP      54 22.10    0.3
HYF     73.89  315 iPc     54 23.70    0.5
CMS     73.97  137 eP      54 23.40   -0.3
BGF     73.99  314 iPc     54 23.60   -0.1
        0.5s      7.95nm            4.8mb
EDU     74.06  325 eP      54 24.30    0.4
ESY     74.07  325 ePc     54 24.20    0.2
MAF     74.28  314 iPc     54 25.70    0.2
        0.7s     14.20nm            4.9mb
EBL     74.35  324 ePc     54 26.10    0.5
        1.4s      7.00nm            4.3mb
EDI     74.37  325 eP      54 26.20    0.5
        1.2s     17.00nm            4.7mb
EBH     74.42  325 ePc     54 26.40    0.3
ELO     74.45  325 ePc     54 26.40    0.2
TCF     74.49  314 iPc     54 27.00    0.3
        0.7s     28.90nm            5.2mb

EAU     74.54  325 ePc     54 27.40    0.7
EKA     74.57  324 P       54 26.00   -0.9
        0.7s     23.20nm            5.1mb
EAB     74.88  325 eP      54 29.00    0.4
        1.2s     14.00nm            4.6mb
LSF     74.95  314 iPc     54 29.10   -0.2
        0.6s      7.20nm            4.6mb
CAF     75.05  313 iPc     54 30.20    0.3
        0.9s     24.25nm            5.0mb
LDF     75.19  317 iPc     54 30.50   -0.1
        0.3s      7.85nm            5.0mb
RJF     75.28  313 iPc     54 31.80    0.6
        0.6s     22.30nm            5.1mb
FLN     75.36  317 iPc     54 31.30   -0.2
        0.5s      6.50nm            4.7mb
LPO     75.72  313 iPc     54 34.10    0.4
        0.4s     22.00nm            5.3mb
GRR     75.72  317 iPc     54 33.70    0.1
        0.6s     12.45nm            4.9mb
IMA     75.83   23 eP      54 33.69   -0.4
        0.5s      0.89nm            3.8mb X
WME     75.91  322 eP      54 35.20    0.7
MFF     75.91  315 eP      54 34.60   -0.1
        0.6s      8.85nm            4.7mb
LFF     75.92  313 eP      54 35.30    0.5
        0.6s     25.05nm            5.2mb
BCAO    75.96  268 iPc     54 34.70   -0.9
        0.2s      7.20nm            5.1mb
               i           55 04.10 115km
LPF     75.97  317 iPc     54 35.30    0.3
        0.6s     17.30nm            5.0mb
YRC     76.11  322 eP      54 36.40    0.8
YRH     76.30  322 eP      54 37.40    0.6
LSZ     76.37  246 iP      54 38.00    0.1
               i           55 08.00 118km
ARMA    77.04  132 iPc     54 44.50    3.2X
        0.4s      5.00nm            4.7mb
DMU     77.13  324 eP      54 42.50    1.2
DLF     77.17  323 eP      54 42.50    1.0
BWA     77.55  137 eP      54 44.60    0.7
EGRA    77.64  311 eP      54 42.90   -1.4
TOO     77.95  141 iPd     54 46.90    0.8
        0.5s     12.00nm            5.0mb
CAN     78.50  138 eP      54 49.00   -0.2
BUL     78.53  242 eP      54 49.80    0.1
               iPP         55 19.90
CNB     78.72  137 eP      54 50.00   -0.4
        0.5s      8.00nm            4.8mb
ECRI    78.98  312 eP      54 53.00    1.2
PMR     79.89   26 eP      54 54.40   -1.7
        0.9s     11.67nm            4.7mb
RES     80.66    3 eP      55 02.00    2.0
        0.7s      3.00nm            4.2mb
GUD     80.90  310 iPd     55 02.80    0.7
EHUE    80.96  307 eP      55 02.70    0.2
SLR     81.74  237 iPc     55 06.80    0.1
        0.8s     26.00nm            5.1mb
BALM    82.85   24 eP      55 11.83    0.0
KSR     82.87  237 eP      55 14.50    1.9
EHOR    82.87  308 iPc     55 12.50    0.3
SEK     83.61  235 iPd     55 16.60    0.3
        1.1s     30.00nm            5.1mb
               i           55 45.00 109km
BLF     85.10  235 iPc     55 23.70    0.0
        0.8s     40.00nm            5.4mb
YKA     89.95   13 eP      55 46.60    0.3
        0.6s      0.80nm            4.0mb
CER     92.33  234 eP      55 55.00   -2.7X
        1.0s     60.00nm            5.8mb
JAQ    101.44  354 ePdiff56 40.00    1.4
BDF    144.23  277 ePKP    02 21.60   -2.3
               e           02 52.10
BAO    144.30  278 iPKPd   02 22.70   -1.3
               e           02 26.50
               i           02 54.00
VAO    145.33  265 ePKP    02 25.70    0.1
PPD    149.09  268 ePKP    02 33.50    1.9
               e           02 36.60
               e           02 41.80
               e           03 07.60
ZOBO   162.22  295 PKP     02 49.50    0.3
LPB    162.32  294 ePKP    02 50.00    1.0
CNCB   162.36  293 PKP     02 51.00    1.8
      S.D. = 0.9  on 168 of 183 obs.
-----------------------------------------
& MAR 27, 1993   11h 08m 01.17s
  60.874 N             152.092 W
```

DEPTH = 0.0km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

SPU	0.31	3	iP	08	06.96	-0.4
			eS	08	11.41	
CKT	0.33	350	iP	08	07.30	-0.5
			eS	08	11.90	
RDT	0.34	207	eP	08	07.63	-0.3
CKL	0.35	340	iP	08	07.59	-0.5
CKN	0.35	353	iP	08	07.95	-0.3
			eS	08	13.18	
CPAM	0.38	356	iP	08	08.44	-0.4
			eS	08	14.01	
CRP	0.40	356	iP	08	08.71	-0.4
			eS	08	14.43	
CP2	0.40	350	iP	08	08.80	-0.3
			eS	08	14.64	
DFR	0.41	226	iP	08	08.86	-0.4
BGL	0.42	340	iP	08	08.95	-0.5
CGLM	0.44	5	eP	08	09.41	-0.5
NKA	0.44	107	iP	08	11.25	1.3
RDN	0.49	223	eP	08	10.13	-0.8
			eS	08	16.25	
REF	0.49	218	iP	08	10.35	-0.6
			eS	08	17.17	
NCT	0.52	233	iP	08	10.71	-0.8
			eS	08	17.66	
RSO	0.53	219	iP	08	10.97	-0.7
			eS	08	17.81	
RS2	0.53	219	iP	08	11.00	-0.7
			eS	08	18.03	
RDW	0.53	222	iP	08	11.01	-0.7
			eS	08	17.71	
RS1	0.53	219	iP	08	11.03	-0.7
			eS	08	18.09	
RED	0.57	217	iP	08	11.49	-1.0
			eS	08	19.00	
SUA	0.88	47	eP	08	17.13	-1.6
ILIM	0.91	209	eP	08	17.40	-1.8
			eS	08	29.43	
INE	0.95	211	eP	08	18.10	-1.9
			eS	08	30.36	
INW	0.96	213	eP	08	18.39	-2.0
			eS	08	30.53	
SLKM	0.99	111	iP	08	18.83	-2.1
			eS	08	31.85	
SKT	1.14	13	iP	08	21.63	-1.9
			eS	08	36.80	
BRLK	1.27	151	eP	08	23.71	-1.9
			eS	08	40.08	
PMS	1.29	72	iP	08	23.84	-2.1
			eS	08	40.77	
PWA	1.32	53	eP	08	25.50	-1.0
OPT	1.35	205	eP	08	25.46	-1.6
MPA	1.40	105	eP	08	25.78	-2.0
CNPM	1.42	162	eP	08	26.03	-2.2
PTE	1.50	89	eP	08	27.34	-2.0
PDB	1.51	225	eP	08	28.06	-1.5
SEW	1.52	119	eP	08	28.11	-1.5
SVW	1.74	279	eP	08	31.28	-1.5
GHO	1.77	58	eP	08	31.70	-1.7
SML	2.04	61	eP	08	36.31	-0.9

38 obs. associated

MAR 27, 1993 12h 21m 17.13± 0.55s
42.599 N ± 4.7km 111.587 W ± 8.7km
DEPTH = 5.0km (geophysicist)
EASTERN IDAHO (457)
ML 3.2 (GS).

HVU	1.20	228	ePc	21	39.15	-1.0
			S	21	55.76	
BW06	1.51	83	ePc	21	44.37	-0.7
TPMT	2.13	358	ePn	21	53.50	-0.6
DAU	2.20	173	ePnd	21	55.83	0.7
			S	22	28.70	
DUG	2.57	201	ePn	21	59.27	-1.0
			S	22	36.28	
BGMT	2.65	353	ePn	22	00.70	-0.8
EMUT	2.84	168	ePn	22	05.38	1.1
			ePg	22	10.51	
			S	22	47.37	
MEMT	3.04	8	ePn	22	07.67	0.7
LCCM	3.25	356	ePn	22	12.07	2.2X
HBMT	3.28	347	ePn	22	13.42	3.0X
LRM	3.28	349	ePn	22	13.16	2.7X
SRU	3.58	167	ePn	22	15.12	0.5
			S	23	08.78	
MSU	4.11	186	ePn	22	22.96	0.8
HRY	4.12	358	ePn	22	23.68	1.5
ARUT	5.01	197	(Pn)	22	32.48	-2.5X
GOL	5.51	120	ePn	22	40.95	-1.2
			ePg	22	59.72	
			S	24	08.39	
RSSD	5.71	72	ePn	22	42.76	-2.1X
			ePg	22	58.31	

S.D. = 1.1 on 12 of 17 obs.

& MAR 27, 1993 14h 38m 58.12s
45.041 N 122.613 W
DEPTH = 20.4km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.7 (SEA), 2.7 (GS).

SSOR	0.21	150	Pd	39	03.45	-0.2
GT2	0.27	65	P	39	04.22	-0.2
			S	39	09.00	
PGO	0.44	15	Pd	39	07.27	0.1
TDH	0.63	67	P	39	10.22	-0.3
TKO	0.68	299	Pd	39	11.44	0.2
FBO	0.73	178	Pd	39	11.66	-0.5
BPO	0.76	120	Pd	39	12.82	0.1
VLL	0.78	57	Pd	39	12.95	-0.1
MPOR	0.86	232	Pd	39	14.39	0.1
KMOR	0.86	314	Pd	39	14.28	0.0
VFP	0.86	71	P	39	14.14	-0.2
MTMW	1.02	16	Pd	39	16.65	-0.5
LVP	1.04	8	P	39	16.76	-0.6
RVW	1.11	355	Pd	39	17.98	-0.5
GULW	1.14	39	P	39	18.70	-0.2
CDFW	1.15	20	Pd	39	18.71	-0.3
JLK	1.15	16	P	39	18.54	-0.6
CROR	1.15	92	P	39	19.60	0.4
FL2	1.17	9	Pd	39	19.21	-0.3
HSR	1.17	15	P	39	19.29	-0.2
TCO	1.18	142	P	39	19.82	0.1
SHW	1.18	13	ePd	39	19.39	-0.2
			S	39	35.70	
REMW	1.20	14	P	39	19.83	-0.1
ESD	1.20	16	P	39	19.67	-0.3
NLO	1.20	331	Pd	39	20.34	0.5
HBO	1.21	170	Pd	39	19.92	-0.2
STD	1.23	13	Pd	39	19.98	-0.3
SOSW	1.24	15	Pd	39	20.20	-0.3
ERK	1.28	8	Pd	39	20.70	-0.3
ASR	1.32	32	Pd	39	21.67	0.1
GMO	1.33	116	P	39	22.21	0.5
TDL	1.34	12	Pd	39	21.83	0.0
VGB	1.38	69	eP	39	23.34	1.0
			S	39	41.99	
RNO	1.39	216	P	39	23.08	0.6
CZM	1.40	3	P	39	22.99	0.4
KOSW	1.45	12	Pd	39	23.69	0.3
BMW	1.50	344	eP	39	23.72	-0.3
			S	39	43.29	
HSO	1.55	193	P	39	24.98	0.1
GL2	1.56	53	P	39	26.48	1.5
LMW	1.64	8	Pd	39	27.12	0.9
LON	1.80	18	eP	39	28.94	0.5
SMW	2.33	348	P	39	38.06	2.0
RMW	2.48	13	eP	39	38.93	0.7
GMW	2.51	357	eP	39	39.91	1.3
TBM	2.55	33	P	39	41.74	2.5
OT2	2.90	53	P	39	45.36	1.4
JCW	3.19	8	P	39	50.68	2.5
MCW	3.64	358	eP	39	56.13	1.4

48 obs. associated

% MAR 27, 1993 14h 41m 04.01± 0.71s
26.336 S ± 6.3km 27.599 E ± 8.1km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.2 (PRE).

PRY	0.60	191	eP	41	15.50	-0.5
			S	41	23.20	
KSR	0.79	306	eP	41	20.00	0.1
			S	41	29.00	
SLR	0.86	46	eP	41	20.40	-0.7
			S	41	31.00	
SEK	1.98	179	iPc	41	38.80	0.1
			S	42	01.80	
BFT	2.29	74	eP	41	44.00	0.7
			S	42	10.50	
BLF	3.03	204	e(P)	41	54.00	0.3

S.D. = 0.7 on 6 of 6 obs.

% MAR 27, 1993 15h 29m 30.05± 0.77s
26.388 S ± 6.0km 27.481 E ± 8.1km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.1 (PRE).

PRY	0.54	181	eP	29	41.00	0.1
			S	29	47.00	
KSR	0.74	315	eP	29	45.00	0.1
			S	29	55.00	
SLR	0.97	48	eP	29	49.00	-0.1
			S	30	01.00	
SEK	1.93	176	Pc	30	04.00	0.0
			S	30	27.00	
SWZ	2.08	247	e(P)	30	06.00	-0.2

S.D. = 0.2 on 5 of 5 obs.

• MAR 27, 1993 15h 41m 58.96± 3.55s
41.595 N ±24.5km 22.671 E ±11.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.4 (THE).

VAY	0.28	196	iPg	42	05.00	0.1
			iSg	42	12.70	
KNT	0.47	158	ePg	42	08.66	0.2
			eSg	42	18.66	
GRG	0.67	198	ePg	42	11.98	-0.3
			eSg	42	24.78	
SRS	0.84	124	ePg	42	14.66	-0.6
			eSg	42	29.58	
SOH	0.93	146	ePb	42	16.54	-0.2
			eSb	42	33.14	
THE	0.99	167	ePb	42	17.34	-0.3
			iSb	42	35.34	
LIT	1.50	185	ePb	42	25.94	0.0
OUR	1.60	141	ePb	42	27.94	0.6
PAIG	1.83	155	ePn	42	31.26	0.5

S.D. = 0.5 on 9 of 9 obs.

• MAR 27, 1993 16h 22m 07.71± 1.56s
37.598 N ±13.8km 21.306 E ±12.5km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.4 (ATH), 3.4 (THE).

VLS	0.81	316	ePg	22	23.80	0.4
VLI	1.57	124	ePb	22	36.50	0.8
AGG	1.63	29	ePb	22	35.32	-1.3
			eSb	22	57.80	
ATH	1.95	78	ePb	22	40.00	-1.1
KEK	2.42	331	ePg	22	55.20	7.3X
LIT	2.66	20	ePn	22	55.36	3.9X
			eSn	23	25.70	
KZN	2.73	7	ePn	22	52.50	0.1
PAIG	2.97	38	ePn	22	57.56	1.8
FNA	3.18	1	ePn	23	03.68	4.9X
OUR	3.44	37	ePn	23	05.00	2.7X
GRG	3.46	14	ePn	23	07.60	4.9X
OHR	3.53	354	ePn	23	04.70	1.0
SOH	3.59	26	ePn	23	07.76	3.2X
VAY	3.84	14	ePn	23	08.50	0.3
NB2	24.31	348	P	27	24.20	-1.9

0.7s 0.90nm 3.5mb
S.D. = 1.4 on 9 of 15 obs.

• MAR 27, 1993 17h 49m 06.35± 1.48s
14.254 N ±19.1km 92.686 W ± 8.9km
DEPTH = 55.0 ± 12.2 km
4.7mb (3 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

TPX	0.77	32	iPc	49	20.20	-1.1
			iS	49	35.70	
TER	1.94	88	eP	49	36.95	-0.6
			eS	50	01.19	
PCG	2.02	86	eP	49	38.37	-0.5
			eS	50	09.04	
			eS	50	11.78	
BVA	2.03	78	eP	49	39.89	0.9
GCG	2.11	81	eP	49	40.97	0.9
IXG	2.17	92	eP	49	40.36	-0.4

27d 17h

SCX 2.47 1 iP 49 46.60 1.7
iS 50 15.20
YUP 2.80 91 eP 49 40.27 -9.5X
MRL 3.01 74 eP 49 52.71 -0.1
OXX 4.80 306 iP 50 18.00 -0.1
IISM 6.51 317 iP 50 38.60 -3.2X
PPM 7.44 311 iP 50 55.00 -0.3
IIA 7.51 311 (P) 50 57.30 1.5
III 7.69 303 iP 50 57.00 -1.6
LTX 18.12 328 iPd 53 17.21 1.3
MEO 21.12 346 iPc 53 46.10 -2.6
ALQ 24.05 331 eP 54 18.66 1.0
0.5s 2.11nm 3.9mb
BW06 31.93 336 eP 55 28.86 -0.3
0.9s 31.63nm 5.1mb
SIV 43.35 133 P 57 17.40 12.3X
YKA 50.63 347 eP 58 00.30 -1.3
0.8s 6.90nm 4.7mb
HYB 147.37 16 ePKP 08 45.50 1.6
KHT 149.07 338 ePKP 08 51.20 4.6X
GBA 150.64 20 PKP 08 55.00 6.1X
S.D. = 1.3 on 18 of 23 obs.

MAR 27, 1993 18h 15m 37.87± 1.39s
2.273 N ± 6.4km 127.126 E ± 9.3km
DEPTH = 60.2 ± 14.4 km
5.1mb (13 obs.)
NORTHERN MOLUCCA SEA (266)

SWI 5.18 127 ePc 16 54.50 -0.1
eS 17 53.00
KKM 11.51 289 ePc 18 29.50 7.6X
MTN 15.54 165 eP 19 16.00 1.3
WB2 23.19 163 eP 20 39.90 -0.4
0.6s 35.30nm 5.0mb
IPM 26.15 276 ePd 21 09.00 0.5
ASPA 26.61 166 iPc 21 11.20 -1.5
0.3s 18.70nm 5.1mb
WARB 28.29 181 eP 21 27.00 -0.8
CTA 29.09 141 iPc 21 34.00 -1.1
LOE 29.13 303 iPc 21 35.00 -0.4
MEEK 29.89 195 eP 21 42.00 -0.2
KHT 30.78 295 eP 21 50.70 0.6
CHTO 32.12 303 ePc 22 01.60 -0.3
1.0s 23.00nm 5.0mb
KMI 32.69 316 Pc 22 07.00 0.0
1.5s 40.00nm 5.0mb
pP 22 14.50 26kmX
MRWA 33.08 198 eP 22 10.20 0.1
COOL 33.46 189 eP 22 12.30 -1.1
BAL 34.17 196 eP 22 20.00 0.5
KLB 34.84 194 eP 22 25.30 0.1
STK 36.64 159 iPd 22 40.20 -0.2
0.6s 11.10nm 5.0mb
BJI 38.89 347 eP 22 58.50 -0.6
1.1s 27.00nm 5.0mb
LZH 39.95 330 Pc 23 09.00 0.7
1.5s 38.00nm 5.0mb
Z 22s 0.25um 4.0MszX
pP 23 34.50 111kmX
ARMA 40.04 146 iPd 23 10.00 1.0
0.6s 18.00nm 5.1mb
BWA 41.63 153 eP 23 22.90 1.0
e 23 39.70
CAN 42.64 153 eP 23 30.60 0.4
e 23 47.40
GUN 46.90 307 P 24 04.60 -0.2
PKI 47.14 306 P 24 06.40 -0.2
0.9s 23.00nm 5.1mb
KKN 47.33 307 P 24 07.40 -0.7
0.8s 35.00nm 5.4mb
DMN 47.40 306 P 24 08.20 -0.4
0.9s 49.00nm 5.5mb
GKN 47.94 306 P 24 11.60 -1.1
0.8s 32.00nm 5.4mb
HYB 49.99 291 ePc 24 29.00 0.6
e 24 50.00
YAK 59.63 1 eP 25 35.00 -2.7X
0.9s 30.00nm 5.4mb
QUE 63.26 303 eP 26 04.50 1.5
MAIO 70.71 308 eP 26 50.00 0.2
OBN 88.45 325 eP 28 28.00 3.3X
ZOBO 159.52 134 PKP 35 33.00 0.6
S.D. = 0.8 on 31 of 34 obs.

---

* MAR 27, 1993 18h 21m 45.83± 0.63s
9.224 S ± 9.4km 125.629 E ±12.4km
DEPTH = 33.0km (normal)
TIMOR REGION, INDONESIA (289)

MTN 6.49 124 eP 23 20.50 -1.1
0.3s 207.00nm 6.4mb
eS 24 27.00
WB2 13.59 143 eP 24 54.30 -4.4X
eS 27 13.80
ASPA 16.40 152 iPd 25 33.70 -1.5
eS 28 24.40
WARB 16.90 177 eP 25 40.50 -1.0
eS 28 36.00
MEEK 18.55 200 eP 26 02.00 -0.1
eS 29 17.00
MRWA 21.85 203 eP 26 38.00 0.5
CTA 22.66 121 e(P) 26 47.00 1.4
STK 26.98 149 eP 27 28.80 2.3
0.8s 1.30nm 3.6mb
MAT 47.03 14 eP 30 15.00 -1.1
GUN 53.30 315 P 31 04.40 -0.2
PKI 53.43 314 P 31 05.20 -0.2
GKN 54.23 314 P 31 11.00 -0.1
YKA 111.63 26 ePKP 40 19.40 1.1
0.6s 0.40nm
CNCB 150.84 152 PKP 41 41.80 9.5X
LPB 151.03 152 ePKP 41 47.00 14.6X
ZOBO 151.23 152 PKP 41 41.90 8.9X
S.D. = 1.3 on 12 of 16 obs.

? MAR 27, 1993 19h 33m 58.44± 1.38s
6.747 S ±21.0km 147.697 E ±16.9km
DEPTH = 55.8 ± 20.3 km
4.4mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC 0.20 51 iPc 34 07.50 0.0
LAT 0.70 277 iPd 34 12.60 0.1
YYYY 1.79 286 eP 34 28.10 0.5
eS 34 53.40
MDG 2.42 308 eP 34 35.80 -0.5
PMG 2.69 191 eP 34 44.00 3.8X
WB2 18.44 223 eP 38 10.90 -0.9
0.2s 4.80nm 4.3mb
ASPA 21.42 217 iPd 38 44.50 0.7
0.3s 5.70nm 4.4mb
S.D. = 0.9 on 6 of 7 obs.

MAR 27, 1993 20h 24m 03.75± 0.66s
37.674 N ± 7.1km 137.437 E ± 5.8km
DEPTH = 33.0km (normal)
4.7mb (1 obs.)
NEAR WEST COAST OF HONSHU, JAPAN(226)

MTMJ 1.13 165 P 24 22.70 -0.6
S 24 38.50
MAT 1.29 151 iPc 24 24.80 -0.8
iS 24 41.80
NIIJ 1.32 109 P 24 25.20 -0.8
S 24 42.90
CHJJ 2.05 142 P 24 37.00 0.4
S 25 03.50
YAMJ 2.12 76 eP 24 36.80 -0.7
IIDJ 2.22 170 P 24 39.60 0.6
S 25 07.40
TSRJ 2.43 209 P 24 41.30 -0.7
KAKJ 2.64 123 P 24 46.80 1.9
OFUJ 3.61 66 P 24 58.70 0.0
eS 25 54.30
AOMJ 3.68 37 eP 24 59.80 0.2
WKYJ 3.76 204 P 25 00.10 -0.7
YONJ 4.05 233 P 25 04.40 -0.6
eS 25 51.30
TKSJ 4.60 218 eP 25 13.60 0.9
SHNJ 6.24 237 P 25 36.80 0.9
ASPA 61.10 184 eP 34 16.80 -0.1
0.4s 2.70nm 4.7mb
S.D. = 0.9 on 15 of 15 obs.

? MAR 27, 1993 20h 50m 38.54± 4.23s
16.316 N ±10.7km 61.004 W ±37.5km
DEPTH = 35.0 ± 20.7 km
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

DEG 0.05 267 iPd 50 44.37 -0.1
S 50 48.29
SFG 0.19 252 iPd 50 45.39 0.1
SEG 0.49 280 ePd 50 48.88 -0.1
S 50 55.70
MGG 0.50 217 eP 50 49.18 0.1
PAG 0.71 246 eP 50 51.86 -0.3
S 51 01.62
BPA 1.09 312 eP 50 57.54 -0.1
S 51 11.40
MGH 1.23 289 eP 50 59.90 0.3
S 51 14.70
S.D. = 0.3 on 7 of 7 obs.

& MAR 27, 1993 22h 03m 21.83s
61.415 N 146.945 W
DEPTH = 11.9km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

VLZ 0.41 134 iPc 03 29.97 -0.3
eS 03 36.29
SCM 0.46 337 iPc 03 31.20 -0.1
eS 03 38.45
KLU 0.50 81 iPc 03 31.54 -0.5
eS 03 39.00
SML 0.77 301 iPc 03 35.62 -1.1
TZL 0.96 48 eP 03 39.43 -0.5
GHO 1.01 292 iPc 03 39.50 -1.4
HIN 1.04 168 iPc 03 40.13 -1.3
eS 03 55.46
CVA 1.05 146 eP 03 39.83 -1.6
eS 03 55.43
PLRM 1.06 281 iPc 03 40.27 -1.4
eS 03 54.62
PMR 1.06 281 ePd 03 39.95 -1.7
eS 03 53.70
PTE 1.15 242 ePc 03 41.72 -1.4
SGAM 1.25 136 ePc 03 42.97 -1.9
PMS 1.27 263 P 03 43.70 -1.6
SDG 1.30 30 iPd 03 44.19 -1.5
eS 04 00.76
PWA 1.43 281 P 03 45.70 -1.8
MPA 1.50 233 iPd 03 47.27 -1.3
eS 04 06.81
GLB 1.51 88 iPc 03 46.96 -1.7
eS 04 07.37
RAGM 1.51 132 eP 03 47.33 -1.5
PAX 1.71 23 eP 03 50.32 -1.3
SEW 1.80 224 eP 03 52.09 -0.8
SUA 1.83 273 iPc 03 52.36 -1.0
SLKM 1.84 242 eP 03 52.08 -1.4
CRQM 1.96 108 eP 03 54.16 -1.3
HUR 2.01 322 eP 03 55.88 -0.1
TGL 2.11 106 eP 03 56.25 -1.2
RND 2.19 337 eP 03 58.52 -0.1
NKA 2.19 254 eP 03 59.64 1.1
SKT 2.26 287 eP 03 58.10 -1.4
BALM 2.26 98 iPd 03 57.79 -1.9
SNH 2.36 120 eP 04 01.06 0.0
SPU 2.48 267 eP 04 00.76 -1.9
MCK 2.50 339 eP 04 03.11 0.1
CPAM 2.51 269 eP 04 01.92 -1.3
CRP 2.52 269 eP 04 01.84 -1.5
CKN 2.53 268 eP 04 02.85 -0.6
CKT 2.55 267 eP 04 02.07 -1.6
CP2 2.56 269 eP 04 03.70 -0.3
TRF 2.57 324 eP 04 03.37 -0.7
DOT 2.61 30 eP 04 05.02 0.5
CKL 2.61 268 eP 04 02.88 -1.8
BGL 2.63 269 eP 04 03.39 -1.5
YAH 2.75 110 eP 04 05.61 -1.2
CTGM 2.75 97 ePc 04 05.33 -1.4
CNPM 2.85 230 eP 04 06.10 -1.8
44 obs. associated

& MAR 27, 1993 22h 24m 15.32s
45.033 N 122.618 W
DEPTH = 15.4km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 2.2 (SEA), 2.3 (GS).

SHW 1.19 13 eP 24 36.75 -0.4
eS 24 51.62
VGB 1.39 69 eP 24 40.92 0.9
BMW 1.50 344 eP 24 41.82 0.1
LON 1.81 18 eP 24 47.00 0.9
eS 25 10.63
RMW 2.49 13 (P) 24 57.72 1.8
5 obs. associated

MAR 27, 1993 22h 38m 54.52± 0.77s
39.559 N ± 9.4km 20.550 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
ML 2.6 (THE).

IGT	0.17	261	ePg	38 58.25	-0.1
			eSg	39 01.58	
FNA	1.38	27	ePb	39 18.98	-0.8
			eSb	39 38.54	
AGG	1.48	111	iPb	39 21.42	0.2
			iSb	39 43.02	
OHR	1.56	7	ePn	39 23.30	0.9
LIT	1.59	69	iPb	39 23.06	0.3
			eSb	39 45.42	
GRG	1.99	45	ePb	39 28.66	0.1
PAIG	2.44	80	ePn	39 35.14	0.1
SOH	2.49	59	iPn	39 35.22	-0.6
			eSn	40 07.02	

S.D. = 0.6 on 8 of 8 obs.

? MAR 27, 1993 22h 47m 28.82± 1.86s
41.220 N ±16.1km 23.148 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.3 (THE).

KNT	0.20	253	ePg	47 33.20	0.0
			eSg	47 36.04	
SRS	0.35	107	iPg	47 36.04	0.0
			eSg	47 41.08	
SOH	0.43	159	ePg	47 37.60	0.1
			eSg	47 43.36	
THE	0.60	193	ePg	47 40.92	-0.1
			eSg	47 48.72	

S.D. = 0.1 on 4 of 4 obs.

---

* MAR 27, 1993 23h 40m 28.93± 1.74s
45.121 S ± 7.2km 167.201 E ±14.0km
DEPTH = 111.7 ± 15.1 km
SOUTH ISLAND, NEW ZEALAND (162)

MSZ	0.68	49	P	40 47.40	-0.1
			S	40 58.70	
BCZ	0.99	153	P	40 50.20	-0.2
			S	41 03.20	
TLC	1.33	94	P	40 54.00	-0.3
CMCZ	1.47	92	P	40 56.10	0.2
			S	41 13.00	
MHZ	1.47	88	Pd	40 56.30	0.3
SBCZ	1.49	90	Pd	40 56.40	0.2
LRCZ	1.52	89	Pd	40 56.90	0.3
LSCZ	1.54	91	P	40 56.80	0.1
MSCZ	1.57	90	P	40 57.20	0.1
SIZ	1.87	160	P	41 01.00	0.2
TUZ	1.90	117	P	41 01.00	-0.2
			S	41 21.60	
BWZ	2.00	74	P	41 02.40	0.0
ODZ	2.44	89	P	41 07.80	-0.4
EWZ	3.08	60	P	41 16.30	-0.4
DSZ	4.75	46	eP	41 39.80	0.2

S.D. = 0.3 on 15 of 15 obs.

MAR 27, 1993 23h 47m 08.74± 0.31s
41.207 N ± 3.3km 23.207 E ± 3.0km
DEPTH = 10.0km (geophysicist)
4.0mb (4 obs.)
GREECE-BULGARIA BORDER REGION (363)
ML 4.2 (ATH), 3.9 (THE). Felt
(IV) in southwestern Bulgario.

KNT	0.24	259	iPg	47 13.14	-0.7
SRS	0.30	107	iPg	47 15.74	0.6
SOH	0.40	164	iPg	47 17.18	0.2
VAY	0.49	284	iPgc	47 17.50	-1.2
			iSg	47 23.70	
MMB	0.55	46	iPgc	47 19.00	-0.8
THE	0.60	198	iPg	47 20.42	-0.5
			iSg	47 28.10	
GRG	0.66	248	iPg	47 20.70	-1.2
KKB	0.67	352	iPgc	47 21.00	-1.0
LIT	1.23	206	iPb	47 31.06	-0.6
			eSb	47 48.10	
RZN	1.23	67	iPd	47 33.00	1.2
PAIG	1.33	164	iPb	47 32.93	-0.3
			iSb	47 52.22	
KZN	1.41	231	ePb	47 33.80	-0.8
PLD	1.44	51	iPd	47 36.00	1.2
FNA	1.45	254	ePb	47 34.74	-0.3
			eSb	47 53.74	
PGB	1.52	28	iPd	47 36.00	0.0
SKO	1.53	301	iPn	47 35.80	-0.3
			iPg	47 37.30	
KDZ	1.72	74	iPd	47 38.00	-0.9
RDO	1.76	91	iPbd	47 39.50	0.1
			eSb	48 06.20	
OHR	1.82	268	iPn	47 39.60	-0.8
			i	47 43.50	
			i	48 03.20	
			i	48 09.50	
PHP	2.13	284	ePn	47 45.90	1.0
			iSn	48 12.10	
ALN	2.17	97	iPn	47 45.66	0.3
			eSn	48 10.70	
TIR	2.52	274	ePn	47 54.50	4.1X
			eSn	48 27.00	
PVL	2.55	37	iPd	47 49.00	-1.8
TPE	2.59	250	ePn	48 01.00	9.6X
SRN	2.78	243	ePn	48 01.00	6.9X
PVY	2.78	301	iPnc	47 59.48	5.2X
			iSn	48 46.31	
JMB	2.82	62	iPd	47 53.00	-1.7
SDA	2.90	288	ePn	47 58.00	2.2
IVA	2.97	305	iPnc	48 02.45	5.6X
			iSn	48 51.75	
PRK	3.06	129	ePn	47 55.30	-2.7X
ULC	3.06	286	iPnc	48 01.27	3.2X
			iSn	48 49.57	
TTG	3.19	294	iPnc	48 04.30	4.4X
			iSn	48 54.61	
ATH	3.25	173	ePn	48 02.30	1.5
BDV	3.45	290	iPnc	48 07.00	3.4X
			iSn	48 59.76	
DMK	3.47	78	iPn	48 03.40	-0.5
NKY	3.52	298	iPnc	48 09.43	4.7X
			iSn	49 03.81	
PLE	3.54	308	ePn	48 10.73	5.8X
			iSn	49 05.98	
BNT	3.68	102	ePn	48 07.00	0.1
HCY	3.73	291	iPnc	48 11.22	3.6X
			iSn	49 06.73	
SSR	3.81	344	ePd	48 11.00	2.3
BRY	3.86	298	iPnc	48 13.98	4.4X
			iSn	49 11.71	
CTT	3.94	89	ePn	48 09.90	-0.7
KCT	4.03	102	eP	48 22.80	11.0X
GZR	4.20	356	ePd	48 12.50	-1.7
CMP	4.27	18	ePd	48 16.00	0.7
ITU	4.39	89	ePn	48 31.00	14.1X
			iSg	49 30.00	
ISK	4.42	90	ePn	48 20.00	2.6X
DEV	4.68	357	ePc	48 21.00	0.0
MLR	4.72	24	ePd	48 22.50	0.7
			e	57 11.00	
HRT	4.90	92	eP	48 23.80	-0.5
CVO	5.09	24	ePc	48 28.00	1.1
			e	08 04.50	
BRD	5.14	32	ePd	48 24.00	-3.5X
			e	08 03.00	
VRI	5.32	28	ePc	48 29.00	-1.1
CFR	5.37	41	eP	48 12.00	-18.8X
KIS	7.09	33	eP	49 09.00	14.0X
UZH	7.45	355	eP	49 04.00	3.9X
			eS	50 23.00	
ZST	8.23	330	eP	49 10.80	-0.1
			e	49 27.70	
KHC	10.43	323	eP	49 43.50	2.1
			e	50 21.00	
LOR	15.12	300	eP	50 51.60	7.7X
SSF	15.29	299	eP	50 53.50	7.3X
	0.8s		4.85nm		3.9mb
AVF	15.33	298	eP	50 54.80	8.2X
	0.8s		5.25nm		3.9mb
N82	21.17	344	P	51 52.60	-3.6X
	1.1s		7.60nm		4.0mb
BCAO	36.85	188	iPd	54 21.00	2.0
	0.7s		6.00nm		4.5mb

S.D. = 1.1 on 39 of 63 obs.

? MAR 27, 1993 23h 53m 36.23±26.86s
41.434 N ±177.km 23.013 E ±55.3km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.5 (THE).

KNT	0.28	198	ePg	53 41.80	-0.4
			eSg	53 44.68	
SRS	0.54	126	ePg	53 47.16	0.0
			eSg	53 51.96	
SOH	0.66	157	ePg	53 49.08	-0.4
THE	0.80	183	ePg	53 52.32	0.6
			eSg	54 00.08	

S.D. = 0.8 on 4 of 4 obs.

MAR 27, 1993 23h 54m 23.01± 0.52s
41.230 N ± 5.4km 23.156 E ± 4.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.6 (THE), 2.1 (SKO).

KNT	0.21	251	ePg	54 27.80	0.3
			eSg	54 31.16	
SRS	0.35	109	ePg	54 30.28	0.1
			eSg	54 35.28	
SOH	0.43	160	iPg	54 31.84	0.0
			eSg	54 37.60	
VAY	0.45	282	iPg	54 32.30	0.1
			iSg	54 38.30	
MMB	0.56	50	ePg	54 34.00	-0.4
THE	0.61	194	ePg	54 35.08	-0.3
			eSg	54 43.04	
RZN	1.26	68	eP	54 47.00	0.5
SKO	1.49	301	ePn	54 49.50	-0.3

S.D. = 0.4 on 8 of 8 obs.

---

* MAR 27, 1993 23h 54m 45.53± 1.07s
41.189 N ±10.3km 23.190 E ± 6.4km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 3.0 (THE), 2.5 (SKO).

KNT	0.22	263	ePg	54 50.12	-0.2
SRS	0.31	103	ePg	54 51.92	-0.1
			eSg	54 56.64	
SOH	0.39	161	ePg	54 53.76	0.3
			eSg	54 59.28	
VAY	0.49	286	iPg	54 55.60	0.2
			iSg	55 01.70	
THE	0.58	197	ePg	54 57.12	-0.2
			eSg	55 05.08	

S.D. = 0.3 on 5 of 5 obs.

? MAR 27, 1993 23h 57m 26.63± 1.75s
41.211 N ±15.3km 23.159 E ± 7.3km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.9 (THE).

KNT	0.20	256	ePg	57 31.12	0.0
			eSg	57 34.00	
SRS	0.34	106	ePg	57 33.64	0.0
			eSg	57 38.00	
SOH	0.42	159	iPg	57 35.24	0.1
			eSg	57 40.80	
THE	0.60	194	iPg	57 38.56	-0.1
			eSg	57 46.12	
GRG	0.63	246	ePg	57 47.56	8.3X
			eSg	58 00.76	

S.D. = 0.2 on 4 of 5 obs.

MAR 28, 1993 00h 02m 35.75± 0.22s
21.918 S ± 5.8km 176.827 W ± 6.1km
DEPTH = 209.9km (4 depth phases)
4.9mb (19 obs.)
FIJI ISLANDS REGION (181)

SVA	5.83	310	eP	04 02.70	1.1
VUN	5.89	310	iP	04 03.00	0.5
DZM	15.52	266	iPc	06 10.50	5.2X
URZ	17.10	196	eP	06 20.60	-3.2X
			eS	09 19.30	
WLZ	17.19	201	P	06 24.90	0.1
NOZ	17.22	194	eP	06 23.70	-1.4
PGZ	19.54	196	eP	06 48.10	-1.1
TCW	20.65	199	eP	06 56.60	-3.7X
ORZ	20.90	203	eP	07 01.10	-1.6
THZ	21.59	201	eP	07 09.00	-0.6
			eS	10 52.80	
WVZ	23.51	203	eP	07 27.80	-0.2
HNR	25.53	295	eP	07 50.00	3.1X

28d 00h

```
ARMA   29.47 247 iPd    08 26.00    3.6X
       0.8s    14.00nm          4.7mb
RMQ    31.66 255 iPd    08 43.40    2.0
       0.8s    20.00nm          4.8mb
CAN    32.66 238 eP     08 50.70    0.6
BWA    32.91 240 eP     08 50.80   -1.5
CTA    34.46 266 iPc    09 06.50    0.9
       0.9s     6.30nm          4.2mb
CMS    34.56 246 iPd    09 06.90    0.7
QLP    35.71 255 eP     09 17.30    1.3
       0.6s    44.00nm          5.2mb
STK    38.19 246 eP     09 37.60    0.9
       0.7s     3.20nm          4.0mb
ASPA   45.28 258 iPd    10 34.70    0.3
       0.6s    40.30nm          5.0mb
                 i      11 26.70 245kmX
                 eS     16 56.40
                 eScS   20 11.10
MHA    46.58  28 (P)    10 42.00   -2.5
MTN    50.28 271 eP     11 12.30   -0.8
WARB   51.46 253 eP     11 21.00   -0.9
GUMO   51.54 310 eP     11 20.70   -1.8
       0.8s   329.50nm          5.9mb X
                 e      11 22.60    6kmX
PJG    51.54 310 eP     11 21.00   -1.5
NANU   62.09 255 eP     12 36.30   -0.4
       0.5s    17.00nm          5.1mb
CSY    63.16 206 iPd    12 44.30    1.2
       0.7s    38.20nm          5.3mb
SPA    68.21 180 iPc    13 17.00    1.6
       0.8s    82.08nm          5.5mb
MAT    71.99 323 eP     13 35.00   -3.3X
       0.8s     9.70nm          4.6mb
ADK    73.48   0 eP     13 44.60   -1.9
       0.6s    55.50nm          5.5mb
GSC    80.44  46 (P)    14 25.84    0.3
LBFM   80.94  39 eP     14 28.68    0.5
VIP    81.39  41 P      14 42.55   11.9X
KMOR   82.84  35 P      14 38.53    0.8
SSOR   82.88  36 P      14 38.28    0.3
BMW    83.53  34 eP     14 41.66    0.5
CROR   83.77  36 P      14 42.96    0.5
SHW    83.87  35 eP     14 44.29    1.3
ASR    84.18  35 P      14 45.21    0.7
VGB    84.22  36 eP     14 45.36    0.7
STW    84.42  33 P      14 46.47    1.0
LON    84.45  34 eP     14 46.13    0.3
GMW    84.47  33 eP     14 46.17    0.4
FMW    84.64  34 P      14 47.58    0.7
JBO    84.70  36 P      14 47.74    0.7
RMW    84.92  34 eP     14 48.60    0.5
                 e      14 56.98
                 pP     15 40.91 214km
SLKM   84.93  13 ePd    14 46.56   -1.3
MCW    85.19  33 P      14 50.96    1.6
CP2    85.23  12 ePd    14 48.05   -1.5
CRP    85.25  12 eP     14 47.38   -2.2
MSU    85.31  45 eP     14 51.24    0.7
                 pP     15 41.74 206km
JCW    85.33  33 P      14 50.62    0.6
WAH2   85.65  35 P      14 52.47    0.8
PMS    85.74  13 eP     14 51.20   -0.6
WTV    86.03  35 P      14 53.87    0.3
TTA    86.15   9 eP     14 53.34   -0.5
       1.4s    50.66nm          5.2mb
SAW    86.33  35 P      14 55.25    0.3
SRU    86.72  46 eP     14 57.41    0.1
LTX    86.90  57 eP     14 58.84    0.6
                 pP     15 48.52 202km
                 sP     16 08.94
DPW    87.07  35 eP     14 58.38   -0.2
BALM   87.23  16 ePc    14 58.54   -0.6
ALQ    87.44  51 eP     15 00.98    0.1
       0.8s     4.34nm          4.3mb
BW06   89.25  43 eP     15 08.36   -1.0
       1.0s     3.90nm          4.3mb
FBA    89.39  12 ePd    15 07.85   -1.3
       1.0s    26.72nm          5.1mb
LCCM   89.45  39 eP     15 10.70    0.6
IMA    89.46   9 ePd    15 08.98   -0.6
       1.4s    30.60nm          5.0mb
GOL    90.47  47 eP     15 15.36    0.3
       0.9s     5.09nm          4.5mb
CHTO   91.75 289 eP     15 22.40    1.4
SES    92.37  36 eP     15 24.00    0.8
                 pP     15 32.00   25kmX
RSSD   93.42  44 eP     15 27.57   -0.9
```

```
        0.9s     12.05nm            5.0mb
                   pP     16 21.20 218km
YKA     97.34  24 eP     15 44.70   -0.8
        1.1s      2.20nm          4.4mb
KAF    136.81 344 ePKP   21 33.50   -0.7
        0.6s      2.10nm
OBN    138.51 331 iPKPd  21 39.00    1.4
        1.5s     49.00nm
NUR    138.60 344 ePKP   21 39.00    1.4
        0.6s      4.60nm
                  eSKP   24 54.00
NB2    140.51 354 PKP    21 32.00   -9.1X
        0.7s      3.30nm
HFS    141.10 352 ePKP   21 34.50   -7.6X
        0.4s      2.00nm
KAC    143.92   8 ePKP   21 44.60   -2.5X
KPL    144.04   8 ePKP   21 45.10   -2.1
KSB    144.19   8 ePKP   21 45.70   -1.8
EDR    144.79   5 ePKP   21 47.40   -1.2
EDU    145.11   6 ePKP   21 48.70   -0.4
ELO    145.12   7 ePKP   21 48.70   -0.5
        1.2s     33.00nm
MUD    145.22 354 iPKPd  21 49.40    0.1
        0.8s     74.00nm
EAB    145.32   7 ePKP   21 49.40   -0.1
        1.1s     30.00nm
EBH    145.36   7 ePKP   21 50.00    0.4
        1.2s     51.00nm
COP    145.58 351 iPKPd  21 50.00    0.1
        0.8s     65.67nm
EAU    145.76   7 ePKP   21 51.70    1.4
ESY    145.77   6 ePKP   21 50.60    0.3
EBL    145.87   6 ePKP   21 51.20    0.7
EKA    146.30   7 PKPd   21 53.80    2.7X
        0.9s     16.90nm
WIT    149.04 356 ePKP   22 01.50    6.0X
KSP    149.36 344 iPKPd  22 01.20    5.1X
HMDT   149.52 297 ePKP   22 02.20    5.3X
CLL    149.68 348 iPKPd  22 01.70    5.1X
        1.3s     71.00nm
WTS    149.84 356 iPKP   22 02.40    5.6X
        1.1s     53.40nm
                  e      22 08.00
ZNT    149.93 297 ePKP   22 03.10    5.5X
MLR    150.00 327 ePKPc  22 03.50    6.0X
                  e      53 35.50
MOX    150.57 349 iPKPd  22 03.90    5.9X
        1.4s     38.00nm
PRU    150.58 345 PKPd   22 04.20    6.2X
        1.0s     16.60nm
                  e      22 08.30
RMN    150.59 293 ePKP   22 04.50    5.7X
HOF    150.84 349 iPKPc  22 05.10    6.7X
ENN    151.13 356 ePKP   22 05.00    6.3X
        0.9s      7.50nm
                  i      22 13.20
SNF    151.45 359 iPKPc  22 06.29    7.1X
                  i      22 14.37
ZST    151.50 340 ePKP   22 05.80    6.4X
GRF    151.56 349 iPKPd  22 06.90    7.4X
                  e      22 15.30
KHC    151.61 346 PKPd   22 06.50    6.9X
        1.0s     10.50nm
                  e      22 15.50
GEC2   151.85 345 ePKPd  22 06.90    6.8X
        0.7s      4.91nm
                  e      22 09.40
DOU    151.86 358 PKPc   22 07.40    7.5X
                  e      22 16.50
WLF    152.21 356 PKP    22 09.00    8.6X
FLN    153.06   5 iPKPd  22 20.20   18.6X
        1.1s     37.10nm
LDF    153.25   5 iPKPd  22 20.90   19.0X
        0.8s     10.75nm
CDF    153.36 354 iPKPd  22 21.80   19.6X
        0.9s      7.70nm
GRR    153.39   6 iPKPd  22 22.00   19.9X
        0.9s     14.60nm
      S.D. = 1.0  on  80 of 114 obs.
-----------------------------------------
   MAR  28, 1993  00h 06m 41.70± 0.80s
   41.217 N ± 9.6km    23.189 E ± 6.2km
   DEPTH = 10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)
      MD 3.7 (ATH). ML 3.4 (TIR).
MMB      0.55  47 iPc    06 53.00    0.1
```

```
KKB      0.65 353 iPc    06 53.00   -1.7
RZN      1.24  67 iP     07 06.00    1.1
KZN      1.41 230 ePn    07 07.00   -0.5
SKO      1.51 300 iPn    07 08.70   -0.1
                  iPg    07 10.20
                  iSg    07 29.20
RDO      1.77  92 ePn    07 11.50   -1.1
                  eSn    07 40.70
OHR      1.81 267 iPn    07 12.80   -0.4
                  i      07 17.50
                  i      07 36.60
                  i      07 39.10
PHP      2.12 284 ePn    07 19.40    1.8
                  iSn    07 43.40
TIR      2.51 274 ePn    07 29.70    6.5X
TPE      2.58 250 ePn    07 39.00   14.7X
SRN      2.77 242 ePn    07 43.90   17.0X
CMP      4.27  18 ePc    08 11.00   22.8X
MLR      4.72  24 ePd    07 55.50    0.8
VRI      5.31  28 ePd    08 03.00    0.0
      S.D. = 1.2  on  10 of  14 obs.
-----------------------------------------
   MAR  28, 1993  00h 52m 39.55± 0.66s
   42.208 N ± 7.5km    25.502 E ± 5.6km
   DEPTH = 10.0km  (geophysicist)
 BULGARIA                         (359)
KDZ      0.56 187 iPgc   52 50.00   -1.0
PLD      0.60 260 iPc    52 51.00   -0.7
RZN      0.78 229 iPc    52 54.00   -0.9
JMB      0.84  72 iPgc   52 54.00   -1.8
PVL      1.02 353 iPc    52 59.00    0.3
PGB      1.05 289 ePg    53 00.00    0.7
MMB      1.46 246 eP     53 07.00    1.0
DMK      1.72 102 iPn    53 10.40    0.6
VAY      2.37 249 iPn    53 22.50    3.5X
CTT      2.44 115 ePn    53 19.80   -0.2
EDC      2.57 135 ePn    53 24.00    2.0
BNT      2.60 135 ePn    53 28.00    5.7X
BRD      3.49  18 eP     53 47.50   12.5X
VRI      3.77  13 eP     53 43.50    4.6X
      S.D. = 1.3  on  10 of  14 obs.
-----------------------------------------
   MAR  28, 1993  01h 16m 12.04± 0.33s
   32.936 N ± 6.2km   123.723 E ± 3.5km
   DEPTH = 33.0km  (normal)
   4.7mb ( 33 obs.)
 OFF COAST OF EASTERN CHINA       (666)
SSE      2.83 230 Pnd    16 55.50   -0.4
      Z  11s     4.60um
                  Pg     17 02.00
                  Sg     17 40.00
NJ2      4.21 259 Pnd    17 14.80   -0.6
      Z  14s     1.78um
                  Pgc    17 27.80
                  Sg     18 22.00
KUMJ     6.00  92 P      17 40.70   -0.2
DL2      6.19 345 Pn     17 41.60   -2.0
SHNJ     6.28  77 eP     17 43.90   -0.9
KAGJ     6.33 104 eP     17 43.20   -2.3
TIA      6.35 303 Pnc    17 43.90   -1.8
                  Pg     18 06.00
                  Sn     18 52.90
                  Sg     19 31.20
WHN      8.33 256 eP     18 10.00   -3.4
YONJ     8.39  72 P      18 15.20    0.9
TKSJ     8.69  80 P      18 16.50   -1.9
SNY      8.88 359 eP     18 18.40   -2.5X
      Z  12s     1.57um
                  S      19 53.00
QZH      9.14 211 eP     18 22.50   -2.1X
                  S      20 10.00
BJI      9.33 322 eP     18 24.00   -3.3X
      Z  16s     1.17um
      N  13s     0.77um
WKYJ     9.99  79 P      18 36.90    0.5
TIY     10.38 300 eP     18 43.00    1.3
      Z  12s     2.89um
      E  11s     1.60um
TSRJ    10.48  72 P      18 43.80    0.8
CN2     10.93   7 eP     18 47.00   -2.2
         0.7s    7.50nm           5.0mb
      Z  10s     1.92um         4.8MszX
                  epP    18 52.00
                  eS     20 52.00
MTMJ    12.14  69 P      19 07.80    2.1
```

XAN 12.41 279 P 19 09.10 -0.1
Z 12s 1.88um
N 12s 1.35um
E 12s 1.24um
eS 21 24.00
ScS 31 49.00
MAT 12.45 69 eP 19 10.00 0.3
0.9s 5.04nm 4.6mb
eS 21 48.00
MDJ 12.52 20 eP 19 04.00 -6.6X
HHC 12.52 313 eP 19 10.20 -0.6
1.0s 9.90nm 4.9mb
Z 14s 1.77um 4.9Msz
N 10s 0.44um
E 12s 0.94um
eS 21 31.00
BTO 13.38 309 eP 19 23.00 0.9
N 11s 0.75um
E 12s 0.67um
eS 21 53.00
GYA 16.16 251 iPd 20 02.00 3.6X
1.0s 58.00nm 4.7mb
Z 10s 1.71um 4.9MszX
LZH 16.68 286 Pd 20 05.60 0.6
1.6s 80.00nm 4.6mb
Z 12s 1.32um 4.1MszX
E 11s 1.12um
sP 20 21.00
CD2 17.07 269 iPd 20 09.40 -0.4
0.8s 52.00nm 4.7mb
KMI 19.91 252 Pc 20 44.80 0.8
1.5s 70.00nm 4.8mb
N 10s 0.30um
E 10s 0.30um
pP 20 50.00 20kmX
sP 20 52.50
YSS 20.17 40 eP 20 48.00 1.8
1.0s 20.00nm 4.4mb
e 20 57.00
GTA 20.32 295 P 20 48.00 -0.1
1.0s 48.00nm 4.8mb
Z 12s 1.02um 4.4MszX
E 10s 0.66um
pP 20 52.00 15kmX
CIT 20.43 342 eP 20 49.00 0.0
eS 24 34.00
ZAK 23.05 325 iPc 21 16.00 0.8
1.1s 59.00nm 5.0mb
Z 12s 0.77um 4.4MszX
IRK 23.90 330 ePc 21 24.80 1.4
2.2s 75.00nm 4.8mb
Z 12s 0.66um 4.3MszX
N 11s 0.34um
E 13s 0.50um
MOY 25.00 325 ePc 21 35.10 1.1
1.0s 100.00nm 5.4mb
BOD 25.75 348 eP 21 39.50 -1.5
1.0s 6.00nm 4.1mb
CHTO 26.27 244 eP 21 53.10 6.8X
LSA 27.95 272 P 22 03.60 1.5
WMO 30.04 302 P 22 16.00 -4.3X
1.0s 8.40nm 4.5mb
Z 12s 0.54um 4.4MszX
MGD 32.49 25 eP 22 44.00 2.6X
GUN 32.90 271 P 22 46.40 0.7
PKI 33.40 271 P 22 49.80 -0.3
0.8s 16.00nm 5.0mb
KKN 33.44 272 P 22 50.80 0.5
0.9s 44.00nm 5.4mb
ELT 33.52 319 iPc 22 50.00 -0.4
1.0s 18.00nm 4.9mb
Z 12s 0.80um 4.7MszX
DMN 33.64 271 P 22 52.60 0.5
GKN 33.91 272 P 22 54.80 0.5
NVS 35.77 320 iPd 23 09.50 -0.2
Z 11s 0.67um 4.6MszX
KSH 38.71 294 P 23 30.50 -4.3X
Z 16s 0.60um 4.5MszX
N 14s 0.86um
E 14s 0.60um
PP 25 04.00
FRU 39.51 299 (P) 23 41.50 0.2
QUE 47.95 283 eP 24 51.80 2.0
ARU 49.72 319 eP 25 01.50 -1.3
MAIO 52.10 293 eP 25 22.00 0.8
WRA 53.55 168 P 25 32.80 0.9
0.8s 0.90nm 3.8mb

WB2 53.55 168 eP 25 31.00 -0.9
0.8s 4.00nm 4.5mb
KIV 62.03 306 iPc 26 31.20 -0.4
0.9s 27.00nm 5.4mb
Z 14s 0.10um 4.1MszX
STK 66.64 163 eP 27 01.20 -0.2
0.6s 2.10nm 4.4mb
RES 69.69 10 eP 27 20.00 0.1
1.0s 2.00nm 4.1mb
HFS 71.08 330 eP 27 26.60 -1.9
0.4s 0.90nm 4.2mb
Z 16s 0.10um 4.2MszX
LR 56 58.00
NB2 71.58 332 P 27 29.80 -1.8
0.9s 4.40nm 4.5mb
YKA 74.08 24 eP 27 45.70 -0.5
0.6s 4.20nm 4.6mb
CLL 76.44 323 iP 27 59.40 -0.5
0.9s 6.00nm 4.6mb
GEC2 77.52 321 ePc 28 05.70 -0.4
0.8s 1.30nm 4.0mb
e 28 20.70
GRF 78.32 322 eP 28 11.30 1.0
LPF 85.45 326 eP 28 48.10 0.6
0.9s 12.30nm 5.1mb
MFF 86.06 325 eP 28 51.30 0.8
0.8s 8.60nm 5.0mb
CAF 86.14 323 eP 28 52.10 1.0
0.8s 6.30nm 4.9mb
RJF 86.15 323 eP 28 52.00 0.9
1.1s 12.20nm 5.0mb
LPO 86.76 323 eP 28 54.90 0.9
0.6s 1.70nm 4.5mb
LFF 86.80 323 eP 28 55.20 1.0
0.7s 4.95nm 4.8mb
S.D. = 1.2 on 58 of 67 obs.

? MAR 28, 1993 02h 45m 42.07± 3.11s
35.690 N ±33.0km 20.903 E ±17.1km
DEPTH = 10.0km (geophysicist)
3.2mb (1 obs.)
CENTRAL MEDITERRANEAN SEA (400)

VLI 1.94 57 eP 46 14.50 -0.9
eS 46 36.50
VLS 2.50 354 eP 46 23.00 -0.4
ATH 3.21 44 eP 46 34.50 1.1
YKA 75.83 340 eP 57 29.90 0.2
0.4s 0.10nm 3.2mb
S.D. = 1.4 on 4 of 4 obs.

• MAR 28, 1993 03h 31m 25.46± 1.27s
37.621 N ±10.0km 21.261 E ±10.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.3 (ATH).

VLS 0.77 317 ePg 31 40.50 0.0
VLI 1.61 123 ePb 31 54.00 0.0
AGG 1.63 31 ePb 31 53.58 -0.8
eSb 32 15.34
LIT 2.66 21 ePn 32 09.70 0.6
eSn 32 41.30
KZN 2.71 8 ePn 32 10.20 0.3
PAIG 2.98 39 ePn 32 14.34 0.7
GRG 3.45 15 ePn 32 19.60 -0.7
SOH 3.59 26 ePn 32 22.10 -0.2
S.D. = 0.6 on 8 of 8 obs.

? MAR 28, 1993 04h 03m 25.43± 1.64s
41.205 N ±17.9km 23.151 E ± 6.6km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.20 257 iPg 03 29.72 0.0
eSg 03 32.60
SRS 0.34 105 ePg 03 32.56 0.0
eSg 03 37.12
SOH 0.41 158 ePg 03 33.88 0.0
eSg 03 39.84
GRG 0.62 247 ePg 03 37.96 0.0
eSg 03 46.24
S.D. = 0.1 on 4 of 4 obs.

MAR 28, 1993 04h 16m 21.30± 1.11s
41.229 N ±10.3km 23.151 E ± 5.6km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.7 (SKO).

KNT 0.20 251 iPg 16 25.98 0.2
eSg 16 28.86
SRS 0.35 108 ePg 16 28.38 -0.2
eSg 16 33.38
SOH 0.43 159 ePg 16 30.02 -0.2
eSg 16 36.18
VAY 0.45 282 iPg 16 30.40 0.0
iSg 16 36.50
THE 0.61 193 ePg 16 33.38 -0.2
eSg 16 41.50
GRG 0.63 245 ePg 16 33.70 -0.3
eSg 16 42.42
PAIG 1.36 163 ePb 16 46.90 0.6
S.D. = 0.4 on 7 of 7 obs.

% MAR 28, 1993 04h 24m 15.90± 1.65s
41.222 N ±15.1km 23.146 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.20 252 iPg 24 20.52 0.3
eSg 24 23.16
SRS 0.35 107 ePg 24 23.16 0.0
eSg 24 28.12
SOH 0.43 158 ePg 24 24.76 0.1
eSg 24 30.56
THE 0.61 193 iPg 24 28.08 0.0
eSg 24 35.84
GRG 0.62 245 ePg 24 28.12 -0.3
S.D. = 0.3 on 5 of 5 obs.

% MAR 28, 1993 04h 25m 14.08± 1.45s
41.203 N ±13.6km 23.151 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.20 258 iPg 25 18.44 0.0
eSg 25 21.36
SRS 0.34 104 ePg 25 21.16 0.0
eSg 25 25.36
SOH 0.41 158 ePg 25 22.60 0.1
eSg 25 28.68
THE 0.59 194 ePg 25 25.84 -0.1
eSg 25 33.60
GRG 0.62 247 iPg 25 26.56 0.0
eSg 25 34.96
S.D. = 0.1 on 5 of 5 obs.

? MAR 28, 1993 04h 27m 07.42± 1.00s
47.379 N ± 7.4km 11.549 E ±10.2km
DEPTH = 5.0km (geophysicist)
AUSTRIA (546)
ML 1.8 (FUR), 1.5 (VIE).

WATA 0.05 156 iPgc 27 09.20 0.2
iSg 27 11.20
WTTA 0.13 153 iPgd 27 10.00 -0.2
iSg 27 12.40
SOTA 0.28 236 iPgc 27 13.10 0.0
iSg 27 17.70
FUR 0.81 347 ePg 27 23.60 0.0
S.D. = 0.3 on 4 of 4 obs.

• MAR 28, 1993 04h 58m 10.85± 1.31s
37.626 N ±11.4km 21.523 E ±10.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.3 (ATH).

VLS 0.92 307 ePg 58 28.50 0.0
VLI 1.45 128 ePb 58 36.70 -0.4
AGG 1.53 24 ePb 58 38.38 0.1
eSb 58 59.62
ATH 1.77 78 ePb 58 42.50 0.8
IGT 2.12 334 ePn 58 47.30 0.5
KEK 2.48 328 ePg 59 01.00 9.1X
LIT 2.58 17 ePn 58 51.82 -1.6
KZN 2.68 4 ePn 58 57.00 2.1
PAIG 2.85 36 ePn 58 57.06 -0.1
FNA 3.16 358 ePn 58 59.80 -1.7
VAY 3.78 12 ePn 59 10.70 0.3
SKO 4.34 359 ePn 59 25.50 7.1X
S.D. = 1.3 on 10 of 12 obs.

& MAR 28, 1993 05h 22m 56.06s
45.035 N 122.608 W
DEPTH = 12.5km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 1.8 (SEA), 2.0 (GS).

SHW	1.19	13	eP	23 17.28	-0.8	
			eS	23 32.55		
VGB	1.38	69	eP	23 20.51	-0.5	
BMW	1.50	343	(P)	23 22.15	-0.7	
LON	1.80	18	eP	23 26.25	-0.9	
			eS	23 50.55		

4 obs. associated

• MAR 28, 1993 05h 56m 45.04± 2.15s
7.163 S ±10.0km 147.245 E ±32.0km
DEPTH = 10.0km (geophysicist)
4.1mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT	0.55	334	eP	56 55.70	-0.5	
YYYY	1.56	306	eP	57 14.00	1.0	
PMG	2.23	182	eP	57 23.00	0.4	
MDG	2.39	322	eP	57 24.80	-0.1	
WB2	17.83	223	iPc	00 54.20	-0.8	
	0.4s		3.40nm			3.8mb
ASPA	20.82	217	eP	01 26.10	-3.3X	
	0.5s		7.40nm			4.3mb

S.D. = 1.0 on 5 of 6 obs.

MAR 28, 1993 06h 20m 30.34± 0.59s
47.330 N ± 6.3km 11.534 E ± 4.8km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 2.0 (FUR), 1.8 (VIE).

WATA	0.03	79	iPgc	20 32.20	-0.3
			iSg	20 34.10	
WTTA	0.10	134	iPgd	20 33.00	-0.2
			iSg	20 35.40	
SQTA	0.25	244	iPgc	20 36.00	0.3
			iSg	20 40.70	
MOTA	0.29	273	iPgc	20 36.40	-0.1
			iSg	20 42.00	
SCE	0.32	157	iPgd	20 36.70	-0.3
FUR	0.85	348	iPgd	20 46.70	-0.1
KBA	1.26	101	iPgd	20 54.50	0.6
			iSg	21 13.70	
KHC	2.26	36	eP	21 13.00	4.6X
			e	21 31.60	
			Sg	21 39.00	
			e	38 15.50	
			e	38 19.00	
			e	38 36.60	
			Sg	38 44.00	

S.D. = 0.4 on 7 of 8 obs.

% MAR 28, 1993 06h 22m 52.12± 0.85s
44.597 N ± 5.7km 7.255 E ± 8.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

PZZ	0.14	230	P	22 55.08	-0.1
			S	22 57.14	
BHB	0.24	1	P	22 57.14	0.0
			S	23 00.25	
STV	0.36	172	P	22 59.38	0.1
			S	23 04.14	
ENR	0.39	162	P	23 00.07	0.1
			S	23 05.24	
ROB	0.53	124	P	23 02.71	-0.1
			S	23 10.01	

S.D. = 0.1 on 5 of 5 obs.

• MAR 28, 1993 06h 37m 35.17± 1.30s
47.351 N ±13.8km 11.591 E ± 5.7km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.9 (VIE).

WATA	0.02	212	iPgc	37 36.90	-0.3
			iSg	37 38.80	
WTTA	0.09	160	iPgd	37 38.30	0.3
			iSg	37 40.70	
SQTA	0.29	243	iPgc	37 41.50	0.2
			iSg	37 46.20	
MOTA	0.33	269	iPgc	37 42.10	0.0
			iSg	37 47.20	
OGA	0.62	219	ePg	37 47.40	-0.4
KBA	1.23	102	iPnc	37 58.00	-0.1
			iSg	38 18.90	

S.D. = 0.4 on 6 of 6 obs.

& MAR 28, 1993 06h 47m 25.95s
66.373 N 149.709 W
DEPTH = 30.0km
NORTHERN ALASKA (676)
<AEIC>. ML 3.5 (AEIC), 4.0
(PMR).

MDM	1.55	156	iP	47 51.72	-0.1	
			eS	48 11.11		
IMA	1.64	261	ePnc	47 52.77	-0.4	
			ePg	47 54.10		
			(S)	48 14.55		
FBA	1.68	151	ePnd	47 53.38	-0.3	
GLM	1.69	144	iP	47 54.03	0.1	
FYU	1.81	82	iP	47 55.34	-0.1	
NEA	1.82	171	eP	47 55.22	-0.5	
			S	48 20.00		
CCB	1.91	155	iP	47 56.67	-0.3	
PRP	1.92	115	eP	47 57.09	-0.2	
			S	48 20.77		
WRH	2.03	160	iP	47 58.26	-0.4	
			S	48 24.37		
HDA	2.29	148	iP	48 01.99	-0.4	
MCK	2.67	173	eP	48 07.82	-0.1	
TRF	2.94	185	iP	48 11.42	-0.5	
RND	3.00	173	iP	48 12.41	-0.2	
HUR	3.41	179	eP	48 18.41	0.1	
DOT	3.64	136	eP	48 21.13	-0.4	
PAX	3.87	150	eP	48 25.12	0.2	
SDG	4.26	153	eP	48 30.53	0.1	
TTA	4.39	221	eP	48 29.96	-2.4	
			S	49 41.27		
SKT	4.48	191	iP	48 33.14	-0.4	
SML	4.62	172	eP	48 35.11	-0.5	
GHO	4.63	175	eP	48 35.22	-0.5	
SCM	4.68	166	eP	48 37.44	1.1	
PWA	4.74	181	P	48 37.40	0.2	
PMR	4.81	177	ePn	48 37.95	-0.1	
SUA	4.95	186	eP	48 42.24	1.9	
PMS	5.15	179	P	48 44.50	1.5	
KLU	5.18	159	eP	48 44.30	0.9	
CRP	5.24	193	eP	48 41.27	-3.1	
CP2	5.25	193	eP	48 44.47	-0.1	
CPAM	5.25	193	eP	48 43.51	-1.0	
BGL	5.27	194	eP	48 44.68	0.0	
CKN	5.28	193	eP	48 45.42	0.5	
CKT	5.31	193	eP	48 45.24	-0.1	
SPU	5.31	192	eP	48 45.27	-0.1	
BRW	5.57	336	eP	48 46.32	-2.5	
GLB	5.59	150	eP	48 50.17	0.9	
SLKM	5.89	182	eP	48 52.15	-1.4	
SVW	5.90	209	eP	48 53.90	0.3	
YKA	15.50	88	eP	50 59.50	-4.1	
	0.3s		0.30nm			3.0mb X

39 obs. associated

MAR 28, 1993 07h 15m 09.55± 0.54s
47.360 N ± 4.6km 11.577 E ± 4.9km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 2.7 (FUR).

WATA	0.02	181	iPgc	15 12.00	0.3
			iSg	15 13.90	
WTTA	0.10	157	iPgd	15 12.70	0.2
			iSg	15 15.20	
SQTA	0.29	241	iPgd	15 15.70	0.1
			iSg	15 20.40	
MOTA	0.32	268	iPgc	15 16.10	-0.2
			iSg	15 21.60	
SCE	0.33	164	iPgd	15 16.30	-0.2
			iSg	15 21.60	
OGA	0.62	218	ePg	15 21.90	-0.3
FUR	0.83	346	iPgd	15 26.40	0.8
			iSg	15 39.00	
KBA	1.24	103	iPnd	15 32.90	0.2
			iSg	15 53.40	
WET	1.99	26	iPnd	15 42.70	-0.9
KHC	2.22	36	eP	15 50.50	3.5X
			e	15 54.50	
			e	16 11.50	
			Sg	16 18.60	

S.D. = 0.5 on 9 of 10 obs.

MAR 28, 1993 07h 34m 24.14± 0.38s
40.571 N ± 4.5km 119.389 W ± 3.8km
DEPTH = 5.0km (geophysicist)
3.4mb (1 obs.)
NEVADA (37)
ML 3.9 (GS), 3.8 (BRK). Felt
(IV) at Gerloch. Felt (III) at
Wendel, California.

MIN	1.71	263	iPd	34 54.43	-0.4
			iPgc	34 56.16	
			iS	35 19.21	
KVN	1.81	146	ePn	34 55.56	-0.9
			ePg	34 57.35	
			S	35 22.12	
ORV	1.91	239	iPd	34 56.76	-0.9
			iS	35 25.73	
LBFM	2.05	293	ePn	35 00.08	0.2
			ePg	35 01.81	
			S	35 28.26	
WDC	2.40	271	ePn	35 03.95	-0.8
			ePg	35 07.93	
			S	35 41.09	
CMB	2.65	197	eP	35 11.75	3.5X
			iPgc	35 13.09	
			eS	35 46.79	
BONR	2.75	162	(P)	35 10.04	0.1
MEMM	2.92	173	ePn	35 13.34	1.2
			S	35 58.46	
TNP	3.00	145	ePn	35 12.96	-0.5
			ePg	35 17.89	
			S	35 55.74	
NTYM	3.34	230	(P)	35 17.53	-0.5
FHC	3.50	275	(Pn)	35 18.82	-1.6
FRI	3.58	184	iPd	35 22.30	0.8
			iS	36 14.76	
ARN	3.62	208	ePn	35 23.53	1.4
			S	36 14.70	
MHC	3.67	209	eP	35 26.01	3.1X
			iPgc	35 32.33	
			iS	36 17.32	
SAO	4.13	204	eP	35 35.32	6.1X
			eS	36 34.31	
TPNV	4.37	145	(P)	35 32.78	-0.1
ISA	4.95	171	ePn	35 42.12	1.1
			S	36 58.40	
DUG	5.04	92	eP	35 41.86	-0.4
			ePg	35 58.96	
			S	37 01.65	
VGB	5.05	349	ePn	35 44.39	2.1
			ePg	35 59.38	
			S	37 03.72	
HVU	5.14	74	eP	35 42.12	-1.6
			S	37 02.83	
ARUT	5.39	119	eP	35 47.31	-0.1
GSC	5.64	158	eP	35 50.41	-0.4
MSU	5.94	108	ePc	35 54.93	-0.2
DAU	6.20	89	(P)	35 57.56	-1.4
			S	37 33.32	
LON	6.42	345	(P)	36 03.23	1.5
EMUT	6.61	94	eP	36 05.46	0.8
			S	37 52.50	
SRU	6.98	99	eP	36 10.39	0.7
RMW	7.10	347	(P)	36 14.94	3.6X
GMW	7.39	342	eP	36 17.71	2.4X
LCCM	7.60	44	eP	36 32.10	13.7X
LTX	17.05	126	(P)	38 25.73	0.8
YKA	22.14	6	eP	39 21.20	-0.9
	0.9s		1.40nm		3.4mb

S.D. = 1.0 on 26 of 32 obs.

• MAR 28, 1993 07h 51m 44.03± 0.93s
31.642 N ± 9.6km 141.742 E ±24.2km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
SOUTH OF HONSHU, JAPAN (211)

KAKJ	4.73	344	eP	52 55.70	0.8
CHJJ	4.95	333	eP	52 58.30	0.2
IIDJ	4.99	321	eP	53 06.00	7.4X
MAT	5.70	330	eP	53 08.00	-0.6X
	0.7s		12.33nm		4.6mb
			(S)	54 09.00	

MTMJ 5.91 328 eP 53 14.30 2.6X
NIIJ 6.03 339 P 53 13.30 0.1
YAMJ 6.66 348 eP 53 20.10 -2.1
OFUJ 7.42 360 eP 53 29.30 -3.4X
eS 54 48.10
BJI 22.30 299 eP 56 40.00 0.1
Z 16s 0.29um 3.8MszX
WB2 51.78 189 iPc 00 49.50 -1.2
0.7s 6.20nm 4.7mb
ASPA 55.50 189 eP 01 18.70 0.5
1.5s 6.30nm 4.4mb
MAIO 66.38 299 eP 02 18.00 -14.0X
YKA 68.35 29 eP 02 44.40 0.5
0.8s 0.60nm 3.7mb
LCCM 78.16 43 eP 03 45.50 3.7X
KSP 84.83 329 eP 04 17.50 1.1
ZOBO 148.85 68 ePKP 11 33.00 5.9X
LPB 149.01 68 PKP 11 36.00 8.9X
CNCB 149.26 68 PKP 11 34.00 6.3X
S.D. = 1.2 on 9 of 18 obs.

? MAR 28, 1993 09h 07m 10.86± 2.08s
29.242 N ±18.5km 51.125 E ±31.0km
DEPTH = 33.0km (normal)
3.8mb (3 obs.)
SOUTHERN IRAN (353)

DHR 3.05 197 ePc 08 07.30 9.4X
eS 08 56.00
RYD 6.04 223 ePc 08 40.00 -0.3
eS 09 47.00
MJMA 6.18 238 ePc 08 41.70 -0.6
eS 09 48.00
QASM 7.43 247 ePc 09 00.70 1.0
eS 10 18.00
MLR 25.61 316 eP 12 44.00 5.1X
GKN 29.39 84 P 13 00.00 -13.5X
KSP 33.83 319 eP 13 52.50 0.4
HFS 39.82 332 eP 14 42.10 -0.3
0.5s 1.50nm 4.0mb
NB2 41.34 332 P 14 53.90 -1.0
0.8s 1.40nm 3.7mb
YKA 87.87 353 eP 19 58.70 0.8
0.6s 0.30nm 3.8mb
S.D. = 0.9 on 7 of 10 obs.

& MAR 28, 1993 09h 37m 02.07s
59.898 N 152.483 W
DEPTH = 87.5km
2.9mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.30 308 eP 37 14.46 -1.0
eS 37 24.42
INE 0.33 300 eP 37 14.76 -1.0
INW 0.37 298 eP 37 15.22 -0.7
iS 37 25.64
OPT 0.45 237 eP 37 15.75 -0.7
eS 37 25.80
RED 0.54 345 eP 37 16.38 -0.9
eS 37 27.65
eS 37 27.85
RS1 0.58 346 eP 37 17.01 -0.7
S 37 28.71
RSO 0.58 347 eP 37 16.96 -0.8
eS 37 28.53
RS2 0.58 347 eP 37 17.06 -0.7
eS 37 28.34
REF 0.60 350 eP 37 17.20 -0.7
eS 37 28.80
eS 37 28.90
RDW 0.61 345 eP 37 17.00 -1.0
NCT 0.70 342 eP 37 18.11 -0.6
DFR 0.70 352 eP 37 18.01 -0.7
eS 37 30.40
AUE 0.70 220 eP 37 17.99 -0.6
AUL 0.71 223 eP 37 17.97 -0.7
AUH 0.72 223 eP 37 18.33 -0.6
AUW 0.73 224 eP 37 18.34 -0.5
CNPM 0.73 120 eP 37 18.15 -0.8
eS 37 30.67
AUI 0.74 221 eP 37 18.28 -0.7
eS 37 30.08
eS 37 30.51
BRLK 0.82 99 eP 37 19.12 -0.8
eS 37 32.10
PDB 0.87 263 eP 37 19.50 -0.9
eS 37 32.54
NKA 1.05 36 eP 37 23.33 0.9
CDD 1.14 212 eP 37 22.62 -1.0
MCNL 1.18 234 iP 37 23.02 -1.1
SLKM 1.28 61 eP 37 24.49 -0.9
SYI 1.29 178 eP 37 24.88 -0.5
SPU 1.31 9 iP 37 25.09 -0.6
CKT 1.31 6 iP 37 25.20 -0.6
S 37 42.81
CKN 1.34 6 eP 37 25.66 -0.4
BGL 1.37 2 iP 37 26.11 -0.4
CPAM 1.37 7 eP 37 26.08 -0.5
S 37 44.72
CP2 1.38 5 iP 37 26.33 -0.4
CRP 1.38 7 eP 37 26.36 -0.4
SEW 1.54 81 eP 37 27.04 -1.5
MPA 1.67 68 eP 37 29.47 -0.8
SUA 1.79 28 eP 37 31.63 -0.4
SVW 1.97 309 P 37 33.50 -0.9
PTE 1.97 59 eP 37 33.25 -1.1
PMS 1.98 46 P 37 33.70 -0.8
SKT 2.14 12 eP 37 35.73 -0.9
PWA 2.17 35 P 37 36.50 -0.5
PLRM 2.37 43 eP 37 38.11 -1.5
GHO 2.56 41 eP 37 40.86 -1.6
SML 2.79 45 eP 37 43.88 -1.7
HIN 3.03 78 eP 37 45.92 -2.9
SCM 3.18 50 eP 37 49.33 -1.7
YKA 18.26 65 eP 41 08.10 -2.6
0.4s 0.30nm 2.9mb
46 obs. associated

----

* MAR 28, 1993 10h 06m 25.33± 1.40s
36.686 N ±16.2km 71.066 E ±10.3km
DEPTH = 165.6 ± 17.8 km
4.1mb (5 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

MAIO 9.33 271 ePn 08 37.00 -0.3
eSn 10 06.00
NDI 9.51 145 eP 08 39.50 -0.1
0.5s 24.65nm 5.0mb
eS 10 18.00
GKN 14.36 123 P 09 42.20 -0.1
DMN 14.93 123 P 09 49.60 0.1
KKN 14.93 122 P 09 49.00 -0.5
PKI 15.16 123 P 09 52.40 -0.1
GUN 15.27 121 P 09 54.60 0.8
GBA 23.68 164 P 11 24.00 1.0
APO 42.89 322 eP 14 08.40 -0.1
0.4s 1.10nm 3.8mb
NB2 44.26 323 P 14 19.80 0.2
0.5s 0.80nm 3.6mb
YKA 81.06 3 eP 18 23.20 0.7
0.4s 0.90nm 3.9mb
WB2 82.05 122 iPc 18 26.80 -1.6
0.4s 5.20nm 4.6mb
S.D. = 0.8 on 12 of 12 obs.

MAR 28, 1993 10h 19m 24.81± 0.45s
41.199 N ± 4.7km 23.114 E ± 3.8km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.1 (SKO).

KNT 0.17 257 ePg 19 29.12 0.5
eSg 19 32.40
SRS 0.37 103 ePg 19 31.76 -0.7
eSg 19 36.72
SDH 0.42 154 iPg 19 33.24 -0.1
eSg 19 39.28
VAY 0.43 287 iPg 19 33.40 -0.1
iSg 19 39.60
THE 0.58 191 ePg 19 36.50 0.0
eSg 19 44.80
GRG 0.59 246 iPg 19 36.66 -0.1
eSg 19 45.12
MM8 0.60 50 iPgc 19 35.00 -2.0X
KKB 0.67 358 iPgc 19 37.00 -1.1
RZN 1.30 67 iPg 19 49.00 0.0
PLD 1.50 52 eP 19 53.00 1.3
PGB 1.56 30 iP 19 53.00 0.3
KDZ 1.79 75 iP 19 56.00 0.0
S.D. = 0.7 on 11 of 12 obs.

? MAR 28, 1993 10h 32m 48.26± 5.58s
20.995 S ±24.1km 170.123 E ±62.7km
DEPTH = 10.0km (geophysicist)
4.6mb (2 obs.)
VANUATU ISLANDS (186)

DZM 3.59 252 iPc 33 45.00 -0.2
iS 34 19.50
BKM 3.76 331 iPc 33 47.50 0.0
iS 34 16.00
CTA 22.37 268 iP 37 49.00 0.9
WB2 33.49 265 eP 39 28.70 -1.4
0.4s 2.30nm 4.5mb
ASPA 33.56 259 iPc 39 31.40 0.7
0.7s 8.10nm 4.8mb
GEC2 146.42 331 ePKP 52 35.80 6.0X
0.6s 0.65nm
BCAO 147.86 243 ePKPd 52 44.00 11.0X
0.5s 3.00nm
S.D. = 1.3 on 5 of 7 obs.

MAR 28, 1993 10h 33m 16.08± 1.06s
41.207 N ±10.2km 23.146 E ± 5.7km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.4 (SKO).

KNT 0.19 257 ePg 33 20.72 0.4
iSg 33 23.32
SRS 0.35 105 iPg 33 23.24 0.0
eSg 33 28.20
SOH 0.42 158 ePg 33 24.72 0.1
eSg 33 30.88
VAY 0.45 285 iPg 33 25.20 0.0
iSg 33 31.40
THE 0.59 193 ePg 33 27.92 -0.1
eSg 33 36.04
GRG 0.62 246 ePg 33 28.12 -0.4
eSg 33 36.84
S.D. = 0.3 on 6 of 6 obs.

----

* MAR 28, 1993 11h 05m 38.50± 1.03s
9.738 S ±11.4km 129.190 E ±16.0km
DEPTH = 219.1 ± 16.0 km
4.1mb (2 obs.)
TIMOR SEA (290)

SLKI 2.72 50 iPd 06 49.30 22.9X
iS 07 19.50
MTN 3.63 149 iPd 06 37.00 0.0
0.3s 325.00nm
eS 07 39.00
WB2 11.31 154 iPc 08 15.20 0.0
eS 10 34.80
MNI 11.92 338 ePd 08 23.00 0.1
eS 08 54.00
ASPA 14.56 163 iPd 09 00.50 4.6X
eS 11 58.60
WARB 16.53 188 eP 09 35.00 15.1X
0.4s 7.00nm
eS 12 52.00
NANU 18.28 224 eP 09 37.70 -0.8
OLP 21.98 142 iPc 10 15.00 -0.5
0.4s 60.00nm 5.5mb X
MRWA 22.99 211 eP 10 26.00 0.8
0.4s 1.00nm 3.8mb
eS 15 08.00
STK 24.85 154 iPd 10 42.90 0.3
0.4s 5.70nm 4.5mb
eS 16 03.30
S.D. = 0.7 on 7 of 10 obs.

MAR 28, 1993 11h 25m 05.32± 0.55s
47.365 N ± 4.7km 11.618 E ± 5.3km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 2.6 (FUR), 2.4 (VIE).

WATA 0.04 224 iPgc 25 07.60 0.0
iSg 25 09.60
WTTA 0.10 173 iPgd 25 08.40 0.2
iSg 25 10.80
SQTA 0.31 243 iPgd 25 11.40 -0.5
iSg 25 16.10
SCE 0.33 169 iPgd 25 12.00 -0.3
iSg 25 17.30
MOTA 0.35 267 iPgc 25 12.30 -0.3
iSg 25 17.40

```
28d 11h

OGA       0.64 219 ePg    25 17.50  -0.8
FUR       0.83 344 ePg    25 22.00   0.6
                   eSg    25 34.70
KBA       1.21 103 iPnd   25 28.60   0.6
                   iPg    25 30.40
                   iSg    25 49.60
VDL       1.71 240 ePd    25 38.30   2.7X
LLS       1.86 255 ePc    25 39.50   1.9
WET       1.97  25 iPnd   25 38.40  -0.7
GRF       2.34 354 ePn    25 43.90  -0.6
                   ePg    25 49.90
                   eSn    26 07.60
                   eSg    26 20.80
VRAC      3.85  58 Pn     26 01.90  -3.9X
                   e      26 42.70
                   e      27 02.50
     S.D. = 0.9  on  11 of  13 obs.
----------------------------------------
* MAR 28, 1993  11h 41m 43.01± 2.42s
   28.188 N ±26.3km  139.560 E ±14.6km
   DEPTH = 515.6 ± 18.7 km
   4.0mb ( 11 obs.)
 BONIN ISLANDS REGION              (212)

MAT       8.41 353 eP     43 45.00   0.0
     0.6s     8.67nm             4.2mb
                   eS     45 24.00
CHTO     38.25 265 eP     48 19.40  -0.4
GUN      47.04 283 P      49 30.20   0.6
PKI      47.53 283 P      49 33.20   0.0
     0.4s     7.00nm             4.5mb
KKN      47.58 283 P      49 34.00   0.5
DMN      47.78 283 P      49 35.00  -0.1
     0.4s    14.00nm             4.8mb
GKN      48.09 283 P      49 37.60   0.3
FBA      57.50  29 eP     50 43.91  -0.2
     0.7s     1.42nm             3.4mb
GBA      59.26 270 P      50 56.00  -0.7
YKA      72.28  28 eP     52 16.00  -0.8
     0.4s     1.10nm             3.7mb
KAF      75.47 333 iP     52 35.10   0.4
     0.3s     5.90nm             4.6mb
NUR      77.03 333 iP     52 43.50   0.2
     0.3s     2.50nm             4.1mb
NEW      77.66  42 eP     52 47.40   0.4
     0.8s     2.92nm             3.8mb
                   epP    54 37.00 505kmX
SLL      81.39 336 eP     53 05.70  -0.5
     0.3s     1.40nm             3.9mb
NB2      81.72 337 P      53 07.20  -0.7
     0.6s     2.70nm             4.0mb
LCCM     81.98  42 eP     53 10.40   0.7
GEC2     89.36 328 eP     53 45.30   0.2
     1.2s     1.54nm             3.8mb
     S.D. = 0.5  on  17 of  17 obs.
----------------------------------------
% MAR 28, 1993  11h 47m 31.43± 0.63s
   26.917 S ± 6.3km   26.758 E ± 6.4km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
       ML 3.0 (PRE).

BFS       0.03  53 iPd    47 33.60   0.8
                   S      47 34.00
PRY       0.64  91 eP     47 43.70  -0.5
                   S      47 51.00
KSR       1.06   7 iPc    47 51.00  -0.9
                   S      48 03.50
SWZ       1.30 258 iPd    47 56.90   0.8
                   S      48 14.90
SEK       1.60 151 iPc    48 00.90   0.3
                   S      48 20.50
SLR       1.80  50 iPd    48 03.90   0.3
                   S      48 26.00
BLF       2.24 193 eP     48 09.90   0.0
                   S      48 37.00
FRS       3.09 204 iPc    48 20.90  -0.9
                   S      48 56.50
BFT       3.19  68 e(P)   48 30.00   6.5X
                   S      48 56.50
     S.D. = 0.8  on   8 of   9 obs.
----------------------------------------
* MAR 28, 1993  12h 09m 49.03± 0.55s
   8.279 S ± 9.3km  122.351 E ±12.7km
   DEPTH =  33.0km  (normal)
 FLORES REGION, INDONESIA          (286)

MTN       9.75 118 eP     12 10.20   0.1
     0.4s    79.00nm             6.3mb X
                   eS     13 55.00
NANU     15.64 204 eP     13 24.00  -4.7X
WB2      16.42 136 eP     13 35.20  -3.5X
                   i      13 37.60
                   eS     16 24.60
WARB     18.27 168 eP     14 01.50  -0.3
BAL      22.83 193 eP     14 50.00  -0.4
MUN      24.26 193 eP     15 05.00   0.7
GUN      50.38 317 P      18 46.40   0.7
PKI      50.48 316 P      18 46.20  -0.3
KKN      50.71 316 P      18 47.60  -0.5
DMN      50.71 316 P      18 48.00  -0.2
GKN      51.28 316 P      18 52.60   0.2
     S.D. = 0.5  on   9 of  11 obs.
----------------------------------------
% MAR 28, 1993  12h 52m 50.82± 1.33s
   41.186 N ±12.9km   23.130 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION     (363)

KNT       0.18 262 ePg    52 55.00   0.2
                   eSg    52 57.92
SRS       0.36 101 ePg    52 58.12   0.0
                   iSg    53 02.72
SOH       0.40 155 ePg    52 59.16   0.1
                   eSg    53 05.20
THE       0.57 193 iPg    53 02.28   0.0
                   eSg    53 10.40
GRG       0.60 248 ePg    53 02.72  -0.2
                   eSg    53 11.32
     S.D. = 0.2  on   5 of   5 obs.
----------------------------------------
? MAR 28, 1993  13h 33m 53.13± 2.28s
   13.715 N ±25.7km   91.763 W ±16.1km
   DEPTH =  10.0km  (geophysicist)
   4.1mb (  5 obs.)
 NEAR COAST OF GUATEMALA           ( 71)

TPX       1.28 338 iPc    34 17.37   0.5
                   iS     34 28.15
SCX       3.12 344 iP     34 46.80   3.6X
                   iS     35 18.34
OXX       5.84 306 iP     35 23.62   1.6X
                   (S)    36 20.25
IISM      7.52 315 iP     35 44.00  -1.5
PPM       8.47 310 eP     36 00.78   1.5
III       8.74 303 iP     36 02.00  -0.7
LTX      19.06 327 eP     38 17.76  -0.5
MIAR     20.80 356 eP     38 37.65   0.5
     0.9s    12.79nm             4.3mb
MEO      21.86 345 iPd    38 46.90  -1.0
WMOK     21.87 344 iP     38 47.74  -0.3
     1.0s     5.93nm             4.0mb
ALQ      24.96 330 eP     39 19.21   0.8
     0.8s     2.50nm             4.0mb
ARUT     30.76 325 iP     40 12.30   1.1
RSSD     32.07 343 iPd    40 21.60  -1.0
     0.7s     1.59nm             4.1mb
LCCM     36.25 336 eP     40 59.50   1.0
YKA      51.35 347 eP     42 59.20  -0.4
     0.6s     3.60nm             4.5mb
     S.D. = 1.1  on  13 of  15 obs.
----------------------------------------
* MAR 28, 1993  14h 39m 28.06± 1.24s
   47.681 N ±18.5km  150.202 E ±29.7km
   DEPTH =  33.0km  (normal)
   4.4mb ( 11 obs.)
 KURIL ISLANDS                     (221)

KUSJ      6.00 222 P      40 56.80   0.1
                   eS     41 55.20
ASAJ      6.37 239 P      41 10.40   8.4X
HOOJ      7.21 225 eP     41 14.50   0.7
                   eS     42 27.90
AOMJ     10.02 228 eP     41 51.70  -1.0
OFUJ     10.60 219 eP     41 55.80  -4.8X
                   eS     43 39.40
YKA      51.36  36 eP     48 30.50  -0.4
     0.5s     0.50nm             3.7mb
SLL      66.67 338 eP     50 15.80  -1.4
     0.3s     1.10nm             4.4mb
NB2      66.69 340 P      50 16.50  -0.8
     0.5s     1.30nm             4.3mb
LOR      80.98 338 iPd    51 40.00  -0.5
     0.4s     1.55nm             4.4mb
GRR      81.07 341 iPd    51 40.90   0.1
     0.4s     2.50nm             4.6mb
LPF      81.44 341 iPd    51 42.80   0.0
     0.7s     7.30nm             4.8mb
AVF      81.56 338 iPd    51 43.20  -0.2
     0.4s     1.15nm             4.2mb
LPL      81.81 335 iPd    51 46.30   1.2
LPG      81.83 335 iPd    51 46.60   1.4
     0.5s     2.05nm             4.4mb
MAF      82.29 338 iPd    51 47.70   0.4
     0.3s     1.55nm             4.5mb
MFF      82.59 340 iPd    51 48.90   0.1
     0.4s     1.60nm             4.4mb
LFF      83.94 339 iPd    51 56.10   0.4
     0.4s     2.70nm             4.8mb
     S.D. = 0.8  on  15 of  17 obs.
----------------------------------------
? MAR 28, 1993  15h 00m 12.53± 1.85s
   25.014 S ±18.2km  176.449 W ±32.3km
   DEPTH =  33.0km  (normal)
   5.3mb (  4 obs.)
 SOUTH OF FIJI ISLANDS             (171)
       Mw 5.3 (HRV).
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 22S, 32C
       Centroid Location:
       Origin Time         15:00:18.9 0.8
       Lat 25.01S  FIX;Lon 176.45W  FIX
       Dep  15.0 FIX Half-duration  1.1
       Moment Tensor;   Scale 10**16 Nm
         Mrr= 1.18 0.31   Mtt=-1.61 0.54
         Mff= 0.42 0.42   Mrt=-0.20 1.05
         Mrf= 8.04 0.95   Mtf=-4.05 0.37
        Principal Axes:
         T  Val=  9.65   Plg=42  Azm=249
         N       -1.18       28        8
         P       -8.47       35      120
       Best Double Couple:Mo=9.1*10**16
        NP1:Strike=269 Dip=28 Slip= 172
        NP2:         6     86         62

SVA       8.34 324 ePc    02 13.70  -0.4
DZM      15.96 277 iPd    04 05.60   9.3X
CTA      34.72 270 iPd    07 02.00   0.3
STK      37.35 250 eP     07 25.60   1.8
     0.6s     1.90nm             4.1mb X
WB2      45.55 266 iPc    08 30.40  -0.8
     0.4s    10.00nm             5.1mb
GUMO     53.81 311 eP     09 39.00   4.5X
   Z  22s     0.26um            4.3Msz
BAL      58.62 248 eP     10 07.00  -1.9
SPA      65.13 180 iPd    10 52.00  -0.3
     0.9s    19.09nm             5.2mb
KMI      92.65 296 Pd     13 23.50   0.7
     2.0s    30.00nm             5.4mb
                   pP     13 30.50  22kmX
CHTO     93.10 289 ePc    13 25.30   0.6
     1.0s    15.00nm             5.4mb
ZOBO     99.01 113 (P)    13 40.00 -12.5X
                   LR     46 34.00
SLL     143.92 352 ePKP   19 38.40  -7.2X
     0.4s     1.00nm
CLL     152.76 347 e(PKP)20 04.00   4.2X
BRG     152.97 345 ePKP   20 04.20   4.1X
MOX     153.66 348 ePKP   20 13.00  11.9X
GRF     154.65 348 ePKP   20 23.20  20.8X
   Z  19s     0.10um            4.7Msz
KHC     154.68 344 ePKP   20 12.50  10.0X
                   e      20 34.50
                   e      20 54.50
GEC2    154.91 344 ePKP   20 14.40  11.5X
     0.9s     1.01nm
                   e      20 27.30
                   e      20 35.70
SSF     158.00   0 ePKP   20 25.40  18.5X
     0.6s     1.45nm
     S.D. = 1.3  on   8 of  19 obs.
----------------------------------------
* MAR 28, 1993  15h 44m 28.10± 0.93s
   10.461 S ±12.2km  164.273 E ±12.8km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 SANTA CRUZ ISLANDS REGION         (183)

HNR       4.38 283 eP     45 34.00  -0.1
                   eS     46 25.00
```

```
DZM      11.73 170 iPc     47 16.20   -0.1
CTA      19.82 239 iPc     48 59.00   -0.1
                   i       49 07.50
CMS      27.01 217 eP      50 09.20    0.1
WB2      30.33 248 iPc     50 20.60  -18.5X
         0.8s     1.80nm
YKA      95.12  27 eP      57 48.50   -0.4
         0.8s     0.50nm          4.0mb
BCAO    145.52 263 iPKPd   04 06.30    0.7
         0.2s    20.00nm
     S.D. = 0.4  on   6 of   7 abs.
-----------------------------------------
? MAR 28, 1993  15h 58m 12.78± 2.44s
  10.769 N ±26.8km   69.080 W ±15.8km
  DEPTH =  10.0km  (geophysicist)
 VENEZUELA                          (101)

MORO      0.76  82 iPc     58 27.50   -0.2
                   iS      58 40.80
TOV       1.20 216 ePn     58 34.30   -0.9
                   eSn     58 49.40
CEOS      1.88 157 iP      58 45.50    0.2
                   iS      59 09.70
SDV       2.42 219 ePn     58 54.00    0.8
                   iSn     59 25.80
     S.D. = 1.3  on   4 of   4 abs.
-----------------------------------------
? MAR 28, 1993  16h 47m 08.80± 4.39s
  27.827 S ±62.5km  176.410 W ±35.9km
  DEPTH = 162.3 ± 39.7 km
  4.4mb ( 1 obs.)
 KERMADEC ISLANDS REGION            (177)

RAO       1.94 223 iP      47 44.40    0.0
                   eS      48 05.50
DZM      16.57 286 iPd     50 53.20    0.0
CTA      34.87 274 iP      53 46.50    0.0
ASPA     44.71 264 eP      55 12.60    5.1X
         0.3s     3.40nm          4.4mb
WB2      45.46 269 eP      55 00.00  -13.4X
         0.4s     2.30nm
                   i       55 14.40
NB2     146.40 353 PKP     06 30.40    0.5
         0.6s     1.50nm
APO     146.55 351 ePKP    06 29.50   -0.5
         0.4s     1.20nm
     S.D. = 0.8  on   5 of   7 obs.
-----------------------------------------
? MAR 28, 1993  16h 47m 17.57± 1.58s
  41.194 N ±14.2km   23.143 E ± 7.1km
  DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION      (363)

KNT       0.19 260 ePg     47 21.80    0.0
                   eSg     47 24.52
SRS       0.35 103 iPg     47 24.72    0.0
                   eSg     47 29.76
SOH       0.40 157 ePg     47 26.00    0.1
                   eSg     47 31.60
THE       0.58 194 iPg     47 29.12   -0.1
                   iSg     47 37.20
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------------
  MAR 28, 1993  17h 16m 50.83± 0.19s
  13.114 S ± 5.1km  175.001 E ± 4.2km
  DEPTH =  33.0km  (normal)
  5.4mb ( 37 obs.)  5.2Msz ( 32 obs.)
 FIJI ISLANDS REGION                (181)
    Mw 5.5 (HRV).
    CENTROID, MOMENT TENSOR         (HRV)
    Data Used: GDSN
    L.P.B.: 43S, 81C
    Centroid Location:
    Origin Time       17:16:48.4 0.3
    Lat 13.12S 0.03 Lon 175.14E 0.03
    Dep  15.0 BDY Half-duration  1.4
    Moment Tensor;   Scale 10**17 Nm
      Mrr=-1.45 0.04  Mtt= 1.41 0.06
      Mff= 0.05 0.07  Mrt=-1.08 0.11
      Mrf= 0.00 0.10  Mtf=-0.28 0.04
     Principal Axes:
      T  Vol=  1.81   Plg=18  Azm=189
      N        0.01     5       97
      P       -1.82    71      351
    Best Double Couple:Mo=1.8*10**17
     NP1:Strike=288 Dip=27 Slip= -78
     NP2:        94     63      -96

VUN       5.90 146 iP      18 17.20   -1.1
BKM       7.93 234 iPc     18 42.90   -3.9X
DZM      12.07 221 iPd     19 41.80   -1.9
HNR      15.21 282 eP      20 27.00    2.0
                   eS      23 22.00
PMG      27.55 275 e(P)    22 38.00    1.2
ARMA     27.61 228 eP      22 42.00    4.5X
         1.0s    11.00nm          4.5mb
RMQ      27.98 238 eP      22 40.90    0.2
         1.5s   125.00nm          5.4mb
CTA      28.38 252 eP      22 43.00   -1.4
         2.0s    88.24nm          5.1mb
                   ic      22 46.00
                   ePP     23 30.00
                   eS      27 34.00
QLP      31.79 240 eP      23 14.50   -0.1
CNB      32.00 222 eP      23 18.30    1.9
         0.6s    33.00nm          5.4mb
BWA      32.10 224 eP      23 17.20   -0.1
CAN      32.24 222 eP      23 16.80   -1.7
CMS      32.44 231 eP      23 20.60    0.3
         1.1s    13.00nm          4.7mb
TVO      34.73 102 iPc     23 40.10   -0.2
         1.8s   742.30nm          6.3mb
TOO      35.85 222 iPd     23 51.20    1.6
         0.7s    45.00nm          5.5mb
STK      35.87 233 eP      23 51.30    1.5
         2.2s     4.00nm          4.0mb X
PMO      36.01  98 iPc     23 51.50    0.4
         1.8s   742.30nm          6.3mb
VAH      36.26  98 iPc     23 53.40    0.2
TPT      36.28  97 iPc     23 53.70    0.3
         2.2s  1128.60nm          6.4mb
RUV      36.50  98 iPc     23 55.50    0.3
         1.8s   604.20nm          6.2mb
BFD      37.60 225 eP      24 05.80    1.5
         0.9s    30.00nm          5.2mb
WB2      39.48 255 eP      24 18.50   -1.7
         1.1s    20.20nm          4.8mb
WRA      39.49 255 P       24 19.40   -0.9
         0.5s     2.80nm          4.3mb X
ASPA     40.26 249 iPc     24 25.40   -1.2
         1.1s    77.60nm          5.4mb
      Z  22s      2.60um          5.0Msz
                   i       26 29.80
HON      43.29  38 P       25 00.00    8.7X
      Z  21s      2.70um          5.1Msz
WARB     47.11 246 eP      25 21.00   -0.9
DAV      53.04 289 eP      26 07.10   -0.3
MAT      60.35 326 eP      26 57.00   -2.1
         1.2s    34.38nm          5.4mb
      Z  22s      1.48um          5.1Msz
                   eS      35 00.00
BAG      61.27 297 eP      27 04.00   -1.8
SBA      64.88 182 iPc     27 28.00   -0.6
SMY      65.58 359 P       27 40.00    6.7X
      Z  19s      1.02um          5.0Msz
YSS      66.47 337 eP      27 37.80   -1.4
      Z  18s      1.00um          5.1Msz
      N  18s      0.50um
      E  18s      0.50um
                   eS      36 36.00
                   e       37 26.00
LEM      66.51 268 iPc     27 39.70   -0.6
PET      67.35 349 eP      27 48.00    3.4X
                   e       37 00.00
NJ2      70.01 311 Pc      28 02.00    0.5
MDJ      70.69 327 eP      28 04.60   -0.8
      Z  28s      1.45um          5.1MszX
SNY      72.29 322 eP      28 14.20   -0.8
      Z  20s      0.85um          5.0Msz
CN2      72.41 325 P       28 16.20    0.5
         2.0s   140.00nm          5.6mb
      Z  26s      1.71um          5.2MszX
                   esP     28 28.00
MGD      75.52 348 eP      28 32.00   -1.4
         2.0s    80.00nm          5.4mb
      Z  20s      0.60um          4.9Msz
      N  20s      0.70um
                   eS      38 10.00
                   e       38 46.00
BJI      75.95 317 eP      28 36.50    0.2
      Z  24s      0.64um          4.8MszX
                   eSS     43 04.00
SNG      76.57 281 eP      28 40.20   -0.1
TIY      77.37 314 Pd      28 45.00    0.6
      Z  32s      1.63um          5.1MszX

                   S       38 31.00
                   SKS     38 47.00
SAO      77.64  47 P       29 00.00   14.2X
      Z  19s      1.42um          5.3Msz
XAN      78.32 309 P       28 50.50    0.8
         1.5s    32.00nm          5.1mb
      Z  20s      0.61um          4.9Msz
                   pP      28 56.50   19kmX
                   sP      29 00.00
                   PP      31 54.00
WDC      78.64  44 P       29 00.00    8.8X
      Z  21s      1.46um          5.3Msz
CMB      78.96  47 P       29 00.00    6.9X
      Z  20s      1.71um          5.4Msz
PMS      79.25  17 e(P)    28 53.60   -0.6
         2.1s   204.00nm          5.8mb
ISA      79.33  49 ePc     28 55.57    0.4
         1.8s    58.52nm          5.3mb
      Z  20s      1.69um          5.4Msz
HHC      79.42 316 P       28 56.40    0.8
         2.0s    67.00nm          5.3mb
      Z  28s      0.89um          5.0MszX
      N  12s      0.19um
PMR      79.66  17 P       29 10.00   13.8X
      Z  20s      2.35um          5.5Msz
KMI      79.99 299 Pc      29 00.00    0.9
      Z  30s      1.50um          5.2MszX
                   pP      29 10.50   33kmX
                   sP      29 15.00
                   S       38 52.00
                   sS      39 09.00
BTO      80.35 316 P       29 01.50    0.9
      N  15s      0.37um
      E  15s      0.44um
                   sP      29 09.50
KHT      80.54 288 eP      29 02.30    0.4
SIT      81.04  25 P       29 10.00    6.3X
      Z  20s      1.84um          5.4Msz
CD2      81.14 305 eP      29 05.00    0.1
CHTO     81.37 292 ePd     29 06.50    0.3
         1.5s    33.78nm          5.1mb
TPNV     81.49  49 (P)     29 06.60   -0.1
GMW      81.84  37 ePc     29 08.16    0.1
IMA      82.32  12 eP      29 09.55   -0.8
         2.1s    91.07nm          5.5mb
RMW      82.38  38 eP      29 10.92   -0.1
FBA      82.70  15 eP      29 11.50   -0.7
YAK      82.85 340 eP      29 11.40   -1.6
         2.0s   129.00nm          5.7mb
LZH      82.95 309 Pd      29 15.00    0.7
         2.0s    84.00nm          5.5mb
      Z  20s      0.74um          5.1Msz
      E  13s      0.31um
                   pP      29 22.00   22kmX
                   sP      29 25.00
CIT      83.62 327 eP      29 19.00    1.8
ARUT     83.88  49 ePc     29 19.59    0.6
DUG      85.22  47 ePd     29 26.05    0.4
         1.8s    40.58nm          5.3mb
      Z  21s      1.76um          5.4Msz
HVU      85.82  46 ePc     29 29.14    0.5
BOD      86.36 332 eP      29 30.80    0.1
         2.3s   153.00nm          5.8mb
BRW      86.37   9 eP      29 30.60    0.1
DAU      86.41  47 ePd     29 31.74    0.0
GTA      87.11 311 P       29 35.50    0.5
         2.0s   240.00nm          6.1mb
      Z  18s      0.86um          5.2Msz
      E  16s      0.39um
                   SS      45 50.00
LCCM     87.90  42 ePc     29 39.00    0.3
ALQ      88.25  54 eP      29 40.98    0.3
         1.7s    40.76nm          5.5mb
      Z  21s      0.42um          4.8Msz
BW06     88.41  45 eP      29 40.88   -0.4
         1.9s    75.99nm          5.7mb
ZAK      88.71 323 iPd     29 42.00   -0.1
         2.5s   144.00nm          5.9mb
      Z  19s      0.64um          5.1Msz
      N  19s      0.41um
      E  20s      1.08um
                   eS      40 00.00
                   ePS     41 23.00
IRK      88.85 325 ePc     29 42.20   -0.6
         2.0s    52.00nm          5.5mb
LTX      88.95  60 eP      29 44.00    0.0
TIK      89.99 347 eP      29 46.00   -1.8
```

28d 17h

2.0s 46.00nm 5.4mb
Z 20s 1.50um 5.4Msz
SES 90.05 38 eP 29 48.00 -0.6
GOL 90.46 49 eP 29 51.96 0.9
1.4s 25.91nm 5.3mb
Z 20s 0.92um 5.2Msz
MOY 90.54 323 eP 29 51.40 0.7
LSA 91.17 300 P 29 55.90 1.2
S 40 45.00
RSSD 92.65 45 ePd 30 00.41 -0.5
1.6s 39.35nm 5.6mb
Z 21s 0.36um 4.8Msz
YKA 92.74 26 eP 29 59.60 -1.0
1.6s 6.00nm 4.8mb
WMOK 94.30 55 P 30 20.00 11.6X
Z 19s 0.69um 5.1Msz
GUN 95.26 297 P 30 00.00 -13.5X
WMQ 97.03 313 eP 30 20.50 -0.3
2.0s 25.00nm 5.4mb
Z 28s 0.93um 5.1MszX
pP 30 31.50 35kmX
MIAR 98.47 57 P 30 40.00 12.7X
Z 21s 0.53um 5.0Msz
ELT 99.63 322 eP 30 32.00 -0.1
2.4s 41.00nm 5.5mb
GOGA 106.65 59 PKP 35 30.00 15.3X
Z 20s 0.41um 5.0Msz
CEH 110.39 56 PKP 35 30.00 8.3X
Z 20s 0.56um 5.1Msz
RSNY 113.65 47 PKP 35 40.00 12.3X
Z 19s 0.97um 5.4Msz
HRV 116.00 49 PKP 35 40.00 7.7X
Z 20s 1.18um 5.5Msz
CBM 117.78 44 PKP 35 50.00 14.5X
Z 20s 0.91um 5.4Msz
OBN 127.10 331 ePKP 35 50.00 -3.1X
Z 20s 1.10um 5.5Msz
N 20s 1.10um
KSR 130.35 219 iPKPd 35 54.00 -6.5X
0.8s 28.13nm
LSZ 136.71 230 ePKP 36 14.00 1.3
KSP 138.58 340 ePKP 36 15.00 0.0
CLL 139.21 343 ePKP 36 15.00 -1.1
1.7s 21.00nm
BRG 139.31 342 ePKP 36 17.60 1.3
CDF 143.36 346 iPKPd 36 19.20 -4.5X
HAU 143.95 347 iPKPd 36 21.80 -2.8X
2.2s 95.35nm
Z 23s 0.50um 5.2MszX
OSS 144.19 342 ePKPd 36 23.10 -2.2
FLN 144.26 355 iPKPd 36 20.40 -4.7X
2.0s 118.95nm
Z 22s 0.60um 5.3Msz
LDF 144.40 354 iPKPd 36 20.10 -5.2X
2.0s 96.80nm
GRR 144.66 355 iPKPd 36 20.60 -5.2X
2.1s 170.55nm
LPF 145.03 355 iPKPd 36 22.70 -3.7X
1.9s 168.10nm
TMA 145.09 343 ePKPc 36 25.90 -0.9
LOR 145.15 349 iPKPd 36 25.90 -0.8
2.2s 132.25nm
Z 22s 0.73um 5.4Msz
MMK 145.39 344 ePKPd 36 27.60 0.2
LBF 145.40 349 iPKPd 36 26.50 -0.7
2.1s 190.70nm
SSF 145.41 350 iPKPd 36 26.80 -0.3
1.9s 199.30nm
DIX 145.50 345 ePKPd 36 27.90 0.2
AVF 145.70 350 iPKPd 36 27.40 -0.2
2.4s 259.95nm
SMF 145.76 349 iPKPd 36 27.80 0.1
2.0s 191.25nm
BGF 146.01 350 iPKPd 36 28.70 0.5
1.9s 127.85nm
LPL 146.20 345 iPKPd 36 30.20 1.4
2.0s 139.95nm
LPG 146.22 345 iPKPd 36 30.40 1.5
2.1s 150.40nm
MFF 146.37 354 iPKPd 36 29.60 0.9
2.1s 111.45nm
TCF 146.38 351 iPKPd 36 30.10 1.3
2.4s 192.45nm
MAF 146.39 350 iPKPd 36 30.20 1.4
2.0s 114.30nm
FIR 146.40 339 ePKP 36 12.00 -16.8X
LSF 146.51 352 iPKPd 36 29.90 0.9
2.3s 208.40nm
LFF 147.91 352 iPKPd 36 34.10 2.9X
LPO 148.10 352 iPKPd 36 34.70 3.1X
EGRA 150.74 353 ePKP 36 42.50 6.9X
BCAO 155.22 252 iPKPc 36 42.20 -0.6
1.1s 22.00nm
i 37 08.00
i 37 46.30
i 38 13.00
S.D. = 1.0 on 97 of 127 obs.

MAR 28, 1993 17h 29m 33.11± 1.05s
39.879 S ± 6.4km 173.691 E ± 7.1km
DEPTH = 262.5 ± 11.3 km
OFF W. COAST OF N. ISLAND, N.Z. (158)

DIW 0.94 169 P 30 09.50 0.1
S 30 33.30
BSZ 0.96 86 Pc 30 09.90 0.4
ORZ 1.30 223 Pc 30 11.60 0.1
S 30 36.80
KIW 1.36 137 P 30 11.80 -0.1
MNG 1.56 119 P 30 13.20 -0.1
S 30 39.90
MRW 1.56 151 Pc 30 13.10 -0.2
S 30 39.70
CNZ 1.59 65 Pc 30 13.50 -0.2
CAW 1.62 140 P 30 13.50 -0.3
MOZ 1.62 33 Pd 30 13.30 -0.5
S 30 41.10
WEL 1.63 150 P 30 13.60 -0.2
S 30 40.90
NGZ 1.63 65 Pd 30 13.90 -0.2
MTW 1.88 133 Pc 30 15.70 -0.2
MOW 1.95 143 P 30 15.80 -0.7
THZ 1.98 197 P 30 17.30 0.5
S 30 46.80
BLW 2.01 138 eP 30 17.00 -0.1
WAHZ 2.06 86 Pd 30 17.60 0.1
DSZ 2.35 217 Pc 30 20.60 0.4
TEHZ 2.40 94 P 30 20.90 0.2
TTH 2.44 83 eP 30 21.30 0.3
KHZ 2.54 183 P 30 22.10 0.2
S 30 56.40
MOH 2.78 76 P 30 25.20 0.8
PAHZ 2.80 70 P 30 25.00 0.3
LTZ 3.09 200 P 30 28.10 0.3
S 31 05.90
URZ 3.11 60 P 30 27.20 -0.7
MAHZ 3.31 79 eP 30 31.30 1.2
NOZ 3.60 71 P 30 33.50 0.2
MQZ 3.90 191 eP 30 36.00 -0.7
S 31 21.50
PUZ 3.99 65 P 30 37.50 -0.3
HBZ 4.26 59 P 30 40.40 -0.6
S.D. = 0.5 on 29 of 29 obs.

? MAR 28, 1993 17h 39m 05.58± 2.15s
5.841 S ±23.7km 146.942 E ±20.3km
DEPTH = 128.4 ± 13.3 km
4.8mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 0.82 176 iPd 39 28.10 1.1
YYYY 1.05 248 iPc 39 29.30 0.1
FINC 1.19 130 ePd 39 30.30 -0.2
MDG 1.30 297 iPd 39 31.20 -0.4
MNDI 3.28 264 eP 40 04.00 7.3X
PMG 3.55 177 eP 39 59.00 -1.1
WB2 18.61 220 iPd 43 15.00 -0.8
0.5s 30.80nm 4.9mb
ASPA 21.72 214 iPc 43 48.90 1.4
0.4s 15.00nm 4.7mb
eS 47 39.70
S.D. = 1.3 on 7 of 8 obs.

MAR 28, 1993 18h 01m 30.84± 0.35s
10.184 N ± 6.1km 86.502 W ± 5.8km
DEPTH = 33.0km (normal)
4.5mb (14 obs.) 5.1Msz (1 obs.)
OFF COAST OF COSTA RICA (77)

BRU 4.12 109 ePc 02 34.44 0.9
iS 03 19.36
DVD 4.36 113 iPc 02 37.44 0.9
iS 03 28.11
ECO 6.76 96 ePc 03 09.40 -1.0
eS 04 23.94
OXX 12.07 306 iP 04 27.50 3.8X
IISM 13.68 311 iP 04 42.00 -2.9X
ACX 14.58 299 (P) 05 01.50 4.7X
PPM 14.68 308 iP 04 59.60 1.1
III 14.97 304 iP 05 05.50 3.5X
TOV 16.46 90 eP 05 26.30 5.2X
GOGA 23.28 6 eP 06 37.21 0.6
0.6s 24.75nm 4.9mb
HBF 23.33 13 eP 06 38.65 1.6
PRM 24.09 8 eP 06 44.67 0.3
JSC 24.46 11 eP 06 48.60 0.6
LHS 24.74 11 eP 06 49.97 -0.7
LTX 24.91 322 ePc 06 52.90 0.4
MIAR 25.10 346 eP 06 52.80 -1.3
0.7s 12.02nm 4.6mb
GBTN 25.45 4 eP 06 57.55 0.1
TKL 25.48 5 eP 06 58.68 1.0
OLY 25.61 351 eP 06 57.58 -1.3
CEH 26.46 14 eP 07 06.73 0.0
0.5s 26.27nm 5.1mb
WMOK 26.89 337 eP 07 10.70 -0.1
0.7s 28.62nm 5.0mb
ELC 27.09 355 eP 07 12.32 -0.2
CVL 28.61 13 eP 07 26.65 0.4
ALQ 30.64 327 eP 07 45.11 0.4
0.6s 3.00nm 4.3mb
ePcP 10 42.26
ZOBO 31.97 145 P 07 56.10 -0.9
LR 09 38.00
LPB 32.19 145 eP 08 05.00 6.3X
CNCB 32.48 145 P 08 02.00 0.6
i 10 48.60
GLA 34.60 315 eP 08 19.53 0.5
RSNY 35.77 15 eP 08 28.70 -0.1
0.8s 10.02nm 4.8mb
SRU 35.91 327 eP 08 30.04 -0.2
SIV 36.20 136 P 08 44.60 11.9X
MSU 36.39 325 eP 08 35.02 0.7
ePcP 10 58.67
ARUT 36.63 323 (P) 08 37.50 1.2
EEO 36.88 9 eP 08 41.00 2.9X
RSSD 37.07 339 eP 08 40.00 0.0
0.6s 4.11nm 4.5mb
DAU 37.25 328 ePc 08 42.13 0.5
DUG 37.92 326 eP 08 47.88 0.8
0.9s 4.23nm 4.3mb
ePcP 11 02.27
BW06 38.20 332 eP 08 48.45 -1.1
0.7s 3.05nm 4.3mb
CBM 39.81 20 eP 09 02.06 -0.5
0.8s 4.00nm 4.2mb
LMN 40.10 24 eP 09 07.00 2.0
KVN 40.26 321 eP 09 07.36 0.7
ULM 40.69 351 eP 09 10.00 0.2
LCCM 41.63 333 eP 09 17.80 0.0
LBFM 43.96 321 eP 09 36.82 0.0
JAQ 44.35 9 eP 09 38.00 -1.6
SES 44.92 338 eP 09 44.00 -0.3
VGB 45.82 326 eP 09 52.06 0.5
NEW 45.83 332 eP 09 50.12 -1.4
0.7s 6.00nm 4.6mb
BAO 45.96 123 eP 09 52.40 -0.7
BDF 46.05 123 eP 09 53.00 -0.8
DPW 46.07 331 eP 09 52.82 -0.6
LON 47.16 327 eP 10 02.00 -0.1
RMW 47.61 328 eP 10 05.25 -0.4
GMW 48.18 327 eP 10 09.06 -1.0
FCC 48.82 355 eP 10 19.50 4.9X
MCW 48.91 329 eP 10 15.15 -0.5
YKA 56.03 345 eP 11 06.20 -2.3
0.3s 1.30nm 4.4mb
RES 64.65 358 eP 12 07.00 -0.1
0.8s 2.00nm 4.3mb
FBA 68.86 336 ePc 12 33.48 -0.5
0.8s 5.04nm 4.6mb
LKO 79.50 82 P 13 36.30 -0.2
LIC 80.56 85 P 13 42.00 -0.1
Z 22s 0.85um 5.1Msz
COOL 147.08 227 ePKP 21 12.00 1.6
0.6s 8.00nm
HYB 148.85 28 ePKP 21 13.00 -0.6
1.0s 30.00nm
MUN 149.81 221 ePKP 21 14.00 -0.7
1.0s 28.00nm
BAL 150.35 223 iPKPd 21 19.70 4.2X
CHTO 150.69 349 ePKP 21 21.80 5.5X

GBA 151.49 34 PKP 21 19.00 1.4
S.D. = 0.9 on 56 of 67 obs.

MAR 28, 1993 18h 22m 29.50± 1.33s
45.127 S ± 4.7km 167.156 E ±12.1km
DEPTH = 33.0km (normal)
SOUTH ISLAND, NEW ZEALAND (162)
ML 4.3 (WEL).

MSZ 0.71 50 P 22 42.50 -0.5
S 22 51.20
BCZ 1.00 152 Pd 22 47.00 -0.2
TLC 1.36 93 P 22 52.00 -0.4
CMCZ 1.50 92 Pd 22 54.40 -0.1
eS 23 10.30
MHZ 1.51 88 Pd 22 54.80 0.2
SBCZ 1.53 89 P 22 54.90 0.1
LRCZ 1.55 88 Pd 22 55.70 0.4
LSCZ 1.57 90 P 22 55.60 0.2
MSCZ 1.60 90 P 22 56.40 0.6
SIZ 1.88 159 P 23 00.10 0.3
TUZ 1.93 116 P 23 00.20 -0.3
eS 23 21.10
BWZ 2.03 74 P 23 02.20 0.2
ODZ 2.47 89 P 23 07.60 -0.7
EWZ 3.11 60 eP 23 16.90 -0.4
WVZ 3.29 53 eP 23 20.70 0.8
DSZ 4.78 47 eP 23 40.70 -0.4
THZ 5.37 53 eP 23 49.50 0.1
ORZ 5.83 44 eP 23 56.00 0.1
S.D. = 0.4 on 18 of 18 obs.

• MAR 28, 1993 18h 39m 33.82± 1.03s
36.990 S ± 9.2km 176.924 E ±11.8km
DEPTH = 260.5 ± 9.7 km
4.5mb (1 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

KUZ 1.00 284 Pd 40 09.10 -1.1
S 40 35.70
HBZ 1.26 119 P 40 10.10 -1.6
URZ 1.28 173 Pc 40 11.40 -0.4
S 40 39.70
PUZ 1.51 136 Pc 40 12.90 -0.6
S 40 41.30
NOZ 1.85 152 Pc 40 16.40 0.3
PAHZ 1.87 177 Pc 40 16.90 0.5
WHH 1.92 190 P 40 17.20 0.3
MOH 2.15 175 P 40 19.60 0.8
MAHZ 2.32 161 P 40 20.80 0.4
NGZ 2.42 205 P 40 22.90 1.3
CNZ 2.46 206 P 40 23.40 1.5
TTH 2.55 182 P 40 23.70 1.1
WAHZ 2.74 189 P 40 25.10 0.4
TEHZ 3.00 182 P 40 27.80 0.5
BSZ 3.21 209 P 40 31.10 1.5
PGZ 3.66 188 P 40 35.00 0.4
MNG 3.79 197 Pc 40 36.00 -0.2
S 41 25.00
KIW 4.17 201 P 40 40.50 -0.1
MTW 4.31 194 P 40 41.60 -0.5
CAW 4.36 199 P 40 42.20 -0.5
DIW 4.47 211 P 40 44.10 0.0
BLW 4.52 194 P 40 44.60 0.0
MRW 4.57 201 P 40 44.70 -0.6
S 41 40.90
WEL 4.61 201 P 40 45.30 -0.4
S 41 42.80
MOW 4.61 196 P 40 45.20 -0.6
ORZ 5.14 220 P 40 51.50 -0.7
THZ 5.69 212 eP 41 00.40 1.4
S 42 07.30
KHZ 6.02 205 Pd 41 02.70 -0.2
S 42 13.40
DSZ 6.19 218 P 41 03.70 -1.4
LTZ 6.80 210 eP 41 12.00 -0.8
S 42 29.00
MQZ 7.46 205 P 41 19.50 -1.4
S 42 42.90
WVZ 7.71 216 eP 41 23.70 -0.4
S 42 49.50
BWZ 9.23 213 eP 41 42.90 -0.5
ODZ 9.34 209 P 41 44.80 0.0
S 43 27.60
WB2 40.72 283 iPd 46 52.30 1.4
0.3s 6.20nm 4.5mb
S.D. = 0.9 on 35 of 35 obs.

MAR 28, 1993 18h 40m 57.13± 0.21s
36.572 N ± 4.3km 71.415 E ± 3.6km
DEPTH = 184.9km (2 depth phases)
4.4mb (39 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

KSH 4.61 50 P 42 08.00 1.0
S 42 59.90
FRU 6.72 21 iPn 42 34.40 0.0
i 43 50.00
QUE 7.38 212 eP 42 45.00 1.6
eS 43 05.00
PRZ 8.00 40 iPn 42 51.00 -0.5
NDI 9.26 147 iPc 43 07.50 -0.3
0.6s 110.00nm 5.5mb X
eS 44 44.00
MAIO 9.61 272 iPnc 43 09.60 -2.9X
0.7s 7.62nm 4.2mb
eSn 44 42.00
ASH 10.51 281 iPd 43 20.50 -3.5X
0.6s 120.00nm 5.5mb X
eS 45 13.50
GKN 14.06 124 P 44 09.20 -0.4
WMQ 14.38 55 P 44 13.00 -0.5
S 46 55.00
DMN 14.63 124 P 44 16.00 -0.8
KKN 14.63 123 P 44 15.20 -1.6
PKI 14.86 123 P 44 18.00 -1.8
GUN 14.97 121 P 44 19.60 -1.5
LSA 17.88 107 P 44 58.70 3.0X
0.8s 80.00nm 5.2mb
ELT 19.65 27 iPc 45 12.50 -0.8
0.6s 38.00nm 5.1mb
e 48 40.00
GRS 19.95 286 eP 45 17.00 0.2
1.0s 30.00nm 4.7mb
e 45 53.00
HYB 20.10 160 eP 45 19.50 1.3
1.0s 40.00nm 4.9mb
GRO 20.81 297 iPc 45 26.00 1.0
1.5s 160.00nm 5.3mb
eS 49 09.00
ARU 21.64 340 iPd 45 33.80 0.7
1.0s 60.00nm 5.0mb
e 46 04.00 157kmX
eS 49 35.00
GTA 22.52 74 P 45 44.50 2.5
1.0s 14.00nm 4.5mb
PYA 22.80 298 eP 45 46.00 1.5
iS 46 23.00
i 46 48.00
KIV 23.05 298 (P) 45 50.30 3.2X
0.6s 4.00nm 4.2mb
GBA 23.50 165 P 45 53.00 1.6
S 50 21.00
MOY 25.82 45 eP 46 13.10 0.4
LZH 26.07 81 eP 46 17.50 2.2
1.6s 30.00nm 4.7mb
CHTO 29.96 119 eP 46 51.60 1.5
XAN 30.59 83 eP 46 56.00 0.5
KHT 32.52 125 eP 47 14.10 1.6
MLR 35.04 299 eP 47 36.50 2.6X
BOD 35.18 39 eP 47 33.30 -1.5
KAF 37.75 327 iP 47 56.20 0.0
0.3s 1.60nm 4.2mb
NUR 37.96 324 iP 47 58.10 0.1
0.3s 11.60nm 5.0mb
UPP 41.22 322 iP 48 24.80 0.0
BRG 42.84 308 eP 48 40.00 1.9
APO 43.15 322 eP 48 39.50 -1.0
0.4s 6.90nm 4.6mb
GEC2 43.16 305 eP 48 41.40 0.5
0.9s 1.22nm 3.5mb
MOR7 43.83 331 eP 48 46.36 0.4
NB2 44.52 323 P 48 50.60 -1.0
0.7s 9.90nm 4.4mb
GRF 44.68 307 ePd 48 54.50 1.5
1.0s 8.00nm 4.2mb
OSS 45.84 303 eP 49 02.10 -0.2
VDL 46.33 303 ePc 49 06.20 -0.1
LLS 46.58 303 ePc 49 08.00 -0.2
BSF 47.87 305 eP 49 17.90 -0.2
0.6s 9.40nm 4.5mb
HAU 48.13 305 eP 49 19.90 -0.1
0.6s 4.50nm 4.2mb
Z 23s 0.20um 4.0MszX
EMS 48.14 302 ePd 49 20.40 0.1
LPG 48.39 302 eP 49 22.60 0.2
0.7s 7.95nm 4.3mb
LPL 48.40 302 eP 49 21.90 -0.5
0.6s 3.25nm 4.0mb
SMF 50.09 304 eP 49 34.70 -0.2
0.7s 11.35nm 4.6mb
AVF 50.38 304 eP 49 36.80 -0.3
0.7s 9.80nm 4.5mb
BGF 50.78 304 eP 49 39.60 -0.6
0.7s 4.50nm 4.2mb
MAF 51.05 304 eP 49 42.30 0.1
0.7s 5.30nm 4.2mb
TCF 51.27 304 eP 49 43.90 0.0
0.7s 6.40nm 4.3mb
LSF 51.74 304 eP 49 46.90 -0.5
0.7s 6.05nm 4.3mb
CAF 51.74 302 eP 49 47.40 -0.1
0.9s 7.20nm 4.3mb
RJF 52.01 303 eP 49 49.80 0.4
0.7s 4.85nm 4.3mb
Z 21s 0.25um 4.2Msz
LDF 52.20 307 eP 49 51.10 0.3
0.6s 5.25nm 4.4mb
FLN 52.39 307 eP 49 51.40 -0.7
0.9s 14.10nm 4.6mb
Z 21s 0.20um 4.1Msz
GRR 52.73 307 eP 49 54.10 -0.5
0.6s 6.60nm 4.5mb
MFF 52.75 305 eP 49 55.00 0.2
0.8s 5.65nm 4.3mb
DAG 54.78 344 eP 50 09.00 -0.3
0.8s 2.24nm 4.0mb
esP 50 50.50
BCAO 58.00 250 iPd 50 31.00 -1.8
0.8s 14.00nm 4.8mb
i 51 36.50 298kmX
LSZ 65.75 226 iP 51 24.10 -0.2
BUL 69.40 223 iPd 51 46.20 -0.8
IMA 71.95 18 eP 52 00.79 -1.0
0.9s 1.95nm 3.8mb
epP 52 45.26 186km
FBA 74.31 16 eP 52 15.21 -0.1
1.0s 5.80nm 4.3mb
epP 52 59.67 184km
KIC 75.12 267 (P) 52 19.20 -1.5
LIC 75.43 267 (P) 52 20.90 -1.6
BALM 78.90 16 eP 52 41.12 0.1
YKA 81.16 3 eP 52 52.70 0.1
0.5s 2.90nm 4.3mb
WRA 81.75 122 P 52 56.50 0.1
0.7s 1.50nm 3.8mb
WB2 81.76 122 iPd 52 56.20 -0.3
0.7s 3.60nm 4.2mb
ePP 53 47.70
CTA 90.27 115 eP 53 37.90 -0.1
S.D. = 1.0 on 67 of 72 obs.

% MAR 28, 1993 19h 21m 35.94± 1.34s
39.930 N ± 7.5km 20.413 E ±15.5km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

IGT 0.40 189 ePg 21 43.74 -0.4
eSg 21 52.38
FNA 1.13 40 ePb 21 55.86 -1.2
eSb 22 13.54
OHR 1.22 14 ePn 21 59.50 0.9
LIT 1.60 83 ePb 22 04.10 -0.3
AGG 1.74 121 ePb 22 07.38 1.0
GRG 1.83 55 ePb 22 07.82 0.1
eSb 22 32.46
S.D. = 1.1 on 6 of 6 obs.

% MAR 28, 1993 19h 28m 36.29± 2.08s
45.792 N ±16.0km 7.261 E ± 6.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

LSD 0.34 193 P 28 43.36 -0.1
S 28 47.48
LPL 0.46 234 Pg 28 45.70 0.0
Sg 28 51.10
LPG 0.46 231 Pg 28 45.80 0.0
Sg 28 51.30
ORX 0.53 107 P 28 47.02 0.0

28d 19h

S 28 54.07
RSP 0.64 180 P 28 48.71 -0.5
S 28 56.86
BHB 0.95 180 P 28 54.71 0.3
S 29 06.65
PZZ 1.29 185 P 29 00.66 0.3
S 29 16.26
S.D. = 0.3 on 7 of 7 obs.

? MAR 28, 1993 20h 21m 45.60±10.57s
7.215 N ±74.1km 82.519 W ±51.3km
DEPTH = 10.0km (geophysicist)
SOUTH OF PANAMA (83)
MD 3.7 (UPA).

DVD 1.21 3 iPc 22 08.32 0.1
eS 22 27.08
BRU 1.58 358 iPc 22 14.10 0.0
eS 22 37.91
UPA 3.44 59 iPc 22 40.62 0.3
iS 23 21.22
ECO 3.52 52 ePc 22 41.09 -0.4
S.D. = 0.5 on 4 of 4 obs.

? MAR 28, 1993 21h 06m 56.43± 4.57s
37.610 S ±33.4km 176.117 E ±20.5km
DEPTH = 238.6 ± 34.5 km
NORTH ISLAND, NEW ZEALAND (159)

URZ 1.02 130 P 07 29.80 -0.8
S 07 49.90
WHH 1.31 167 eP 07 32.50 -0.1
PAHZ 1.45 150 P 07 33.50 -0.1
MOH 1.72 152 P 07 35.90 0.1
NOZ 1.82 124 P 07 37.00 0.4
TTH 2.01 164 P 07 39.00 0.7
WAHZ 2.09 175 P 07 39.50 0.3
TEHZ 2.44 167 P 07 42.70 0.1
MNG 3.04 189 Pc 07 49.10 0.0
S 08 23.90
KIW 3.38 196 eP 07 52.70 -0.2
MTW 3.58 187 eP 07 54.40 -0.8
CAW 3.59 193 P 07 55.10 -0.2
DIW 3.61 207 eP 07 56.50 0.9
MRW 3.78 196 eP 07 57.30 -0.2
eS 08 40.30
BLW 3.79 187 eP 07 57.20 -0.4
TCW 3.87 201 eP 07 58.70 0.1
eS 08 42.50
KHZ 5.19 202 eP 08 14.90 0.2
eS 09 12.10
S.D. = 0.5 on 17 of 17 obs.

% MAR 28, 1993 21h 27m 55.59± 0.79s
39.217 N ± 5.9km 27.852 E ±11.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.94 210 iPg 28 13.50 0.0
iSg 28 26.00
KCT 1.10 21 iPn 28 17.00 0.7
EDC 1.13 0 ePn 28 16.50 -0.2
BNT 1.14 3 ePn 28 17.00 0.1
KHL 1.58 124 ePn 28 24.00 0.2
YLV 1.78 40 ePn 28 26.00 -0.7
S.D. = 0.6 on 6 of 6 obs.

MAR 28, 1993 22h 52m 39.15± 0.18s
61.803 N ± 2.2km 150.018 W ± 2.0km
DEPTH = 58.4 ± 2.9 km
4.4mb (16 obs.)
SOUTHERN ALASKA (2)
ML 4.5 (PMR), 4.4 (AEIC). Felt (IV) at Palmer and Wasilla; (III) at Chugiak, Eagle River and Willow; (II) at Anchorage.

PWA 0.17 156 P 52 47.50 -0.8
PLRM 0.47 116 iPc 52 49.85 -0.9
PMR 0.47 116 iPd 52 49.53 -1.2
SUA 0.49 226 iPc 52 50.42 -0.6
GHO 0.52 93 iPc 52 50.95 -0.5
PMS 0.60 158 P 52 51.70 -0.6
CUT 0.62 349 eP 52 52.35 0.0
SKT 0.74 285 iPd 52 53.35 -0.6
eS 53 04.08
SML 0.80 89 iPc 52 54.38 -0.3
PTE 1.06 153 iPc 52 57.74 -0.3
CGLM 1.07 243 iPc 52 58.60 0.2
eS 53 12.82
CPAM 1.16 243 ePc 52 59.83 0.3
eS 53 15.44
CRP 1.16 243 eP 52 59.18 -0.4
SPU 1.16 238 iPc 52 59.38 -0.1
CKN 1.19 242 ePc 53 00.07 0.2
HUR 1.19 8 iPc 53 00.73 0.8
eS 53 16.70
CP2 1.19 244 ePd 52 59.83 -0.3
CKT 1.21 241 iPc 53 00.17 -0.1
NKA 1.22 210 iPc 53 01.71 1.5
BGL 1.26 246 iPc 53 01.15 0.2
CKL 1.27 242 eP 53 01.48 0.4
SCM 1.28 87 iPc 53 01.63 0.5
SLKM 1.30 184 iPc 53 00.88 -0.6
MPA 1.36 166 iPd 53 01.67 -0.5
TRF 1.66 356 iPc 53 07.23 0.7
RND 1.70 18 iPc 53 07.73 0.8
SEW 1.73 171 eP 53 06.64 -0.6
DFR 1.77 228 iPc 53 08.30 0.3
RDN 1.86 227 eP 53 09.72 0.5
eS 53 32.98
NCT 1.88 230 iPc 53 10.07 0.5
eS 53 34.56
RSO 1.89 226 iPc 53 10.21 0.4
RS2 1.89 226 iPc 53 10.23 0.5
RS1 1.89 226 iPc 53 10.31 0.5
VLZ 1.89 109 iPd 53 09.39 -0.2
eS 53 33.55
RDW 1.89 227 iPc 53 10.28 0.5
RED 1.93 225 iPc 53 10.56 0.4
eS 53 34.48
KLU 1.98 97 iPd 53 11.13 0.2
eS 53 34.34
MCK 2.00 14 iPc 53 12.27 1.1
eS 53 36.52
BRLK 2.09 192 eP 53 12.07 -0.3
TZL 2.19 82 eP 53 15.02 1.3
HIN 2.22 128 iPd 53 13.29 -0.9
SDG 2.22 69 ePd 53 15.34 1.1
ILIM 2.25 221 eP 53 14.94 0.3
INE 2.29 222 eP 53 15.36 0.0
INW 2.31 222 eP 53 16.12 0.5
CNPM 2.36 195 eP 53 15.51 -0.7
CVA 2.42 119 iPd 53 15.92 -1.1
PAX 2.42 59 ePd 53 18.07 0.9
XLV 2.50 200 eP 53 19.22 1.1
THY 2.55 49 iPc 53 21.25 2.4
SGAM 2.67 117 ePd 53 19.04 -1.5
SVW 2.78 258 iPc 53 21.36 -0.8
NEA 2.82 8 iPc 53 22.62 0.0
WRH 2.82 17 iPc 53 22.76 0.1
PDB 2.88 227 ePd 53 22.86 -0.6
AUL 2.96 216 eP 53 26.08 1.4
AUE 2.96 215 eP 53 25.52 0.9
RAGM 2.96 116 eP 53 23.15 -1.6
HDA 2.96 27 iPc 53 24.96 0.2
AUH 2.97 216 eP 53 27.00 2.0
GLB 2.99 94 iPd 53 24.54 -0.6
eS 54 01.91
AUI 2.99 216 eP 53 27.31 2.1
MID 2.99 141 e(P) 53 25.80 0.6
TTA 3.01 295 (P) 53 24.01 -1.5
CCB 3.03 18 iPc 53 25.48 -0.1
FBA 3.27 17 ePc 53 28.61 -0.4
MDM 3.27 13 iPc 53 29.10 0.0
eS 54 05.87
DOT 3.31 53 eP 53 30.55 0.9
KAIM 3.32 122 eP 53 30.91 1.1
MCNL 3.39 221 eP 53 30.00 -0.7
CDD 3.40 214 eP 53 30.62 -0.3
GLM 3.41 19 iPc 53 30.87 -0.2
SYI 3.42 201 eP 53 31.21 0.1
CROM 3.48 105 eP 53 31.23 -1.0
TMW 3.59 62 eP 53 34.14 0.6
TGL 3.63 104 ePd 53 32.91 -1.3
BALM 3.77 98 ePd 53 34.80 -1.4
SNH 3.86 112 eP 53 35.25 -2.1X
CYK 4.06 112 eP 53 39.41 -0.7
KDC 4.26 198 ePc 53 40.84 -2.0X
CTGM 4.26 98 P 53 42.07 -1.1
YAH 4.27 106 ePd 53 42.11 -1.2
IMA 4.58 341 ePc 53 46.41 -1.1
FYU 5.22 22 iPc 53 56.26 -0.2
SIT 8.86 116 eP 54 43.02 -4.0X
BRW 9.90 347 eP 54 57.92 -3.3X
YKA 16.44 72 eP 56 28.00 1.0
0.6s 3.40nm 3.7mb
MCW 20.12 118 (P) 57 09.70 -0.8
RMW 21.50 119 eP 57 25.33 0.7
NEW 22.90 111 eP 57 39.98 1.7
0.6s 16.93nm 4.7mb
RES 22.99 34 eP 57 40.50 1.6
0.6s 2.00nm 3.7mb
VGB 23.49 120 eP 57 45.80 1.8
e 58 05.97
SES 24.15 100 ePd 57 51.60 1.2
pP 58 01.00 33kmX
FCC 27.16 71 eP 58 21.00 2.7
pP 58 51.00 143kmX
BW06 30.51 110 eP 58 49.04 0.3
0.5s 1.09nm 3.8mb
ULM 31.43 86 eP 58 59.00 2.6
pP 59 13.50 59kmX
RSSD 31.98 102 eP 59 01.13 -0.5
0.4s 5.36nm 4.7mb
e 59 20.37
MSU 32.86 118 eP 59 09.96 0.6
e 59 29.71
ARUT 32.95 120 eP 59 10.42 0.4
SRU 33.07 115 ePd 59 11.08 0.0
e 59 30.99
JAQ 38.31 67 eP 59 54.50 -0.7
WMOK 41.92 106 eP 00 24.97 -0.2
0.6s 8.38nm 4.7mb
e 00 44.93
FVM 43.17 95 eP 00 34.12 -1.2
0.6s 7.32nm 4.6mb
LTX 44.34 115 eP 00 44.70 -0.3
e 01 04.73
MDJ 47.73 288 eP 01 12.10 0.5
NAV 48.28 87 eP 01 14.82 -1.1
e 01 35.71
LMN 48.92 68 eP 01 22.50 1.8
CN2 50.23 290 eP 01 28.60 -2.2
0.8s 4.80nm 4.6mb
Z 10s 0.38um 4.7MszX
KAF 56.37 2 iP 02 26.20 10.3X
0.7s 3.90nm
NB2 56.64 11 P 02 21.20 3.2X
0.7s 0.70nm 3.8mb
SLL 57.38 10 eP 02 12.60 -10.5X
0.4s 0.70nm
NUR 57.95 3 eP 02 08.70 -18.3X
HHC 58.63 298 eP 02 30.00 -2.2
GTA 64.56 306 P 03 10.50 -1.6
pP 03 26.00 57kmX
GEC2 68.93 11 eP 03 38.10 -1.4
0.7s 0.47nm 3.6mb
e 03 46.30
e 03 53.80
SSF 69.42 19 eP 03 41.00 -1.4
0.9s 2.80nm 4.2mb
AVF 69.66 19 eP 03 43.70 -0.1
0.6s 2.05nm 4.2mb
LSA 76.44 308 P 04 24.70 0.3
GUN 79.98 312 P 04 42.80 -0.8
0.7s 11.00nm 4.9mb
KKN 80.30 312 P 04 44.40 -0.8
0.5s 12.00nm 5.1mb
GKN 80.33 313 P 04 44.60 -0.6
0.6s 14.00nm 5.1mb
PKI 80.45 312 P 04 45.00 -1.1
DMN 80.52 312 P 04 45.80 -0.6
0.6s 14.00nm 5.1mb
S.D. = 1.0 on 115 of 123 obs.

MAR 28, 1993 22h 57m 02.85± 0.94s
37.277 N ±10.0km 21.615 E ± 6.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.5 (ATH), 3.5 (THE).

VLI 1.20 117 ePb 57 34.30 9.2X
VLS 1.21 318 ePg 57 23.20 -2.2
ATH 1.81 67 ePb 57 39.20 5.0X
AGG 1.83 18 ePb 57 35.80 1.2
eSb 57 57.04
IGT 2.47 336 ePn 57 43.56 -0.2
eSn 58 10.20
KEK 2.82 330 ePg 57 55.20 6.4X

SRN	2.89	335	ePn	58 54.20	64.5X
LIT	2.90	13	ePn	57 51.24	1.3
			eSn	58 24.36	
KZN	3.03	2	ePn	58 01.30	9.6X
PAIG	3.10	31	iPn	57 53.96	1.3
			eSn	58 30.16	
TPE	3.26	338	ePn	58 49.00	53.9X
FNA	3.51	357	iPn	57 57.48	-1.1
			eSn	58 35.00	
THE	3.51	17	ePn	57 58.12	-0.4
GRG	3.73	9	ePn	58 00.64	-1.0
SOH	3.79	20	ePn	58 03.08	0.5
OHR	3.88	351	ePn	58 10.00	6.1X
KNT	4.01	14	ePn	58 07.00	1.4
VAY	4.11	10	iPn	58 07.30	0.4
TIR	4.29	342	ePn	58 28.00	18.4X
SOI	4.48	282	P	58 14.70	2.4
PHP	4.49	349	ePn	58 14.30	1.8X
LACI	4.60	342	ePn	58 39.40	25.5X
MMB	4.61	20	iPg	58 13.00	-1.2
SKO	4.69	358	ePn	58 18.00	2.6X
CSI	4.86	302	P	58 19.40	1.6
ORI	4.91	306	P	58 18.30	-0.1
			eSn	59 08.60	
MMN	5.12	302	P	58 23.50	2.1
MGR	5.53	303	P	58 25.90	-1.4
SGO	5.91	306	P	58 29.90	-2.6
VBY	9.50	332	ePn	59 19.90	-2.8X
GKN	53.01	81	P	06 21.60	-0.7
DMN	53.56	81	P	06 26.40	-0.1
KKN	53.62	80	P	06 26.40	-0.4
PKI	53.82	81	P	06 28.00	-0.4
GUN	54.03	80	P	06 29.60	-0.4

S.D. = 1.4 on 23 of 35 obs.

& MAR 28, 1993 23h 01m 27.34s
61.795 N 150.023 W
DEPTH = 36.9km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.7 (AEIC), 2.5 (PMR).

PWA	0.16	155	P	01 34.50	0.5
			S	01 40.80	
PLRM	0.47	115	iP	01 36.68	-0.9
			eS	01 45.31	
PMR	0.47	115	iPc	01 36.60	-1.0
SUA	0.48	226	iP	01 37.32	-0.5
			eS	01 46.15	
GHO	0.52	92	iP	01 37.75	-0.6
			eS	01 47.05	
PMS	0.60	158	P	01 38.50	-0.9
SKT	0.74	285	iP	01 40.21	-1.1
			eS	01 50.86	
SML	0.80	88	iP	01 41.16	-1.1
PTE	1.05	152	iP	01 44.78	-1.0
			eS	01 59.61	
CGLM	1.07	244	eP	01 45.47	-0.6
CPAM	1.15	243	iP	01 46.63	-0.7
CRP	1.15	244	ePc	01 46.06	-1.3
			S	02 02.29	
SPU	1.15	239	iP	01 46.30	-1.0
			eS	02 02.68	
CKN	1.18	242	iP	01 47.49	-0.2
			eS	02 04.63	
CP2	1.19	244	ePc	01 47.09	-0.9
			S	02 02.27	
HUR	1.20	8	iP	01 47.52	-0.4
			eS	02 03.45	
CKT	1.21	241	iP	01 47.13	-0.9
			eS	02 04.08	
NKA	1.21	210	eP	01 49.25	1.3
BGL	1.25	246	iP	01 48.08	-0.7
SCM	1.28	87	iP	01 48.59	-0.5
			eS	02 05.98	
SLKM	1.30	184	iP	01 48.11	-1.2
MPA	1.35	166	eP	01 49.32	-0.7
TRF	1.67	356	iP	01 54.09	-0.7
RND	1.71	18	iP	01 55.06	-0.2
SEW	1.72	170	eP	01 55.69	0.3
DFR	1.77	228	eP	01 55.22	-0.9
RDN	1.85	227	eP	01 57.21	-0.1
NCT	1.87	230	iP	01 57.12	-0.6
RS2	1.88	226	iP	01 57.66	-0.3
RSO	1.88	226	iP	01 57.26	-0.6
RS1	1.89	226	eP	01 57.17	-0.8
RDW	1.89	227	eP	01 57.52	-0.4
VLZ	1.89	109	eP	01 56.37	-1.4
			eS	02 20.96	
RED	1.92	225	iP	01 57.53	-0.8
KLU	1.98	97	iP	01 57.90	-1.3
MCK	2.01	14	eP	01 59.47	0.0
TZL	2.19	81	eP	02 02.04	0.0
HIN	2.21	128	iP	02 00.37	-2.0
SDG	2.23	69	iP	02 02.88	0.3
ILIM	2.24	221	eP	02 02.33	-0.5
INE	2.29	222	eP	02 03.06	-0.6
INW	2.30	223	eP	02 04.06	0.2
CNPM	2.35	195	eP	02 04.81	0.4
CVA	2.42	119	eP	02 03.27	-2.1
PAX	2.43	59	iP	02 05.98	0.4
SGAM	2.67	117	eP	02 06.36	-2.6
SVW	2.78	258	P	02 08.80	-1.6
PDB	2.87	227	eP	02 10.25	-1.5
HDA	2.97	27	iP	02 12.13	-1.1
GLB	2.99	94	eP	02 12.09	-1.4
CCB	3.03	18	iP	02 12.60	-1.5
FBA	3.28	17	eP	02 15.90	-1.6
MDM	3.28	13	eP	02 16.31	-1.2
DOT	3.32	53	eP	02 19.55	1.5
GLM	3.42	19	eP	02 18.12	-1.4
CRQM	3.48	104	eP	02 21.29	0.7
TGL	3.63	104	eP	02 22.08	-0.5
BALM	3.77	98	eP	02 21.87	-2.7
IMA	4.58	341	ePn	02 32.58	-3.6

59 obs. associated

? MAR 29, 1993 00h 04m 58.68± 1.60s
41.195 N ±14.4km 23.137 E ± 7.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.7 (THE).

KNT	0.18	260	ePg	05 02.84	0.0
			iSg	05 05.82	
SRS	0.35	103	ePg	05 05.92	0.0
			eSg	05 10.24	
SOH	0.41	156	iPg	05 07.16	0.1
			eSg	05 13.00	
THE	0.58	193	ePg	05 10.24	-0.1
			eSg	05 18.12	

S.D. = 0.2 on 4 of 4 obs.

% MAR 29, 1993 00h 06m 11.66± 1.61s
41.226 N ±14.4km 23.164 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.2 (THE).

KNT	0.21	252	ePg	06 16.32	0.1
SRS	0.34	108	ePg	06 18.52	-0.2
			eSg	06 23.72	
SOH	0.43	160	ePg	06 20.32	-0.1
			eSg	06 26.68	
THE	0.61	194	ePg	06 23.64	-0.3
			eSg	06 31.80	
GRG	0.64	245	ePg	06 24.36	-0.1
			eSg	06 32.80	
PAIG	1.36	163	ePb	06 37.20	0.6

S.D. = 0.4 on 6 of 6 obs.

% MAR 29, 1993 00h 06m 41.77± 0.82s
41.190 N ± 7.7km 23.161 E ± 4.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 3.4 (THE).

KNT	0.20	262	ePg	06 45.96	-0.2
SRS	0.33	103	ePg	06 48.56	-0.1
			eSg	06 53.40	
SOH	0.40	158	ePg	06 50.04	0.1
			eSg	06 56.44	
THE	0.58	195	ePg	06 53.40	0.0
			eSg	07 01.28	
GRG	0.62	248	iPg	06 53.68	-0.6
LIT	1.20	205	ePb	07 04.08	-0.1
			eSb	07 21.12	
PAIG	1.32	162	ePb	07 06.20	0.0
			eSb	07 25.32	
FNA	1.41	254	ePb	07 08.44	0.9
			iSb	07 26.72	
ALN	2.20	97	ePn	07 18.84	0.0
AGG	2.26	197	ePn	07 19.80	0.1

S.D. = 0.4 on 10 of 10 obs.

% MAR 29, 1993 00h 08m 24.19± 1.63s
41.210 N ±15.3km 23.119 E ± 6.3km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.2 (THE).

KNT	0.17	254	ePg	08 28.80	0.7
			eSg	08 31.68	
SRS	0.37	104	ePg	08 31.76	0.0
			eSg	08 36.00	
SOH	0.43	155	ePg	08 32.96	0.1
			eSg	08 39.00	
THE	0.59	191	ePg	08 36.16	0.1
			eSg	08 44.00	
GRG	0.60	245	ePg	08 35.52	-0.8
			eSg	08 44.96	

S.D. = 0.7 on 5 of 5 obs.

% MAR 29, 1993 00h 09m 50.10± 1.51s
41.208 N ±14.1km 23.145 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.4 (THE).

KNT	0.19	256	ePg	09 54.56	0.2
SRS	0.35	105	iPg	09 57.28	0.0
			eSg	10 02.32	
SOH	0.42	158	iPg	09 58.72	0.1
			eSg	10 04.28	
THE	0.59	193	iPg	10 02.00	0.0
			eSg	10 10.04	
GRG	0.62	246	ePg	10 02.32	-0.2
			eSg	10 10.80	

S.D. = 0.2 on 5 of 5 obs.

% MAR 29, 1993 00h 14m 41.71± 1.49s
41.207 N ±13.9km 23.154 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.0 (THE).

KNT	0.20	257	ePg	14 46.12	0.0
			eSg	14 48.88	
SRS	0.34	105	ePg	14 48.68	-0.1
			eSg	14 53.80	
SOH	0.41	159	ePg	14 50.36	0.2
			eSg	14 56.16	
THE	0.59	194	ePg	14 53.40	-0.3
			eSg	15 01.56	
GRG	0.62	247	iPg	14 54.16	-0.1
			eSg	15 02.32	

S.D. = 0.2 on 5 of 5 obs.

? MAR 29, 1993 00h 14m 57.15± 1.63s
41.199 N ±14.5km 23.149 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.5 (THE).

KNT	0.19	259	ePg	15 01.48	0.1
SRS	0.34	104	ePg	15 04.24	0.0
			eSg	15 09.28	
SOH	0.41	158	ePg	15 05.64	0.1
			eSg	15 11.56	
THE	0.58	194	ePg	15 08.80	-0.1
			eSg	15 16.76	

S.D. = 0.2 on 4 of 4 obs.

? MAR 29, 1993 00h 15m 55.10± 2.36s
41.149 N ±17.3km 23.078 E ±12.6km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT	0.14	276	ePg	15 58.44	0.1
			eSg	16 01.24	
SOH	0.39	147	ePg	16 03.00	-0.1
			eSg	16 08.76	
THE	0.52	189	iPg	16 05.80	0.1
			eSg	16 13.88	
GRG	0.55	250	ePg	16 06.04	-0.1
			eSg	16 14.44	

S.D. = 0.2 on 4 of 4 obs.

% MAR 29, 1993 00h 16m 11.23± 1.13s
41.159 N ±10.5km 23.101 E ± 5.7km
DEPTH = 10.0km (geophysicist)

29d 00h

GREECE-BULGARIA BORDER REGION (363)

KNT 0.15 271 iPg 16 14.92 0.1
eSg 16 17.84
SRS 0.37 96 ePg 16 18.96 0.1
SOH 0.39 150 ePg 16 19.04 -0.2
eSg 16 25.76
THE 0.54 191 ePg 16 22.28 0.2
eSg 16 30.28
GRG 0.57 249 ePg 16 22.56 -0.2
eSg 16 31.20
S.D. = 0.2 on 5 of 5 obs.

? MAR 29, 1993 00h 16m 17.50± 1.37s
41.177 N ±16.5km 23.128 E ± 6.5km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.17 265 ePg 16 21.66 0.2
eSg 16 24.26
SRS 0.36 99 ePg 16 24.82 0.0
eSg 16 29.42
THE 0.56 193 ePg 16 28.90 0.1
eSg 16 37.30
GRG 0.59 248 ePg 16 29.22 -0.3
eSg 16 37.78
S.D. = 0.4 on 4 of 4 obs.

% MAR 29, 1993 00h 17m 05.15± 1.35s
41.190 N ±13.0km 23.138 E ± 5.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.18 261 ePg 17 09.42 0.2
eSg 17 12.42
SRS 0.35 102 ePg 17 12.34 0.0
eSg 17 16.82
SOH 0.40 156 ePg 17 13.50 0.1
eSg 17 19.58
THE 0.57 193 ePg 17 16.66 -0.1
GRG 0.60 248 ePg 17 17.20 -0.2
S.D. = 0.2 on 5 of 5 obs.

% MAR 29, 1993 00h 17m 32.51± 1.49s
41.204 N ±14.1km 23.129 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.18 257 ePg 17 36.82 0.3
eSg 17 39.54
SRS 0.36 104 ePg 17 39.94 0.0
eSg 17 44.86
SOH 0.42 156 ePg 17 41.02 0.0
eSg 17 46.78
THE 0.58 192 iPg 17 44.45 0.1
eSg 17 51.90
GRG 0.60 246 ePg 17 44.34 -0.4
eSg 17 53.26
S.D. = 0.3 on 5 of 5 obs.

? MAR 29, 1993 00h 19m 30.76± 4.35s
18.344 N ±26.0km 67.176 W ±32.8km
DEPTH = 33.0km (normal)
MONA PASSAGE (89)

MGP 0.34 166 P 19 39.00 -0.1
APR 0.44 76 P 19 41.00 0.6
PORP 0.59 119 P 19 43.10 0.5
CSB 0.97 93 P 19 48.20 0.1
SJG 1.00 103 iP 19 48.50 -0.1
CPD 1.24 104 P 19 52.00 0.2
S 20 33.00
LPR 1.24 91 P 19 50.80 -1.1
S.D. = 0.7 on 7 of 7 obs.

? MAR 29, 1993 00h 22m 32.56± 1.04s
36.999 N ±12.3km 2.387 W ± 7.7km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

ENIJ 0.15 101 iPg 22 36.10 0.1
eSg 22 37.60
EHUE 0.83 349 ePg 22 48.50 -0.2
eSg 23 00.20
EGUA 0.96 260 ePg 22 50.50 -0.3
eSg 23 01.80
ECOG 0.98 287 ePg 22 51.70 0.4
eSg 23 03.40
S.D. = 0.6 on 4 of 4 obs.

% MAR 29, 1993 00h 24m 12.34± 1.47s
41.202 N ±13.8km 23.137 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.19 258 ePg 24 16.74 0.3
eSg 24 19.62
SRS 0.35 104 ePg 24 19.58 -0.1
eSg 24 24.22
SOH 0.41 157 iPg 24 20.98 0.2
eSg 24 26.78
THE 0.58 193 iPg 24 24.02 -0.1
GRG 0.61 246 ePg 24 24.38 -0.3
S.D. = 0.3 on 5 of 5 obs.

% MAR 29, 1993 00h 25m 23.63± 1.36s
41.190 N ±13.0km 23.135 E ± 5.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.18 261 ePg 25 27.88 0.2
eSg 25 30.76
SRS 0.35 102 ePg 25 30.88 0.0
eSg 25 35.44
SOH 0.40 156 iPg 25 31.98 0.1
eSg 25 37.82
THE 0.57 193 ePg 25 35.18 0.0
eSg 25 43.18
GRG 0.60 247 ePg 25 35.62 -0.2
eSg 25 44.54
S.D. = 0.2 on 5 of 5 obs.

? MAR 29, 1993 00h 26m 40.58± 1.34s
41.153 N ±11.7km 23.119 E ± 7.4km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.17 273 ePg 26 44.62 0.2
eSg 26 47.62
SRS 0.36 96 ePg 26 47.62 -0.4
eSg 26 52.46
SOH 0.38 152 ePg 26 49.12 0.8
eSg 26 54.68
THE 0.53 193 ePg 26 50.68 -0.7
eSg 26 55.52
GRG 0.58 250 ePg 26 49.76 -2.5X
eSg 26 54.96
S.D. = 1.1 on 4 of 5 obs.

MAR 29, 1993 00h 41m 36.04± 0.42s
41.210 N ± 4.1km 23.124 E ± 3.7km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.9 (SKO).

KNT 0.18 254 ePg 41 40.48 0.4
eSg 41 43.00
SRS 0.37 104 ePg 41 43.08 -0.5
eSg 41 48.00
SOH 0.42 156 ePg 41 44.56 -0.2
eSg 41 50.64
VAY 0.43 285 iPg 41 45.00 0.2
iSg 41 51.20
THE 0.59 192 ePg 41 47.72 -0.2
eSg 41 55.84
MMB 0.59 50 iPg 42 47.00 59.0X
GRG 0.60 245 ePg 41 47.96 -0.3
eSg 41 56.64
KKB 0.66 357 iPgc 41 48.00 -1.1
RZN 1.29 68 iPg 42 00.00 -0.1
PAIG 1.35 162 iPb 42 01.08 0.2
PLD 1.48 52 eP 42 04.00 1.3
PGB 1.55 30 eP 42 04.00 0.3
KDZ 1.78 75 iP 42 07.00 -0.1
S.D. = 0.6 on 12 of 13 obs.

? MAR 29, 1993 00h 45m 16.39± 1.64s
41.200 N ±14.6km 23.144 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.19 259 iPg 45 20.66 0.1
eSg 45 23.46
SRS 0.35 104 ePg 45 23.54 0.0
eSg 45 28.34
SOH 0.41 157 ePg 45 24.94 0.2
eSg 45 30.82
THE 0.58 194 ePg 45 28.02 -0.2
eSg 45 36.30
S.D. = 0.2 on 4 of 4 obs.

? MAR 29, 1993 00h 52m 38.85±12.17s
42.342 N ±92.1km 25.956 E ±55.3km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

ALN 1.45 177 ePb 53 04.88 -0.1
eSb 53 22.56
SRS 2.15 236 ePb 53 13.54 -1.7
eSb 53 39.40
SOH 2.47 233 iPn 53 19.34 -0.5
eSn 53 48.60
KNT 2.57 244 ePn 53 20.84 -0.4
iSn 53 51.45
THE 2.82 234 ePn 53 25.12 0.3
eSn 53 59.08
PAIG 2.96 216 ePn 53 27.60 0.8
GRG 3.00 244 ePn 53 29.00 1.6
iSn 54 03.50
S.D. = 1.3 on 7 of 7 obs.

MAR 29, 1993 00h 53m 49.23± 0.11s
21.898 S ± 3.4km 179.215 W ± 3.2km
DEPTH = 586.0km (8 depth phases)
5.3mb (64 obs.)
FIJI ISLANDS REGION (181)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 25C
Centroid Location:
Origin Time 00:53:56.0 0.6
Lat 21.00S 0.09 Lon 179.48W 0.05
Dep 584.0 4.4 Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr=-4.88 0.55 Mtt=-4.96 1.09
Mff= 9.85 0.85 Mrt=-3.62 0.84
Mrf=-4.15 0.71 Mtf= 1.01 0.77
Principal Axes:
T Val= 11.16 Plg=16 Azm= 97
N -2.34 38 200
P -8.82 48 349
Best Double Couple:Mo=1.0*10**17
NP1:Strike=147 Dip=44 Slip=-152
NP2: 36 71 -49

SVA 4.35 329 iPc 55 16.00 -0.7
KRO 4.75 344 iPc 55 39.60 19.8X
TVI 5.01 351 eP 55 41.20 19.3X
MBU 5.27 338 iPd 55 23.00 -1.1
NDE 5.46 345 eP 55 45.60 19.9X
BKM 12.53 287 iP 56 34.00 0.7
DZM 13.31 267 iPc 56 42.00 1.0
iS 59 10.90
ScP 04 05.00
KUZ 15.44 195 P 57 04.00 2.4
WLZ 16.54 195 P 57 15.00 2.7X
0.7s 44.00nm 5.0mb
URZ 16.61 190 eP 57 12.00 -1.0
NOZ 16.83 187 eP 57 16.00 0.9
PAHZ 17.21 190 eP 57 19.20 0.4
WAHZ 18.14 191 eP 57 26.10 -1.6
PGZ 19.05 191 eP 57 35.60 -0.4
MNG 19.20 192 eP 57 36.20 -1.2
S 00 44.30
KIW 19.55 193 eP 57 39.60 -1.1
CAW 19.75 193 eP 57 41.40 -1.2
MRW 19.95 194 eP 57 43.30 -1.0
S 00 59.60
ORZ 20.13 198 P 57 46.60 0.6
THZ 20.89 197 eP 57 52.90 -0.1
DSZ 21.19 199 eP 57 53.50 -2.2
LTZ 22.01 197 P 58 01.70 -1.4
LMZ 23.77 201 eP 58 18.50 -0.3
ARMA 27.45 246 iPc 58 55.00 3.6X
0.4s 44.00nm 5.4mb
e 04 41.70
AFR 28.03 86 iPc 58 55.40 -0.9
1.1s 656.40nm 6.2mb
PAE 28.18 87 iPc 58 56.60 -1.1
1.1s 300.80nm 5.8mb

PPT 28.21 87 iPc 58 57.00 -0.9
1.1s 545.00nm 6.1mb
PPN 28.35 86 iPc 58 58.20 -0.9
0.7s 109.40nm 5.6mb
TVO 28.46 87 iPc 58 59.20 -1.0
0.7s 332.50nm 6.1mb
RMQ 29.53 255 iPc 59 10.50 1.2
0.5s 47.00nm 5.4mb
e 00 41.20
iPcP 01 57.20
PMO 30.45 82 iPc 59 16.30 -0.8
0.9s 344.60nm 6.0mb
CNB 30.51 237 iPd 59 19.50 1.9
0.4s 47.00nm 5.5mb
e 00 56.50
VAH 30.62 83 iPc 59 17.50 -1.1
1.0s 448.00nm 6.1mb
TPT 30.71 83 iPc 59 18.60 -0.7
1.0s 656.00nm 6.2mb
CAN 30.80 237 iPc 59 21.00 1.0
e 00 57.10
RUV 30.87 83 iPc 59 19.80 -0.8
1.0s 918.40nm 6.4mb X
BWA 31.01 239 iPc 59 20.80 -1.0
i 01 00.10
CTA 32.25 267 iPc 59 32.50 0.2
0.5s 18.49nm 5.0mb
ic 00 25.00
e 01 05.00
ic 02 02.70
iS 04 05.00
iScS 08 57.00
CMS 32.54 246 iPc 59 35.40 0.8
0.8s 88.00nm 5.4mb
e 01 10.60
i 04 56.00
QLP 33.58 255 eP 59 44.00 0.6
0.7s 273.00nm 6.0mb
TOO 34.16 235 iPd 59 50.10 1.9
0.4s 39.00nm 5.4mb
e 01 28.60
PMG 34.59 286 eP 59 52.00 0.2
1.0s 100.00nm 5.4mb
STK 36.17 246 iPc 00 06.30 1.6
0.5s 22.80nm 5.1mb
eS 05 05.40
ASPA 43.11 258 iPd 01 01.00 0.3
0.7s 32.60nm 5.0mb
iS 06 44.00
iScS 09 57.90
WB2 43.29 264 iPc 01 01.60 -0.5
0.6s 34.30nm 5.1mb
eS 06 42.30
WRA 43.30 264 P 01 02.20 0.0
0.6s 4.50nm 4.2mb X
MTN 48.06 272 iPc 01 37.70 -0.9
0.7s 102.00nm 5.5mb
WARB 49.34 254 eP 01 47.20 -0.8
0.3s 8.00nm 4.7mb
GUA 49.78 312 eP 01 50.20 -1.0
0.7s 120.55nm 5.5mb
GUMO 49.85 312 eP 01 50.70 -1.0
0.8s 187.50nm 5.7mb
PJG 49.85 312 eP 01 50.70 -1.0
AAI 54.07 282 ePc 02 20.60 -1.6
KLB 56.44 246 eP 02 38.00 -0.4
BAL 57.46 247 eP 02 44.70 -0.7
MRWA 58.27 248 eP 02 50.00 -0.9
NANU 59.95 256 iPd 03 02.10 0.1
0.4s 21.00nm 4.7mb
CSY 62.23 205 eP 03 17.20 1.0
0.7s 22.40nm 4.6mb
PLP 63.84 295 ePd 03 25.00 -2.2
KHKI 63.94 271 ePc 03 26.00 -1.9
e 05 20.90
CVP 69.86 300 eP 04 05.40 1.5
BAG 70.20 298 eP 04 05.20 -0.9
WKYJ 70.44 321 P 04 07.10 0.0
MAT 70.67 325 iPd 04 07.30 -1.0
0.8s 53.73nm 5.1mb
OFUJ 70.85 329 P 04 08.70 -0.5
YAMJ 70.95 327 P 04 09.50 -0.4
TKSJ 71.18 320 P 04 11.30 0.0
KAGJ 71.24 316 P 04 11.60 -0.1
LEM 71.89 270 iPd 04 16.50 0.4
YONJ 72.36 321 P 04 17.80 -0.3
KUSJ 72.70 333 P 04 19.20 -0.6

SHNJ 73.05 319 P 04 20.90 -1.1
ADK 73.49 2 iPd 04 22.24 -1.8
0.4s 138.95nm 5.8mb
MRRJ 73.75 330 eP 04 25.60 -0.2
ASAJ 74.40 332 P 04 30.50 1.1
SMY 74.54 356 eP 04 28.35 -1.5
0.8s 245.99nm 5.8mb
PET 77.04 346 eP 04 42.00 -1.6
0.6s 40.00nm 5.0mb
SSE 77.72 311 Pd 04 47.50 -0.2
1.0s 32.00nm 4.7mb
SDN 78.57 11 eP 04 50.20 -1.4
GZH 79.43 300 iPd 04 58.00 1.2
BCH 79.77 46 ePc 04 59.72 1.2
SAO 79.82 44 ePd 04 58.23 -0.4
MAW 79.87 200 P 05 01.20 2.8X
NJ2 79.91 310 Pd 05 00.00 0.9
1.0s 33.00nm 4.7mb
BKS 79.99 42 ePd 05 00.14 0.6
MHC 80.04 43 e(P) 05 00.71 0.8
NTYM 80.04 42 eP 05 00.29 0.6
ARN 80.11 43 iPd 05 01.06 0.9
FHC 80.75 39 eP 05 05.20 1.8
1.2s 200.69nm 5.5mb
SSK 80.82 48 eP 05 04.60 0.5
PLM 80.92 49 ePd 05 05.11 0.5
MDJ 81.02 326 iPd 05 05.30 0.7
1.0s 46.00nm 5.0mb
ISA 81.12 46 P 05 06.14 0.7
1.1s 46.37nm 4.9mb
CMB 81.25 43 ePd 05 06.39 0.3
1.1s 40.00nm 4.9mb
WDC 81.47 40 eP 05 07.93 0.9
1.1s 63.54nm 5.1mb
ORV 81.47 41 ePc 05 07.81 0.8
MIN 81.89 41 ePd 05 09.11 -0.2
1.1s 40.00nm 4.8mb
MEMM 81.96 44 eP 05 11.29 1.8
GSC 82.04 47 eP 05 10.35 0.2
GLA 82.19 50 iPc 05 12.22 1.4
LBFM 82.33 40 iPd 05 12.32 0.7
BONR 82.54 44 iPd 05 13.60 0.8
SNY 82.55 321 iPd 05 12.40 0.0
1.0s 64.00nm 5.1mb
CN2 82.72 323 iPd 05 13.30 0.1
1.0s 82.00nm 5.2mb
VIP 82.85 42 Pd 05 25.22 10.9X
KVN 83.30 43 ePd 05 16.81 0.3
TNP 83.32 45 iPd 05 17.01 0.4
0.9s 35.06nm 4.9mb
TPNV 83.32 46 ePd 05 17.18 0.6
0.9s 27.15nm 4.8mb
TIA 83.39 313 Pd 05 17.40 0.7
1.4s 200.00nm 5.5mb
SNG 83.61 280 eP 05 19.70 1.5
1.1s 101.27nm 5.3mb
e 25 18.30
KMOR 84.10 36 Pd 05 20.92 0.8
BMW 84.78 35 ePd 05 24.05 0.7
RSO 84.84 13 eP 05 21.62 -1.9
SVW 84.88 11 iPd 05 22.30 -1.2
0.8s 30.29nm 5.0mb
CROR 85.08 37 Pd 05 25.25 0.4
SHW 85.13 36 ePd 05 26.19 1.0
MGD 85.29 345 iPd 05 24.00 -1.4
0.9s 90.00nm 5.4mb
SLKM 85.43 14 iPd 05 25.00 -1.1
ASR 85.46 36 P 05 27.23 0.5
VGB 85.52 37 eP 05 27.57 0.7
STW 85.61 34 P 05 28.29 1.1
ARUT 85.66 46 ePd 05 28.43 0.5
CP2 85.68 13 iPd 05 26.05 -1.5
GMW 85.69 34 iPd 05 28.16 0.5
CRP 85.70 13 iPd 05 25.75 -1.8
LON 85.71 36 ePd 05 27.84 0.0
FMW 85.90 35 P 05 29.53 0.6
JBO 86.01 37 P 05 29.68 0.4
PGC 86.04 33 eP 05 30.00 0.8
0.7s 3.00nm 4.1mb X
BJI 86.09 316 eP 05 29.50 -0.2
1.0s 44.00nm 5.1mb
RMW 86.15 35 iPd 05 30.51 0.5
GYA 86.36 300 iPd 05 32.00 0.5
1.0s 29.00nm 5.0mb
MCW 86.38 34 iPd 05 31.65 0.7
JCW 86.54 34 P 05 32.16 0.4
PMR 86.64 14 iPc 05 30.45 -1.4

0.5s 47.58nm 5.5mb
MSU 86.89 46 ePd 05 34.91 1.0
epP 07 41.95 588km
WAH2 86.94 36 P 05 34.16 0.6
LNOR 87.13 38 P 05 34.64 0.0
WTV 87.29 36 Pd 05 35.56 0.2
KLU 87.30 15 iPd 05 34.17 -1.0
TIY 87.37 312 Pd 05 36.00 0.0
1.0s 69.00nm 5.4mb
SAW 87.59 36 P 05 36.89 0.2
BALM 87.84 17 iPc 05 37.11 -0.6
XAN 88.08 308 Pd 05 40.00 0.7
0.9s 64.00nm 5.5mb
pP 07 47.00 585km
HVU 88.19 43 ePd 05 40.19 0.4
SRU 88.30 46 iPd 05 40.74 0.3
epP 07 47.64 584km
DPW 88.34 36 iPd 05 40.35 0.1
epP 07 47.77 587km
EMUT 88.46 46 ePd 05 41.71 0.5
DAU 88.47 45 ePc 05 42.16 0.9
LTX 88.76 58 iPd 05 43.36 0.8
e 06 00.66
epP 07 51.21 589km
ALQ 89.15 52 ePd 05 44.85 0.4
0.9s 13.37nm 4.9mb
e 06 05.83
epP 07 52.29 586km
NEW 89.16 36 ePc 05 43.66 -0.3
0.8s 18.16nm 5.1mb
HHC 89.52 315 Pd 05 47.00 1.2
0.8s 60.00nm 5.6mb
CHTO 89.66 290 iPd 05 48.60 1.8
0.9s 49.02nm 5.4mb
IMA 89.81 10 iPd 05 45.76 -0.9
0.8s 17.95nm 5.1mb
FBA 89.85 13 iPd 05 45.03 -1.6
0.8s 44.04nm 5.4mb
BTO 90.42 314 eP 05 51.00 1.0
CD2 90.59 303 eP 05 48.50 -2.4
BW06 90.76 44 iPd 05 51.45 -0.2
1.2s 32.00nm 5.2mb
epP 07 58.95 585km
LCCM 90.86 40 ePd 05 52.20 0.3
GOL 92.09 48 iPc 05 58.16 0.2
0.8s 8.72nm 4.8mb
LZH 92.72 308 iPd 06 02.00 1.2
1.0s 65.00nm 5.6mb
YAK 92.96 338 eP 06 00.00 -1.0
SES 93.66 37 ePd 06 04.20 -0.4
pP 06 12.00 24kmX
BRW 94.26 7 eP 06 06.10 -0.6
MEO 94.94 55 iPc 06 10.50 -0.2
RSSD 94.94 44 iPc 06 09.91 -0.8
0.8s 9.86nm 5.1mb
epP 08 17.69 584km
BOD 96.67 330 iPc 06 33.00 15.2X
GTA 96.98 310 eP 06 20.00 0.1
1.0s 21.00nm 5.4mb
YKA 98.25 25 eP 06 23.70 -1.3
0.8s 3.30nm 4.7mb
ZAK 98.98 321 eP 06 27.70 -0.8
1.0s 10.00nm 5.2mb
GKN 105.14 294 PKP 11 06.00 -1.6
WMQ 106.98 311 Pdiff 07 01.00 -3.4X
RES 109.45 16 ePKP 11 14.00 -0.2
1.0s 3.00nm
CBM 119.94 48 ePKP 11 32.93 -2.1
QUE 120.69 293 ePKP 11 37.30 0.1
LMN 122.24 49 ePKPc 11 41.10 1.7
SVE 124.49 325 ePKPd 11 43.00 -0.4
ARU 125.68 325 iPKP 11 45.00 -0.8
0.6s 70.00nm
e 13 43.00
e 13 52.00
MAIO 127.46 300 iPKPd 11 49.80 -0.2
e 13 55.00
KEV 129.61 348 ePKP 11 52.00 -0.9
BUL 130.15 215 ePKP 11 55.30 -0.3
iSKP 14 26.10
MTD 131.13 221 iPKPd 11 57.40 -0.1
iSKP 14 40.60
SDF 131.72 347 iPKP 11 55.70 -1.3
iSKP 14 29.20
LSZ 134.32 218 iPKPd 12 05.00 1.4
i 14 46.00
KAF 136.16 343 ePKP 11 53.70 -11.8X

29d 01h

Sta	Dist	Az	Phase	Time	Res
OBN	137.41	330	ePKP	11 57.00	-11.1X
			i	12 07.00	
NUR	137.94	343	ePKP	11 59.00	-9.9X
			eSKP	14 49.00	
MTA	138.24	309	ePKP	11 53.00	-17.0X
			e	12 09.00	
KIV	139.08	313	ePKP	12 04.40	-7.2X
	1.2s	18.00nm			
NB2	140.22	352	PKP	12 05.00	-8.0X
	0.8s	18.50nm			
UPP	140.24	347	iPKP	12 05.10	-7.9X
HFS	140.72	350	ePKP	12 06.10	-7.8X
	0.4s	12.20nm			
MNK	142.14	334	ePKP	12 11.00	-5.5X
MUD	144.93	352	iPKPd	12 21.20	0.0
	0.7s	84.00nm			
EDR	144.94	3	ePKPd	12 20.80	-0.4
	1.1s	50.00nm			
GAZ	145.08	304	ePKP	12 23.00	0.9
COP	145.16	348	iPKPd	12 22.00	0.4
	0.7s	101.37nm			
EDU	145.28	4	ePKPd	12 22.10	0.3
ELO	145.31	4	ePKPd	12 22.20	0.3
EAB	145.54	5	ePKPd	12 22.90	0.7
	1.1s	70.00nm			
EBH	145.55	4	ePKPd	12 23.10	0.8
	1.2s	153.00nm			
EDI	145.89	4	ePKPd	12 23.70	0.9
ESY	145.93	3	ePKPd	12 23.90	1.0
EAU	145.95	4	ePKPd	12 24.40	1.5
	1.3s	70.00nm			
EBL	146.05	4	ePKPd	12 24.50	1.4
KAS	146.15	313	iPKPd	12 26.20	2.4
KIS	146.21	325	iPKPd-	12 25.00	1.4
	1.4s	400.00nm			
			i	12 31.00	
EKA	146.48	4	PKPc	12 25.80	2.0
	0.9s	79.40nm			
ESK	146.49	4	PKP	12 25.70	1.9
	0.9s	90.00nm			
GCD	146.89	5	ePKPd	12 26.60	2.2
HRI	147.16	298	ePKP	12 25.40	-0.3
XDE	147.28	5	ePKPd	12 27.90	2.8X
GIM	147.41	6	ePKPd	12 28.10	2.8X
DMU	147.52	8	iPKPd	12 28.40	2.9X
	0.7s	127.00nm			
WIM	147.54	6	ePKP	12 28.70	3.2X
LMI	147.58	4	ePKPd	12 28.70	3.2X
MML	147.58	296	ePKP	12 26.80	0.5
CFR	147.72	323	ePKP	12 30.00	4.0X
DCN	148.01	9	iPKPd	12 29.70	3.5X
	0.6s	115.00nm			
OJC	148.02	337	iPKP	12 30.10	3.7X
	0.5s	86.00nm			
			i	12 35.20	
VRI	148.08	325	ePKP	12 31.00	4.3X
			e	28 11.00	
DLF	148.16	8	iPKPd	12 30.00	3.5X
	0.7s	64.00nm			
FAM	148.17	301	ePKP	12 29.00	1.9
PRNI	148.25	293	ePKP	12 28.40	1.0
UZH	148.28	332	iPKPd	12 31.00	4.2X
	1.0s	667.00nm			
			i	12 40.00	
WME	148.31	6	ePKP	12 30.40	3.7X
	1.2s	45.00nm			
YRC	148.43	6	ePKP	12 30.50	3.6X
PSN	148.58	320	iPKPd	12 32.00	4.5X
KSP	148.66	341	ePKP	12 27.00	-0.4
	1.1s	125.00nm			
			id	12 32.20	
			ic	12 38.50	
CSS	148.71	302	ePKP	12 32.20	4.2X
MLR	148.74	325	ePKP	12 27.50	-0.4
			e	28 14.00	
ETA	148.79	8	ePKP	12 37.60	10.1X
WIT	148.81	353	ePKP	12 32.00	4.5X
YRH	148.84	6	ePKP	12 29.40	1.8
EYL	148.95	314	ePKP	12 32.00	3.7X
ECB	149.03	9	ePKP	12 38.40	10.6X
CLL	149.13	345	iPKP	12 27.60	-0.5
	1.3s	17.00nm			
ECP	149.27	9	ePKP	12 39.40	11.2X
BRG	149.30	344	iPKP	12 28.20	-0.1
	1.0s	120.00nm			
			i	12 33.00	
			i	12 39.50	
			epPKP	14 51.60	
CMP	149.37	325	ePKPc	12 33.00	4.3X
HCG	149.44	5	ePKPd	12 33.00	4.5X
WTS	149.60	353	iPKP	12 29.00	0.3
	0.7s	8.20nm			
HTR	149.71	5	ePKP	12 33.80	4.9X
HAE	149.80	4	ePKP	12 33.60	4.6X
PSZ	149.84	334	ePKPd	12 34.70	5.3X
VRAC	149.90	339	iPKPd	12 35.10	5.9X
	1.4s	309.80nm			
			e	12 43.00	
PRU	149.94	342	iPKPd	12 35.30	6.0X
	0.8s	72.80nm			
			e	12 43.30	
			e	14 52.50	
DEV	150.03	328	ePKPc	12 36.00	6.4X
MOX	150.07	346	ePKPc	12 29.60	0.1
	1.3s	103.00nm			
			i	12 35.40	
			i	12 43.30	
HGH	150.18	5	ePKPd	12 34.70	5.1X
	1.2s	42.00nm			
JMB	150.24	320	iPKPd	12 36.00	6.0X
KHL	150.40	310	iPKP	12 36.40	5.9X
PVL	150.53	322	iPKP	12 37.00	6.6X
BUD	150.54	334	ePKPc	12 35.80	5.5X
SRO	150.55	336	iPKP	12 36.90	6.6X
			i	12 46.50	
			e	12 55.70	
BNS	150.56	352	iPKPd	12 36.30	6.1X
	0.9s	110.00nm			
ZST	150.68	337	e(PKP)	12 30.70	0.2
			i	12 37.10	
			i	12 46.50	
ELL	150.75	307	iPKP	12 37.00	5.9X
VKA	150.90	338	iPKPd	12 37.40	6.6X
ENN	150.91	353	ePKP	12 31.00	0.3
	0.7s	4.20nm			
KHC	150.98	343	PKP	12 30.60	-0.4
	0.9s	35.50nm			
			e	12 37.60	
			e	12 47.50	
			e	16 19.00	
UCC	151.02	355	PKPd	12 37.60	6.7X
GRF	151.06	346	ePKP	12 31.20	0.2
	Z 22s	0.10um			4.6Msz
			i	12 37.90	
			e	12 48.00	
TNS	151.09	350	iPKPd	12 37.40	6.3X
GEC2	151.21	342	e(PKP)	12 31.10	-0.3
	0.7s	2.10nm			
SNF	151.31	355	iPKPc	12 37.87	6.6X
			i	12 47.42	
SSR	151.34	328	ePKPc	12 39.00	7.4X
KDZ	151.42	319	iPKPd	12 38.00	6.2X
PLD	151.58	321	iPKP	12 38.00	6.0X
DOU	151.70	355	iPKPd	12 39.00	7.1X
			i	12 49.90	
RZN	151.82	320	iPKP	12 39.00	6.4X
WLF	151.97	353	iPKPd	12 39.95	7.7X
	1.1s	83.50nm			
			ic	12 51.45	
VTS	152.13	323	iPKP	12 40.00	7.0X
LANF	152.40	350	PKP	12 33.23	0.3
HOFF	152.41	350	PKP	12 33.32	0.4
MMB	152.47	321	iPKP	12 40.00	6.7X
FUR	152.47	345	ePKP	12 33.00	-0.1
			i	12 40.60	
			i	12 53.90	
KKB	152.67	322	iPKP	12 41.00	7.4X
KBA	152.90	341	iPKPc	12 32.70	-1.3
			i	12 40.50	
			i	12 56.60	
WLS	153.03	350	PKP	12 32.98	-0.9
CDF	153.04	350	PKP	12 33.49	-0.5
PTJ	153.04	336	ePKP	12 37.20	3.1X
WATA	153.17	344	iPKPc	12 33.60	-0.7
			i	12 41.60	
			i	12 56.90	
FLN	153.17	2	ePKP	12 33.40	-0.6
	1.1s	25.90nm			
WTTA	153.22	343	iPKPd	12 33.70	-0.7
			i	12 42.10	
			i	12 57.40	
ECH	153.25	351	PKP	12 33.92	-0.3
MOTA	153.28	344	iPKPd	12 33.60	-0.8
			i	12 41.90	
			i	12 57.30	
VAY	153.31	322	iPKP	12 41.50	7.1X
	1.2s	126.00nm			
			i	12 58.00	
LDF	153.35	1	ePKP	12 33.70	-0.6
SOTA	153.37	344	iPKPd	12 33.90	-0.6
			i	12 42.30	
			i	12 57.70	
VITF	153.41	352	PKP	12 32.81	-1.6
LJU	153.43	338	e(PKP)	12 36.00	1.5
			e	12 41.50	
			e	12 44.00	
FEL	153.44	349	PKP	12 34.33	-0.3
SLE	153.46	348	ePKPc	12 34.20	-0.3
SKO	153.52	324	iPKP	12 42.50	7.8X
GRR	153.54	2	ePKP	12 34.10	-0.4
HAU	153.57	352	ePKP	12 34.30	-0.3
VBY	153.64	337	ePKPd	12 34.50	-0.2
			iPKPbc	12 43.30	
			ePKPob	12 57.60	
VOY	153.66	339	ePKP	12 36.10	1.2
			i	12 42.70	
			i	12 58.00	
BSF	153.68	351	ePKP	12 34.50	-0.4
CEY	153.73	338	e(PKP)	12 43.50	8.6X
			e	12 59.50	
OGA	153.74	344	iPKPc	12 35.40	0.3
LPF	153.88	3	ePKP	12 34.70	-0.3
	1.0s	12.40nm			
BBS	153.92	350	PKP	12 35.01	-0.1
OSS	154.13	345	ePKP	12 35.60	0.0
LLS	154.21	347	ePKPc	12 35.60	-0.1
OHR	154.46	323	ePKP	12 44.50	8.4X
LOR	154.57	355	ePKP	12 35.70	-0.3
	1.2s	10.70nm			
HYF	154.64	357	ePKP	12 36.20	0.1
SSF	154.80	356	ePKP	12 36.10	-0.2
	1.3s	27.10nm			
LBF	154.84	355	ePKP	12 36.10	-0.3
	1.2s	12.20nm			
AVF	155.08	356	ePKP	12 36.20	-0.4
SMF	155.19	355	ePKP	12 36.40	-0.4
	1.5s	27.70nm			
MMK	155.20	348	ePKPc	12 37.90	0.7
DIX	155.28	349	ePKPc	12 38.00	0.7
BGF	155.34	357	ePKP	12 36.90	-0.1
MFF	155.34	2	ePKP	12 36.70	-0.3
	1.0s	20.60nm			
BCAO	155.56	227	iPKPc	12 38.10	-0.2
	0.8s	14.00nm			
			i	13 09.00	
			i	15 03.00	
TCF	155.64	358	ePKP	12 37.20	-0.3
	1.2s	19.95nm			
LSF	155.70	359	ePKP	12 37.00	-0.5
	0.9s	7.20nm			
FIR	156.51	341	ePKP	12 35.00	-3.6X
RJF	156.65	359	ePKP	12 38.70	-0.1
	1.2s	19.65nm			
CAF	157.01	358	ePKP	12 39.20	-0.1
	1.7s	34.55nm			
LFF	157.02	0	ePKP	12 39.10	-0.1
	1.3s	22.40nm			
LPO	157.27	359	ePKP	12 39.70	0.2
PGF	158.29	343	ePKP	12 40.20	-0.7
	1.0s	18.80nm			
EPF	158.92	1	ePKP	12 41.80	0.3
	1.2s	12.50nm			
LIC	163.44	159	PKP	12 46.86	0.0
	0.9s	16.00nm			
KIC	163.66	160	PKP	12 47.20	0.2
	0.9s	25.50nm			
TIC	163.83	159	PKP	12 47.32	0.1
	0.8s	18.50nm			
LKO	166.28	153	PKP	12 49.02	-0.2
	1.0s	17.00nm			

S.D. = 0.9 on 258 of 331 obs.

MAR 29, 1993 00h 58m 19.14± 0.54s
42.627 N ± 6.4km 45.336 E ± 7.8km
DEPTH = 10.0km (geophysicist)
4.4mb (9 obs.)
EASTERN CAUCASUS (337)

Sta	Dist	Az	Phase	Time	Res
GRO	0.77	19	iPgc+	58 41.00	6.9X
			i	58 43.00	
MTA	1.01	203	iPgd-	58 36.00	-2.2

```
MAK      1.59  75 iPg    58 57.50   10.1X
PYA      2.18 311 iPnc   58 54.00   -1.9
                  i      58 57.00
                  i      59 01.00
                  e      59 30.00
KIV      2.35 305 ePn    58 58.60    0.2
                  eS     59 30.10
GRS      3.21 166 ePn    59 13.00    2.2
                  i      59 59.00
BAK      4.09 122 ePn    59 46.00   22.9X
                  iS     00 24.00
SOC      4.22 285 ePn    59 36.50   11.5X
                  eS     00 33.50
TBZ      4.46 250 ePn    59 21.00   -7.3X
TAB      4.62 170 eP     59 42.00   11.3X
MAIO    12.63 115 eP     01 22.00    0.4
OBN     13.73 338 eP     01 33.00   -3.0X
     Z  18s       1.10um
     N  16s       1.20um
                  (S)    04 01.00
ARU     16.21  27 eP     02 08.00   -0.3
MNK     16.29 320 eP     02 10.00    0.7
UZH     17.16 298 eP     02 37.60   17.2X
SVE     17.24  29 ePd    02 20.00   -1.3
        1.5s     80.00nm          4.6mb
     Z  16s       0.40um          4.4MszX
SPC     18.60 299 eP     02 40.00    1.5
QUE     21.30 119 eP     03 01.27   -7.0X
KSP     21.43 303 eP     03 08.50   -0.7
FRU     21.47  79 eP     03 06.20   -3.6X
                  e      03 35.00
NUR     21.87 332 iP     03 12.60   -1.0
        0.6s     19.50nm          4.7mb
PRU     22.39 300 Pd     03 19.70    0.8
                  e      03 38.80
KAF     22.55 336 iP     03 20.10   -0.2
        0.5s      8.40nm          4.5mb
GEC2    22.83 297 Pd     03 24.10    0.8
        0.7s      1.37nm          3.6mb
                  e      03 29.00
                  e      03 35.80
BRG     22.90 302 eP     03 27.00    3.2X
KHC     22.93 297 eP     03 24.50    0.3
                  e      03 54.50
CLL     23.55 303 e(P)   03 31.00    0.8
UPP     24.18 325 iP     03 36.70    0.6
GRF     24.51 299 eP     03 41.00    1.5
HFS     26.02 323 eP     03 53.60   -0.1
        0.4s      2.20nm          4.2mb
     Z  16s       0.05um          3.2MszX
                  LR     13 03.00
NB2     27.52 324 P      04 06.30   -1.2
        1.0s      7.50nm          4.4mb
GKN     34.90 102 P      05 00.00  -13.0X
DAG     43.04 342 eP     06 21.00    1.0
        1.0s      8.00nm          4.4mb
BCAO    44.88 220 iPc    06 34.00   -1.6
        0.8s      7.00nm          4.6mb
YKA     74.00 350 eP     09 56.00   -0.1
        0.8s      1.50nm          4.1mb
   S.D. = 1.2  on  23 of  35 obs.
--------------------------------------
% MAR  29, 1993  01h 00m 00.37± 0.97s
  41.301 N ± 8.0km    23.143 E ± 7.0km
  DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)

KNT      0.23 233 ePg    00 05.86    0.5
                  eSg    00 08.74
SRS      0.39 118 ePg    00 08.98    0.7
                  eSg    00 13.70
SOH      0.50 161 iPg    00 10.10   -0.5
                  eSg    00 15.78
GRG      0.66 239 ePg    00 13.94    0.5
                  eSg    00 22.26
THE      0.68 191 ePg    00 13.14   -0.7
                  eSg    00 21.10
ZST      8.12 330 eP     02 00.60   -0.5
   S.D. = 0.8  on   6 of   6 obs.
--------------------------------------
* MAR  29, 1993  01h 10m 49.22± 1.35s
  37.682 N ±12.4km    21.423 E ±10.9km
  DEPTH =  10.0km  (geophysicist)
  3.4mb (  1 obs.)
 SOUTHERN GREECE                  (368)
     ML 3.2 (ATH).
```

```
VLS      0.82 307 ePg    11 04.90   -0.3
AGG      1.52  28 ePb    11 15.72   -0.7
                  eSb    11 37.00
VLI      1.54 128 ePb    11 17.00    0.2
ATH      1.84  80 ePb    11 21.00   -0.1
IGT      2.04 336 ePn    11 27.36    3.4X
                  eSn    11 54.90
KEK      2.39 328 ePg    11 34.60    5.5X
LIT      2.55  19 ePn    11 33.20    1.8
KZN      2.63   6 ePb    11 35.40    2.8X
PAIG     2.85  37 iPn    11 34.56   -1.0
YKA     74.10 340 eP     22 23.80   -3.1X
        0.8s      0.30nm          3.4mb
   S.D. = 1.3  on   6 of  10 obs.
--------------------------------------
  MAR  29, 1993  01h 17m 29.17± 0.28s
  21.868 N ± 4.2km   103.099 E ± 5.0km
  DEPTH =  33.0km  (normal)
  4.6mb ( 32 obs.)  4.1Msz (  2 obs.)
 SOUTHEAST ASIA                   (299)

KMI      3.26 354 Pnd    18 18.50   -0.8
     Z  10s      21.10um
                  Pg     18 25.00
                  Sn     18 59.00
                  Sg     19 09.00
LOE      4.62 196 ePn    18 38.00   -0.6
                  ePg    18 54.00
                  eSg    19 34.00
CHTO     4.94 233 iPnd   18 41.70   -1.4
                  iSg    20 11.30
GYA      5.61  35 Pn     18 50.00   -2.6X
     Z  10s       9.50um
                  Pg     19 12.40
                  Sn     19 50.00
                  Sg     20 24.00
BDT      6.01 221 ePn    18 54.00   -4.1X
                  ePg    19 19.00
                  eSg    20 31.50
NST      6.77 205 ePn    19 08.00   -0.8
                  ePg    19 28.50
                  eSg    20 46.00
QIZ      6.93 113 ePn    19 09.40   -1.6
CD2      9.02   4 P      19 37.00   -3.2X
     Z  11s       6.73um
                  eS     21 20.00
GZH      9.55  81 iPd    19 45.20   -2.3
     Z  11s       6.77um
MCO      9.71  87 eP     19 40.80   -8.9X
XAN     13.17  22 P      20 32.00   -4.4X
        0.6s      7.00nm          4.8mb
     Z  10s       4.66um          4.0Msz
WHN     13.28  47 eP     20 35.00   -2.9X
     N  12s       8.25um
     E  10s       5.51um
LSA     13.29 308 P      20 36.10   -2.4
     Z  16s       2.13um
                  S      23 08.50
LZH     14.18   2 eP     20 49.00   -0.9
        2.0s     34.00nm          4.7mb
     Z  12s       3.30um          4.0MszX
     E  11s       8.49um
                  sP     20 57.00
                  eS     23 26.00
                  SS     23 43.50
NJ2     17.31  51 Pc     21 32.80    2.9X
        1.2s     40.00nm          4.4mb
     Z  15s       2.61um          4.6Msz
     E  10s       4.34um
BAG     17.38 105 e(P)   21 10.00  -21.1X
GTA     17.71 352 eP     21 33.00   -2.0
        1.5s     42.00nm          4.3mb
     Z  15s       2.01um          4.8MszX
     E  10s       1.54um
                  pP     21 39.00
                  sP     21 43.50
TIY     17.73  25 eP     21 35.50    0.3
     Z  14s       4.76um
TIA     18.80  37 eP     21 48.10   -0.2
        1.2s     47.00nm          4.6mb
     N  11s       2.03um
BTO     19.57  16 P      21 56.00   -1.4
        0.8s     18.00nm          4.4mb
     N  11s       1.92um
     E  11s       3.47um
HHC     20.24  19 P      22 05.00    0.6
        1.0s     23.00nm          4.5mb
```

```
     Z  11s       4.31um          5.1MszX
     N  10s       3.02um
                  S      25 49.00
                  sS     26 00.00
BJI     21.26  29 eP     22 16.00    1.3
        1.0s     33.00nm          4.7mb
     Z  20s       1.50um          4.4Msz
     N  10s       2.80um
DL2     23.25  39 eP     22 36.00    1.6
        1.0s     62.00nm          5.1mb
     Z  10s       0.83um          4.5MszX
     E  14s       2.25um
HYB     23.53 263 eP     22 38.50    1.1
WMQ     25.35 333 P      22 55.50    0.7
        1.0s      7.50nm          4.2mb
     Z  16s       1.35um          4.6MszX
                  pP     23 05.50  37kmX
                  PP     23 30.50
                  S      27 21.00
                  sS     27 34.00
GBA     25.76 256 P      22 59.00    0.3
POO     27.63 268 eP     23 05.50  -10.4X
ZAK     28.46   0 eP     23 24.00    1.0
        2.0s     26.00nm          4.6mb
     Z  12s       2.24um          5.0MszX
     N  12s       1.72um
CN2     28.66  35 eP     23 27.80    2.9X
        1.0s      5.80nm          4.2mb
                  esP    23 38.60
KSH     29.02 313 P      23 28.00   -0.4
        1.0s     24.00nm          4.8mb
     Z  12s       1.23um          4.7MszX
     N  10s       0.68um
     E  11s       1.05um
MOY     29.81 357 eP     23 37.00    1.9
FRU     31.63 318 eP     23 51.60    0.2
                  e      24 08.00
ELT     33.87 342 eP     24 10.50   -0.2
        1.2s     22.00nm          5.0mb
     Z  13s       1.20um          4.8MszX
                  eS     29 23.00
BOD     36.84  10 eP     24 35.90    0.1
        1.2s      8.00nm          4.5mb
MAIO    40.39 301 eP     25 07.00    1.1
YAK     44.09  18 eP     25 36.00    0.4
     Z  11s       0.90um          4.9MszX
     N  12s       0.70um
SVE     46.67 329 ePc    25 57.20    0.9
ARU     47.46 328 eP     26 02.00   -0.5
NRI     48.40 353 eP     26 22.00   12.4X
GRS     51.06 304 eP     26 31.00    0.3
WRA     51.57 141 P      26 35.80    1.3
        0.7s      1.10nm          3.9mb
WB2     51.57 141 iPc    26 35.50    1.0
        1.0s      6.30nm          4.5mb
TIK     51.95  10 eP     26 36.00   -0.7
        1.0s      9.00nm          4.7mb
                  e      29 43.00
KIV     54.03 309 eP     26 53.00    0.3
        1.7s     29.00nm          5.0mb
     Z  19s       0.10um          3.9Msz
ASPA    54.29 145 eP     26 59.00    4.4X
        1.0s      5.40nm          4.5mb
MOS     58.43 323 eP     27 41.00   17.1X
OBN     58.94 322 eP     27 27.00   -0.4
                  i      27 44.60
AVY     67.64 237 iPc    28 25.40   -0.2
VTY     67.88 237 iPc    28 26.80   -0.3
UZH     67.94 315 eP     28 30.00    3.2X
        1.4s     30.00nm          5.2mb
HFS     71.01 328 eP     28 45.00   -0.4
        0.5s      2.00nm          4.5mb
     Z  17s       0.15um          4.3MszX
                  LR     59 43.00
KSP     71.39 318 eP     28 47.50   -0.4
NB2     72.02 329 P      28 48.40   -3.1X
        0.8s      2.30nm          4.2mb
PRU     72.67 317 eP     28 55.50    0.0
                  e      29 14.30
BRG     72.83 318 eP     29 04.00    7.6X
                  e      29 44.80
CLL     73.30 319 e(P)   29 11.00   11.8X
GEC2    73.47 316 P      29 00.20   -0.2
        0.5s      0.62nm          3.8mb
                  e      29 03.80
                  e      29 19.30
GRF     74.82 318 e(P)   29 08.00   -0.1
```

29d 01h

LPG 78.99 315 eP 29 31.70 0.0
0.8s 5.25nm 4.6mb
LPL 78.99 315 eP 29 32.20 0.5
0.7s 3.75nm 4.5mb
MTD 79.87 247 eP 29 36.70 0.1
LBF 80.27 317 eP 29 37.60 -0.7
SMF 80.48 316 eP 29 39.00 -0.3
SSF 80.54 317 eP 29 38.80 -0.8
AVF 80.74 317 eP 29 40.30 -0.4
1.1s 8.80nm 4.7mb
LSZ 82.16 250 iP 29 49.50 0.8
RES 82.98 5 eP 29 54.00 2.2
1.0s 4.00nm 4.5mb
BCAO 83.33 272 iPd 29 54.20 -0.6
0.7s 5.00nm 4.7mb
BUL 83.88 246 eP 29 58.00 0.5
SLR 86.59 241 iPd 30 11.80 0.9
0.9s 16.00nm 5.2mb
KSR 87.77 241 eP 30 18.00 1.3
SEK 88.24 239 eP 30 18.50 -0.4
1.2s 20.00nm 5.3mb
YKA 90.76 16 eP 30 30.60 0.6
0.8s 0.80nm 4.1mb
BAO 151.96 278 (PKP) 37 27.00 10.4X
S.D. = 1.0 on 56 of 74 obs.

• MAR 29, 1993 01h 19m 49.74± 2.12s
37.551 N ±17.8km 21.049 E ±18.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.1 (ATH).

VLS 0.72 330 ePg 20 03.40 -0.6
VLI 1.72 118 ePb 20 20.50 0.6
ATH 2.16 78 eP 20 25.00 -1.2
KEK 2.37 336 ePg 20 38.00 8.7X
KZN 2.81 11 ePn 20 36.00 0.4
VAY 3.94 17 ePn 20 52.30 0.7
SKO 4.43 4 ePn 20 56.00 -2.4X
S.D. = 1.2 on 5 of 7 obs.

MAR 29, 1993 01h 38m 44.24± 0.78s
44.322 N ± 5.9km 114.755 W ±10.0km
DEPTH = 5.0km (geophysicist)
WESTERN IDAHO (33)
ML 3.2 (BUT).

STID 0.22 201 iPd 38 49.08 0.2
PCID 0.41 182 iPc 38 51.69 -0.8
MCMT 1.45 69 iPd 39 11.55 0.1
HBMT 2.12 45 ePnd 39 21.10 0.1
BGMT 2.14 64 ePn 39 20.98 -0.3
LRM 2.22 47 ePn 39 22.37 -0.1
BUT 2.29 42 ePg 39 29.50 6.0X
eS 39 53.00
eSg 39 57.71
LCCM 2.54 52 ePnd 39 26.49 -0.5
NCM 2.86 3 ePn 39 32.30 0.8
MEMT 2.98 63 ePn 39 32.65 -0.6
HRY 3.15 40 ePn 39 35.00 -0.6
BW06 4.08 110 eP 39 50.46 1.5
NEW 4.27 338 (P) 40 08.50 17.1X
DPW 4.28 327 (P) 40 00.88 9.3X
SES 6.58 21 P 40 38.00 14.0X
0.6s 1.20nm
S.D. = 0.8 on 11 of 15 obs.

• MAR 29, 1993 02h 02m 48.63± 1.19s
37.665 N ±11.1km 21.327 E ±10.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.2 (ATH).

VLS 0.78 311 ePg 03 03.80 0.0
VLI 1.60 126 ePb 03 17.00 0.0
ATH 1.92 80 ePb 03 21.50 -0.1
KEK 2.37 330 ePg 03 36.00 7.9X
KZN 2.66 7 ePn 03 32.60 0.2
VAY 3.78 14 ePn 03 48.50 0.4
SKO 4.30 1 ePn 03 55.00 -0.6
S.D. = 0.4 on 6 of 7 obs.

MAR 29, 1993 02h 03m 05.28± 1.32s
15.982 N ± 6.7km 60.183 W ±11.9km
DEPTH = 10.0km (geophysicist)
4.1mb (1 obs.)
LEEWARD ISLANDS (92)

MD 3.9 (TRN). ML 4.0 (FDF).

DEG 0.90 291 eP 03 22.47 -0.2
S 03 33.99
SFG 1.01 286 eP 03 24.23 -0.2
MGG 1.09 267 eP 03 25.22 -0.6
SEG 1.34 288 eP 03 30.04 0.1
MDN 1.35 241 eP 03 30.21 0.1
eS 03 47.43
DPMT 1.36 238 eP 03 30.90 0.6
eS 03 46.32
CRM 1.41 210 iPc 03 29.48 -1.5
PAG 1.44 272 ePd 03 30.78 -0.7
S 03 47.46
FDF 1.55 217 ePc 03 31.90 -1.1
S 03 49.60
MVM 1.58 206 eP 03 32.38 -1.0
BIM 1.69 211 ePc 03 34.03 -1.0
S 03 53.50
BPA 1.92 304 eP 03 38.60 0.2
S 04 02.70
SLW 2.08 201 eP 03 40.48 -0.2
MGH 2.09 291 eP 03 41.70 1.0
CPB 2.28 317 eP 03 48.40 4.9X
eS 04 19.01
SLB 2.30 201 eP 03 43.20 -0.7
eS 04 11.61
NEV 2.56 297 eP 03 49.30 1.8
S 04 19.00
SVV 2.83 201 eP 03 51.86 0.5
SVB 2.89 201 eP 03 52.78 0.6
eS 04 27.47
FCV 2.99 200 eP 03 54.02 0.4
eS 04 27.75
GRW 4.06 201 eP 04 09.14 0.3
TRN 5.43 193 eP 04 30.84 2.5
TCE 5.47 196 eP 04 29.69 0.8
SIV 31.78 182 P 09 44.60 12.4X
YKA 59.86 334 eP 13 11.40 -1.8
0.7s 1.20nm 4.1mb
S.D. = 1.1 on 23 of 25 obs.

% MAR 29, 1993 02h 07m 03.08± 1.48s
41.205 N ±13.9km 23.146 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT 0.19 257 ePg 07 07.56 0.2
eSg 07 10.32
SRS 0.35 104 ePg 07 10.20 -0.1
iSg 07 15.25
SOH 0.41 158 iPg 07 11.77 0.2
eSg 07 18.02
THE 0.59 194 ePg 07 14.76 -0.2
eSg 07 24.00
GRG 0.62 246 ePg 07 15.34 -0.2
S.D. = 0.3 on 5 of 5 obs.

• MAR 29, 1993 02h 23m 29.22± 1.60s
37.596 N ±12.8km 21.289 E ±11.9km
DEPTH = 10.0km (geophysicist)
3.4mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.4 (ATH).

VLS 0.80 317 ePg 23 44.00 -0.8
VLI 1.58 123 ePb 23 56.50 -0.8
AGG 1.64 30 ePb 23 57.12 -1.1
eSb 24 19.70
ATH 1.96 78 ePb 24 05.00 2.2
IGT 2.07 339 iPn 24 06.05 1.6
eSn 24 36.68
KEK 2.41 332 ePg 24 16.30 6.9X
LIT 2.67 20 ePn 24 12.80 -0.3
eSn 24 47.32
KZN 2.73 8 ePn 24 16.00 2.0
PAIG 2.99 38 ePn 24 16.68 -0.7
iSn 24 52.68
FNA 3.18 1 ePn 24 20.36 0.0
GRG 3.47 14 ePn 24 23.72 -0.6
OHR 3.53 354 ePn 24 28.50 3.2X
SOH 3.60 26 ePn 24 25.12 -1.1
VAY 3.85 15 ePn 24 29.40 -0.3
SKO 4.37 1 ePn 24 25.00 -12.2X
APO 23.43 351 eP 28 34.20 -4.9X
0.3s 0.40nm 3.4mb
S.D. = 1.3 on 12 of 16 obs.

• MAR 29, 1993 02h 32m 28.04± 0.67s
13.397 N ±15.3km 120.312 E ±13.8km
DEPTH = 33.0km (normal)
4.4mb (4 obs.)
MINDORO, PHILIPPINE ISLANDS (250)

PGP 0.63 80 eP 32 41.00 0.4
QVP 1.39 29 eP 32 56.00 4.7X
SZP 4.13 2 ePd 33 39.00 8.6X
ASPA 39.16 160 eP 39 54.50 -0.2
0.5s 33.80nm 5.4mb
WARB 39.82 171 eP 40 00.00 -0.1
MAIO 58.73 304 eP 42 27.00 1.6
KAF 80.14 332 eP 44 34.40 -1.7
UPP 84.78 330 iP 44 58.90 -1.2
NB2 87.35 333 P 45 12.20 -0.7
0.9s 4.20nm 4.7mb
KSP 88.36 322 eP 45 19.00 1.1
GEC2 90.63 321 P 45 29.30 0.6
0.8s 0.90nm 4.1mb
e 45 35.60
YKA 93.20 22 eP 45 48.30 8.2X
0.8s 0.30nm 3.8mb
S.D. = 1.2 on 9 of 12 obs.

MAR 29, 1993 03h 27m 05.12± 1.10s
37.103 N ± 9.5km 21.126 E ± 9.1km
DEPTH = 10.0km (geophysicist)
4.0mb (3 obs.)
SOUTHERN GREECE (368)
ML 3.5 (ATH).

VLS 1.15 339 ePg 27 27.90 1.2
VLI 1.50 104 ePb 27 41.40 9.3X
AGG 2.14 26 ePb 27 41.00 -0.4
eSb 28 01.84
ATH 2.24 66 ePb 27 44.50 1.8
IGT 2.50 346 ePn 27 47.84 1.3
eSn 28 16.90
KEK 2.81 339 ePn 27 52.40 1.5
SRN 2.91 343 ePn 27 59.60 7.3X
LIT 3.18 19 ePn 27 56.70 0.6
eSn 28 32.24
KZN 3.24 9 ePb 27 56.90 -0.1
TPE 3.30 345 ePn 27 56.50 -1.4
PAIG 3.46 35 ePn 27 59.52 -0.5
FNA 3.68 3 ePn 28 02.90 -0.4
eSn 28 45.44
GRG 3.97 14 ePn 28 07.52 0.1
eSn 28 51.44
OHR 4.01 356 iPn 28 07.70 -0.3
1.2s 272.00nm
i 28 14.50
i 29 06.00
LR 29 18.20
NPS 4.07 116 ePb 28 23.00 14.3X
SOH 4.10 24 ePn 28 08.08 -1.1
VAY 4.36 14 iPn 28 13.50 0.6
SRS 4.44 25 ePn 28 13.64 -0.4
PHP 4.61 354 ePn 28 19.50 3.1X
LACI 4.66 347 ePn 28 16.60 -0.5
SKO 4.87 3 ePn 28 17.30 -2.8X
HFS 23.54 351 eP 32 15.10 -0.9
0.4s 1.70nm 4.0mb
EKA 24.58 326 P 32 30.00 3.8X
0.7s 5.10nm 4.3mb
NB2 24.77 348 P 32 27.20 -0.8
0.8s 1.70nm 3.8mb
GKN 53.43 80 P 36 27.60 0.0
DMN 53.98 80 P 36 32.00 0.2
KKN 54.03 80 P 36 32.00 -0.1
GUN 54.45 80 P 36 35.00 -0.4
YKA 74.56 340 eP 38 55.90 10.4X
0.6s 0.20nm
S.D. = 0.9 on 22 of 29 obs.

? MAR 29, 1993 03h 37m 58.07± 3.29s
28.384 N ±32.4km 33.307 E ±14.2km
DEPTH = 10.0 ± 9.3 km
3.8mb (1 obs.)
EGYPT (553)
MD 4.0 (HLW).

MBH 1.95 45 eP 38 36.10 4.6X
KOT 2.01 320 ePb 38 32.00 -0.3
HSHJ 2.11 60 P 38 33.20 -0.6

```
SAGI    2.18  33 iPc    38 36.40    1.6
HLW     2.26 311 ePn    38 35.00   -1.0
                 eSn    38 58.00
NAOJ    2.51  50 P      38 42.90    3.3X
SHWJ    2.76  43 P      38 49.50    6.2X
MKT     3.02  32 eP     38 47.90    1.2
MASJ    3.93  32 P      38 59.00   -0.8
ZNT     4.12  21 eP     39 01.60   -0.7
                 eS     39 45.70
SHMJ    4.82  25 P      39 11.00   -1.3
CSS     6.56   0 eP     39 37.20    0.3
                 eS     40 41.50
GEC2   25.40 329 P      43 28.10    1.1
   0.8s      1.95nm          3.8mb
     S.D. = 1.3  on  10 of  13 obs.
```

```
   MAR  29, 1993  03h 50m 53.13± 0.44s
   13.387 N ± 2.7km  120.484 E ± 3.6km
   DEPTH =  58.1 ±  4.0 km
   5.6mb ( 98 obs.)
 MINDORO, PHILIPPINE ISLANDS      (250)
      Mw 5.9 (HRV). Felt in the Manila
      area, Luzan.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 43S, 94C
      Centroid Location:
      Origin Time        03:50:54.5 0.2
      Lat 13.37N 0.03 Lon 120.31E 0.03
      Dep  33.4 2.0 Half-duration  2.0
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 3.34 0.10   Mtt= 0.11 0.16
        Mff=-3.44 0.17   Mrt= 1.20 0.23
        Mrf=-6.12 0.36   Mtf= 3.38 0.12
       Principal Axes:
        T  Val=  7.02   Plg=57   Azm=102
        N         1.48      17       344
        P        -8.50      27       245
      Best Double Couple:Mo=7.8*10**17
       NP1:Strike=299 Dip=24 Slip=  43
       NP2:        169     74      108

PGP     0.47  76 iPd    51 03.00   -1.7
QVP     1.33  22 iPc    51 17.00    1.3
BAG     3.01   2 iPd-   51 39.90    0.3
BCP     3.02   2 eP     51 43.00    3.3X
                 eS     52 14.00
SZP     4.14 360 iPd    52 01.00    5.7X
CVP     4.48  17 eP     52 02.00    1.9
                 eS     52 53.00
PIP     4.91   1 eP     52 11.50    5.3X
CTB     7.15 149 eP     52 38.00    0.5
BBP     7.16  11 ePd    52 39.50    1.9
BIP     7.64 132 eP     52 49.00    4.7X
DAV     8.02 141 ePd-   52 52.00    2.5
KKM     8.42 210 ePc    52 53.50   -1.7
                 e      53 02.50
                 e      54 15.00
TSM     9.40 196 ePc    53 07.50   -1.0
   0.4s   165.00nm          6.4mb
HKC    10.71 327 iP     53 24.50   -1.9
                 S      55 29.00
MCO    10.90 324 eP     53 25.70   -3.3X
QZH    11.63 351 P      53 41.00    2.2
   1.2s   220.00nm          6.1mb
   Z 16s    25.90um          4.4MszX
   E 14s    20.90um
QIZ    11.66 300 eP     53 34.80   -4.4X
   N 15s     9.23um
   E 18s    25.80um
                 S      55 40.10
GZH    11.79 326 P      53 40.50   -0.4
   Z 18s    44.80um
   N 14s    13.90um
   E 12s    18.80um
                 iS     55 50.00
MNI    12.63 160 eP     54 05.50   13.4X
TNE    14.23 151 iP     54 02.50  -10.6X
SSE    17.64   2 eP     54 55.00   -1.3
   Z 20s    14.60um
   N 16s     7.10um
   E 16s     9.00um
                 sP     55 05.50
                 S      58 10.00
                 sS     58 20.00
SWI    17.74 142 ePc    55 00.00    2.3
                 e      56 00.80

WHN    17.99 343 eP     55 04.50    3.8X
       1.0s     89.00nm          4.9mb
   N 18s    31.90um
   E 11s     6.73um
GYA    18.36 317 iPd    55 07.00    1.6
       1.2s     54.00nm          4.6mb X
   Z 18s    44.00um          5.0Msz
   N 16s    20.60um
   E 16s    22.20um
LOE    18.52 285 eP     55 08.00    0.7
NJ2    18.64 356 Pc     55 09.60    1.0
       1.5s    150.00nm          5.0mb
   Z 18s    11.20um          4.4Msz
   N 12s    13.80um
   E 11s     6.82um
                 pP     55 19.00
NST    19.83 279 eP     55 23.00    1.0
KAGJ   20.14  27 eP     55 24.80   -0.3
KMI    20.39 308 Pd     55 29.00    1.0
       2.0s    360.00nm          5.4mb
   Z 15s     9.90um          5.3MszX
   N 13s     6.60um
   E 13s     8.30um
                 pP     55 38.50   37kmX
KGM    20.40 238 ePc    55 28.80    0.9
       1.2s    380.50nm          5.6mb
SNG    20.49 254 iPd    55 29.90    1.1
       1.4s    613.95nm          5.7mb
                 eS     59 12.00
BDT    21.07 283 eP     55 33.00   -1.7
       1.2s     21.00nm          4.3mb X
IPM    21.10 247 ePd    55 35.40    0.3
       1.8s    933.80nm          5.8mb
KHT    21.28 276 eP     55 37.00    0.2
KUMJ   21.28  25 eP     55 39.30    2.6
CHTO   21.38 287 iPd    55 38.40    0.5
       1.1s     88.34nm          5.0mb
                 eS     59 36.50
SHNJ   22.79  23 eP     55 57.70    6.1X
TIA    22.93 353 eP     55 53.40    0.4
       1.6s    120.00nm          5.1mb
   Z 20s    16.70um          5.5Msz
   N 15s     3.29um
   E 11s     6.24um
                 S      59 58.00
XAN    23.09 335 P      55 54.50   -0.1
       0.8s     20.00nm          4.6mb X
   Z 16s    23.60um          5.7MszX
   N 14s    17.70um
   E 14s     7.24um
                 pP     56 03.50   32kmX
                 sP     56 08.00
                 PP     56 26.00
                 S      00 04.00
                 ScS    07 00.00
CD2    23.27 321 P      55 58.00    1.6
   Z 19s    40.10um          5.9Msz
   N 15s    24.40um
GUMO   23.71  87 eP     56 02.10    1.4
       1.7s    250.00nm          5.4mb
   Z 22s     9.97um          5.2Msz
                 e      56 10.90
                 (PcP)  59 43.90
                 eS     00 32.00
PJG    23.71  87 eP     56 02.20    1.5
GUA    23.76  87 eP     56 02.80    1.6
   Z 20s    17.82um          5.5Msz
SHK    23.78  26 eP     56 10.20    9.0X
LEM    23.80 213 ePd    56 04.00    2.2
                 eS     00 22.00
TKSJ   23.92  29 eP     56 05.20    2.5X
YONJ   24.67  26 P      56 13.30    3.4X
WKYJ   24.86  31 eP     56 15.90    4.1X
TIY    25.27 345 eP     56 16.00    0.4
       0.8s     40.00nm          5.0mb
   Z 18s    27.40um          5.8Msz
   N 15s    13.30um
                 pP     56 23.50   27kmX
                 S      00 40.00
DL2    25.44   2 eP     56 15.20   -1.8
       1.0s    210.00nm          5.6mb
   Z 17s     6.97um          5.2MszX
   N 15s     9.54um
   E 16s     6.30um
                 S      00 39.50
TSRJ   26.11  30 P      56 29.90    6.6X
BJI    26.82 353 eP     56 29.00   -0.8

       2.0s    620.00nm          5.8mb
   Z 19s    12.40um          5.5Msz
   N 16s     8.65um
                 esP    56 41.00
                 eS     01 02.00
                 eSS    02 18.00
LZH    27.10 329 P      56 36.00    3.4
       2.0s    140.00nm          5.2mb
   Z 16s    13.20um          5.6MszX
   N 15s    20.00um
                 pP     56 45.00   32kmX
                 sP     56 50.00
                 PP     57 24.00
                 S      01 10.00
                 sS     01 26.00
                 SS     02 24.00
MAT    28.00  31 eP     56 48.00    7.4X
       2.0s    300.00nm          5.6mb
   Z 20s     5.67um          5.2Msz
                 eS     01 32.00
MTN    28.12 158 eP     56 42.00    0.2
       0.4s     71.00nm          5.6mb
HHC    28.45 346 Pd     56 44.80    0.1
       1.4s     93.00nm          5.2mb
   Z 18s    19.00um          5.7Msz
   N 17s    13.50um
   E 16s     3.99um
                 sP     56 53.00
SNY    28.46   5 Pc     56 43.00   -1.6
   Z 17s    12.60um          5.6MszX
   E 14s     5.61um
                 pP     56 56.00   52kmX
                 S      01 23.00
                 sS     01 39.00
BTO    28.62 343 eP     56 45.00   -1.2
       0.8s     18.00nm          4.8mb
   N 17s    15.20um
   E 14s     6.47um
                 PP     57 36.00
                 S      01 30.00
                 SS     02 54.00
CN2    30.61   7 eP     57 04.00    0.3
       1.2s     16.00nm          4.6mb
   Z 20s    10.60um          5.5Msz
   N 14s    10.10um
   E 14s     3.26um
                 epP    57 11.00   24kmX
                 eS     02 03.00
                 eSS    03 45.00
VLA    31.22  16 eP     57 12.00    2.9X
                 e      58 14.00
                 e      58 28.00
LSA    31.62 306 P      57 14.70    1.3
   Z 20s    14.90um          5.7Msz
                 iS     02 21.00
                 sS     02 35.50
GTA    31.69 329 eP     57 14.00    0.5
       1.5s     70.00nm          5.2mb
   Z 15s    46.00um          6.3MszX
   E 15s     1.31um
                 sP     57 27.00
                 PP     58 20.00
                 S      02 19.00
                 sS     02 32.00
                 ScS    07 45.00
OFUJ   31.71  32 eP     57 14.60    1.1
MDJ    32.08  12 eP     57 16.50   -0.2
   Z 20s     9.23um          5.5Msz
   N 22s     9.78um
   E 20s     8.35um
                 sP     57 25.50
                 PP     58 20.00
                 S      02 22.00
PMG    34.84 129 eP     57 29.00  -11.9X
GUN    35.31 300 P      57 44.80   -0.4
PKI    35.62 299 P      57 46.80   -1.0
KKN    35.79 299 P      57 48.40   -0.7
WRA    35.82 157 P      57 48.50   -0.6
WB2    35.82 157 iPd    57 48.30   -0.8
       0.5s    469.50nm          6.7mb X
                 eS     03 20.00
DMN    35.89 299 P      57 49.40   -0.6
RAB    35.97 117 eP     57 54.00    3.5X
                 eS     03 40.00
NANU   36.05 188 eP     57 50.70   -0.3
       0.4s     14.00nm          5.2mb
KUSJ   36.23  31 eP     57 53.40    1.1
```

29d 03h

```
GKN    36.39 299 P     57 53.60  -0.5
YSS    38.36  25 eP    58 19.30   9.2X
       1.2s   40.00nm            5.2mb
     Z 18s     5.20um            5.4Msz
     N 18s     4.90um
     E 18s     4.20um
             (PPP)     00 07.40
             eSS       06 39.00
ASPA   39.09 160 iPc   58 16.90   0.3
       0.6s  694.60nm            6.7mb X
     Z 23s     2.50um            5.0MszX
             eS        04 11.20
KUR    39.34  31 eP    58 21.00   2.7X
       1.2s  310.00nm            6.0mb
     Z 18s     7.10um            5.5Msz
     N 18s     2.90um
     E 18s     7.10um
             eS        04 22.00
ZAK    39.48 343 ePc   58 19.00  -0.4
       1.7s  275.00nm            5.8mb
     Z 18s    11.85um            5.8Msz
     N 18s     6.20um
     E 19s    14.56um
             e         00 00.00
             eS        04 21.00
WARB   39.79 171 eP    58 32.50  10.3X
       0.6s  108.00nm
MEEK   39.83 183 eP    58 20.30  -2.3X
       0.6s   78.00nm            5.7mb
HYB    40.57 281 eP    58 29.00   0.2
       1.2s  314.30nm            6.0mb
             e         58 44.50
             eS        04 20.00
IRK    40.90 345 ePc   58 30.00  -1.1
       2.0s   92.00nm            5.2mb
     Z 18s     9.68um            5.7Msz
     N 19s     7.20um
             i         58 43.00
             eS        04 39.00
MOY    41.31 342 eP    58 35.00   0.6
       1.7s  350.00nm            5.8mb
WMQ    41.33 324 P     58 36.40   1.6
       1.2s  170.00nm            5.7mb
     Z 16s    20.70um            6.1MszX
     N 16s    22.10um
             pP        58 43.00  22kmX
             PP        00 12.00
             S         04 52.00
             sS        05 04.00
GBA    41.82 276 P     58 40.00   0.9
CTA    41.83 142 iPc+  58 40.00   0.9
       2.0s  485.29nm            5.9mb
     Z 24s    20.54um            5.9MszX
             ipP       58 49.00  30kmX
             e         59 04.00
             ePP       00 19.00
             eS        04 15.00
MRWA   42.58 186 eP    58 44.70  -0.4
       0.6s   39.00nm            5.3mb
NDI    42.91 298 eP    58 47.00  -0.9
             eS        05 08.00
UER    43.63 336 iPc   58 53.60   0.3
       1.8s  470.00nm            5.9mb
             e         00 43.60
             ePPP      01 13.60
             iS        05 24.00
             SS        08 44.00
BAL    43.89 185 eP    58 51.00  -4.7X
COOL   44.02 179 eP    58 56.00  -0.8
       0.4s   16.00nm            5.1mb
FORT   44.51 171 eP    59 00.50  -0.2
       0.6s   40.00nm            5.4mb
KLB    44.80 183 eP    59 02.00  -1.0
       0.5s   19.00nm            5.2mb
HNR    45.26 118 eP    59 08.00   1.0
MUN    45.29 185 eP    59 07.00   0.1
OLP    45.95 150 eP    59 12.00  -0.2
       0.4s  210.00nm            6.4mb
BOM    46.01 283 iPd   59 14.00   1.2
             iS        05 59.00
PRZ    46.44 317 eP    59 18.00   1.8
       1.3s   70.00nm            5.4mb
     Z 19s    13.30um            5.9Msz
     N 19s     3.10um
     E 19s    13.00um
             iS        06 08.00
KSH    46.92 312 P     59 22.50   2.5
```

```
       0.5s   70.00nm            5.8mb
     Z 20s    14.30um            5.9Msz
     N 16s    11.50um
     E 14s    11.10um
             pP        59 32.40  33kmX
             sP        59 37.00
             PcP       00 54.00
             PP        01 16.00
             ScP       04 41.00
             PcS       04 47.00
             S         06 12.00
             sS        06 28.00
             ScS       09 12.00
             SS        09 29.00
TLG    47.45 317 eP    59 25.30   1.2
       2.2s  180.00nm            5.6mb
     Z 16s    11.00um            5.9MszX
     N 17s     3.00um
     E 14s     2.30um
             eS        06 25.00
             eSS       09 17.00
RKG    47.80 184 eP    59 29.00   2.3
ELT    48.13 333 iPc   59 29.00   0.0
       2.0s  352.00nm            6.0mb
     Z 15s    11.70um            6.0MszX
             e         00 59.00
             eS        06 27.00
RMQ    48.23 145 eP    59 30.10  -0.1
       0.5s   24.00nm            5.5mb
YAK    49.01   6 eP    59 35.00  -0.7
       1.4s   50.00nm            5.4mb
     Z 17s     6.40um            5.7MszX
     N 17s     5.30um
     E 14s     1.80um
             e         00 58.00
             ePPP      02 18.00
             eS        06 34.00
             ePS       06 44.00
             e         09 24.00
FRU    49.13 316 eP    59 40.20   3.2X
       3.0s  270.00nm            5.8mb
     Z 20s    16.00um            6.0Msz
     N 20s     8.00um
     E 20s    16.00um
             e         01 33.00
             eS        06 44.00
             e         09 28.00
STK    49.35 156 eP    59 38.20  -0.5
       0.5s   21.50nm            5.4mb
PET    49.79  29 eP    59 40.00  -1.8X
     Z 20s     3.00um            5.3Msz
     N 18s     2.90um
     E 20s     3.20um
             e         01 38.00
             eS        06 50.00
             e         09 26.00
CMS    50.82 152 iPd   59 50.10   0.2
       1.1s   33.00nm            5.3mb
BRS    51.23 142 iPd-  59 53.00  -0.1
       0.6s   26.00nm            5.4mb
     Z 19s    18.00um            6.1Msz
             i         59 55.10
             i         00 06.00
             eS        07 06.00
MGD    51.68  19 eP    59 54.00  -2.1X
       0.9s   20.00nm            5.1mb
     Z 18s     4.20um            5.5Msz
     N 16s     3.00um
     E 18s     2.60um
             e         00 05.00
             e         00 16.00
             e         01 12.00
             eS        07 12.00
             ePS       07 38.00
QUE    51.98 298 eP    59 59.30   0.2
             eS        07 22.90
ARMA   52.87 146 iPd   00 08.20   2.7
       0.7s   35.00nm            5.5mb
BFD    54.41 158 eP    00 15.70  -0.9
       0.7s   27.00nm            5.4mb
BWA    54.46 152 eP    00 17.90   0.9
             i         00 29.70
CAN    55.47 152 eP    00 23.90  -0.4
             e         00 39.90
             e         01 22.80
CNB    55.63 151 eP    00 25.90   0.3
TOO    55.87 156 eP    00 27.40   0.2
```

```
       0.5s   30.00nm            5.6mb
DZM    57.21 128 iPc   00 36.80  -0.3
SMY    57.75  35 P     00 50.00   9.7X
     Z 20s     3.13um            5.4Msz
TIK    58.44   3 iPd   00 43.00  -1.8
       1.5s   61.00nm            5.5mb
     Z 19s     6.50um            5.8Msz
             i         00 55.00
             i         01 29.00
             e         02 50.00
             ePPP      04 13.00
             eS        08 45.00
             ePS       09 09.00
             e         10 29.00
MAIO   58.88 304 iPc   00 49.00   0.4
       0.8s   41.73nm            5.6mb
             eS        08 59.00
NRI    59.60 347 iPc   00 50.30  -2.6X
       2.0s   99.00nm            5.6mb
     Z 19s    42.00um            6.6Msz
     N 18s     7.00um
     E 22s    29.00um
             e         01 34.00
             eS        09 00.00
             (SS)      12 51.00
ASH    59.97 306 eP    00 57.00   1.0
       1.4s  260.00nm            6.2mb
     Z 20s     6.03um            5.7Msz
     N 20s     4.63um
     E 20s     7.10um
             e         01 48.00
             eS        09 14.00
             e         10 37.00
             e         15 37.00
KAT    61.72 307 eP    01 14.00   6.1X
     Z 18s     4.60um            5.7Msz
     N 18s     3.00um
     E 18s     7.00um
             e         01 56.00
             iS        09 33.50
             ePS       09 55.00
             e         10 58.00
SVE    62.55 328 ePc   01 12.50  -0.5
       1.9s  480.00nm            6.3mb
     Z 18s     7.50um            5.9Msz
     N 17s     5.50um
     E 17s     3.00um
             iS        09 43.00
ADK    62.87  38 P     01 14.90  -0.4
ARU    63.50 327 eP    01 17.00  -2.3X
       2.2s  650.00nm            6.3mb
     Z 16s     6.00um            5.9MszX
     N 18s     2.50um
     E 16s     4.00um
             i         01 26.00
             e         01 38.00
             e         01 55.00
             e         03 44.00
             eS        09 48.00
             ePS       10 02.00
             e         10 23.00
             eSS       14 02.00
BAK    66.70 308 iPc   01 52.00  11.8X
     N 15s     3.58um
     E 20s     8.51um
DHR    66.72 293 eP    01 59.60  19.0X
SHE    67.67 309 eP    01 47.00   0.6
       1.0s   80.00nm            5.7mb
             iS        10 45.00
MAK    68.63 311 eP    02 02.00   9.7X
             eS        10 59.00
             ePS       11 22.00
KER    68.93 302 eP    01 53.00  -1.5
GRS    69.43 307 eP    01 58.00   0.5
       1.5s  120.00nm            5.6mb
             eS        11 07.00
GRO    69.91 311 eP    02 02.00   1.9
       1.5s  160.00nm            5.7mb
     Z 18s    12.00um            6.2Msz
     N 17s    11.00um
     E 18s     6.00um
MTA    70.57 310 eP    02 08.00   3.8X
     Z 18s     0.50um            4.8Msz
     N 18s     1.50um
     E 18s     2.00um
PYA    71.81 312 eP    02 14.00   2.3
     Z 18s     4.50um            5.8Msz
```

```
      N  18s      2.50um
      E  18s      4.50um
                  ePS    12 10.00
KIV    72.08 312 eP     02 14.80    1.4
       2.0s   129.00nm              5.5mb
      Z  16s      4.20um            5.8MszX
                  e      05 03.60
                  iS     11 37.40
                  iPS    12 22.20
                  eSS    16 18.60
SOC    74.25 312 eP     02 30.00    4.1X
                  e      11 56.00
KMTA   74.35 285 eP     02 23.00   -4.2X
ABHA   74.45 285 eP     02 29.60    1.8
MOS    75.04 324 eP     02 30.00   -0.2
       2.0s   320.00nm              5.9mb
      Z  20s     13.00um            6.2Msz
      N  19s      4.50um
      E  19s     12.00um
                  eS     12 06.00
BRW    75.09  19 eP     02 30.00   -0.2
SVW    75.44  30 P      02 33.20    0.8
OBN    75.65 324 iPc    02 33.00   -0.7
       1.0s    70.00nm              5.5mb
      Z  20s     12.00um            6.2Msz
      N  20s      1.60um
      E  20s      9.30um
                  e      02 42.00
                  e      05 22.00
                  eS     12 10.00
                  e      12 40.00
                  ePS    13 17.00
                  eSS    17 08.00
ANN    75.88 313 eP     02 42.00    6.8X
IMA    76.18  25 eP     02 36.60   -0.1
       0.8s     8.90nm              4.8mb
PAF    76.54 211 eP     02 51.00   12.3X
                  eS     12 33.00
                  eSS    17 06.00
GAZ    76.73 305 eP     02 42.00    1.9
CRP    77.11  30 P      02 42.30    0.4
HON    77.46  71 P      02 50.00    5.6X
      Z  19s      1.55um            5.3Msz
PMS    78.36  30 eP     02 47.30   -1.4
AVY    78.52 247 iPc    02 53.90    3.4X
PMR    78.53  29 P      02 48.30   -1.2
       0.9s    55.74nm              5.5mb
      Z  20s      1.68um            5.4Msz
GLH    78.59 301 eP     02 52.00    1.5
PUL    78.64 329 ePd    02 51.00    0.9
       1.2s   160.00nm              5.8mb
      Z  19s      7.00um            6.0Msz
      N  19s      2.80um
      E  19s      5.10um
                  i      02 58.00
                  e      05 54.00
                  eS     12 41.00
                  e      13 06.00
FBA    78.72  26 P      02 50.10   -0.4
       1.1s    48.42nm              5.4mb
VTY    78.74 247 eP     02 54.10    2.4
KEV    78.75 339 eP     02 38.00  -12.6X
                  eS     12 44.00
AYN    78.90 297 eP     02 52.00   -0.2
SDOM   79.07 299 eP     02 54.90    1.8
SDF    79.32 337 iP     02 53.40   -0.3
PRNI   79.52 299 eP     02 56.90    1.3
AAE    79.96 277 eP     03 05.00    6.4X
CSS    80.16 304 eP     03 05.60    6.7X
KAF    80.23 332 eP     02 57.80   -0.9
MNK    81.02 323 eP     03 00.60   -2.4
      Z  18s     11.00um            6.3Msz
                  eS     13 06.00
                  eSS    18 20.00
                  eSSS   21 48.00
NUR    81.32 330 eP     03 03.00   -1.4
                  eS     13 12.00
KIS    81.43 316 eP     03 06.00    0.7
      N  18s      4.00um
      E  18s      3.30um
                  e      06 19.00
EYL    81.67 310 eP     03 04.00   -2.9X
BALM   81.85  29 P      03 10.80    3.5X
CFR    82.26 315 eP     03 11.00    1.4
ISK    82.40 310 eP     03 12.90    2.4
PSN    82.53 313 eP     03 20.00    8.9X
KHL    82.57 308 eP     03 12.00    0.4
ELL    82.58 306 eP     03 12.00    0.3
HLW    82.73 299 e(P)   03 19.00    6.6X
VRI    83.11 315 eP     03 12.50   -1.6
                  e      30 02.00
CVO    83.49 315 eP     03 16.00   -0.1
MLR    83.72 315 ePc    03 19.00    1.6
                  e      30 02.50
JMB    83.93 312 iP     03 20.00    1.7
LVV    84.00 320 eP     03 21.00    2.5
                  e      06 41.00
                  eS     13 43.00
                  e      14 29.00
                  eSSS   22 37.00
MOR7   84.06 337 eP     03 18.19   -0.3
NAI    84.14 267 ePKP   03 31.80   11.6X
                  ePS    13 52.90
IZM    84.30 308 eP     03 20.70    0.4
CMP    84.40 315 ePd    03 27.00    6.4X
PVL    84.66 313 iP     03 24.00    2.1
ALN    84.67 311 eP     03 23.00    1.0
UPP    84.88 330 iP     03 22.30   -0.3
KDZ    84.96 311 eP     03 25.00    1.5
DRA    85.07 315 eP     03 26.00    2.1
UZH    85.40 319 ePc    03 26.60    1.1
       2.0s   720.00nm              6.5mb
      Z  20s      3.30um            5.7Msz
      E  20s      7.20um
                  i      03 39.70
                  i      03 47.00
                  e      06 50.00
                  eS     13 49.00
CRZF   85.46 220 eP     03 39.00   13.3X
                  eS     14 00.00
                  eSS    19 24.00
RZN    85.46 312 iPc    03 26.00   -0.2
PGB    85.65 313 iP     03 28.00    1.0
DEV    85.70 316 ePc    03 30.00    2.9
MMB    86.20 312 iPc    03 30.00    0.3
VTS    86.32 313 iP     03 31.00    0.6
SRS    86.42 311 eP     03 30.16   -0.6
SIT    86.43  32 P      03 40.00    9.6X
      Z  20s      1.84um            5.5Msz
OJC    86.54 321 iP     03 31.70    0.6
       1.1s   215.00nm              6.2mb
                  i      03 44.70
                  i      03 51.50
KKB    86.60 312 iPc    03 32.00    0.4
HFS    86.65 331 eP     03 30.90   -0.5
       1.0s    38.30nm              5.6mb
      Z  17s      3.44um            5.8MszX
                  LR     39 58.00
SOH    86.67 311 eP     03 31.08   -0.9
SSR    86.76 315 ePd    03 34.00    1.7
DAG    86.90 351 eP     03 32.00   -0.4
KNT    86.91 311 eP     03 32.84   -0.3
VAY    87.11 312 iP     03 33.60   -0.5
       1.3s   213.00nm              6.2mb
                  i      03 42.00
NB2    87.44 333 P      03 34.30   -1.0
       0.9s    15.80nm              5.2mb
NAO    87.70 332 P      03 33.82   -2.7X
SKO    87.75 313 iP     03 37.50    0.3
       1.5s   185.00nm              6.1mb
      Z  20s      2.29um            5.6Msz
                  i      03 45.50
                  LR     49 02.00
BUD    87.83 318 e(P)   03 38.00    0.6
AGG    87.89 310 eP     03 43.96    6.0X
SRO    88.19 319 iP     03 40.50    1.4
OHR    88.45 312 iP     03 40.50   -0.1
       1.3s   116.00nm              6.0mb
KSP    88.47 322 eP     03 40.50    0.1
       1.1s    72.00nm              5.8mb
                  i      03 50.00
                  e      07 15.00
IVA    88.59 314 iPd    03 43.20    1.9
PVY    88.62 313 iPd    03 42.96    1.5
VRAC   88.79 321 eP     03 43.00    1.1
       2.4s   606.20nm              6.4mb
                  i      03 51.80
PLE    88.81 314 iPd    03 43.60    1.2
ZST    88.84 319 eP     03 43.80    1.6
                  e      07 15.00
TTG    89.17 313 iPd    03 44.05    0.2
NKY    89.24 314 iPd    03 44.66    0.2
ULC    89.32 313 iPd    03 43.76   -0.9
SOP    89.35 319 e(P)   03 47.00    2.4
RES    89.37   9 eP     03 46.50    2.2
       0.9s     5.00nm              4.8mb
BRY    89.54 314 iPd    03 45.92    0.1
PRU    89.82 322 eP     03 47.50    0.7
       2.0s    87.10nm              5.7mb
      Z  18s      6.70um            6.1Msz
      N  17s      2.60um
      E  18s      4.70um
                  e      07 33.10
                  eSKS   14 14.00
                  S      14 33.00
                  eSS    20 30.00
BRG    89.86 323 eP     03 47.20    0.2
       1.6s   100.00nm              5.9mb
      Z  18s      6.50um            6.1Msz
      N  18s      3.00um
      E  18s      6.00um
                  i      03 55.80
                  eSKS   14 16.00
CLL    90.25 323 eP     03 49.00    0.2
       1.9s    58.00nm              5.6mb
      Z  19s      4.00um            5.9Msz
MUD    90.29 329 eP     03 55.00    6.2X
       1.1s    40.00nm              5.7mb
PTJ    90.33 317 iP     03 50.70    1.3
ZAG    90.34 317 eP     03 52.50    3.2X
KHC    90.71 321 eP     03 52.00    1.0
       1.4s    32.30nm              5.5mb
                  e      04 00.00
                  e      07 34.50
                  SKS    14 20.00
GEC2   90.74 321 Pd     03 51.80    0.6
       0.9s     6.29nm              5.0mb
                  e      03 54.60
                  e      04 00.80
                  e      04 05.90
                  PP     07 35.10
VBY    90.93 317 eP     03 51.90   -0.1
WET    91.13 321 iPc    03 54.60    1.7
LJU    91.22 318 eP     03 49.00   -4.3X
MOX    91.32 323 eP     03 53.50   -0.2
       1.8s    95.00nm              5.9mb
      Z  19s      4.00um            5.9Msz
                  eS     15 10.00
CEY    91.39 318 eP     03 55.00    0.8
KBA    91.61 319 iPd    03 56.50    1.2
       1.0s    22.00nm              5.5mb
                  i      04 16.40
                  iPP    07 42.30
VOY    91.64 318 eP     03 55.20   -0.2
                  ePcP   04 04.00
                  e      04 46.50
BHG    91.66 320 eP     03 56.20    0.8
RBL    91.70 319 P      03 55.60    0.0
TRI    91.84 318 e(P)   03 57.00    0.8
                  e(PP)  07 48.00
                  e(S)   15 04.00
                  e(SP)  16 04.00
                  e(SS)  21 00.00
GRF    91.92 322 ePc    03 57.50    1.0
      Z  19s      6.00um            6.1Msz
                  e      04 06.40
ROI    92.00 311 P      03 58.20    1.1
CSI    92.14 312 P      03 57.70    0.0
TDS    92.14 311 Pd     03 59.00    1.3
FVI    92.15 319 P      03 57.30   -0.2
MMN    92.32 312 P      04 02.40    3.9X
FUR    92.49 321 eP     04 01.50    2.3
      Z  18s      5.00um            6.0Msz
SGO    92.58 313 P      04 00.70    1.0
WTTA   92.62 320 iPc    03 59.90   -0.1
       1.0s    56.90nm              6.0mb
                  i      04 08.60
WATA   92.63 320 iPd    04 00.00    0.0
                  i      04 09.00
                  i      04 21.30
MTD    92.76 254 eP     04 07.00    6.0X
SOTA   92.90 320 iPc    04 01.30    0.1
       1.1s    60.10nm              5.9mb
                  i      04 10.30
                  i      04 15.20
MOTA   92.92 320 iPc    04 01.20   -0.2
       0.9s    46.30nm              5.9mb
                  i      04 10.30
                  i      04 15.80
GMB    92.98 310 P      04 05.60    3.8X
       1.2s    69.50nm              6.0mb
```

29d 04h

CTI 93.08 319 P 04 00.00 -2.1
YKA 93.14 22 eP 04 01.90 0.0
1.0s 3.60nm 4.8mb
ARV 93.19 316 P 04 03.64 1.1
1.4s 103.40nm 6.1mb
ARV 93.19 316 P 03 59.40 -3.1X
SDI 93.24 314 P 04 02.80 0.0
AQU 93.29 315 P 04 04.20 1.2
TNS 93.34 323 ePc 04 06.60 3.5X
e 04 12.00
RSM 93.36 317 P 04 05.20 2.0
WTS 93.49 325 eP 04 05.00 1.4
1.0s 15.40nm 5.4mb
ASS 93.54 316 P 04 05.30 1.1
BNS 93.74 324 e(P) 04 08.30 3.5X
Z 18s 13.00um 6.4Msz
SFI 93.76 317 P 04 07.60 2.6
MNS 93.78 315 P 04 05.00 -0.3
OSS 93.79 320 iPc 04 06.10 0.7
CRE 93.81 316 P 04 05.70 0.2
PGD 93.87 317 P 04 06.90 1.1
HOFF 94.17 322 PKP 04 09.03 2.2
FIR 94.22 317 eP 04 14.00 6.9X
LANF 94.25 322 PKP 04 08.95 1.7
SLE 94.36 321 ePc 04 07.40 -0.4
LLS 94.43 320 P 04 08.70 0.3
MDI 94.43 319 P 04 07.90 -0.2
ENN 94.54 325 eP 04 10.00 1.5
1.0s 19.00nm 5.5mb
ZLA 94.55 321 ePc 04 08.70 0.0
FEL 94.61 321 PKP 04 09.95 0.9
WLS 94.77 322 PKP 04 10.90 1.2
CDF 94.82 322 PKP 04 10.73 0.8
WLF 94.91 324 P 04 05.00 -5.2X
e 04 13.00
ECH 94.97 322 PKP 04 11.90 1.3
VAI 94.99 319 P 04 10.40 -0.3
8OB 95.01 318 P 04 11.50 0.6
BBS 95.09 321 PKP 04 11.60 0.4
MOF 95.15 322 PKP 04 11.41 -0.1
8SF 95.36 322 eP 04 12.40 -0.1
MMK 95.42 320 ePc 04 13.50 0.5
SNF 95.58 325 P 04 15.50 2.2
DOU 95.61 324 P 04 15.80 2.4
S 15 43.00
LSZ 95.62 256 eP 04 18.00 3.8X
DIX 95.76 320 ePc 04 14.80 0.2
PGF 96.22 316 eP 04 16.60 0.0
1.2s 51.45nm 5.9mb
BUL 96.23 251 eP 04 17.30 0.4
LPG 96.43 320 eP 04 18.00 0.3
1.1s 39.30nm 5.9mb
LPL 96.43 320 eP 04 17.90 0.3
0.8s 17.85nm 5.6mb
SBF 96.70 318 eP 04 18.20 -0.4
0.9s 26.85nm 5.8mb
FRF 97.35 318 eP 04 21.40 -0.1
LBF 97.45 322 eP 04 21.80 -0.1
SLR 97.65 245 eP 04 25.00 1.8
Z 18s 5.15um 6.1Msz
e 08 21.00
SEK 98.71 243 eP 04 30.00 2.0
TCF 98.85 322 eP 04 28.40 0.2
GRM 100.45 238 e(Pdif04 50.00 14.3X
BCAO 100.56 277 ePdiff04 39.00 2.4
0.8s 11.00nm 5.5mb
i 04 54.00
WDC 100.79 44 Pdiff 04 50.00 13.0X
Z 20s 3.36um 5.9Msz
SAO 103.33 47 Pdiff 05 00.00 11.5X
Z 20s 1.99um 5.6Msz
CMB 103.47 45 Pdiff 05 00.00 10.9X
Z 19s 1.38um 5.5Msz
ISA 105.97 47 PKP 09 20.00 7.4X
Z 19s 1.90um 5.7Msz
DUG 107.32 40 PKP 09 30.00 14.9X
Z 19s 2.11um 5.7Msz
GSC 107.33 46 PKP 09 23.20 8.0X
DAU 108.15 39 PKP 09 20.30 3.4X
RSSD 109.89 32 PKP 09 20.80 0.9
Z 21s 0.83um 5.3Msz
GOL 112.12 37 PKP 09 30.00 5.7X
Z 20s 1.57um 5.6Msz
ALQ 114.50 41 PKP 09 40.00 11.0X
Z 20s 1.11um 5.5Msz
WMOK 119.34 37 PKP 09 50.00 12.0X
Z 20s 1.81um 5.7Msz

MEO 119.42 37 e(PKP)09 43.50 5.4X
CBM 119.46 7 PKP 09 50.00 12.2X
Z 19s 0.97um 5.5Msz
LTX 119.84 45 PKP 09 39.50 0.3X
RSNY 120.75 12 PKP 09 50.00 9.7X
Z 21s 1.31um 5.6Msz
SLM 120.81 28 PKP 09 50.00 9.4X
Z 18s 0.91um 5.4Msz
FVM 121.25 28 PKP 09 50.00 8.5X
Z 20s 1.64um 5.7Msz
KIC 122.18 286 PKP 09 44.54 0.6
e 11 26.00
TIC 122.34 287 PKP 09 44.70 0.5
e 11 27.50
MIAR 122.39 33 PKP 09 50.00 6.3X
Z 21s 1.55um 5.6Msz
LIC 122.49 286 PKP 09 45.42 0.9
Z 21s 0.90um 5.4Msz
e 11 28.50
HRV 123.29 11 PKP 10 00.00 14.8X
Z 19s 1.18um 5.6Msz
MCWV 123.93 19 PKP 10 00.00 13.4X
Z 19s 1.66um 5.7Msz
KDS 126.48 297 ePKP 10 10.50 18.3X
CEH 127.61 20 PKP 10 00.00 6.2X
Z 19s 1.57um 5.7Msz
GOGA 128.16 26 PKP 10 10.00 15.1X
Z 19s 1.30um 5.6Msz
CAR 155.15 18 iPKPc 10 48.00 6.1X
SDV 155.27 27 ePKP 10 44.30 2.1
PPD 168.39 221 ePKP 10 56.10 1.2
BDF 168.53 257 ePKP 10 57.00 1.8
e 11 15.20
e 12 07.00
i 12 21.90
e 16 16.80
BAO 168.62 257 ePKP 10 56.80 1.5
e 11 13.50
e 12 06.90
i 12 22.20
e 15 48.90
e 16 17.00
LPB 171.14 112 PKP 10 59.00 2.0
Z 20s 1.42um
SKS 20 12.00
PS 24 12.00
LR 10 46.00
CNCB 171.14 114 PKP 11 02.00 4.8X
SKS 20 12.70
ZOBO 171.19 110 PKP 10 57.80 0.5
Z 24s 0.95um 5.1Msz
SKS 20 11.00
LR 10 08.00
SIV 177.01 150 ePKP 11 06.00 7.6X
i 11 13.20
S.D. = 1.1 on 253 of 345 obs.

% MAR 29, 1993 03h 57m 42.34± 0.73s
33.767 S ± 7.2km 71.280 W ± 7.4km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.6 (SAN).

LNV 0.22 210 iP 57 49.28 0.2
iS 57 56.69
LCCH 0.38 320 iP 57 50.84 -0.3
iS 57 58.43
CHCH 0.55 108 iP 57 53.35 -0.3
iS 58 02.58
SAN 0.60 59 (P) 57 49.38 -5.1X
iS 58 04.50
CACH 0.66 122 iP 57 55.59 0.2
iS 58 05.98
PEL 0.80 39 iP 57 57.43 0.3
iS 58 09.61
FCH 0.94 62 iP 57 59.15 -0.3
iS 58 12.69
JACH 1.23 28 iP 58 03.68 0.3
iS 58 21.03
S.D. = 0.4 on 7 of 8 obs.

% MAR 29, 1993 04h 01m 30.76± 0.66s
42.396 N ± 5.4km 19.285 E ± 5.2km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (TTG).

TTG 0.04 332 iPgc 01 34.59 1.8
iSg 01 37.51
BDV 0.36 252 iPgd 01 38.18 0.1
iSg 01 43.91
ULC 0.43 183 iPgd 01 39.66 0.1
iSg 01 46.79
NKY 0.47 333 iPgd 01 39.95 -0.3
iSg 01 47.60
PVY 0.55 68 iPgc 01 41.73 -0.1
iSg 01 50.78
HCY 0.58 275 iPgc 01 41.98 -0.6
iSg 01 50.69
IVA 0.66 43 iPgd 01 43.86 0.0
iSg 01 54.10
BRY 0.74 313 iPgc 01 44.69 -0.7
iSg 01 56.23
PLE 0.94 5 iPgc 01 48.68 0.0
iSg 02 02.95
S.D. = 0.8 on 9 of 9 obs.

MAR 29, 1993 04h 17m 39.82± 0.65s
13.303 N ± 4.7km 120.420 E ± 6.2km
DEPTH = 97.9 ± 6.6 km
4.6mb (22 obs.)
MINDORO, PHILIPPINE ISLANDS (250)
Felt (II RF) at Puerto Galera.

PGP 0.56 69 eP 17 57.00 1.0
QVP 1.43 23 iPc 17 59.30 -6.1X
iS 18 20.50
BAG 3.09 3 eP 18 22.20 -5.6X
SZP 4.22 0 ePd 18 43.00 -0.1
CVP 4.58 17 eP 18 48.00 -0.1
PLP 4.94 115 ePd 18 48.30 -4.7X
QIZ 11.64 301 eP 20 17.40 -6.8X
GYA 18.38 317 P 21 49.80 -0.1
1.0s 12.00nm 4.1mb
NJ2 18.72 356 Pd 21 54.00 0.5
KGM 20.30 238 ePc 22 10.50 0.3
KMI 20.39 308 eP 22 11.50 0.2
pP 22 19.00 28kmX
SNG 20.41 255 eP 22 11.50 0.2
KHT 21.23 277 eP 22 18.70 -0.8
CHTO 21.34 288 iPd 22 20.00 -0.7
1.0s 16.75nm 4.3mb
TLE 22.45 146 ePc 22 32.60 1.0
XAN 23.14 335 P 22 37.50 -0.7
0.6s 8.00nm 4.2mb
pP 22 45.00 27kmX
sP 22 50.00
CD2 23.30 321 Pd 22 40.00 0.2
TIY 25.33 345 eP 22 59.20 0.0
BJI 26.89 353 eP 23 11.50 -1.8
LZH 27.14 330 eP 23 20.00 4.1X
1.5s 27.00nm 4.6mb
HHC 28.52 346 eP 23 32.80 4.6X
SNY 28.55 5 eP 23 34.30 6.0X
BTO 28.68 343 eP 23 29.00 -0.6
GUN 35.30 300 P 24 27.00 -0.8
PKI 35.60 299 P 24 29.20 -1.2
0.7s 31.00nm 5.3mb
WB2 35.77 157 iPd 24 30.10 -1.3
0.6s 73.80nm 5.8mb X
eS 29 54.80
KKN 35.77 299 P 24 30.60 -1.1
0.8s 43.00nm 5.4mb
DMN 35.87 299 P 24 31.60 -0.9
1.0s 68.00nm 5.5mb
GKN 36.38 299 P 24 35.60 -1.1
0.8s 38.00nm 5.4mb
ASPA 39.04 160 iPc 24 58.50 -0.3
0.6s 85.20nm 5.8mb X
ZAK 39.54 343 eP 25 03.20 0.7
1.7s 28.00nm 4.8mb
WARB 39.71 171 eP 25 04.30 0.0
MEEK 39.74 183 eP 25 04.50 0.0
HYB 40.52 281 eP 25 11.00 -0.1
GBA 41.77 276 P 25 22.00 0.7
CTA 41.80 142 iPc 25 21.50 0.0
i 26 38.00
QLP 45.91 150 eP 25 53.00 -1.4
FRU 49.15 316 eP 26 26.80 7.2X
e 27 47.70
STK 49.30 156 eP 26 20.10 -0.7
0.6s 5.80nm 4.7mb
BRS 51.20 142 iPc 26 45.00 9.6X
0.5s 10.00nm 5.1mb

i 27 51.00
MGD 51.78 19 eP 26 43.00 3.7X
QUE 51.97 298 eP 26 30.40 -11.0X
ARMA 52.84 146 eP 26 50.00 2.3X
0.7s 6.00nm 4.7mb
e 28 06.60
DZM 57.21 127 iPd 27 18.60 -0.8
MAIO 58.87 304 iPd 27 31.20 0.3
NRI 59.67 347 eP 27 39.00 3.3X
SVE 62.59 328 ePd 27 55.80 0.3
KIV 72.09 312 eP 29 03.00 7.4X
0.8s 8.00nm 4.6mb
OBN 75.68 324 eP 29 16.00 0.1
IMA 76.28 25 eP 29 25.20 5.9X
0.8s 5.09nm 4.4mb
AVY 78.43 247 iPc 29 33.50 1.4
VTY 78.65 247 iPc 29 34.60 1.4
FBA 78.82 26 eP 29 40.21 7.1X
1.1s 5.78nm 4.3mb
KAF 80.27 332 eP 29 40.60 -0.3
NUR 81.36 330 eP 29 47.10 0.5
UPP 84.92 330 iP 30 06.50 1.7
i 30 11.10
UZH 85.42 319 eP 30 09.00 1.4
i 30 15.50
HFS 86.69 331 eP 30 13.70 0.1
0.4s 1.10nm 4.2mb
VAY 87.12 312 eP 30 22.40 6.3X
NB2 87.49 333 P 30 16.40 -1.1
0.8s 2.80nm 4.4mb
KSP 88.50 322 eP 30 24.00 1.5
e 30 30.00
PRU 89.85 322 eP 30 36.50 7.6X
BRG 89.89 323 iP 30 36.00 7.0X
CLL 90.28 323 eP 30 37.00 6.2X
1.4s 11.00nm 4.8mb
KHC 90.74 321 eP 30 40.50 7.4X
GEC2 90.77 321 P 30 33.70 0.4
0.9s 1.04nm 4.0mb
e 30 37.60
e 30 40.20
e 30 43.10
e 31 50.40
GRF 91.95 322 eP 30 40.00 1.4
e 30 46.40
e 31 51.60
YKA 93.25 22 eP 30 43.40 -0.9
0.5s 0.40nm 4.0mb
CDF 94.84 322 eP 30 58.40 6.3X
LPG 96.45 320 eP 31 00.70 1.0
0.7s 3.30nm 5.0mb
LPL 96.45 320 eP 31 00.60 1.0
1.1s 9.50nm 5.2mb
S.D. = 0.9 on 49 of 71 obs.

MAR 29, 1993 05h 18m 29.96± 0.91s
42.593 N ±10.1km 10.720 E ± 5.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
ML 2.8 (LDG).

PII 1.14 353 P 18 51.70 0.5
eSg 19 06.40
PGF 1.27 269 Pn 18 55.20 1.6
Sn 19 12.00
CRE 1.37 41 P 18 54.60 -0.6
eSg 19 12.00
MNS 1.46 98 P 18 56.60 0.2
BDI 1.47 357 P 18 57.40 0.8
PGD 1.48 29 P 18 56.70 0.0
SBF 2.72 299 Pn 19 13.70 -0.8
Sn 19 44.30
FRF 3.14 289 Pn 19 19.60 -0.7
Sn 19 54.90
LMR 3.18 285 Pn 19 20.40 -0.5
Sn 19 56.60
LRG 3.31 287 Pn 19 22.50 -0.3
Sn 19 59.90
S.D. = 0.9 on 10 of 10 obs.

% MAR 29, 1993 05h 28m 12.69± 3.98s
15.927 N ±18.1km 60.369 W ±33.5km
DEPTH = 20.8 ± 7.5 km
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

DEG 0.77 300 eP 28 27.25 0.0
S 28 39.00
SFG 0.86 292 eP 28 28.50 -0.3
S 28 42.40
MGG 0.91 270 Pc 28 29.92 0.2
DOG 1.21 275 ePd 28 34.46 0.0
PAG 1.27 275 eP 28 35.50 0.2
S 28 53.40
CRM 1.28 204 ePc 28 34.91 -0.5
FDF 1.41 213 iPc 28 36.80 -0.4
S 28 57.60
MVM 1.46 201 eP 28 39.00 1.1
BIM 1.56 206 eP 28 39.08 -0.3
S 29 01.50
S.D. = 0.6 on 9 of 9 obs.

? MAR 29, 1993 05h 44m 00.91±15.58s
36.088 N ±113.km 20.275 E ±84.1km
DEPTH = 10.0km (geophysicist)
CENTRAL MEDITERRANEAN SEA (400)
MD 3.7 (ATH).

VLS 2.10 7 ePn 44 35.20 -1.4
VLI 2.24 73 ePn 44 38.50 -0.1
ATH 3.33 55 ePn 44 54.20 0.1
OHR 5.03 5 ePn 45 18.70 0.4
i 45 26.00
i 46 10.50
i 46 19.10
SKO 5.95 8 iPn 45 32.00 0.9
S.D. = 1.2 on 5 of 5 obs.

MAR 29, 1993 05h 45m 15.84± 0.56s
27.700 N ± 8.6km 102.821 E ± 6.5km
DEPTH = 33.0km (normal)
4.2mb (6 obs.)
SICHUAN, CHINA (307)

KMI 2.57 182 Pnd 45 55.50 -0.7
Pg 45 58.00
Sn 46 25.00
CD2 3.30 14 Pn 46 10.80 4.3X
Pg 46 18.00
Sg 46 59.00
GYA 3.64 109 Pn 46 11.60 0.2
XAN 8.21 38 P 47 14.60 -1.0
LZH 8.41 6 eP 47 26.00 7.5X
1.5s 27.00nm 5.2mb
Z 12s 0.41um 4.3MszX
E 10s 0.92um
CHTO 9.53 203 eP 48 10.10 36.2X
WHN 10.47 72 Pc 47 47.50 0.8
TIY 12.84 37 Pc 48 18.00 -0.8
Z 20s 0.75um
N 10s 0.43um
BTO 14.17 23 eP 48 42.90 6.6X
HHC 14.96 27 eP 48 45.50 -1.2
GUN 15.00 275 P 48 46.40 -1.1
PKI 15.44 274 P 48 54.00 0.9
KKN 15.53 274 P 48 53.60 -0.7
DMN 15.70 274 P 49 00.20 3.7X
GKN 16.09 275 P 49 02.60 1.2
BJI 16.54 39 eP 49 12.00 5.2X
1.0s 22.00nm 4.2mb
CN2 24.28 43 eP 50 33.20 2.1
0.8s 5.80nm 4.2mb
epP 50 44.80 45kmX
WRA 56.34 144 P 54 57.50 1.4
0.5s 0.50nm 3.8mb
WB2 56.34 144 eP 54 54.40 -1.8
0.4s 4.00nm 4.8mb
KAF 59.65 328 eP 55 29.90 11.1X
YKA 85.26 16 eP 57 50.90 0.7
0.8s 0.40nm 3.7mb
S.D. = 1.3 on 14 of 21 obs.

% MAR 29, 1993 05h 56m 57.57± 0.77s
43.404 N ± 5.6km 5.453 E ± 5.7km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.7 (STR).

GELF 0.03 223 Pg 56 59.08 -0.5
BERF 0.20 117 Pg 57 02.61 0.7
PUYF 0.22 54 Pg 57 02.08 -0.3
TREF 0.23 347 Pg 57 02.01 -0.4
CDR 0.35 40 iPgd 57 04.20 -0.7
i 57 07.70
PRAF 0.45 333 Pg 57 07.50 0.7
VILF 0.49 23 Pg 57 08.02 0.5
TAVF 0.49 64 Pg 57 07.42 -0.1
S.D. = 0.7 on 8 of 8 obs.

MAR 29, 1993 05h 57m 43.67± 0.74s
37.642 N ± 6.9km 21.325 E ± 5.9km
DEPTH = 10.0km (geophysicist)
4.1mb (6 obs.)
SOUTHERN GREECE (368)
ML 4.0 (TIR). MD 3.9 (ATH).

VLS 0.79 313 ePg 58 00.50 1.5
AGG 1.59 30 ePb 58 11.90 0.0
eSb 58 35.16
eSb 59 34.80
ATH 1.92 79 ePb 58 16.30 -0.4
IGT 2.04 338 ePn 58 19.96 1.5
eSn 58 50.12
KEK 2.39 330 ePn 58 23.50 0.1
SRN 2.46 336 ePn 58 35.60 11.2X
iSn 59 08.90
LIT 2.62 20 ePn 58 28.80 2.1
eSn 59 02.00
KZN 2.68 7 ePg 58 32.20 4.5X
TPE 2.84 339 ePn 58 26.00 -3.9X
PAIG 2.93 38 ePn 58 31.12 0.0
eSn 59 07.84
FNA 3.14 1 ePn 58 35.12 1.0
eSn 59 13.00
THE 3.25 23 ePn 58 36.00 0.4
eSn 59 15.32
GRG 3.41 14 ePn 58 38.56 0.5
eSn 59 21.84
OHR 3.49 353 iPn 58 40.30 1.2
i 58 47.50
i 59 33.00
i 59 39.10
SOH 3.54 26 ePn 58 40.72 0.8
KNT 3.72 19 ePn 58 42.88 0.5
VAY 3.80 14 iPn 58 44.00 0.5
TIR 3.87 343 ePn 58 42.00 -2.5
SRS 3.89 26 ePn 58 44.96 0.2
PHP 4.09 351 ePn 58 48.00 0.4
LACI 4.18 343 ePn 58 47.80 -1.0
NPS 4.19 123 ePn 58 53.50 4.4X
SKO 4.33 1 iPn 58 50.00 -1.0
iPg 59 07.00
iSn 59 38.30
iSg 59 54.50
LR 00 36.50
MMB 4.36 24 iPd 58 51.00 -0.4
KKB 4.43 17 iP 58 52.00 -0.5
SDA 4.62 343 ePn 58 52.00 -3.1X
IZM 4.75 79 iP 58 56.20 -0.9
RZN 4.81 32 iPc 58 58.00 -0.1
KDZ 5.10 37 eP 59 01.00 -0.9
VTS 5.15 16 eP 59 03.00 0.2
HVAR 6.66 328 iPnd 59 22.00 -2.0
MLR 8.57 22 eP 59 52.00 1.2
VBY 9.07 332 ePn 59 55.40 -2.2
eSn 01 37.50
VRI 9.16 24 eP 59 49.00 -9.7X
PTJ 9.17 336 eP 59 52.80 -6.2X
VOY 10.05 329 iP 00 08.20 -2.9X
eS 01 58.90
KHC 12.78 336 eP 00 49.00 0.9
e 01 24.00
BSF 14.73 318 eP 01 24.30 10.4X
CLL 14.88 339 eP 01 21.00 5.3X
HAU 15.07 318 eP 01 23.70 5.4X
0.7s 6.50nm 4.2mb
LBF 15.84 312 eP 01 32.70 4.4X
WLF 16.24 323 P 01 39.00 5.8X
UPP 22.36 355 iP 02 41.00 -2.0
NUR 22.98 4 eP 02 46.00 -3.1X
HFS 23.03 350 eP 02 45.90 -3.7X
0.3s 1.70nm 4.0mb
EKA 24.23 325 P 03 02.00 0.7
1.1s 12.20nm 4.4mb
NB2 24.27 348 P 02 58.90 -2.8X
1.0s 3.90nm 4.0mb
KAF 24.69 6 eP 03 03.50 -2.2
BCAO 33.15 185 iPd 04 22.70 0.4
0.2s 12.00nm 5.5mb X
LIC 39.40 224 (P) 05 16.00 0.6
GKN 53.18 81 P 06 59.80 -4.6X

29d 06h

0.8s 20.00nm 5.1mb
DMN 53.73 81 P 07 04.00 -4.5X
KKN 53.78 81 P 07 04.00 -4.8X
PKI 53.99 81 P 07 05.00 -5.5X
GUN 54.20 80 P 07 07.20 -4.8X
YKA 74.11 340 eP 09 22.50 1.1
0.7s 0.30nm 3.4mb
MTN 113.37 88 ePdiff12 33.50 3.3X
0.4s 13.00nm
FORT 120.42 107 iPdiff13 08.30 7.0X
0.6s 40.00nm
S.D. = 1.2 on 35 of 58 obs.

% MAR 29, 1993 06h 02m 46.53± 0.67s
44.345 N ± 6.0km 7.313 E ± 7.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

STV 0.10 175 P 02 49.49 0.1
S 02 51.19
ENR 0.14 147 P 02 50.09 0.1
S 02 52.28
PZZ 0.22 317 P 02 51.46 0.1
S 02 54.48
ROB 0.40 97 P 02 55.12 0.3
S 03 01.07
BHB 0.50 356 P 02 56.49 -0.1
S 03 03.18
IMI 0.60 136 P 02 58.23 -0.5
S 03 06.52
FIN 0.66 102 P 02 59.61 0.0
S 03 08.44
S.D. = 0.3 on 7 of 7 obs.

MAR 29, 1993 06h 05m 49.19± 0.17s
14.934 S ± 3.5km 167.257 E ± 4.3km
DEPTH = 112.9km (4 depth phases)
5.3mb (42 obs.)
VANUATU ISLANDS (186)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 18C
Centroid Location:
Origin Time 06:05:55.1 1.4
Lat 14.89S 0.20 Lon 167.02E 0.13
Dep 117.0 6.8 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-3.15 0.99 Mtt= 5.07 2.31
Mff=-1.92 2.10 Mrt=-4.08 1.36
Mrf=-8.86 1.04 Mtf= 2.54 1.63
Principal Axes:
T Val= 10.43 Plg=33 Azm=141
N 1.09 23 35
P -11.52 48 277
Best Double Couple:Mo=1.1*10**17
NP1:Strike=283 Dip=25 Slip= -20
NP2: 32 82 -113

BKM 2.88 161 iP 06 35.80 1.4
iS 07 07.00
PVC 2.97 160 iPd 06 37.20 1.7
DZM 7.14 186 iPc 07 33.10 0.4
iS 08 53.50
HNR 9.00 307 iP 07 59.90 2.1
iS 09 39.00
VUN 11.18 107 eP 08 30.00 3.1X
BRS 18.31 225 iPc 09 59.00 1.7
1.0s 31.00nm 4.5mb
ipP 10 06.50
e 10 47.00
eS 12 17.00
e 16 15.00
e 17 41.00
PMG 20.39 283 eP 10 20.00 0.8
CTA 20.67 253 iPd- 10 23.50 1.5
1.0s 150.00nm 5.3mb
e 10 30.00 24kmX
i 10 35.00
eS 13 48.00
iScS 21 38.00
RMQ 20.75 233 iPd 10 24.90 2.1
0.7s 190.00nm 5.6mb
ARMA 21.07 220 iPd 10 30.20 4.1X
1.2s 234.00nm 5.4mb
KUZ 23.00 162 P 10 45.90 1.1
RIV 23.79 215 iPc 10 54.50 2.0
0.9s 4033.61nm 6.9mb X
WLZ 24.01 164 P 10 55.10 0.5
OLP 24.40 238 iPd 10 59.80 1.3
0.9s 592.00nm 6.0mb
MOZ 24.41 166 P 10 59.60 1.2
HBZ 24.61 159 eP 10 59.40 -0.9
URZ 24.81 161 P 11 01.90 -0.3
PAHZ 25.35 162 P 11 07.20 0.0
NOZ 25.44 160 P 11 06.90 -1.1
BWA 25.79 218 eP 11 10.70 -0.7
e 11 36.40 121kmX
i 11 42.10
CNB 25.88 215 eP 11 13.70 1.4
1.0s 40.00nm 4.9mb
TTH 25.91 163 P 11 12.00 -0.4
WAHZ 25.93 164 P 11 11.60 -1.0
CAN 26.09 216 eP 11 15.50 1.4
i 12 13.10 312kmX
MNG 26.58 166 P 11 16.90 -1.5
KIW 26.68 167 P 11 17.90 -1.5
PGZ 26.77 165 P 11 18.40 -1.8
MRW 26.99 168 P 11 20.50 -1.7
MTW 27.09 166 P 11 21.10 -2.0
THZ 27.18 171 eP 11 23.30 -0.7
BLW 27.29 166 P 11 23.10 -1.8
KHZ 27.92 170 eP 11 28.60 -1.9
LTZ 28.08 172 eP 11 31.40 -0.7
WVZ 28.20 175 eP 11 33.60 0.5
STK 28.86 230 iPd 11 40.20 1.1
1.2s 55.70nm 5.1mb
TOO 29.68 217 iPd 11 47.80 1.4
0.7s 21.00nm 5.0mb
LSCZ 30.14 177 P 11 49.00 -1.4
CMCZ 30.17 177 P 11 50.00 -0.7
TLC 30.20 177 eP 11 50.60 -0.4
TUZ 30.99 177 P 11 57.50 -0.2
0.8s 89.00nm 5.5mb
WB2 31.75 256 iPc 12 03.20 -1.6
1.0s 34.40nm 5.1mb
e 13 14.00 377kmX
WRA 31.76 256 P 12 03.50 -1.4
1.4s 2.60nm 3.8mb X
ADE 32.49 227 iPd 12 11.80 0.7
ASPA 32.59 249 iPd 12 11.10 -1.0
1.0s 156.30nm 5.7mb
Z 22s 0.20um 3.8MsZX
epP 12 48.60 179kmX
eS 17 14.90
eScP 18 28.50
epScP 19 26.00
eScS 22 24.60
WARB 39.49 247 iPd 13 10.40 0.0
0.3s 16.00nm 5.3mb
AFR 41.27 100 iPd 13 25.50 0.5
1.2s 252.30nm 5.9mb
PAE 41.45 100 iPd 13 27.00 0.5
1.7s 676.40nm 6.1mb
PPT 41.46 100 iPd 13 27.30 0.7
1.5s 526.50nm 6.1mb
PPN 41.60 100 iPd 13 28.50 0.7
1.6s 181.60nm 5.6mb
TVO 41.76 100 iPd 13 29.70 0.5
1.4s 388.60nm 6.0mb
PMO 43.27 96 iPd 13 42.70 1.4
1.7s 1014.60nm 6.3mb X
VAH 43.50 97 iPd 13 44.20 1.0
1.5s 397.00nm 6.0mb
TPT 43.53 96 iPd 13 44.80 1.3
1.4s 439.10nm 6.0mb
RUV 43.74 96 iPd 13 46.20 1.0
1.3s 316.30nm 5.9mb
COOL 45.01 241 eP 13 54.50 -0.8
MEEK 46.69 247 iPd 14 08.50 -0.1
0.4s 35.00nm 5.5mb
KLB 47.99 241 eP 14 17.00 -1.6
MRWA 49.22 244 eP 14 27.30 -0.8
PLP 49.26 299 ePc 14 27.70 -0.9
MUN 49.35 241 eP 14 28.50 -0.6
NANU 49.37 253 iPd 14 29.60 0.3
0.4s 14.00nm 5.2mb
KHKI 50.91 271 ePc 14 40.10 -1.1
e 17 16.00
KKM 54.71 289 ePd 15 09.50 0.0
1.2s 238.90nm 6.0mb
CVP 55.31 304 eP 15 14.00 0.5
LEM 58.98 271 iPd 15 39.70 -0.1
SBA 62.93 180 iPc 16 05.80 0.6
SSE 63.66 316 P 16 09.00 -1.7
1.0s 11.00nm 4.7mb
NJ2 65.81 316 Pc 16 24.60 0.1
1.0s 13.00nm 4.8mb
WHN 68.07 312 eP 16 37.50 -1.3
MDJ 68.45 332 eP 16 40.60 -0.3
1.0s 18.00nm 4.9mb
TIA 69.48 318 eP 16 46.10 -1.3
SNG 69.60 284 eP 16 49.00 0.5
CN2 69.81 329 eP 16 48.70 -0.5
1.0s 15.00nm 4.8mb
GYA 71.82 305 iPd 17 01.80 -0.1
1.0s 27.00nm 5.0mb
pP 17 29.00 107km
BJI 72.42 321 eP 17 04.50 -0.4
1.0s 15.00nm 4.8mb
TIY 73.40 317 iPc 17 11.00 0.2
pP 17 39.50 112km
XAN 73.82 313 Pd 17 13.00 -0.3
1.0s 22.00nm 4.9mb
KMI 74.40 302 Pc 17 18.30 1.2
1.0s 110.00nm 5.6mb
pP 17 48.00 117km
CHTO 75.15 294 iPd 17 22.00 0.8
1.4s 45.19nm 5.1mb
SPA 75.16 180 iPc 17 20.00 -0.7
0.7s 98.44nm 5.7mb
HHC 75.73 320 eP 17 23.40 -0.8
1.0s 14.00nm 4.7mb
MGD 75.95 352 eP 17 23.00 -1.9
0.8s 20.00nm 5.0mb
CD2 76.12 308 eP 17 25.40 -1.2
BTO 76.57 319 eP 17 29.00 0.1
LZH 78.45 312 Pd 17 40.50 1.0
1.6s 66.00nm 5.2mb
pP 18 10.00 115km
YAK 82.20 343 eP 17 56.00 -2.5
1.1s 80.00nm 5.5mb
BOD 84.60 335 eP 18 09.80 -1.0
1.3s 22.00nm 4.9mb
LSA 85.66 302 P 18 18.00 0.7
ZAK 85.71 325 iPd 18 16.80 0.4
1.5s 38.00nm 5.1mb
IMA 85.85 15 eP 18 48.90 31.8X
1.2s 21.90nm
FBA 86.55 18 eP 18 50.60 30.3X
GUN 89.48 299 P 18 35.40 -0.2
PKI 89.78 299 P 18 36.60 -0.4
KKN 89.96 299 P 18 37.20 -0.4
DMN 90.05 298 P 18 38.00 -0.1
TIK 90.15 349 eP 18 36.50 -0.8
1.0s 9.00nm 4.8mb
GKN 90.56 299 P 18 39.80 -0.5
WMQ 92.86 315 P 18 50.70 0.3
1.5s 20.00nm 5.2mb
ELT 96.53 323 eP 19 06.20 -0.6
1.4s 25.00nm 5.5mb
YKA 97.73 27 eP 19 10.50 -1.6
0.9s 0.80nm 4.2mb X
KAF 125.38 339 ePKP 24 36.80 -1.1
MTD 126.08 236 iPKPd 24 40.40 -0.3
NUR 127.05 338 ePKP 24 40.80 -0.3
NB2 130.82 345 PKP 24 47.40 -1.0
0.7s 1.60nm
GEC2 139.82 333 PKP 24 57.50 -8.2X
0.8s 1.06nm
e 25 07.50
CDF 142.76 338 ePKP 25 07.40 -3.5X
OSS 143.02 334 ePKPc 25 08.70 -2.9X
SOB1 143.20 129 (PKP) 25 23.00 10.4X
LLS 143.36 335 ePKPc 25 09.40 -2.8X
BSF 143.42 338 ePKP 25 08.30 -3.8X
HAU 143.44 338 ePKP 25 08.70 -3.3X
TMA 144.02 334 iPKPd 25 11.30 -2.0
MMK 144.44 335 ePKPc 25 13.40 -0.7
DIX 144.64 336 iPKPc 25 14.10 -0.4
FIR 144.71 329 ePKP 25 14.00 -0.2
ORX 144.77 335 PKP 25 12.87 -1.6
FLN 144.79 346 ePKP 25 12.80 -1.4
0.5s 19.45nm
EMS 144.84 336 iPKPc 25 14.40 -0.3
LDF 144.86 345 ePKP 25 13.00 -1.4
0.8s 19.50nm
LOR 144.93 340 ePKP 25 13.90 -0.7
0.8s 28.35nm
LBF 145.13 340 ePKP 25 14.60 -0.4

0.7s 34.95nm
SSF 145.22 340 ePKP 25 15.10 0.0
0.7s 79.80nm
GRR 145.23 346 ePKP 25 14.60 -0.4
0.6s 35.80nm
LSD 145.25 335 PKP 25 15.80 0.3
HYF 145.31 341 ePKP 25 15.60 0.4
LPL 145.37 336 ePKP 25 16.00 0.3
0.8s 55.60nm
LPG 145.38 336 ePKP 25 16.20 0.4
0.8s 59.10nm
PCP 145.40 333 PKP 25 14.71 -0.8
RSP 145.46 335 PKP 25 15.07 -0.6
SMF 145.48 340 ePKP 25 15.70 0.2
0.9s 41.45nm
AVF 145.51 340 ePKP 25 15.80 0.3
0.8s 20.40nm
LPF 145.61 346 ePKP 25 16.00 0.4
0.7s 36.15nm
BHB 145.71 334 PKP 25 14.80 -1.2
FIN 145.81 333 PKP 25 15.76 -0.4
RRL 145.84 335 PKP 25 17.27 0.8
BGF 145.88 341 ePKP 25 16.90 0.7
0.6s 29.05nm
ROB 145.89 333 PKP 25 16.03 -0.3
GRN 145.99 336 PKP 25 18.50 2.0X
PZZ 146.05 334 PKP 25 16.22 -0.5
ENR 146.14 334 PKP 25 15.99 -0.8
PLDF 146.14 339 PKP 25 18.39 1.7
STV 146.16 334 PKP 25 15.76 -1.1
IMI 146.18 333 PKP 25 16.49 -0.4
AGO 146.23 340 PKP 25 18.41 1.6
MAF 146.27 341 ePKP 25 18.20 1.3
0.8s 22.70nm
SAOF 146.27 333 PKP 25 18.18 1.2
AUTN 146.32 333 PKP 25 18.79 1.5
TCF 146.32 341 ePKP 25 18.20 1.2
0.8s 21.65nm
TOUF 146.38 334 PKP 25 18.59 1.2
SBF 146.42 333 PKP 25 18.79 1.5
AURF 146.45 333 PKP 25 18.79 1.5
PYM 146.54 340 PKP 25 19.61 2.2X
LSF 146.56 342 ePKP 25 18.70 1.4
0.7s 30.10nm
MFF 146.71 344 ePKP 25 19.30 1.8
0.7s 35.60nm
PGF 146.73 330 PKP 25 19.84 2.0
CALN 146.75 334 PKP 25 19.75 1.9
LBL 146.91 339 PKP 25 21.25 3.3X
FRF 147.00 334 ePKP 25 19.90 1.8
0.9s 33.75nm
LRG 147.21 334 ePKP 25 20.10 1.7
LMR 147.25 334 ePKP 25 20.70 2.2
0.9s 27.20nm
RJF 147.42 341 ePKP 25 21.40 2.7X
0.7s 20.30nm
BCAO 147.50 254 iPKPd 25 21.70 1.9
0.9s 45.00nm
i 25 53.70
CAF 147.58 340 ePKP 25 22.00 3.0X
0.9s 15.40nm
LFF 147.98 342 ePKP 25 23.00 3.4X
0.7s 35.60nm
LPO 148.08 341 ePKP 25 23.20 3.4X
0.7s 26.25nm
MTHF 149.16 338 PKP 25 26.09 4.5X
LSPF 149.38 339 PKP 25 26.89 5.0X
LESF 149.52 339 PKP 25 27.36 5.3X
EPF 149.83 341 ePKP 25 28.10 5.5X
0.8s 11.15nm
ENSF 150.04 341 PKP 25 29.57 6.6X
KIC 168.41 224 PKP 25 43.60 -0.6
LIC 168.50 222 PKP 25 44.00 -0.3
TIC 168.80 223 PKP 25 43.80 -0.7
LKO 171.19 233 PKP 25 45.46 -0.3
S.D. = 1.1 on 151 of 174 obs.

MAR 29, 1993 06h 57m 19.56± 0.13s
53.039 S ± 3.5km 27.396 E ± 4.5km
DEPTH = 10.0km (geophysicist)
5.9mb (65 obs.) 5.3Msz (27 obs.)
SOUTH OF AFRICA (430)
Mw 5.7 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 43S, 83C
Centroid Location:
Origin Time 06:57:23.6 0.2
Lat 52.80S 0.02 Lon 27.69E 0.05
Dep 15.0 FIX Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr=-4.16 0.08 Mtt= 3.76 0.10
Mff= 0.40 0.10 Mrt=-0.81 0.33
Mrf=-1.55 0.33 Mtf=-1.08 0.11
Principal Axes:
T Val= 4.09 Plg= 3 Azm=195
N 0.68 19 104
P -4.77 70 293
Best Double Couple:Mo=4.4*10**17
NP1:Strike=304 Dip=46 Slip= -62
NP2: 88 51 -115
NVL 19.12 196 iPc+ 01 44.00 -0.7
2.0s 2092.00nm 6.0mb
Z 22s 8.00um 4.2MszX
eS 05 22.00
GRM 19.73 358 iPc 01 51.00 -1.1
1.4s 880.00nm 5.9mb
CER 20.51 340 iPd 01 57.50 -2.8X
1.0s 1840.00nm 6.4mb
TUH 20.60 340 iPd 01 55.00 -6.2X
1.0s 520.00nm 5.8mb
SNA 21.93 207 e(P) 02 16.60 2.2
0.8s 832.00nm 6.2mb
MAW 22.38 144 iPd 02 20.90 2.1
1.0s 100.00nm 5.2mb
eS 06 22.00
FRS 23.32 355 iPd 02 27.10 -1.3
1.0s 500.00nm 6.0mb
BLF 23.93 357 iPd 02 34.00 -0.5
1.4s 460.00nm 5.9mb
POF 24.26 344 iPd 02 37.00 -0.5
0.7s 188.00nm 5.8mb
SEK 24.69 0 iPd 02 40.70 -1.2
1.0s 180.00nm 5.7mb
SWZ 25.87 356 eP 02 51.40 -1.7
PRY 26.08 0 iPc 02 52.00 -3.0X
1.6s 170.00nm 5.5mb
BFS 26.11 359 iPc 02 53.70 -1.6
1.2s 200.00nm 5.7mb
PAF 26.79 100 eP 03 09.00 7.9X
eS 07 15.00
KSR 27.14 359 iPd 03 03.00 -1.8
1.2s 450.00nm 6.0mb
SLR 27.28 2 iPd 03 04.00 -2.0
1.0s 880.00nm 6.4mb
Z 22s 41.00um 6.0Msz
MTD 36.33 7 iPd 04 23.00 -2.4
iPP 06 46.10
SPA 37.15 180 iPc 04 32.80 0.8
0.7s 173.83nm 5.9mb
Z 20s 2.70um 5.0Msz
i 10 13.50
i 10 15.50
VTY 37.33 32 eP 04 33.20 -0.7
TAN 37.49 32 eP 04 34.60 -0.6
AVY 37.54 33 eP 04 34.60 -1.1
LSZ 37.68 1 iPc 04 35.00 -1.8
CSY 40.69 142 iPd 05 03.00 1.9
1.1s 111.20nm 5.5mb
AIA 44.30 217 eP 05 35.00 4.4X
SBA 47.00 169 iPc 05 54.90 2.9X
DRV 50.31 151 eP 06 18.60 1.0
S 13 32.00
NAI 52.18 12 iPd 06 32.60 -0.1
1.2s 2578.13nm 7.0mb X
Z 21s 1.54um 5.0Msz
iPP 08 40.00
iPPS 14 03.60
BCAO 57.75 350 iPd 07 10.90 -2.0
0.8s 168.00nm 6.1mb
i 08 05.00
AAE 62.58 13 P 07 47.00 0.7
VAO 62.63 268 eP 07 45.90 -0.5
e 07 52.80
CDCB 63.37 271 iPd 07 50.20 -1.1
e 08 08.50
MUN 64.49 110 eP 07 57.50 -0.9
KIC 65.13 324 Pd 08 00.42 -2.2
1.3s 242.00nm 6.2mb
TIC 65.50 324 Pd 08 03.12 -1.9
KLB 65.65 111 eP 08 04.00 -1.9
ARO 65.66 17 ePd 08 00.07 -6.0X
BAL 65.79 109 eP 08 05.30 -1.5
PPD 65.98 265 iPd 08 08.00 -0.2
e 08 29.40
MRWA 66.42 108 eP 08 10.10 -0.8
MRA 66.58 247 ePd 08 10.00 -1.8
COOL 68.09 112 eP 08 20.00 -1.4
LKO 68.39 325 Pd 08 21.52 -1.8
1.1s 603.50nm 6.7mb
RTPR 68.62 248 ePd 08 23.90 -0.7
BDF 68.81 272 iPd 08 26.00 -0.2
i 08 37.50
BAO 68.88 272 iPc 08 26.30 -0.3
e 08 36.20
RTLL 68.92 246 iPc 08 25.50 -1.1
RTBS 69.21 245 ePd 08 28.90 0.7
CYA 69.63 250 ePd 08 28.60 -2.3X
SOB1 69.68 282 eP 08 30.10 -1.3
MEEK 69.88 108 eP 08 31.00 -1.5
NANU 71.20 103 eP 08 40.00 -0.5
TAU 71.37 138 eP 08 43.00 1.8
FSA 71.56 251 ePd 08 41.00 -1.6
SLA 72.31 252 iPd 08 45.90 -1.4
HJA 73.43 253 ePd 08 53.70 0.1
KDS 73.63 320 iPd 08 53.50 -1.3
BFD 74.06 131 iPd 08 57.70 0.6
1.0s 98.00nm 5.8mb
ADE 74.07 127 iPd 08 57.80 0.5
YJA 74.29 254 ePd 08 59.00 -0.3
WARB 74.77 113 eP 09 00.00 -1.5
TOO 75.05 133 iPc 09 04.10 1.2
0.6s 28.00nm 5.5mb
SIV 76.48 261 iPd 09 23.70 12.4X
MBO 77.20 316 iPd 09 15.00 -0.1
STK 77.97 127 iPd 09 19.70 0.4
1.1s 23.10nm 5.2mb
CCH 78.39 257 P 09 21.80 -0.4
CAN 78.46 135 eP 09 22.70 0.7
e 09 53.00
CNB 78.62 135 iPd 09 24.40 1.5
1.0s 39.00nm 5.4mb
LEM 78.70 86 ePd 09 25.50 1.8
1.0s 464.00nm 6.5mb
BWA 78.97 134 eP 09 26.50 1.7
e 09 51.90
GBA 79.00 49 P 09 24.00 -1.0
CNCB 79.93 256 iPd 09 31.70 0.9
S 19 37.00
LPB 80.21 256 Pd 09 32.20 0.0
1.1s 1645.57nm 6.9mb X
S 19 40.00
LR 35 16.00
ZOBO 80.43 256 iPd 09 33.60 0.0
1.2s 101.35nm 5.7mb
S 19 30.00
LR 35 32.00
ASPA 80.74 117 iPd 09 34.30 -0.2
1.1s 112.30nm 5.8mb
ePP 12 35.60
eS 19 39.60
BOM 81.68 43 eP 09 56.80 17.6X
eS 19 55.90
ARE 82.24 253 iPd 09 44.00 1.3
KHKI 82.31 94 ePc 09 42.80 0.1
e 12 06.10
HLW 82.62 3 e(P) 09 45.00 1.2
MBH 82.72 7 iPd 09 45.40 1.0
KGM 83.17 78 ePc 09 47.30 0.2
1.3s 432.60nm 6.5mb
QLP 83.65 126 iPd 09 49.70 0.2
1.0s 231.00nm 6.3mb
ARMA 83.79 134 iPc 09 53.60 3.3X
0.9s 17.00nm 5.3mb
IPM 83.89 74 ePd 09 50.10 -0.7
0.9s 66.80nm 5.9mb
WRA 83.99 115 P 09 51.50 0.2
0.9s 13.90nm 5.2mb
WB2 84.00 115 iPc 09 51.10 -0.2
1.0s 57.50nm 5.8mb
DSI 84.54 7 iPd 09 54.30 0.8
SNG 85.75 72 eP 09 59.50 -0.5
RMQ 85.87 130 eP 10 02.10 1.5
e 13 22.10
HRI 86.25 7 iPd 10 03.20 1.0
BRS 86.91 133 iPc 10 05.00 -0.8
e 10 07.00
CSS 87.79 5 eP 10 10.00 0.5
KER 88.70 16 iPd 10 14.60 0.5
TIO 88.90 331 iPd 10 16.50 1.4

29d 07h

			i	10 52.00	
NNA	88.90	252	iPc	10 15.30	-0.2
		1.2s	42.19nm		5.6mb
	Z	20s	7.09um		6.1Msz
ELL	89.44	2	iP	10 19.00	1.5
QUE	89.75	33	eP	10 19.80	0.6
CTA	90.10	125	iPd	10 21.00	-0.1
		1.5s	48.61nm		5.5mb
IFR	90.73	333	iP	10 26.00	2.4
KHT	90.79	66	eP	10 23.50	-0.6
IZM	91.06	360	iP	10 25.80	1.0
AVE	91.16	331	iPd	10 25.50	0.2
			i	10 43.00	
AGG	91.79	356	eP	10 28.64	0.5
NDI	92.19	42	iPd	10 29.50	-0.7
NST	92.37	67	eP	10 32.00	0.7
IGT	92.40	355	eP	10 32.44	1.5
PAIG	92.65	357	eP	10 32.40	0.4
LIT	92.86	356	eP	10 33.60	0.6
GPA	92.99	2	eP	10 31.00	-2.6X
MAIO	93.24	25	iPd	10 34.80	-0.2
EYL	93.26	2	eP	10 36.00	1.0
THE	93.37	357	eP	10 36.16	0.9
EGUA	93.46	336	iPd	10 35.90	0.0
SOH	93.55	357	eP	10 36.52	0.3
ALN	93.57	359	iP	10 36.32	0.2
MAL	93.57	335	eP	10 35.00	-1.3
EJIF	93.59	334	iPd	10 37.36	0.9
FNA	93.59	355	eP	10 36.88	0.5
GRS	93.61	15	eP	10 35.00	-1.7
		1.1s	70.00nm		6.0mb
	Z	20s	1.52um		5.5Msz
	N	16s	0.64um		
	E	16s	0.64um		
GRG	93.72	356	eP	10 37.36	0.4
SRS	93.84	357	eP	10 37.28	-0.2
ECOG	93.88	336	iPc	10 38.41	0.5
KNT	93.90	357	eP	10 38.36	0.6
EALH	93.92	338	eP	10 38.95	1.0
OHR	93.95	355	iP	10 37.00	-1.0
EPRU	94.01	334	eP	10 38.99	0.6
KKM	94.07	85	ePd	10 39.00	-0.4
		1.2s	126.80nm		6.2mb
VAY	94.08	356	iP	10 39.90	1.4
KAS	94.19	5	iPd	10 39.40	0.2
CHTO	94.27	64	iPd	10 39.90	-0.1
		1.5s	64.19nm		5.8mb
MMB	94.30	357	iPc	10 40.00	0.4
ACU	94.32	338	iPc	10 41.54	1.8
ELUQ	94.32	335	iPc	10 40.38	0.5
KDZ	94.33	359	iPc	10 40.00	0.3
RZN	94.38	358	iPc	10 41.00	0.8
KKB	94.60	357	iPc	10 43.00	2.0
DMN	94.66	49	P	10 41.00	-0.9
		1.2s	147.00nm		6.3mb
SKO	94.77	356	iPd	10 42.00	0.3
	Z	20s	2.43um		5.7Msz
			LR	55 05.00	
EBAN	94.78	336	iPd	10 41.86	0.0
GKN	94.78	48	P	10 41.80	-0.6
		1.2s	98.00nm		6.1mb
EHOR	94.82	335	iPc	10 42.70	0.6
ULC	94.89	354	iPc	10 43.76	1.5
KKN	94.89	49	P	10 42.40	-0.5
		1.3s	116.00nm		6.1mb
EVIA	94.92	337	eP	10 43.71	1.1
EVAL	95.00	333	eP	10 42.97	0.1
JMB	95.13	359	eP	10 44.00	0.7
BDV	95.23	354	iPc	10 45.29	1.4
PGB	95.25	358	iPc	10 44.00	0.0
GUN	95.27	49	P	10 44.20	-0.7
VTS	95.32	357	iPc	10 45.00	0.5
TTG	95.35	354	iPc	10 45.98	1.6
HCY	95.42	353	iPc	10 45.83	1.1
PVY	95.47	355	iPc	10 46.80	1.7
ECHE	95.47	338	iPc	10 46.38	1.3
NKY	95.75	354	iPc	10 47.64	1.3
IVA	95.75	354	iPc	10 48.01	1.7
BRY	95.87	353	iPc	10 47.85	0.9
PVL	95.89	358	iPc	10 47.00	0.2
PAB	96.22	336	iPd	10 49.00	0.4
		0.2s	83.33nm		6.9mb X
PLE	96.24	354	iPc	10 50.00	1.4
EROO	96.36	340	iPc	10 50.26	1.2
PGF	96.52	346	P	10 46.25	-3.6X
PGF	96.52	346	eP	10 50.20	0.3
		1.2s	103.25nm		6.2mb

ETOR	96.89	338	iPc	10 52.76	1.2
EPLA	97.15	335	iPc	10 54.25	1.6
GUD	97.21	336	eP	10 54.21	1.2
KIV	97.51	11	iPc	10 54.70	0.4
		1.2s	41.00nm		5.9mb
	Z	18s	1.00um		5.3Msz
			i	14 50.60	
LMR	97.67	345	eP	10 55.90	1.1
		1.3s	123.45nm		6.4mb
LRG	97.81	345	eP	10 56.80	1.3
		1.3s	134.65nm		6.4mb
EGRA	97.82	340	iPd	10 56.50	1.0
FRF	97.87	345	eP	10 56.90	1.1
		1.2s	79.15nm		6.2mb
REVF	97.93	345	P	10 54.35	-1.8
CALN	98.01	345	P	10 50.62	-6.0X
SBF	98.04	346	P	10 53.42	-3.2X
SBF	98.04	346	eP	10 57.50	0.9
		1.3s	105.05nm		6.3mb
AURF	98.08	345	P	10 52.29	-4.5X
SAOF	98.14	346	P	10 52.25	-4.8X
MLR	98.16	359	ePd	10 58.00	0.8
AUTN	98.17	346	P	10 54.31	-3.1X
TOUF	98.21	345	P	10 52.29	-5.3X
EPF	98.49	340	eP	10 59.40	0.8
		0.9s	21.15nm		5.8mb
VRI	98.53	360	eP	10 53.50	-5.2X
ECRI	98.70	338	eP	11 02.46	2.9X
VBY	98.71	351	ePDIF	11 00.80	1.3
ELIZ	99.01	339	eP	11 03.41	2.5
PTJ	99.05	352	iP	11 02.60	1.5
LSA	99.24	52	eP	11 02.50	-0.4
VOY	99.37	351	iPd	11 03.30	0.7
			e	11 14.00	
LPG	99.74	345	eP	11 05.70	1.1
		1.3s	42.25nm		5.8mb
LPL	99.76	345	eP	11 05.50	0.9
		1.3s	63.20nm		6.0mb
LPO	99.91	341	eP	11 05.50	0.5
CAF	99.98	342	eP	11 05.90	0.5
		1.0s	13.80nm		5.4mb
TMA	100.03	347	ePdiff	11 05.30	-0.6
MMK	100.10	346	ePdiff	11 06.10	-0.2
DIX	100.21	346	ePdiff	11 07.00	0.1
LFF	100.24	341	ePdiff	11 07.10	0.5
EMS	100.27	346	ePdiff	11 07.10	0.1
RJF	100.45	342	ePdiff	11 07.90	0.3
		1.3s	29.95nm		5.7mb
	Z	22s	17.17um		6.5MszX
KBA	100.46	350	iPdiff	11 08.50	0.7
		1.4s	37.90nm		5.8mb
OGA	100.51	349	iPdiff	11 08.80	0.7
		1.0s	10.00nm		5.3mb
LLS	100.76	347	ePdiff	11 08.90	-0.3
WTTA	100.83	349	iPdiff	11 09.70	0.3
		1.1s	17.80nm		5.6mb
			i	11 26.40	
ZST	101.24	353	ePdiff	11 10.70	-0.3
			e	15 18.00	
KSH	101.26	36	ePdiff	11 17.00	5.5X
	Z	26s	2.82um		5.7MszX
UZH	101.39	357	ePdiff	11 13.00	1.4
		1.0s	20.00nm		5.7mb
ZLA	101.45	347	ePdiff	11 12.40	0.4
LOMF	101.54	346	Pdiff	11 13.34	0.9
LBF	101.63	344	ePdiff	11 12.80	0.0
SLE	101.71	347	ePdiff	11 13.10	-0.1
SSF	101.79	344	ePdiff	11 13.40	-0.1
		1.1s	12.95nm		5.5mb
LOR	101.93	344	ePdiff	11 14.30	0.2
		1.1s	16.10nm		5.6mb
	Z	23s	1.50um		5.4MszX
BSF	102.01	346	ePdiff	11 14.60	0.0
		1.2s	47.00nm		6.0mb
MFF	102.01	341	ePdiff	11 15.20	0.7
		1.2s	22.90nm		5.7mb
GEC2	102.17	351	Pdiff	11 15.80	0.5
		1.3s	5.17nm		5.0mb
			e	11 22.80	
			e	15 24.00	
			e	15 39.10	
HAU	102.25	346	ePdiff	11 15.80	0.3
		1.3s	45.15nm		6.0mb
	Z	23s	2.90um		5.7MszX
KHC	102.47	351	ePdiff	11 16.50	0.0
			e	14 42.50	
			e	15 29.50	

VITF	102.51	346	Pdiff	11 17.24	0.6
CDF	102.51	346	ePdiff	11 16.70	-0.1
		1.2s	24.10nm		5.8mb
WET	102.55	350	iPdiff	11 17.40	0.5
PRU	103.23	352	ePdiff	11 20.40	0.6
	Z	22s	1.60um		5.5Msz
	N	22s	0.90um		
	E	20s	0.50um		
			e	15 34.80	
GRF	103.27	349	ePdiff	11 20.70	0.7
		1.4s	29.00nm		5.8mb
	Z	21s	1.00um		5.3Msz
FRU	103.78	34	ePdiff	11 23.00	0.5
		2.0s	60.00nm		6.1mb
BRG	104.16	351	ePdiff	11 25.70	1.8
	Z	18s	1.50um		5.6Msz
	N	18s	1.50um		
	E	18s	1.00um		
			ePKKP	27 30.40	
CLL	104.68	351	ePdiff	11 27.00	0.8
		1.2s	14.00nm		5.7mb
	Z	19s	1.50um		5.6Msz
			PKKP	27 27.00	
CD2	106.56	61	ePKP	15 48.00	2.0
WMQ	109.48	42	PKP	15 50.50	-0.6
	Z	20s	0.37um		5.0Msz
GTA	111.27	52	PKP	15 53.50	-1.2
XAN	111.73	62	PKP	15 54.50	-1.1
TIY	116.37	62	PKPd	16 03.00	-1.5
BTO	117.24	58	ePKP	16 05.00	-1.1
TIA	117.81	66	ePKP	16 06.50	-0.7
HHC	118.22	59	PKPd	16 06.80	-1.1
BJI	120.06	62	ePKP	16 09.50	-1.8
SDF	120.14	360	iPKP	16 08.50	-2.1
MOY	121.17	44	ePKP	16 12.10	-0.9
		1.4s	52.00nm		
ZAK	121.20	47	iPKPd	16 12.00	-1.1
		1.4s	35.00nm		
			e	17 42.50	
			ePS	27 36.00	
			eSS	34 18.00	
KEV	122.48	360	ePKP	16 13.00	-2.0
SNY	125.32	66	PKPc	16 19.80	-1.5
LMN	125.89	300	ePKP	16 23.50	1.1
HBF	125.90	279	ePKP	16 20.88	-1.9
SGS	126.16	279	ePKP	16 21.89	-1.4
PPM	126.49	252	(PKP)	16 25.00	0.0
CEH	127.19	282	ePKP	16 23.15	-2.0
	Z	19s	0.22um		4.9Msz
LHS	127.23	280	ePKP	16 23.05	-2.2X
HRV	127.31	293	PKP	16 30.00	4.8X
	Z	20s	0.27um		4.9Msz
JSC	127.36	279	ePKP	16 23.68	-1.9
			ePP	18 24.57	
CN2	127.66	65	ePKP	16 24.30	-1.5
	Z	18s	1.19um		5.6Msz
MIM	127.73	297	ePKP	16 24.62	-1.3
CBN	127.75	286	ePKP	16 25.00	-1.1
PRM	127.88	278	ePKP	16 25.29	-1.3
GOGA	128.08	277	PKP	16 25.24	-1.7
	Z	21s	0.44um		5.1Msz
CBM	128.34	300	ePKP	16 25.29	-1.7
	Z	20s	0.52um		5.2Msz
NAV	129.16	282	ePKP	16 26.95	-2.0
NRI	129.86	24	iPKPd	16 27.30	-1.9
		1.6s	93.00nm		
			e	18 39.00	
RSNY	130.28	294	ePKP	16 28.54	-2.3X
	Z	20s	0.35um		5.1Msz
			eSKP	19 53.38	
MDJ	130.47	67	ePKP	16 30.20	-0.9
VLA	130.81	69	ePKP	16 30.50	-1.3
			i	16 41.00	
BOD	130.96	45	ePKP	16 28.40	-3.2X
		1.3s	39.00nm		
DAG	132.79	347	ePKP	16 31.50	-3.1X
		1.2s	18.75nm		
EEO	134.08	293	ePKP	16 39.50	1.6
ELC	134.16	276	ePKP	16 37.34	-1.0
			e	16 51.81	
			ePP	19 06.00	
OLY	134.32	273	ePKP	16 38.37	-0.4
MIAR	134.95	270	ePKP	16 26.30	-13.7X
	Z	19s	0.41um		5.2Msz
			ePP	19 08.90	
FVM	135.33	276	ePKP	16 39.58	-1.0
			iPP	19 15.64	

JAO 136.30 303 ePKP 16 28.00 -13.9X
pP 16 41.00
FNO 137.74 268 iPKPd 16 37.10 -8.2X
MEO 138.13 266 iPKPc 16 33.50 -12.5X
WMOK 138.22 266 ePKP 16 47.09 0.9
Z 20s 0.83um 5.5Msz
eSKP 19 28.03
ACO 139.75 268 iPKPc 16 39.60 -9.3X
YAK 139.79 46 ePKP 16 41.70 -6.4X
1.1s 50.00nm
TIK 142.57 31 iPKPd 16 46.00 -6.8X
1.4s 165.00nm
e 19 58.00
ALQ 142.96 260 PKP 17 00.00 5.1X
Z 22s 0.49um 5.2Msz
GOL 145.43 267 iPKPc 16 57.90 -1.1
Z 18s 0.26um 5.0Msz
ULM 145.47 289 ePKP 16 58.50 0.1
GLA 146.46 249 ePKP 17 00.54 -0.1
iPKPbc17 02.01
ePKPab17 05.73
KKH 146.58 174 ePKP 17 01.60 0.6
ePKPbc17 03.62
MHA 147.11 174 ePKP 17 02.00 0.1
ePKPbc17 05.14
RSSD 147.22 274 ePKPc 16 59.87 -1.9
Z 21s 0.42um 5.2Msz
ePKPbc17 02.74
FCC 147.63 304 ePKPd 17 06.10 4.5X
PLM 147.82 247 ePKP 17 02.81 -0.2
ePKPbc17 05.68
e 17 20.04
HON 148.07 170 PKP 17 10.00 6.6X
Z 20s 1.35um 5.7Msz
SRU 148.15 261 ePKPd 17 02.33 -1.0
ePKPbc17 05.69
iPKPab17 08.83
PEC 148.39 247 ePKP 17 03.94 0.3
iPKPbc17 06.93
OPA 148.43 170 (PKP) 17 03.28 -0.7
ePKPab17 07.62
RES 148.67 334 ePKP 17 01.00 -1.8
1.0s 55.00nm
MSU 148.75 259 ePKPd 17 04.66 0.3
iPKPbc17 08.23
EMUT 148.78 262 ePKP 17 03.94 -0.5
ePKPbc17 07.71
ePKPab17 11.07
SKR 148.78 73 ePKP 17 05.00 1.3
0.9s 200.00nm
e 17 11.40
e 17 18.40
MGD 148.91 54 ePKP 17 00.00 -3.6X
1.0s 290.00nm
SSK 148.92 247 ePKP 17 04.80 0.1
ePKPbc17 08.43
ARUT 149.01 256 ePKP 17 04.99 0.3
iPKPbc17 09.02
GSC 149.22 249 ePKP 17 05.46 0.4
iPKPbc17 09.63
DAU 149.41 262 ePKPd 17 05.61 0.1
ePKPbc17 09.38
BW06 149.80 268 ePKPd 17 04.47 -1.4
ePKPbc17 08.32
TPNV 150.07 252 ePKP 17 07.13 0.8
ePKPbc17 12.29
ePKPab17 18.42
DUG 150.21 261 ePKPc 17 06.44 0.0
Z 21s 0.57um 5.3Msz
ePKPbc17 11.01
ISA 150.42 248 ePKPd 17 07.46 0.7
Z 18s 0.56um 5.4Msz
ePKPbc17 12.81
BCH 150.96 245 ePKP 17 09.06 1.4
ePKPbc17 14.30
PET 151.13 70 ePKP 17 06.00 -1.1
e 17 12.00
HVU 151.16 263 ePKP 17 07.65 -0.2
TNP 151.41 253 ePKPd 17 08.94 0.6
ePKPbc17 14.99
iPKPab17 23.37
PHAM 151.62 246 ePKPd 17 09.98 1.5
ePKPbc17 15.53
BONR 151.95 251 ePKPd 17 10.48 1.2
ePKPbc17 16.62
MEMM 152.11 250 ePKP 17 10.86 1.8
KVN 152.58 253 ePKP 17 11.00 1.0
LCCM 152.86 271 ePKP 17 09.70 -0.4
e 17 17.50
SAO 152.87 246 e(PKP)17 18.23 8.0X
CMB 153.19 249 ePKPd 17 11.22 0.5
1.4s 100.00nm
ARN 153.34 246 ePKP 17 11.32 0.4
ePKPbc17 19.50
MHC 153.40 246 ePKPd 17 19.72 8.6X
1.6s 200.00nm
SES 154.37 281 ePKP 17 10.00 -1.9
pP 17 19.00
ORV 154.86 250 ePKP 17 13.85 1.0
ePKPab17 37.09
MIN 155.45 251 ePKPd 17 12.86 -1.0
1.5s 50.00nm
WDC 156.14 251 ePKP 17 13.48 -1.1
Z 18s 0.64um 5.5Msz
e 17 25.80
ePKPab17 40.12
LBFM 156.27 253 ePKPd 17 14.91 -0.1
ePKPab17 42.58
NEW 157.16 272 ePKP 17 12.98 -2.7X
ePKPab17 45.04
ePP 21 20.89
DPW 157.64 271 ePKP 17 14.78 -1.5
ePKPab17 47.94
YKA 157.96 310 ePKP 17 11.10 -5.0X
1.2s 7.30nm
SHW 159.28 263 ePKP 17 17.48 -0.8
e 17 31.10
ePKPab17 56.16
e 18 03.80
LON 159.30 265 ePKP 17 16.33 -1.9X
iPKPab17 55.19
BMW 160.01 263 ePKP 17 18.29 -0.7
iPKPab17 59.01
BRW 161.58 4 ePKP 17 18.08 -1.6
iPKPab18 05.51
IMA 166.92 2 ePKP 17 21.85 -3.1X
iPKPab18 29.25
ePP 22 15.36
PMR 171.22 349 PKP 17 40.00 12.6X
Z 18s 1.07um 5.5Msz
S.D. = 1.1 on 278 of 323 obs.

& MAR 29, 1993 07h 04m 57.11s
61.790 N 150.010 W
DEPTH = 41.8km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.6 (AEIC).

PWA 0.15 156 P 05 04.50 0.3
S 05 10.50
PLRM 0.46 115 P 05 06.80 -0.6
PMR 0.46 115 iPd 05 06.47 -1.0
SUA 0.48 227 P 05 07.30 -0.5
S 05 16.10
GHO 0.52 92 P 05 07.90 -0.4
PMS 0.59 158 P 05 08.60 -0.6
SKT 0.74 286 P 05 10.30 -1.0
S 05 20.80
SML 0.80 88 P 05 11.30 -0.8
PTE 1.04 152 P 05 14.80 -0.6
CGLM 1.07 244 P 05 15.50 -0.5
CRP 1.15 244 eP 05 16.04 -1.2
eS 05 31.57
SPU 1.16 239 P 05 16.30 -0.8
CKN 1.19 242 P 05 17.50 0.0
CP2 1.19 245 eP 05 17.02 -0.8
eS 05 31.47
HUR 1.20 8 P 05 17.60 -0.2
S 05 33.70
NKA 1.21 210 P 05 18.50 0.7
CKT 1.21 242 P 05 17.20 -0.7
BGL 1.26 246 P 05 18.10 -0.5
SCM 1.27 87 P 05 18.70 -0.1
S 05 36.00
SLKM 1.29 185 P 05 18.20 -0.8
MPA 1.34 166 P 05 18.80 -0.9
TRF 1.67 356 P 05 24.30 -0.3
RND 1.71 18 P 05 24.70 -0.3
SEW 1.71 171 P 05 25.00 0.0
DFR 1.77 228 P 05 25.60 -0.2
NCT 1.88 230 P 05 25.80 -1.6
RSO 1.88 226 eP 05 25.11 -2.5
VLZ 1.89 109 P 05 26.60 -0.8
RDW 1.89 227 P 05 27.70 0.1
KLU 1.98 97 P 05 28.00 -0.8
MCK 2.01 14 P 05 29.30 0.0
TZL 2.18 81 P 05 32.00 0.3
SDG 2.22 69 P 05 32.20 -0.1
ILIM 2.24 221 P 05 31.80 -0.8
CNPM 2.35 195 P 05 32.90 -1.2
CVA 2.41 119 P 05 36.50 1.6
PAX 2.43 59 P 05 35.70 0.5
SGAM 2.66 117 P 05 37.90 -0.6
GLB 2.98 94 P 05 42.20 -0.9
39 obs. associated

MAR 29, 1993 07h 31m 48.50± 0.73s
13.330 N ± 4.2km 120.408 E ± 5.5km
DEPTH = 56.5 ± 7.2 km
4.9mb (41 obs.) 4.7Msz (12 obs.)
MINDORO, PHILIPPINE ISLANDS (250)
Felt (II RF) at Puerto Galera.

PGP 0.56 72 iPd 31 59.00 -2.0
TGY 0.92 34 iPd 32 06.00 0.4
iS 32 13.00
QVP 1.41 24 iP 32 12.80 0.6
iS 32 32.00
BCP 3.08 4 eP 32 18.00 -17.9X
eS 33 52.00
SZP 4.20 1 ePd 32 56.00 4.5X
CVP 4.56 17 ePc 32 58.00 1.4
PLP 4.96 115 ePd 33 02.20 -0.1
BBP 7.23 12 ePc 33 38.50 4.5X
KKM 8.33 210 eP 33 48.50 -0.9X
e 35 07.00
OIZ 11.62 301 eP 34 28.80 -5.4X
S 36 32.00
SSE 17.70 2 P 36 09.00 16.4X
1.2s 18.00nm
Z 20s 1.40um
N 14s 1.10um
S 39 08.00
sS 39 16.00
SSE 17.70 2 P 35 54.00 1.4
1.2s 18.00nm 4.1mb
Z 20s 1.40um 3.8Msz
N 14s 1.10um
S 39 08.00
sS 39 16.00
WHN 18.02 343 eP 35 56.50 -0.1
Z 20s 4.35um
N 17s 2.94um
E 10s 0.82um
GYA 18.35 317 P 36 01.00 0.2
1.0s 19.00nm 4.2mb
Z 22s 3.35um 4.0MszX
N 16s 1.91um
E 16s 2.29um
LOE 18.46 285 eP 36 03.00 1.0X
AAI 18.59 155 eP 36 04.90 1.3
NJ2 18.69 356 eP 36 04.40 -0.3
Z 18s 1.18um
N 10s 0.55um
NST 19.77 279 eP 36 16.00 -0.8
KGM 20.30 238 ePc 36 23.40 1.0X
KMI 20.37 308 Pc 36 24.50 1.2
2.0s 110.00nm 4.8mb
Z 20s 2.60um 4.6Msz
N 12s 0.70um
E 14s 1.10um
pP 36 33.50 34kmX
SNG 20.40 255 eP 36 23.80 0.4
1.2s 234.38nm 5.4mb
IPM 21.01 247 ePd 36 30.20 0.5
0.8s 55.70nm 4.9mb
KHT 21.21 277 ePd 36 31.50 -0.2
CHTO 21.33 288 iPd 36 33.00 0.2
0.9s 41.13nm 4.8mb
TLE 22.48 146 ePd 36 47.80 3.5X
TIA 22.97 353 eP 36 50.00 1.0
XAN 23.11 335 P 36 49.50 -0.9
1.0s 17.00nm 4.4mb
Z 16s 2.89um 4.8MszX
N 16s 2.33um
E 12s 0.72um
pP 36 56.30 24kmX
sP 37 00.50
PP 37 24.00
CD2 23.27 321 P 36 52.20 0.2
0.9s 130.00nm 5.4mb

29d 07h

```
     Z  19s      3.68um            4.9Msz
     N  15s      2.11um
                  eS     41 02.20
LEM     23.71 213 ePc    37 04.00    7.5X
GUMO    23.79  87 eP     37 05.80    8.8X
     Z  22s      1.01um            4.2Msz
PJG     23.79  87 eP     37 05.20    8.2X
TIY     25.30 345 eP     37 11.50    0.0
     Z  20s      2.99um            4.8Msz
     N  20s      2.99um
                  S      41 36.50
BJI     26.87 353 eP     37 25.00   -0.7
        1.4s     33.00nm            4.7mb
     Z  20s      1.14um            4.4Msz
     N  13s      1.05um
LZH     27.12 330 eP     37 27.00   -1.3
        2.0s     34.00nm            4.6mb
     Z  17s      3.10um            4.9MszX
     E  15s      2.13um
                  sP     37 38.00
                  eS     42 03.00
HHC     28.49 346 eP     37 40.00   -0.6
        1.0s     14.00nm            4.5mb
     Z  18s      1.81um            4.7Msz
     N  18s      1.21um
     E  15s      0.70um
                  S      42 22.00
SNY     28.53   5 eP     37 40.50   -0.2
     Z  18s      1.42um            4.6Msz
     N  17s      1.18um
BTO     28.65 343 eP     37 41.20   -0.8
LSA     31.59 306 P      38 08.40   -0.3
                  S      43 17.00
GTA     31.70 329 P      38 10.00    0.9
     Z  18s      5.14um            5.2Msz
     E  16s      1.23um
                  pP     38 19.00   31kmX
MDJ     32.15  12 eP     38 14.10    1.3
GUN     35.28 300 P      38 40.00   -0.5
PKI     35.58 299 P      38 42.00   -1.0
KKN     35.75 299 P      38 43.60   -0.7
WB2     35.80 157 iPd    38 43.50   -1.0
        0.9s     86.40nm            5.7mb
                  eS     44 16.00
DMN     35.85 299 P      38 44.60   -0.6
GKN     36.36 299 P      38 48.40   -0.9
ASPA    39.07 160 iPc    39 11.80   -0.1
        0.7s     85.30nm            5.7mb
                  eS     45 06.80
ZAK     39.51 343 iPd    39 15.00   -0.2
        1.6s     19.00nm            4.7mb
WARB    39.74 171 eP     39 18.00    0.6
        0.4s      7.00nm            4.9mb
HYB     40.50 281 iPd    39 24.50    0.6
        1.0s     50.00nm            5.3mb
WMQ     41.33 324 P      39 31.50    1.1
     Z  16s      1.87um            5.1MszX
     N  12s      1.23um
                  pP     39 36.50   17kmX
                  eS     45 46.00
                  sS     46 00.00
MOY     41.34 342 eP     39 30.20    0.0
GBA     41.75 276 P      39 35.00    0.9
CTA     41.83 142 iPc    39 35.00    0.4
        1.3s     19.23nm            4.7mb
                  e      39 47.00
NDI     42.87 298 eP     39 41.00   -2.1
BOD     44.68 355 eP     40 01.80    4.5X
        1.4s     13.00nm            4.5mb
QLP     45.94 150 iPc    40 07.40   -0.3
        0.8s    118.00nm            5.9mb
PRZ     46.43 317 eP     40 13.50    1.8
     Z  19s      1.00um            4.8Msz
     E  19s      1.10um
KSH     46.91 312 P      40 14.50   -0.9
     Z  16s      1.79um            5.1MszX
ELT     48.15 333 eP     40 24.00   -0.7
        1.8s     47.00nm            5.2mb
     Z  16s      1.30um            5.0MszX
RMQ     48.23 145 eP     40 25.90    0.2
        1.2s     19.00nm            5.0mb
YAK     49.07   6 eP     40 35.30    3.6X
     Z  18s      0.40um            4.5Msz
FRU     49.12 316 eP     40 32.80    0.3
                  e      41 56.80
STK     49.33 156 eP     40 33.30   -0.8
        0.8s      5.00nm            4.6mb
```

```
ADE     51.07 161 iPd    40 45.80   -1.6
BRS     51.23 142 iPc    40 48.50   -0.2
                  i      40 55.00
                  e      44 12.00
                  e      53 43.00
MGD     51.76  19 eP     40 49.00   -3.3X
                  e      40 56.00
ARMA    52.87 146 eP     41 03.70    2.7
        0.9s     13.00nm            5.0mb
BFD     54.38 158 eP     41 11.00   -0.9
BWA     54.45 151 iPc    41 13.00    0.5
                  ipP    41 19.80   22kmX
                  i      41 29.40
CAN     55.45 152 eP     41 19.40   -0.4
                  i      41 35.60
DZM     57.23 127 iPd    41 32.10   -0.7
TIK     58.50   3 eP     41 38.00   -2.8
        1.0s      9.00nm            4.9mb
                  i      41 47.00
                  e      42 26.00
                  e      45 15.00
MAIO    58.85 304 eP     41 44.00    0.0
        0.8s     10.98nm            5.0mb
NRI     59.64 347 eP     41 45.00   -3.8X
     Z  20s      4.10um            5.6Msz
SVE     62.56 328 ePd    42 07.80   -0.8
        1.2s    100.00nm            5.8mb
                  e      42 47.00
ARU     63.51 327 eP     42 13.00   -1.9X
        1.7s    100.00nm            5.6mb
     Z  16s      1.00um            5.1MszX
                  e      42 30.00
                  e      42 56.00
GRS     69.40 307 eP     42 53.00    0.1
        1.6s     30.00nm            5.0mb
PYA     71.79 312 iPc    43 07.00   -0.1
     Z  12s      1.00um            5.3MszX
                  i      43 23.00
KIV     72.06 312 eP     43 07.10   -1.7
        1.3s     24.00nm            5.0mb
     Z  16s      0.40um            4.8MszX
OBN     75.65 324 eP     43 29.00   -0.2
        1.2s     44.00nm            5.3mb
     Z  16s      1.20um            5.3MszX
     E  20s      1.10um
IMA     76.26  25 eP     43 37.50    4.8X
        0.9s      6.87nm            4.6mb
AVY     78.43 247 iPc    43 46.60    1.0
PUL     78.65 329 (P)    43 45.00   -0.7
VTY     78.65 247 iPc    43 47.80    1.1
KEV     78.78 339 eP     44 04.00   17.7X
FBA     78.80  26 eP     43 51.97    5.4X
        1.1s      9.03nm            4.6mb
SDF     79.34 337 iP     43 52.20    2.8
CSS     80.13 304 eP     43 53.50   -0.8
KAF     80.24 332 iP     43 54.00   -0.3
MNK     81.02 323 eP     44 03.00    4.5X
NUR     81.33 330 eP     44 06.00    6.0X
VRI     83.10 315 eP     44 11.50    1.9
MLR     83.71 315 eP     44 15.00    2.1
UPP     84.89 330 iP     44 18.10   -0.1
UZH     85.39 319 eP     44 22.00    1.0
HFS     86.66 331 eP     44 26.10   -1.0
        0.3s      1.20nm            4.5mb
VAY     87.09 312 iP     44 30.40    0.9
NB2     87.46 333 P      44 29.60   -1.4
        0.9s      9.20nm            5.0mb
NAO     87.71 332 P      44 30.12   -2.0X
SKO     87.74 313 eP     44 32.50   -0.1
RES     89.44   9 eP     44 41.00    0.8
        1.0s      3.00nm            4.6mb
PRU     89.82 322 eP     44 48.70    6.4X
BRG     89.86 323 eP     44 43.20    0.7
        1.1s     20.00nm            5.3mb
                  i      44 49.00
CLL     90.25 323 ePc    44 50.00    5.7X
KHC     90.71 321 eP     44 53.20    6.6X
        1.3s      6.00nm            4.8mb
GEC2    90.74 321 P      44 47.00    0.2
        0.9s      3.39nm            4.7mb
                  e      44 53.10
MOX     91.32 323 eP     44 56.30    7.0X
        1.7s     27.00nm            5.4mb
     Z  21s      1.10um            5.3Msz
GRF     91.92 322 ePKP   44 51.70   -0.4
                  e      44 57.90
YKA     93.22  22 eP     44 56.70   -1.1X
```

```
        1.0s      1.40nm            4.3mb
CDF     94.82 322 eP     45 05.20   -0.3
LPG     96.42 320 eP     45 13.00   -0.2
LPL     96.43 320 eP     45 13.20    0.1
        1.2s     15.45nm            5.4mb
PPD    168.29 221 ePKP   52 09.70   19.3X
                  e      52 20.80
SIV    176.99 152 PKP    52 07.60   13.7X
                  i      52 12.00
   S.D. = 1.0  on  85 of 115 obs.
-------------------------------------------
  MAR  29, 1993  08h 25m 45.47± 0.18s
  24.950 S ± 4.9km  179.886 E ± 4.0km
  DEPTH = 511.2km  (  4 depth phases)
  5.2mb ( 45 obs.)
 SOUTH OF FIJI ISLANDS                (171)

VUN      7.03 349 iP     27 30.00   -3.4X
MBU      8.01 352 eP     27 42.00   -1.4
DZM     12.66 280 iPd    28 33.10    1.2
                  iS     30 52.00
                  ScP    36 14.80
WLZ     13.39 195 P      28 40.80    1.6
        0.5s     11.00nm            4.6mb
URZ     13.48 189 P      28 38.90   -1.2
MNG     16.05 192 P      29 05.60   -0.4
QRZ     16.98 199 P      29 16.30    1.1
        0.6s    202.00nm            5.9mb
THZ     17.74 197 P      29 23.20    0.6
DSZ     18.05 200 P      29 26.80    1.3
KHZ     18.19 195 P      29 26.90    0.1
LTZ     18.86 198 P      29 33.10   -0.3
        0.6s     77.00nm            5.5mb
WVZ     19.58 200 P      29 40.10   -0.1
LMZ     20.64 202 P      29 49.90   -0.2
SBCZ    21.84 200 P      29 59.40   -1.9
LSCZ    21.85 200 P      29 59.70   -1.6
BRS     24.44 258 iP     30 26.00    1.2
        0.9s     22.00nm            4.7mb
                  i      30 32.50   23kmX
                  i      30 41.50
                  i      31 17.00
HNR     24.46 306 eP     30 23.00   -2.1
        0.9s    369.75nm            5.9mb
ARMA    25.57 251 iPc    30 38.50    3.4X
        0.9s     67.00nm            5.2mb
RMQ     28.06 260 iPd    30 58.00    1.3
        1.1s    213.00nm            5.6mb
                  iScP   36 51.00
CNB     28.25 241 iPc    31 00.00    1.6
        0.4s     19.00nm            5.0mb
CAN     28.54 241 iPd    31 01.90    1.0
BWA     28.83 244 iPd    31 02.20   -1.2
AFR     29.17  81 iPc    31 05.30   -1.2
        1.0s    256.80nm            5.7mb
PAE     29.31  82 iPc    31 06.50   -1.2
        1.0s    138.00nm            5.5mb
PPT     29.35  82 iPc    31 07.00   -1.0
        1.1s    203.20nm            5.6mb
PPN     29.49  82 iPc    31 08.20   -1.0
        1.0s    116.80nm            5.4mb
TVO     29.57  82 iPc    31 08.80   -1.2
        0.8s    194.00nm            5.7mb
CMS     30.62 250 iPd    31 19.30    0.4
        0.4s     20.00nm            5.0mb
                  eS     36 59.00
CTA     31.39 272 iPd    31 26.00    0.5
        0.9s     96.64nm            5.4mb
                  i      31 40.00   56kmX
                  eS     35 58.00
                  iScP   37 02.00
PMO     31.78  78 iPc    31 27.90   -0.9
        0.8s    101.00nm            5.4mb
TOO     31.80 238 iPc    31 30.10    1.2
        0.5s     46.00nm            5.3mb
VAH     31.93  79 iPc    31 28.90   -1.1
TPT     32.03  78 iPc    31 30.20   -0.7
        1.1s    302.80nm            5.8mb
QLP     32.09 259 iPd    31 31.70    0.4
        0.4s    138.00nm            5.9mb
TAU     32.15 228 iPd    31 32.90    1.2
RUV     32.17  79 iPc    31 31.20   -0.8
        0.9s    143.50nm            5.5mb
BFD     34.02 240 iPc    31 48.60    1.1
        0.9s     32.00nm            4.9mb
STK     34.25 250 iPd    31 50.30    0.8
        0.4s     26.60nm            5.1mb
```

```
                  e       37 11.50
PMG     34.75 291 iPd     31 52.80  -1.0
        0.9s   218.49nm            5.7mb
FINC    35.66 295 eP      32 00.60  -0.7
ADE     36.82 244 iPd     32 11.40   0.6
ASPA    41.77 262 iPd     32 51.00  -0.1
        1.1s   113.00nm            5.3mb
                  ePP     34 22.10
                  eScP    37 37.70
                  eS      38 26.30
                  eScS    41 57.60
WB2     42.23 267 iPc     32 53.90  -0.8
        0.4s   196.40nm            6.0mb
                  iScP    37 40.90
                  eS      38 38.00
WRA     42.24 267 P       32 54.70  -0.1
FORT    45.86 251 iPd     33 21.90  -1.0
        0.6s   106.00nm            5.5mb
MTN     47.44 275 iPc     33 33.70  -1.4
        0.4s    29.00nm            5.1mb
WARB    47.76 257 iPd     33 36.30  -1.2
        0.3s    23.00nm            5.1mb
TLE     49.04 285 ePd     33 47.00  -0.2
DHH     50.80  27 eP      33 58.15  -1.8
HKL     50.97  29 eP      34 00.34  -1.4
COOL    51.74 249 eP      34 05.30  -1.7
        0.4s    18.00nm            4.8mb
KLB     54.49 248 iPd     34 25.50  -1.1
        0.4s    25.00nm            4.9mb
RKG     54.66 244 eP      34 27.00  -0.7
MEEK    54.72 254 iPd     34 26.70  -1.6
BAL     55.55 249 eP      34 32.70  -1.3
        0.4s    35.00nm            5.0mb
MUN     55.73 247 iPd     34 34.20  -1.0
MRWA    56.43 250 eP      34 39.00  -1.1
        0.4s    13.00nm            4.6mb
NANU    58.46 258 iPd     34 53.60  -0.4
        0.4s    31.00nm            5.0mb
CSY     59.13 206 iPc     34 57.80  -0.1
        0.7s    59.10nm            5.1mb
KKM     69.11 287 eP      36 01.00  -1.0
LEM     71.09 271 ePd     36 13.50  -0.3
BCH     82.48  46 eP      37 15.95   0.9
NTYM    82.86  42 eP      37 17.39   0.7
PKEM    83.00  45 (P)     37 19.31   1.8
SNG     83.36 281 eP      37 21.00   1.3
PLM     83.55  49 iPc     37 21.72   1.2
PEC     83.65  48 iPc     37 21.45   0.6
        0.9s    30.04nm            4.9mb
ISA     83.82  46 ePc     37 22.45   0.7
        0.8s    32.21nm            5.0mb
CMB     84.03  43 iPc     37 23.23   0.6
        0.8s    17.52nm            4.7mb
ORV     84.29  42 ePc     37 24.53   0.7
GSC     84.71  47 iPc     37 26.85   0.7
GLA     84.78  50 iPd     37 28.02   1.6
LBFM    85.19  40 ePc     37 29.19   0.7
TPNV    86.03  46 iPc     37 33.27   0.7
        0.6s    14.63nm            4.9mb
TNP     86.06  45 iPc     37 33.20   0.5
        0.8s    19.00nm            4.9mb
KVN     86.07  44 eP      37 33.07   0.3
SHW     88.08  36 iPc     37 43.25   1.3
ARUT    88.35  47 ePc     37 44.15   0.7
                  epP     39 37.45 507km
VGB     88.44  37 eP      37 44.05   0.5
GMW     88.66  35 ePc     37 45.08   0.6
LON     88.66  36 ePc     37 44.77   0.2
CRP     88.84  13 eP      37 43.92  -1.3
RMW     89.11  35 iPc     37 47.23   0.6
MCW     89.37  34 eP      37 48.35   0.6
MSU     89.58  47 iPc     37 50.41   1.2
                  epP     39 45.01 513km
KMI     89.66 298 Pd      37 51.00   1.1
        1.5s    50.00nm            5.2mb
CHTO    89.95 291 ePd     37 52.60   1.6
        0.9s    21.95nm            5.1mb
DUG     90.08  45 eP      37 51.77   0.4
        1.2s    10.44nm            4.6mb
SRU     90.99  47 iPc     37 56.27   0.6
                  epP     39 50.88 512km
EMUT    91.17  46 ePc     37 57.12   0.6
DAU     91.20  45 ePc     37 57.20   0.5
ALO     91.68  52 iPc     37 59.28   0.4
        0.8s     5.63nm            4.6mb
                  epP     39 54.09 513km
BW06    93.52  44 eP      38 06.51  -0.8
```

```
        0.8s     4.35nm            4.6mb
LCCM    93.71  41 eP      38 08.30   0.4
SES     96.59  37 eP      38 20.00  -0.7
RSSD    97.68  45 eP      38 25.21  -0.8
        0.8s     2.97nm            4.7mb
YKA    101.35  26 ePdiff38 41.60  -0.2
        0.7s     0.20nm           3.8mb X
GUN    104.56 294 Pdiff   39 00.00   2.6X
LMN    124.84  50 ePKP    43 50.00   1.9
NUR    140.57 341 ePKP    44 17.00  -0.2
                  iSKP    47 06.50
NB2    143.10 351 PKP     44 18.00  -3.6X
        0.9s     5.50nm
HFS    143.55 348 ePKP    44 18.70  -3.6X
        0.4s     9.80nm
BCAO   152.84 224 iPKPc   44 46.20   7.9X
        0.5s    13.00nm
                  i       44 59.60
                  i       46 50.40
      S.D. = 1.0  on  97 of 103 obs.
-----------------------------------------
? MAR 29, 1993  08h 37m 56.52± 1.34s
   37.530 N ± 8.6km    2.309 W ±13.6km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                             (377)
     mbLg 2.6 (MDD).

ENIJ     0.56 172 ePg     38 07.80  -0.2
                  eSg     38 14.70
ECOG     1.03 256 ePg     38 16.80   0.7
                  eSg     38 30.50
EVIA     1.12 352 ePg     38 18.00   0.5
                  eSg     38 33.00
EBAN     1.33 299 ePn     38 20.00  -1.1
                  eSn     38 36.00
      S.D. = 1.4  on   4 of   4 obs.
-----------------------------------------
  MAR 29, 1993  09h 17m 04.26± 0.56s
   31.281 S ± 7.1km   68.906 W ± 8.6km
   DEPTH = 102.5 ± 10.7 km
 SAN JUAN PROVINCE, ARGENTINA      (137)
      MD 4.3 (SAN).

ZON      0.33 144 eP      17 20.30   0.8
                  eS      17 31.30
RTLL     0.38  98 iPc     17 19.70  -0.1
RTBS     0.60 231 iPd     17 21.10  -0.2
RTCV     0.66 152 iPd     17 22.30   0.5
RTRS     1.21 337 iPd     17 27.20  -0.2
JACH     2.00 225 iP      17 37.97   0.4
                  iS      18 04.52
RTPR     2.28  65 eP      17 40.80  -0.3
                  (S)     18 06.50
FCH      2.35 210 iP      17 43.36   0.9
                  iS      18 14.22
PEL      2.39 219 iP      17 42.84   0.2
                  iS      18 12.09
SAN      2.63 214 iP      17 46.51   0.7
                  (S)     18 20.61
MRA      2.95 113 iPc     17 50.20   0.1
                  S       18 15.00
CHCH     3.03 209 iP      17 51.10  -0.2
                  iS      18 26.10
LCCH     3.14 225 iP      17 51.16  -1.6
                  iS      18 25.34
CACH     3.17 206 iP      17 54.58   1.3
                  iS      18 32.81
LNV      3.40 218 iP      17 53.90  -2.4
                  iS      18 31.93
CYA      3.91  45 ePc     18 01.50  -1.8
                  (S)     18 38.70
CNCB    14.43   4 P       20 26.00   0.7
LPB     14.70   3 P       20 31.00   2.3
ZOBO    14.94   3 P       20 30.90  -1.0
SIV     16.82  27 (P)     21 13.00  18.2X
      S.D. = 1.2  on  19 of  20 obs.
-----------------------------------------
? MAR 29, 1993  10h 01m 22.99± 7.18s
   36.726 S ±50.1km  177.526 E ±26.0km
   DEPTH = 259.0 ± 42.4 km
 OFF E. COAST OF N. ISLAND, N.Z. (160)

PUZ      1.47 157 P       02 01.90  -0.3
                  S       02 25.70
URZ      1.57 192 P       02 02.00  -0.9
                  S       02 26.90
WLZ      1.92 233 P       02 06.20   0.4
```

```
NOZ      1.93 168 iPc     02 06.40   0.5
PAHZ     2.16 190 P       02 08.30   0.3
WHH      2.30 200 P       02 09.20  -0.2
TTH      2.86 191 P       02 15.60   0.7
WAHZ     3.11 197 P       02 17.60   0.0
TEHZ     3.31 190 P       02 20.00   0.3
PGZ      4.01 194 P       02 27.70   0.0
WEL      5.03 204 P       02 39.40  -0.5
TCW      5.15 208 P       02 40.50  -0.8
THZ      6.18 214 P       02 54.80   0.7
      S.D. = 0.6  on  13 of  13 obs.
-----------------------------------------
   MAR 29, 1993  10h 13m 33.73± 0.41s
   11.045 N ± 4.9km   61.818 W ± 5.7km
   DEPTH =  54.3 ± 20.6 km
 WINDWARD ISLANDS                  ( 95)
      MD 3.8 (TRN).

TCE      0.35 170 iP      13 43.66  -0.1
TRN      0.57 134 iP      13 46.02  -0.1
TPP      0.81 153 eP      13 48.71  -0.4
TBH      0.92 127 eP      13 50.39  -0.3
PIG      0.97  83 eP      13 51.25   0.0
TPR      1.03  82 eP      13 51.85  -0.3
                  eS      14 06.92
BOT      1.09  84 eP      13 53.60   0.7
GRW      1.12   8 eP      13 53.76   0.3
SVV      2.33  15 eP      14 10.35  -0.1
                  eS      14 40.50
SLB      2.87  15 eP      14 17.98  -0.1
                  eS      14 52.96
SLW      3.08  16 eP      14 21.23   0.2
                  eS      14 58.29
TGRV     3.19 227 iP      14 24.10   1.4
BIM      3.53  12 iPc     14 27.15  -0.2
                  S       15 07.50
MVM      3.60  14 ePc     14 28.31  -0.1
FDF      3.72  10 iPc     14 29.78  -0.4
                  S       15 11.50
CRM      3.79  13 iPd     14 31.25   0.2
                  S       15 14.20
GUAN     3.92 254 iPc     14 33.80   0.8
                  iS      15 19.20
MGG      4.87   6 eP      14 46.90   0.6
PAG      4.96   2 eP      14 47.75   0.2
                  S       15 41.00
OLLA     5.01 259 iPd     14 48.10  -0.2
                  iS      15 43.30
DEG      5.29   8 eP      14 50.95  -1.3
MGH      5.65 356 ePd     14 57.47   0.2
                  S       16 00.00
BPA      5.97 360 eP      15 02.60   0.9
NEV      6.10 353 eP      15 03.09  -0.4
MORO     6.38 269 iP      15 05.40  -2.2
                  iS      16 13.10
CEOS     6.72 253 iP      15 07.70  -4.6X
                  iS      16 22.80
TOV      7.94 262 ePn     15 29.50   0.2
                  eS      16 55.60
SDV      8.94 257 ePn     15 39.30  -3.9X
                  eSn     17 15.00
      S.D. = 0.7  on  26 of  28 obs.
-----------------------------------------
   MAR 29, 1993  10h 49m 03.54± 0.40s
   46.950 N ± 3.9km    9.275 E ± 3.7km
   DEPTH =  10.0km  (geophysicist)
 SWITZERLAND                       (544)
      ML 2.5 (LDG), 2.5 (VIE).

LLS      0.21 247 iPd     49 08.40   0.2
VDL      0.48 164 ePc     49 12.40  -1.0
OSS      0.65 114 iPd     49 13.50  -3.2X
ZLA      0.80 312 ePd     49 19.20   0.0
TMA      0.89 198 iP      49 20.90   0.2
SLE      0.97 327 iPc     49 21.80  -0.3
FEL      1.26 318 ePn     49 27.31   0.2
MMK      1.28 226 ePd     49 28.10   0.7
SOTA     1.35  78 iPgc    49 28.20  -0.2
                  iSg     49 46.50
WATA     1.62  75 iPgc    49 33.20   0.9
                  iSg     49 54.40
WTTA     1.64  78 iPgd    49 32.90   0.2
                  iSg     49 54.30
EMS      1.84 242 eP      49 40.60   5.0X
8SF      1.90 299 Pn      49 36.50   0.1
                  Pg      49 39.50
                  Sg      50 06.00
```

29d 10h

CDF 1.99 318 Pn 49 37.10 -0.6
Pg 49 40.00
Sg 50 06.10
HAU 2.25 299 Pn 49 41.10 -0.3
Pg 49 45.90
Sg 50 17.20
GEC2 3.53 56 Pg 50 06.70 7.1X
Sg 50 49.30
LOR 3.71 277 Pg 50 14.70 12.5X
Sg 51 03.00
S.D. = 0.5 on 13 of 17 obs.

----

* MAR 29, 1993 11h 44m 36.24± 1.67s
50.445 N ±21.5km 18.922 E ± 7.3km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 4.1 (WAR).

RAC 0.59 232 iP+ 44 47.80 -0.4
iS 44 55.30
OJC 0.61 112 ePg 44 48.50 0.0
iSg 44 56.80
VRAC 1.89 234 iPnc 45 08.70 0.0
i 45 10.70
eSg 45 33.70
ZST 2.55 209 e(P) 45 17.30 -0.9
e 45 23.90
i 45 30.90
i 45 48.10
SRO 2.66 189 iPn 45 28.10 8.1X
i 45 38.80
i 46 12.60
i 46 26.70
Lg 46 56.00
VKA 2.77 219 eP 45 25.00 3.6X
i 46 03.00
i 46 09.20
PRU 2.85 262 Pn 45 22.20 -0.4
1.0s 99.40nm
Pg 45 29.70
eSg 46 04.50
BUD 2.96 179 ePn 45 30.70 6.5X
SOP 3.17 210 e(P) 45 34.00 6.9X
BRG 3.20 280 iPg 45 39.00 11.5X
iSg 46 17.00
KHC 3.70 251 Pn 45 34.40 -0.4
e 45 41.00
e 45 47.50
eSg 46 29.00
e 46 33.50
GEC2 3.75 247 Pn 45 35.70 0.2
Pg 45 45.70
Sg 46 33.80
CLL 3.85 285 ePg 45 50.00 13.3X
iSg 46 43.90
WET 4.12 254 ePn 45 51.50 10.9X
HOF 4.51 271 iPd 45 51.80 5.7X
i 16 03.00
KBA 4.99 230 eP 45 55.00 1.9
1.0s 56.90nm
i 46 09.80
i 47 07.30
i 47 16.20
S.D. = 1.0 on 8 of 16 obs.

MAR 29, 1993 11h 57m 06.08± 1.15s
37.673 N ± 9.4km 21.389 E ± 8.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.5 (ATH).

VLS 0.81 309 ePg 57 21.00 -0.8
AGG 1.54 28 ePb 57 34.05 0.5
iSb 57 55.44
VLI 1.56 127 ePb 57 33.60 -0.3
ATH 1.87 80 ePb 57 39.50 1.2
IGT 2.03 336 ePn 57 41.30 0.5
eSn 58 07.72
KEK 2.39 329 ePg 57 51.90 6.1X
LIT 2.57 19 ePn 57 48.88 0.4
eSn 58 21.80
KZN 2.65 6 ePn 57 50.10 0.5
PAIG 2.88 38 ePn 57 51.40 -1.4
eSn 58 28.20
FNA 3.11 360 ePn 57 56.00 -0.1
GRG 3.37 13 ePn 57 59.20 -0.7
OHR 3.46 353 iPn 58 02.80 1.6
i 58 09.70
i 58 57.80
SOH 3.49 25 iPn 58 01.84 0.3
VAY 3.76 14 iPn 58 05.00 -0.3
SRS 3.84 26 ePn 58 04.96 -1.5
SKO 4.29 1 ePn 58 09.00 -3.9X
i 58 24.00
GBZT 6.98 61 ePg 59 05.80 14.9X
S.D. = 1.0 on 14 of 17 obs.

% MAR 29, 1993 12h 40m 45.17± 0.64s
43.441 N ± 4.3km 5.465 E ± 5.0km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.8 (STR).

GELF 0.06 205 Pg 40 46.59 -0.3
TREF 0.19 342 Pg 40 48.91 -0.2
PUYF 0.19 62 Pg 40 48.99 -0.2
BERF 0.21 128 Pg 40 49.74 0.3
CDR 0.32 43 ePgd 40 50.70 -0.9
i 40 54.30
PRAF 0.42 330 Pg 40 53.80 0.2
VILF 0.45 24 Pg 40 54.32 0.1
TAVF 0.47 68 Pg 40 54.32 -0.2
GANF 0.64 30 Pg 40 58.30 0.3
SURF 1.42 43 Pg 41 12.91 1.0
Sg 41 33.61
S.D. = 0.6 on 10 of 10 obs.

? MAR 29, 1993 13h 02m 15.06± 4.74s
4.888 S ±57.1km 144.681 E ±16.2km
DEPTH = 72.7 ± 21.4 km
4.1mb (2 obs.)
NEAR N COAST OF NEW GUINEA, PNG.(200)

MDG 1.15 108 eP 02 35.40 -0.5
MNDI 1.62 219 eP 02 43.00 0.7
eS 03 06.00
YYYY 1.86 136 eP 02 44.70 -0.8
LAT 2.91 128 eP 03 01.20 1.3
PMG 5.12 151 eP 03 27.00 -3.9X
WB2 18.03 213 eP 06 20.90 -1.5
0.6s 7.80nm 4.1mb
ASPA 21.37 208 eP 06 59.30 0.9
0.7s 5.70nm 4.0mb
S.D. = 1.7 on 6 of 7 obs.

MAR 29, 1993 13h 11m 48.65± 0.93s
37.657 N ± 7.8km 21.365 E ± 7.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.6 (ATH), 3.5 (THE).

VLS 0.80 310 ePg 12 04.00 -0.3
AGG 1.56 29 ePb 12 16.38 -0.1
eSb 12 37.26
VLI 1.57 126 ePg 12 16.60 0.1
ATH 1.89 80 ePn 12 21.30 0.1
IGT 2.04 337 ePn 12 23.58 0.2
eSn 12 51.54
KEK 2.39 330 ePg 12 35.00 6.5X
LIT 2.59 19 ePn 12 31.50 0.1
eSn 13 03.30
KZN 2.66 7 ePb 12 37.20 4.7X
PAIG 2.90 38 iPn 12 35.18 -0.5
eSn 13 09.54
FNA 3.12 0 ePn 12 39.00 0.1
GRG 3.39 13 ePn 12 42.40 -0.3
OHR 3.48 353 ePn 12 46.50 2.6X
SOH 3.52 25 ePn 12 44.14 -0.3
VAY 3.78 14 ePn 12 49.00 0.9
SKO 4.31 1 ePn 12 53.00 -2.7X
S.D. = 0.4 on 11 of 15 obs.

MAR 29, 1993 13h 40m 59.41± 0.28s
49.179 N ± 2.2km 6.930 E ± 3.1km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.9 (BNS), 2.8 (STR). mbLg
2.7 (UCC).

RUP 0.53 9 ePg 41 09.86 -0.3
LANF 0.61 109 Pg 41 11.53 -0.2
SRBF 0.66 113 Pg 41 12.79 0.2
WLF 0.70 314 iPd 41 12.96 -0.3
iS 41 22.56
HOFF 0.72 109 Pg 41 14.07 0.5
KTD 0.77 79 ePg 41 14.49 0.0
CDF 0.80 163 Pg 41 14.54 -0.5
Sg 41 25.88
ABH 0.81 30 ePg 41 14.48 -0.7
WLS 0.82 160 Pg 41 14.98 -0.3
Sg 41 27.34
ECH 0.98 171 Pg 41 17.93 0.0
Sg 41 32.18
BGG 1.06 14 iPd 41 19.34 0.0
ic 41 19.85
iS 41 33.04
LIBD 1.12 156 Pg 41 21.27 0.8
VITF 1.15 213 Pg 41 20.59 -0.3
TOD 1.30 70 ePg 41 22.76 -0.7
MOF 1.34 174 Pg 41 24.54 0.4
Sg 41 43.23
KOE 1.35 22 iPnd 41 25.06 0.9
0.6s ********nm
iPgc 41 25.32
iS 41 43.76
BSF 1.35 184 Pg 41 24.78 0.4
Sg 41 43.54
STB 1.42 358 iPc 41 24.80 -0.4
ic 41 26.50
iS 41 43.50
TNS 1.44 43 ePnc 41 27.00 1.4
eSn 41 46.90
eSg 41 51.00
FEL 1.49 151 ePg 41 25.95 -0.4
MEM 1.55 338 iPc 41 26.63 -0.4
id 41 28.47
iS 41 46.73
ENN 1.72 338 ePn 41 30.00 0.5
0.4s 118.10nm
iPg 41 32.00
e(Sn) 41 51.50
e(Sg) 41 55.00
DOU 1.77 302 iP 41 30.80 0.5
i 41 33.00
iS 41 52.30
BNS 1.79 5 iPd 41 32.90 2.3X
0.5s 90.00nm
iSg 41 55.50
LOMF 1.83 182 Pn 41 30.83 -0.4
Pg 41 33.89
SNF 2.17 309 P 41 41.30 5.2X
MOX 3.37 62 ePg 42 06.90 13.8X
iSg 42 48.20
SQTA 3.47 123 iP 41 53.40 -1.2
0.3s 7.60nm
WTTA 3.68 120 iPc 41 58.70 0.9
KHC 4.36 88 ePn 42 06.40 -0.9
ePg 42 26.00
e 42 54.40
e 43 02.00
eSg 43 19.00
e 43 27.40
GEC2 4.47 92 Pn 42 08.20 -0.6
Sg 43 23.30
KBA 4.78 114 iPd 42 14.50 1.1
i 42 30.40
i 42 37.00
e 43 09.00
PRU 5.02 78 ePg 42 37.00 20.5X
eSg 43 41.00
TGY 94.38 63 iPd 54 14.00 -6.7X
S.D. = 0.7 on 29 of 34 obs.

& MAR 29, 1993 14h 04m 14.10s
34.955 N 116.779 W
DEPTH = 1.2km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS).

GSC 0.35 357 ePd 04 21.14 0.1
SSK 1.06 226 ePd 04 33.65 -1.3
S 04 48.23
PEC 1.11 197 ePd 04 34.57 -1.1
S 04 48.12
ISA 1.56 298 eP 04 41.28 -1.7
S 05 02.13
PLM 1.60 182 eP 04 41.70 -2.0
S 05 04.61
TPNV 2.04 12 (P) 04 51.87 1.8
GLA 2.50 139 (Pn) 04 56.80 0.2
ePg 05 00.18

BCH 2.72 276 (P) 04 58.18 -1.7
MEMM 3.22 328 (P) 05 10.67 4.0
ARUT 3.91 43 (P) 05 15.15 -1.6
MSU 5.13 45 (Pn) 05 35.69 1.6
11 obs. associated

& MAR 29, 1993 14h 14m 09.11s
61.790 N 150.029 W
DEPTH = 39.2km
3.6mb (2 obs.)
SOUTHERN ALASKA (2)
<AEIC>. ML 3.9 (AEIC), 3.9
(PMR). Felt (III) at Palmer.

PWA 0.16 153 P 14 16.30 0.3
PLRM 0.47 114 iPc 14 18.62 -0.8
PMR 0.47 114 iPd 14 18.29 -1.1
SUA 0.47 227 iPd 14 19.22 -0.4
eS 14 27.79
GHO 0.53 91 iPc 14 19.70 -0.6
eS 14 28.14
PMS 0.59 157 P 14 20.30 -0.8
SKT 0.74 286 iPd 14 22.19 -0.9
eS 14 32.86
SML 0.81 88 iPc 14 23.13 -1.0
eS 14 34.00
PTE 1.05 152 iPc 14 26.47 -1.0
eS 14 41.54
CGLM 1.06 244 eP 14 27.31 -0.5
CPAM 1.15 243 eP 14 28.69 -0.3
CRP 1.15 244 eP 14 28.08 -1.0
SPU 1.15 239 ePc 14 28.28 -0.7
eS 14 44.28
CKN 1.18 242 ePc 14 29.32 -0.1
CP2 1.18 245 eP 14 28.82 -0.8
CKT 1.20 241 ePc 14 29.08 -0.7
NKA 1.20 210 eP 14 31.15 1.5
HUR 1.21 9 eP 14 29.56 -0.2
eS 14 45.47
BGL 1.25 246 ePc 14 29.99 -0.5
CKL 1.26 243 eP 14 30.58 0.0
SCM 1.28 87 iPc 14 30.35 -0.6
SLKM 1.29 184 ePc 14 29.68 -1.3
MPA 1.35 166 iPd 14 30.46 -1.3
eS 14 48.03
TRF 1.67 356 iPc 14 36.08 -0.5
RND 1.71 18 ePc 14 36.62 -0.4
SEW 1.72 170 eP 14 35.40 -1.6
DFR 1.76 228 ePc 14 37.20 -0.6
RDN 1.84 227 eP 14 38.73 -0.3
NCT 1.87 230 ePc 14 38.82 -0.5
RSO 1.88 226 ePc 14 38.96 -0.6
RS2 1.88 226 ePc 14 38.97 -0.6
RS1 1.88 226 ePc 14 39.03 -0.6
RDW 1.88 227 ePc 14 38.96 -0.7
VLZ 1.89 109 iPd 14 38.15 -1.4
eS 15 02.44
RED 1.92 225 ePc 14 39.28 -0.7
eS 15 03.43
KLU 1.98 97 iPd 14 39.91 -1.1
eS 15 04.20
MCK 2.01 14 eP 14 41.41 0.1
BRLK 2.08 192 eP 14 42.95 0.7
eS 15 07.66
TZL 2.19 81 ePd 14 43.82 -0.1
HIN 2.21 128 ePd 14 42.12 -2.0
SDG 2.23 69 ePd 14 44.11 -0.3
ILIM 2.23 221 eP 14 43.74 -0.8
INE 2.28 222 eP 14 44.88 -0.4
CNPM 2.35 195 eP 14 44.59 -1.5
CVA 2.42 119 ePd 14 44.70 -2.4
PAX 2.43 59 eP 14 47.09 -0.3
THY 2.56 49 eP 14 49.97 0.7
OPT 2.66 218 eP 14 51.10 0.5
SGAM 2.67 117 eP 14 47.96 -2.8
SVW 2.77 258 ePc 14 50.06 -2.1
NEA 2.83 8 ePc 14 51.50 -1.4
WRH 2.83 17 eP 14 51.94 -1.0
PDB 2.86 227 eP 14 51.87 -1.5
RAGM 2.96 116 eP 14 52.50 -2.2
AUW 2.96 216 eP 14 56.33 1.6
HDA 2.97 27 eP 14 54.19 -0.8
GLB 2.99 94 ePd 14 53.36 -1.9
CCB 3.04 18 ePd 14 54.53 -1.3
FBA 3.28 17 eP 14 57.65 -1.7
MDM 3.28 13 eP 14 58.31 -1.1
DOT 3.32 53 eP 14 59.94 0.0
GLM 3.42 19 eP 15 00.00 -1.4
CROM 3.48 104 eP 15 01.03 -1.4
BALM 3.77 98 eP 15 03.52 -2.9
SNH 3.86 112 eP 15 06.64 -0.9
KDC 4.24 198 eP 15 09.25 -3.6
CTGM 4.26 97 eP 15 11.71 -1.7
YAH 4.27 106 eP 15 10.96 -2.6
IMA 4.59 341 eP 15 15.44 -2.6
FYU 5.23 22 eP 15 25.54 -1.3
YKA 16.45 72 eP 17 56.70 -1.5
0.8s 1.20nm 3.1mb
RES 23.01 34 eP 19 22.00 11.2
RSSD 31.99 102 eP 20 29.61 -4.0
0.5s 1.26nm 4.0mb
e 20 49.21
MSU 32.86 117 eP 20 38.96 -2.3
e 20 58.37
74 obs. associated

? MAR 29, 1993 14h 27m 16.13± 1.38s
39.150 N ±14.6km 27.405 E ±48.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

IZM 0.76 188 iPg 27 31.00 0.0
iSg 27 42.50
EDC 1.25 16 ePn 27 39.00 -0.3
BNT 1.27 18 ePn 27 40.00 0.3
KCT 1.32 33 iPn 27 40.50 0.0
S.D. = 0.4 on 4 of 4 obs.

? MAR 29, 1993 14h 34m 00.18± 8.61s
1.687 N ±156.km 125.132 E ±17.5km
DEPTH = 132.9 ± 40.1 km
4.6mb (3 obs.)
NORTHERN MOLUCCA SEA (266)

MNI 0.38 230 ePc 34 19.10 -0.1
eS 34 33.00
TNE 2.37 112 eP 34 39.50 0.1
WB2 23.32 158 iPd 38 57.20 -0.2
0.5s 15.90nm 4.7mb
eS 43 04.10
ASPA 26.61 162 iPc 39 27.40 -0.7
0.5s 11.20nm 4.7mb
WARB 27.74 177 eP 39 39.00 0.7
STK 36.86 156 eP 40 57.40 0.1
0.9s 5.20nm 4.3mb
S.D. = 0.7 on 6 of 6 obs.

? MAR 29, 1993 15h 13m 08.93± 0.84s
6.736 S ± 9.6km 147.293 E ± 7.3km
DEPTH = 10.0km (geophysicist)
3.3mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 0.30 284 iPc 13 14.60 -0.6
FINC 0.57 78 eP 13 20.20 -0.3
MDG 2.11 314 eP 13 45.40 0.7
PMG 2.66 183 eP 13 53.00 0.5
WB2 18.17 222 eP 17 22.80 -0.3
0.4s 1.00nm 3.3mb
S.D. = 0.8 on 5 of 5 obs.

MAR 29, 1993 15h 20m 38.68± 0.22s
27.978 N ± 4.3km 52.754 E ± 2.7km
DEPTH = 26.6km (9 depth phases)
5.0mb (78 obs.) 4.8Msz (23 obs.)
SOUTHERN IRAN (353)
Mw 5.2 (HRV). Some damage in the
Khonj area.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 32S, 50C
Centroid Location:
Origin Time 15:20:44.1 0.7
Lat 27.98N 0.05 Lon 52.30E 0.04
Dep 40.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 5.41 0.19 Mtt=-5.01 0.30
Mff=-0.40 0.31 Mrt=-3.39 0.56
Mrf= 2.77 0.53 Mtf= 2.78 0.27
Principal Axes:
T Val= 6.96 Plg=70 Azm=234
N 0.75 8 120
P -7.71 18 28
Best Double Couple:Mo=7.3*10**16
NP1:Strike=104 Dip=28 Slip= 72
NP2: 305 64 99
DHR 2.87 235 ePd 21 25.04 1.5
eS 22 21.97
RYD 6.40 241 eP 22 12.01 -1.7
eS 23 28.87
MJMA 6.99 254 eP 22 21.30 -0.7
eS 23 51.00
TEH 7.82 352 eP 22 33.00 -0.8
QASM 8.43 259 eP 22 35.14 -7.1X
eS 23 02.00
MAIO 10.07 33 eP 23 08.00 3.2X
ASH 11.00 24 eP 23 21.00 3.7X
1.7s 300.00nm 6.2mb X
e 25 30.50
KAT 11.57 14 iP- 23 31.00 5.9X
eS 25 36.00
BAK 12.60 350 eP 23 41.00 2.1
iS 26 09.00
GRS 12.67 337 eP 23 43.00 3.0X
1.8s 40.00nm 5.3mb
N 14s 5.18um
E 14s 10.90um
SHE 13.07 346 eP 23 49.50 4.3X
1.0s 50.00nm 5.6mb
iS 26 16.00
KMTA 13.34 225 ePd 23 44.60 -4.5X
DHJN 13.35 222 iPd 23 45.50 -3.8X
ABHA 13.35 226 eP 23 49.15 -0.1
AYN 14.77 277 eP 24 12.70 5.1X
MTA 15.16 337 eP 24 14.00 1.5
Z 11s 2.50um
N 11s 5.00um
E 11s 5.50um
eS 27 05.00
MASJ 15.25 288 P 24 14.00 0.1
SHMJ 15.41 292 P 24 15.00 -0.9
HRI 15.56 294 eP 24 18.60 0.6
MAK 15.61 345 eP 24 19.00 0.6
Z 16s 5.50um
N 16s 4.50um
E 16s 7.30um
iS 27 15.00
MML 15.63 291 eP 24 20.40 1.6
BADA 15.66 276 eP 24 30.00 10.9X
GAZ 15.97 309 eP 24 24.00 0.9
SAGI 15.97 282 eP 24 24.70 1.5
eS 29 27.60
GRO 16.37 341 eP 24 32.00 3.9X
1.5s 240.00nm 5.1mb
Z 12s 3.00um 4.6MszX
N 18s 4.00um
E 12s 4.50um
eS 27 31.00
PYA 17.82 337 eP 24 47.00 0.7
2.0s 220.00nm 4.9mb
Z 18s 2.00um 4.4Msz
eS 28 08.00
CSS 17.96 298 eP 24 47.30 -0.8
HLW 18.84 281 eP 25 02.00 3.1X
eS 28 30.00
BOM 20.48 112 eP 25 16.60 -0.6
eS 29 04.60
KAS 20.49 316 iPc 25 17.20 -0.1
ANN 20.90 328 eP 25 21.00 -0.2
Z 20s 1.30um 4.3Msz
eS 29 08.00
ELL 21.15 300 iP 25 25.00 0.9
POO 21.51 111 iPc 25 18.40 -9.4X
NDI 21.54 82 eP 25 28.00 0.1
eS 29 39.00
ALT 21.82 306 eP 25 31.00 0.3
KHL 21.96 304 iP 25 33.60 1.4
GPA 22.20 309 eP 25 34.00 -0.5
KSH 22.39 53 P 25 35.90 -0.6
1.0s 40.00nm 4.8mb
Z 20s 3.73um 4.8Msz
N 10s 5.43um
sP 25 46.50
PP 26 06.00
sS 29 55.00
EYL 22.43 310 eP 25 32.00 -4.8X
YER 22.51 300 iP 25 42.20 4.6X
SIM 22.53 324 eP 25 38.00 0.4
Z 16s 2.00um 4.6MszX

29d 15h

```
            eS     29 44.00
AAE  23.01 218 eP  25 47.50   4.6X
FRU  23.08  44 eP  25 48.00   4.8X
     3.0s  180.00nm       5.1mb
   Z 18s    4.40um        5.0Msz
   E 18s    4.50um
            e      25 59.00  43kmX
            e      26 08.20
            e      26 31.50
            eS     30 00.00
IZM  23.66 303 eP  25 51.00   2.2
TLG  25.04  46 eP  26 04.50   2.3
     1.1s   23.00nm       4.7mb
   Z 16s    3.00um        4.9MszX
   N 14s    2.00um
   E 12s    1.30um
            eSS    31 45.00
PRZ  25.34  48 eP  26 08.00   3.0X
ALN  25.41 307 eP  26 06.92   1.4
HYB  25.97 108 eP  26 13.50   2.5
CFR  26.02 318 eP  26 11.00  -0.1
RZN  26.63 308 iPc 26 18.00   0.9
PAIG 26.78 304 iP  26 19.84   1.6
PPE  26.90 319 eP  26 21.00   1.7
GBA  27.07 117 P   26 22.00   1.0
SRS  27.22 306 eP  26 23.76   1.5
VRI  27.23 318 eP  26 24.50   2.2
MM8  27.29 307 iP  26 24.00   1.1
SOH  27.30 306 eP  26 24.72   1.7
PGB  27.34 310 iPc 26 25.00   1.6
MLR  27.51 317 ePd 26 28.00   3.0X
            e      38 29.00
AGG  27.54 301 eP  26 25.32   0.1
CVO  27.54 317 eP  26 28.00   2.9X
LIT  27.71 304 eP  26 26.60  -0.1
KNT  27.73 306 eP  26 27.80   0.9
KKB  27.84 308 iP  26 28.00   0.1
VTS  28.01 309 iPc 26 31.00   1.4
VAY  28.02 306 iP  26 30.70   1.2
GRG  28.02 305 eP  26 30.80   1.2
GKN  28.11  82 P   26 30.00  -0.7
DMN  28.58  83 P   26 34.80  -0.2
KKN  28.71  83 P   26 34.60  -1.5
     0.8s   35.00nm       5.1mb
ARU  28.71   7 eP  26 39.50   4.0X
   Z 20s    2.00um        4.7Msz
   N 20s    1.50um
   E 20s    1.00um
            e      27 30.00 258kmX
            e      32 56.00
FNA  28.71 305 eP  26 36.20   0.4
PKI  28.85  83 P   26 36.40  -1.1
     0.9s   29.00nm       5.0mb
SKO  29.03 307 iP  26 39.30   0.7
   Z 14s    1.49um        4.7MszX
            LR     39 54.00
IGT  29.16 302 eP  26 39.84   0.0
GUN  29.22  82 P   26 40.00  -0.8
     0.8s   28.00nm       5.1mb
OHR  29.23 305 iP  26 39.40  -1.0
     0.8s   85.00nm       5.5mb
SVE  29.36   9 ePd 26 43.00   1.6
   Z 18s    1.50um        4.7Msz
   N 16s    1.20um
   E 16s    0.60um
            eS     31 41.00
GZR  29.43 314 ePd 26 43.00   0.8
OBN  29.52 341 iPc 26 42.60  -0.3
     1.4s  100.00nm       5.4mb
   Z 18s    1.80um        4.7Msz
   N 18s    1.80um
            epP    26 57.00  58kmX
            eS     31 35.00
            eSS    33 11.00
MOS  29.80 343 eP  26 46.00   0.6
     1.5s  100.00nm       5.4mb
   Z 16s    1.20um        4.6MszX
            i      26 52.00  21km
UZH  31.24 320 eP  26 58.30   0.2
     1.3s   72.00nm       5.4mb
   Z 16s    1.20um        4.7MszX
   E 16s    1.00um
MNK  31.81 331 eP  27 01.00  -2.0
   Z 24s    2.70um        4.8MszX
ROI  32.02 301 P   27 15.20  10.0X
WMQ  32.14  51 eP  27 04.50  -1.7
   Z 20s    2.25um        4.9Msz
   N 10s    0.95um
            PP     28 12.00
ORI  32.20 301 P   27 07.60   0.9
TDS  32.21 301 Pd  27 08.80   2.0
MMN  32.52 301 P   27 10.40   1.0
BUD  32.67 316 eP  27 09.60  -1.0
MGR  32.89 301 Pd  27 14.20   1.6
SGO  33.15 302 P   27 15.70   0.8
SRO  33.24 316 iP  27 07.90  -7.7X
            i      27 17.70  34km
OJC  33.45 321 eP  27 16.70  -0.7
     1.4s   75.00nm       5.4mb
            i      27 18.10   5kmX
            i      27 20.80
LSA  33.58  78 P   27 19.20  -0.1
DUI  33.99 304 Pd  27 24.60   2.3
PTJ  34.04 312 eP  27 21.30  -1.4
ZST  34.14 316 eP  27 23.00  -0.4
            e      29 57.10
SOP  34.28 315 ePc 27 24.30  -0.3
VBY  34.39 311 eP  27 25.60   0.0
VKA  34.65 316 eP  27 28.00   0.2
VRAC 34.90 318 iPc 27 30.80   1.0
     1.3s  150.30nm       5.8mb
LJU  35.03 311 eP  27 32.40   1.3
PUL  35.29 340 (P) 27 34.00   0.9
     1.4s   80.00nm       5.5mb
            e      27 47.00  49kmX
ELT  35.30  35 eP  27 33.20   0.0
     1.2s   52.00nm       5.3mb
   Z 15s    4.20um        5.3MszX
            e      28 51.00 402kmX
            e      30 02.00
            eS     33 07.00
            e      35 54.00
            e      37 45.00
MNS  35.43 305 P   27 35.20   0.6
VOY  35.45 311 iPc 27 35.30   0.5
            e      28 03.60 125kmX
ASS  35.58 306 P   27 37.60   1.8
RBL  35.79 312 P   27 36.30  -1.3
KBA  36.13 313 iPc 27 39.90  -0.7
     0.9s   27.00nm       5.2mb
            i      27 53.00  49kmX
CRE  36.20 307 Pd  27 42.40   1.3
SFI  36.33 307 P   27 43.00   1.0
FVI  36.36 312 P   27 40.00  -2.2
PRU  36.39 318 eP  27 41.50  -1.0
            e      27 48.20  23kmX
PGD  36.41 307 P   27 44.40   1.4
GEC2 36.48 316 Pd  27 42.20  -1.2
     1.0s    3.31nm       4.2mb
BHG  36.63 313 iPd 27 44.80   0.2
KHC  36.66 316 P   27 44.00  -0.8
     1.2s   20.00nm       4.9mb
            e      27 56.60  47kmX
            e      28 04.00
FIR  36.72 307 e(P) 27 47.00   1.7
CTI  36.96 310 P   27 46.80  -0.7
BRG  37.09 319 eP  27 48.80   0.4
     1.3s   34.00nm       5.0mb
            i      27 58.20  32km
WET  37.09 316 iPc 27 48.20  -0.3
WTTA 37.30 312 iPc 27 49.70  -0.7
     0.9s   52.60nm       5.4mb
            i      27 51.10   5kmX
WATA 37.36 312 iPc 27 49.50  -1.4
SQTA 37.57 312 iPd 27 51.70  -0.9
OGA  37.59 312 iPc 27 53.50   0.6
     1.2s   34.00nm       5.1mb
NUR  37.67 338 iP  27 52.00  -1.1
     0.6s   14.50nm       5.0mb
CLL  37.81 319 iPc 27 55.10   0.7
     1.4s   48.00nm       5.1mb
            i      28 57.40 312kmX
OSS  38.13 311 ePd 27 57.40   0.0
PGF  38.14 304 eP  27 56.60  -0.9
8OB  38.19 308 P   27 57.20  -0.6
MDI  38.21 309 P   27 55.60  -2.3
GRF  38.29 316 iPc 27 59.30   0.7
     0.9s   32.00nm       5.1mb
   Z 19s    0.40um        4.3Msz
KAF  38.35 340 iP  27 58.20  -0.6
     0.3s    4.50nm       4.7mb
MOX  38.38 318 e(P) 27 57.60  -1.6
   Z 20s    0.50um        4.3Msz
VDL  38.54 311 ePd 28 00.50  -0.4
UER  38.82  41 eP  28 03.40   0.6
     1.8s   59.00nm       5.0mb
            eS     34 06.00
            e      38 12.00
TMA  38.86 310 ePd 28 02.90  -0.6
VAI  38.88 309 P   28 02.40  -1.0
LLS  38.94 311 iPd 28 03.20  -1.1
SBF  39.46 306 eP  28 07.60  -0.8
     0.8s   27.65nm       5.0mb
MMK  39.46 309 Pd  28 08.20  -0.5
SLE  39.49 312 ePd 28 07.50  -1.1
ZLA  39.49 312 ePd 28 08.10  -0.5
DOI  39.69 307 P   28 07.50  -2.9X
UPP  39.83 333 iP  28 10.20  -0.9
DIX  39.85 309 eP  28 10.30  -1.6
8CAO 40.09 241 iPd 28 14.90   1.0
     0.6s    8.00nm       4.6mb
            i      29 03.10 229kmX
EMS  40.17 309 ePd 28 14.30  -0.2
BNI  40.18 308 P   28 11.50  -2.9
LPG  40.20 308 eP  28 13.30  -1.5
     0.7s   18.30nm       4.9mb
LPL  40.21 308 eP  28 13.30  -1.5
     0.8s   21.75nm       4.9mb
GTA  40.37  61 P   28 16.50   0.4
     0.6s   21.00nm       5.0mb
   Z 24s    1.81um        4.8MszX
   E 12s    0.57um
            pP     28 27.00  36km
CDF  40.43 313 eP  28 14.80  -1.6
     0.8s   10.05nm       4.6mb
8SF  40.62 312 eP  28 16.60  -1.4
     0.9s   28.35nm       5.0mb
HAU  40.95 312 eP  28 19.00  -1.6
     0.8s   14.50nm       4.8mb
   Z 23s    0.35um        4.2MszX
WLF  41.45 314 P   28 24.00  -0.5
HFS  41.61 332 eP  28 24.50  -1.2
     0.5s    8.40nm       4.7mb
   Z 18s    0.26um        4.2Msz
            LR     42 36.00
WTS  41.67 318 eP  28 28.00   1.7
     0.9s   37.70nm       5.1mb
ENN  41.86 316 eP  28 29.50   1.5
     1.0s   17.00nm       4.7mb
LBF  42.34 310 eP  28 30.70  -1.3
     0.8s    8.20nm       4.5mb
SMF  42.38 310 eP  28 31.00  -1.3
     0.7s   21.70nm       5.0mb
LOR  42.46 311 eP  28 31.40  -1.6
     0.7s    7.95nm       4.6mb
   Z 20s    0.38um        4.3Msz
DOU  42.53 315 P   28 33.70   0.3
            i      28 39.60  20kmX
SDF  42.57 345 iP  28 34.00   0.5
SSF  42.67 310 eP  28 33.50  -1.2
     0.8s   17.35nm       4.8mb
AVF  42.73 310 eP  28 34.30  -0.9
     0.9s   10.95nm       4.6mb
SNF  42.81 315 P   28 37.00   1.2
MOY  42.95  43 eP  28 38.10   1.3
BGF  43.05 309 eP  28 36.60  -1.2
     0.9s   18.35nm       4.8mb
NB2  43.13 332 P   28 36.80  -1.4
     0.8s    9.40nm       4.6mb
CHTO 43.15  92 eP  28 39.80   0.9
     0.8s   18.30nm       4.9mb
MAF  43.20 309 eP  28 38.10  -0.9
HYF  43.28 310 eP  28 39.10  -0.6
CAF  43.41 307 eP  28 40.00  -0.8
     0.8s   16.50nm       4.9mb
TCF  43.45 309 eP  28 40.10  -1.0
     0.8s   17.20nm       4.9mb
LZH  43.65  66 eP  28 44.00   1.0
     2.0s   51.00nm       5.0mb
   Z 20s    1.49um        4.9Msz
   E 11s    0.34um
BDT  43.78  94 eP  28 42.00  -2.0
RJF  43.83 307 eP  28 43.70  -0.4
     0.8s   21.75nm       5.0mb
LSF  43.91 309 eP  28 43.40  -1.4
LPO  44.01 306 eP  28 45.10  -0.5
     1.3s   45.15nm       5.1mb
ZAK  44.07  45 eP  28 46.00   0.0
     2.3s   81.00nm       5.1mb
   Z 15s    0.69um        4.7MszX
   E 15s    1.44um
```

e 30 36.70 646kmX
eS 35 22.00
eSS 38 32.00
CD2 44.20 73 eP 28 47.60 0.2
Z 16s 0.89um 4.8MszX
N 14s 1.23um
LFF 44.35 307 eP 28 47.80 -0.5
0.9s 46.05nm 5.3mb
KEV 44.37 348 eP 28 48.00 -0.2
0.8s 46.90nm 5.4mb
KHT 44.41 97 eP 28 51.00 1.9
EPF 44.53 304 eP 28 48.30 -1.6
KMI 44.56 82 eP 28 50.00 -0.6
1.0s 40.00nm 5.3mb
Z 20s 0.90um 4.7Msz
E 13s 0.40um
pP 28 55.50 18km
eS 38 09.00
SKS 38 48.00
EGRA 44.99 303 eP 28 54.00 0.5
MFF 45.10 309 eP 28 53.00 -1.4
1.0s 21.60nm 5.0mb
LDF 45.30 312 eP 28 54.10 -1.8
0.4s 9.20nm 5.1mb
NST 45.40 95 eP 29 01.50 4.5X
ECHE 45.52 299 eP 29 02.20 4.3X
FLN 45.56 312 eP 28 56.30 -1.6
Z 22s 0.40um 4.3Msz
GRR 45.76 311 eP 28 58.10 -1.4
LPF 45.85 311 eP 28 58.70 -1.5
0.7s 19.40nm 5.1mb
ELIZ 45.90 304 eP 29 03.50 2.7X
LOE 46.13 92 eP 29 05.00 2.2
NRI 46.23 16 iPc 29 04.60 1.7
1.7s 46.00nm 5.2mb
Z 20s 5.50um 5.5Msz
E 20s 3.30um
e 29 13.00 28km
e 30 57.00
ePPP 31 38.00
eS 35 44.00
eSS 39 08.00
eSSS 40 20.00
ETOR 46.31 301 eP 29 07.50 3.4X
ECRI 46.62 303 eP 29 09.00 2.5X
EVIA 46.77 298 eP 29 09.50 1.7
AVY 46.87 187 iPc 29 11.90 3.1X
VTY 47.05 187 eP 29 13.20 3.1X
HAE 47.31 316 eP 29 11.90 0.2
HGH 47.42 316 eP 29 12.20 -0.4
GYA 47.64 79 eP 29 14.60 -0.2
ECOG 47.73 296 eP 29 17.50 2.1
HTR 47.76 316 eP 29 13.50 -1.8
EGUA 47.77 296 eP 29 16.70 1.1
GUD 47.91 301 eP 29 18.50 1.7
XAN 48.02 68 eP 29 17.40 -0.2
Z 20s 0.97um 4.8Msz
E 16s 0.25um
pP 29 24.00 22km
sP 29 28.00
HCG 48.03 317 eP 29 15.80 -1.6
PAB 48.14 299 eP 29 19.00 0.5
BTO 48.19 59 eP 29 21.40 2.5
N 15s 0.66um
E 12s 0.39um
eS 36 16.00
ELUO 48.25 297 eP 29 21.50 2.1
MTD 48.99 207 iPd 29 26.90 1.7
EPRU 49.08 296 eP 29 26.50 0.7
LSZ 49.15 212 eP 29 29.00 2.5X
HHC 49.34 59 P 29 28.60 0.8
1.2s 12.00nm 4.8mb
Z 11s 1.85um 5.3MszX
EPLA 49.42 300 eP 29 29.00 0.6
DLF 49.88 318 eP 29 31.00 -0.6
DMU 50.17 318 eP 29 35.00 1.2
EVAL 50.21 297 eP 29 34.00 -0.3
DCN 50.33 318 eP 29 34.00 -1.0
TIY 50.33 63 eP 29 35.60 0.2
Z 24s 1.21um 4.8MszX
N 20s 2.30um
IPM 51.40 108 ePc 29 42.20 -1.5
BOD 51.65 37 eP 29 42.70 -2.2
1.4s 32.00nm 5.1mb
BJI 52.93 59 eP 29 54.50 -0.3
Z 20s 1.20um 4.9Msz
N 14s 0.98um

WHN 53.21 71 eP 29 57.00 0.0
Z 12s 1.20um 5.2MszX
BUL 53.23 209 eP 29 57.10 -0.3
TIA 54.28 64 eP 30 04.30 -0.5
NJ2 56.58 68 eP 30 18.00 -3.5X
Z 20s 0.71um 4.8Msz
AKU 56.99 332 eP 30 26.00 2.1
0.9s 23.53nm 5.2mb
LKO 57.68 263 P 30 28.08 -1.5
SNY 58.19 56 eP 30 32.00 -0.6
Z 21s 1.60um 5.1Msz
SLR 58.36 206 eP 30 30.00 -4.2X
Z 20s 3.19um 5.4Msz
KIC 58.42 260 P 30 33.44 -1.2
0.8s 18.00nm 5.2mb
TIC 58.52 260 P 30 34.14 -1.3
LIC 58.73 260 P 30 35.68 -1.2
0.5s 10.50nm 5.2mb
Z 20s 0.34um 4.5Msz
DAG 58.76 345 eP 30 35.00 -1.2
0.8s 5.97nm 4.8mb
CN2 59.18 54 eP 30 39.50 0.0
1.0s 8.10nm 4.8mb
Z 22s 1.26um 5.0Msz
N 12s 0.52um
E 12s 0.38um
epP 30 49.00 31km
eS 38 40.00
eSS 42 40.00
TIK 59.34 21 eP 30 40.00 -0.3
Z 18s 1.10um 5.0Msz
e 31 23.00 186kmX
e 33 00.00
eS 38 53.00
YAK 59.63 32 eP 30 42.20 -0.2
1.5s 28.00nm 5.2mb
Z 17s 2.00um 5.3MszX
N 20s 0.50um
E 16s 1.40um
eS 39 01.00
PRY 59.75 206 eP 30 44.00 0.2
0.6s 9.00nm 5.1mb
BLF 62.20 206 eP 31 01.70 1.3
0.7s 22.00nm 5.4mb
KDS 62.20 270 eP 31 00.50 -0.1
GRM 65.83 204 eP 31 21.50 -2.4
0.6s 37.00nm 5.7mb
MGD 70.01 32 eP 31 48.00 -1.7
Z 16s 0.70um 5.0MszX
E 16s 0.70um
YSS 70.08 47 eP 31 48.00 -2.3
Z 17s 1.30um 5.2MszX
N 17s 0.70um
E 17s 1.30um
e 31 53.60 18km
e 32 18.40
CTB 70.29 92 ePd 31 42.00 -10.1X
RES 75.44 352 eP 32 23.00 1.5
1.0s 2.00nm 4.1mb
IMA 84.09 11 eP 33 07.81 -0.4
0.5s 2.15nm 4.6mb
FBA 86.05 9 eP 33 17.85 0.0
0.9s 3.99nm 4.6mb
YKA 89.28 354 eP 33 34.00 0.6
0.8s 8.30nm 5.1mb
FCC 89.29 343 eP 33 38.50 5.0X
WRA 92.09 111 P 33 47.70 0.6
0.7s 0.30nm 3.8mb X
WB2 92.10 111 eP 33 46.90 -0.2
0.8s 3.30nm 4.8mb
ASPA 93.52 115 eP 33 55.40 1.8
1.1s 6.80nm 5.0mb
PAL 95.43 322 eP 33 58.08 -4.1X
TBR 95.50 323 eP 33 58.61 -4.0X
ZOBO 124.46 269 ePKP 39 36.00 -2.4X
CNCB 124.55 268 PKP 39 40.00 1.5
S.D. = 1.2 on 223 of 262 obs.

MAR 29, 1993 15h 32m 40.57± 0.42s
28.070 N ±11.1km 52.685 E ± 6.5km
DEPTH = 40.0km (geophysicist)
4.3mb (6 obs.)
SOUTHERN IRAN (353)

MAIO 10.03 33 eP 35 19.00 13.8X
GBA 27.17 117 P 38 24.00 1.7
GKN 28.16 83 P 38 31.40 -0.1
DMN 28.63 83 P 38 35.60 -0.2
KKN 28.76 83 P 38 36.20 -0.7
PKI 28.90 83 P 38 37.00 -1.3
GUN 29.26 82 P 38 40.80 -0.8
KHC 36.55 316 eP 39 45.50 1.3
NUR 37.56 338 eP 39 52.60 0.1
CLL 37.70 319 e(P) 39 54.00 0.2
KAF 38.25 340 iP 39 58.40 0.1
0.3s 1.70nm 4.4mb
HFS 41.50 332 eP 40 24.80 -0.3
0.4s 2.60nm 4.3mb
NB2 43.02 332 P 40 37.20 -0.4
0.8s 2.70nm 4.0mb
LKO 57.63 263 P 42 28.86 -0.5
KIC 58.37 260 P 42 34.10 -0.5
TIC 58.48 260 P 42 35.00 -0.3
LIC 58.69 260 P 42 36.00 -0.8
YKA 89.18 354 eP 45 34.10 1.0
0.7s 2.10nm 4.6mb
WRA 92.18 111 P 45 48.80 1.2
0.6s 0.20nm 3.7mb
WB2 92.19 111 eP 45 47.90 0.3
0.9s 1.70nm 4.5mb
S.D. = 0.9 on 19 of 20 obs.

& MAR 29, 1993 15h 37m 21.10s
36.550 N 89.580 W
DEPTH = 10.3km
NEW MADRID, MISSOURI REGION (486)
<SLM-P>. MD 2.7 (SLM), 2.5 (TEIC). mbLg 2.4 (GS). Felt at Catron.

NMMO 0.04 31 ePc 37 23.35 0.1
LDMO 0.14 174 iPc 37 24.37 0.0
OGTN 0.15 150 iPc 37 24.81 0.2
BBTN 0.19 149 iPc 37 26.31 1.0
S 37 29.64
DWM 0.26 16 ePc 37 26.65 0.0
S 37 30.02
ACTN 0.30 133 ePc 37 27.49 0.2
S 37 31.59
GRT 0.31 156 eP 37 27.53 -0.1
MFTN 0.42 159 iPc 37 29.46 -0.2
ELC 0.79 21 ePc 37 35.60 -0.8
eS 37 45.08
LRDO 1.07 238 iPd 37 40.04 -1.2
FVM 1.58 335 eP 37 48.89 -0.3
AFAR 1.63 256 iPd 37 49.62 -0.3
eS 38 10.82
OLY 1.85 236 eP 37 52.79 -0.4
eSg 38 17.49
LGAR 2.09 205 eP 37 56.46 0.0
eS 38 25.94
MIAR 3.82 240 ePn 38 20.19 -1.1
ePg 38 28.29
15 obs. associated

MAR 29, 1993 15h 57m 21.23± 0.31s
44.403 N ± 2.5km 7.284 E ± 3.4km
DEPTH = 12.8 ± 3.6 km
NORTHERN ITALY (545)
ML 2.2 (GEN).

STV 0.16 170 Pd 57 25.47 0.2
S 57 27.99
PZZ 0.17 308 P 57 25.51 0.1
S 57 28.08
ENR 0.20 151 P 57 26.12 0.2
S 57 29.14
TOUF 0.39 184 Pg 57 29.24 -0.2
AUTN 0.42 166 Pg 57 30.00 0.0
Sg 57 35.90
ROB 0.43 104 P 57 30.38 0.2
S 57 36.50
BHB 0.44 358 P 57 29.64 -0.6
S 57 35.35
SAOF 0.46 155 Pg 57 30.50 -0.2
Sg 57 36.62
AURF 0.52 176 Pg 57 31.45 -0.3
Sg 57 38.54
RRL 0.63 326 P 57 33.44 -0.3
S 57 41.95
IMI 0.66 138 P 57 33.80 -0.3
S 57 42.78
FIN 0.69 106 P 57 34.69 0.0
S 57 44.33

29d 15h

CALN 0.71 204 Pg 57 35.18 0.1
RSP 0.75 359 P 57 36.05 0.3
PCP 0.91 81 P 57 38.79 0.3
S 57 50.90
LSD 1.06 355 P 57 41.32 0.2
CDR 1.31 237 eP 57 45.70 0.5
e 58 02.90
S.D. = 0.3 on 17 of 17 obs.

? MAR 29, 1993 17h 50m 58.26± 1.06s
47.259 N ±18.7km 11.453 E ± 6.6km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.3 (VIE).

WATA 0.11 48 iPgd 51 01.40 0.1
iSg 51 03.90
WTTA 0.12 88 iPgc 51 01.40 -0.1
iSg 51 03.40
SOTA 0.17 257 iPgc 51 02.30 0.1
iSg 51 05.40
MOTA 0.25 290 iPgc 51 03.60 -0.1
iSg 51 07.90
S.D. = 0.2 on 4 of 4 obs.

MAR 29, 1993 18h 06m 33.53± 0.32s
38.991 N ± 3.2km 26.343 E ± 2.5km
DEPTH = 17.3 ± 2.6 km
3.9mb (6 obs.)
AEGEAN SEA (365)
ML 3.9 (ATH), 3.8 (THE). MD 4.0
(ISK). Felt at Izmir, Turkey.

PRK 0.26 348 ePg 06 38.50 -1.0
IZM 0.93 129 iPg 06 51.60 0.7
eSg 07 06.60
EDC 1.79 40 iPn 07 04.50 0.6
BNT 1.83 41 iPn 07 04.80 0.4
ALN 1.92 353 ePb 07 09.08 3.4X
eSb 07 29.50
KCT 2.00 50 iPn 07 07.30 0.4
RDO 2.24 344 ePn 07 10.60 0.2
OUR 2.26 307 ePb 07 10.80 0.1
PAIG 2.26 295 ePb 07 11.00 0.3
ATH 2.30 245 ePb 07 17.00 5.8X
YER 2.40 140 ePn 07 13.20 0.4
KHL 2.58 104 ePn 07 15.00 -0.3
CTT 2.68 36 ePn 07 16.30 -0.4
KDZ 2.75 345 iPd 07 17.00 -0.6
YLV 2.82 55 iPn 07 18.00 -0.6
ALT 2.94 88 iPn 07 20.70 0.4
SOH 2.94 309 ePn 07 20.68 0.4
ISK 2.94 44 iPn 07 20.80 0.5
ITU 2.94 43 ePn 07 20.00 -0.3
iSg 08 08.00
RZN 2.97 336 iPd 07 21.00 0.2
GBZT 2.99 52 ePn 07 29.00 8.1X
iSg 08 10.20
SRS 2.99 316 ePn 07 20.72 -0.3
eSn 07 52.00
DMK 3.03 20 iPn 07 21.60 0.1
THE 3.07 303 ePn 07 22.40 0.2
AGG 3.13 272 ePn 07 26.64 3.6X
eSn 07 59.60
HRT 3.14 53 ePn 07 23.30 0.0
LIT 3.18 292 ePn 07 23.76 0.0
eSn 07 58.52
GPA 3.33 66 ePn 07 27.00 1.2
EYL 3.33 61 ePn 07 26.00 0.0
KNT 3.42 310 ePn 07 27.28 0.2
VLI 3.52 231 ePn 07 27.00 -1.6
ELL 3.60 127 ePn 07 30.00 0.1
VAY 3.71 310 iPn 07 32.00 0.7
KZN 3.77 292 ePn 07 32.00 -0.1
NPS 3.77 189 ePn 07 31.00 -1.1
KKB 3.80 320 iPd 07 33.00 0.5
PGB 3.92 336 iP 07 34.00 -0.3
PVL 4.29 350 iP 07 39.00 -0.4
VTS 4.31 328 iP 07 40.00 0.1
OHR 4.75 298 ePn 07 48.00 1.9
SKO 4.78 310 iPn 07 46.80 0.3
PSN 4.89 16 iP 07 47.00 -0.9
KAS 6.16 65 eP 08 06.00 0.0
CMP 6.35 352 ePc 08 08.00 -0.6
MLR 6.50 358 ePc 08 12.00 1.1
SSR 6.80 331 ePd 08 14.00 -0.8
CVO 6.83 359 eP 08 16.00 0.7
TNR 6.83 348 ePd 08 18.00 2.7X
VRI 6.88 2 ePc 08 15.50 -0.5
CSS 6.89 124 eP 08 27.50 11.3X
GZR 6.92 339 ePd 08 15.00 -1.7
PPE 7.28 7 eP 08 25.50 3.9X
LPG 15.88 300 eP 10 24.40 6.4X
0.8s 5.25nm 3.7mb
LPL 15.90 301 eP 10 24.40 6.2X
SMF 18.15 302 eP 10 48.70 2.4
0.7s 4.20nm 3.7mb
AVF 18.52 302 eP 10 51.20 0.5
0.9s 7.70nm 3.9mb
N82 24.00 342 P 11 47.00 -0.8
0.8s 4.40nm 4.1mb
BCAO 35.12 194 ePc 13 38.00 9.9X
0.8s 4.00nm 4.4mb
YKA 74.10 342 eP 18 08.60 -1.4
0.7s 1.00nm 4.0mb
S.D. = 0.8 on 49 of 59 obs.

MAR 29, 1993 18h 26m 45.02± 0.75s
38.963 N ± 7.9km 26.266 E ± 4.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.4 (THE). MD 3.4 (ISK).

IZM 0.96 126 iPg 27 03.60 0.2
iSg 27 16.00
EDC 1.85 41 iPn 27 16.50 -0.6
BNT 1.89 42 iPn 27 17.00 -0.6
ALN 1.94 355 ePn 27 19.50 1.2
eSn 27 48.30
KCT 2.06 51 ePn 27 20.20 0.0
PAIG 2.22 297 ePn 27 22.10 -0.3
eSn 27 57.40
OUR 2.23 309 ePn 27 22.10 -0.5
CTT 2.74 37 ePn 27 30.30 0.4
YLV 2.88 55 ePn 27 32.00 0.1
SRS 2.97 317 ePn 27 33.50 0.4
eSn 28 17.40
DMK 3.07 21 ePn 27 34.00 -0.5
KNT 3.39 311 ePn 27 39.02 0.0
S.D. = 0.6 on 12 of 12 obs.

% MAR 29, 1993 18h 59m 31.19± 0.89s
61.350 N ± 8.1km 5.609 E ± 7.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.3 (BER).

HYA 0.34 123 eP 59 37.43 -0.7
eS 59 41.83
FOO 0.37 313 eP 59 38.58 -0.2
eS 59 46.08
ASK 0.89 193 eP 59 48.20 -0.1
eS 00 02.00
EGD 1.10 190 eP 59 52.10 0.3
eS 00 07.50
NRA0 2.95 99 ePn 00 19.57 0.6
ePg 00 22.32
eLg 00 59.42
S.D. = 0.7 on 5 of 5 obs.

---

* MAR 29, 1993 19h 05m 31.65± 0.68s
5.835 S ± 8.8km 145.313 E ±17.6km
DEPTH = 99.9 ± 12.9 km
EASTERN NEW GUINEA REG., P.N.G. (207)

MDG 0.74 39 eP 05 49.70 0.0
YYYY 0.77 122 iPd 05 49.70 -0.4
eS 06 17.00
LAT 1.87 116 iPd 06 03.90 0.9
PMG 3.99 153 eP 06 31.00 -0.8
WB2 17.61 216 eP 09 32.80 0.6
GUN 66.38 304 P 16 12.80 0.1
PKI 66.65 303 P 16 14.00 -0.4
KKN 66.83 303 P 16 15.40 0.0
DMN 66.91 303 P 16 16.00 0.0
GKN 67.44 303 P 16 19.20 0.0
S.D. = 0.6 on 10 of 10 obs.

MAR 29, 1993 19h 13m 45.08± 1.39s
42.618 N ±11.6km 23.200 E ± 6.5km
DEPTH = 5.0km (geophysicist)
BULGARIA (359)

VTS 0.03 167 iPgc 13 46.00 -0.4
PGB 0.72 95 iPg 13 59.00 -0.4
KKB 0.76 187 iPg 14 00.00 -0.3
VAY 1.38 200 iPn 14 11.40 0.5
SKO 1.46 244 ePn 14 12.00 -0.1
RZN 1.46 129 iPg 14 13.00 0.7
KNT 1.47 189 ePb 14 11.76 -0.5
eSb 14 34.44
SRS 1.53 169 ePb 14 13.76 0.7
eSb 14 37.72
SOH 1.80 176 ePn 14 17.32 0.3
eSn 14 43.00
OUR 2.36 165 ePn 14 24.44 -0.6
SSR 2.48 335 ePd 14 55.00 28.2X
MLR 3.49 34 eP 15 20.00 38.8X
S.D. = 0.6 on 10 of 12 obs.

MAR 29, 1993 19h 33m 18.36± 0.31s
36.368 N ± 3.3km 117.789 W ± 3.2km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 3.4 (GS), 3.8 (BRK). Felt
(III) at Lone Pine, California.

ISA 0.90 218 eP 33 35.20 -0.8
eS 33 46.95
GSC 1.33 143 eP 33 43.86 0.4
TPNV 1.37 64 eP 33 44.78 0.6
eS 34 04.66
MEMM 1.59 325 ePd 33 46.76 -0.4
eS 34 06.63
BONR 1.64 346 iPd 33 47.80 -0.4
FRI 1.66 293 iPc 33 47.44 -0.8
iS 34 07.76
TNP 1.77 15 ePn 33 49.63 -0.4
iPg 33 51.65
PKEM 1.90 261 eP 33 52.30 0.6
eS 34 15.75
SSK 2.15 178 ePn 33 56.01 0.4
eS 34 29.01
PHAM 2.18 257 eP 33 55.97 0.2
BCH 2.21 238 ePn 33 56.18 -0.1
PRI 2.34 265 iPd 33 58.54 0.4
PEC 2.52 168 ePn 34 01.05 0.3
ePg 34 07.05
LLA 2.55 277 iPd 34 00.18 -1.0
CMB 2.66 310 ePc 34 03.89 1.2
eS 34 37.45
KVN 2.69 355 (Pn) 34 02.54 -0.7
eSg 34 45.89
PRS 2.89 270 iPc 34 05.79 -0.2
SAO 2.97 279 eP 34 07.10 0.1
PLM 3.10 166 ePn 34 09.53 0.5
iPg 34 17.46
ARN 3.16 289 ePn 34 10.14 0.4
eSg 34 55.44
MHC 3.24 289 ePc 34 10.87 -0.1
iS 34 56.96
ARUT 3.76 67 ePn 34 19.59 1.2
ePg 34 29.82
eS 35 18.95
GLA 4.11 143 ePn 34 21.91 -1.3
ePg 34 35.75
eS 35 30.48
ORV 4.33 318 (Pn) 34 27.64 1.3
eS 35 27.97
MSU 4.95 63 (Pn) 34 34.33 -1.1
ePg 34 52.20
DUG 5.47 44 ePg 35 01.65 19.0X
HVU 6.66 34 ePg 35 24.43 24.9X
S.D. = 0.8 on 25 of 27 obs.

? MAR 29, 1993 19h 52m 17.63± 7.72s
17.226 N ±42.4km 62.452 W ±41.6km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

MGH 0.55 156 iPc 52 28.95 0.1
BPA 0.60 107 iPd 52 30.10 0.4
SEG 1.22 132 eP 52 39.90 -0.5
PAG 1.40 148 eP 52 43.27 0.0
DOG 1.43 146 eP 52 43.69 0.0
DEG 1.61 124 eP 52 45.75 -0.5
MGC 1.70 140 ePd 52 47.85 0.4
S.D. = 0.5 on 7 of 7 obs.

& MAR 29, 1993 20h 15m 02.38s

36.667 N 121.283 W
DEPTH = 2.4km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.1 (GM).

SAO 0.16 307 ePc 15 05.72 0.1
ARN 0.71 344 ePd 15 16.84 0.3
S 15 27.91
PHAM 1.09 139 eP 15 21.22 -2.5
CMB 1.54 27 eP 15 29.38 -1.6
S 15 49.51
BCH 1.77 146 eP 15 32.02 -2.3
MEMM 2.12 61 eP 15 40.74 1.5
S 16 08.57
ISA 2.48 113 eP 15 43.58 -1.0
S 16 15.63
BONR 2.70 61 ePn 15 47.95 0.1
ePg 15 52.00
8 obs. associated

----

* MAR 29, 1993 20h 15m 39.95± 3.43s
38.611 N ±30.2km 21.720 E ± 8.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (THE).

AGG 0.63 49 ePg 15 54.00 1.4
eSg 16 06.40
IGT 1.42 311 ePb 16 06.48 0.7
eSb 16 30.28
LIT 1.60 22 ePn 16 09.00 0.6
eSn 16 35.96
PAIG 2.01 49 ePn 16 13.40 -0.9
eSn 16 41.40
FNA 2.19 353 ePn 16 16.84 -0.1
OUR 2.46 45 iPn 16 20.04 -0.6
SOH 2.54 29 ePn 16 21.72 -0.2
OHR 2.60 344 ePn 16 21.50 -1.2
KNT 2.70 19 ePn 16 24.16 -0.1
VAY 2.78 13 ePn 16 25.40 0.0
SKO 3.36 356 ePn 16 34.00 0.4
S.D. = 0.8 on 11 of 11 obs.

----

* MAR 29, 1993 20h 23m 57.39± 0.85s
1.063 N ±14.3km 127.005 E ±12.0km
DEPTH = 67.0 ± 8.6 km
4.7mb (6 obs.)
HALMAHERA, INDONESIA (267)

TNE 0.42 129 iP 24 08.50 -0.8
MNI 2.20 280 ePc 24 33.00 0.7
eS 25 32.80
SWI 4.66 114 iPd 25 08.00 1.0
WB2 22.08 161 eP 28 47.70 -0.7
0.6s 19.40nm 4.7mb
eS 32 49.10
ASPA 25.48 165 eP 29 20.30 -0.8
0.4s 9.00nm 4.6mb
Z 21s 0.10um 3.3Msz
eS 33 44.60
STK 35.56 158 eP 30 50.40 0.2
0.5s 2.60nm 4.4mb
BRS 37.61 141 iPd 31 08.50 0.9
0.6s 6.00nm 4.7mb
ARMA 39.12 145 eP 31 23.90 3.7X
0.6s 13.00nm 5.0mb
BJI 40.03 347 eP 31 26.50 -0.9
1.2s 33.00nm 5.1mb
MAIO 71.35 308 iPd 35 12.80 0.4
S.D. = 1.0 on 9 of 10 obs.

& MAR 29, 1993 20h 59m 52.35s
59.842 N 152.813 W
DEPTH = 85.7km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.25 343 eP 00 04.51 -0.8
INE 0.25 330 eP 00 04.79 -0.6
S 00 14.79
INW 0.28 325 eP 00 04.61 -0.9
eS 00 15.13
OPT 0.28 228 eP 00 04.69 -0.7
AUL 0.56 215 eP 00 06.62 -0.7
AUE 0.56 211 eP 00 06.51 -0.8
AUH 0.58 214 eP 00 06.93 -0.7
RED 0.58 2 eP 00 06.71 -0.9
eS 00 17.86
AUW 0.58 216 eP 00 06.91 -0.6
AUI 0.60 212 eP 00 06.87 -0.8
eS 00 17.88
eS 00 18.02
RS1 0.62 3 eP 00 07.41 -0.7
eS 00 19.29
RS2 0.62 3 eP 00 07.53 -0.7
eS 00 19.84
RDW 0.64 0 eP 00 07.66 -0.7
PDB 0.70 266 iP 00 07.94 -0.7
eS 00 20.23
NCT 0.72 355 eP 00 08.26 -0.8
eS 00 20.54
DFR 0.76 5 eP 00 08.63 -0.7
eS 00 21.11
CNPM 0.86 111 eP 00 09.62 -0.8
eS 00 22.94
BRLK 0.98 94 eP 00 10.89 -0.9
eS 00 25.03
MCNL 1.02 230 eP 00 11.17 -1.1
eS 00 25.51
NKA 1.20 40 eP 00 14.82 0.4
SYI 1.25 170 eP 00 14.30 -0.8
CKT 1.40 12 eP 00 16.23 -0.8
eS 00 34.52
SPU 1.40 15 eP 00 16.36 -0.6
eS 00 34.53
CKN 1.42 12 eP 00 16.88 -0.4
BGL 1.44 8 eP 00 17.36 -0.3
CP2 1.45 11 eP 00 17.27 -0.7
CPAM 1.46 13 eP 00 17.37 -0.5
SLKM 1.46 62 eP 00 16.47 -1.3
CRP 1.47 13 eP 00 17.12 -0.9
SEW 1.71 80 eP 00 20.77 -0.3
MPA 1.84 68 eP 00 21.65 -1.2
SVW 1.88 314 eP 00 21.67 -1.8
SUA 1.92 31 eP 00 23.60 -0.4
PMS 2.14 47 P 00 26.00 -0.8
PTE 2.14 60 eP 00 25.61 -1.3
SKT 2.24 16 eP 00 27.17 -1.0
PWA 2.32 37 P 00 29.20 0.0
GHO 2.72 43 eP 00 33.16 -1.7
SML 2.95 46 eP 00 35.98 -2.0
HIN 3.21 77 eP 00 39.67 -1.9
SCM 3.35 51 eP 00 41.51 -2.0
KLU 3.77 61 eP 00 46.57 -2.9
42 obs. associated

& MAR 29, 1993 21h 15m 26.50s
61.413 N 149.120 W
DEPTH = 40.3km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.1 (AEIC), 2.6
(PMR).

PLRM 0.18 358 iP 15 33.24 -0.4
PMR 0.18 358 iPc 15 32.97 -0.7
PMS 0.27 232 P 15 34.20 -0.4
GHO 0.37 14 iP 15 35.30 -0.4
eS 15 42.56
PWA 0.43 304 P 15 36.00 -0.4
S 15 43.50
SML 0.55 43 iP 15 37.10 -0.8
PTE 0.55 175 iP 15 37.16 -0.8
eS 15 45.18
SUA 0.78 274 iP 15 41.02 -0.3
MPA 0.93 187 eP 15 42.27 -1.0
eS 15 55.06
SCM 0.95 63 eP 15 42.95 -0.7
SLKM 1.06 211 eP 15 44.54 -0.5
eS 15 59.51
NKA 1.23 238 eP 15 49.42 2.0
SKT 1.28 297 iP 15 48.46 0.2
eS 16 05.70
eS 16 05.82
SEW 1.32 187 eP 15 48.23 -0.6
VLZ 1.38 101 P 15 48.90 -0.6
S 16 06.70
SPU 1.44 262 eP 15 50.51 0.0
CPAM 1.47 265 eP 15 51.68 0.7
eS 16 10.14
CRP 1.47 266 ePc 15 51.12 0.0
eS 16 09.04
CKN 1.49 264 eP 15 51.90 0.7
CKT 1.50 263 eP 15 51.85 0.4
CP2 1.51 266 eP 15 52.03 0.3
KLU 1.54 86 eP 15 51.32 -0.6
eS 16 10.85
CKL 1.57 263 eP 15 52.55 0.1
BGL 1.58 266 eP 15 53.18 0.6
HUR 1.59 351 eP 15 53.58 1.0
eS 16 13.22
HIN 1.64 127 eP 15 52.74 -0.6
eS 16 14.50
CVA 1.86 116 eP 15 56.88 0.5
BRLK 1.87 209 eP 15 56.38 -0.3
S 16 20.19
TZL 1.87 69 eP 15 57.15 0.5
DFR 1.92 246 eP 15 57.43 0.0
RND 2.00 3 eP 15 56.88 -1.8
RSO 2.01 243 eP 15 59.09 0.2
RS2 2.02 243 eP 15 58.79 -0.2
RS1 2.02 243 eP 15 58.98 0.0
SDG 2.03 55 eP 15 59.27 0.3
RDW 2.03 244 eP 15 59.11 0.0
NCT 2.04 247 eP 15 59.41 0.2
RED 2.04 242 eP 15 59.40 0.2
SGAM 2.12 114 eP 16 00.74 0.5
TRF 2.12 346 eP 16 01.17 0.8
CNPM 2.16 210 eP 16 00.60 -0.3
ILIM 2.31 236 eP 16 03.10 0.1
PAX 2.32 46 eP 16 03.79 0.6
MCK 2.33 2 eP 16 02.98 -0.3
RAGM 2.40 113 eP 16 05.89 1.6
GLB 2.55 87 eP 16 05.45 -1.0
CRQM 2.98 100 eP 16 12.23 -0.3
TGL 3.13 99 eP 16 14.29 -0.3
SVW 3.16 267 eP 16 13.40 -1.6
HDA 3.16 17 eP 16 12.38 -2.7
BALM 3.30 94 eP 16 15.29 -1.8
CCB 3.30 10 eP 16 16.95 0.0
FBA 3.55 9 ePn 16 19.75 -0.8
TTA 3.57 298 ePnc 16 19.30 -1.6
CTGM 3.80 93 eP 16 23.82 -0.4
IMA 5.09 339 ePn 16 40.69 -1.7
56 obs. associated

? MAR 29, 1993 21h 39m 40.62± 4.28s
5.813 S ±38.8km 146.916 E ±49.9km
DEPTH = 182.7 ± 17.5 km
4.5mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 0.85 174 eP 40 07.90 0.1
eS 40 30.80
YYYY 1.03 246 iPc 40 09.60 0.3
MDG 1.26 296 eP 40 10.70 -0.2
PMG 3.58 176 iPd 40 36.80 -0.2
CTA 14.20 183 iP 42 59.00 4.0X
WB2 18.61 220 eP 43 46.10 -0.7
0.2s 7.10nm 4.8mb
ASPA 21.73 214 iPd 44 18.90 0.8
0.6s 5.90nm 4.3mb
S.D. = 0.8 on 6 of 7 obs.

? MAR 29, 1993 22h 29m 35.50± 2.45s
34.593 S ±25.7km 70.496 W ±18.0km
DEPTH = 120.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.8 (SAN).

CACH 0.48 350 iP 29 53.80 0.0
iS 30 07.90
CHCH 0.67 349 iP 29 54.70 -0.2
iS 30 09.54
LNV 0.99 310 iP 29 57.82 0.2
iS 30 14.09
SAN 1.15 353 iP 29 59.35 0.0
iS 30 16.53
FCH 1.27 8 iP 30 01.13 0.1
iS 30 20.34
LCCH 1.43 321 iP 30 02.37 -0.1
iS 30 22.26
PEL 1.45 354 iP 30 02.89 0.1
iS 30 22.82
JACH 1.91 358 iP 30 08.26 -0.1
iS 30 32.70
RTBS 3.05 17 e(P)c 30 23.20 0.1
S.D. = 0.1 on 9 of 9 obs.

MAR 29, 1993 22h 47m 18.26± 0.49s
37.673 N ± 4.9km 21.298 E ± 3.4km
DEPTH = 10.0km (geophysicist)

29d 22h

4.2mb (16 obs.)
SOUTHERN GREECE (368)
ML 4.1 (TTG), 4.0 (TIR), 3.9
(ATH), 3.9 (THE).

VLS	0.75	312	ePg	47 34.60	1.6
AGG	1.57	31	ePb	47 47.52	1.2
			eSb	48 07.96	
VLI	1.62	126	ePb	47 47.50	0.6
ATH	1.94	80	ePb	47 50.30	-1.2
IGT	2.00	338	ePn	47 54.04	1.5
			eSn	48 20.20	
KEK	2.35	331	ePn	47 59.00	1.5
SRN	2.43	336	ePn	48 00.50	2.0
			iSn	48 32.80	
LIT	2.60	21	ePn	48 01.00	0.0
			eSn	48 34.00	
KZN	2.66	8	ePn	48 03.80	1.9
TPE	2.80	339	ePn	48 02.40	-1.5
PAIG	2.92	39	ePn	48 05.40	-0.2
			eSn	48 41.28	
FNA	3.11	1	ePn	48 09.24	1.0
			eSn	48 47.00	
VLO	3.12	334	ePn	48 10.70	2.3X
			iSn	48 56.50	
THE	3.23	23	ePn	48 10.20	0.3
OUR	3.38	37	iPn	48 12.21	0.1
GRG	3.39	14	ePn	48 12.52	0.3
OHR	3.46	354	iPnd	48 14.60	1.4
			i	48 23.70	
			i	48 54.70	
			i	49 12.50	
SOH	3.53	26	ePn	48 14.64	0.4
KNT	3.70	19	ePn	48 17.00	0.3
			eSn	49 01.00	
VAY	3.77	15	iPn	48 18.00	0.3
TIR	3.83	344	iPnd	48 19.00	0.5
			iSn	49 10.00	
SRS	3.87	27	ePn	48 19.32	0.2
GRI	4.01	288	P	48 24.59	3.6X
PHP	4.06	351	ePn	48 21.10	-0.7
			iSn	49 14.80	
LACI	4.14	343	iPnd	48 23.00	0.1
			iSn	49 16.50	
SOI	4.17	277	P	48 24.38	1.1
NPS	4.23	123	ePb	48 29.00	4.8X
SKO	4.29	1	iPn	48 25.00	-0.1
			iPb	48 35.00	
			iPg	48 39.00	
			iSn	49 13.30	
			LR	50 10.00	
GMB	4.33	278	P	48 26.67	1.0
MMB	4.34	25	iP	48 26.00	0.2
TDS	4.36	299	P	48 30.87	4.8X
KKB	4.41	18	eP	48 28.00	1.3
BRT	4.51	316	P	48 29.53	1.4
ULC	4.57	340	iPnd	48 28.13	-0.8
			iSn	49 19.04	
IZM	4.76	79	iP	48 30.70	-1.2
RZN	4.80	32	iPc	48 32.00	-0.5
BDV	4.98	338	iPnd	48 33.53	-1.3
			iSn	49 28.64	
TTG	5.00	342	iPnd	48 34.04	-1.0
			iSn	49 30.10	
PVY	5.02	349	iPnd	48 35.57	0.1
			iSn	49 32.22	
MEU	5.10	266	P	48 36.59	-0.1
MGR	5.11	301	P	48 39.75	3.1X
PZI	5.13	265	P	48 35.81	-1.1
VTS	5.13	16	eP	48 37.00	0.0
HCY	5.23	337	iPnd	48 36.48	-1.8
			iSn	49 34.07	
IVA	5.30	349	iPnd	48 39.35	-0.1
			iSn	49 39.20	
NKY	5.43	342	iPnd	48 39.87	-1.4
			iSn	49 40.34	
SGO	5.48	304	P	48 43.52	1.7
BRY	5.63	339	iPnd	48 42.14	-2.0
			iSn	49 44.54	
EDC	5.77	60	eP	48 46.00	0.1
BNT	5.81	61	eP	48 47.00	0.4
PLE	5.83	346	iPnd	48 46.23	-0.7
			iSn	49 51.23	
PVL	6.33	28	eP	48 50.00	-3.9X
DUI	6.61	309	P	49 00.45	2.5X
HVAR	6.63	328	ePn	48 55.40	-2.6X
SDI	7.04	307	P	49 05.82	2.0
CMP	8.09	19	ePd	49 23.00	4.4X
MLR	8.55	23	eP	49 26.50	1.4X
VBY	9.04	332	ePn	49 28.90	-2.7X
			iSn	51 07.50	
ZAG	9.05	336	eP	49 28.50	-3.3X
PTJ	9.13	336	eP	49 28.60	-4.5X
VRI	9.14	25	eP	49 31.00	-2.0X
RIY	9.25	328	eP	49 31.40	-3.1X
CEY	9.55	330	eP	49 36.00	-2.8X
			eS	51 22.50	
LJU	9.76	331	eP	49 38.50	-3.2X
			e(S)	51 29.00	
TRI	9.80	327	e(Pn)	49 40.00	-2.2X
			e(Sn)	51 28.70	
VOY	10.01	329	iPc	49 42.70	-2.4X
			eS	51 30.50	
PSZ	10.29	355	eP	49 45.50	-3.5X
SRO	10.37	349	eP	49 46.80	-3.2X
ZST	10.95	345	e(P)	49 53.30	-4.7X
			e	50 12.60	
KBA	11.08	331	iPc	49 57.10	-2.8X
			i	50 01.10	
WTTA	11.94	326	iPc	50 10.30	-1.2
	1.1s		15.00nm		5.2mb X
GEC2	12.45	336	Pn	50 14.50	-3.9X
			Sn	52 29.90	
KHC	12.74	336	P	50 23.00	0.8
	1.0s		5.40nm		4.7mb X
			e	50 33.00	
			e	52 41.00	
PRU	13.23	341	P	50 38.00	9.4X
LPG	13.39	310	eP	50 32.30	1.2
	0.9s		5.75nm		4.6mb X
LPL	13.41	310	eP	50 32.10	0.8
GRF	14.04	332	eP	50 39.20	0.0
	Z 18s		0.50um		
			ic	50 47.20	
BSF	14.69	318	eP	50 46.00	-2.0
	1.1s		19.55nm		4.6mb X
MOX	14.69	335	e(P)	50 44.00	-3.9X
CDF	14.82	321	eP	50 48.60	-1.0
CLL	14.85	339	eP	50 55.00	5.2X
	1.1s		14.00nm		4.4mb
HAU	15.04	318	eP	50 51.50	-0.9
	0.8s		13.45nm		4.4mb
LBF	15.80	312	eP	51 01.10	-1.3
	1.0s		10.00nm		4.0mb
LOR	16.02	312	eP	51 06.30	1.2
SSF	16.12	311	eP	51 06.70	0.3
	0.7s		6.05nm		3.8mb
WLF	16.20	323	iPc	51 13.29	5.9X
	1.3s		14.90nm		4.0mb
BGF	16.29	309	eP	51 08.70	0.2
	1.0s		11.00nm		3.9mb
DOU	17.25	321	P	51 24.40	3.8X
	0.7s		5.50nm		3.8mb
LDF	19.00	312	eP	51 40.90	-1.4
	0.9s		14.75nm		4.2mb
FLN	19.29	312	eP	51 44.50	-1.4
	0.9s		19.65nm		4.4mb
LPF	19.31	310	eP	51 44.40	-1.7
	1.0s		16.00nm		4.2mb
GRR	19.35	311	eP	51 44.80	-1.8
	1.0s		14.00nm		4.2mb
OBN	20.30	26	eP	52 03.00	6.3X
			e	52 30.00	
NUR	22.96	4	eP	52 26.00	2.6X
HFS	23.00	350	eP	52 21.30	-2.6X
	0.4s		4.70nm		4.3mb
	Z 16s		0.16um		3.5MszX
			LR	00 51.00	
EKA	24.19	325	P	52 35.00	-0.5
	0.7s		12.30nm		4.6mb
NB2	24.24	348	P	52 33.90	-2.1
	0.7s		4.80nm		4.2mb
KAF	24.66	6	eP	52 38.70	-1.3
BCAO	33.18	185	iPd	53 57.00	-0.2
	0.5s		3.00nm		4.5mb
LKO	37.03	228	P	54 30.20	0.1X
KIC	39.14	224	(P)	54 48.70	0.9
GKN	53.20	81	P	56 34.00	-5.1X
DMN	53.75	81	P	56 38.00	-5.2X
	0.6s		11.00nm		5.0mb X
KKN	53.80	81	P	56 38.20	-5.4X
PKI	54.00	81	P	56 39.60	-5.6X
GUN	54.21	80	P	56 41.40	-5.3X
YKA	74.07	340	eP	58 58.10	2.3
	0.6s		0.50nm		3.7mb

S.D. = 1.2 on 69 of 107 obs.

MAR 29, 1993 23h 45m 45.57± 0.45s
44.864 N ± 3.5km 7.636 E ± 5.0km
DEPTH = 24.5 ± 7.8 km
NORTHERN ITALY (545)
ML 2.3 (GEN), 1.9 (LDG).

BHB	0.27	265	Pd	45 52.44	0.3
			S	45 57.11	
RSP	0.39	317	P	45 53.97	-0.2
			S	45 59.58	
PZZ	0.52	227	P	45 55.35	-0.9
			S	46 02.51	
ROB	0.59	164	P	45 57.67	0.4
			S	46 06.08	
RRL	0.61	276	P	45 57.46	-0.2
			S	46 05.65	
ENR	0.66	194	P	45 57.79	-0.6
			S	46 06.22	
STV	0.66	200	P	45 57.42	-1.0
			S	46 05.71	
LSD	0.68	330	P	45 58.73	-0.3
			S	46 07.27	
PCP	0.72	116	P	45 59.92	0.4
			S	46 09.68	
FIN	0.77	148	P	46 00.73	0.4
			S	46 10.88	
ORX	0.81	17	P	45 59.98	-1.0
			S	46 09.87	
LPG	0.89	316	Pg	46 03.10	0.6
			Sg	46 13.80	
LPL	0.91	316	Pg	46 03.50	0.7
			Sg	46 14.00	
IMI	0.97	169	P	46 03.58	0.0
			S	46 15.35	
SBF	1.01	188	Pg	46 03.60	-0.6
			Sg	46 15.90	
FRF	1.48	209	Pg	46 11.50	0.6
			Sg	46 29.70	
LRG	1.68	214	Pg	46 15.10	1.4
			Sg	46 36.50	

S.D. = 0.7 on 17 of 17 obs.

• MAR 30, 1993 00h 07m 30.42± 1.27s
36.548 N ±13.2km 70.842 E ± 8.0km
DEPTH = 184.8 ± 15.6 km
4.6mb (9 obs.)
HINDU KUSH REGION, AFGHANISTAN (718)

QUE	7.13	208	eP	09 13.40	0.1
			eS	10 32.60	
MAIO	9.15	272	ePn	09 39.00	-0.8
			eSn	11 06.00	
NDI	9.50	144	eP	09 44.50	0.2
GKN	14.44	122	P	10 48.00	0.4
	0.5s		19.00nm		4.7mb
DMN	15.01	122	P	10 54.80	0.0
	0.6s		19.00nm		4.7mb
KKN	15.01	121	P	10 54.40	-0.4
	0.8s		44.00nm		4.9mb
PKI	15.24	122	P	10 57.40	-0.3
	0.6s		23.00nm		4.8mb
GUN	15.35	120	P	10 59.20	0.1
GBA	23.60	164	P	12 27.00	1.3
HFS	42.95	322	eP	15 12.70	0.5
	0.5s		5.20nm		4.3mb
NB2	44.27	323	P	15 23.00	0.2
	0.6s		6.30nm		4.3mb
YKA	81.20	3	eP	19 27.10	0.9
	0.4s		0.60nm		3.7mb
WB2	82.13	122	iPc	19 30.00	-1.7
	0.4s		5.90nm		4.7mb
ASPA	84.38	125	iPd	19 42.40	-0.7
	0.9s		6.10nm		4.4mb

S.D. = 0.9 on 14 of 14 obs.

MAR 30, 1993 00h 09m 50.87± 0.46s
44.577 N ± 4.2km 111.185 W ± 4.7km
DEPTH = 5.0km (geophysicist)
HEBGEN LAKE REGION (458)
ML 3.4 (BUT).

TPMT	0.38	294	iPd	09 59.00	0.5
LTMT	0.66	266	eP	10 04.47	0.3
MEMT	1.04	8	iPc	10 10.37	-0.7

MCMT 1.21 283 iPd 10 14.01 -0.1
LCCM 1.35 339 iPd 10 16.26 -0.2
LRM 1.53 325 ePn 10 19.32 0.1
HBMT 1.58 321 ePn 10 20.20 0.4
BUT 1.73 326 ePg 10 23.57 1.6X
eSn 10 45.10
eSg 10 46.18
BW06 2.15 146 eP 10 29.15 1.0
S 10 57.70
HRY 2.18 348 ePn 10 28.42 0.0
HVU 3.03 203 eP 10 39.26 -1.3
NCM 3.51 319 iPnd 10 47.30 -0.1
DAU 4.16 181 eP 10 56.58 -0.2
RSSD 5.15 93 eP 11 10.87 0.2
S.D. = 0.6 on 13 of 14 obs.

MAR 30, 1993 00h 33m 29.43± 0.26s
49.181 N ± 2.1km 6.916 E ± 3.0km
DEPTH = 7.5 ± 2.2 km
GERMANY (543)
ML 3.3 (STR), 3.1 (GRF), 2.9 (BNS).

RUP 0.53 10 ePg 33 40.33 0.2
LANF 0.62 109 Pg 33 41.65 -0.2
SRBF 0.67 113 Pg 33 42.76 -0.1
WLF 0.70 314 iPd 33 43.36 0.0
iS 33 53.00
HOFF 0.73 109 Pg 33 44.11 0.1
CDF 0.81 163 Pg 33 44.48 -0.9
Sg 33 56.62
ABH 0.81 30 ePg 33 45.40 -0.1
WLS 0.82 159 Pg 33 44.79 -0.8
Sg 33 57.73
STR 0.82 137 Pg 33 45.90 0.4
ECH 0.98 170 Pg 33 47.52 -0.8
Sg 34 02.48
BGG 1.06 15 ePnd 33 49.82 0.2
iPgc 33 50.92
iS 34 05.40
LIBD 1.13 156 Pg 33 51.61 0.8
VITF 1.14 213 Pg 33 50.44 -0.6
Sg 34 05.65
TOD 1.30 70 ePg 33 52.82 -1.0
MOF 1.34 174 Pg 33 54.49 0.1
Sg 34 12.89
BSF 1.35 184 Pg 33 55.05 0.4
Sg 34 13.09
KOE 1.35 23 ePnc 33 54.40 -0.2
iPgc 33 55.68
iS 34 15.30
STB 1.42 358 iPc 33 55.15 -0.4
FEL 1.50 150 ePg 33 55.74 -1.0
MEM 1.55 338 iPc 33 57.01 -0.3
id 33 59.16
iS 34 19.39
ENN 1.71 338 ePn 34 00.00 0.3
0.6s 59.90nm
iPgc 34 02.00
e(Sn) 34 25.50
e(Sg) 34 29.50
SLE 1.76 143 eP 34 00.30 -0.2
DOU 1.77 302 P 34 00.30 -0.2
i 34 03.70
iS 34 24.00
BNS 1.79 5 iPd 34 03.50 2.6X
0.7s 95.00nm
iSg 34 27.30
LOMF 1.83 182 Pn 34 00.81 -0.8
Pg 34 03.82
ZLA 1.96 149 eP 34 06.80 3.3X
SNF 2.16 309 iP 34 07.30 1.0
LLS 2.70 148 ePd 34 14.90 0.7
WTS 2.82 359 ePn 34 25.00 9.4X
0.7s 13.70nm
iPg 34 31.60
e 34 49.00
eS 35 04.50
GRF 2.86 78 e(Pn) 34 21.60 5.4X
ePg 34 25.60
eSg 35 02.00
EMS 3.11 180 eP 34 18.80 -1.2
DIX 3.12 174 ePc 34 19.70 -0.4
VDL 3.20 146 ePd 34 22.20 1.0
MMK 3.21 167 ePc 34 21.70 0.3
OSS 3.31 138 ePc 34 23.90 1.2
TMA 3.35 156 Pc 34 24.20 0.9
MOX 3.37 62 ePg 34 36.00 12.5X
eSg 35 17.60
HOF 3.41 69 eP 34 35.20 11.1X
OGA 3.60 128 iPc 34 28.30 1.4
WTTA 3.69 120 iPc 34 28.80 0.6
WET 3.91 88 ePn 34 31.10 -0.1
BHG 4.23 108 iPc 34 35.90 0.3
KHC 4.37 88 Pn 34 36.50 -1.2
e 34 57.00
e 35 30.00
eSg 35 46.50
CLL 4.45 59 ePg 34 57.00 18.2X
eSg 35 59.00
GEC2 4.48 92 Pn 34 38.40 -0.9
Pg 34 58.90
Sn 35 31.10
Sg 35 52.80
KBA 4.79 114 iPc 34 44.40 0.6
0.4s 7.30nm
i 35 01.30
i 35 06.40
e 35 40.00
BRG 4.84 67 iPg 35 02.00 17.7X
iSg 36 03.00
PRU 5.03 78 ePg 35 06.00 19.1X
Sg 36 13.50
S.D. = 0.7 on 39 of 48 obs.

? MAR 30, 1993 01h 10m 26.51± 2.25s
17.910 N ±29.7km 66.109 W ±12.4km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

SJG 0.20 349 iP 10 32.70 -0.5
CPD 0.22 55 P 10 33.10 -0.3
CSB 0.38 353 P 10 41.70 6.3X
S 10 51.70
LPR 0.46 30 P 10 37.10 0.6
S 10 44.10
PORP 0.52 286 P 10 37.00 -0.5
MGP 0.94 276 P 10 44.00 0.7
S.D. = 0.8 on 5 of 6 obs.

• MAR 30, 1993 01h 22m 24.80± 2.38s
17.439 N ±14.2km 61.161 W ±15.5km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
MD 3.2 (TRN). ML 3.3 (FDF).

CPB 0.67 288 eP 22 38.01 0.0
eS 22 48.56
BPA 0.77 240 eP 22 40.13 0.3
S 22 51.50
SEG 1.08 198 eP 22 45.00 -0.1
DEG 1.12 175 eP 22 45.40 -0.5
S 23 03.90
MGH 1.24 235 eP 22 47.65 -0.2
NEV 1.38 258 eP 22 49.87 -0.2
S 23 09.20
PAG 1.49 200 eP 22 51.80 0.2
S 23 12.66
MGG 1.52 186 eP 22 52.64 0.6
S.D. = 0.4 on 8 of 8 obs.

MAR 30, 1993 01h 31m 38.68± 0.30s
16.058 S ±12.6km 173.990 W ± 9.9km
DEPTH = 136.1km (7 depth phases)
4.6mb (15 obs.)
TONGA ISLANDS (173)

VUN 7.48 254 iPc 33 33.00 6.6X
DZM 19.43 249 iPd 35 57.20 0.2
URZ 23.47 198 P 36 37.30 0.5
CTA 37.95 258 P 38 46.50 1.7
CMS 39.61 240 iPc 38 58.60 0.1
0.7s 15.00nm 4.9mb
iPcP 39 33.30
TOO 41.61 231 iPd 39 15.30 0.4
0.6s 12.00nm 4.8mb
STK 43.22 240 iPc 39 28.70 0.7
0.7s 7.00nm 4.5mb
WB2 49.13 257 iPc 40 14.40 -0.3
0.5s 32.20nm 5.4mb
WRA 49.14 257 P 40 15.80 1.0
ASPA 49.37 252 iPc 40 16.30 -0.2
0.7s 64.70nm 5.5mb
WARB 55.89 249 eP 41 04.00 -0.8
COOL 60.56 243 eP 41 35.80 -1.4
MEEK 63.04 248 eP 41 53.00 -0.8
KLB 63.43 242 eP 41 55.50 -0.8
BAL 64.39 243 eP 42 02.00 -0.5
MUN 64.72 242 eP 42 04.00 -0.7
MRWA 65.12 245 eP 42 06.40 -0.8
NANU 66.31 252 eP 42 15.60 0.7
0.4s 17.00nm 5.3mb
GSC 74.45 46 eP 43 03.54 -0.3
GLA 74.65 48 eP 43 05.41 0.4
LBFM 74.70 38 eP 43 05.00 -0.4
TNP 75.70 43 eP 43 10.96 -0.2
1.0s 10.36nm 4.5mb
ARUT 78.06 45 eP 43 24.66 0.5
RMW 78.57 33 eP 43 26.59 0.0
epP 44 01.05 137km
CRP 79.01 11 eP 43 27.99 -0.8
MSU 79.29 45 eP 43 31.51 0.6
epP 44 05.12 133km
DUG 79.73 43 eP 43 32.95 -0.1
0.8s 3.25nm 4.1mb
epP 44 07.20 136km
TTA 79.98 8 eP 43 34.55 0.7
1.3s 7.96nm 4.3mb
ALQ 81.65 50 iPd 43 43.87 0.5
1.4s 15.49nm 4.6mb
epP 44 17.45 133km
BW06 83.14 42 iPd 43 50.56 -0.3
0.8s 8.88nm 4.7mb
epP 44 25.25 137km
FBA 83.14 11 eP 43 50.23 0.1
0.8s 11.63nm 4.8mb
e 43 59.44
epP 44 25.84 141km
LCCM 83.23 38 ePd 43 51.30 0.1
GOL 84.52 46 eP 43 58.22 0.3
1.0s 7.98nm 4.5mb
ipP 44 32.73 136km
SES 86.06 35 ePd 44 09.90 4.8X
pP 44 15.00 16kmX
RSSD 87.33 43 eP 44 10.48 -1.1
0.5s 1.78nm 4.3mb
YKA 90.92 24 eP 44 27.50 -0.2
0.8s 1.10nm 4.1mb
MOX 145.20 354 ePKP 51 11.10 9.6X
1.4s 14.00nm
PRU 145.46 350 PKP 51 03.00 1.1
e 51 11.50
GRF 146.19 354 iPKPd 51 06.30 3.1X
e 51 10.70
e 51 15.10
KHC 146.44 351 ePKP 51 06.50 2.8X
ZST 146.68 346 e(PKP)51 07.10 3.1X
GEC2 146.70 351 PKP 51 06.70 2.5X
0.7s 2.07nm
e 51 15.30
e 51 18.10
e 57 07.40
e 57 18.80
FLN 146.95 8 ePKP 51 07.40 3.0X
1.1s 19.55nm
GRR 147.27 8 ePKP 51 08.50 3.6X
LPF 147.59 9 ePKP 51 09.10 3.7X
CDF 147.72 358 ePKP 51 09.60 3.8X
0.7s 4.40nm
HAU 148.14 360 ePKP 51 10.80 4.4X
BSF 148.31 359 ePKP 51 11.00 4.2X
LOR 148.83 3 ePKP 51 12.60 5.1X
0.8s 5.35nm
SSF 149.02 3 ePKP 51 13.30 5.5X
1.1s 12.20nm
LBF 149.12 3 ePKP 51 13.20 5.2X
1.2s 14.90nm
BGF 149.48 4 ePKP 51 14.00 5.5X
1.0s 9.00nm
VBY 149.63 347 ePKP 51 15.00 6.3X
LSF 149.67 6 ePKP 51 15.10 6.3X
1.2s 20.85nm
MAF 149.79 5 ePKP 51 14.90 5.9X
1.0s 12.00nm
LPL 150.63 359 ePKP 51 17.80 7.3X
0.8s 4.05nm
LPG 150.64 359 ePKP 51 18.00 7.3X
0.9s 6.55nm
S.D. = 0.7 on 35 of 57 obs.

? MAR 30, 1993 01h 48m 08.85± 1.19s

30d 01h

47.249 N ±17.2km 11.458 E ± 6.1km
DEPTH = 5.0km (geophysicist)
AUSTRIA (546)
ML 0.9 (VIE).

WATA 0.12 43 iPgc 48 11.50 0.0
iSg 48 14.00
WTTA 0.12 83 iPgc 48 11.50 0.0
iSg 48 13.60
SQTA 0.17 261 iPgc 48 12.50 0.0
iSg 48 15.60
MOTA 0.26 292 iPgd 48 14.10 -0.1
iSg 48 18.60
S.D. = 0.1 on 4 of 4 obs.

? MAR 30, 1993 02h 42m 37.06± 3.06s
29.568 S ±20.9km 69.400 W ±28.9km
DEPTH = 130.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

RTLL 1.93 156 ePd 43 10.70 0.0
RTCB 1.98 165 ePd 43 11.00 -0.3
S 43 36.50
RTBS 2.09 181 eP 43 12.60 0.1
RTCV 2.40 162 ePd 43 16.80 0.2
S 43 46.20
CYA 3.35 71 iPd 43 29.00 0.0
S 44 08.30
MRA 4.25 133 e(P) 43 41.00 0.0
S.D. = 0.2 on 6 of 6 obs.

MAR 30, 1993 02h 59m 25.36± 1.33s
37.633 N ±10.9km 21.372 E ± 9.7km
DEPTH = 10.0km (geophysicist)
3.6mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.6 (ATH), 3.6 (THE).

VLS 0.82 311 ePg 59 42.20 0.9
VLI 1.55 126 ePb 59 53.00 0.0
AGG 1.58 28 ePb 59 52.68 -0.8
eSb 00 15.60
ATH 1.89 79 ePb 59 58.80 0.9
IGT 2.06 337 ePn 00 02.00 1.5
eSn 00 33.50
KEK 2.41 330 ePg 00 13.90 8.4X
LIT 2.61 19 ePn 00 09.52 1.2
eSn 00 44.08
KZN 2.69 7 ePn 00 10.50 1.0
PAIG 2.92 38 ePn 00 11.40 -1.2
iSn 00 47.80
THE 3.24 22 ePn 00 18.20 1.0
eSn 00 56.68
GRG 3.41 13 ePn 00 19.08 -0.6
eSn 01 01.68
OHR 3.50 353 ePn 00 19.00 -2.0
SOH 3.54 25 ePn 00 21.08 -0.4
eSn 01 05.37
KNT 3.72 18 ePn 00 24.60 0.6
eSn 01 09.24
VAY 3.80 14 iPn 00 26.00 0.9
SRS 3.88 26 ePn 00 26.56 0.2
eSn 01 11.40
SKO 4.33 1 ePn 00 32.00 -0.8
i 00 43.00
NB2 24.29 348 P 04 41.10 -2.5
0.8s 1.40nm 3.6mb
S.D. = 1.2 on 17 of 18 obs.

? MAR 30, 1993 03h 31m 54.41± 1.22s
39.705 N ±11.7km 27.595 E ±28.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.6 (ISK).

EDC 0.67 18 iPg 32 07.50 -0.3
eSg 32 18.00
BNT 0.70 21 iPg 32 08.50 0.3
iSg 32 18.50
KCT 0.80 47 ePg 32 09.90 0.0
eSg 32 21.00
IZM 1.33 191 ePn 32 19.00 0.0
S.D. = 0.4 on 4 of 4 obs.

? MAR 30, 1993 03h 50m 54.70±19.36s
37.190 N ±160.km 21.446 E ±22.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.1 (THE).

AGG 1.96 21 ePb 51 29.36 1.1
eSb 51 50.20
IGT 2.50 340 ePn 51 36.04 0.0
eSn 52 05.50
LIT 3.02 15 ePn 51 43.88 0.5
eSn 52 17.44
PAIG 3.25 32 ePn 51 46.52 -0.1
SOH 3.92 22 ePn 51 55.84 -0.4
KNT 4.12 15 ePn 51 58.00 -1.1
S.D. = 0.9 on 6 of 6 obs.

* MAR 30, 1993 03h 55m 26.67± 0.79s
30.715 S ± 8.6km 179.521 W ±13.0km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
KERMADEC ISLANDS REGION (177)

RAO 2.02 44 eP 55 59.00 0.0
iS 56 21.30
PUZ 7.57 193 eP 57 17.50 0.1
eS 58 38.50
URZ 8.02 199 eP 57 24.10 0.3
MOZ 9.07 209 P 57 47.00 8.7X
MNG 10.68 201 eP 57 55.70 -4.7X
S 59 53.80
THZ 12.60 207 eP 58 26.40 0.0
KHZ 12.94 204 eP 58 25.50 -5.2X
eS 00 45.90
LTZ 13.71 206 eP 58 39.60 -1.5
ODZ 16.26 206 eP 59 15.00 1.0
CTA 32.56 281 iPd 01 58.00 0.9
STK 33.13 258 eP 02 03.00 1.0
0.4s 5.10nm 4.8mb
ASPA 41.79 268 iPd 03 14.40 -0.5
0.9s 6.50nm 4.4mb
WB2 42.79 273 eP 03 21.70 -1.4
0.3s 11.50nm 5.1mb
e 04 00.10
NB2 148.85 350 PKP 15 00.40 -7.3X
0.8s 3.00nm
S.D. = 1.0 on 10 of 14 obs.

MAR 30, 1993 03h 58m 54.10± 1.05s
37.690 N ± 9.1km 21.571 E ± 8.3km
DEPTH = 10.2 ± 4.3 km
SOUTHERN GREECE (368)
ML 3.4 (ATH), 3.2 (THE).

VLS 0.92 302 ePn 59 11.40 -0.2
AGG 1.46 24 ePb 59 19.60 -0.9
eSb 59 41.68
VLI 1.46 131 ePn 59 20.00 -0.5
ATH 1.72 80 ePn 59 25.50 1.3
IGT 2.08 333 ePn 59 29.96 0.5
iSn 00 01.92
LIT 2.51 16 ePn 59 38.44 2.8X
eSn 00 10.48
KZN 2.62 3 ePn 59 37.00 -0.2
PAIG 2.78 36 ePn 59 39.16 -0.2
eSn 00 14.36
FNA 3.09 357 ePn 59 44.00 0.1
SOH 3.42 23 ePn 59 47.24 -1.3
OHR 3.47 350 ePn 59 48.50 -0.7
KNT 3.62 16 ePn 59 51.32 0.0
VAY 3.71 12 ePn 59 53.00 0.4
SKO 4.28 359 ePn 00 02.50 1.8
S.D. = 1.0 on 13 of 14 obs.

? MAR 30, 1993 04h 03m 32.48± 1.19s
30.875 S ±11.4km 117.180 E ±14.5km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

BAL 0.49 303 iPd 03 41.90 -0.5
eS 03 48.30
KLB 0.87 145 eP 03 49.00 -0.2
eS 04 00.00
MUN 1.38 217 eP 03 58.00 0.3
eS 04 15.00
MRWA 1.94 328 eP 04 06.30 0.4
eS 04 31.00
S.D. = 0.7 on 4 of 4 obs.

MAR 30, 1993 04h 24m 13.03± 1.04s
37.635 N ± 9.0km 21.327 E ± 6.2km
DEPTH = 60.4 ± 8.7 km
3.8mb (8 obs.)
SOUTHERN GREECE (368)
MD 3.7 (ATH).

VLS 0.80 313 ePn 24 27.10 -1.5
VLI 1.58 125 ePn 24 40.00 0.9
AGG 1.59 29 ePb 24 39.44 0.1
eSb 24 59.68
ATH 1.92 79 ePn 24 44.60 0.7
IGT 2.05 338 iPn 24 46.24 0.6
eSn 25 12.80
KEK 2.40 331 ePn 24 51.00 0.5
SRN 2.47 336 ePn 24 52.40 0.8
LIT 2.62 20 ePn 24 55.00 1.2
eSn 25 27.10
KZN 2.69 7 ePn 24 55.50 0.7
TPE 2.85 339 ePn 24 55.00 -2.0
PAIG 2.94 38 ePn 24 58.00 -0.2
eSn 25 33.48
FNA 3.14 1 iPn 25 01.68 0.4
eSn 25 38.48
VLO 3.17 334 ePn 25 03.60 2.1X
GRG 3.42 14 ePn 25 04.52 -0.6
OHR 3.50 353 iPn 25 06.30 0.1
i 25 15.40
i 25 59.50
i 26 06.10
SOH 3.55 26 ePn 25 06.60 -0.3
KNT 3.73 19 ePn 25 09.76 0.4
VAY 3.80 14 iPn 25 10.00 -0.4
TIR 3.88 343 ePn 25 11.30 -0.1
SRS 3.90 26 ePn 25 11.64 -0.1
PHP 4.10 351 ePn 25 14.20 -0.4
iSn 26 07.20
LACI 4.19 343 iPnd 25 15.00 -0.8
NPS 4.19 123 ePb 25 24.50 8.6X
SKO 4.33 1 ePn 25 17.00 -0.9
MMB 4.36 24 iP 25 20.00 1.7
KKB 4.44 17 iP 25 21.00 1.7
SDA 4.63 343 ePn 25 22.30 0.3
RZN 4.82 32 iPd 25 24.00 -0.9
VTS 5.16 16 eP 25 29.00 -0.6
HVAR 6.67 328 iPn 25 47.70 -2.9X
MLR 8.58 22 eP 26 22.00 4.9X
VBY 9.08 332 ePn 26 20.60 -3.3X
VRI 9.16 24 eP 26 28.00 3.0X
PTJ 9.18 336 eP 26 20.90 -4.4X
PPE 9.77 27 eP 26 24.00 -9.3X
LJU 9.81 331 e(Pn) 26 30.00 -3.8X
e 26 46.00
eSn 28 34.50
VOY 10.05 329 eP 26 34.80 -2.4
eS 28 27.00
GEC2 12.50 336 Pn 27 08.00 -2.1X
Sn 29 20.80
KHC 12.79 336 eP 27 11.50 -2.3X
e 27 26.00
BSF 14.74 318 eP 27 46.50 7.1X
LBF 15.85 312 eP 27 57.00 3.4X
0.6s 2.70nm 3.6mb
SSF 16.16 311 eP 28 02.40 4.8X
0.7s 3.30nm 3.6mb
LDF 19.04 312 eP 28 34.50 1.6
0.8s 10.75nm 4.1mb
FLN 19.33 312 eP 28 37.60 1.6
0.7s 6.60nm 4.0mb
HFS 23.04 350 eP 29 13.80 0.4
0.4s 1.70nm 3.8mb
Z 16s 0.06um 3.1MszX
LR 38 02.00
EKA 24.24 325 P 29 28.00 2.9X
1.3s 22.80nm 4.5mb
NB2 24.28 348 P 29 25.70 0.2
0.5s 1.50nm 3.7mb
GKN 53.18 81 P 33 26.40 -1.0
DMN 53.73 81 P 33 30.60 -0.9
KKN 53.78 81 P 33 30.60 -1.2
GUN 54.20 80 P 33 33.80 -1.2
YKA 74.12 340 eP 35 46.00 1.9
0.6s 0.20nm 3.2mb
S.D. = 1.1 on 37 of 52 obs.

% MAR 30, 1993 05h 03m 01.06± 0.86s
44.422 N ± 7.1km 7.220 E ±10.2km
DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
ML 1.6 (GEN).

PZZ 0.12 314 P 03 04.18 0.0
S 03 06.06
STV 0.19 157 P 03 05.33 -0.1
S 03 07.71
ENR 0.24 144 P 03 06.34 0.0
S 03 09.33
BHB 0.42 4 P 03 09.63 0.0
S 03 15.66
ROB 0.48 105 P 03 10.90 0.0
S 03 17.31
S.D. = 0.1 on 5 of 5 obs.

MAR 30, 1993 05h 23m 57.95± 0.16s
22.089 S ± 3.7km 67.325 W ± 3.9km
DEPTH = 184.3km (40 depth phases)
5.3mb (68 obs.)
CHILE-BOLIVIA BORDER REGION (124)
Mw 5.8 (HRV). Felt (III) at
Antofagasta and Taltal, Chile.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 38S, 81C
Centroid Location:
Origin Time 05:24: 3.8 0.2
Lat 21.98S 0.02 Lon 67.28W 0.02
Dep 179.5 0.8 Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-0.64 0.10 Mtt=-0.19 0.14
Mff= 0.83 0.14 Mrt= 0.26 0.10
Mrf=-5.12 0.10 Mtf= 3.85 0.12
Principal Axes:
T Val= 6.51 Plg=31 Azm=119
N -0.10 37 2
P -6.41 38 237
Best Double Couple:Mo=6.5*10**17
NP1:Strike=264 Dip=37 Slip= -6
NP2: 359 86 -127

YJA 1.69 93 iPd 24 32.00 -1.0
HJA 2.10 123 iPd 24 36.20 -0.5
SLA 3.12 148 iPc 24 47.20 -1.7
S 25 19.40
ANT 3.27 240 iP+ 24 42.00 -8.6X
iS 25 17.50
FSA 4.15 163 iPc 24 59.20 -2.5
CCH 4.81 14 Pc 25 10.00 -0.6
CNCB 5.29 353 iPc 25 18.20 1.2
LPB 5.58 352 iPc 25 20.90 0.3
CYA 6.48 168 iPd 25 28.40 -3.7X
S 26 40.00
ARE 6.84 324 iPc 25 32.00 -5.2X
iS 25 44.50
RTPR 8.21 175 ePd 25 48.70 -6.2X
S 27 15.00
RTRS 8.27 193 ePd 25 50.00 -5.7X
RTLL 9.26 186 iPc 26 01.70 -7.0X
RTCB 9.45 188 ePd 26 04.50 -6.7X
ZON 9.50 187 eP 26 04.00 -7.8X
eS 27 42.00
RTBS 9.72 191 e(P)d 26 08.40 -6.2X
RTCV 9.79 186 ePd 26 08.90 -6.8X
MRA 10.38 172 ePc 26 16.30 -6.9X
MDZ 10.84 187 iP 26 25.20 -4.1X
(S) 28 39.50
e 29 24.00
e 30 06.00
IHA 11.55 198 eP 26 33.00 -5.3X
eS 28 32.60
NNA 13.55 316 iPc 27 00.80 -3.2X
1.0s 320.00nm 5.7mb
iS 29 31.00
PPD 14.85 93 eP 27 19.70 -0.5
e 27 23.60
e 27 36.80
e 30 06.40
BAO 19.38 74 iPd 28 11.00 -1.0
e 29 05.90
i 31 42.10
i 32 47.90
i 33 22.00
i 37 25.50
BDF 19.45 74 iPd 28 12.00 -0.7
i 31 43.00
i 37 09.80

CDCB 21.16 89 ePc 28 29.10 -0.7
i 28 30.50 5kmX
e 28 58.30
e 29 30.90
SOB1 28.43 67 eP 29 35.50 -2.1
e 30 15.90 200kmX
SDV 30.95 354 iPc 29 58.00 -2.0
iS 35 14.70
TOV 31.77 355 ePc 30 05.50 -1.5
CAR 32.39 1 iPd 30 20.00 7.5X
iS 35 20.00
TRN 33.05 11 eP 30 18.35 0.4
GRW 34.49 10 eP 30 31.10 0.7
SLB 36.22 10 eP 30 43.73 -1.2
BIM 36.89 10 eP 30 49.46 -1.1
MVM 36.96 10 iPc 30 50.59 -0.5
FDF 37.09 10 iPc 30 51.41 -0.8
CRM 37.15 10 iPc 30 52.13 -0.5
MGP 39.85 0 P 31 13.00 -2.0
PORP 39.90 1 P 31 13.50 -1.9
CS8 40.15 2 P 31 15.00 -2.5
LPR 40.17 2 (P) 31 15.00 -2.7X
AIA 43.19 178 eP 31 41.30 -0.5
OXX 48.42 321 iP 32 24.30 0.6
IISM 50.30 322 iP 32 38.30 0.5
MRX 53.11 319 (P) 32 59.00 0.3
HBF 56.11 347 eP 33 18.85 -1.4
SGS 56.39 347 ePd 33 21.22 -1.0
epP 34 02.35 179km
GOGA 57.30 344 ePd 33 26.52 -2.0
0.7s 23.67nm 5.1mb
epP 34 09.95 190km
e 34 19.36
JSC 57.60 346 iPd 33 29.42 -1.3
epP 34 12.42 187km
PRM 57.67 345 ePd 33 29.86 -1.3
epP 34 12.67 186km
LHS 57.70 347 iPd 33 30.14 -1.2
epP 34 13.85 191km
CEH 58.73 349 iPc 33 37.36 -1.1
0.8s 44.60nm 5.3mb
epP 34 21.42 192km
TKL 59.51 344 iPd 33 41.86 -2.0
epP 34 25.20 188km
GBTN 59.63 344 ePd 33 42.62 -2.0
epP 34 25.47 185km
BLA 60.26 348 eP 33 48.22 -0.8
0.7s 32.21nm 5.2mb
epP 34 29.12 175km
NAV 60.43 348 iPd 33 49.23 -0.9
epP 34 32.70 187km
CVL 60.66 350 eP 33 50.42 -1.2
epP 34 33.60 186km
NA2 60.69 351 P 34 08.10 16.3X
CBN 60.71 351 eP 33 51.00 -0.9
SNA 61.01 159 iPc 33 52.10 -1.6
0.9s 80.00nm 5.5mb
MBO 61.26 58 iPc 33 55.80 -0.2
MIAR 61.60 335 ePd 33 55.63 -2.4X
1.1s 123.98nm 5.7mb
epP 34 38.77 185km
UYO 61.62 335 iPd 33 56.50 -1.6
ELC 62.56 340 ePd 34 01.80 -2.5X
epP 34 44.20 181km
PAL 63.07 354 P 34 14.30 6.8X
pP 34 49.90 149kmX
FVM 63.58 340 iPd 34 08.92 -2.1
0.6s 79.08nm 5.8mb
epP 34 51.56 182km
FNO 63.77 333 e(P) 34 06.50 -5.8X
MEO 63.88 332 iPc 34 10.50 -2.5X
WMOK 63.93 331 P 34 10.99 -2.3X
1.1s 21.31nm 4.9mb
OCO 64.03 333 iPd 34 14.00 0.1
ACO 65.74 332 iPd 34 23.70 -1.2
NVL 65.76 159 iP 34 24.00 -0.6
1.6s 255.00nm 5.8mb
i 34 30.00 19kmX
ePP 34 48.00
eS 42 58.00
e 44 00.00
RSNY 66.64 354 eP 34 30.10 -0.3
0.8s 30.72nm 5.1mb
LIC 67.15 73 Pc 34 33.22 -1.0
0.7s 104.00nm 5.7mb
Z 19s 0.50um 4.8Msz
TIC 67.34 72 P 34 34.76 -0.7

0.9s 208.00nm 5.9mb
KIC 67.46 73 Pc 34 35.38 -0.8
0.8s 326.50nm 6.1mb
LMN 67.65 2 eP 34 39.00 2.3
ALQ 67.80 326 iPd 34 37.47 -0.7
1.4s 203.37nm 5.7mb
epP 35 20.68 182km
SPA 68.05 180 iPd 34 38.10 -1.2
1.0s 365.00nm 6.1mb
LKO 68.19 69 Pc 34 39.94 -0.8
0.5s 243.00nm 6.2mb
TUC 68.21 321 P 34 55.30 14.7X
CBM 68.70 359 eP 34 43.25 0.1
0.9s 29.72nm 5.1mb
epP 35 27.93 188km
EEO 69.23 351 eP 34 48.50 2.1
GOL 71.00 330 ePc 34 57.04 -0.6
1.1s 127.05nm 5.6mb
epPd 35 40.54 182km
GLA 71.14 319 iPc 34 58.44 0.1
epP 35 42.63 185km
PLM 72.59 318 eP 35 07.16 0.1
epP 35 51.19 183km
SRU 73.07 326 iPd 35 09.46 -0.3
PEC 73.14 318 iPd 35 09.80 -0.3
0.9s 89.68nm 5.5mb
MSU 73.50 325 iPd 35 12.55 0.2
epP 35 55.55 178km
ARUT 73.66 323 iPd 35 13.85 0.6
epP 35 57.31 180km
SSK 73.68 318 ePd 35 13.52 0.1
epP 35 58.66 188km
EMUT 73.75 326 ePd 35 13.85 0.1
epP 35 57.28 180km
GSC 73.87 320 iPd 35 14.67 0.3
epP 35 58.43 181km
RSSD 73.97 333 iPc 35 13.86 -1.0
0.9s 85.55nm 5.5mb
ipP 35 58.49 185km
DAU 74.42 327 iPd 35 18.04 0.3
epP 36 02.73 185km
TPNV 74.67 321 ePd 35 19.50 0.5
1.0s 144.54nm 5.7mb
epP 36 05.26 190km
DUG 75.07 326 iPc 35 21.32 0.1
1.2s 171.27nm 5.7mb
epP 36 06.02 185km
ISA 75.12 319 iPd 35 21.63 0.1
1.0s 102.19nm 5.5mb
epP 36 06.05 184km
BW06 75.37 329 ePd 35 22.09 -0.8
1.1s 34.21nm 5.0mb
CER 75.50 120 iPc 35 22.00 -1.8
1.0s 544.00nm 6.2mb
SBA 75.51 190 iPd 35 23.10 0.1
BCH 75.80 318 (P) 35 25.95 0.6
JAO 75.92 355 ePc 35 24.00 -1.5
TNP 76.00 322 iPd 35 26.80 0.2
0.8s 33.28nm 5.1mb
epP 36 11.74 186km
HVU 76.20 327 ePd 35 27.18 -0.4
epP 36 11.42 182km
ULM 76.33 342 ePd 35 29.50 1.7
PKEM 76.38 318 eP 35 28.63 0.2
PHAM 76.42 318 ePd 35 29.04 0.4
BONR 76.55 321 ePd 35 30.10 0.4
MEMM 76.73 320 ePd 35 31.32 1.0
FRI 76.75 319 eP 35 29.54 -0.9
SUR 77.01 120 eP 35 32.00 -0.4
1.0s 1360.00nm 6.6mb X
KVN 77.17 322 ePd 35 32.99 0.0
epP 36 17.63 184km
POF 77.23 117 iPc 35 33.00 -0.4
0.5s 158.00nm 6.0mb
LLA 77.26 318 iPd 35 33.54 0.2
PRS 77.34 318 iPd 35 33.94 0.2
CMB 77.83 320 eP 35 35.99 -0.5
1.2s 59.63nm 5.2mb
TIO 78.08 50 iP 35 39.00 0.9
ARN 78.09 319 eP 35 38.17 0.3
epP 36 22.77 183km
GCC 78.17 318 iPd 35 38.51 0.3
VIP 78.42 322 P 36 00.34 20.4X
PCC 78.70 318 iPd 35 41.23 0.1
LCCM 78.77 330 ePd 35 41.60 0.0
e 36 27.10 187km
AVE 79.33 48 iP 35 46.00 1.4

30d 05h

```
                     i     36 23.50 151kmX
NTYM   79.44 319 iPd   35 45.13    0.1
ORV    79.48 320 iPd   35 45.81    0.5
MIN    80.05 321 eP    35 48.05   -0.5
LBFM   80.86 322 iPd   35 52.55   -0.3
                 epP   36 36.98 181km
IFR    81.03  48 iP    35 56.00    2.2
GRM    81.28 122 iPd   35 56.00    0.9
       1.0s  240.00nm           5.9mb
FOX    81.57 320 iPd   35 57.14    0.9
FHC    81.74 320 iPd   35 57.94    0.8
SES    81.85 333 ePd   35 57.00   -0.5
       1.0s   75.00nm           5.4mb
                 pP    36 12.00  52kmX
EVAL   82.25  44 eP    36 01.50    1.7
SWZ    82.43 116 eP    36 00.90   -0.4
JBO    82.44 326 P     36 01.65    1.0
EJIF   82.44  46 eP    36 03.00    2.2
BLF    82.46 118 iPc   36 01.20   -0.2
       0.9s  233.00nm           5.9mb
CROR   82.73 325 P     36 03.07    0.8
DBO    82.77 322 P     36 02.84    0.4
EPRU   82.89  46 eP    36 05.30    2.1
VGB    82.97 325 eP    36 03.83    0.4
                 epP   36 49.60 186km
NEW    83.00 329 iPc   36 02.72   -0.8
       1.0s   30.98nm           5.0mb
                 epP   36 48.17 185km
WAH2   83.16 327 P     36 04.54    0.3
DPW    83.25 328 iPd   36 04.94    0.2
                 epP   36 50.01 183km
MAW    83.34 163 iPc   36 05.20    0.2
       1.0s   41.67nm           5.2mb
EHOR   83.36  45 eP    36 07.00    1.5
SSOR   83.44 324 P     36 05.32   -0.6
FCC    83.54 346 ePd   36 08.90    3.0X
                 pP    36 26.00  61kmX
RNO    83.55 323 P     36 06.77    0.4
SAW    83.72 328 P     36 07.04   -0.1
ASR    83.81 325 P     36 08.21    0.5
ELUQ   83.86  45 iPd   36 10.30    2.2
SEK    83.92 118 iPc   36 09.20    0.3
       0.7s  200.00nm           6.0mb
WTV    84.00 327 P     36 08.56    0.0
EPLA   84.10  43 eP    36 10.30    1.1
ECOG   84.17  46 eP    36 10.80    1.1
SHW    84.18 325 eP    36 10.96    1.4
KSR    84.22 115 iPd   36 01.00   -9.4X
       1.1s  140.00nm           5.6mb
PRY    84.31 117 iPd   36 10.00   -0.8
       1.0s  100.00nm           5.5mb
LON    84.32 326 ePd   36 09.67   -0.5
FMW    84.36 326 P     36 10.25   -0.3
EBAN   84.51  45 iPd   36 12.60    1.3
RMW    84.78 326 iPd   36 11.60   -0.9
                 epP   36 56.58 182km
ERUA   84.81  40 eP    36 14.00    1.3
BMW    84.89 325 iPd   36 13.38    0.4
PAB    84.91  44 iPc   36 14.00    0.7
       1.1s   88.61nm           5.4mb
EMON   85.31  39 eP    36 16.00    0.8
JCW    85.32 327 P     36 14.23   -0.9
GMW    85.34 326 eP    36 14.81   -0.4
SLR    85.43 116 iPc   36 15.70   -0.7
       0.8s  193.00nm           5.9mb
    Z  18s     4.06um           5.9Msz
EVIA   85.61  45 eP    36 17.80    0.9
GUD    85.64  43 eP    36 18.00    1.0
MCW    86.09 327 eP    36 18.81   -0.1
                 epP   37 05.05 187km
STW    86.18 326 P     36 19.46    0.2
PGC    86.39 327 eP    36 20.50    0.3
       1.2s   79.00nm           5.4mb
ETOR   87.08  44 eP    36 25.00    1.1
ECHE   87.13  45 eP    36 26.20    2.1
ECRI   87.75  42 eP    36 28.00    0.9
BCAO   87.82  84 iPc   36 28.00    0.0
       0.7s    9.00nm           4.8mb
                 i     39 52.90
BUL    87.83 111 iPd   36 28.20    0.1
       1.0s  100.00nm           5.7mb
EGRA   88.91  43 eP    36 35.80    3.4X
LSZ    89.32 106 iPd   36 38.00    2.8X
EPF    89.76  43 eP    36 37.20    0.7
       0.8s    6.70nm           4.7mb
LFF    90.98  41 eP    36 42.30    0.3
       1.0s   24.00nm           5.2mb

LPO     91.13  42 eP     36 43.20   0.5
MFF     91.30  39 eP     36 43.70   0.3
        1.3s   36.10nm            5.3mb
LPF     91.53  38 eP     36 44.20  -0.2
        1.1s   31.75nm            5.3mb
RJF     91.64  41 eP     36 45.00   0.0
        1.1s   17.10nm            5.0mb
MTD     91.74 109 iPd    36 44.60  -1.6
CAF     91.79  42 eP     36 45.90   0.1
        1.0s   10.00nm            4.8mb
GRR     91.83  38 eP     36 45.40  -0.4
        1.0s   16.00nm            5.0mb
CSY     91.88 179 ePKP   36 46.50   0.6
        1.0s   46.20nm            5.5mb
LSF     92.12  40 eP     36 47.30   0.1
        1.0s   14.00nm            5.0mb
FLN     92.23  38 eP     36 47.70   0.1
        1.3s   36.10nm            5.3mb
YKA     92.23 340 eP     36 47.50   0.1
        0.8s   34.10nm            5.5mb
LDF     92.35  38 eP     36 48.20   0.0
        1.1s   19.55nm            5.1mb
TCF     92.55  41 eP     36 49.30   0.1
        0.9s    7.35nm            4.8mb
MAF     92.73  41 eP     36 50.10   0.1
        1.0s   10.00nm            4.9mb
BGF     93.07  41 eP     36 51.50  -0.1
        1.2s   20.85nm            5.2mb
AVF     93.48  41 eP     36 53.40   0.0
        1.3s   23.45nm            5.2mb
SSF     93.71  40 eP     36 54.30  -0.2
        1.0s   10.00nm            4.9mb
SMF     93.71  41 eP     36 55.00   0.5
        0.9s   16.40nm            5.2mb
LRG     93.81  44 eP     36 56.00   1.0
        1.0s   26.00nm            5.3mb
LMR     93.86  45 eP     36 55.90   0.7
        0.9s   13.10nm            5.1mb
LBF     93.95  41 eP     36 55.40  -0.3
        0.9s    6.55nm            4.8mb
LOR     94.02  40 eP     36 55.60  -0.3
        1.1s   12.20nm            5.0mb
FRF     94.05  44 eP     36 56.70   0.6
        1.1s   29.30nm            5.4mb
LPL     94.98  43 eP     37 01.40   0.7
        1.0s   13.00nm            5.1mb
LPG     94.98  43 eP     37 01.60   0.8
        1.0s   17.00nm            5.3mb
BSF     96.04  41 eP     37 04.90  -0.4
CDF     96.59  40 eP     37 07.50  -0.2
RES     98.16 353 eP     37 16.50   2.4X
        1.0s    2.00nm            4.5mb
GRF     99.48  40 e(P)   37 20.00  -0.7
                  e(PP)  41 18.00
KBA     99.80  43 eP     37 22.00  -0.4
GEC2   100.67  42 Pdiff  37 27.30   1.1
        0.9s    1.27nm            4.5mb
                  e      37 31.50
STK    119.61 208 ePKP   42 27.00  -0.6
                  eSKP   45 47.90
CTA    126.77 220 iPKPc  42 41.50  -0.3
                  e      43 30.00
                  e      44 37.00
                  i      46 02.00
ASPA   130.05 206 iPKPd  42 46.80  -1.1
                  epPKP  43 36.50
                  ePP    44 49.60
                  eSKP   45 53.70
                  ePKS   46 08.00
                  eSKKS  03 31.30
NRI    130.41  11 iPKPc  42 47.70   0.6
        1.2s   20.00nm
                  e      43 34.00
                  e      45 04.00
MAIO   132.02  61 ePKP   42 52.00   0.6
WB2    133.16 208 iPKPc  42 53.00  -0.9
        0.8s    6.50nm
WRA    133.17 208 PKP    42 49.80  -4.1X
        0.6s   10.20nm
MGD    133.56 335 ePKP   42 53.00  -0.4
                  e      43 39.00
QUE    138.39  69 ePKP   43 05.50   1.7
KLD    139.67  56 ePKP   43 20.80  15.3X
FRU    142.23  48 ePKP   43 06.00  -4.0X
        2.2s   60.00nm
                  e      46 17.00
ELT    142.94  26 ePKP   43 08.00  -2.8X

        1.6s   16.00nm
POO    143.48  88 iPKPd 42 58.90 -13.9X
BOD    144.26 359 iPKPd 43 11.10  -1.8
        1.1s   62.00nm
KSH    144.33  53 PKP   43 13.20  -0.6
     Z  28s    1.03um          5.5MszX
                  ePP   46 32.00
PRZ    144.94  46 ePKP  43 16.00   1.2
        1.0s  130.00nm
YSS    145.29 323 iPKPd-43 15.00   0.0
        1.0s  160.00nm
                  e     59 22.00
G8A    145.48  98 PKP   43 17.00   0.8
                  e     46 40.00
KUSJ   146.14 316 ePKP  43 15.90  -0.6
ASAJ   146.94 319 ePKP  43 18.60   0.8
NDI    147.38  71 ePKP  43 19.50   0.5
        1.2s  140.63nm
HOOJ   147.41 316 ePKP  43 21.30   2.7X
HYB    147.59  92 ePKP  43 20.00   0.3
        1.0s  110.00nm
                  e     44 10.00
GUA    148.21 260 ePKP  43 23.20   2.6X
        1.1s  607.59nm
GUMO   148.27 260 ePKPd 43 23.10   2.4X
        1.0s  587.40nm
                  e     43 41.60
                  pP    44 11.00
PJG    148.27 260 ePKP  43 23.20   2.5X
MRRJ   148.80 317 PKP   43 24.80   4.0X
MOY    149.10  14 ePKP  43 23.00   2.1
        1.3s   56.00nm
IRK    149.19  10 ePKP  43 27.00   5.9X
        1.4s   18.00nm
WMQ    150.06  38 PKP   43 29.00   6.2X
     Z  16s    0.31um          5.2MszX
CIT    150.13 359 ePKP  43 24.00   1.4
ZAK    150.81  12 ePKP  43 24.10   0.6
        1.0s   17.00nm
                  e     44 14.00
                  e     06 13.00
LEM    150.84 170 iPKPd 43 31.00   6.1X
MDJ    153.56 332 ePKP  43 27.60  -0.1
MAT    153.59 309 (PKP) 43 37.00   8.9X
        1.0s   20.00nm
GKN    153.96  71 PKP   43 29.60   0.6
DMN    154.42  72 PKP   43 30.20   0.4
KKN    154.55  72 PKP   43 30.20   0.3
PKI    154.69  72 PKP   43 30.60   0.4
GUN    155.06  71 PKP   43 31.00   0.3
CN2    155.90 337 PKP   43 34.00   3.1X
SNY    158.29 338 ePKP  43 37.30   3.4X
LSA    159.23  64 PKP   43 36.50   0.6
GTA    159.54  30 PKP   43 36.50   0.9
HHC    161.27   3 PKP   43 39.20   1.9
BJI    161.86 351 ePKP  43 40.50   2.8X
     Z  16s    0.35um
LZH    164.07  27 ePKP  43 41.00   0.7
TIY    164.43   1 ePKP  43 43.00   2.6X
TIA    165.40 346 ePKP  43 42.50   1.3
CHTO   166.72 102 ePKP  43 43.30   0.6
                  e     48 37.30
XAN    167.64  15 PKP   43 44.00   1.0
SSE    168.24 321 PKPd  43 44.20   0.8
     Z  20s    0.50um           5.5Msz
NJ2    168.66 332 PKPc  43 45.00   1.4
KMI    170.40  70 PKPd  43 45.50   0.3
     Z  20s    0.70um
     S.D. = 1.0  on 221 of 269 obs.
-----------------------------------------
   MAR 30, 1993 07h 00m 49.03± 0.35s
   42.917 N ± 3.7km   1.321 W ± 3.0km
   DEPTH =  10.0km  (geophysicist)
 PYRENEES                          (378)
     ML 3.1 (LDG). mbLg 3.0 (MDD).

ELIZ     0.29 328 iPgc  00 55.00  -0.1
                  eSg   01 00.00
BOH      0.29  51 Pg    00 55.31   0.1
                  Sg    01 01.07
ELYF     0.35  44 Pg    00 56.67   0.4
                  Sg    01 03.02
ISSF     0.40  74 Pg    00 57.41   0.1
                  Sg    01 04.39
MADF     0.43  58 Pg    00 58.23   0.4
                  Sg    01 04.96
ATE      0.49  69 Pg    00 58.84  -0.1
```

Sg 01 06.86
LHE 0.51 90 Pg 00 58.84 -0.6
ESCF 0.57 73 Pg 01 00.68 0.0
Sg 01 09.57
OGE 0.67 68 Pg 01 02.81 0.4
JAU 0.71 80 Pg 01 02.87 -0.3
ECRI 0.93 251 ePg 01 07.00 0.2
eSg 01 20.80
EGRA 1.04 134 ePn 01 16.00 7.4X
eSn 01 35.20
EPF 1.22 84 Pn 01 11.50 -0.4
Sn 01 31.50
ETOR 2.17 195 ePn 01 26.50 0.8
eSn 01 55.40
EROQ 2.46 148 ePn 01 30.00 0.2
eSn 02 02.00
EBR 2.50 146 eP 02 03.00 32.7X
LPO 2.53 45 Pn 01 30.40 -0.4
Sn 02 05.40
GUD 3.11 224 ePn 01 38.30 -0.8
eSn 02 15.50
RJF 3.14 40 Pn 01 39.70 0.2
Sn 02 19.30
CAF 3.16 49 Pn 01 40.10 0.2
Sn 02 20.60
MAF 4.32 39 Pn 01 55.70 -0.5
Sn 02 47.40
S.D. = 0.4 on 19 of 21 obs.

? MAR 30, 1993 07h 18m 41.84± 8.82s
15.745 N ±63.4km 96.756 W ±43.8km
DEPTH = 33.0km (normal)
NEAR COAST OF OAXACA, MEXICO (66)

OXX 1.33 1 iPc 19 04.20 -0.2
iS 19 19.50
ACX 3.18 291 iP 19 30.80 0.0
(S) 20 05.81
IISM 3.28 350 iP 19 32.50 0.4
(S) 20 09.00
IIT 3.58 336 (P) 19 47.18 10.5X
III 3.68 316 iP 19 38.00 -0.1
(S) 20 10.00
PPM 3.75 332 iP 19 42.50 3.2X
(S) 20 27.00
IIA 3.84 332 (P) 19 39.88 -0.2
UNM 4.25 327 (P) 19 53.00 6.8X
MRX 5.78 314 (P) 20 11.52 4.0X
S.D. = 0.4 on 5 of 9 obs.

? MAR 30, 1993 07h 36m 05.37± 1.06s
38.107 N ±11.7km 28.903 E ± 8.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.3 (ISK).

KHL 0.53 66 iPg 36 15.50 -0.7
eSg 36 24.00
IZM 1.32 283 ePn 36 29.00 -0.8
ELL 1.58 149 ePn 36 34.00 0.5
BNT 2.37 342 ePn 36 46.00 1.1
YLV 2.48 8 ePn 36 51.00 4.5X
EYL 2.64 21 ePn 36 54.00 5.1X
S.D. = 1.6 on 4 of 6 obs.

MAR 30, 1993 07h 41m 52.67± 1.09s
5.773 S ± 5.5km 151.830 E ± 7.6km
DEPTH = 39.3 ± 12.4 km
4.9mb (12 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 1.60 12 iPc+ 42 18.00 -1.0
LAT 4.88 259 eP 43 15.40 9.8X
PMG 5.87 232 eP 43 20.00 0.4
eS 44 30.00
HNR 8.83 115 eP 44 01.00 0.2
e(S) 45 11.00
CTA 15.23 200 iPd 45 33.00 6.3X
GUA 20.38 340 e(P) 46 31.30 2.4
0.8s 202.99nm 5.5mb
e 46 35.50
GUMO 20.44 340 e(P) 46 30.00 0.5
1.0s 435.20nm 5.8mb
e 46 36.20
PJG 20.44 340 e(P) 46 29.30 -0.2
RMO 20.81 188 iPc 46 34.10 0.8
1.1s 61.00nm 4.9mb
DZM 21.50 140 iPc 46 40.50 0.1
BRS 21.52 178 iPc 46 41.00 0.5
1.0s 10.00nm 4.2mb
MTN 21.59 250 iPd 46 41.00 -0.2
0.4s 35.00nm 5.1mb
OLP 21.93 198 iPd 46 45.30 0.7
0.7s 76.00nm 5.2mb
WB2 22.07 229 eP 46 45.30 -0.8
0.6s 61.30nm 5.2mb
ipP 46 56.60 45kmX
eS 50 47.10
ARMA 24.52 180 eP 47 13.10 3.1X
1.1s 21.00nm 4.6mb
KNA 24.70 245 eP 47 11.40 -0.3
ASPA 24.79 222 iPd 47 12.40 -0.1
0.7s 105.80nm 5.5mb
eS 51 39.90
CMS 26.19 192 eP 47 25.30 -0.3
1.0s 18.00nm 4.6mb
STK 27.69 199 iPc 47 38.70 -0.5
0.6s 2.70nm 4.1mb
WARB 31.47 227 eP 48 12.10 -1.0
GBA 76.30 285 P 53 34.00 -5.8X
YKA 96.73 28 eP 55 18.50 -1.5
0.5s 0.50nm 4.3mb
BCAO 133.47 271 ePKPd 01 14.90 7.3X
0.2s 4.00nm
CNCB 134.69 120 ePKP 01 11.00 0.5
LPB 134.72 120 (PKP) 01 15.00 4.6X
BAO 151.06 138 ePKP 01 43.50 5.3X
e 01 56.80
e 02 10.20
BDF 151.09 138 ePKP 01 43.70 5.5X
e 01 57.00
S.D. = 0.9 on 19 of 27 obs.

% MAR 30, 1993 08h 53m 53.41± 1.22s
40.599 N ± 8.7km 23.870 E ±15.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)

OUR 0.28 162 ePg 53 59.48 0.2
eSg 54 03.20
SOH 0.45 300 iPg 54 02.88 0.3
eSg 54 08.64
SRS 0.56 338 ePg 54 04.64 -0.1
eSg 54 14.10
PAIG 0.69 192 ePg 54 06.72 -0.3
eSg 54 15.64
KNT 0.93 308 ePg 54 11.00 -0.1
iSg 54 24.64
S.D. = 0.3 on 5 of 5 obs.

? MAR 30, 1993 08h 56m 23.66± 1.03s
40.512 N ±16.5km 23.768 E ±19.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)

OUR 0.24 137 iPg 56 28.78 0.0
eSg 56 32.74
SOH 0.44 315 ePg 56 32.62 -0.1
eSg 56 38.18
SRS 0.62 348 ePg 56 36.14 0.0
eSg 56 43.50
KNT 0.93 315 ePg 56 41.42 0.1
eSg 56 53.58
S.D. = 0.1 on 4 of 4 obs.

& MAR 30, 1993 08h 58m 22.52s
61.315 N 152.322 W
DEPTH = 126.8km
3.2mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

BGL 0.06 213 iP 58 39.31 0.9
CP2 0.06 143 ePc 58 38.92 0.3
CRP 0.09 121 iPc 58 38.76 0.2
CPAM 0.11 125 iP 58 39.30 0.8
CKN 0.11 143 eP 58 39.44 1.0
CKL 0.12 184 iP 58 39.39 0.9
CKT 0.13 154 iP 58 39.17 0.7
CGLM 0.15 93 eP 58 39.75 1.2
SPU 0.19 136 iP 58 39.40 0.8
DFR 0.75 194 eP 58 42.43 -0.9
SKT 0.77 29 iP 58 42.72 -0.7
iS 58 58.27
iS 58 58.29
eS 58 58.66
SUA 0.77 78 iP 58 43.28 -0.3
eS 58 59.25
NKA 0.78 137 iP 58 44.28 0.9
NCT 0.81 202 iP 58 43.06 -0.8
RDN 0.83 195 eP 58 43.11 -1.0
RDW 0.87 196 iP 58 43.62 -0.8
RS2 0.88 194 eP 58 43.73 -0.9
RSO 0.88 194 eP 58 43.69 -0.9
RS1 0.88 194 eP 58 43.73 -0.9
RED 0.93 194 iP 58 43.99 -0.9
eS 59 00.50
PWA 1.22 73 P 58 46.90 -0.7
ILIM 1.28 194 iP 58 47.29 -1.1
eS 59 06.78
SLKM 1.31 127 iP 58 47.77 -0.9
INE 1.31 196 iP 58 47.77 -1.0
INW 1.31 198 iP 58 47.87 -0.9
PMS 1.34 92 P 58 48.20 -0.8
PLRM 1.56 78 iP 58 49.86 -1.5
PMR 1.56 78 iPd 58 49.56 -1.8
eS 59 10.86
SVW 1.61 264 ePd 58 49.75 -2.3
eS 59 10.98
PTE 1.67 104 iP 58 51.16 -1.5
eS 59 14.34
MPA 1.67 118 iP 58 51.87 -0.8
eS 59 13.35
GHO 1.69 73 iP 58 51.68 -1.4
eS 59 15.01
BRLK 1.71 155 eP 58 53.06 -0.2
eS 59 14.12
PDB 1.79 212 iP 58 53.34 -0.8
eS 59 17.53
SEW 1.86 129 eP 58 53.60 -1.4
CNPM 1.87 163 eP 58 53.59 -1.6
eS 59 17.67
SML 1.97 74 eP 58 54.72 -1.7
AUL 2.02 196 eP 58 56.15 -0.8
AUE 2.03 195 eP 58 56.02 -1.1
AUH 2.04 196 eP 58 56.41 -0.9
AUI 2.06 196 eP 58 56.17 -1.3
HUR 2.09 36 eP 58 56.98 -0.9
eS 59 22.96
TRF 2.34 23 iP 59 00.19 -1.1
eS 59 29.39
MCNL 2.36 206 eP 59 00.28 -1.1
TTA 2.37 315 iPd 58 59.81 -1.8
eS 59 27.59
SCM 2.45 76 eP 59 00.95 -1.5
RND 2.65 36 eP 59 03.96 -1.2
SYI 2.71 181 eP 59 03.67 -2.2
MCK 2.89 31 eP 59 07.82 -0.4
VLZ 2.90 91 iP 59 06.36 -2.0
eS 59 41.55
HIN 2.99 105 eP 59 06.61 -3.0
KLU 3.08 84 eP 59 08.82 -2.0
CVA 3.30 101 iP 59 10.78 -2.8
TZL 3.37 74 eP 59 13.90 -0.6
SDG 3.43 66 eP 59 14.93 -0.4
MID 3.52 120 P 59 15.10 -1.5
SGAM 3.57 100 eP 59 14.26 -3.0
eS 59 56.77
KDC 3.58 181 eP 59 13.59 -3.7
NEA 3.59 23 eP 59 15.58 -2.0
PAX 3.62 60 eP 59 17.67 -0.3
WRH 3.71 30 eP 59 17.05 -2.1
THY 3.72 53 eP 59 19.67 0.4
RAGM 3.86 101 eP 59 18.15 -3.0
CCB 3.93 30 eP 59 20.05 -2.0
HDA 3.96 36 eP 59 20.65 -1.8
GLB 4.10 84 eP 59 22.44 -2.0
eS 00 09.32
MDM 4.10 25 eP 59 22.48 -1.9
FBA 4.14 28 ePd 59 22.38 -2.6
GLM 4.31 29 eP 59 25.74 -1.5
CRQM 4.50 93 eP 59 28.92 -1.1
TGL 4.65 93 eP 59 30.05 -1.9
SNH 4.79 100 eP 59 32.84 -0.9
IMA 4.81 353 eP 59 31.19 -2.9
BALM 4.84 89 eP 59 32.34 -2.1
YAH 5.26 96 eP 59 38.79 -1.5
CTGM 5.34 89 eP 59 40.04 -1.2
FYU 6.12 28 eP 59 50.08 -1.8
YKA 17.64 70 eP 02 19.80 -1.5
0.6s 0.90nm 3.2mb

30d 09h

RES 24.01 33 eP 03 34.00 8.0
79 obs. associated

? MAR 30, 1993 09h 36m 20.97± 4.59s
39.184 N ±17.9km 27.131 E ±89.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.79 173 iPg 36 36.40 0.0
iSg 36 48.40
EDC 1.29 26 ePn 36 44.50 -0.4
BNT 1.32 27 iPn 36 45.80 0.5
KCT 1.42 41 iPn 36 46.80 -0.1
S.D. = 0.6 on 4 of 4 obs.

% MAR 30, 1993 10h 02m 12.00± 1.57s
40.369 N ±12.0km 21.627 E ± 9.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)

LIT 0.71 112 eP 02 26.08 0.0
GRG 0.83 45 eP 02 27.80 -0.3
OHR 0.97 320 ePn 02 30.50 0.0
VAY 1.19 37 ePn 02 34.40 0.2
KNT 1.25 50 eP 02 35.28 0.1
AGG 1.45 158 iP 02 43.00 4.7X
S.D. = 0.3 on 5 of 6 obs.

MAR 30, 1993 10h 24m 51.22± 1.16s
37.200 N ±10.1km 21.350 E ± 7.4km
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.9 (THE), 3.7 (ATH).

VLS 1.15 329 ePg 25 13.00 0.3
VLI 1.36 110 ePb 25 24.50 8.3X
AGG 1.98 23 ePb 25 25.92 0.8
eSb 25 47.08
ATH 2.03 67 ePn 25 30.00 4.1X
eSb 25 57.50
IGT 2.46 341 ePn 25 33.96 1.9
eSn 25 58.84
KEK 2.79 335 ePg 25 43.00 6.3X
SRN 2.88 339 ePn 25 46.40 8.5X
LIT 3.03 17 ePn 25 40.92 0.8
eSn 26 14.96
KZN 3.12 6 ePn 25 41.70 0.3
PAIG 3.28 33 ePn 25 43.64 0.0
eSn 26 20.92
VLO 3.57 337 ePn 25 51.70 4.0X
FNA 3.58 0 ePn 25 48.16 0.2
eSn 26 27.72
GRG 3.84 12 ePn 25 50.88 -0.8
OHR 3.93 354 iPn 25 52.00 -0.9
i 26 01.50
i 26 37.00
i 26 49.60
i 26 56.50
SOH 3.94 23 ePn 25 53.76 0.7
eSn 26 36.20
NPS 3.95 118 ePb 26 08.50 15.3X
KNT 4.13 16 ePn 25 56.24 0.5
eSn 26 40.52
VAY 4.22 13 iPn 25 57.40 0.4
SRS 4.28 23 iPn 25 57.32 -0.6
eSn 26 44.40
TIR 4.30 345 ePn 25 59.50 1.4
LACI 4.61 345 ePn 26 02.30 -0.2
MMB 4.75 22 iP 26 03.00 -1.6
SKO 4.77 1 iPn 26 03.60 -1.2
iPb 26 10.00
iPg 26 15.00
iSn 26 50.00
i 26 57.00
i 27 14.70
IZM 4.83 74 eP 26 07.00 1.2
SDA 5.05 344 ePn 26 10.70 2.0
RZN 5.18 29 iP 26 10.00 -0.8
VTS 5.57 14 iPd 26 16.00 -0.3
HVAR 7.05 329 ePn 26 35.30 -1.6
VBY 9.47 333 ePn 27 09.10 -1.5
VRI 9.55 23 eP 27 11.00 -0.7
CEY 9.98 331 eP 27 18.50 0.8
e(S) 29 05.50
VOY 10.44 330 e(P) 27 26.70 2.7X
eS 29 10.00
NB2 24.71 348 P 30 12.60 -0.9
0.5s 0.90nm 3.7mb
GKN 53.23 80 P 34 12.20 -0.1
DMN 53.78 81 P 34 16.70 0.3
KKN 53.84 80 P 34 16.40 -0.4
S.D. = 1.0 on 29 of 36 obs.

MAR 30, 1993 10h 43m 06.67± 0.90s
37.641 N ± 7.5km 21.370 E ± 5.8km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
SOUTHERN GREECE (368)
ML 3.7 (THE), 3.5 (ATH).

VLS 0.82 311 ePg 43 22.50 0.0
eSg 43 37.50
VLI 1.55 126 ePb 43 34.20 -0.2
AGG 1.57 28 ePb 43 35.26 0.6
eSb 43 56.42
ATH 1.89 79 ePn 43 40.00 0.8
eSn 44 06.00
IGT 2.06 337 ePn 43 44.38 2.7X
eSn 44 10.70
KEK 2.41 330 ePb 43 52.20 5.5X
LIT 2.61 19 ePn 43 50.70 1.1
eSn 44 23.00
KZN 2.68 7 ePn 43 51.20 0.5
PAIG 2.91 38 iPn 43 53.18 -0.7
eSn 44 30.10
FNA 3.14 0 ePn 43 58.22 1.1
iSn 44 36.42
OUR 3.37 36 ePn 43 59.82 -0.6
GRG 3.41 13 ePn 44 00.58 -0.4
OHR 3.49 353 iPn 44 02.60 0.4
i 44 11.50
i 44 45.10
i 55 55.60
SOH 3.53 25 ePn 44 03.22 0.5
KNT 3.71 18 iPn 44 05.42 0.2
VAY 3.79 14 iPn 44 07.40 1.0
SRS 3.88 26 ePn 44 07.78 0.2
NPS 4.16 123 ePb 44 16.50 4.9X
SKO 4.33 1 ePn 44 12.50 -1.5
MMB 4.34 24 iP 44 13.00 -1.2
KKB 4.42 17 iP 44 15.00 -0.3
RZN 4.80 32 iP 44 20.00 -0.8
VTS 5.14 15 iP 44 25.00 -0.6
HVAR 6.68 327 e(Pn) 44 42.80 -4.5X
VBY 9.09 332 e(Pn) 45 21.40 0.6
CEY 9.61 330 e(P) 45 27.50 -0.5
e 45 31.00
e(S) 47 15.00
VOY 10.07 329 e(P) 45 34.00 -0.3
eS 47 35.60
NB2 24.28 348 P 48 20.70 -4.1X
0.5s 0.60nm 3.5mb
KAF 24.69 6 eP 48 25.60 -3.1X
S.D. = 0.8 on 23 of 29 obs.

? MAR 30, 1993 12h 13m 42.47± 4.11s
25.963 S ±25.2km 179.086 W ±26.9km
DEPTH = 456.9 ± 40.2 km
4.6mb (2 obs.)
SOUTH OF FIJI ISLANDS (171)

URZ 12.68 194 eP 16 30.30 0.2
WLZ 12.70 199 P 16 33.30 3.0X
NOZ 12.85 190 eP 16 31.70 -0.2
DZM 13.78 283 iPc 16 42.10 0.1
PGZ 15.12 194 eP 16 56.90 1.3
MNG 15.30 196 eP 16 56.10 -1.4
STK 34.78 251 eP 19 55.50 1.0
1.5s 1.80nm 3.3mb X
ASPA 42.56 263 eP 20 57.90 -0.2
0.4s 10.20nm 4.6mb
WB2 43.12 268 eP 21 01.70 -0.8
0.4s 10.80nm 4.6mb
NB2 144.24 351 PKP 32 26.00 -0.1
0.8s 3.90nm
HFS 144.72 349 ePKP 32 27.20 0.3
0.3s 1.70nm
S.D. = 1.0 on 10 of 11 obs.

MAR 30, 1993 12h 28m 02.29± 0.45s
9.975 S ± 7.1km 113.763 E ± 8.1km
DEPTH = 33.0km (normal)
4.8mb (10 obs.)
SOUTH OF JAWA, INDONESIA (282)

KHKI 2.42 49 iPc 28 39.90 -0.6
iS 28 59.00
e 33 55.50
NANU 12.63 173 eP 31 01.00 -1.5
0.3s 8.00nm 5.4mb
eS 33 12.00
MEEK 17.20 165 eP 32 02.00 0.3
0.3s 4.00nm 4.0mb
eS 34 56.00
MTN 17.26 101 eP 32 02.50 -0.1
0.4s 10.00nm 4.3mb
WB2 22.20 119 eP 32 56.90 -0.7
0.4s 7.60nm 4.5mb
eS 36 50.70
ASPA 23.55 128 eP 33 11.80 1.0
0.7s 10.20nm 4.4mb
STK 33.74 134 iPd 34 44.40 1.4
0.6s 4.40nm 4.6mb
BRS 40.60 121 iP 35 44.00 3.2X
GBA 42.99 302 P 36 01.00 0.5
GUN 46.34 325 P 36 27.80 0.2
0.6s 15.00nm 5.1mb
PKI 46.34 324 P 36 27.40 -0.2
DMN 46.55 324 P 36 29.20 0.1
0.6s 21.00nm 5.3mb
KKN 46.58 324 P 36 29.00 -0.4
0.7s 11.00nm 4.9mb
GKN 47.12 324 P 36 33.50 0.0
0.4s 7.00nm 5.0mb
YKA 117.15 23 ePKP 46 53.80 8.5X
0.7s 0.40nm
S.D. = 0.8 on 13 of 15 obs.

? MAR 30, 1993 12h 50m 38.76± 1.19s
6.457 S ±10.5km 132.236 E ±61.7km
DEPTH = 33.0km (normal)
TANIMBAR ISLANDS REG., INDONESIA(281)

SWI 5.64 350 iPc 52 02.50 0.0
iS 53 02.00
MTN 6.44 190 eP 52 13.70 -0.1
0.3s 28.00nm 5.5mb
eS 53 23.00
KNA 9.84 200 eP 52 54.40 -6.7X
eS 54 34.00
WB2 13.56 171 eP 53 50.70 -0.6
eS 56 17.60
ASPA 17.19 175 iPd 54 38.90 0.8
eS 57 43.70
S.D. = 1.0 on 4 of 5 obs.

MAR 30, 1993 12h 58m 12.92± 0.47s
41.218 N ± 4.4km 23.133 E ± 4.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.4 (SKO).

KNT 0.19 252 ePg 58 17.32 0.2
SRS 0.36 106 ePg 58 19.64 -0.7
eSg 58 24.56
SOH 0.43 157 iPg 58 21.40 -0.3
eSg 58 27.32
VAY 0.44 284 iPg 58 22.00 0.2
iSg 58 28.30
MMB 0.58 50 iPg 58 24.00 -0.7
THE 0.60 192 ePg 58 24.76 -0.3
eSg 58 32.80
GRG 0.61 245 iPg 58 25.04 -0.2
eSg 58 33.96
KKB 0.65 357 iPgc 58 25.00 -0.9
OUR 1.09 144 iPg 58 34.20 0.8
RZN 1.28 68 iP 58 38.00 1.2
VTS 1.37 2 iPc 58 39.00 0.8
S.D. = 0.8 on 11 of 11 obs.
----
* MAR 30, 1993 13h 00m 24.33± 2.35s
37.430 N ±20.9km 21.171 E ±20.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.3 (ATH).

VLS 0.88 328 ePg 00 40.50 -0.7
VLI 1.58 116 ePb 00 53.00 0.6
ATH 2.09 74 ePn 00 58.60 -1.2

KEK 2.52 335 ePb 01 10.50 4.5X
KZN 2.91 9 ePn 01 13.00 1.4
OHR 3.69 356 ePn 01 26.50 3.9X
VAY 4.03 15 ePn 01 31.00 3.6X
SKO 4.54 3 ePn 01 34.50 -0.1
S.D. = 1.5 on 5 of 8 obs.

% MAR 30, 1993 13h 25m 36.61± 0.53s
27.841 S ± 4.7km 26.691 E ± 6.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.7 (PRE).

BFS 0.94 5 eP 25 54.60 -0.5
S 26 08.00
SEK 0.96 120 iPc 25 55.60 0.2
S 26 07.20
PRY 1.14 38 eP 25 58.60 0.0
BLF 1.34 199 eP 26 01.60 -0.3
S 26 19.20
SWZ 1.38 298 eP 26 03.00 0.4
S 26 22.60
KSR 1.98 5 eP 26 11.50 0.2
FRS 2.25 212 eP 26 15.00 0.0
S 26 41.50
SLR 2.53 35 eP 26 19.20 0.0
S 26 49.50
S.D. = 0.4 on 8 of 8 obs.

? MAR 30, 1993 13h 30m 54.58± 2.43s
14.787 N ±16.3km 59.128 W ±19.9km
DEPTH = 31.1 ± 8.7 km
3.8mb (1 obs.)
WINDWARD ISLANDS (95)
ML 3.5 (FDF).

MVM 1.73 263 iPc 31 22.91 0.0
CRM 1.73 269 iPc 31 22.22 -0.7
BIM 1.90 262 eP 31 26.16 0.7
FDF 1.96 269 eP 31 25.90 -0.4
S 31 27.90
MGG 2.39 298 eP 31 32.80 0.3
DEG 2.40 309 eP 31 32.00 -0.6
DOG 2.70 298 eP 31 37.24 0.4
PAG 2.75 297 eP 31 37.93 0.3
S 32 07.19
SEG 2.80 305 eP 31 38.20 0.1
BPA 3.46 311 eP 31 47.50 -0.1
YKA 61.37 334 eP 41 09.70 0.0
0.5s 0.40nm 3.8mb
S.D. = 0.5 on 11 of 11 obs.

MAR 30, 1993 13h 57m 09.19± 0.44s
21.883 N ± 5.8km 103.074 E ± 6.0km
DEPTH = 33.0km (normal)
4.4mb (17 obs.)
SOUTHEAST ASIA (299)

KMI 3.24 355 iPnd 57 59.00 -0.1
Z 10s 12.40um
Pg 58 05.50
Sn 58 40.00
Sg 58 49.00
LOE 4.63 196 iPn 58 18.00 -0.7
ePg 58 32.00
eSg 59 31.10
CHTO 4.93 232 ePn 58 19.70 -3.3X
iPg 58 38.90
iSg 59 49.60
GYA 5.61 35 Pn 58 31.20 -1.4
Z 10s 6.33um
Pg 58 52.00
Sn 59 34.00
Sg 00 05.00
BDT 6.00 220 ePn 58 33.80 -4.3X
ePg 58 55.80
eSg 00 21.80
NST 6.78 205 ePn 58 48.30 -0.6
ePg 59 16.00
eSg 00 47.00
QIZ 6.95 113 ePn 58 50.00 -1.4
KHT 8.24 212 eP 59 07.80 -1.7
CD2 9.01 4 P 59 17.20 -2.9X
GZH 9.57 81 Pc 59 25.80 -2.0
S 01 12.00
MCO 9.73 87 eP 00 11.50 41.5X
SHL 10.89 292 eP 59 46.00 0.0
eS 02 40.00
XAN 13.16 22 P 00 12.40 -4.0X
Z 12s 3.40um
N 10s 4.13um
E 10s 6.25um
LSA 13.26 308 P 00 17.60 -0.5
Z 16s 1.82um
eS 02 48.00
WHN 13.29 47 eP 00 14.00 -4.0X
Z 16s 2.37um
N 12s 4.79um
E 10s 3.27um
eS 02 39.00
LZH 14.17 3 eP 00 30.00 0.2
1.5s 54.00nm 5.0mb
Z 16s 2.30um 6.0Msz
E 11s 6.63um
pP 00 35.50
PP 00 43.00
eS 03 03.00
GUN 16.71 294 P 01 01.60 -1.2
0.8s 34.00nm 4.5mb
PKI 17.01 293 P 01 04.00 -2.6
1.0s 37.00nm 4.5mb
KKN 17.18 294 P 01 07.20 -1.4
1.0s 68.00nm 4.7mb
DMN 17.28 293 P 01 07.00 -2.9X
0.9s 51.00nm 4.7mb
NJ2 17.31 51 Pc 01 14.00 4.0X
1.3s 23.00nm 4.1mb
Z 14s 1.54um 5.1MszX
N 10s 2.99um
E 10s 2.37um
IPM 17.32 187 ePd 01 15.10 5.0X
GTA 17.69 352 eP 01 13.50 -1.3
1.0s 5.00nm 3.6mb
Z 16s 1.43um 4.5MszX
E 10s 1.32um
TIY 17.73 25 eP 01 15.20 0.0
Z 12s 3.86um
N 12s 3.06um
S 04 25.00
GKN 17.79 294 P 01 14.80 -1.3
TIA 18.80 38 eP 01 31.30 2.9X
Z 14s 1.79um
N 11s 1.27um
E 10s 1.17um
BTO 19.57 16 eP 01 36.00 -1.4
E 10s 2.35um
pP 01 41.00 20kmX
HHC 20.23 19 P 01 45.00 0.6
1.2s 32.00nm 4.5mb
Z 10s 3.04um 5.0MszX
N 10s 1.75um
sP 02 00.00
BJI 21.26 29 eP 01 55.00 0.3
1.5s 58.00nm 4.8mb
Z 16s 0.99um 4.3MszX
N 12s 1.83um
HYB 23.51 263 eP 02 18.00 0.8
NDI 24.31 291 eP 02 35.00 10.1X
WMQ 25.32 333 P 02 36.50 1.9
Z 16s 1.04um 4.4MszX
pP 02 44.00 27kmX
sP 02 48.40
GBA 25.74 256 P 02 40.00 1.5
KOD 27.15 249 eP 02 53.60 1.7
CN2 28.66 35 eP 03 07.00 2.0
1.0s 6.90nm 4.3mb
Z 10s 0.96um 4.7MszX
N 10s 0.60um
E 10s 0.61um
KSH 28.99 313 P 03 09.80 1.7
Z 16s 1.19um 4.6MszX
E 12s 0.78um
pP 03 16.80 24kmX
sP 03 21.00
IRK 30.35 2 eP 03 31.00 11.0X
Z 13s 1.24um 4.7MszX
N 11s 1.18um
E 10s 0.71um
e 03 44.80
LR 15 00.00
QUE 33.39 292 eP 03 49.50 2.5X
MAIO 40.36 301 eP 04 46.00 0.3
YAK 44.08 18 eP 05 13.30 -2.3X
N 15s 0.72um
E 15s 0.80um
e 06 27.00
e 20 24.00
e 23 00.00
WRA 51.59 141 P 06 16.00 1.3
0.7s 0.60nm 3.7mb
WB2 51.60 141 eP 06 15.40 0.7
0.5s 3.30nm 4.6mb
KSP 71.36 318 eP 08 28.00 0.2
NB2 72.00 329 P 08 30.00 -1.4
0.9s 4.30nm 4.4mb
GEC2 73.45 316 P 08 40.40 0.2
0.9s 1.09nm 3.9mb
e 08 46.90
KHC 73.45 317 eP 08 40.50 0.3
RES 82.97 5 eP 09 34.00 2.2
1.0s 3.00nm 4.3mb
BCAO 83.30 272 ePc 09 37.00 2.3
0.8s 4.00nm 4.6mb
YKA 90.75 16 eP 10 10.90 1.0
0.9s 0.70nm 4.0mb
S.D. = 1.4 on 35 of 49 obs.

% MAR 30, 1993 15h 02m 31.81± 0.86s
39.735 N ± 7.6km 22.994 E ± 7.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)

LIT 0.53 314 ePg 02 42.34 -0.3
eSg 02 51.40
PAIG 0.56 70 ePg 02 42.38 -0.8
eSg 02 50.58
AGG 0.88 216 ePg 02 48.86 0.2
eSg 03 01.90
OUR 0.97 51 ePg 02 50.98 0.8
SOH 1.12 14 ePg 02 52.94 0.1
KNT 1.43 357 ePb 02 57.78 0.0
S.D. = 0.7 on 6 of 6 obs.

• MAR 30, 1993 15h 22m 40.28± 1.05s
49.237 N ± 8.3km 6.980 E ±10.3km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 1.8 (UCC).

RUP 0.47 6 ePg 22 50.13 0.3
WLF 0.69 309 iPc 22 53.46 -0.4
iS 23 02.54
ABH 0.74 30 ePg 22 55.34 0.5
FEL 1.53 153 ePg 23 08.43 0.7
GEC2 4.44 93 Pn 23 48.20 -1.1
Sg 25 04.80
S.D. = 1.0 on 5 of 5 obs.

& MAR 30, 1993 15h 28m 13.37s
60.921 N 149.961 W
DEPTH = 48.4km
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 3.0 (AEIC).

PMS 0.38 31 P 28 23.10 -0.2
SLKM 0.43 197 iP 28 23.49 -0.4
PTE 0.46 97 iP 28 23.53 -0.6
eS 28 31.84
MPA 0.52 145 iP 28 24.34 -0.5
eS 28 33.15
NKA 0.65 255 iP 28 27.51 1.0
SUA 0.66 326 iP 28 26.21 -0.6
PWA 0.73 3 P 28 26.80 -0.8
S 28 39.50
PLRM 0.78 30 iP 28 27.45 -0.8
eS 28 39.03
PMR 0.78 30 ePc 28 27.09 -1.2
S 28 38.33
SEW 0.86 163 iP 28 28.04 -1.2
eS 28 40.41
GHO 0.99 30 iP 28 30.51 -0.7
SPU 1.05 285 iP 28 31.26 -0.8
eS 28 45.60
CGLM 1.07 292 iP 28 31.81 -0.5
CPAM 1.11 288 iP 28 32.47 -0.4
CRP 1.12 289 iPc 28 32.06 -1.0
S 28 47.08
CKN 1.12 287 iP 28 32.55 -0.4
CKT 1.13 285 iP 28 32.38 -0.7
CP2 1.16 288 iPc 28 32.87 -0.8
SML 1.19 41 iP 28 33.01 -0.9

30d 15h

CKL	1.19	284	iP	28 33.33	-0.7
BGL	1.23	287	iP	28 33.92	-0.6
BRLK	1.25	202	eP	28 33.67	-1.1
			eS	28 49.38	
SKT	1.30	325	iP	28 34.65	-0.9
DFR	1.38	257	iP	28 35.44	-1.2
RDN	1.44	255	eP	28 36.18	-1.3
			eS	28 55.25	
RSO	1.45	253	iP	28 36.73	-1.0
RS2	1.45	253	iP	28 36.77	-1.0
RS1	1.45	253	iP	28 36.79	-1.0
RDW	1.47	254	iP	28 36.88	-1.1
RED	1.47	251	iP	28 36.90	-1.1
			eS	28 56.04	
NCT	1.50	257	iP	28 37.33	-1.1
CNPM	1.54	205	iP	28 37.55	-1.3
			eS	28 56.45	
SCM	1.56	53	iP	28 38.15	-1.1
ILIM	1.71	242	iP	28 40.09	-1.2
INE	1.76	242	iP	28 40.76	-1.3
VLZ	1.78	82	iP	28 40.37	-1.8
HIN	1.78	106	iP	28 39.38	-2.9
			eS	29 02.22	
INW	1.79	243	iP	28 41.18	-1.3
KLU	2.04	72	iP	28 44.27	-1.7
HUR	2.07	4	eP	28 45.66	-0.7
CVA	2.10	98	iP	28 43.73	-3.0
AUE	2.32	229	eP	28 47.66	-2.1
AUL	2.32	230	eP	28 48.71	-1.2
AUH	2.34	230	eP	28 49.15	-1.0
MID	2.35	128	P	28 48.70	-1.5
AUI	2.35	229	eP	28 49.54	-0.8
SGAM	2.37	98	iP	28 47.22	-3.4
PDB	2.39	243	iP	28 49.00	-1.8
TRF	2.54	357	eP	28 52.36	-0.8
RND	2.55	11	eP	28 52.80	-0.4
SYI	2.62	209	eP	28 52.64	-1.5
RAGM	2.66	99	iP	28 51.02	-3.7
CDD	2.73	224	eP	28 54.13	-1.5
SVW	2.76	276	eP	28 53.45	-2.8
MCNL	2.80	233	eP	28 54.72	-2.0
PAX	2.96	44	eP	28 59.11	0.1
GLB	3.02	77	eP	28 57.49	-2.4
CROM	3.34	90	iP	29 01.32	-3.3
TGL	3.50	90	eP	29 02.99	-3.7
TTA	3.50	308	eP	29 04.09	-2.6
WRH	3.67	13	eP	29 08.27	-0.7
BALM	3.71	85	eP	29 06.21	-3.6
HDA	3.76	20	eP	29 09.79	-0.6
CCB	3.87	14	eP	29 10.60	-1.2
FBA	4.12	13	eP	29 10.89	-4.4
CTGM	4.21	86	eP	29 14.46	-2.3
IMA	5.43	344	eP	29 31.07	-2.9
	0.4s		0.68nm		3.3mb X

67 obs. associated

% MAR 30, 1993 15h 33m 34.31± 0.88s
26.191 S ±11.8km 27.819 E ±12.5km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.1 (PRE).

SLR	0.62	43	iPd	33 46.00	-0.7
			S	33 53.00	
PRY	0.80	203	eP	33 50.00	-0.4
			S	33 59.00	
KSR	0.89	291	iPd	33 42.50	-9.5X
			S	33 58.50	
BFS	1.16	233	iPc	33 58.00	1.4X
			S	34 15.00	
BFT	2.06	76	eP	34 11.00	0.7
			S	34 35.80	
SEK	2.13	185	eP	34 12.00	0.8
			S	41 39.00	
SWZ	2.44	246	eP	34 16.60	1.0
			S	34 46.00	
BLF	3.25	206	iPd	34 26.10	-0.9
			S	35 03.50	
FRS	4.18	211	eP	34 39.50	-0.6
			S	35 26.00	

S.D. = 1.0 on 7 of 9 obs.

% MAR 30, 1993 15h 58m 34.32± 2.28s
45.969 N ±18.9km 2.970 E ± 6.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (LDG).

MAF	0.38	312	Pg	58 42.40	0.3
			Sg	58 46.90	
BGF	0.60	352	Pg	58 46.00	-0.4
			Sg	58 54.70	
TCF	0.62	301	Pg	58 46.90	0.1
			Sg	58 54.50	
AVF	0.86	18	Pg	58 50.60	-0.3
			Sg	59 02.00	
SMF	0.91	41	Pg	58 51.50	-0.2
			Sg	59 04.00	
LSF	1.04	286	Pg	58 53.60	-0.4
			Sg	59 07.20	
SSF	1.15	19	Pg	58 56.00	0.1
			Sg	59 11.00	
LBF	1.23	34	Pg	58 57.00	-0.3
			Sg	59 13.70	
LOR	1.44	25	Pg	59 01.20	0.8
			Sg	59 19.80	

S.D. = 0.4 on 9 of 9 obs.

MAR 30, 1993 16h 15m 06.37± 0.77s
44.541 N ± 9.0km 18.101 E ± 9.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.2 (LJU). ML 2.9 (TTG).

PLE	1.53	142	iPgd	15 32.74	-1.1
			iSg	15 54.34	
BRY	1.67	169	iPnd	15 36.27	0.3
			iSn	16 00.32	
HVAR	1.81	222	iP	15 37.00	-0.8
NKY	1.85	159	iPnd	15 38.90	0.5
			iSn	16 04.42	
PTJ	2.04	313	ePn	15 41.40	0.2
			iSn	16 07.20	
HCY	2.11	172	iPnc	15 42.87	0.7
			iSn	16 11.40	
IVA	2.12	141	iPnd	15 42.25	-0.1
			iSn	16 10.27	
VBY	2.24	297	ePn	15 44.00	0.0
			i	15 46.50	
			eSn	16 14.50	
			i	16 18.50	
TTG	2.27	158	iPnc	15 44.72	0.2
			iSn	16 14.65	
BDV	2.32	167	iPnc	15 45.40	0.2
			iSn	16 16.28	
PVY	2.37	144	iPnc	15 45.89	-0.2
			iSn	16 16.60	
ULC	2.71	162	iPnd	15 50.77	0.0
			iSn	16 25.63	
CEY	2.86	296	e(Pn)	15 58.50	5.6X
			eSn	16 35.50	
TRI	3.28	292	eP	16 47.50	48.6X
VOY	3.32	298	iPnd	16 06.60	7.1X
			eSn	16 50.60	

S.D. = 0.6 on 12 of 15 obs.

MAR 30, 1993 16h 17m 32.57± 0.80s
37.675 N ± 7.0km 21.364 E ± 5.2km
DEPTH = 10.0km (geophysicist)
3.7mb (2 obs.)
SOUTHERN GREECE (368)
ML 3.7 (THE), 3.5 (ATH).

VLS	0.79	310	ePb	17 48.00	0.0
AGG	1.55	29	ePb	18 00.88	0.7
			eSb	18 21.88	
VLI	1.58	127	ePb	18 01.00	0.4
ATH	1.89	80	ePn	18 04.50	-0.6
			eSn	18 31.50	
IGT	2.02	337	ePn	18 07.56	0.5
			eSn	18 33.10	
KEK	2.38	329	ePn	18 12.20	0.0
SRN	2.45	335	ePn	18 13.90	0.8
LIT	2.58	20	ePn	18 15.30	0.3
			eSn	18 48.20	
KZN	2.65	7	ePn	18 17.00	0.9
TPE	2.82	338	ePn	18 15.50	-3.0X
PAIG	2.89	38	ePn	18 19.08	-0.3
			eSn	18 55.30	
FNA	3.11	0	ePn	18 22.92	0.4
VLO	3.15	333	ePn	18 28.10	5.1X
OUR	3.35	37	ePn	18 25.76	-0.2
GRG	3.37	13	ePn	18 25.48	-0.9
OHR	3.46	353	iPn	18 26.60	-1.0
			i	18 35.80	
			i	19 10.50	
			i	19 22.70	
SOH	3.50	26	iPn	18 28.28	0.1
KNT	3.68	18	ePn	18 30.92	0.2
VAY	3.76	14	iPn	18 33.30	1.5
SRS	3.85	26	iPn	18 32.72	-0.4
			eSn	19 18.92	
TIR	3.85	343	ePn	18 33.50	0.4
PHP	4.07	350	ePn	18 35.80	-0.4
LACI	4.16	343	ePn	18 36.10	-1.3
SKO	4.29	1	iPn	18 39.00	-0.4
			iSn	19 27.00	
SDA	4.60	342	ePn	18 43.50	-0.2
HVAR	6.65	327	i(Pn)	19 09.00	-3.7X
HFS	23.01	350	eP	22 35.50	-2.8X
	0.4s		1.40nm		3.9mb
NB2	24.25	348	P	22 50.00	-0.4
	0.5s		0.70nm		3.5mb

S.D. = 0.7 on 24 of 28 obs.

? MAR 30, 1993 17h 20m 27.92± 4.41s
47.138 N ±20.8km 11.051 E ±24.6km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.3 (VIE).

SOTA	0.14	52	iPgc	20 31.50	0.2
			iSg	20 33.70	
MOTA	0.21	10	iPgc	20 32.50	-0.1
			iSg	20 35.60	
WATA	0.41	61	iPgc	20 36.30	0.0
			iSg	20 42.20	
WTTA	0.42	72	iPgc	20 36.50	0.0
			iSg	20 42.40	
SCE	0.46	102	iPgc	20 37.30	-0.1

S.D. = 0.2 on 5 of 5 obs.

% MAR 30, 1993 17h 22m 06.89± 0.72s
26.390 S ± 5.7km 27.502 E ± 7.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.7 (PRE).

PRY	0.54	183	eP	22 17.00	-0.7
			S	22 23.00	
KSR	0.75	314	eP	22 22.00	-0.2
BFS	0.82	232	eP	22 23.00	-0.3
			S	22 33.60	
SLR	0.96	47	eP	22 25.50	-0.2
			S	22 37.00	
SEK	1.93	177	iPc	22 41.70	0.9
			S	23 06.00	
SWZ	2.10	247	eP	22 43.50	0.2
			S	23 09.00	
BLF	2.95	203	eP	22 55.50	0.1

S.D. = 0.6 on 7 of 7 obs.

MAR 30, 1993 18h 34m 52.33± 1.18s
43.789 N ± 4.6km 128.178 W ± 9.6km
DEPTH = 10.0km (geophysicist)
3.1mb (2 obs.)
OFF COAST OF OREGON (30)

MPOR	3.41	76	P	35 45.90	-0.8
HSO	3.70	92	P	35 50.21	-0.7
TKO	3.73	63	P	35 50.93	-0.3
KMOR	3.82	59	P	35 51.84	-0.7
NLO	4.07	54	P	35 55.75	-0.3
HBO	4.24	87	P	35 58.27	-0.3
SSOR	4.24	73	P	35 58.39	-0.1
BMW	4.41	51	eP	36 00.03	-0.9
PGO	4.42	66	P	36 01.86	0.9
RVW	4.52	57	P	36 02.38	0.0
LVP	4.69	59	P	36 04.99	0.1
BPO	4.74	77	P	36 05.96	0.2
OSR	4.75	37	P	36 05.37	-0.3
CPW	4.77	46	P	36 06.50	0.5
MTMW	4.79	60	P	36 06.48	0.1
TDH	4.81	70	P	36 06.79	0.2
CZM	4.81	55	P	36 05.78	-0.8
ERK	4.84	57	P	36 06.60	-0.5
SHW	4.85	58	eP	36 07.73	0.5
HSR	4.88	59	P	36 08.23	0.6
JLK	4.88	59	P	36 07.85	0.2
YEL	4.89	58	P	36 08.46	0.7
SMW	4.90	42	P	36 07.29	-0.5
ESD	4.91	59	P	36 08.71	0.7

VLL 4.93 68 P 36 08.88 0.5
SOSW 4.93 58 P 36 08.72 0.4
CDFW 4.93 60 P 36 08.76 0.4
TDL 4.94 57 P 36 08.44 0.0
KOSW 5.01 56 P 36 09.36 0.0
VFP 5.04 70 P 36 09.96 0.1
LMW 5.06 53 P 36 10.24 0.2
GULW 5.14 63 P 36 11.80 0.5
ASR 5.24 61 P 36 12.94 0.3
HDW 5.27 41 P 36 12.96 -0.1
GMW 5.33 43 (P) 36 13.94 0.1
LON 5.38 54 eP 36 14.05 -0.6
RVC 5.39 52 P 36 15.12 0.3
REMR 5.40 54 P 36 14.81 -0.2
GLK 5.41 57 P 36 15.51 0.4
WPW 5.51 56 P 36 16.86 0.3
VGB 5.56 69 P 36 16.87 -0.2
FMW 5.56 53 P 36 17.06 -0.2
GSM 5.64 51 P 36 18.08 -0.2
GL2 5.66 65 P 36 18.67 0.1
RMW 5.78 48 P 36 20.23 -0.1
HTW 6.02 46 P 36 23.25 -0.3
JBO 6.18 71 P 36 25.65 -0.3
EBG 6.20 57 P 36 26.43 0.2
TBM 6.31 55 P 36 28.34 0.6
ORV 6.55 128 (P) 36 31.17 0.1
RPW 6.57 42 P 36 31.12 -0.3
MSU 13.16 108 (P) 38 02.46 0.4
RSSD 17.38 81 (P) 38 55.79 -0.8
0.5s 0.87nm 3.1mb
YKA 20.35 18 eP 39 31.50 0.3
0.8s 0.70nm 3.1mb
S.D. = 0.4 on 54 of 54 obs.

? MAR 30, 1993 18h 46m 45.68± 5.23s
51.341 N ±33.8km 16.119 E ±33.5km
DEPTH = 10.0km (geophysicist)
POLAND (548)

KSP 0.51 167 iP 46 56.00 0.0
iS 47 04.80
BRG 1.45 252 iPg 47 11.70 -0.2
iSg 47 32.00
PRU 1.69 217 Pn 47 15.20 -0.1
Pg 47 18.30
e 47 21.60
Sg 47 41.30
i 47 47.90
CLL 1.95 270 iPg 47 19.30 0.1
eSg 47 46.00
KHC 2.75 217 Pn 47 30.90 0.2
e 47 36.00
e 47 41.40
e 48 04.00
eSg 48 15.00
MOX 2.93 258 ePg 47 39.40 6.3X
iSg 48 19.40
eSg 59 46.00
S.D. = 0.2 on 5 of 6 obs.

• MAR 30, 1993 18h 51m 19.66± 0.91s
32.157 S ±12.1km 177.545 W ±14.4km
DEPTH = 10.0km (geophysicist)
4.4mb (6 obs.)
SOUTH OF KERMADEC ISLANDS (179)

RAO 2.91 354 eP 52 06.50 -0.4
eS 52 37.10
PUZ 6.83 209 P 52 56.10 -6.2X
NOZ 7.39 208 eP 53 03.60 -6.5X
URZ 7.50 214 P 53 06.00 -5.6X
S 54 28.10
MNG 10.14 212 eP 53 40.80 -7.5X
S 55 27.30
BRS 26.15 273 iP 56 56.00 0.1
RMO 29.84 272 eP 57 30.90 1.6
CMS 31.04 261 eP 57 40.30 0.5
0.7s 5.00nm 4.5mb
CTA 34.50 281 iPc 58 11.00 0.9
0.7s 8.56nm 4.8mb
i 58 25.00
STK 34.50 259 eP 58 10.00 0.0
0.4s 1.70nm 4.3mb
ASPA 43.43 269 eP 59 23.40 -1.1
0.8s 9.90nm 4.6mb
WB2 44.56 274 iPc 59 32.50 -1.2
1.2s 3.30nm 4.1mb

i 59 45.90
iPcP 01 29.20
iS 05 08.30
WRA 44.57 274 P 59 32.80 -1.0
0.6s 1.20nm 4.0mb
SPA 58.01 180 ePd 01 14.40 -0.4
1.0s 55.00nm 5.5mb X
RES 118.80 18 ePKP 10 09.00 0.3
TRO 141.35 351 ePKP 10 54.75 3.3X
KAF 146.33 340 iPKP 11 00.90 0.7
0.5s 4.00nm
NUR 148.09 339 iPKP 11 06.00 3.0X
0.4s 7.30nm
BCAO 148.57 212 iPKPc 11 08.50 3.2X
1.0s 10.00nm
i 11 18.90
HFS 151.04 348 ePKP 11 12.60 5.0X
0.7s 7.40nm
KIC 153.47 164 PKP 11 02.00 -10.5X
S.D. = 1.0 on 12 of 21 obs.

MAR 30, 1993 18h 52m 53.37± 0.24s
58.111 N ± 5.8km 163.821 E ± 3.1km
DEPTH = 33.0km (normal)
4.7mb (30 obs.)
KAMCHATKA (217)

PET 5.89 212 ePn 54 19.00 -1.5
MGD 7.00 292 ePn 54 35.50 -0.6
e 56 08.00
SEY 7.40 315 ePn 54 41.00 -0.7
ILT 12.56 31 ePn 55 52.00 -0.3
YSS 16.89 238 eP 56 49.30 0.8
Z 16s 0.80um
N 16s 0.50um
YAK 17.33 297 eP 56 54.00 0.0
1.3s 107.00nm 4.8mb
TIK 19.66 327 iPc 57 22.00 0.1
1.6s 52.00nm 4.6mb
TTA 20.09 59 eP 57 25.54 -1.1
1.1s 15.81nm 4.3mb
SVW 20.50 64 eP 57 32.02 1.2
1.0s 43.92nm 4.8mb
BRW 20.87 35 eP 57 33.64 -0.7
IMA 21.03 50 eP 57 35.38 -0.9
1.0s 10.59nm 4.2mb
FBA 23.53 53 eP 58 01.99 1.1
1.0s 6.05nm 4.1mb
MDJ 24.95 252 eP 58 12.50 -2.3
1.0s 9.20nm 4.3mb
KLU 24.99 61 (P) 58 16.03 0.9
BOD 25.85 291 iPc 58 24.50 1.4
1.3s 35.00nm 4.8mb
MAT 27.39 229 eP 58 37.00 -0.4
1.2s 15.63nm 4.5mb
CN2 27.64 256 P 58 43.00 3.4X
1.0s 10.00nm 4.4mb
Z 12s 0.36um 4.2MszX
N 12s 0.24um
E 12s 0.14um
epP 58 53.00 36kmX
CIT 28.83 280 eP 58 51.00 0.7
NRI 32.97 321 eP 59 26.00 -0.5
1.5s 26.00nm 4.9mb
e 00 50.00
IRK 33.48 286 ePc 59 31.50 0.3
1.6s 23.00nm 4.8mb
e 59 38.10
ZAK 35.10 284 iPc 59 46.00 1.0
1.4s 30.00nm 5.0mb
BJI 35.15 260 eP 59 46.00 0.3
2.0s 120.00nm 5.5mb
N 14s 1.39um
E 16s 0.53um
MOY 35.50 287 eP 59 50.10 1.6
HHC 37.00 265 P 00 02.20 0.8
1.6s 14.00nm 4.6mb
Z 16s 0.95um 4.7MszX
N 12s 0.27um
E 12s 0.31um
PP 01 25.00
BTO 38.00 267 eP 00 10.20 0.5
YKA 38.12 48 eP 00 10.30 -0.1
0.7s 1.00nm 3.8mb
TIY 38.84 261 eP 00 17.80 1.0
Z 16s 0.71um 4.6MszX
N 14s 0.51um

ELT 41.74 298 iPc 00 41.10 0.7
1.7s 63.00nm 5.1mb
Z 11s 0.70um 4.8MszX
e 02 18.00
eS 06 48.00
NVS 42.14 302 ePc 00 43.80 0.2
2.0s 58.00nm 5.0mb
e 02 19.40
e 02 36.00
eS 06 57.00
XAN 43.48 261 eP 00 54.50 -0.4
eS 07 18.00
GTA 44.27 274 eP 01 01.00 -0.3
Z 16s 0.63um 4.6MszX
E 12s 0.26um
LZH 44.59 267 Pc 01 04.20 0.1
1.6s 42.00nm 5.0mb
Z 14s 0.39um 4.5MszX
E 11s 0.30um
DPW 45.49 67 (P) 01 11.51 0.6
VGB 45.84 72 (P) 01 14.80 1.1
SES 47.16 60 eP 01 24.00 -0.1
WMQ 47.40 287 eP 01 26.80 0.7
1.5s 13.00nm 4.7mb
LBFM 48.24 76 (P) 01 32.81 -0.1
CD2 48.63 263 P 01 36.50 0.7
BGMT 50.36 66 ePc 01 49.00 -0.1
e 01 54.60
ARU 51.18 316 eP 01 54.00 -0.8
ARN 51.39 80 eP 01 56.89 0.1
i 02 02.85
BW06 53.38 66 iPc 02 11.60 -0.2
1.0s 9.64nm 4.7mb
i 02 17.15
KMI 53.81 259 Pd 02 15.50 0.4
1.5s 50.00nm 5.3mb
pP 02 21.50 20kmX
TPNV 54.44 76 (P) 02 20.21 0.6
1.2s 17.99nm 5.0mb
RSSD 55.00 61 eP 02 22.26 -1.4
1.0s 12.41nm 4.9mb
ARUT 55.23 73 eP 02 26.05 0.7
i 02 31.25
MSU 55.32 72 eP 02 26.28 0.2
e 02 32.10
GSC 55.42 78 ePc 02 27.06 0.4
i 02 32.66
SRU 55.69 70 eP 02 28.47 -0.2
e 02 34.25
KSH 56.51 292 eP 02 36.50 2.0
GOL 57.76 66 eP 02 43.86 0.3
0.6s 2.94nm 4.5mb
NB2 59.27 345 P 02 52.20 -1.3
1.0s 3.80nm 4.5mb
HFS 59.78 343 eP 02 55.10 -1.8
0.5s 1.30nm 4.4mb
GUN 60.48 276 P 03 01.60 -0.9
KKN 60.89 276 P 03 04.00 -1.2
PKI 61.00 276 P 03 05.00 -1.0
GKN 61.06 277 P 03 05.40 -0.8
DMN 61.13 276 P 03 06.00 -0.8
WMOK 64.89 64 eP 03 30.73 -0.6
1.0s 18.35nm 5.1mb
i 03 36.47
LTX 66.88 72 ePd 03 43.51 -0.7
e 03 49.56
MIAR 67.50 61 eP 03 48.04 0.1
1.1s 8.91nm 4.8mb
CLL 68.36 341 eP 03 53.00 0.0
GRS 69.68 313 eP 04 03.00 1.5
1.3s 30.00nm 5.2mb
GEC2 70.60 340 P 04 07.00 0.1
0.6s 0.31nm 3.5mb X
e 04 12.90
GBA 76.67 274 P 04 42.00 -0.5
WRA 81.53 208 P 05 08.60 0.0
1.1s 0.70nm 3.6mb X
TIC 114.83 348 PKP 11 20.60 -11.5X
LIC 115.25 348 PKP 11 19.60 -13.3X
S.D. = 0.9 on 65 of 68 obs.

MAR 30, 1993 19h 08m 57.20± 0.47s
37.724 N ± 5.0km 21.362 E ± 3.1km
DEPTH = 10.0km (geophysicist)
4.2mb (16 obs.)
SOUTHERN GREECE (368)
ML 4.2 (TTG), 4.1 (ATH), 4.0

30d 19h

(THE), 3.8 (TIR).

VLS 0.76 307 ePb 09 12.30 0.2
AGG 1.50 30 ePb 09 24.16 -0.1
eSb 09 46.56
VLI 1.61 128 iPbd 09 25.50 -0.2
ATH 1.88 82 ePn 09 29.00 -0.6
eSn 09 56.00
IGT 1.98 336 ePn 09 31.72 0.6
KEK 2.33 329 ePn 09 37.00 0.8
SRN 2.40 334 iPnd 09 38.70 1.6
iSn 10 10.30
LIT 2.53 20 ePn 09 40.44 1.4
eSn 10 13.00
KZN 2.60 7 ePn 09 41.00 1.0
TPE 2.78 338 ePn 09 41.00 -1.5
PAIG 2.85 39 ePn 09 42.88 -0.6
eSn 10 18.68
FNA 3.06 0 ePn 09 47.28 0.8
eSn 10 24.64
VLO 3.10 333 ePn 09 50.50 3.5X
THE 3.16 23 ePn 09 48.00 0.1
OUR 3.31 37 ePn 09 49.80 -0.3
GRG 3.33 14 ePn 09 50.08 -0.3
OHR 3.41 353 iPn 09 52.00 0.5
i 10 01.70
i 10 35.10
i 10 51.50
SOH 3.46 26 ePn 09 52.70 0.5
KNT 3.63 19 iPn 09 55.50 0.8
eSn 10 39.56
VAY 3.71 14 iPn 09 56.20 0.4
LCI 3.72 316 P 09 55.52 -0.4
TIR 3.80 343 ePn 09 57.00 0.0
iSn 10 41.20
SRS 3.80 26 ePn 09 56.76 -0.3
eSn 10 43.10
PHP 4.02 350 ePn 10 00.10 0.0
iSn 10 46.60
GRI 4.04 287 P 10 03.41 3.0X
LACI 4.11 342 iPnd 10 01.00 -0.3
iSn 10 49.50
PRK 4.14 67 ePn 10 03.70 1.9
SOI 4.21 276 P 10 03.79 0.9
NPS 4.21 124 ePb 10 06.70 3.8X
SKO 4.24 1 iPn 10 02.70 -0.6
iPb 10 10.70
iPg 10 15.00
iSn 10 50.60
GMB 4.37 278 P 10 05.32 0.1
TDS 4.38 298 P 10 07.57 2.3X
ORI 4.49 303 P 10 08.10 1.3
BRT 4.51 316 P 10 06.88 -0.2
ULC 4.54 340 iPnd 10 06.21 -1.2
iSn 10 56.70
SDA 4.55 342 ePn 10 06.60 -1.1
RDO 4.70 42 ePn 10 10.00 0.1
IZM 4.70 80 eP 10 07.70 -2.3
BDV 4.95 338 iPnc 10 11.30 -2.1
iSn 11 06.39
TTG 4.97 342 iPnd 10 12.18 -1.4
iSn 11 07.53
PVY 4.98 348 iPnd 10 13.58 -0.3
iSn 11 09.64
MGR 5.13 300 P 10 17.22 1.3
PZI 5.18 264 P 10 13.81 -2.9X
HCY 5.20 336 iPnc 10 14.20 -2.7X
iSn 11 11.91
IVA 5.26 348 iPnd 10 17.41 -0.4
iSn 11 16.14
NKY 5.40 341 iPnc 10 17.54 -2.2
iSn 11 18.08
BRY 5.60 338 iPnd 10 20.08 -2.6X
iSn 11 21.66
BNT 5.74 61 eP 10 26.40 1.8
PLE 5.80 346 iPnd 10 24.18 -1.2
iSn 11 28.65
KCT 6.00 63 eP 10 26.00 -2.2
HVAR 6.61 327 iPn 10 33.30 -3.5X
DUI 6.62 309 P 10 37.06 0.1
ELL 6.89 96 eP 10 42.50 1.7
SDI 7.05 307 P 10 44.34 1.4
BCK 7.33 89 eP 10 48.00 1.0
EYL 7.40 65 eP 10 45.00 -3.0X
CMP 8.03 19 ePc 11 03.00 6.4X
MNS 8.12 308 P 10 58.11 0.1
MLR 8.48 22 eP 11 06.00 2.9X

ASS 8.52 312 P 11 04.90 1.4
ARV 8.62 315 P 11 05.55 0.7
CVO 8.85 22 eP 11 12.00 3.9X
VBY 9.02 331 ePn 11 06.90 -3.4X
VRI 9.07 24 eP 11 13.00 2.0
UZD 9.10 348 e(P) 11 07.00 -4.4X
PTJ 9.11 335 e(Pn) 11 06.60 -5.1X
CRE 9.26 312 P 11 15.63 1.8
CEY 9.54 329 eP 11 14.80 -2.7X
eS 13 00.60
PGD 9.55 313 P 11 19.43 1.6
LJU 9.74 331 eP 11 17.00 -3.4X
eS 13 05.00
TRI 9.79 327 e(Pn) 11 17.10 -3.8X
e(Sn) 13 04.70
VOY 9.99 329 iPc 11 20.70 -3.1X
eS 13 09.70
CSS 10.04 102 eP 11 30.00 5.5X
eS 13 11.00
PSZ 10.25 354 eP 11 20.60 -6.7X
ZST 10.92 345 eP 11 42.80 6.4X
e 12 15.70
KBA 11.06 330 iPc 11 36.80 -1.8
i(S) 13 43.80
SBF 12.20 305 eP 11 53.60 -0.4
GEC2 12.43 336 Pn 11 52.60 -4.4X
Sn 14 07.10
KHC 12.72 336 eP 11 58.00 -2.8X
e 12 18.00
e 12 41.60
e 15 23.50
PRU 13.20 340 eP 12 14.00 6.8X
e 12 20.00
LPG 13.40 310 eP 12 10.10 0.0
0.7s 3.40nm 4.5mb
LPL 13.42 310 eP 12 10.10 -0.2
KSP 13.60 346 eP 11 54.50 -18.0X
e 12 07.50
BSF 14.69 318 eP 12 28.40 1.5
0.6s 8.55nm 4.5mb
CLL 14.82 339 iP 12 33.80 5.4X
1.5s 12.00nm 4.2mb
HAU 15.03 318 eP 12 32.20 0.9
0.6s 11.00nm 4.5mb
SMF 15.73 310 eP 12 38.90 -1.4
0.8s 6.30nm 3.9mb
LBF 15.81 311 eP 12 40.60 -0.8
LOR 16.02 312 eP 12 43.20 -0.9
SSF 16.13 311 eP 12 44.40 -1.0
0.6s 4.25nm 3.8mb
WLF 16.19 322 P 12 51.00 4.8X
BGF 16.30 309 eP 12 45.90 -1.7
DOU 17.24 321 P 13 01.40 2.0
0.8s 20.00nm 4.3mb
LDF 19.00 312 eP 13 15.70 -5.6X
0.7s 9.25nm 4.1mb
FLN 19.29 312 eP 13 18.80 -6.0X
0.7s 8.60nm 4.1mb
LPF 19.32 309 eP 13 18.70 -6.4X
0.5s 4.00nm 3.9mb
GRR 19.35 310 eP 13 19.40 -6.2X
0.6s 5.50nm 4.0mb
UPP 22.28 355 iP 13 58.60 2.9X
NUR 22.90 4 iP 13 58.80 -3.1X
0.4s 3.30nm 4.2mb
HFS 22.96 350 eP 13 59.80 -2.6X
0.5s 10.80nm 4.6mb
Z 16s 0.16um 3.6MszX
LR 22 51.00
EKA 24.18 325 P 14 14.00 -0.4
2.1s 229.30nm 5.4mb X
NB2 24.20 348 P 14 13.40 -1.1
0.6s 3.80nm 4.2mb
KAF 24.61 6 iP 14 17.50 -0.9
0.4s 3.40nm 4.4mb
BCAO 33.23 185 iPc 15 36.00 -0.6
0.5s 5.00nm 4.7mb
LKO 37.10 228 P 16 08.24 -1.4
GKN 53.14 81 P 18 12.20 -5.4X
DMN 53.69 81 P 18 16.40 -5.3X
KKN 53.74 81 P 18 16.40 -5.7X
PKI 53.94 81 P 18 18.20 -5.5X
GUN 54.15 80 P 18 19.80 -5.5X
S.D. = 1.2 on 70 of 110 obs.

MAR 30, 1993 19h 32m 14.72± 0.31s
44.475 N ± 2.3km 7.285 E ± 3.2km
DEPTH = 10.8 ± 3.3 km
NORTHERN ITALY (545)
ML 2.2 (LDG), 2.1 (GEN).

PZZ 0.13 283 P 32 18.32 0.2
S 32 20.38
STV 0.23 173 P 32 19.92 0.1
S 32 22.90
ENR 0.27 159 P 32 20.57 0.1
BHB 0.37 358 P 32 22.39 0.1
S 32 26.97
ROB 0.46 113 P 32 24.36 0.3
S 32 30.59
TOUF 0.46 183 Pg 32 23.89 -0.3
SAOF 0.53 158 Pg 32 24.97 -0.4
Sg 32 31.61
RRL 0.57 321 P 32 26.42 0.0
S 32 33.84
AURF 0.59 177 Pg 32 25.84 -0.8
Sg 32 33.87
SBF 0.62 170 Pg 32 27.70 0.5
Sg 32 35.10
RSP 0.68 358 P 32 27.06 -1.1
S 32 36.48
IMI 0.71 142 P 32 28.53 -0.2
S 32 37.59
FIN 0.71 112 P 32 28.76 0.0
S 32 38.00
CALN 0.78 202 Pg 32 29.98 0.1
Sg 32 39.66
PCP 0.90 85 P 32 32.46 0.5
S 32 44.82
LSD 0.99 355 P 32 33.85 0.3
S 32 46.00
FRF 1.02 207 Pg 32 34.00 0.0
Sg 32 46.80
LPG 1.09 340 Pg 32 37.60 2.3X
LPL 1.11 340 Pg 32 38.10 2.4X
LRG 1.22 214 Pg 32 37.40 0.1
Sg 32 51.90
LMR 1.27 206 Pg 32 38.10 -0.1
Sg 32 54.00
CDR 1.36 234 eP 32 40.20 0.7
e 32 57.20
S.D. = 0.5 on 20 of 22 obs.

? MAR 30, 1993 20h 12m 53.18± 9.16s
16.447 S ±37.6km 167.874 E ±121.km
DEPTH = 10.0km (geophysicist)
4.7mb (2 obs.)
VANUATU ISLANDS (186)

DZM 5.75 193 iPc 14 19.90 -0.9
HNR 10.40 311 eP 15 25.00 -0.5
CMS 25.03 229 eP 18 18.70 -0.2
0.8s 4.00nm 4.2mb
STK 28.37 232 eP 18 49.70 0.0
ASPA 32.65 252 iPd 19 25.80 -1.9
0.7s 19.90nm 5.2mb
BCAO 147.63 252 ePKPc 32 46.00 8.3X
0.8s 4.00nm
S.D. = 1.1 on 5 of 6 obs.

• MAR 30, 1993 21h 02m 40.92± 1.38s
43.615 N ±14.8km 148.150 E ±16.5km
DEPTH = 33.0km (normal)
3.9mb (2 obs.)
EAST OF KURIL ISLANDS (222)

KUSJ 2.56 260 P 03 19.60 -1.4
S 03 43.10
HOOJ 3.77 253 eP 03 39.70 1.6X
eS 04 19.00
ASAJ 4.01 279 eP 03 42.50 0.9
MRRJ 5.32 260 eP 04 00.30 0.2
eS 04 55.30
AOMJ 6.54 245 eP 04 17.30 0.0
eS 05 26.00
OFUJ 6.65 229 P 04 19.40 0.5
eS 05 27.50
YAMJ 8.20 231 eP 04 40.40 -0.1
eS 06 07.90
NB2 69.99 339 P 13 49.80 -0.9
0.4s 0.50nm 3.9mb
CLL 77.77 333 e(P) 14 36.00 0.1
GEC2 79.63 331 P 14 47.00 0.7
0.5s 0.70nm 3.9mb

e 16 26.20
S.D. = 0.9 on 9 of 10 obs.

? MAR 30, 1993 21h 23m 00.43± 6.40s
34.965 S ±61.0km 71.116 W ±19.9km
DEPTH = 100.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.9 (SAN).

CACH 0.95 27 iP 23 20.79 0.1
iS 23 37.85
LNV 1.04 346 iP 23 21.53 0.0
iS 23 38.69
CHCH 1.10 21 iP 23 22.21 -0.1
iS 23 40.23
LCCH 1.53 346 iP 23 27.35 -0.1
iS 23 49.75
SAN 1.55 14 iP 23 28.04 0.3
iS 23 49.75
FCH 1.77 23 iP 23 30.60 -0.3
iS 23 56.06
PEL 1.85 11 iP 23 31.72 0.1
iS 23 57.20
S.D. = 0.2 on 7 of 7 obs.

---

* MAR 30, 1993 21h 31m 33.81± 1.32s
18.598 S ±12.1km 176.425 W ±13.3km
DEPTH = 340.5 ± 10.7 km
4.8mb (10 obs.)
FIJI ISLANDS REGION (181)

SVA 4.88 275 iPc 32 53.00 0.8
MBU 4.90 289 eP 32 51.80 -0.7
URZ 20.39 195 eP 35 45.20 -1.0
BRS 29.61 247 iP 37 12.00 1.4
TOO 38.22 232 eP 38 27.50 4.0X
0.3s 7.00nm 4.5mb
STK 39.97 242 iPd 38 38.70 0.9
0.5s 5.40nm 4.1mb
WB2 46.35 260 eP 39 28.20 -0.7
0.3s 17.20nm 4.8mb
eS 45 48.90
ASPA 46.43 255 iPd 39 29.40 -0.1
0.6s 63.10nm 5.0mb
iS 45 51.50
MTN 50.67 268 iPc 40 01.20 -0.6
0.6s 35.00nm 4.9mb
KNA 52.28 264 eP 40 13.00 -0.7
NANU 63.34 254 iPc 41 30.00 0.1
0.3s 6.00nm 4.7mb
MAT 69.59 322 iPd 42 08.10 -0.5
0.8s 28.36nm 5.0mb
SLKM 81.63 13 iPc 43 14.76 -0.5
TTA 82.83 9 ePd 43 21.76 0.4
BALM 83.95 16 ePc 43 26.84 -0.2
LTX 84.78 57 eP 43 33.08 1.2
BJI 85.60 315 eP 43 36.50 1.0
1.4s 33.00nm 5.0mb
FBA 86.08 12 iPc 43 37.01 -0.3
0.8s 13.16nm 4.9mb
YKA 94.18 24 eP 44 14.60 -0.4
0.7s 0.90nm 4.0mb
NAV 105.40 55 ePKP 49 18.63 0.5X
APO 137.46 352 ePKP 50 06.80 -11.7X
0.4s 0.70nm
KVT 144.33 316 iPKP 50 27.00 -4.3X
WIT 145.77 357 ePKP 50 36.00 2.8X
KSP 146.27 345 iPKPd 50 37.00 2.8X
0.8s 300.00nm
CLL 146.52 349 iPKPd 50 37.30 2.8X
0.9s 40.00nm
i 50 48.10
WTS 146.58 356 ePKP 50 37.50 3.0X
0.9s 17.90nm
VRI 146.73 330 ePKP 50 37.00 1.9X
BRG 146.76 348 iPKPd 50 37.70 2.8X
0.8s 18.00nm
MLR 147.38 330 ePKP 50 39.50 3.2X
MOX 147.39 350 iPKP 50 39.80 3.8X
PRU 147.47 347 PKPd 50 40.00 3.9X
0.7s 5.10nm
e 50 42.70
HRI 147.75 303 iPKPd 50 41.70 4.5X
ENN 147.85 357 ePKP 50 46.00 9.4X
0.7s 5.30nm
PSZ 147.87 339 ePKP 50 41.00 4.1X
GRF 148.38 351 iPKPd 50 42.80 5.2X
ic 50 46.80
SRO 148.47 341 iPKP 50 47.40 9.7X
KHC 148.49 347 ePKP 50 43.00 5.2X
1.0s 5.40nm
e 50 47.20
ZST 148.49 343 e(PKP)50 42.40 4.6X
DSI 148.56 300 iPKPd 50 43.50 5.1X
DOU 148.57 359 PKPc 50 42.90 5.1X
0.7s 12.20nm
GEC2 148.73 347 PKP 50 43.30 5.0X
0.9s 8.31nm
e 50 48.50
e 50 53.60
e 55 16.80
e 55 40.40
WLF 148.94 357 iPKPc 50 44.48 6.1X
1.0s 11.60nm
CSS 148.99 308 ePKP 50 44.00 5.0X
PRNI 149.20 298 iPKPd 50 45.30 5.8X
FLN 149.73 5 ePKP 50 45.10 5.5X
0.5s 9.35nm
LDF 149.93 5 ePKP 50 45.50 5.6X
0.5s 6.25nm
GRR 150.07 6 ePKP 50 46.10 6.0X
0.5s 10.50nm
CDF 150.11 355 ePKP 50 46.50 6.1X
0.6s 5.60nm
LPF 150.40 6 ePKP 50 47.00 6.4X
0.4s 12.15nm
KBA 150.48 346 iPKPc 50 47.00 5.9X
0.6s 9.20nm
HAU 150.58 356 ePKP 50 47.50 6.5X
0.5s 6.25nm
WATA 150.60 349 iPKPd 50 47.40 6.2X
WTTA 150.66 349 iPKPd 50 47.80 6.5X
0.6s 19.40nm
BSF 150.72 356 ePKP 50 47.70 6.4X
0.5s 4.80nm
SQTA 150.77 349 iPKPd 50 48.00 6.6X
0.4s 5.00nm
VOY 151.34 345 iPKPd 50 48.80 6.5X
e 50 58.10
HYF 151.40 1 ePKP 50 49.60 7.4X
LOR 151.41 360 ePKP 50 49.40 7.2X
0.4s 3.85nm
VBY 151.47 343 ePKPd 50 50.00 7.7X
CEY 151.48 344 ePKP 50 49.50 7.1X
e 50 58.60
SSF 151.61 0 ePKP 50 49.90 7.4X
0.7s 4.65nm
MFF 151.90 5 ePKP 50 50.30 7.4X
0.4s 3.15nm
BGF 152.11 1 ePKP 50 50.90 7.6X
0.5s 3.20nm
TCF 152.36 2 ePKP 50 51.30 7.6X
0.5s 2.85nm
LSF 152.37 3 ePKP 50 51.20 7.6X
MAF 152.44 2 ePKP 50 52.00 8.3X
S.D. = 0.8 on 18 of 66 obs.

MAR 30, 1993 21h 43m 21.16± 0.34s
42.994 N ± 3.5km 145.320 E ± 2.7km
DEPTH = 94.4 ± 3.2 km
5.0mb (75 obs.)
HOKKAIDO, JAPAN REGION (224)

KUSJ 0.46 283 iPd 43 36.40 0.2
eS 43 46.60
SHO 1.39 51 iPnd 43 46.30 0.3
iS 44 03.00
HOOJ 1.62 249 iPd 43 51.00 2.0
S 44 12.30
ASAJ 2.25 301 iP+ 43 59.60 2.2
S 44 26.70
KUR 2.89 38 iPnd 44 07.00 0.9
eS 44 40.00
MRRJ 3.18 261 iPd 44 11.10 1.1
eS 44 46.40
YSS 4.43 336 iPnc+ 44 26.10 -1.1
Z 12s 1.20um
N 12s 1.50um
eS 45 15.00
AOMJ 4.43 238 eP 44 27.00 -0.2
eS 45 19.00
OFUJ 4.79 216 eP 44 30.80 -1.4
eS 45 23.30
YAMJ 6.27 222 eP 44 51.60 -1.2
S 46 03.10
NIIJ 7.51 222 P 45 09.10 -0.7
KAKJ 7.86 212 P 45 11.50 -3.0X
eS 46 34.10
MAT 8.45 223 iPd 45 21.70 -1.0
0.7s 97.95nm 5.6mb
eS 46 54.00
CHJJ 8.48 217 P 45 21.80 -1.3
eS 46 49.00
MTMJ 8.62 225 P 45 24.80 -0.3
IIDJ 9.45 220 P 45 35.70 -0.5
eS 47 17.00
TSRJ 10.38 227 eP 45 47.50 -1.2
MDJ 11.48 283 eP 46 02.70 -0.7
0.9s 50.00nm 5.3mb
WKYJ 11.59 224 P 46 12.00 7.0X
YONJ 12.06 234 P 46 11.60 0.6
TKSJ 12.59 228 P 46 18.30 0.3
CN2 14.47 280 Pc 46 40.50 -2.0
1.0s 110.00nm 5.1mb
SNY 16.10 273 eP 47 01.90 -1.1
1.2s 39.00nm 4.5mb
MGD 17.46 9 eP 47 16.00 -3.7X
0.6s 30.00nm 4.7mb
e 50 30.00
DL2 18.34 265 eP 47 31.50 0.9
1.0s 89.00nm 5.0mb
SEY 20.37 9 eP 47 48.50 -3.5X
1.6s 30.00nm 4.4mb
e 48 22.00
iS 51 30.00
YAK 21.18 339 eP 47 55.30 -4.8X
0.7s 134.00nm 5.4mb
i 48 28.00
iPPP 48 39.00
eS 51 40.00
e 51 56.00
eSSS 52 24.00
e 59 11.00
BJI 21.97 272 eP 48 09.50 1.3
1.5s 140.00nm 5.1mb
Z 12s 0.30um 3.9MszX
SSE 22.54 246 Pc 48 24.50 10.7X
1.0s 9.00nm
sP 48 36.50
SSE 22.54 246 Pc 48 14.50 0.7
1.0s 9.00nm 4.1mb
TIA 22.69 262 Pc 48 15.50 0.2
CIT 23.09 304 eP 48 16.00 -3.1X
NJ2 23.57 251 Pd 48 26.00 2.2
BOD 24.50 318 iPc 48 29.60 -2.9X
0.8s 25.00nm 4.7mb
TIY 25.51 269 Pc 48 43.50 1.2
Z 20s 0.50um 4.0Msz
E 16s 0.51um
BTO 26.31 277 P 48 50.00 0.3
1.2s 83.00nm 5.1mb
pP 49 13.50 108kmX
WHN 27.58 253 eP 49 02.00 0.8
IRK 28.81 303 iPd 49 12.00 0.0
e 49 29.50
ZAK 29.44 299 iPc 49 18.00 0.3
1.2s 121.00nm 5.4mb
Z 13s 0.29um 4.1MszX
E 12s 0.38um
XAN 29.66 265 P 49 19.50 -0.3
1.0s 11.00nm 4.5mb
PP 50 20.00
TIK 29.83 350 eP 49 16.00 -4.9X
1.0s 9.00nm 4.4mb
MOY 30.86 302 ePc 49 30.00 -0.1
1.2s 120.00nm 5.5mb
ILT 31.39 25 iPc 49 31.00 -3.6X
1.0s 60.00nm 5.3mb
i 54 30.00
LZH 32.46 272 Pc 49 44.50 0.0
1.5s 40.00nm 5.0mb
Z 20s 0.25um 3.9Msz
GTA 34.11 280 eP 49 58.50 -0.2
0.8s 13.00nm 4.8mb
CD2 35.00 264 P 50 06.40 0.1
GYA 35.44 255 P 50 14.40 4.3X
TTA 38.86 39 eP 50 38.25 -0.1
1.1s 21.84nm 4.9mb
e 50 53.58
SVW 39.00 41 eP 50 39.75 0.2
1.2s 53.24nm 5.3mb

30d 21h

i 50 50.27
KMI 39.05 257 Pc 50 41.50 1.0
1.0s 30.00nm 5.1mb
NRI 39.10 332 iPc 50 36.00 -4.1X
1.0s 14.00nm 4.8mb
e 52 48.00
ELT 39.66 306 iPc 50 44.70 -0.3
1.3s 166.00nm 5.7mb
e 52 18.00
eS 56 38.00
BRW 39.76 25 iPc 50 44.43 -1.1
e 50 56.57
IMA 40.05 34 iPd 50 47.82 -0.4
0.6s 26.62nm 5.3mb
e 51 01.93
RSO 40.42 42 eP 50 51.88 0.5
CP2 40.63 41 ePd 50 53.83 0.7
CRP 40.67 41 iPd 50 53.75 0.3
KDC 40.79 47 eP 50 53.60 -0.6
WMQ 41.13 292 P 50 57.50 0.2
1.0s 21.00nm 4.9mb
Z 16s 0.26um 4.2MszX
eS 57 03.50
SLKM 41.67 42 eP 51 00.12 -1.3
PMR 42.10 40 eP 51 04.08 -0.8
1.1s 53.45nm 5.3mb
e 51 45.47
FBA 42.49 36 iPd 51 08.20 0.2
0.9s 58.54nm 5.4mb
KLU 43.64 40 iPd 51 17.41 -0.1
e 51 48.35
LSA 44.88 271 P 51 29.40 1.1
BALM 45.42 41 iPc 51 31.91 0.1
SHL 46.65 266 eP 51 44.50 2.5X
eS 58 40.00
GUN 49.72 273 P 52 06.00 0.0
KKN 50.23 273 P 52 10.00 0.3
0.7s 15.00nm 5.1mb
PKI 50.26 273 P 52 10.00 -0.1
DMN 50.46 273 P 52 11.60 0.1
1.0s 61.00nm 5.6mb
GKN 50.58 274 P 52 12.40 0.1
0.6s 22.00nm 5.4mb
KSH 50.92 291 P 52 15.50 0.8
SVE 52.78 317 ePc 52 28.00 -0.3
2.0s 140.00nm 5.6mb
e 53 37.20
ARU 53.98 317 iPc 52 36.00 -1.0
1.4s 240.00nm 6.0mb X
e 53 04.00
NDI 55.61 279 iPc 52 48.70 -0.6
YKA 57.17 33 eP 52 59.00 -0.9
0.9s 10.60nm 4.9mb
KEV 58.95 339 eP 53 10.00 -2.3
DAG 60.09 356 eP 53 18.50 -1.5
1.0s 15.00nm 5.1mb
SDF 60.68 337 iP 53 23.20 -0.9
JCW 61.22 50 P 53 27.88 -0.3
BMW 61.43 52 P 53 29.74 0.1
RMW 61.70 50 eP 53 31.70 0.3
QUE 62.10 286 eP 53 35.10 0.7
ASR 62.55 51 P 53 37.15 0.0
WTV 62.60 49 P 53 36.70 -0.7
SAW 62.91 49 P 53 38.81 -0.5
VGB 63.38 52 eP 53 42.53 0.0
WB2 63.43 192 eP 53 40.90 -2.0
0.7s 4.60nm 4.5mb
i 54 06.40
WRA 63.43 192 P 53 42.70 -0.2
0.6s 0.80nm 3.8mb X
DPW 63.47 48 iPd 53 42.77 -0.3
CROR 63.57 52 P 53 43.79 0.0
MAIO 63.66 296 eP 53 37.00 -7.6X
NEW 63.83 48 iPc 53 44.77 -0.7
0.8s 30.31nm 5.3mb
JBO 63.95 51 P 53 46.20 0.0
KAF 64.38 333 iP 53 47.20 -1.5
0.6s 29.70nm 5.4mb
LNOR 64.60 50 P 53 50.54 0.1
GBA 64.70 265 P 53 52.00 0.7
OBN 65.12 323 eP 53 52.00 -1.5
Z 12s 0.60um 5.0MszX
LBFM 65.15 56 iPd 53 54.48 0.2
SES 65.71 43 iPd 53 56.90 -0.6
NUR 66.09 332 iP 53 58.60 -1.0
0.6s 49.70nm 5.6mb
ORV 66.45 57 ePd 54 01.60 -0.7
e 54 11.72
KOD 66.91 262 eP 54 10.00 4.1X
ASPA 67.16 191 iPc 54 07.50 0.7
0.5s 10.00nm 5.0mb
FCC 67.34 29 ePd 54 09.40 1.9
ARN 67.77 59 eP 54 11.02 0.3
CMB 68.07 58 ePd 54 12.48 -0.1
1.1s 31.69nm 5.2mb
LCCM 68.15 47 iPd 54 13.00 -0.1
UPP 68.89 335 iP 54 16.70 -0.4
i 54 17.70
MEMM 69.19 58 eP 54 20.80 1.4
N82 69.82 338 P 54 21.80 -1.1
0.9s 37.90nm 5.2mb
HFS 69.86 337 eP 54 22.40 -0.7
0.4s 19.90nm 5.3mb
TNP 69.99 56 ePd 54 24.85 0.3
0.8s 27.45nm 5.2mb
GRS 70.02 306 eP 54 25.00 0.4
e 54 47.00
NAO 70.10 338 P 54 22.79 -1.8
HVU 70.26 51 eP 54 26.46 0.4
FRB 70.27 15 ePd 54 24.10 -1.4
DUG 71.26 52 ePc 54 32.18 0.0
0.9s 18.02nm 4.9mb
TPNV 71.31 57 eP 54 32.79 0.3
0.8s 35.52nm 5.3mb
BW06 71.41 49 iPd 54 32.94 -0.1
0.9s 27.33nm 5.1mb
ANN 71.55 315 eP 54 36.50 3.0X
Z 14s 1.00um 5.2MszX
GSC 72.02 58 iPd 54 36.81 0.1
EMUT 72.67 52 ePd 54 40.91 0.3
PEC 72.71 60 eP 54 40.55 -0.1
0.8s 18.34nm 5.0mb
ULM 72.90 36 ePd 54 43.40 2.0
RSSD 73.44 45 ePc 54 44.36 -0.6
0.8s 12.37nm 4.8mb
BSD 73.57 333 iPc 54 47.10 1.9
0.7s 57.00nm 5.5mb
i 55 12.40
KIS 74.23 320 eP 54 52.00 2.9X
STK 74.59 183 eP 54 52.20 1.0
1.5s 1.20nm 3.5mb X
e 55 16.70
GLA 74.73 59 ePc 54 53.08 0.7
KSP 76.55 330 eP 55 02.60 0.3
i 55 06.00
CLL 77.36 332 iP 55 06.50 -0.2
0.9s 11.00nm 4.7mb
i 55 09.90
JAQ 77.36 24 eP 55 05.50 -1.2
BRG 77.38 331 eP 55 07.80 0.9
e 55 40.60
VRAC 77.69 328 P 55 09.20 0.7
1.6s 131.70nm 5.5mb
TUC 77.75 57 eP 55 10.34 1.0
1.0s 18.24nm 4.9mb
PRU 77.90 330 eP 55 10.00 0.3
e 55 13.80
e 55 51.80
e 56 03.00
SRO 78.22 327 eP 55 13.90 2.4X
ZST 78.39 328 eP 55 13.00 0.6
EKA 78.45 342 P 55 13.00 0.4
1.2s 27.70nm 5.0mb
KHC 78.96 330 Pc 55 16.60 1.0
1.0s 5.40nm 4.4mb
e 55 38.00
e 55 57.50
GRF 79.33 332 e(PKP)55 18.40 0.8
e 55 22.10
KBA 80.76 329 iPc 55 26.30 0.9
0.9s 14.90nm 4.8mb
i 55 30.30
CDF 81.77 333 eP 55 29.80 -0.7
0.8s 12.65nm 4.8mb
HAU 82.43 334 eP 55 33.00 -0.9
BSF 82.44 333 eP 55 33.00 -1.0
0.6s 4.35nm 4.5mb
EEO 82.46 29 eP 55 36.00 1.9
WMOK 83.02 48 iPd 55 37.45 0.3
0.9s 18.29nm 5.0mb
e 56 02.32
LDF 83.86 338 eP 55 41.00 -0.2
LOR 83.88 335 eP 55 40.70 -0.6
0.7s 8.50nm 4.8mb
LBF 84.09 335 eP 55 41.80 -0.6
0.8s 7.40nm 4.7mb
SSF 84.17 335 eP 55 42.30 -0.5
0.9s 8.70nm 4.7mb
LTX 84.18 55 iPd 55 43.80 0.6
GRR 84.25 338 eP 55 42.90 -0.2
0.8s 17.05nm 5.1mb
SMF 84.44 334 eP 55 43.90 -0.2
0.8s 15.30nm 5.0mb
AVF 84.46 335 eP 55 44.10 -0.1
0.9s 10.95nm 4.8mb
LPL 84.48 332 eP 55 44.60 0.0
0.5s 3.30nm 4.5mb
LPG 84.49 332 eP 55 44.80 0.1
0.8s 7.95nm 4.7mb
LPF 84.63 338 eP 55 45.00 0.0
FVM 84.83 41 ePd 55 46.34 0.1
0.8s 13.36nm 4.9mb
MAF 85.21 335 eP 55 47.60 -0.4
0.9s 10.80nm 4.8mb
TCF 85.26 335 eP 55 48.20 -0.1
LSF 85.50 336 eP 55 49.60 0.1
SBF 85.67 331 eP 55 49.60 -0.8
MFF 85.68 337 eP 55 50.50 0.2
0.7s 6.15nm 4.7mb
MIAR 85.95 45 eP 55 52.18 0.4
1.0s 29.94nm 5.3mb
ELC 85.96 41 eP 55 52.46 0.6
OLY 86.28 43 eP 55 53.58 0.1
RJF 86.36 335 eP 55 53.90 0.2
LRG 86.41 331 eP 55 53.70 -0.2
0.9s 17.70nm 5.1mb
LMR 86.46 331 eP 55 53.90 -0.3
0.9s 10.50nm 4.9mb
CAF 86.53 335 eP 55 55.40 0.8
1.1s 23.20nm 5.1mb
LFF 86.92 336 eP 55 57.00 0.6
0.9s 14.10nm 5.0mb
LPO 87.02 335 eP 55 57.40 0.5
0.9s 10.80nm 4.9mb
TBR 88.97 29 eP 56 06.49 0.2
LHS 92.13 37 (P) 56 21.48 0.5
LPB 141.22 58 ePKP 02 40.00 -3.1X
CNCB 141.50 58 PKP 02 39.80 -4.0X
SOB1 145.91 11 ePKP 02 51.50 0.8
BAO 150.45 27 ePKP 03 03.90 6.0X
e 03 10.90
BDF 150.50 27 iPKPd 03 03.20 5.2X
S.D. = 0.8 on 159 of 181 obs.

MAR 30, 1993 22h 25m 22.10± 0.90s
38.379 N ± 6.7km 45.047 E ± 4.9km
DEPTH = 45.1 ± 10.0 km
4.5mb (20 obs.)
ARMENIA-AZERBAIJAN-IRAN BORD REG(344)
Felt in the Khvoy, Qareh Zia ad Din and Salmas areas, Iran.

TAB 1.05 107 iPc 25 39.80 -1.0
GRS 1.50 41 iPnd- 25 45.60 -1.6
KRV 2.48 23 iPn 26 01.00 0.2
MTA 3.32 357 iPnd 26 16.40 3.6X
iS 27 01.00
SHE 3.57 50 ePn 26 17.00 0.6
i 26 28.00
i 27 09.00
i 27 18.00
BAK 4.26 60 iPnd 26 34.00 7.9X
iS 27 26.00
KER 4.35 157 eP 26 28.00 0.5
TBZ 4.83 304 eP 26 38.00 3.8X
MAK 4.97 21 iPnc+ 26 52.60 16.5X
Z 13s 3.50um
N 13s 1.10um
E 13s 1.60um
iS 27 56.00
GRO 4.99 5 iPnd 26 47.00 10.7X
eS 27 46.00
PYA 5.84 346 eP 27 08.00 19.5X
GAZ 6.32 261 eP 27 08.00 12.8X
SOC 6.58 324 eP 27 02.00 3.3X
Z 16s 1.90um
N 11s 1.50um
E 11s 0.40um
e 28 16.00
KAS 9.17 293 iPd 27 38.20 3.4X
ASH 10.49 88 eP 27 51.50 -1.3

MAIO 11.69 96 eP 28 08.00 -1.1
VRI 15.50 305 eP 29 01.00 1.9
CVO 15.84 304 eP 29 05.00 1.5
MLR 15.87 303 eP 29 05.00 1.0
OBN 17.68 344 eP 29 24.00 -2.4X
MOS 18.07 346 eP 29 32.00 0.8
SKO 18.38 289 eP 29 36.50 1.3
OHR 18.83 286 eP 29 36.30 -4.5X
UZH 19.35 309 eP 29 45.00 -1.6
ARU 20.16 22 eP 29 54.00 -1.1
e 33 40.00
PSZ 20.60 306 eP 29 57.60 -2.2
BUD 21.03 304 e(P) 30 04.00 -0.1
UZD 21.10 301 eP 30 04.80 0.0
SVE 21.13 24 ePd 30 07.00 1.9
1.9s 120.00nm 4.9mb
Z 22s 0.50um 3.9Msz
N 22s 0.50um
E 22s 0.20um
SRO 21.59 304 eP 30 12.10 2.4X
e 30 22.30
ZST 22.47 305 eP 30 18.30 -0.2
VBY 23.18 297 ePc 30 27.00 1.5
CEY 23.79 298 eP 30 32.00 0.6
KSP 23.79 311 eP 30 32.50 1.1
KSH 24.04 78 eP 30 37.50 3.5X
VOY 24.20 298 e(P) 30 37.20 1.8
PRU 24.59 308 eP 30 40.00 1.0
KBA 24.72 301 iPc 30 40.20 -0.4
0.9s 14.80nm 4.5mb
i 30 49.50
GEC2 24.82 305 P 30 41.70 0.2
0.9s 6.11nm 4.1mb
e 30 48.30
KHC 24.97 306 P 30 42.60 -0.2
1.0s 7.90nm 4.2mb
e 31 25.00
NUR 25.60 336 iP 30 49.10 0.6
0.7s 6.50nm 4.3mb
KAF 26.41 340 iP 30 55.90 0.0
GRF 26.60 306 eP 30 59.80 2.0
ec 31 01.70
PGF 27.61 290 eP 31 06.60 -0.6
0.9s 10.00nm 4.5mb
LPG 29.15 297 eP 31 20.40 -0.9
HFS 29.40 328 eP 31 21.20 -1.8
0.6s 10.10nm 4.7mb
Z 18s 0.20um 3.8Msz
LR 42 14.00
NB2 30.92 328 P 31 34.20 -2.3X
0.7s 2.30nm 4.0mb
SMF 31.18 299 eP 31 37.90 -1.0
AVF 31.52 299 eP 31 40.60 -1.3
0.8s 4.85nm 4.4mb
ELT 31.85 49 eP 31 49.50 4.9X
1.0s 12.00nm 4.7mb
MAF 32.07 298 eP 31 46.00 -0.7
TCF 32.31 298 eP 31 48.10 -0.8
0.8s 3.75nm 4.3mb
WMQ 32.32 67 P 31 54.80 5.8X
0.7s 5.10nm 4.5mb
LFF 33.41 296 eP 31 57.80 -0.6
FLN 34.12 303 eP 32 03.10 -1.3
GRR 34.37 302 eP 32 05.40 -1.2
0.8s 13.85nm 4.9mb
GKN 34.48 95 P 32 08.60 0.6
DMN 35.03 96 P 32 14.10 1.3
KKN 35.08 95 P 32 14.20 1.0
PKI 35.29 96 P 32 16.00 0.9
GUN 35.50 95 P 32 18.10 1.2
HYB 35.94 116 eP 32 21.00 0.7
EKA 36.22 314 P 32 22.00 -0.3
0.9s 15.00nm 4.9mb
GBA 37.83 122 P 32 43.00 6.8X
BCAO 41.52 222 iPd 33 09.00 2.3
0.4s 5.00nm 4.6mb
ZAK 42.28 54 eP 33 19.00 6.4X
1.0s 6.00nm 4.3mb
BOD 47.77 42 eP 33 55.60 -0.8
0.8s 6.00nm 4.7mb
KMI 50.07 88 Pc 34 20.20 5.4X
1.2s 20.00nm 5.0mb
pP 34 26.00 19kmX
HHC 50.18 65 iPc 34 20.00 4.7X
XAN 50.81 74 eP 34 23.70 3.6X
TIY 51.95 68 eP 34 34.40 5.6X
TIK 52.18 24 eP 34 35.00 5.1X
0.6s 13.00nm 5.1mb
e 34 41.00
GYA 52.49 84 eP 34 40.00 7.0X
KIC 55.08 248 P 34 50.40 -1.6
TIC 55.09 248 P 34 50.40 -1.7
LIC 55.38 248 P 34 52.00 -2.1
BUL 60.22 198 eP 35 28.70 0.6
YKA 78.14 351 eP 37 23.00 5.4X
0.5s 0.30nm 3.6mb
S.D. = 1.2 on 53 of 78 obs.

• MAR 30, 1993 22h 37m 03.74± 1.27s
37.745 N ±10.6km 21.455 E ± 9.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.2 (ATH), 3.2 (THE).

VLS 0.81 302 ePg 37 19.00 -0.4
AGG 1.45 28 ePb 37 30.80 0.8
iSb 37 50.92
VLI 1.57 130 ePb 37 32.00 0.4
ATH 1.80 82 ePb 37 34.20 -0.9
IGT 1.99 334 iPn 37 39.72 1.9
eSn 38 06.60
KEK 2.35 327 ePg 37 46.00 3.0X
LIT 2.49 19 ePn 37 46.50 1.6
eSn 38 19.64
KZN 2.57 5 ePb 37 46.50 0.3
PAIG 2.79 38 ePn 37 48.88 -0.3
GRG 3.29 13 ePn 37 55.28 -1.1
OHR 3.40 352 ePn 37 56.70 -1.2
SOH 3.41 25 ePn 37 57.84 -0.2
KNT 3.59 18 ePn 38 00.96 0.4
VAY 3.67 13 ePn 38 03.00 1.2
SKO 4.22 360 ePn 38 07.00 -2.5
S.D. = 1.3 on 14 of 15 obs.

MAR 30, 1993 23h 21m 21.01± 0.55s
46.145 N ± 4.8km 1.159 E ± 5.1km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 3.0 (LDG).

LSF 0.28 68 Pg 21 26.60 0.0
Sg 21 31.40
TCF 0.74 79 Pg 21 35.30 -0.6
Sg 21 46.20
RJF 0.88 163 Pg 21 38.30 0.0
Sg 21 51.20
MAF 0.98 85 Pg 21 39.70 -0.4
Sg 21 53.90
MFF 1.01 297 Pg 21 35.00 -5.6X
Sg 21 46.10
BGF 1.24 70 Pg 21 43.90 -0.6
Sg 22 00.70
LFF 1.24 194 Pg 21 44.00 -0.5
Sg 22 00.90
CAF 1.38 152 Pg 21 47.60 0.7
Sg 22 07.00
LPO 1.46 179 Pg 21 48.30 0.2
Sg 22 08.50
AVF 1.65 66 Pn 21 48.50 -2.2
Pg 21 50.60
Sg 22 12.40
SSF 1.86 60 Pn 21 51.00 -2.8X
Pg 21 53.60
Sg 22 18.20
SMF 1.92 74 Pg 21 55.90 1.2
Sg 22 21.40
LBF 2.12 66 Pg 21 58.80 1.2
Sg 22 26.50
LOR 2.17 58 Pg 21 59.40 1.1
Sg 22 27.80
LPF 2.41 322 Pg 22 00.60 -1.2
Sg 22 28.50
LDF 2.60 341 Pg 22 05.00 0.6
Sg 22 35.30
GRR 2.63 329 Pg 22 04.00 -0.8
Sg 22 36.60
FLN 2.85 338 Pg 22 09.30 1.4
Sg 22 43.50
S.D. = 1.1 on 16 of 18 obs.

MAR 31, 1993 00h 25m 34.02± 0.97s
37.673 N ± 8.0km 21.411 E ± 7.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.5 (THE), 3.2 (ATH).

VLS 0.82 308 ePg 25 49.50 -0.4
AGG 1.53 28 ePb 26 01.90 0.5
eSb 26 22.54
VLI 1.55 128 ePb 26 02.20 0.6
ATH 1.85 80 ePn 26 05.20 -0.8
IGT 2.04 336 ePn 26 08.98 0.2
eSn 26 36.40
KEK 2.40 329 ePg 26 20.00 6.1X
LIT 2.57 19 ePn 26 17.30 1.0
eSn 26 49.90
PAIG 2.86 38 iPn 26 20.06 -0.5
OUR 3.33 36 iPn 26 26.50 -0.6
GRG 3.37 13 ePn 26 27.78 0.0
OHR 3.47 352 iPn 26 29.10 0.0
SOH 3.49 25 iPn 26 28.94 -0.5
KNT 3.67 18 ePn 26 32.26 0.2
VAY 3.75 13 ePn 26 34.40 1.2
SKO 4.29 0 ePn 26 40.00 -0.9
S.D. = 0.7 on 14 of 15 obs.

& MAR 31, 1993 00h 58m 33.33s
60.187 N 150.187 W
DEPTH = 52.9km
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 2.5 (AEIC), 2.9
(PMR).

SLKM 0.32 357 iP 58 42.92 -0.1
eS 58 50.46
SEW 0.38 102 eP 58 42.77 -0.7
MPA 0.51 53 iP 58 44.35 -0.6
eS 58 52.76
BRLK 0.55 220 eP 58 44.96 -0.5
eS 58 53.91
NKA 0.76 317 iP 58 49.19 1.1
CNPM 0.85 219 eP 58 48.68 -0.6
eS 59 00.12
PTE 0.89 40 eP 58 48.87 -0.9
PMS 1.11 16 P 58 52.20 -0.6
REF 1.29 285 eP 58 54.91 -0.6
eS 59 11.74
DFR 1.31 289 eP 58 54.71 -0.9
eS 59 12.10
RSO 1.31 283 P 58 52.90 -2.9
RED 1.31 281 eP 58 54.73 -0.9
eS 59 12.00
RS1 1.31 283 eP 58 55.24 -0.5
RS2 1.31 283 eP 58 55.30 -0.5
SUA 1.31 348 eP 58 54.94 -0.8
eS 59 12.35
SPU 1.36 318 eP 58 55.37 -0.9
ILIM 1.39 267 eP 58 55.69 -1.1
NCT 1.41 287 eP 58 56.17 -1.0
CPAM 1.44 319 eP 58 56.91 -0.6
INE 1.45 266 eP 58 56.46 -1.2
CRP 1.45 319 eP 58 56.35 -1.4
CKL 1.46 315 eP 58 56.85 -1.0
CP2 1.48 318 eP 58 57.41 -0.8
PLRM 1.50 20 eP 58 56.96 -1.3
PMR 1.50 20 eP 58 56.68 -1.6
BGL 1.53 316 eP 58 57.91 -0.9
GHO 1.71 21 eP 59 00.21 -1.0
HIN 1.85 82 eP 59 00.34 -2.8
SML 1.86 28 eP 59 02.16 -1.2
SKT 1.91 341 eP 59 03.50 -0.6
eS 59 26.66
eS 59 26.97
VLZ 2.12 62 eP 59 04.88 -2.1
eS 59 29.96
SCM 2.16 39 eP 59 06.52 -1.1
CDD 2.16 236 eP 59 06.79 -0.8
CVA 2.23 79 eP 59 05.29 -3.3
KLU 2.47 56 eP 59 10.29 -1.6
SGAM 2.50 81 P 59 08.80 -3.5
KDC 2.72 207 eP 59 13.10 -2.4
SVW 2.83 291 P 59 16.20 -0.9
TRF 3.28 359 eP 59 23.33 -0.3
RND 3.29 11 eP 59 23.15 -0.6
GLB 3.37 65 eP 59 21.97 -2.8
PAX 3.59 37 eP 59 26.47 -1.4
FBA 4.86 12 eP 59 43.70 -2.0
IMA 6.11 347 ePc 00 01.16 -2.2
44 obs. associated

• MAR 31, 1993 01h 35m 49.43± 1.29s

31d 01h

31.505 S ±13.4km 67.963 W ±12.6km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCV 0.60 234 eP 36 00.20 -1.5
ZON 0.61 266 eP 36 01.80 0.0
eS 36 11.80
RTCB 0.72 271 iPc 36 04.30 0.7
S 36 15.50
MDZ 1.57 208 eP 36 18.40 1.0
MRA 2.12 116 ePc 36 22.90 -2.4X
CYA 3.58 32 ePd 36 46.00 -0.2
S 37 30.00
ASPA 121.28 204 iPKPc 54 42.50 -2.2X
0.7s 8.90nm
WB2 124.55 206 ePKP 54 40.50 -10.6X
0.2s 4.00nm
S.D. = 1.4 on 5 of 8 obs.

* MAR 31, 1993 01h 59m 26.11± 0.97s
18.993 S ±10.1km 69.737 W ± 8.3km
DEPTH = 109.2 ± 13.4 km
NORTHERN CHILE (123)

CNCB 2.74 38 iPd 00 10.00 0.1
LPB 2.90 33 P 00 11.90 0.0
1.0s 380.00nm
ARE 3.02 326 iPd 00 12.80 -0.6
iS 00 45.50
ZOBO 3.10 30 iPd 00 14.20 -0.5
CCH 3.78 66 P 00 24.50 0.7
i 00 40.70
HJA 5.83 137 ePc 00 51.30 -0.2
SIV 8.79 71 P 01 41.00 9.0X
NNA 9.77 314 eP 01 46.00 0.8
eS 03 22.50
PPD 17.52 103 eP 03 25.40 0.4
BAO 21.02 84 (P) 04 03.00 0.1
BDF 21.10 84 (P) 04 03.00 -0.7
YKA 88.58 341 eP 12 33.60 26.2X
0.6s 1.20nm
S.D. = 0.7 on 10 of 12 obs.

MAR 31, 1993 02h 02m 29.98± 3.98s
40.323 N ±35.2km 95.652 W ±15.0km
DEPTH = 5.0km (geophysicist)
IOWA (465)
mbLg 2.8 (GS), 2.9 (TUL). Minor damage at Peru State College in Peru, Nebraska. Felt (V) at Peru and Verdon; (IV) at Nemaha and Stella; (III) at Dawson, Falls City, Salem and Shubert, Nebraska. Also felt (IV) at Rock Port, Missouri. Felt in parts of Brown, Doniphan and Nemaha Counties, Kansas.

PCO 3.77 196 e(P) 03 31.20 1.1
CCM 4.11 122 P 03 35.34 0.6
Sn 04 21.89
Lg 04 40.27
RLO 4.18 173 P 03 36.09 0.3
LNO 4.40 181 P 03 38.59 -0.4
ACO 4.54 218 iPc 03 44.30 3.3X
FVM 4.69 118 ePn 03 43.07 0.0
ELC 5.86 119 ePn 03 59.17 -0.5
MIAR 6.00 163 ePn 04 01.12 -0.4
eS 05 39.65
MEO 6.00 204 e(P) 04 01.10 -0.5
WMOK 6.10 205 (P) 04 02.86 -0.2
RSSD 7.29 304 (Pn) 04 22.07 2.2X
ULM 9.93 359 eP 04 59.50 3.2X
S.D. = 0.6 on 9 of 12 obs.

* MAR 31, 1993 02h 14m 36.86± 2.26s
5.745 N ±20.0km 82.725 W ±14.2km
DEPTH = 33.0km (normal)
4.2mb (1 obs.)
SOUTH OF PANAMA (83)
MD 4.0 (UPA).

DVD 2.69 6 ePd 15 18.72 0.0
BRU 3.05 3 iPc 15 24.19 -0.1
eS 16 06.13
UPA 4.51 44 iPc 15 44.92 0.2
ECO 4.69 40 iPd 15 47.05 -0.1
SDV 12.39 75 eP 17 34.00 -0.1
YKA 61.29 344 eP 24 51.20 0.0
0.8s 1.50nm 4.2mb
S.D. = 0.2 on 6 of 6 obs.

MAR 31, 1993 03h 36m 12.52± 0.15s
23.469 N ± 2.9km 123.586 E ± 3.0km
DEPTH = 53.2km (16 depth phases)
5.3mb (98 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 31C
Centroid Location:
Origin Time 03:36:12.9 0.5
Lat 23.47N 0.07 Lon 123.79E 0.05
Dep 37.7 4.3 Half-duration 1.2
Moment Tensor; Scale 10**17 Nm
Mrr= 0.89 0.06 Mtt= 0.16 0.13
Mff=-1.05 0.09 Mrt= 0.07 0.10
Mrf= 0.26 0.12 Mtf=-0.17 0.07
Principal Axes:
T Val= 0.93 Plg=82 Azm=298
N 0.18 3 188
P -1.11 7 98
Best Double Couple:Mo=1.0*10**17
NP1:Strike=185 Dip=38 Slip= 86
NP2: 10 52 93

BBP 3.37 207 ePc 37 00.00 -3.9X
eS 37 11.50
QZH 4.79 289 iPd 37 21.50 -2.4
Z 12s 18.80um
E 10s 10.90um
S 38 13.60
PIP 5.82 209 eP 37 37.50 -0.9
CVP 5.97 196 ePd 37 39.00 -1.5
BCP 7.55 202 eP 38 06.40 3.6X
BAG 7.57 202 eP 38 01.20 -1.8
SSE 7.89 345 P 38 04.50 -2.7X
Z 20s 10.10um
N 14s 6.80um
HKC 8.76 264 iP 38 18.30 -0.9
S 40 11.00
MCO 9.35 264 eP 38 26.60 -0.8
GZH 9.42 270 iPc 38 26.80 -1.6
1.0s 330.00nm 6.3mb
Z 15s 6.38um 3.9Msz
N 12s 3.04um
E 12s 2.99um
NJ2 9.52 335 Pc 38 26.40 -3.2X
0.6s 20.00nm 5.4mb
Z 18s 4.41um 4.0Msz
E 11s 5.60um
pP 38 34.00
S 40 10.00
PGP 10.22 195 ePc 38 47.00 7.6X
WHN 10.83 313 eP 38 45.00 -2.6X
Z 16s 8.29um
eS 40 42.00
PLP 12.31 174 ePc 39 04.00 -3.5X
QIZ 13.55 254 eP 39 23.60 -0.3
E 12s 2.43um
TIA 13.88 338 eP 39 27.90 -0.1
1.6s 110.00nm 5.3mb
Z 18s 6.53um 6.0Msz
N 12s 0.90um
E 12s 3.02um
pP 39 37.00
S 42 00.00
DL2 15.48 354 eP 39 47.00 -1.8
1.5s 390.00nm 5.4mb
Z 16s 2.65um 4.2MszX
N 11s 2.40um
E 11s 0.61um
GYA 15.63 284 iPd 39 51.00 -0.1
1.6s 180.00nm 5.0mb
Z 16s 7.32um 5.0Msz
N 10s 2.41um
E 10s 3.83um
sS 43 02.00
CTB 16.19 178 ePd 40 02.00 4.0X
DAV 16.40 173 eP 40 10.00 9.3X
XAN 16.60 313 P 40 04.50 1.3
1.5s 88.00nm 4.7mb
Z 18s 5.42um 5.1MszX
pP 40 12.00
sP 40 17.00
PP 40 19.00
S 43 07.00
SS 43 27.00
TIY 17.12 329 iPd 40 11.70 2.1
1.4s 120.00nm 4.8mb
Z 10s 6.61um 4.4Msz
N 17s 5.70um
sS 43 30.00
BJI 17.67 341 eP 40 15.50 -0.9
2.0s 310.00nm 5.1mb
Z 19s 3.56um 4.5MszX
N 15s 3.40um
eS 43 32.00
MAT 18.14 41 eP 40 20.00 -2.2
1.0s 52.00nm 4.6mb
Z 20s 1.06um 4.7MszX
eS 43 43.00
SNY 18.31 360 Pc 40 22.00 -2.2
0.4s 65.00nm 5.2mb
Z 16s 7.39um 4.6MszX
E 15s 4.16um
KKM 18.72 203 ePc 40 29.00 -0.6
KMI 19.07 279 Pd 40 34.50 0.7
Z 17s 5.70um
N 12s 3.80um
E 11s 2.70um
pP 40 43.00 32kmX
sP 40 47.00
PP 40 52.00
S 44 06.00
sS 44 19.00
SS 44 33.00
CD2 19.12 297 Pd 40 33.20 -0.9
Z 19s 8.56um
sP 40 49.50
S 44 02.80
isS 44 20.00
HHC 20.06 333 iPc 40 43.40 -0.7
1.6s 200.00nm 5.2mb
Z 18s 4.59um 4.9Msz
N 14s 1.89um
E 14s 2.20um
PP 41 05.00
CN2 20.34 4 Pc 40 44.00 -2.9X
1.0s 140.00nm 5.2mb
Z 14s 5.61um 5.1MszX
N 13s 2.70um
E 13s 0.78um
epP 40 58.50 68kmX
BTO 20.55 329 iPd 40 48.00 -1.1
1.4s 47.00nm 4.6mb
N 15s 2.94um
E 15s 3.54um
ePP 41 10.00
S 44 33.00
LZH 21.20 311 Pc 40 56.00 0.0
2.0s 140.00nm 5.0mb
Z 19s 6.19um 5.0Msz
E 15s 2.99um
pP 41 01.80 21kmX
PP 41 15.00
S 44 48.00
LOE 21.34 258 eP 41 01.00 3.8X
e 53 45.00
MDJ 21.66 12 iPd 40 58.80 -1.5
1.2s 31.00nm 4.6mb
GUMO 22.42 112 eP 41 08.50 0.6
1.3s 173.00nm 5.3mb
Z 22s 1.32um 4.3Msz
e 41 21.80 56km
eS 45 13.00
PJG 22.42 112 eP 41 08.80 0.9
eTT 03 10.50
GUA 22.48 112 eP 41 08.30 -0.3
0.7s 82.19nm 5.3mb
NST 23.40 255 eP 41 22.00 4.5X
CHTO 23.43 263 eP 41 20.60 2.7X
1.3s 48.20nm 4.8mb
NNT 25.09 249 eP 41 36.80 3.0X
GTA 25.65 314 P 41 38.00 -1.1
1.0s 24.00nm 4.7mb
Z 16s 3.14um 4.9MszX
E 15s 2.46um
pP 41 51.00 53km
sP 41 57.00

```
                 S      46 04.00
                 sS     46 20.00
YSS    28.07  28 ePd    41 59.50  -1.4
       1.6s    230.00nm         5.6mb
   Z  17s      2.00um         4.8MszX
   N  17s      1.60um
   E  17s      1.50um
                 e      42 03.60  14kmX
                 e      42 13.60
IPM    28.75 233 ePc    42 08.10   0.7
SHL    28.89 281 iP     42 09.20   0.5
                 eS     46 56.00
KUR    29.35  36 eP     42 10.00  -2.4
       1.0s    190.00nm         5.7mb
CIT    29.50 347 eP     42 11.00  -2.8X
   Z  16s      3.01um         5.0MszX
LSA    29.60 289 P      42 16.80   1.4
   Z  20s      3.75um          5.0Msz
                 sP     42 35.00
                 S      47 09.00
ZAK    31.18 335 iPc    42 26.00  -2.5X
       1.1s     59.00nm         5.2mb
   Z  17s      3.13um         5.0MszX
   N  16s      1.55um
   E  19s      2.91um
                 e      43 34.00 360kmX
                 e      45 22.00
                 eS     47 33.00
IRK    32.32 338 ePc    42 35.60  -3.0X
       1.6s     39.00nm         5.0mb
   Z  16s      1.70um         4.8MszX
   N  14s      1.37um
                 e      43 52.00 412kmX
MOY    33.11 334 eP     42 43.20  -2.1
       1.3s     60.00nm         5.3mb
LEM    33.91 209 ePc    42 53.00   0.1
GUN    34.18 286 P      42 56.00   0.6
PKI    34.60 285 P      42 59.40   0.4
KKN    34.71 285 P      43 00.40   0.6
       0.4s     14.00nm         5.2mb
DMN    34.87 285 P      43 01.40   0.2
       0.4s     22.00nm         5.4mb
BOD    35.01 351 iPc    42 58.50  -3.2X
       1.2s     25.00nm         5.0mb
GKN    35.27 286 P      43 04.60   0.1
       0.4s     18.00nm         5.4mb
WMQ    35.74 313 P      43 08.00  -0.2
       1.2s     22.00nm         5.0mb
   Z  12s      1.34um         4.9MszX
                 S      48 38.00
UER    36.08 329 iPc    43 09.80  -0.9
       1.3s     34.00nm         5.1mb
   Z  12s      1.58um         5.0MszX
   N  12s      0.83um
   E  12s      0.83um
                 eS     48 51.00
MTN    36.84 168 eP     43 14.00  -3.5X
YAK    38.76   5 iPc    43 30.30  -2.8X
       1.5s     83.00nm         5.4mb
   Z  13s      2.00um         5.1MszX
   N  13s      1.50um
   E  15s      1.20um
                 eS     49 28.00
KNA    39.31 172 eP     43 36.60  -1.5
PET    39.68  33 eP     43 39.00  -1.9
       1.2s    560.00nm         6.3mb
   Z  18s      1.45um          4.9Msz
                 e      49 36.00
ELT    40.94 326 iPc    43 50.00  -1.2
       1.5s     43.00nm         5.0mb
   Z  15s      2.50um         5.2MszX
   N  18s      1.00um
   E  13s      1.20um
                 e      45 25.00 522kmX
                 eS     49 53.00
MGD    41.25  20 eP     43 50.00  -3.7X
                 e      45 27.00 536kmX
NDI    41.77 287 eP     43 59.00   0.6
       0.4s     21.19nm         5.2mb
HYB    42.49 271 eP     44 06.00   1.5
KSH    43.12 303 P      44 12.80   3.3X
       1.4s    280.00nm         5.8mb
   Z  16s      2.38um         5.2MszX
   N  12s      0.14um
   E  12s      0.16um
                 sP     44 26.00
                 PP     45 51.00
```

```
                 eS     50 38.00
                 sS     50 50.00
WRA    44.41 165 P      44 19.00  -0.9
       0.4s      3.90nm         4.5mb
WB2    44.41 165 iPd    44 18.50  -1.4
       0.7s     31.10nm         5.2mb
KOD    45.86 261 eP     44 33.80   1.9
POO    46.51 274 eP     44 26.50 -10.3X
ASPA   47.91 167 P      44 47.50  -0.1
TIK    48.28   2 iP     44 47.00  -2.8X
       2.0s    102.00nm         5.5mb
   Z  18s      3.00um          5.3Msz
                 i      44 55.00  27kmX
                 e      46 42.00
                 e      51 43.00
                 eS     51 51.00
CTA    48.61 151 iP     44 52.50  -0.5
                 i      45 07.00  55km
WARB   49.45 176 eP     44 58.50  -0.8
       0.5s     55.00nm         5.8mb
NRI    50.58 345 ePc    45 04.00  -3.5X
       2.0s    143.00nm         5.7mb
                 e      46 24.00 394kmX
                 e      47 00.00
                 eS     52 18.00
OLP    53.62 157 eP     45 29.60  -1.1
       0.7s     14.00nm         5.1mb
                 e      45 43.50  51km
FORT   54.11 175 eP     45 33.30  -0.9
SVE    55.92 324 ePc    45 47.00  -0.2
       1.9s    260.00nm         5.9mb
   Z  18s      1.50um          5.1Msz
   N  17s      0.50um
   E  17s      1.00um
                 eS     53 47.00
MAIO   56.12 299 iPc    45 50.00   1.0
                 eS     53 43.00
ARU    56.97 323 iPc    45 53.80  -0.9
       1.8s    600.00nm         6.3mb
   Z  14s      1.00um         5.1MszX
   E  14s      0.50um
                 e      45 58.00  14kmX
                 e      46 04.00
STK    57.67 162 iPd    45 59.10  -0.7
       0.6s      7.10nm         4.9mb
ARMA   59.96 152 iPc    46 18.10   2.2
BWA    62.22 157 eP     46 31.70   0.6
                 e      46 47.00  56km
BFD    62.91 163 iPd    46 34.30  -1.2
       0.5s      5.00nm         4.9mb
SDN    63.09  38 eP     46 33.88  -2.6X
       0.5s     68.87nm         6.0mb
CAN    63.23 157 eP     46 37.40  -0.3
CNB    63.36 157 iPc    46 39.00   0.4
       0.9s     14.00nm         5.0mb
TOO    64.12 161 iPd    46 43.40  -0.1
       0.7s     25.00nm         5.3mb
BRW    64.66  21 iPd    46 46.30  -0.3
                 epP    47 00.77  52km
TTA    65.03  30 eP     46 48.87  -0.3
       1.2s     33.77nm         5.2mb
SVW    65.32  32 eP     46 51.07   0.0
       0.6s     20.92nm         5.3mb
GRO    65.72 309 iPc    46 54.00   0.2
       1.5s    100.00nm         5.6mb
   Z  16s      1.50um         5.3MszX
   N  16s      1.50um
   E  16s      2.50um
                 eS     55 40.00
IMA    65.86  26 eP     46 54.14  -0.4
       1.2s      8.16nm         4.6mb
                 epP    47 08.84  53km
GRS    65.94 304 eP     46 55.00  -0.6
       1.3s     50.00nm         5.4mb
                 e      55 38.00
CP2    66.94  32 ePc    47 01.39  -0.2
                 epP    47 16.66  55km
CRP    66.98  31 eP     47 00.91  -0.9
PYA    67.46 310 iPc    47 04.00  -1.0
       2.0s    220.00nm         5.8mb
SLKM   68.02  32 eP     47 06.74  -1.4
PMS    68.22  31 eP     47 08.00  -1.4
       0.3s     31.40nm         5.8mb
PMR    68.37  31 eP     47 08.76  -1.5
       1.3s     88.96nm         5.6mb
FBA    68.43  27 ePc    47 09.48  -1.1
       0.6s      8.69nm         4.9mb
```

```
MOS    68.71 323 eP     47 11.00  -1.4
       2.0s    320.00nm         5.9mb
   Z  22s      4.10um          5.6Msz
OBN    69.40 322 iPc    47 15.80  -0.9
   Z  20s      1.00um          5.1Msz
   N  18s      1.00um
   E  20s      0.70um
                 i      47 26.00  33kmX
                 i      47 38.00
KLU    69.90  31 eP     47 19.20  -0.5
SDF    71.28 336 iP     47 27.60  -0.3
ANN    71.29 311 eP     47 27.00  -1.3
       1.5s    110.00nm         5.6mb
                 eS     56 42.00
PUL    71.64 328 (P)    47 30.00  -0.1
   Z  20s      1.60um          5.3Msz
                 e      47 44.00  49km
BALM   71.69  31 eP     47 29.65  -1.0
KAF    72.86 331 iP     47 37.00  -0.3
       0.4s      7.00nm         4.9mb
KVT    73.20 308 iP     47 45.00   5.2X
GAZ    73.46 304 iP     47 42.00   0.7
NUR    74.12 329 iP     47 44.80   0.1
       0.4s      3.80nm         4.7mb
KAS    74.76 309 iPc    47 49.70   0.8
MML    76.34 300 eP     47 59.40   1.4
YTIR   76.94 299 eP     48 02.50   1.1
CSS    77.14 303 eP     48 02.50   0.1
UPP    77.62 330 iP     48 04.70   0.3
SAGI   77.69 298 eP     48 06.20   0.7
VRI    78.07 315 ePc    48 09.00   1.7
                 e      00 42.50
CVO    78.45 315 eP     48 11.00   1.6
                 e      00 44.00
ISR    78.46 314 eP     48 13.00   3.5X
                 e      00 48.00
MLR    78.72 315 ePd    48 12.50   1.5
SLL    79.25 332 eP     48 13.00  -0.4
       0.4s     27.40nm         5.5mb
   Z  18s      1.89um          5.5Msz
                 LR     21 23.00
MTUR   79.40 315 eP     48 15.00   0.4
                 e      00 51.00
UZH    79.80 319 iPd    48 17.00   0.5
       1.2s     45.00nm         5.3mb
                 e      48 23.50  21kmX
NB2    79.87 333 P      48 16.90   0.1
       0.5s      3.20nm         4.5mb
OJC    80.62 321 iP     48 21.20   0.3
SRS    82.01 311 eP     48 26.46  -1.9
BUD    82.28 319 eP     48 29.30  -0.3
KSP    82.35 322 iPc    48 30.00   0.1
KNT    82.47 312 eP     48 30.41  -0.3
SRO    82.56 319 eP     48 32.20   1.2
VAY    82.63 312 eP     48 31.60   0.1
YKA    82.76  23 eP     48 31.50  -0.3
       0.7s      9.70nm         4.9mb
VRAC   82.89 321 eP     48 33.70   1.0
       2.0s    405.50nm         6.1mb
GRG    82.90 312 eP     48 32.58  -0.4
UZD    82.94 318 iP     48 33.40   0.3
ZST    83.11 320 eP     48 34.40   0.5
SKO    83.12 313 iPc    48 34.30   0.2
LIT    83.19 311 iP     48 34.50   0.0
BRG    83.64 323 iP     48 38.20   1.7
       1.4s     34.00nm         5.2mb
                 i      48 47.20  28kmX
PRU    83.74 322 Pc     48 37.50   0.4
       1.5s     43.90nm         5.3mb
                 e      48 47.80  32kmX
                 e      48 53.10
AGG    83.76 310 eP     48 36.90  -0.6
OHR    83.93 312 eP     48 37.50  -0.8
CLL    83.94 324 iPc    48 38.00   0.0
       2.1s     82.00nm         5.4mb
                 i      48 53.60  55km
KHC    84.71 322 Pc     48 42.50   0.5
       1.4s     25.70nm         5.1mb
                 e      48 58.40  56km
GEC2   84.78 321 e(P)   48 49.50   7.0X
       0.8s      4.20nm         4.6mb
PTJ    84.88 318 eP     48 41.70  -1.3
ZAG    84.90 318 eP     48 41.00  -2.0
IGT    84.94 311 eP     48 42.42  -0.9
MOX    85.03 324 iPc    48 44.00   0.5
       1.9s     67.00nm         5.4mb
   Z  18s      0.80um          5.2Msz
```

31d 03h

WET 85.10 322 iPc 48 44.50 0.6
1.5s 39.00nm 5.3mb
AVY 85.14 247 eP 48 45.70 0.9
VTY 85.37 247 eP 48 46.70 0.8
VBY 85.50 318 ePc 48 46.00 0.0
LJU 85.68 319 e(P) 48 47.00 0.1
GRF 85.74 323 iPc 48 47.90 0.8
1.7s 139.00nm 5.9mb
Z 20s 0.70um 5.1Msz
epP 48 57.70 31kmX
esP 49 03.70
BHG 85.82 321 iPd 48 48.70 1.1
KBA 85.87 320 iPd 48 48.40 0.3
i 48 50.10 5kmX
i 49 07.10
CEY 85.89 318 eP 48 47.50 -0.5
RBL 86.06 319 P 48 48.90 0.0
VOY 86.07 319 e(P) 48 48.00 -1.0
WIT 86.42 327 eP 48 52.00 1.7
FVI 86.45 320 P 48 50.60 0.0
FUR 86.51 322 eP 48 52.20 1.2
1.5s 111.00nm 5.9mb
WTTA 86.78 321 iPd 48 53.00 0.5
WTS 86.82 326 eP 48 53.00 0.7
0.8s 5.30nm 4.8mb
MCW 86.96 37 P 48 54.60 1.4
ORI 87.35 313 P 48 48.90 -6.3X
ROI 87.50 312 P 48 56.00 0.0
GMW 87.59 38 ePc 48 57.65 1.4
epP 49 12.30 50km
CSI 87.60 313 P 48 56.50 0.1
TDS 87.62 312 P 48 55.20 -1.3
JCW 87.73 38 P 48 58.24 1.4
MMN 87.74 313 P 49 01.40 4.4X
BMW 87.92 39 P 48 59.32 1.5
HOFF 87.94 323 P 48 57.86 0.1
OSS 87.95 321 ePd 48 58.70 0.5
ENN 87.98 326 eP 48 58.50 0.6
0.8s 6.50nm 4.9mb
LANF 88.01 324 P 48 57.42 -0.7
RMW 88.20 38 eP 49 00.35 1.1
SLE 88.30 322 ePd 48 59.90 0.3
SFI 88.39 318 P 49 01.60 1.6
VDL 88.45 321 ePd 49 01.00 0.4
PGD 88.50 318 P 49 01.60 0.8
WLF 88.50 325 P 49 02.00 1.6
e 49 17.00 51km
FEL 88.51 323 P 48 59.98 -0.8
LLS 88.51 321 ePd 49 01.30 0.4
FMW 88.57 39 P 49 02.27 1.1
WLS 88.57 323 P 49 00.83 -0.1
LIBD 88.59 323 P 49 00.16 -0.7
CDF 88.62 323 P 49 01.09 -0.1
SHW 88.65 39 eP 49 03.38 1.9
epP 49 18.43 52km
ECH 88.79 323 P 49 01.95 0.0
TMA 89.01 321 ePd 49 03.20 0.0
BBS 89.03 322 P 49 02.62 -0.5
ASR 89.04 39 P 49 04.64 1.3
DOU 89.07 326 P 49 04.00 0.8
e 49 19.50 53km
WTV 89.11 37 P 49 04.23 0.7
BSF 89.21 323 eP 49 03.50 -0.6
1.0s 17.60nm 5.3mb
SSOR 89.24 41 P 49 05.57 1.3
HAU 89.36 323 eP 49 04.20 -0.4
1.3s 23.85nm 5.4mb
Z 21s 0.63um 5.0Msz
SAW 89.41 37 P 49 05.94 1.0
LOMF 89.47 323 P 49 05.46 0.2
MMK 89.56 321 ePd 49 06.70 0.8
WAH2 89.86 38 P 49 08.38 1.4
DIX 89.86 321 ePd 49 08.10 0.7
DPW 89.97 36 eP 49 08.18 0.6
EMS 90.15 322 ePd 49 09.00 0.4
NEW 90.32 36 eP 49 10.10 1.0
1.0s 40.36nm 5.7mb
epP 49 26.14 56km
JBO 90.45 39 P 49 11.10 1.3
LPG 90.58 321 eP 49 10.90 0.2
1.3s 45.15nm 5.7mb
LPL 90.58 321 eP 49 10.80 0.2
1.3s 47.30nm 5.7mb
PGF 90.89 318 eP 49 12.10 0.2
1.4s 34.00nm 5.6mb
LNOR 91.10 38 P 49 14.29 1.5
LOR 91.15 324 eP 49 12.50 -0.5
1.5s 27.15nm 5.4mb
Z 24s 0.50um 4.9MszX
LBF 91.26 323 eP 49 13.00 -0.5
1.4s 27.00nm 5.5mb
SSF 91.47 324 eP 49 14.20 -0.2
1.5s 23.50nm 5.4mb
SMF 91.54 323 eP 49 14.50 -0.2
1.5s 65.30nm 5.8mb
AVF 91.72 324 eP 49 15.30 -0.2
1.5s 39.15nm 5.6mb
FRF 91.75 320 eP 49 15.70 0.0
1.5s 38.15nm 5.6mb
LMR 91.96 319 eP 49 16.60 -0.1
1.6s 37.95nm 5.6mb
LRG 91.98 320 eP 49 16.90 0.1
1.5s 63.70nm 5.8mb
Z 22s 0.63um 5.0Msz
SES 92.06 31 eP 49 18.00 0.9
BGF 92.14 324 eP 49 17.50 0.0
1.8s 47.45nm 5.6mb
FCC 92.34 19 eP 49 21.00 2.9X
MAF 92.50 323 eP 49 19.40 0.3
1.5s 33.45nm 5.5mb
FRB 92.56 5 eP 49 18.50 -0.5
TCF 92.65 324 eP 49 20.10 0.2
1.7s 28.65nm 5.4mb
GRR 92.92 327 eP 49 20.40 -0.6
1.6s 42.90nm 5.6mb
LPF 93.25 326 eP 49 21.90 -0.6
1.7s 59.55nm 5.7mb
CAF 93.57 323 eP 49 24.80 0.6
1.5s 33.45nm 5.5mb
RJF 93.64 323 eP 49 24.90 0.5
1.7s 76.45nm 5.9mb
Z 22s 0.47um 4.9Msz
LCCM 94.63 35 eP 49 30.30 1.1
e 54 14.90
e 56 26.20
KIC 121.49 294 PKP 55 02.40 0.0
SDV 144.97 25 ePKP 55 45.00 -1.5
LPB 167.03 60 PKP 56 16.00 1.6
CNCB 167.28 61 PKP 56 17.80 3.0X
SIV 171.37 31 PKP 56 31.00 14.6X
i 58 50.00
PPD 175.08 286 ePKP 56 18.20 0.5
S.D. = 1.0 on 208 of 242 obs.

MAR 31, 1993 03h 42m 07.67± 0.10s
22.756 S ± 2.7km 179.249 E ± 3.5km
DEPTH = 616.8km (8 depth phases)
5.3mb (67 obs.)
SOUTH OF FIJI ISLANDS (171)
Mw 5.7 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 29S, 62C
Centroid Location:
Origin Time 03:42:12.6 0.2
Lat 22.36S 0.02 Lon 179.35E 0.03
Dep 609.9 1.6 Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr=-3.12 0.08 Mtt= 2.87 0.12
Mff= 0.25 0.13 Mrt=-1.57 0.14
Mrf=-1.07 0.14 Mtf=-2.14 0.14
Principal Axes:
T Val= 4.18 Plg= 7 Azm=207
N -0.06 28 113
P -4.12 61 310
Best Double Couple:Mo=4.2*10**17
NP1:Strike=325 Dip=45 Slip= -49
NP2: 94 58 -123

VUN 4.78 351 iPc 43 35.30 -5.0X
MBU 5.77 355 iPc 43 45.00 -3.3X
DZM 11.86 271 iPd 44 46.00 0.8
iS 46 53.00
KUZ 14.27 192 P 45 11.20 2.9X
HBZ 14.82 183 eP 45 13.00 -0.5
PUZ 15.29 183 P 45 17.20 -0.9
WLZ 15.39 191 P 45 21.50 2.5
URZ 15.56 186 eP 45 19.60 -1.1
S 47 58.40
NOZ 15.85 183 eP 45 22.10 -1.3
MOZ 16.15 193 P 45 29.30 2.9X
MOH 16.42 186 eP 45 30.00 1.0
NGZ 16.66 190 P 45 32.30 0.9
CNZ 16.69 190 eP 45 32.90 1.3
WAHZ 17.07 188 P 45 33.70 -1.4
NRZ 17.14 194 eP 45 38.60 2.9X
TEHZ 17.30 186 eP 45 37.70 0.4
BSZ 17.38 191 eP 45 38.30 0.3
PGZ 17.99 187 P 45 43.00 -0.6
MNG 18.09 189 P 45 43.60 -1.0
eS 48 38.20
e 52 26.00
KIW 18.42 190 eP 45 47.70 0.1
DIW 18.55 193 P 45 48.30 -0.5
MTW 18.62 189 eP 45 47.60 -1.9
CAW 18.63 190 eP 45 47.60 -2.0
MRW 18.82 191 eP 45 49.10 -2.2
ORZ 18.89 196 eP 45 52.90 1.0
eS 48 56.20
SNZO 18.89 191 P 45 51.00 -0.9
S 48 55.00
THZ 19.69 194 eP 45 58.50 -0.8
eS 49 04.20
DSZ 19.94 197 P 46 02.30 0.7
KHZ 20.18 192 P 46 01.80 -1.9
eS 49 12.10
LTZ 20.80 195 P 46 08.20 -1.2
eS 49 19.10
WVZ 21.46 197 P 46 13.60 -1.7
MQZ 21.60 193 P 46 15.20 -1.3
LMZ 22.48 199 P 46 24.70 0.3
BWZ 23.04 197 eP 46 27.70 -1.8
ODZ 23.32 196 P 46 31.60 -0.4
LRCZ 23.68 198 P 46 34.00 -1.4
MSCZ 23.69 198 P 46 34.50 -0.8
MHZ 23.70 198 P 46 34.30 -1.2
SBCZ 23.72 198 P 46 34.10 -1.5
LSCZ 23.73 198 P 46 35.20 -0.5
CMCZ 23.78 198 P 46 35.20 -1.0
TLC 23.88 198 P 46 36.40 -0.7
BRS 24.40 254 iPc 46 42.20 0.5
0.7s 6.00nm 4.3mb
i 47 30.50
eS 49 24.00
e 52 41.00
TUZ 24.43 196 P 46 42.00 0.3
e 47 18.50
BCZ 24.98 199 P 46 47.40 0.8
SIZ 25.68 198 P 46 53.70 1.0
ARMA 25.81 247 iPc 46 57.60 3.4X
0.5s 26.00nm 5.1mb
RMQ 27.94 256 iPc 47 13.20 0.6
0.6s 34.00nm 5.2mb
e 48 00.00
iPcP 50 08.90
eS 51 19.90
CNB 28.85 238 iPd 47 22.30 1.8
0.9s 148.00nm 5.6mb
i 48 59.10
CAN 29.14 238 iPd 47 24.40 1.5
ePP 47 59.80
BWA 29.35 240 iPd 47 23.90 -0.8
ePP 48 58.00
AFR 29.50 86 iPd 47 26.80 0.8
0.9s 143.50nm 5.6mb
PPN 29.82 86 iPd 47 12.96 -15.8X
0.7s 37.90nm
TVO 29.93 86 iPd 47 30.50 0.8
0.8s 160.70nm 5.7mb
CTA 30.80 269 iPc 47 37.50 0.6
1.0s 55.00nm 5.1mb
i 50 11.00
i 50 15.00
iS 52 00.00
i 53 06.00
e 55 06.00
eScS 57 04.00
CMS 30.90 246 iPc 47 38.60 0.9
0.9s 89.00nm 5.4mb
e 49 16.30
PMO 31.97 82 iPd 47 46.00 -0.8
1.1s 212.00nm 5.7mb
OLP 31.99 256 iPc 47 47.40 0.5
0.3s 182.00nm 6.2mb
VAH 32.14 82 iPd 47 47.20 -1.0
1.0s 111.60nm 5.4mb
TPT 32.23 82 iPd 47 48.40 -0.6
1.0s 185.60nm 5.7mb
RUV 32.38 83 iPd 47 49.40 -0.9
0.9s 166.40nm 5.7mb
TOO 32.51 235 iPc 47 52.70 1.5

	0.5s	163.00nm			5.9mb
			ePP	49 32.00	
			e	52 35.20	
TAU	33.23	225	iPc	47 58.60	1.5
			eS	52 46.00	
PMG	33.48	288	eP	47 58.00	-1.4
STK	34.53	246	iPc	48 09.50	1.5
	0.6s	35.60nm			5.2mb
			eS	52 57.20	
BFD	34.66	237	eP	48 10.00	0.9
	0.8s	25.00nm			4.9mb
MCQ	35.17	201	P	48 18.20	5.2X
ADE	37.29	242	e(P)	48 31.60	0.9
ASPA	41.55	260	P	49 04.00	-1.0
W82	41.79	265	iPd	49 06.00	-0.9
	0.2s	152.10nm			6.1mb
			iScP	53 45.50	
			eS	54 40.60	
WRA	41.80	265	P	49 06.70	-0.3
	0.6s	8.70nm			4.4mb
FORT	46.07	249	eP	49 39.50	-0.3
WARB	47.74	255	iPc	49 52.00	-0.6
	0.3s	25.00nm			5.2mb
KNA	47.98	269	iPc	49 53.70	-0.8
	0.3s	91.00nm			5.7mb
MHA	49.09	31	eP	50 00.31	-2.1
DHH	49.14	29	eP	50 00.31	-2.5
GUA	49.32	314	eP	50 02.70	-1.5
	0.9s	524.37nm			6.0mb
GUMO	49.38	314	eP	50 03.70	-1.0
	1.0s	551.70nm			6.0mb
PJG	49.38	314	eP	50 03.50	-1.2
COOL	51.99	248	eP	50 22.60	-1.1
	0.3s	15.00nm			4.9mb
MEEK	54.78	253	eP	50 42.20	-1.2
KLB	54.80	247	eP	50 42.00	-1.4
	0.4s	12.00nm			4.6mb
RKG	55.11	243	eP	50 45.60	0.1
SBA	55.47	183	iPc	50 51.00	3.6X
BAL	55.82	248	eP	50 49.50	-0.9
	0.4s	27.00nm			4.9mb
MUN	56.06	246	eP	50 52.00	-0.1
MRWA	56.64	249	eP	50 55.30	-0.7
	0.4s	13.00nm			4.5mb
NANU	58.36	257	iPc	51 07.90	0.1
DAV	60.29	293	eP	51 19.00	-1.6
CSY	60.84	206	P	51 25.60	2.2
CTB	61.52	292	ePc	51 30.00	1.5
PLP	62.94	297	ePc	51 33.80	-3.8X
MAP	63.32	295	eP	51 41.00	1.0
SPA	67.38	180	iPc	52 06.60	1.9
	0.7s	89.84nm			5.4mb
KKM	67.91	287	ePd	52 08.00	-0.5
CVP	69.06	301	eP	52 17.00	1.8
KAKJ	69.30	327	eP	52 14.80	-1.4
BAG	69.35	299	eP	52 15.20	-2.0
CHJJ	69.78	326	eP	52 18.00	-1.1
IIDJ	69.91	325	eP	52 19.50	-0.5
WKYJ	70.24	323	P	52 21.20	-0.7
LEM	70.47	271	ePd	52 24.50	0.7
MAT	70.57	326	iPd	52 22.10	-1.6
	0.8s	64.18nm			5.2mb
NIIJ	70.70	327	eP	52 23.60	-0.8
MTMJ	70.81	326	P	52 24.00	-1.2
OFUJ	70.86	330	eP	52 24.20	-1.1
YAMJ	70.91	328	eP	52 24.80	-0.8
TKSJ	70.94	321	P	52 26.30	0.4
TSRJ	70.99	324	P	52 25.40	-0.7
YONJ	72.14	322	P	52 32.40	-0.4
KUSJ	72.83	334	eP	52 36.10	-0.4
MRRJ	73.81	332	eP	52 40.00	-2.0
ADK	74.40	3	eP	52 42.80	-2.3
	1.2s	684.90nm			6.1mb
ASAJ	74.52	334	eP	52 46.60	0.6
YSS	76.88	335	ePd	52 58.00	-0.8
	1.0s	80.00nm			5.1mb
			e	53 02.70	
SSE	77.22	312	Pd	53 00.50	-0.4
	1.5s	53.00nm			4.8mb
KGM	77.83	277	eP	53 05.00	0.4
MAW	78.58	201	P	53 10.30	2.8X
NJ2	79.39	311	Pd	53 12.40	0.1
	1.0s	35.00nm			4.8mb
SDN	79.68	12	eP	53 11.70	-1.6
	0.5s	108.30nm			5.6mb
MDJ	80.93	327	iPc	53 20.70	0.7
	1.4s	120.00nm			5.2mb
BCH	81.38	46	eP	53 23.63	0.9
ARN	81.71	44	eP	53 24.89	0.7
WHN	81.76	308	eP	53 24.50	0.0
	1.5s	190.00nm			5.4mb
SNY	82.33	321	iPc	53 27.20	0.2
	1.0s	41.00nm			4.9mb
SNG	82.37	281	eP	53 29.80	2.0
			e	19 21.00	
SSK	82.45	48	eP	53 28.55	0.4
PLM	82.55	49	iPd	53 29.02	0.3
CN2	82.56	324	Pd	53 28.50	0.3
	1.4s	340.00nm			5.7mb
			epP	55 36.00	599kmX
PEC	82.64	49	eP	53 28.75	-0.2
	0.7s	15.94nm			4.7mb
ISA	82.74	47	iPd	53 29.74	0.4
	1.0s	60.87nm			5.1mb
CMB	82.85	44	iPd	53 30.05	0.2
	0.9s	43.51nm			5.0mb
TIA	82.94	314	eP	53 28.00	-2.3
	1.3s	270.00nm			5.6mb
ORV	83.05	42	iPd	53 31.17	0.4
MEMM	83.57	45	eP	53 34.80	1.5
GSC	83.66	48	iPd	53 34.22	0.2
GLA	83.83	50	iPc	53 35.51	0.7
LBFM	83.90	40	eP	53 35.74	0.5
DBO	84.19	38	P	53 37.14	0.7
RNO	84.41	38	P	53 38.14	0.7
VIP	84.44	43	P	53 48.16	10.2X
KVN	84.90	44	eP	53 40.28	0.2
TNP	84.93	45	eP	53 40.30	0.0
	1.0s	33.63nm			4.9mb
			epP	55 51.72	618km
TPNV	84.94	47	eP	53 40.75	0.4
	0.9s	34.84nm			5.0mb
NNT	85.37	286	eP	53 41.50	-1.0
GYA	85.57	301	P	53 45.00	1.5
	1.2s	46.00nm			5.0mb
KMOR	85.63	36	P	53 43.69	0.4
SSOR	85.71	37	P	53 43.78	0.0
BJI	85.73	317	eP	53 44.00	0.3
	2.0s	370.00nm			5.7mb
MGD	85.77	346	ePd	53 42.00	-1.5
	1.5s	300.00nm			5.8mb
RSO	86.00	13	eP	53 42.63	-2.3
SVW	86.00	12	eP	53 42.80	-1.9
NST	86.29	289	eP	53 48.50	1.6
BMW	86.30	36	eP	53 46.79	0.3
TUC	86.38	53	iPd	53 48.43	1.2
	1.6s	76.42nm			5.2mb
SLKM	86.60	15	iPd	53 45.81	-1.8
CROR	86.62	38	P	53 48.23	0.2
SHW	86.66	36	eP	53 48.66	0.4
			epP	56 01.79	625km
ASR	86.99	37	P	53 50.03	0.2
VG8	87.06	38	eP	53 50.18	0.1
STW	87.12	34	P	53 50.91	0.7
GMW	87.20	35	eP	53 50.85	0.2
			epP	56 04.01	624km
LON	87.24	36	eP	53 50.76	-0.1
ARUT	87.28	47	eP	53 51.88	0.4
FMW	87.42	36	P	53 52.11	0.2
XAN	87.49	308	P	53 52.50	0.2
	1.5s	150.00nm			5.5mb
			pP	55 57.50	575kmX
JBO	87.56	38	P	53 52.52	0.1
TTA	87.62	11	eP	53 51.20	-1.1
RMW	87.67	36	iPd	53 52.92	0.0
			epP	56 04.52	613km
PMR	87.81	15	eP	53 51.50	-1.6
	0.8s	41.30nm			5.3mb
MCW	87.88	34	eP	53 54.18	0.4
JCW	88.05	35	P	53 54.73	0.1
KMI	88.12	298	Pd	53 57.00	1.3
	2.0s	210.00nm			5.6mb
WAH2	88.48	37	P	53 56.94	0.5
KLU	88.51	16	eP	53 55.03	-1.4
MSU	88.51	47	eP	53 57.13	-0.1
			epP	56 08.62	611km
CHTO	88.63	291	iPd	53 59.20	1.4
	1.3s	107.03nm			5.5mb
LNOR	88.68	38	P	53 57.20	-0.3
WTV	88.82	36	P	53 58.04	-0.1
DUG	88.95	45	eP	53 58.99	-0.1
	1.8s	32.71nm			4.9mb
BALM	89.08	18	eP	53 58.10	-1.0
SAW	89.12	36	P	53 59.48	0.0
HHC	89.12	315	Pd	54 01.00	1.2
	1.4s	99.00nm			5.5mb
HVU	89.79	44	ePd	54 03.24	0.3
CD2	89.87	304	Pc	54 05.00	1.6
	1.5s	280.00nm			6.0mb
DPW	89.88	37	P	54 02.94	-0.1
SRU	89.92	47	ePd	54 03.78	0.2
BTO	90.00	315	eP	54 03.60	-0.2
EMUT	90.08	46	ePd	54 04.99	0.6
DAU	90.08	46	eP	54 04.99	0.5
NEW	90.70	37	eP	54 06.17	-0.6
	0.6s	8.86nm			4.9mb
ALQ	90.80	52	iPd	54 07.82	0.1
	0.9s	26.45nm			5.2mb
			epP	56 20.84	617km
IMA	90.91	11	eP	54 06.30	-1.2
	0.9s	15.80nm			5.0mb
FBA	91.00	13	eP	54 06.10	-1.7
	0.8s	30.40nm			5.3mb
LZH	92.13	308	Pd	54 14.80	1.0
	1.5s	97.00nm			5.6mb
BW06	92.36	44	ePd	54 14.22	-0.6
	0.9s	11.49nm			4.9mb
			epP	56 26.72	612km
YAK	93.24	339	iPc	54 17.20	-0.9
	1.8s	120.00nm			5.7mb
			e	58 18.00	
			e	04 37.00	
GOL	93.72	48	iPd	54 21.56	0.4
	0.9s	13.56nm			5.1mb
SES	95.20	37	eP	54 26.00	-1.3
BRW	95.28	8	eP	54 26.30	-0.8
GTA	96.43	310	P	54 33.50	0.3
	1.2s	38.00nm			5.5mb
RSSD	96.55	45	eP	54 32.85	-0.9
	0.8s	4.83nm			4.8mb
			epP	56 46.01	615km
BOD	96.71	331	eP	54 33.30	-0.5
	1.1s	7.00nm			4.9mb
ZAK	98.75	321	eP	54 41.00	-2.2
	1.6s	16.00nm			5.1mb
YKA	99.63	26	eP	54 45.50	-1.3
	0.8s	1.30nm			4.4mb
GUN	103.13	295	Pdiff	55 00.00	-3.8X
GBA	105.88	278	PKP	59 26.00	1.4
FCC	107.47	33	ePKP	59 29.00	2.7X
EEO	114.05	48	ePKP	59 42.50	3.2X
JAQ	116.85	40	ePKP	59 42.50	-1.9
RSNY	116.95	50	ePKP	59 43.14	-1.7
FRB	119.97	28	ePKPc	59 48.80	-1.2
BDF	120.10	125	ePKP	59 51.00	-0.8
			e	59 52.90	
CER	121.01	200	e(PKP)	59 48.00	-5.0X
SUR	121.43	201	iPKPd	59 53.50	-0.5
	0.6s	100.00nm			
CBM	121.57	48	ePKP	59 52.23	-1.3
FRS	122.09	207	iPKPc	59 57.00	2.0
	0.7s	16.00nm			
BLF	122.28	208	ePKP	59 56.00	0.3
	0.6s	19.00nm			
SEK	122.31	210	iPKPc	59 56.10	0.3
	0.8s	26.00nm			
PRY	123.57	210	ePKP	59 57.00	-1.3
LMN	123.87	49	ePKPc	00 00.00	1.9
SLR	124.19	212	ePKP	00 00.30	0.8
	1.2s	30.00nm			
SVE	124.36	324	iPKPc	59 58.20	-0.5
KSR	124.74	211	ePKP	59 52.00	-8.7X
DAG	125.20	5	ePKP	59 57.80	-2.0
	1.0s	7.00nm			
ARU	125.54	324	ePKP	00 00.00	-1.0
	1.0s	120.00nm			
			e	01 57.00	
MAIO	126.64	299	ePKP	00 05.00	1.1
			e	02 09.00	
SOB1	129.46	124	ePKP	00 04.00	-5.7X
			e	02 33.00	
KEV	130.16	348	ePKP	00 06.00	-3.4X
			e	02 38.00	
SDF	132.22	346	iPKP	00 06.80	-6.6X
			i	02 45.00	
LSZ	132.76	219	iPKP	00 18.00	1.9
			i	02 41.00	
			i	02 52.00	
NAI	136.31	242	iPKPd	00 25.90	2.9X
KAF	136.55	342	ePKP	00 12.50	-9.2X
GRS	136.88	304	ePKP	00 23.00	-0.3

31d 04h

	1.5s		60.00nm		
OBN	137.43	329	iPKPc	00 24.00	0.4
	1.5s		70.00nm		
NUR	138.31	341	ePKP	00 15.00	-10.0X
			e	02 48.00	
			e	03 06.00	
NB2	140.85	351	PKP	00 22.20	-7.5X
	0.6s		9.30nm		
SLL	141.04	349	ePKP	00 23.10	-6.9X
	0.4s		17.00nm		
KVT	144.15	309	iPKP	00 46.00	10.1X
GAZ	144.36	303	iPKP	00 36.50	0.2
KAC	145.14	4	ePKP	00 37.50	0.5
KPL	145.27	5	ePKP	00 37.60	0.4
KSB	145.42	4	ePKP	00 38.10	0.7
MUD	145.55	350	iPKP	00 40.00	2.4X
BSD	145.64	344	iPKP	00 39.70	1.9
	0.7s		101.00nm		
KAS	145.66	311	ePKP	00 38.50	0.0
COP	145.69	347	iPKPc	00 39.50	1.6
	0.7s		164.38nm		
EDR	145.85	2	ePKP	00 39.30	1.1
KIS	146.05	323	ePKP	00 40.00	1.2
EDU	146.21	2	ePKP	00 40.40	1.7
ELO	146.26	3	ePKP	00 40.50	1.6
HRI	146.28	296	e(PKP)	00 42.40	2.6X
EBH	146.49	3	ePKP	00 41.30	2.1
EAB	146.50	4	ePKP	00 41.20	2.0
LVV	146.71	330	ePKP	00 41.00	1.2
			e	04 09.00	
JVI	146.78	294	e(PKP)	00 43.90	3.4X
ESY	146.85	2	ePKP	00 42.00	2.2
EAU	146.89	3	ePKP	00 42.10	2.2
EBL	146.98	2	ePKP	00 42.60	2.6X
PPE	147.22	322	ePKP	00 44.50	3.8X
EKA	147.42	3	PKP	00 43.00	2.3X
	0.8s		50.00nm		
CFR	147.50	320	ePKP	00 41.00	-0.1
RMN	147.55	291	e(PKP)	00 45.80	3.9X
CSS	147.92	300	ePKP	00 46.20	4.0X
OJC	148.21	335	ePKP	00 46.20	4.0X
	0.8s		149.00nm		
			i	00 47.80	
PSN	148.30	318	iPKPc	00 47.00	4.5X
UZH	148.35	330	ePKP	00 42.80	0.4
	1.2s		22.00nm		
			i	00 51.80	
EYL	148.48	312	ePKP	00 44.00	1.0
WIM	148.52	4	ePKP	00 46.50	4.0X
DMU	148.56	7	ePKP	00 46.80	4.3X
	0.6s		95.00nm		
MLR	148.59	323	ePKPd	00 43.00	-0.1
HRT	148.71	312	iPKP	00 47.60	4.3X
PPCY	148.73	300	ePKP	00 48.60	5.2X
KSP	148.98	339	ePKP	00 43.00	-0.3
	1.0s		193.00nm		
			i	00 48.70	
			i	00 55.00	
			i	03 11.00	
DCN	149.06	8	ePKP	00 48.00	4.7X
	0.6s		130.00nm		
DLF	149.19	7	ePKP	00 49.10	5.6X
	0.9s		115.00nm		
CMP	149.23	323	ePKPc	00 48.00	4.1X
WME	149.29	4	ePKP	00 48.40	4.8X
BCK	149.35	306	ePKP	00 43.00	-1.4
TNR	149.41	324	ePKPd	00 50.00	5.9X
YRC	149.41	5	ePKP	00 48.30	4.5X
WIT	149.46	351	ePKP	00 45.00	1.1
			e	00 50.00	
			e	03 13.00	
YLL	149.55	4	ePKP	00 48.90	4.9X
CLL	149.56	343	iPKP	00 42.50	-1.6
	1.4s		310.00nm		
			i	00 49.60	
			pPKP	03 11.90	
BRG	149.69	341	iPKP	00 44.70	0.4
	1.4s		260.00nm		
			i	00 50.10	
ETA	149.82	7	ePKP	00 50.30	5.8X
KCT	149.86	312	iPKP	00 50.60	5.6X
JMB	149.94	317	iPKPc	00 51.00	6.0X
PSZ	149.95	332	iPKPc	00 51.00	6.0X
WFB	150.02	4	ePKP	00 49.50	4.7X
ECB	150.08	7	ePKP	00 50.80	5.9X
ELL	150.10	305	ePKP	00 51.80	6.2X
VRAC	150.17	337	iPKPd	00 51.20	6.1X
	1.5s		206.80nm		
			e	01 01.10	
WTS	150.23	351	ePKP	00 46.00	0.9
	0.8s		257.60nm		
			i	00 51.20	
			e	03 14.00	
PRU	150.28	340	ePKP	00 45.50	0.2
	0.7s		54.40nm		
			i	00 51.40	
			e	01 01.70	
			e	03 13.50	
ECP	150.31	7	ePKP	00 50.50	5.3X
HCG	150.40	4	ePKP	00 50.90	5.5X
MOX	150.53	344	ePKP	00 45.40	-0.3
	1.6s		194.00nm		
			i	00 51.90	
			i	01 01.20	
			epPKP	03 12.60	
HTR	150.66	3	ePKP	00 51.40	5.6X
BUD	150.67	332	ePKP	00 46.40	0.5
SRO	150.71	333	iPKP	00 46.70	0.7
			i	00 53.20	
			e	01 03.10	
HAE	150.74	2	ePKP	00 51.90	6.0X
ZST	150.89	335	ePKP	00 45.60	-0.6
			i	00 52.90	
			i	03 17.30	
ALN	151.10	315	ePKP	00 52.34	5.6X
KDZ	151.11	317	iPKPc	00 48.00	1.2
HGH	151.12	3	ePKP	00 52.50	6.0X
VKA	151.13	336	ePKP	00 48.00	1.4
			i	00 53.70	
KHC	151.34	340	PKP	00 47.50	0.6
	0.9s		35.20nm		
			i	00 54.10	
			e	01 05.00	
			e	03 10.00	
			e	03 17.00	
			e	04 38.50	
PGB	151.37	319	iPKPc	00 54.00	6.8X
IZM	151.43	309	iPKP	00 53.40	6.0X
GRF	151.51	344	ePKP	00 47.50	0.4
			id	00 54.50	
			e	01 05.80	
RZN	151.53	318	iPKPd	00 54.00	6.4X
GEC2	151.55	340	PKP	00 47.60	0.3
	0.6s		1.15nm		
			e	00 54.20	
			e	03 12.10	
			e	03 16.90	
			e	03 21.40	
ENN	151.56	351	ePKP	00 48.00	0.9
	0.8s		41.70nm		
			e	00 54.00	
			e	01 05.00	
			e	03 16.00	
TNS	151.65	348	ePKPd	00 54.30	6.9X
			i	01 07.40	
UCC	151.73	353	PKP	00 54.00	6.7X
			e	01 07.00	
VTS	151.92	320	iPKPd	00 55.00	6.9X
SNF	152.02	353	iPKPc	00 55.39	7.6X
			i	01 06.40	
MMB	152.19	318	iPKPc	00 55.00	6.6X
DOU	152.39	353	PKP	00 49.70	1.4
			e	00 53.00	
			i	01 08.40	
			e	03 13.70	
KKB	152.42	319	iPKP	00 55.00	6.3X
SRS	152.55	318	ePKP	00 55.22	6.3X
WLF	152.60	350	iPKPc	00 51.13	2.5X
			id	00 56.97	
			ic	01 09.83	
			e	03 16.00	
FUR	152.89	342	ePKP	00 50.20	1.1
			e	00 57.20	
			i	01 11.70	
KNT	152.95	318	ePKP	00 55.98	6.6X
LANF	152.96	348	PKP	00 49.67	0.5
HOFF	152.97	347	PKP	00 48.74	-0.4
VAY	153.06	319	iPKP	00 56.60	7.1X
	1.4s		153.00nm		
			i	01 13.30	
KBA	153.21	338	iPKPc	00 48.90	-0.9
	1.8s		26.10nm		
			i	00 56.30	
			i	01 00.00	
			i	01 14.90	
PTJ	153.21	334	iPKP	00 59.90	10.2X
ZAG	153.27	333	ePKP	00 50.50	0.8
SKO	153.33	321	ePKP	00 58.00	8.1X
	1.5s		249.00nm		
			i	01 14.50	
			i	03 19.50	
GRG	153.37	318	ePKP	00 57.10	7.1X
WATA	153.55	341	iPKPd	00 50.80	0.6
			i	00 59.90	
			i	01 14.20	
WTTA	153.59	341	iPKPd	00 49.30	-1.0
			i	00 58.70	
			i	01 16.10	
WLS	153.60	348	PKP	00 50.60	0.5
CDF	153.61	348	PKP	00 49.41	-0.8
LJU	153.66	336	ePKP	00 50.50	0.3
			ePKPbc	00 59.00	
			ePKPab	01 15.00	
			e	03 15.00	
MOTA	153.68	342	iPKPd	00 49.50	-0.9
			i	00 58.60	
			i	01 14.60	
LIT	153.81	317	ePKP	00 57.86	7.2X
VBY	153.82	334	ePKP	00 49.80	-0.6
			ePKPbc	00 58.50	
			iPKPab	01 15.80	
ECH	153.82	348	PKP	00 48.17	-2.2
VOY	153.91	336	ePKP	00 50.30	-0.4
			iPKPbc	00 58.70	
			ePKPab	01 14.50	
			e	03 21.50	
BCAO	153.93	229	iPKPc	00 51.90	0.4
	0.5s		33.00nm		
			i	01 01.00	
			i	01 18.00	
			i	03 18.90	
			i	03 23.00	
CEY	153.96	335	ePKP	00 50.40	-0.2
			ePKPbc	00 59.20	
			ePKPab	01 15.40	
			e	03 14.80	
SLE	153.97	346	ePKPc	00 50.50	-0.1
FEL	153.97	346	PKP	00 50.60	-0.1
VITF	154.03	350	PKP	00 50.86	0.2
FLN	154.05	360	ePKP	00 50.70	0.1
	1.1s		35.40nm		
FNA	154.10	319	ePKP	00 59.18	8.1X
OGA	154.13	341	ePKP	00 51.70	0.6
HAU	154.17	349	ePKP	00 51.30	0.4
	1.4s		32.65nm		
MOF	154.18	348	PKP	00 51.04	0.1
LDF	154.21	359	ePKP	00 51.00	0.2
	1.6s		69.05nm		
TRI	154.23	336	ePKP	00 50.80	-0.1
			e	01 00.00	
OHR	154.25	320	iPKP	00 59.80	8.6X
			i	01 17.70	
ZLA	154.26	346	ePKPc	00 51.20	0.2
BSF	154.26	348	ePKP	00 51.20	0.1
	1.2s		25.00nm		
GRR	154.42	0	ePKP	00 51.40	0.3
	0.9s		12.60nm		
BBS	154.47	347	PKP	00 51.29	0.0
AGG	154.51	315	ePKP	00 59.74	8.1X
OSS	154.55	342	ePKPc	00 51.90	0.3
LOMF	154.71	348	PKP	00 52.91	1.2
LPF	154.78	0	ePKP	00 52.00	0.4
	1.5s		63.70nm		
LOR	155.26	352	ePKP	00 52.80	0.4
	1.0s		12.80nm		
HYF	155.39	354	ePKP	00 53.20	0.7
TMA	155.43	344	ePKPc	00 52.80	0.0
SSF	155.51	353	ePKP	00 53.20	0.5
	1.5s		48.05nm		
LBF	155.53	352	ePKP	00 53.00	0.2
	1.2s		14.00nm		
MMK	155.70	345	ePKPc	00 53.90	0.6
AVF	155.79	353	ePKP	00 53.10	0.1
	1.3s		11.20nm		
DIX	155.80	346	ePKPc	00 54.20	0.7
SMF	155.88	352	ePKP	00 53.40	0.2
	1.0s		12.20nm		
EMS	155.92	347	ePKPc	00 54.00	0.5
BGF	156.08	354	ePKP	00 54.00	0.6
	1.0s		13.40nm		
MFF	156.20	359	ePKP	00 53.80	0.2

1.5s 62.15nm
TCF 156.40 355 ePKP 00 54.30 0.4
1.5s 54.30nm
MAF 156.44 354 ePKP 00 54.50 0.6
1.5s 23.00nm
LPL 156.49 347 ePKP 00 55.00 0.7
1.6s 29.25nm
LSF 156.49 356 ePKP 00 54.10 0.1
1.2s 19.05nm
LPG 156.50 347 ePKP 00 55.00 0.6
1.0s 6.80nm
FIR 156.80 338 ePKP 00 39.00 -15.4X
RJF 157.43 356 ePKP 00 55.70 0.6
1.1s 14.40nm
CAF 157.77 355 ePKP 00 56.40 0.8
1.6s 29.25nm
LFF 157.84 357 ePKP 00 56.30 0.7
1.7s 61.00nm
LPO 158.07 356 ePKP 00 56.50 0.6
1.5s 29.25nm
PGF 158.65 340 ePKP 00 57.00 0.3
1.6s 36.05nm
EPF 159.76 358 ePKP 00 58.90 1.1
1.5s 36.05nm
LKO 166.07 160 PKP 01 05.18 0.7
1.1s 28.50nm
S.D. = 1.0 on 307 of 389 obs.

---

* MAR 31, 1993 04h 02m 15.91± 0.62s
22.093 S ±12.7km 170.121 E ±11.2km
DEPTH = 10.0km (geophysicist)
4.8mb (8 obs.)
LOYALTY ISLANDS REGION (189)

DZM 3.41 270 iPc 03 08.60 -1.7
iS 03 47.20
HNR 15.94 321 e(P) 06 03.00 1.1
ARMA 18.53 240 eP 06 39.00 4.5X
1.0s 16.00nm 4.2mb
RMQ 19.96 253 iPd 06 51.50 0.4
0.9s 54.00nm 4.9mb
CTA 22.35 271 iPc 07 16.00 0.4
i 07 21.00
CNB 22.42 229 iPd 07 18.90 2.7X
1.1s 72.00nm 5.1mb
BWA 22.67 232 eP 07 17.70 -1.0
CAN 22.68 230 eP 07 19.70 0.9
CMS 23.57 241 iPc 07 28.50 1.0
0.9s 59.00nm 5.2mb
QLP 23.99 254 iPc 07 32.00 0.4
0.7s 221.00nm 5.9mb X
TOO 26.24 228 eP 07 53.00 0.0
STK 27.16 243 iPc 08 01.20 -0.2
0.8s 6.70nm 4.4mb
ASPA 33.35 260 eP 08 54.00 -2.5X
1.0s 9.30nm 4.7mb
WB2 33.41 267 eP 08 53.50 -3.6X
0.5s 4.00nm 4.6mb
WRA 33.42 267 P 08 54.00 -3.1X
1.0s 0.60nm 3.5mb X
LZH 85.24 312 eP 14 54.00 -0.3
1.2s 15.00nm 5.1mb
KSP 144.78 331 ePKP 21 51.00 -3.5X
SRO 145.81 325 ePKP 21 55.40 -0.9
e 22 14.30
CLL 145.84 334 iPKPd 21 54.70 -1.5
1.0s 20.00nm
PRU 146.17 331 PKP 21 55.50 -1.4
e 22 06.00
ZST 146.19 327 ePKP 21 55.90 -1.0
EKA 146.43 353 PKP 21 56.00 -1.1
0.6s 4.30nm
KHC 147.23 331 ePKP 21 59.00 0.4
1.0s 5.40nm
e 22 09.50
BCAO 147.35 242 iPKPc 22 01.10 1.2
0.5s 8.00nm
i 22 19.00
GEC2 147.38 331 PKP 21 59.40 0.4
0.8s 4.41nm
e 22 07.70
e 22 10.80
GRF 147.81 334 ePKP 22 01.00 1.5
VBY 148.91 325 e(PKP)22 03.70 2.3X
CEY 149.19 326 e(PKP)22 07.00 5.1X
VOY 149.27 327 e(PKP)22 04.20 2.1X
TRI 149.55 326 ePKP 22 16.00 13.7X
e 28 52.00
CDF 150.38 337 ePKP 22 05.20 1.6
0.4s 0.70nm
BSF 151.04 336 ePKP 22 09.80 5.1X
0.6s 2.70nm
HAU 151.06 337 ePKP 22 11.60 7.0X
0.6s 3.45nm
LOR 152.55 339 ePKP 22 24.60 17.8X
0.7s 4.50nm
SSF 152.84 340 ePKP 22 26.30 19.1X
0.6s 1.10nm
LPL 152.97 334 ePKP 22 23.70 16.0X
0.9s 6.20nm
LPG 152.98 334 ePKP 22 23.80 16.0X
0.7s 2.75nm
S.D. = 1.1 on 21 of 37 obs.

---

* MAR 31, 1993 04h 32m 27.58± 0.97s
33.651 N ±22.8km 95.615 E ±11.6km
DEPTH = 33.0km (normal)
QINGHAI, CHINA (325)

LSA 5.48 225 Pg 33 51.50 2.1
GTA 6.67 29 eP 34 25.00 19.1X
LZH 7.19 68 ePn 34 13.50 0.3
1.0s 22.00nm 5.1mb X
CD2 7.42 109 ePg 34 15.60 -0.7
Sg 35 38.40
SHL 8.69 203 ePn 34 44.00 9.9X
eSn 36 26.50
GUN 10.14 238 P 34 53.60 -0.7
KKN 10.64 239 P 35 00.20 -0.8
PKI 10.67 238 P 35 01.00 -0.6
CN2 25.26 58 eP 37 52.50 0.3
S.D. = 1.3 on 7 of 9 obs.

---

* MAR 31, 1993 05h 14m 23.86± 0.98s
52.390 N ±17.4km 174.215 W ±14.2km
DEPTH = 159.9 ± 11.2 km
4.3mb (9 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK 1.60 253 iPc 14 55.32 -0.2
eS 15 18.54
SDN 8.63 65 eP 16 24.92 -1.6
SVW 13.38 42 (P) 17 30.70 2.3
0.6s 18.75nm 4.7mb
KDC 13.52 58 eP 17 29.90 -0.2
TTA 14.30 35 eP 17 40.33 0.3
0.8s 5.61nm 4.0mb
RSO 14.31 47 eP 17 41.58 1.3
CP2 14.88 45 eP 17 47.98 0.5
CRP 14.92 45 eP 17 49.15 1.3
SLKM 15.48 49 eP 17 53.74 -0.9
PMS 16.05 47 eP 18 01.80 0.1
IMA 17.14 29 eP 18 14.10 -0.9
0.7s 7.40nm 4.1mb
KLU 17.79 48 eP 18 21.69 -0.8
FBA 18.41 37 eP 18 26.19 -2.9X
0.8s 19.76nm 4.5mb
BALM 19.33 51 eP 18 36.03 -2.8X
BRW 20.53 16 eP 18 49.90 -0.7
YKA 32.46 48 eP 20 38.30 -2.0
0.4s 0.50nm 3.6mb
NEW 35.87 73 eP 21 10.14 0.5
0.5s 24.34nm 5.2mb
(pP) 21 44.20 154kmX
BW06 43.30 76 eP 22 11.63 0.4
0.4s 1.85nm 4.0mb
WB2 84.75 228 eP 26 40.70 -0.1
0.8s 3.00nm 4.2mb
ASPA 88.20 226 iPd 26 58.40 0.8
1.4s 6.60nm 4.4mb
S.D. = 1.2 on 18 of 20 obs.

? MAR 31, 1993 05h 18m 23.44± 1.06s
39.179 N ±12.8km 27.867 E ±24.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM 0.91 211 iPg 18 40.90 0.0
iSg 18 53.40
KCT 1.13 19 iPn 18 44.50 -0.2
BNT 1.18 2 iPn 18 45.50 0.1
YLV 1.81 39 ePn 18 55.00 0.1
S.D. = 0.2 on 4 of 4 obs.

? MAR 31, 1993 05h 27m 59.37± 5.85s
38.795 N ±44.0km 23.455 E ±25.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)

AGG 0.91 285 ePg 28 16.80 0.0
eSg 28 28.96
PAIG 1.14 9 ePg 28 20.80 0.0
eSg 28 33.96
LIT 1.50 330 ePb 28 26.08 -0.3
eSb 28 45.68
OUR 1.59 15 ePb 28 27.52 -0.1
GRG 2.31 340 ePn 28 38.24 0.2
KNT 2.40 350 ePn 28 39.40 0.0
eSn 29 07.84
S.D. = 0.2 on 6 of 6 obs.

? MAR 31, 1993 05h 49m 51.01± 1.39s
53.281 N ±23.1km 159.113 E ±23.9km
DEPTH = 33.0km (normal)
4.5mb (17 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

MAT 22.21 229 eP 54 47.00 1.1
0.7s 20.55nm 4.7mb
YKA 43.42 42 eP 57 49.70 -2.0
0.5s 1.90nm 4.1mb
GUN 58.29 275 P 59 43.20 -2.0
KKN 58.74 275 P 59 47.40 -0.7
PKI 58.82 275 P 59 48.80 0.0
GKN 58.96 276 P 59 49.40 -0.2
DMN 58.97 275 P 59 49.40 -0.4
KAF 59.08 336 iP 59 49.20 -0.6
0.3s 0.90nm 4.4mb
NB2 63.19 343 P 00 16.00 -1.6
0.6s 1.80nm 4.4mb
HFS 63.59 342 eP 00 19.20 -1.0
0.4s 2.10nm 4.6mb
GEC2 74.11 337 P 01 25.50 0.1
0.4s 1.28nm 4.3mb
GBA 74.25 272 P 01 26.00 -0.5
KBA 75.85 337 iPc 01 36.80 1.3
0.8s 11.80nm 5.0mb
CDF 75.90 341 iPd 01 36.20 0.6
0.8s 4.15nm 4.5mb
FLN 76.87 346 eP 01 40.00 -0.9
0.4s 3.55nm 4.7mb
GRR 77.29 346 eP 01 42.80 -0.4
0.6s 2.55nm 4.4mb
AVF 78.18 343 iPd 01 48.90 0.7
1.0s 8.20nm 4.7mb
LPL 78.78 341 iPd 01 53.40 1.6
0.7s 6.15nm 4.7mb
LPG 78.80 341 iPd 01 36.00 -16.0X
0.7s 6.70nm
TCF 78.87 344 iPd 01 52.60 0.6
0.7s 3.10nm 4.4mb
MAF 78.87 344 iPd 01 53.10 1.1
0.8s 4.85nm 4.6mb
MFF 78.93 346 iPd 01 52.90 0.6
0.5s 2.25nm 4.4mb
CAF 80.21 344 iPd 02 00.70 1.4
0.5s 2.85nm 4.5mb
LPO 80.60 344 eP 02 02.50 1.2
0.5s 3.65nm 4.6mb
S.D. = 1.1 on 23 of 24 obs.

? MAR 31, 1993 06h 34m 29.70± 5.72s
32.530 S ±41.9km 71.483 W ±30.0km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.8 (SAN).

JACH 0.77 102 iP 34 44.57 0.4
iS 34 55.04
PEL 0.91 133 iP 34 46.31 0.2
iS 34 58.01
LCCH 0.95 184 iP 34 46.27 -0.4
iS 34 58.19
FCH 1.28 129 iP 34 51.70 0.0
iS 35 07.66
LNV 1.42 178 iP 34 54.40 1.0
iS 35 11.24
CHCH 1.56 154 iP 34 56.04 0.5
iS 35 15.43
S.D. = 0.6 on 6 of 6 obs.

```
? MAR  31, 1993  06h 51m 14.34± 5.74s
   17.289 N ±32.2km    97.068 W ±43.3km
   DEPTH =  33.0km  (normal)
 OAXACA, MEXICO                      ( 60)

IISM     1.71 350 iPc    51 42.20   -0.1
                  iS     52 00.50
PPM      2.31 320 iP     51 51.60    0.3
IIA      2.39 321 iP     51 42.20   -9.8X
III      2.53 296 iPc    51 53.90   -0.3
                  iS     52 12.50
ACX      2.70 262 iP     51 56.50    0.1
MRX      4.59 302 iP     52 53.50   30.2X
     S.D. = 0.4  on    4 of    6 obs.
-------------------------------------------
% MAR  31, 1993  07h 22m 37.35± 0.84s
   39.404 N ± 7.9km    22.566 E ±10.0km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

AGG      0.42 206 iPg    22 46.30    0.3
                  iSg    22 53.32
LIT      0.70 355 ePg    22 50.76   -0.4
                  eSg    23 00.88
PAIG     1.01  58 ePg    22 55.64   -0.7
                  eSg    23 08.72
SOH      1.54  23 ePb    23 05.40    0.5
                  eSb    23 25.28
IGT      1.73 275 ePb    23 07.12   -0.6
                  eSb    23 37.08
KNT      1.77   8 ePb    23 09.16    0.9
                  eSb    23 31.48
     S.D. = 0.9  on    6 of    6 obs.
-------------------------------------------
   MAR  31, 1993  08h 03m 18.10± 0.62s
   45.877 N ± 6.0km    14.716 E ± 5.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION          (383)
      MD 2.9 (LJU). ML 2.6 (VIE).

LJU      0.21 323 iPgd   03 22.50   -0.2
                  iSg    03 25.00
CEY      0.24 236 iPgd   03 23.50    0.2
                  iSg    03 26.50
VBY      0.53 134 iPgd   03 28.70   -0.2
                  iSg    03 37.50
RIY      0.58 204 ePg    03 29.40   -0.5
                  iSg    03 37.90
VOY      0.59 285 ePg    03 29.30   -0.9
                  eSg    03 38.10
TRI      0.69 256 e(Pg)  03 32.70    1.0
                  iSg    03 41.50
PTJ      0.87  88 ePg    03 35.10    0.2
                  iSg    03 47.70
KBA      1.53 322 iPnc   03 45.90    0.2
                  iPg    03 47.40
                  iSg    04 07.50
GEC2     3.05 347 Pg     04 15.20    7.9X
                  Sg     04 55.00
     S.D. = 0.7  on    8 of    9 obs.
-------------------------------------------
   MAR  31, 1993  08h 12m 00.78± 1.65s
   44.038 S ± 5.7km   177.433 W ±14.0km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 CHATHAM ISLANDS REGION              (689)

PGZ      5.78 304 P      13 27.20    0.7
BLW      5.87 295 P      13 27.40   -0.3
                  eS     14 30.20
TEHZ     5.89 311 P      13 28.50    0.4
MTW      5.95 296 P      13 28.50   -0.4
MAHZ     5.98 322 eP     13 30.20    0.8
MOW      5.99 293 eP     13 28.90   -0.5
MNG      6.26 301 P      13 33.30    0.0
                  eS     14 39.50
WAHZ     6.35 311 eP     13 35.00    0.5
NOZ      6.40 326 eP     13 35.00   -0.1
SNZO     6.40 292 P      13 35.00   -0.2
                  S      14 46.00
MRW      6.44 293 P      13 35.10   -0.6
                  eS     14 43.10
PAHZ     6.63 319 eP     13 38.50    0.1
KHZ      6.79 281 eP     13 40.10   -0.5
                  eS     14 52.30
PUZ      6.79 330 eP     13 39.70   -1.0
WHH      6.88 316 P      13 42.40    0.5
URZ      7.09 323 eP     13 44.40   -0.4
                  eS     14 59.50
NGZ      7.13 311 eP     13 46.10    0.6
DIW      7.17 294 eP     13 46.10    0.2
HBZ      7.20 332 P      13 45.80   -0.5
LTZ      7.60 276 eP     13 52.30    0.2
                  eS     15 13.00
MOZ      8.04 311 eP     13 58.10   -0.1
ORZ      8.09 290 P      13 59.00    0.2
                  eS     15 25.20
ODZ      8.58 259 eP     14 05.10   -0.5
BWZ      9.11 262 eP     14 13.30    0.3
TUZ      9.36 254 P      14 16.00   -0.4
LSCZ     9.48 259 eP     14 18.20    0.1
LRCZ     9.50 259 eP     14 18.70    0.3
SBCZ     9.52 259 eP     14 18.90    0.2
MHZ      9.54 259 P      14 19.50    0.5
CMCZ     9.55 259 eP     14 19.10    0.0
SIZ     10.53 249 eP     14 32.10   -0.3
WB2     46.61 285 eP     20 28.00    0.4
         0.9s      1.60nm          4.0mb
     S.D. = 0.5  on   32 of   32 obs.
-------------------------------------------
? MAR  31, 1993  09h 09m 57.62± 2.81s
   39.188 N ±18.0km    27.272 E ±73.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.9 (ISK).

IZM      0.79 181 iPg    10 13.00    0.0
                  iSg    10 26.50
EDC      1.24  21 ePn    10 20.00   -0.7
BNT      1.27  23 ePn    10 22.00    0.8
KCT      1.35  38 iPn    10 22.40   -0.1
     S.D. = 1.1  on    4 of    4 obs.
-------------------------------------------
? MAR  31, 1993  09h 39m 10.57± 1.67s
   24.939 N ±25.9km   126.178 E ±16.1km
   DEPTH =  33.0km  (normal)
   4.5mb (  5 obs.)
 RYUKYU ISLANDS                      (238)

SSE      7.55 325 Pd     41 00.80   -0.3
         1.0s     11.00nm          4.8mb
MAT     15.50  39 eP     42 50.00    1.7
         1.0s     12.00nm          4.1mb
GUN     36.10 284 P      46 12.40    0.6
PKI     36.54 283 P      46 15.80    0.2
KKN     36.64 284 P      46 16.60    0.4
         0.4s      7.00nm          4.9mb
DMN     36.81 283 P      46 18.40    0.7
GKN     37.19 284 P      46 21.20    0.5
NAO     79.92 333 P      51 15.00   -2.4
         0.7s      4.00nm          4.5mb
YKA     80.47  24 eP     51 19.00   -1.3
         0.7s      0.70nm          3.8mb
     S.D. = 1.4  on    9 of    9 obs.
-------------------------------------------
% MAR  31, 1993  09h 42m 27.31± 2.44s
   40.997 N ±13.9km    23.906 E ±17.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

SRS      0.27 297 iPg    42 32.73   -0.2
                  eSg    42 37.68
SOH      0.45 247 ePg    42 36.40   -0.2
                  eSg    42 45.04
OUR      0.66 175 ePg    42 40.32   -0.2
                  eSg    42 51.92
KNT      0.78 283 ePg    42 42.80    0.3
                  eSg    42 55.12
PAIG     1.08 189 ePg    42 47.88    0.2
     S.D. = 0.3  on    5 of    5 obs.
-------------------------------------------
   MAR  31, 1993  10h 18m 14.25± 0.30s
   17.322 N ± 4.8km   100.910 W ± 3.9km
   DEPTH =  29.5km  ( 43 depth phases)
   5.4mb ( 61 obs.)  5.0Msz ( 24 obs.)
 GUERRERO, MEXICO                    ( 59)
      Mw 5.5 (HRV). Felt at Ixtopo,
      Zihuatanejo and Acapulco.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 32S, 52C
      Centroid Location:
      Origin Time         10:18:18.9 0.3
      Lat 17.29N 0.03 Lon 100.89W 0.04
      Dep  26.2 2.4 Half-duration  1.5
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 1.14 0.04   Mtt=-1.21 0.05
        Mff= 0.07 0.07   Mrt= 1.36 0.19
        Mrf=-0.66 0.12   Mtf= 0.41 0.05
       Principal Axes:
        T  Val=  1.87   Plg=64   Azm= 34
        N        0.17      6        292
        P       -2.03     25        199
      Best Double Couple:Mo=2.0*10**17
       NP1:Strike=276 Dip=20 Slip=  73
       NP2:       114     71        96

ACX      1.10 114 iPd    18 34.34    0.6
                  (S)    18 51.50
III      1.73  52 iPc    18 45.70    2.8X
                  iS     19 08.50
CRX      2.38  29 iP     18 55.00    2.6X
MRX      2.38 354 iP     18 54.16    2.1
                  (S)    19 28.00
UNM      2.59  39 iP     18 57.00    1.7
                  iS     19 30.50
PPM      2.78  51 iPc    19 00.24    2.1
                  iS     19 35.50
IIA      2.81  49 iP     19 00.50    2.4
IIT      3.00  55 iP     19 02.79    1.7
PUE      3.09  56 iP     19 02.00   -0.5
                  iS     19 43.00
CGX      3.39 315 iP     19 07.80    1.2
                  (S)    19 55.50
IISM     3.75  63 iP     19 13.50    2.1
SCX      7.94  93 (P)    20 14.00    3.4X
TPX      8.65 105 iP     20 21.00    0.5
TUC     17.39 331 eP     22 18.09    1.6
         2.4s    702.43nm          5.4mb
WMOK    17.45   6 eP     22 16.53   -0.6
         1.7s    517.51nm          5.4mb
MEO     17.51   6 iPc    22 15.70   -2.2
FNO     18.13   9 iPd    22 32.50    6.9X
ALQ     18.23 345 iPc    22 28.14    1.1
         0.8s     35.06nm          4.6mb
MIAR    18.36  20 eP     22 27.57   -0.9
         0.6s      2.02nm          3.5mb X
                  eS     25 50.64
OCO     18.38   9 iPd    22 28.10   -0.6
ACO     19.36   4 iPc    22 38.30   -2.3
OLY     19.96  23 ePc    22 45.02   -2.0
                  i      22 53.26   31km
GLA     20.06 324 iPd    22 48.22    0.1
GRT     21.44  26 eP     23 00.37   -1.8
PLM     21.46 321 eP     23 02.61   -0.1
PEC     22.02 322 ePc    23 08.46    0.4
         1.8s    555.86nm          5.7mb
                  e      23 16.61   29km
ELC     22.39  25 eP     23 09.87   -1.8
                  i      23 18.57   31km
GOGA    22.42  41 eP     23 10.56   -1.4
         1.3s    176.15nm          5.4mb
FVM     22.55  22 eP     23 11.08   -2.1
         1.5s    293.89nm          5.5mb
      Z  19s      3.44um           4.8Msz
                  e      23 20.45   34km
SSK     22.56 321 eP     23 15.07    1.5
GOL     22.63 351 ePd    23 13.72   -0.6
         1.1s     35.48nm          4.8mb
      Z  18s      5.03um           5.0Msz
                  e      23 22.48   32km
GSC     22.83 325 ePc    23 17.14    1.1
STH     22.97  84 iPd    23 19.29    1.8
GWJ     23.04  84 iPd    23 20.98    2.7
ARUT    23.17 334 ePc    23 21.09    1.6
                  e      23 29.57   30km
SRU     23.27 341 ePc    23 20.87    0.4
                  e      23 28.51   27km
MSU     23.30 337 ePc    23 21.74    0.9
GBTN    23.54  36 eP     23 22.53   -0.4
                  e      23 30.29   28km
PRM     23.55  41 ePc    23 21.87   -1.2
                  e      23 31.37   34km
TKL     23.78  37 ePc    23 23.96   -1.3
                  e      23 33.28   33km
TPNV    23.78 328 ePc    23 27.15    1.7
         0.9s     61.00nm          5.1mb
      Z  22s      2.98um           4.7Msz
EMUT    24.01 341 iPc    23 28.48    0.8
                  e      23 36.24   28km
```

```
ISA     24.03 323 ePc   23 29.22    1.5
        1.6s   277.19nm          5.5mb
    Z   19s      4.42um          5.0Msz
                 S      28 07.70
HBF     24.16  46 eP    23 29.57    0.6
                 i      23 36.91   26km
SGS     24.22  45 eP    23 29.98    0.5
                 i      23 38.28   29km
JSC     24.38  42 eP    23 29.97   -1.1
                 e      23 38.36   30km
BCH     24.66 320 eP    23 35.58    1.6
DAU     24.69 341 iPc   23 34.83    0.4
                 e      23 43.43   31km
LHS     24.80  43 eP    23 34.90   -0.2
                 e      23 43.73   31km
DUG     25.02 338 ePd   23 37.97    0.7
        1.4s    51.80nm          5.0mb
TNP     25.15 329 eP    23 39.44    0.8
        1.3s    61.36nm          5.1mb
PHAM    25.29 321 ePd   23 41.16    1.4
                 epP    23 49.14   28km
BONR    25.60 327 ePc   23 44.20    1.2
                 i      23 53.11   32km
MEMM    25.73 326 ePc   23 45.49    1.7
                 e      23 54.77   33km
KVN     26.33 329 eP    23 50.59    0.9
                 e      24 01.03   39km
HVU     26.41 340 iPc   23 50.40    0.0
BW06    26.42 346 iPc   23 49.33   -1.2
        1.8s   186.74nm          5.4mb
SAO     26.53 321 P     24 00.00    8.7X
    Z   19s      3.35um          4.9Msz
NAV     26.66  38 ePc   23 51.18   -1.3
                 i      23 59.78   30km
CEH     26.77  42 ePc   23 52.58   -0.9
        1.4s    61.88nm          5.0mb
    Z   22s      1.19um          4.4Msz
                 e      24 00.82   29km
                 S      28 53.58
CMB     26.79 324 ePc   23 53.71    0.0
        1.5s    41.47nm          4.8mb
    Z   19s      2.53um          4.8Msz
                 epP    24 01.73   28km
                 S      28 57.94
BLA     26.80  38 ePc   23 52.84   -1.0
        1.1s    76.99nm          5.2mb
RSSD    26.84 355 ePc   23 53.90   -0.4
        1.4s    48.71nm          4.9mb
    Z   22s      7.28um          5.2Msz
                 i      24 04.16   38km
ARN     26.97 322 eP    23 55.30   -0.1
HHAI    27.66 342 eP    24 02.02    0.3
PSO     28.19 122 eP    24 08.50    1.4
ORV     28.48 325 eP    24 09.67    0.7
                 i      24 17.87   29km
CVL     28.48  39 eP    24 06.93   -2.0
                 i      24 16.42   33km
BOG     29.16 113 eP    24 20.00    4.3X
                 eS     28 52.00
CBN     29.29  40 eP    24 15.00   -1.2
LCCM    29.87 345 ePc   24 21.20   -0.4
LBFM    29.97 327 ePc   24 21.75   -0.8
                 epP    24 29.95   28km
SDV     30.62 102 eP    24 29.40    0.9
                 iS     27 26.00
VGB     32.64 334 eP    24 45.29   -0.5
GPD     32.80  38 eP    24 46.43   -0.7
                 epP    24 54.92   29km
TBR     33.01  39 eP    24 47.69   -1.3
                 epP    24 55.93   28km
ULM     33.10   6 eP    24 50.00    0.4
DPW     33.61 339 ePc   24 53.38   -0.8
                 epP    25 01.75   29km
CAR     33.64  97 eP    24 54.00   -0.8
SES     33.98 348 eP    24 58.00    0.6
                 pP     25 05.00   24km
LON     34.06 334 iPc   24 57.90   -0.2
                 epP    25 05.83   27km
EEO     34.37  27 eP    25 02.50    1.8
BMW     34.45 332 eP    25 01.28   -0.2
RSNY    35.04  34 ePd   25 04.37   -2.1
        0.8s    15.78nm          5.0mb
    Z   20s      2.92um          5.0Msz
                 epP    25 14.01   33km
                 S      31 11.25
GMW     35.10 334 ePc   25 04.61   -2.3
                 epP    25 13.93   31km
```

```
HRV     35.42  39 P     25 20.00   10.3X
    Z   19s      1.56um          4.8Msz
CBM     40.02  35 P     26 00.00   11.8X
    Z   19s      3.09um          5.2Msz
LMN     41.32  39 eP    26 02.50    3.6X
JAQ     41.33  22 eP    25 57.50   -1.3
FCC     41.68   5 eP    26 05.50    3.9X
YKA     46.13 351 eP    26 37.00   -0.5
        0.8s    24.20nm          5.2mb
ZOBO    46.46 134 P     26 40.80   -0.6
        1.2s    15.54nm          4.9mb
    Z   19s      1.04um          4.8Msz
                 S      33 40.00
                 LR     42 46.00
LPB     46.66 134 P     26 43.20    0.5
    Z   19s      2.43um          5.2Msz
                 S      33 47.00
                 LR     43 14.00
CNCB    46.93 135 P     26 45.00   -0.1
SIT     47.28 335 P     27 00.00   13.4X
    Z   20s      2.45um          5.2Msz
SIV     51.36 128 iPc   27 30.40   11.8X
FRB     51.40  18 eP    27 18.00   -0.2
HON     53.78 284 P     27 50.00   13.4X
    Z   20s      0.73um          4.7Msz
KLU     54.29 335 eP    27 40.07    0.1
                 epP    27 48.45   27km
PMR     55.65 334 eP    27 49.50   -0.2
        0.7s    22.80nm          5.3mb
RSO     56.67 332 eP    27 56.23   -1.1
FBA     56.90 338 ePc   27 56.81   -1.8
        1.5s    29.52nm          5.1mb
                 epP    28 05.68   29km
SVW     58.22 332 eP    28 06.00   -2.0
TTA     59.13 334 ePc   28 12.72   -1.6
        1.6s    30.61nm          5.2mb
IMA     59.61 338 eP    28 15.40   -2.3
        1.2s    11.00nm          4.9mb
BAO     61.60 119 iPd   28 30.20   -1.7
                 i      28 36.60   21km
BDF     61.69 119 iPd   28 31.00   -1.5
                 i      28 37.30   21km
                 e      29 09.80
PPD     62.35 127 eP    28 34.80   -1.9
BRW     63.06 343 eP    28 39.57   -1.1
                 epP    28 47.09   24km
SOB1    64.90 109 eP    28 52.80   -0.8
VAO     66.23 126 eP    29 01.30   -0.8
DAG     71.45  14 eP    29 32.50   -1.0
        1.5s    88.89nm          5.6mb
EPLA    82.65  50 iPc   30 36.85    0.4
EVAL    82.84  53 iPd   30 38.19    0.7
AVE     83.52  57 eP    30 40.00   -1.0
                 i      31 17.00 147kmX
LPF     83.72  42 iPc   30 42.30    0.6
        1.7s   104.40nm          5.7mb
GRR     83.72  41 iPc   30 42.40    0.7
        1.7s   116.15nm          5.8mb
FLN     83.83  41 iPc   30 43.10    0.8
        1.4s   106.75nm          5.8mb
    Z   20s      0.93um          5.2Msz
GUD     83.89  49 iPc   30 43.26    0.3
MGD     83.92 331 ePc   30 43.00    0.5
        1.1s    30.00nm          5.4mb
                 e      31 00.00  61kmX
                 eS     41 10.00
                 ePS    42 00.00
                 eSSS   50 00.00
PAB     84.07  51 iPc   30 44.30    0.5
        1.1s    37.97nm          5.5mb
                 eS     34 40.00
LDF     84.11  41 iPc   30 44.40    0.7
        1.8s   183.00nm          6.0mb
EJIF    84.14  54 iPc   30 45.69    1.5
ELUQ    84.73  52 iPc   30 47.32    0.2
MFF     84.76  43 iPc   30 47.50    0.5
        1.6s    98.90nm          5.8mb
MAL     84.87  53 iPc   30 49.00    1.2
                 iS     41 24.00
EBAN    84.91  52 eP    30 48.61    0.6
TIK     85.12 346 iPc   30 48.00   -0.3
        1.6s    91.00nm          5.7mb
    Z   18s      1.20um          5.3Msz
                 e      30 57.00   28km
NB2     85.22  27 P     30 48.80   -0.3
        0.7s     5.80nm          4.9mb
ETOR    85.35  49 iPd   30 51.40    1.2
```

```
ECOG    85.35  53 iPd   30 51.70    1.4
EGUA    85.49  53 iPd   30 52.56    1.7
EVIA    85.72  51 iPc   30 52.50    0.4
LFF     85.91  44 iPc   30 53.30    0.5
        1.5s   105.00nm          5.8mb
EHUE    85.91  52 iPc   30 53.81    0.7
LSF     85.97  43 iPc   30 53.00   -0.1
        1.4s    52.30nm          5.6mb
EGRA    86.13  47 iPc   30 56.31    2.4
RJF     86.30  44 iPc   30 54.90    0.2
        1.5s    84.10nm          5.7mb
    Z   23s      0.73um          5.0MszX
LPO     86.30  44 iPc   30 55.00    0.3
        1.7s   105.85nm          5.8mb
EPF     86.30  46 iPc   30 55.10    0.3
        1.5s    87.25nm          5.8mb
TCF     86.40  43 iPc   30 55.30    0.1
        1.4s    54.45nm          5.6mb
ECHE    86.54  50 iPd   30 57.36    1.3
MAF     86.65  43 iPc   30 56.50    0.1
        1.9s   117.75nm          5.8mb
BGF     86.71  42 iPc   30 56.80    0.1
        1.4s    48.35nm          5.5mb
CAF     86.79  44 iPc   30 57.30    0.1
        1.8s    40.55nm          5.4mb
SSF     86.94  42 iPc   30 57.10   -0.7
        1.3s    33.20nm          5.4mb
AVF     86.94  42 eP    30 57.60   -0.2
        1.5s    25.05nm          5.2mb
LOR     87.08  41 iPc   30 58.30   -0.2
        1.0s    22.20nm          5.4mb
    Z   21s      0.75um          5.1Msz
EROQ    87.11  48 eP    31 01.03    2.3
LBF     87.27  41 iPc   30 58.70   -0.8
        1.2s    16.65nm          5.2mb
HAU     88.34  40 iPc   31 03.90   -0.7
        1.3s    27.10nm          5.4mb
    Z   21s      0.65um          5.0Msz
BSF     88.68  40 eP    31 06.10   -0.2
        1.3s    15.15nm          5.2mb
CDF     88.74  39 iPc   31 05.70   -0.8
        1.5s    24.55nm          5.3mb
LPL     89.61  42 eP    31 10.80   -0.1
        1.6s    27.35nm          5.3mb
LPG     89.63  42 eP    31 11.00   -0.1
        1.5s    30.80nm          5.4mb
MOX     90.27  36 eP    31 13.80    0.2
        1.8s    27.00nm          5.2mb
    Z   19s      0.60um          5.0Msz
FRF     90.36  44 iPc   31 13.60   -0.5
        1.4s    19.60nm          5.2mb
LMR     90.36  44 iPc   31 13.60   -0.5
        1.5s    31.85nm          5.4mb
GRF     90.50  37 ePc   31 15.40    0.7
        1.6s    46.00nm          5.5mb
    Z   21s      0.60um          5.0Msz
                 e(pP)  31 24.20   27km
CLL     90.73  35 eP    31 14.00   -1.6
YAK     91.43 339 iP    31 18.40   -0.3
        1.4s    40.00nm          5.6mb
BRG     91.46  35 eP    31 19.40    0.4
        1.6s    27.00nm          5.4mb
                 e      31 28.30   28km
KHC     92.12  37 eP    31 27.50    5.3X
        1.5s    13.40nm          5.2mb
    Z   20s      1.00um          5.3Msz
    N   20s      0.50um
    E   20s      1.00um
                 e      31 31.00  11kmX
GEC2    92.33  37 P     31 23.00   -0.2
        1.4s     6.80nm          4.9mb
                 e      31 32.60   30km
                 e      35 03.60
NRI     93.28 357 iPc   31 27.00    0.0
        2.0s    55.00nm          5.6mb
    Z   19s      2.50um          5.7Msz
ZST     94.60  36 eP    31 33.20   -0.3
SRO     95.49  36 iP    31 38.20    0.6
UZH     97.22  34 eP    31 46.00    0.6
        1.5s    64.00nm          5.9mb
                 e      32 00.50  49kmX
LZH    121.95 336 ePKP  37 07.80   -0.1
    Z   22s      0.76um          5.3Msz
    E   17s      0.72um
                 PP     38 43.00
W82    127.76 258 iPKPc 37 18.60   -0.8
        0.7s     4.30nm
```

31d 10h

ASPA 128.52 253 ePKP 37 19.90 -0.9
1.4s 6.80nm
QUE 131.34 14 ePKP 37 26.60 0.4
KMI 131.93 331 ePKP 37 25.50 -2.0
pP 37 33.00
NNT 143.96 324 ePKP 37 44.80 -4.6X
HYB 145.48 1 iPKPc 37 50.50 -1.5
1.0s 80.00nm
SNG 147.67 317 ePKP 37 59.00 3.4X
GBA 149.23 3 PKP 38 01.00 3.0X
IPM 149.29 313 ePKPd 38 02.60 4.3X
KGM 149.34 306 ePKP 38 02.50 4.2X
VTY 150.00 98 ePKP 38 04.10 4.8X
AVY 150.17 98 ePKP 38 05.00 5.4X
S.D. = 1.1 on 160 of 181 obs.

---

* MAR 31, 1993 10h 57m 11.85± 1.60s
40.027 N ±14.5km 24.493 E ± 8.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

OUR 0.50 308 iPg 57 21.37 -0.6
eSg 57 27.68
PAIG 0.63 261 ePg 57 24.44 -0.1
eSg 57 33.32
SOH 1.18 313 ePb 57 33.72 -0.1
eSb 57 51.24
SRS 1.29 328 iPb 57 35.44 -0.3
eSb 57 52.96
THE 1.31 298 ePb 57 35.76 -0.4
ALN 1.47 53 ePb 57 38.12 -0.2
eSb 57 58.60
KNT 1.66 314 ePb 57 42.80 1.7
eSb 58 05.40
VAY 1.95 312 ePn 57 49.00 3.7X
S.D. = 0.9 on 7 of 8 obs.

? MAR 31, 1993 11h 51m 25.90±16.11s
17.136 N ±76.1km 60.606 W ±101.km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

DEG 0.93 208 eP 51 43.36 -0.3
S 51 55.42
BPA 1.20 266 eP 51 48.00 -0.3
S 52 03.80
MGG 1.39 209 eP 51 50.71 -0.6
S 52 07.90
PAG 1.51 223 eP 51 54.17 1.1
S 52 15.50
S.D. = 1.4 on 4 of 4 obs.

---

* MAR 31, 1993 12h 34m 57.68± 0.88s
5.044 S ±18.9km 151.127 E ±10.8km
DEPTH = 180.7 ± 12.0 km
4.8mb (4 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 1.34 51 iPd 35 28.50 0.0
0.5s 1859.16nm
FINC 3.61 244 eP 35 54.00 -0.4
LAT 4.41 248 eP 36 04.90 0.2
PMG 5.85 222 eP 36 24.00 0.4
eS 37 31.00
CTA 15.69 197 iP 38 30.00 -0.5
RMQ 21.44 186 iPd 39 32.70 0.2
1.0s 57.00nm 5.0mb
WB2 22.04 226 iPc 39 38.40 0.0
0.4s 25.60nm 5.1mb
eS 43 30.90
BRS 22.28 176 iPc 39 40.50 -0.2
0.8s 6.00nm 4.2mb
QLP 22.41 196 eP 39 42.40 0.5
ASPA 24.87 220 iPc 40 05.10 -0.3
0.8s 16.40nm 4.7mb
S.D. = 0.4 on 10 of 10 obs.

---

* MAR 31, 1993 12h 49m 10.66± 3.44s
36.646 N ±25.3km 21.313 E ±17.8km
DEPTH = 10.0km (geophysicist)
3.4mb (1 obs.)
SOUTHERN GREECE (368)
MD 3.6 (ATH).

VLI 1.31 86 ePb 49 35.00 0.2
VLS 1.63 340 ePb 49 42.00 2.5X
AGG 2.51 18 ePn 49 54.10 2.0X
eSn 50 21.06
IGT 2.98 345 ePn 49 58.10 -0.8
eSn 50 35.66
LIT 3.57 15 ePn 50 07.66 0.4
KZN 3.67 5 ePn 50 09.00 0.2
PAIG 3.77 29 ePn 50 09.66 -0.4
FNA 4.13 1 ePn 50 16.14 0.9
OUR 4.24 29 ePn 50 16.30 -0.3
GRG 4.39 11 ePn 50 19.14 0.3
eSn 51 06.14
SOH 4.46 20 ePn 50 20.10 0.2
OHR 4.48 355 ePn 50 20.00 -0.1
KNT 4.68 15 iPn 50 22.66 -0.3
VAY 4.77 11 ePn 50 25.00 0.7
SRS 4.81 21 ePn 50 23.70 -1.1
NB2 25.24 348 P 54 32.80 -5.3X
0.6s 0.50nm 3.4mb
S.D. = 0.6 on 13 of 16 obs.

& MAR 31, 1993 13h 02m 56.81s
63.278 N 149.425 W
DEPTH = 95.7km
CENTRAL ALASKA (1)
<AEIC>.

RND 0.29 63 iP 03 10.92 -0.2
eS 03 21.21
HUR 0.32 198 iP 03 10.69 -0.5
eS 03 20.83
TRF 0.43 294 iP 03 11.95 -0.1
eS 03 23.41
MCK 0.51 26 iP 03 12.28 -0.2
eS 03 23.48
NEA 1.31 7 iP 03 20.33 -0.6
WRH 1.34 26 iP 03 20.74 -0.4
GHO 1.53 171 eP 03 23.53 -0.2
eS 03 45.01
CCB 1.55 27 iP 03 23.26 -0.6
SML 1.56 161 iP 03 23.86 -0.2
HDA 1.58 43 iP 03 23.73 -0.5
SKT 1.63 218 iP 03 23.98 -0.9
PWA 1.65 188 eP 03 25.00 -0.1
THY 1.66 84 eP 03 26.96 1.6
PLRM 1.70 175 eP 03 25.56 -0.2
PMR 1.70 175 eP 03 24.96 -0.8
eS 03 47.92
SCM 1.75 145 iP 03 26.28 -0.2
MDM 1.77 17 iP 03 26.35 -0.4
FBA 1.78 23 iPd 03 26.09 -0.7
PAX 1.82 98 iP 03 27.98 0.5
eS 03 51.82
SUA 1.92 199 eP 03 28.63 -0.2
SDG 1.93 111 iP 03 29.06 0.2
GLM 1.93 27 iP 03 28.41 -0.5
PMS 2.04 182 eP 03 30.80 0.5
TZL 2.22 122 eP 03 33.17 0.5
CRP 2.39 214 eP 03 34.35 -0.7
CPAM 2.40 213 eP 03 35.02 -0.1
CP2 2.41 214 eP 03 34.82 -0.6
KLU 2.42 136 iP 03 34.58 -0.9
PTE 2.43 175 eP 03 35.04 -0.4
CKN 2.43 213 eP 03 35.88 0.3
DOT 2.44 79 eP 03 35.31 -0.3
SPU 2.44 212 iP 03 35.38 -0.3
BGL 2.45 216 eP 03 36.77 0.9
CKT 2.46 213 eP 03 35.57 -0.4
VLZ 2.60 145 iP 03 36.12 -1.6
NKA 2.68 199 eP 03 41.16 2.3
MPA 2.80 179 iP 03 39.78 -0.7
SLKM 2.81 188 eP 03 40.46 -0.2
TTA 3.01 266 eP 03 42.50 -1.0
DFR 3.11 211 eP 03 45.36 0.6
SEW 3.19 180 eP 03 44.66 -1.1
GLB 3.20 123 iP 03 45.38 -0.7
HIN 3.21 153 eP 03 44.44 -1.7
RDW 3.23 211 eP 03 46.84 0.3
RS1 3.24 211 eP 03 47.18 0.5
CVA 3.25 146 eP 03 45.05 -1.5
IMA 3.35 329 ePc 03 46.96 -1.1
SGAM 3.43 142 eP 03 47.17 -1.9
BRLK 3.60 192 eP 03 49.86 -1.6
ILIM 3.62 209 eP 03 51.40 -0.5
SVW 3.63 236 eP 03 51.70 -0.2
INE 3.66 210 eP 03 52.32 -0.2
CNPM 3.86 194 eP 03 54.12 -1.0
CRQM 3.90 128 eP 03 54.58 -1.1
TGL 4.01 126 eP 03 55.40 -1.8
BALM 4.01 121 eP 03 55.91 -1.3
PDB 4.18 215 eP 03 59.10 -0.4
57 obs. associated

? MAR 31, 1993 13h 08m 21.26± 7.56s
40.089 N ±22.4km 24.314 E ±50.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

OUR 0.35 314 iPg 08 28.46 -0.1
eSg 08 35.24
PAIG 0.51 252 ePg 08 31.64 0.0
eSg 08 40.68
SOH 1.04 315 ePg 08 40.96 0.1
iSg 08 58.44
SRS 1.16 332 ePb 08 42.96 -0.1
S.D. = 0.1 on 4 of 4 obs.

% MAR 31, 1993 13h 09m 03.20± 0.57s
44.381 N ± 5.0km 7.383 E ± 5.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

STV 0.14 197 P 09 06.93 0.3
S 09 09.27
ENR 0.16 170 P 09 06.89 0.0
S 09 09.22
PZZ 0.24 302 P 09 08.44 0.1
S 09 12.38
ROB 0.36 104 P 09 10.82 0.2
S 09 16.04
BHB 0.47 350 P 09 12.43 -0.3
S 09 18.88
IMI 0.60 142 P 09 14.85 -0.4
S 09 22.73
FIN 0.62 106 P 09 15.26 -0.4
S 09 23.64
PCP 0.85 79 P 09 20.15 0.6
S 09 31.64
S.D. = 0.4 on 8 of 8 obs.

& MAR 31, 1993 13h 29m 35.67s
34.931 N 116.915 W
DEPTH = 0.1km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS).

GSC 0.38 14 ePd 29 43.32 0.0
SSK 0.96 222 ePd 29 53.74 -1.3
PEC 1.06 191 ePd 29 55.30 -1.2
S 30 09.17
ISA 1.47 300 eP 30 02.04 -1.5
PLM 1.57 178 eP 30 04.95 -0.2
TPNV 2.08 15 (P) 30 13.97 1.5
GLA 2.55 137 (Pn) 30 19.42 0.3
ePg 30 23.07
S 30 56.99
ARUT 4.00 44 (P) 30 38.06 -1.7
MSU 5.22 45 (Pn) 30 57.94 0.8
HVU 7.57 24 (P) 31 29.46 -0.7
10 obs. associated

& MAR 31, 1993 13h 38m 44.70s
37.848 N 122.250 W
DEPTH = 8.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.3 (BRK). Felt at
Berkeley and Oakland.

BKS 0.03 23 iPd 38 46.11 -0.3
iS 38 47.51
ZSP 0.10 357 iPd 38 47.14 0.0
eS 38 49.34
PCC 0.36 197 iPd 38 52.05 0.0
STAN 0.45 172 eP 38 53.47 -0.3
eS 39 00.44
NTYM 0.63 329 eP 38 56.37 -1.0
eS 39 06.20
MHC 0.70 136 ePc 38 57.99 -0.8
ARN 0.76 131 eP 38 58.76 -1.0
eS 39 10.03
GCC 0.84 166 eP 39 00.09 -1.0
eS 39 12.23
SAO 1.26 149 eP 39 05.97 -2.3
CMB 1.49 82 ePc 39 10.02 -1.8

ORV 1.80 19 (P) 39 16.26 0.0
11 obs. associated

MAR 31, 1993 13h 44m 10.11± 0.16s
29.091 N ± 3.8km 87.349 E ± 2.7km
DEPTH = 20.1km (10 depth phases)
5.1mb (76 obs.) 4.6Msz (9 obs.)
XIZANG (306)

GUN 1.75 228 P 44 44.40 4.4X
KKN 2.24 235 P 44 52.40 5.5X
PKI 2.28 229 P 44 53.50 5.8X
DMN 2.47 234 P 44 55.60 5.4X
GKN 2.62 246 P 44 56.90 4.6X
LSA 3.37 79 Pn 45 04.90 1.7
Sg 45 57.60
SHL 5.35 130 iPnc 45 30.60 -0.4
eSn 46 27.50
eSg 46 52.00
NDI 8.89 270 iP 46 21.50 1.0
0.6s 73.33nm 6.1mb X
iS 47 56.00
KSH 13.96 321 P 47 29.40 0.3
0.8s 90.00nm 5.6mb
Z 16s 5.31um 4.2Msz
N 12s 8.29um
E 12s 10.90um
S 50 03.00
HYB 14.15 217 ePd 47 28.60 -3.0X
1.0s 40.00nm 5.1mb
e 47 42.00
KMI 14.26 102 Pd 47 30.00 -3.3X
1.8s 80.00nm 5.1mb
Z 10s 1.40um 4.0Msz
pP 47 36.00
sP 47 39.00
PP 47 43.00
CD2 14.34 79 Pc 47 30.00 -4.0X
1.0s 120.00nm 5.5mb
Z 10s 5.61um 3.8Msz
N 10s 6.86um
epP 47 39.80
GTA 14.55 42 P 47 34.00 -2.9X
1.0s 40.00nm 4.9mb
Z 10s 5.77um 4.2MszX
E 10s 2.64um
pP 47 47.00
WMQ 14.70 1 P 47 40.00 1.2
Z 12s 3.20um
N 10s 2.70um
pP 47 50.00
PP 47 54.00
CHTO 14.72 131 ePd 47 43.70 4.7X
1.1s 42.40nm 4.8mb
LZH 15.55 59 iPd 47 47.00 -2.9X
2.0s 280.00nm 5.2mb
Z 12s 5.13um 6.0Msz
E 10s 3.08um
pP 47 53.50
sP 47 57.00
PP 48 00.00
sS 50 55.00
BDT 15.92 135 eP 47 53.00 -1.6
POO 16.20 233 iPc 47 43.50 -14.8X
iS 50 33.50
BOM 16.70 236 eP 48 04.10 -0.4X
eS 50 39.10
FRU 17.13 327 eP 48 14.00 4.2X
2.2s 240.00nm 4.9mb
Z 13s 3.20um 4.6Msz
N 13s 4.50um
GYA 17.29 94 P 48 08.20 -3.9X
1.2s 68.00nm 4.7mb
Z 14s 3.21um 5.1MszX
N 10s 1.70um
E 10s 2.46um
S 51 16.00
LOE 17.58 128 eP 48 16.00 0.4
QUE 17.77 279 eP 48 27.80 9.7X
eS 50 37.00
NST 17.81 136 eP 48 19.30 0.8
GBA 17.95 213 P 48 19.00 -1.2
S 51 31.00
XAN 19.02 70 P 48 29.50 -3.8X
1.4s 61.00nm 4.6mb
Z 12s 3.09um 4.4Msz
pP 48 38.50
sP 48 44.00
PP 48 46.00
S 51 56.00
sS 52 08.00
SS 52 22.00
ScS 00 06.00
NNT 20.06 142 eP 48 43.80 -1.2
BTO 21.80 52 eP 49 01.00 -1.8
1.0s 77.00nm 5.1mb
N 13s 2.43um
TIY 22.59 61 Pc 49 10.00 -0.6
1.0s 630.00nm 6.1mb
Z 13s 3.71um 5.0MszX
N 15s 4.65um
sS 53 29.00
QIZ 22.82 111 P 49 17.00 4.1X
N 12s 1.21um
HHC 22.97 53 Pc 49 14.00 -0.4
1.0s 27.00nm 4.7mb
Z 12s 3.73um 5.1MszX
N 15s 4.00um
E 15s 2.60um
sP 49 22.00
S 53 20.00
sS 53 27.00
WHN 23.46 80 eP 49 19.00 0.0
1.0s 67.00nm 5.1mb
Z 20s 3.11um 4.8Msz
N 10s 1.80um
E 10s 1.02um
eS 53 31.00
GZH 24.07 98 Pc 49 28.00 2.9X
Z 12s 1.57um 4.7MszX
E 11s 1.35um
S 53 40.00
ELT 24.15 358 eP 49 25.80 0.3
1.4s 84.00nm 5.1mb
eS 00 25.00
ZAK 24.44 25 eP 49 30.00 1.6X
2.0s 179.00nm 5.3mb
Z 12s 2.44um 4.9MszX
N 11s 1.15um
E 17s 1.87um
MAIO 24.46 294 iPd 49 32.00 3.1X
1.4s 50.00nm 4.9mb
eS 53 56.00
MOY 24.76 21 eP 49 33.90 2.4X
1.8s 180.00nm 5.4mb
SNG 25.13 148 eP 49 37.50 2.1
TIA 25.99 66 Pc 49 44.10 0.8
N 11s 0.71um
E 19s 2.71um
eS 54 12.00
BJI 26.02 58 eP 49 45.00 1.5
1.5s 120.00nm 5.3mb
Z 12s 1.82um 4.8MszX
N 11s 3.56um
eS 54 12.00
IRK 26.36 24 eP 49 50.00 3.5X
1.8s 92.00nm 5.1mb
NJ2 27.24 76 iP 49 54.40 -0.3
Z 16s 1.17um 4.5MszX
N 10s 0.75um
E 11s 1.46um
IPM 27.61 149 ePd 49 58.90 0.6
SSE 29.28 78 P 50 11.00 -2.2
1.0s 17.00nm 4.8mb
Z 18s 2.20um 4.8Msz
N 10s 1.80um
E 10s 0.20um
pP 50 19.20 28km
sS 55 10.00
DL2 29.91 62 eP 50 18.80 0.0
0.8s 39.00nm 5.3mb
Z 16s 1.18um 4.6MszX
N 11s 0.90um
E 11s 1.21um
eS 55 14.00
SNY 31.89 57 eP 50 35.60 -0.6
1.0s 25.00nm 5.1mb
Z 13s 1.61um 4.9MszX
N 12s 1.11um
SVE 33.49 333 ePd 50 51.00 1.1
1.6s 80.00nm 5.4mb
Z 11s 0.70um 4.6MszX
e 51 08.00 70kmX
e 52 15.00
eS 56 20.00
CN2 33.66 54 P 50 52.00 0.4
1.0s 39.00nm 5.3mb
Z 15s 2.06um 5.0MszX
N 13s 1.89um
E 13s 0.39um
epP 51 00.00 27km
ARU 34.04 331 eP 50 56.00 1.3
Z 12s 1.00um 4.8MszX
e 51 01.00 17km
e 52 05.00
BOD 34.27 25 eP 50 55.20 -1.5
0.8s 16.00nm 5.0mb
GRS 35.17 298 eP 51 04.00 -0.9
KKM 35.62 124 ePd 51 10.00 1.2
GRO 36.12 305 eP 51 20.00 7.4X
e 52 51.00 491kmX
MDJ 36.74 53 eP 51 18.80 0.9
PYA 38.10 305 eP 51 30.00 0.7
Z 14s 1.00um 4.8MszX
N 14s 1.00um
E 14s 1.00um
TKSJ 39.84 71 eP 51 45.10 1.2
WKYJ 41.08 70 eP 51 55.60 1.4
TSRJ 41.27 68 P 51 55.80 0.2
MAT 42.97 66 eP 52 08.00 -1.6
1.2s 25.00nm 4.8mb
(S) 58 22.00
YAK 42.99 28 eP 52 09.00 -0.3
1.0s 50.00nm 5.2mb
Z 18s 1.50um 4.9Msz
E 18s 0.90um
eS 58 41.00
NIIJ 43.55 65 P 52 12.60 -1.6
MOS 44.03 322 eP 52 24.00 6.1X
OBN 44.43 321 eP 52 22.00 0.9
Z 24s 0.60um 4.4MszX
N 14s 0.70um
E 24s 0.60um
i 52 27.00 17km
e 54 10.00
ASAJ 46.01 55 eP 52 37.20 3.3X
YSS 46.13 51 ePc 52 35.10 0.4
1.0s 20.00nm 5.0mb
Z 15s 1.00um 4.9MszX
E 15s 1.00um
e 52 40.60 18km
e 54 10.50
HOOJ 46.52 58 eP 52 42.80 4.9X
KUSJ 47.54 57 eP 52 48.50 2.5X
TIK 48.20 16 iPc 52 50.00 -0.7
1.0s 18.00nm 5.1mb
Z 12s 1.50um 5.2MszX
e 54 15.00 430kmX
e 54 50.00
e 55 30.00
eS 59 47.00
ELL 48.20 295 iP 52 52.50 1.1
PUL 48.84 326 (P) 52 57.50 1.8
e 53 06.00 28km
VRI 49.76 307 ePd 53 05.50 2.4
CVO 50.14 307 eP 53 08.50 2.4
MLR 50.32 307 iPd 53 10.00 2.4
MTUR 50.96 306 eP 53 11.00 -1.4
KAF 51.23 328 iP 53 14.20 0.1
0.6s 3.10nm 4.4mb
NUR 51.76 326 iP 53 18.30 0.3
0.4s 3.30nm 4.6mb
MGD 52.08 35 eP 53 23.00 2.5X
Z 14s 0.80um 4.9MszX
N 14s 0.60um
e 54 31.00 321kmX
SDF 52.39 335 iP 53 23.20 0.4
UZH 52.64 311 ePd 53 26.00 1.2
0.9s 30.00nm 5.2mb
e 53 32.20 20km
KEV 52.83 338 eP 53 26.00 0.0
VAY 53.20 302 eP 53 29.60 0.5
SKO 53.94 303 iP 53 34.70 0.2
OHR 54.55 302 eP 53 38.00 -1.1
UPP 55.20 325 iP 53 43.20 -0.3
SRO 55.36 310 iP 53 44.70 -0.1
ZST 56.12 311 eP 53 50.00 -0.3
KSP 56.34 314 ePd 53 52.00 0.1
HFS 57.18 325 eP 53 56.70 -1.0
0.5s 11.20nm 5.1mb
Z 19s 0.36um 4.5Msz

31d 13h

LR 17 01.00
HVAR 57.36 305 iPc 53 58.90 -0.3
PRU 57.56 313 eP 54 01.00 0.5
1.0s 13.80nm 4.9mb
Z 18s 0.40um 4.6Msz
BRG 57.82 314 iP 54 02.40 0.1
1.0s 20.00nm 5.1mb
LJU 58.18 308 e(P) 54 05.00 0.1
GEC2 58.27 312 P 54 05.90 0.3
0.7s 13.50nm 5.1mb
e 54 10.00 13km
e 54 11.90
e 54 14.20
KHC 58.31 312 Pd 54 05.90 0.1
0.8s 5.00nm 4.6mb
e 54 10.00 13km
CEY 58.31 308 eP 54 06.00 0.1
CLL 58.35 315 eP 54 06.00 0.0
0.9s 11.00nm 4.9mb
NB2 58.36 326 P 54 04.80 -1.2
0.7s 8.50nm 4.9mb
VOY 58.63 309 iPd 54 07.90 -0.2
TRI 58.77 308 ePc 54 09.20 0.2
KBA 58.81 310 iPd 54 09.00 -0.5
0.9s 10.50nm 5.0mb
MOX 59.31 314 iPd 54 12.90 0.2
1.2s 22.00nm 5.2mb
GRF 59.73 313 ePd 54 16.60 1.0
1.0s 22.00nm 5.2mb
Z 18s 0.40um 4.6Msz
WTTA 59.92 310 iPd 54 16.30 -0.8
0.9s 24.10nm 5.3mb
WATA 59.94 310 iPd 54 16.30 -1.0
SOTA 60.21 310 iPd 54 18.10 -1.0
0.6s 15.70nm 5.3mb
MNS 60.24 305 P 54 17.90 -1.3
MOTA 60.25 310 iPd 54 18.30 -1.1
0.8s 22.80nm 5.4mb
CRE 60.48 306 P 54 21.40 0.5
SFI 60.48 306 P 54 21.80 1.1
OSS 61.04 310 P 54 24.46 -0.3
BDI 61.33 307 P 54 25.60 -1.1
TNS 61.38 314 ePc 54 27.30 0.3
VTY 61.40 224 eP 54 27.60 0.1
VDL 61.53 310 P 54 28.17 0.0
LLS 61.76 310 P 54 29.77 0.0
TMA 62.02 309 P 54 30.70 -0.8
VAI 62.15 309 P 54 30.70 -1.4
CDF 62.53 312 iPd 54 34.10 -0.6
1.1s 16.10nm 5.1mb
MMK 62.65 310 P 54 36.13 0.4
PGF 62.84 306 iPd 54 36.20 -0.6
0.6s 6.20nm 4.9mb
FIN 62.95 308 P 54 39.22 1.7
BSF 62.99 312 iPd 54 37.10 -0.7
DIX 63.02 310 P 54 38.66 0.5
HAU 63.23 312 iPd 54 38.70 -0.6
0.9s 13.60nm 5.1mb
Z 24s 0.30um 4.4MszX
IMI 63.26 307 P 54 39.27 -0.3
EMS 63.34 310 P 54 40.63 0.4
LSD 63.35 309 P 54 40.50 0.1
RSP 63.36 309 P 54 39.40 -0.9
ENR 63.50 308 P 54 40.14 -1.0
STV 63.56 308 P 54 40.32 -1.2
SBF 63.58 307 iPd 54 41.40 -0.3
0.9s 22.60nm 5.3mb
LPG 63.61 309 iPd 54 42.10 -0.1
1.1s 32.70nm 5.4mb
LPL 63.62 309 iPd 54 42.20 0.1
1.1s 31.00nm 5.4mb
PZZ 63.64 308 P 54 40.46 -1.7
LMR 64.38 307 iPd 54 46.60 -0.2
1.0s 8.20nm 4.8mb
LRG 64.45 307 iPd 54 47.10 -0.1
1.1s 22.20nm 5.2mb
LOR 65.05 312 iPd 54 50.30 -0.9
0.8s 6.05nm 4.8mb
Z 22s 0.32um 4.5Msz
LBF 65.06 311 iPd 54 50.40 -0.8
1.1s 12.95nm 5.0mb
SMF 65.24 311 iPd 54 51.70 -0.7
1.0s 21.80nm 5.3mb
SSF 65.34 312 iPd 54 52.50 -0.5
0.9s 18.20nm 5.2mb
DAG 65.50 346 eP 54 53.50 -0.1
1.0s 12.00nm 5.0mb
AVF 65.52 311 iPd 54 53.50 -0.7
0.9s 12.60nm 5.1mb
MAF 66.21 311 iPd 54 58.60 0.0
1.2s 22.90nm 5.2mb
TCF 66.43 311 iPd 54 59.90 -0.1
1.2s 26.20nm 5.3mb
WRA 66.57 131 P 55 01.10 -0.1
1.0s 1.20nm 4.0mb X
WB2 66.58 131 iPc 55 00.60 -0.7
0.4s 24.60nm 5.7mb
WARB 66.65 142 eP 55 01.00 -0.6
EKA 66.89 322 Pc 55 02.80 0.0
0.8s 9.70nm 5.0mb
RJF 67.20 310 iPd 55 05.10 0.2
Z 21s 0.15um 4.2Msz
LDF 67.21 314 iPd 55 04.30 -0.6
1.1s 33.20nm 5.4mb
MFF 67.87 312 iPd 55 08.50 -0.6
ASPA 68.97 135 iPd 55 15.90 -0.4
1.0s 16.40nm 5.1mb
BCAO 69.36 263 iPd 55 18.00 -0.9
0.8s 60.00nm 5.8mb
i 55 23.50 18km
LSZ 72.16 241 iPc 55 35.90 0.0
MBC 73.59 6 eP 55 43.50 0.4
1.0s 2.00nm 4.1mb
IMA 74.41 22 eP 55 48.40 0.1
1.5s 15.54nm 4.8mb
BUL 74.86 236 iPd 55 51.70 0.2
1.0s 10.00nm 4.8mb
FBA 77.05 21 eP 56 03.00 0.0
1.1s 11.87nm 4.9mb
PMR 78.83 24 eP 56 12.69 -0.2
1.0s 20.00nm 5.1mb
STK 79.58 135 eP 56 17.40 0.0
0.8s 1.90nm 4.2mb
RMQ 80.74 127 iPd 56 25.10 1.4
0.7s 11.00nm 5.0mb
FRB 85.53 350 eP 56 48.00 0.4
TOO 85.79 137 eP 56 50.00 0.7
0.8s 9.00nm 5.0mb
YKA 87.05 10 eP 56 54.30 -0.8
0.9s 2.70nm 4.5mb
KIC 88.77 277 PKP 57 05.00 0.8
TIC 88.87 277 PKP 57 05.40 0.7
LIC 89.08 277 PKP 57 06.20 0.5
Z 21s 0.15um 4.4Msz
FCC 92.47 1 eP 57 23.50 2.9X
JAQ 96.16 350 eP 57 38.00 0.3
SOB1 127.72 281 ePKP 03 17.10 0.6
SIV 148.16 287 PKPc 04 07.80 14.4X
ZOBO 154.10 294 PKP 04 03.00 0.1
1.1s 11.02nm
LPB 154.21 294 ePKP 04 12.00 9.2X
CNCB 154.27 293 PKP 04 05.10 2.0
S.D. = 0.9 on 142 of 174 obs.

---

* MAR 31, 1993 14h 09m 46.11± 1.55s
38.954 S ±11.1km 174.770 E ± 9.5km
DEPTH = 269.0 ± 14.9 km
NORTH ISLAND, NEW ZEALAND (159)

CNZ 0.65 112 Pd 10 22.10 0.2
NGZ 0.68 109 Pc 10 22.20 0.2
BSZ 0.85 172 P 10 23.20 0.5
WHH 1.35 88 P 10 24.90 -0.7
WAHZ 1.44 122 Pc 10 26.20 0.0
TTH 1.70 111 P 10 28.90 0.9
MNG 1.75 162 iPc 10 28.40 0.0
S 10 56.90
PAHZ 1.78 88 P 10 29.20 0.4
TEHZ 1.89 124 P 10 29.70 0.1
KIW 1.91 177 P 10 29.70 0.0
DIW 1.96 199 P 10 29.50 -0.6
URZ 1.96 70 Pc 10 29.40 -0.7
S 10 58.40
CAW 2.16 174 Pc 10 31.90 0.0
MTW 2.27 166 Pc 10 32.60 -0.3
MRW 2.28 181 Pc 10 32.90 0.0
S 11 05.50
BLW 2.47 168 Pc 10 34.70 -0.1
MOW 2.49 172 Pc 10 34.80 -0.2
QRZ 2.54 222 P 10 35.50 0.0
S 11 11.70
THZ 3.15 206 P 10 42.00 0.2
KHZ 3.58 195 P 10 46.90 0.5
S 11 30.70
DSZ 3.59 218 P 10 46.60 -0.1
LTZ 4.27 206 P 10 54.40 0.0
MQZ 5.01 198 P 11 02.00 -1.1
S 11 58.80
ODZ 6.82 205 P 11 26.20 0.9
S.D. = 0.5 on 24 of 24 obs.

---

* MAR 31, 1993 14h 22m 56.88± 1.35s
14.837 N ±21.6km 93.427 W ±11.8km
DEPTH = 90.4 ± 17.6 km
3.9mb (1 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

TPX 1.13 86 iPd 23 16.50 -1.9
SCX 2.04 22 iP 23 30.50 0.4
iS 23 54.00
RDG 2.86 86 eP 23 42.03 0.4
IXG 2.95 103 eP 23 42.78 0.0
eS 24 21.63
YUP 3.57 100 ePd 23 51.97 0.7
MRL 3.62 86 ePc 23 52.75 0.8
IISM 5.60 318 iP 24 20.00 0.7
PPM 6.51 311 (P) 24 31.00 -1.4
III 6.78 302 (P) 24 37.00 1.2
YKA 49.90 347 eP 31 42.00 -0.9
0.7s 0.90nm 3.9mb
S.D. = 1.3 on 10 of 10 obs.

MAR 31, 1993 14h 45m 51.74± 0.62s
16.478 N ± 6.3km 61.531 W ± 9.3km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
MD 2.8 (TRN). ML 2.6 (FDF).

SEG 0.08 162 iPc 45 56.05 -1.4
S 45 58.00
SFG 0.39 125 ePc 46 00.90 0.2
DOG 0.45 191 ePd 46 01.65 0.0
PAG 0.47 198 eP 46 01.86 -0.1
S 46 08.55
MGG 0.59 160 eP 46 04.50 0.8
BPA 0.65 331 ePc 46 03.80 -0.6
MGH 0.70 290 eP 46 05.10 -0.1
CPB 1.19 346 eP 46 12.60 0.5
eS 46 27.05
NEV 1.19 303 eP 46 12.84 0.7
eS 46 28.27
S.D. = 0.8 on 9 of 9 obs.

---

* MAR 31, 1993 14h 56m 47.08± 1.34s
37.671 N ±10.7km 21.366 E ±10.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.3 (ATH).

VLS 0.80 310 ePg 57 02.00 -0.5
AGG 1.55 29 ePb 57 13.42 -1.3
eSb 57 36.54
VLI 1.57 127 ePb 57 14.70 -0.4
ATH 1.89 80 ePn 57 21.20 1.6
IGT 2.03 337 ePn 57 24.74 3.1X
eSn 57 54.14
KEK 2.38 329 ePg 57 34.00 7.3X
LIT 2.58 20 ePn 57 29.38 -0.2
eSn 58 03.90
KZN 2.65 7 ePn 57 34.20 3.5X
PAIG 2.89 38 ePn 57 33.42 -0.5
FNA 3.11 0 ePn 57 39.34 2.2
OUR 3.35 37 ePn 57 39.38 -1.1
GRG 3.38 13 ePn 57 41.50 0.6
OHR 3.46 353 ePn 57 41.50 -0.7
SOH 3.50 26 ePn 57 42.62 -0.1
VAY 3.76 14 ePn 57 41.70 -4.7X
SRS 3.85 26 ePn 57 47.06 -0.6
SKO 4.30 1 ePn 57 55.00 1.0
S.D. = 1.2 on 13 of 17 obs.

---

* MAR 31, 1993 15h 28m 14.83± 2.08s
9.178 S ± 9.2km 125.989 E ±14.7km
DEPTH = 74.9 ± 24.9 km
4.7mb (6 obs.)
TIMOR REGION, INDONESIA (289)

MTN 6.23 126 iPc 29 47.10 1.0
iS 30 55.00
KNA 7.07 158 eP 29 56.40 -1.4
WB2 13.41 144 eP 31 18.30 -5.2X

```
                 i       31 21.10
                 eS      33 42.60
ASPA    16.27 153 iPd    31 59.30   -1.0
        0.4s      23.50nm        4.7mb
                 ipP     32 07.50
                 eS      34 52.40
NANU    16.67 216 eP     32 05.00   -0.1
WARB    16.93 178 eP     32 06.00   -2.4X
        0.3s      5.00nm         4.2mb
KKM     17.99 327 ePd    32 22.50    0.9
MRWA    22.03 204 eP     33 04.00   -0.5
COOL    22.06 191 eP     33 06.00    1.2
BAL     23.01 201 eP     33 16.00    1.9
MUN     24.44 200 eP     33 22.00   -5.9X
QLP     24.46 137 eP     33 32.70    4.5X
        0.8s      76.00nm        5.2mb
STK     26.83 150 eP     33 55.20    5.1X
        0.9s      3.80nm         3.9mb
                 eS      38 59.70
TOO     33.31 151 eP     34 53.00    5.5X
        0.8s      12.00nm        4.8mb
MAT     46.90  14 (P)    36 40.00    0.4
LZH     49.62 336 Pc     37 02.00    1.1
        1.2s      20.00nm        5.0mb
                 pP      37 06.00   13kmX
                 sP      37 13.00
GUN     53.52 315 P      37 29.20   -1.4
PKI     53.65 314 P      37 30.80   -0.7
KKN     53.87 314 P      37 34.60    1.6
DMN     53.88 314 P      37 31.40   -1.7
GKN     54.45 314 P      37 36.10   -1.1
YAK     71.03   2 eP     39 26.00   -0.3
AVY     76.04 253 eP     40 00.20    3.6X
VTY     76.21 253 eP     40 01.10    3.6X
CNCB   150.71 152 PKP    48 07.30   11.5X
LPB    150.90 151 PKP    48 07.00   11.1X
ZOBO   151.10 151 PKP    48 06.00    9.6X
        1.2s      16.89nm
     S.D. = 1.3  on  16 of  27 obs.
-----------------------------------------
•  MAR  31, 1993  15h 37m 48.52± 1.38s
   36.712 N ±12.9km   71.208 E ±20.1km
   DEPTH =  33.0km  (normal)
   4.1mb (  3 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

QUE      7.41 210 eP     39 37.50    0.2
                 eS      40 57.50
MAIO     9.44 271 eP     40 05.00   -0.4
                 eS      41 45.00
HFS     43.00 322 eP     45 46.20    0.1
        0.4s      1.90nm         4.2mb
NB2     44.31 323 P      45 57.40    0.6
        0.5s      1.70nm         4.1mb
YKA     81.03   3 eP     50 00.40   -0.6
        0.6s      0.50nm         3.7mb
     S.D. = 0.7  on   5 of   5 obs.
-----------------------------------------
%  MAR  31, 1993  16h 01m 05.27± 0.97s
   26.819 S ± 9.3km   26.797 E ± 7.5km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.2 (PRE).

BFS      0.08 188 iPd    01 07.10   -0.1
                 S       01 08.60
PRY      0.61 100 eP     01 17.50   -0.1
                 S       01 25.00
SWZ      1.36 254 eP     01 31.00    0.0
                 S       01 49.20
SEK      1.67 154 iPc    01 35.60    0.2
                 S       01 56.60
SLR      1.72  51 eP     01 36.10    0.0
                 S       01 58.50
     S.D. = 0.2  on   5 of   5 obs.
-----------------------------------------
%  MAR  31, 1993  16h 54m 22.69± 0.73s
   44.376 N ± 6.7km    7.303 E ± 8.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 1.6 (GEN).

STV      0.13 173 P      54 25.95    0.0
                 S       54 27.78
ENR      0.17 151 P      54 26.82    0.2
                 S       54 28.97
PZZ      0.19 312 P      54 27.46    0.4
```

```
                 S       54 30.52
ROB      0.42 101 P      54 31.81    0.6
                 S       54 37.53
BHB      0.47 357 P      54 31.71   -0.5
                 S       54 37.85
IMI      0.63 138 P      54 34.69   -0.7
                 S       54 42.84
     S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
%  MAR  31, 1993  17h 32m 44.03± 0.72s
   26.873 S ± 6.8km   26.739 E ± 6.4km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.7 (PRE).

BFS      0.05 122 iPd    32 46.50    0.9
                 S       32 47.60
PRY      0.66  95 eP     32 56.00   -1.2
                 S       33 03.00
KSR      1.01   8 iPd    33 04.00    0.2
                 S       33 17.00
SWZ      1.30 256 eP     33 09.00    0.4
                 S       33 26.30
SEK      1.65 152 iPc    33 14.90    1.1
                 S       33 35.60
SLR      1.79  51 iPd    33 16.00    0.1
                 S       33 38.50
BLF      2.28 192 eP     33 23.00   -0.1
                 S       33 51.00
FRS      3.13 203 iPc    33 33.50   -1.4
                 S       34 09.50
     S.D. = 1.0  on   8 of   8 obs.
-----------------------------------------
•  MAR  31, 1993  17h 55m 51.40± 1.41s
   37.688 N ±12.8km   21.388 E ±11.7km
   DEPTH =  10.0km  (geophysicist)
   3.7mb (  1 obs.)
 SOUTHERN GREECE                   (368)
      ML 3.4 (ATH).

VLS      0.80 308 ePb    56 06.00   -0.9
                 eSb     56 22.00
AGG      1.52  29 ePb    56 18.28   -0.4
                 iSb     56 38.28
VLI      1.57 128 ePg    56 19.00   -0.4
ATH      1.87  81 ePn    56 24.00    0.4
                 eSn     56 49.00
KEK      2.37 329 ePg    56 37.00    6.0X
LIT      2.56  19 ePn    56 34.82    1.2
                 eSn     57 06.50
KZN      2.63   6 ePb    56 38.70    4.0X
FNA      3.09 360 ePn    56 46.56    5.4X
OUR      3.33  37 ePn    56 41.20   -3.3X
SOH      3.48  25 ePn    56 44.80   -1.9
KNT      3.66  18 ePn    56 49.12   -0.1
NB2     24.24 348 P      01 11.20    2.1
        0.9s      1.90nm         3.7mb
     S.D. = 1.5  on   8 of  12 obs.
-----------------------------------------
&  MAR  31, 1993  18h 08m 14.53s
   32.782 N           118.351 W
   DEPTH =   6.0km  (geophysicist)
 OFF COAST OF CALIFORNIA           ( 38)
        <PAS-P>. ML 3.4 (PAS).

PLM      1.37  65 eP     08 38.78   -1.6
                 S       08 54.20
PEC      1.49  42 ePn    08 40.93   -1.0
                 eS      08 57.32
SSK      1.53  21 ePn    08 40.93   -1.6
                 S       09 00.41
BCH      2.80 329 eP     08 59.56   -1.2
ISA      2.88 358 eP     09 00.46   -1.4
GLA      2.98  84 eP     09 01.91   -1.3
MSU      7.61  40 (P)    10 08.36   -0.5
         7 obs. associated
-----------------------------------------
   MAR  31, 1993  18h 20m 44.14± 0.32s
   39.150 N ± 3.1km   28.017 E ± 2.6km
   DEPTH =  12.6 ±  2.0 km
   4.3mb ( 31 obs.)
 TURKEY                            (366)
     ML 4.4 (ATH), 4.2 (THE), MD 4.1
     (ISK).

IZM      0.96 218 iPg    21 01.30   -0.8
                 eSg     21 15.30
```

```
KCT      1.13  13 iPn    21 05.00    0.0
EDC      1.20 354 iPn    21 05.50   -0.8
BNT      1.21 356 iPn    21 06.10   -0.3
PRK      1.36 275 ePn    21 08.50   -0.3
KHL      1.44 125 iPn    21 11.60    1.6
ALT      1.63  93 iPn    21 13.60    0.8
YLV      1.76  36 iPn    21 14.60    0.0
GBZT     1.97  33 iPnc   21 18.00    0.4
                 iPg     21 23.00
                 iSg     21 50.00
CTT      2.02   9 iPn    21 17.60   -0.7
ISK      2.07  22 iPn    21 18.50   -0.5
HRT      2.10  37 iPn    21 20.30    0.9
ITU      2.10  21 iPnc   21 19.00   -0.4
                 iSg     21 48.00
GPA      2.10  57 ePn    21 21.00    1.5
EYL      2.17  49 ePn    21 20.30   -0.3
ALN      2.31 320 ePn    21 22.24   -0.2
                 eSn     21 52.20
BCK      2.63 129 iPn    21 28.00    0.8
DMK      2.68 356 iPn    21 26.90   -0.8
RDO      2.75 317 ePn    21 29.50    0.7
ELL      2.83 147 iPn    21 32.00    2.1
KDZ      3.19 322 iPd    21 35.00    0.0
KSL      3.27 157 ePn    21 36.70    0.6
OUR      3.33 292 iPn    21 35.82   -1.1
PAIG     3.44 284 ePn    21 38.20   -0.3
JMB      3.49 342 eP     21 39.00   -0.1
ATH      3.57 252 ePb    21 46.50    6.1X
RZN      3.57 316 iPc    21 40.00   -0.6
SRS      3.92 301 iPn    21 44.20   -1.1
                 eSn     22 27.24
SOH      3.95 296 ePn    21 45.00   -0.8
MMB      4.08 308 iPc    21 47.00   -0.6
THE      4.16 292 ePn    21 49.04    0.3
NPS      4.33 207 ePn    21 49.20   -2.0
LIT      4.37 284 ePn    21 51.16   -0.6
                 eSn     22 38.12
KNT      4.41 299 iPn    21 51.65   -0.6
                 iSn     22 39.64
AGG      4.43 270 ePn    21 52.00   -0.6
PGB      4.48 321 iPd    21 52.00   -1.3
PSN      4.53   2 iP     21 53.00   -0.9
PVL      4.54 334 iPd    21 53.00   -1.1
KKB      4.64 307 iPc    21 55.00   -0.6
GRG      4.67 294 ePn    21 56.08    0.0
VLI      4.69 240 ePn    21 54.20   -2.1X
KAS      4.93  61 eP     22 03.50    3.8X
KZN      4.95 285 ePn    21 59.20   -0.9
VTS      5.01 315 iPd    22 00.00   -0.9
FNA      5.36 290 ePn    22 05.64   -0.2
BUC1     5.40 345 eP     22 32.00   25.7X
BUC      5.45 345 ePd    22 40.00   33.0X
PPCY     5.49 140 eP     22 07.50    0.0
CSS      5.96 133 eP     22 13.00   -1.2
                 eS      23 24.30
CFR      6.03   1 eP     22 14.00   -1.1
ISR      6.08 350 eP     22 20.00    4.1X
DRA      6.19 334 ePc    22 15.00   -2.4X
FAM      6.33 129 eP     22 20.50    1.1
BRD      6.40 354 ePd    22 25.00    4.6X
MTUR     6.46 341 ePc    22 26.50    5.2X
MLR      6.52 347 ePc    22 22.50    0.3
VRI      6.78 352 ePd    22 25.50   -0.3
TNR      7.06 338 ePd    22 19.00  -10.7X
GZR      7.35 330 ePd    22 33.50   -0.2X
SIM      7.36  36 eP     22 33.00   -0.8X
                 eS      23 50.00
KIS      7.89   4 eP     22 39.00   -2.2X
                 eS      24 12.00
ADI      8.41 134 eP     22 45.90   -2.7X
GLH      8.92 134 eP     22 53.90   -1.8X
ANN      8.97  47 eP     23 09.00   12.7X
                 eS      24 30.00
DSI      9.66 139 eP     23 03.20   -2.6X
KOT      9.72 160 eP     23 03.00   -3.6X
                 eS      24 41.50
UZD     10.16 320 ePn    23 10.00   -2.6X
UZH     10.33 338 eP     23 23.00    8.0X
          Z  13s      1.80um
          E  13s      1.80um
PSZ     10.56 329 eP     23 42.50   24.3X
BUD     10.59 325 e(P)   23 34.00   15.5X
SRO     11.16 324 eP     23 24.00   -2.3X
VBY     11.37 308 e(P)   23 31.50    2.2
LJU     12.08 309 e(P)   23 54.00   15.1X
                 e(S)    27 18.00
```

31d 18h

VOY 12.46 308 eP 23 47.00 2.9X
GRO 13.93 67 eP 24 20.00 16.5X
Z 11s 1.00um
N 14s 1.50um
GEC2 14.12 318 Pn 24 05.40 -0.6
Pg 24 59.10
GRS 14.19 83 eP 24 07.00 0.0
Z 14s 0.72um 4.9MszX
N 12s 0.35um
E 12s 0.78um
eS 26 40.00
KHC 14.36 319 eP 24 13.00 3.9X
1.0s 3.50nm 4.0mb
e 24 18.50
e 24 27.00
MNK 14.76 359 eP 24 27.00 12.9X
BRG 15.34 324 eP 24 22.50 0.7
1.2s 11.00nm 4.1mb
GRF 15.93 317 eP 24 33.60 4.1X
Z 15s 0.50um
e 24 35.30
CLL 16.07 324 eP 24 32.00 0.7
1.6s 17.00nm 3.9mb
SBF 16.11 294 eP 24 35.60 3.7X
0.9s 16.70nm 4.2mb
MOX 16.30 320 iPd 24 38.80 4.6X
1.6s 49.00nm 4.4mb
LPG 16.93 299 eP 24 46.40 3.8X
0.9s 8.50nm 3.9mb
OBN 16.97 17 eP 24 43.70 1.1
CDF 17.56 309 eP 24 52.20 2.0
1.2s 23.20nm 4.2mb
BSF 17.63 306 eP 24 52.00 0.9
1.1s 8.30nm 3.8mb
MOS 17.79 18 eP 24 54.00 1.2
WLF 18.76 311 P 25 07.00 2.2
LBF 19.18 302 eP 25 10.00 0.0
1.2s 13.40nm 4.1mb
SSF 19.51 302 eP 25 15.20 1.2
0.8s 9.65nm 4.1mb
WTS 19.54 318 eP 25 13.50 -0.7
1.2s 27.30nm 4.4mb
AVF 19.54 301 eP 25 14.20 -0.1
1.5s 32.40nm 4.4mb
DOU 19.86 311 P 25 17.00 -0.6
0.9s 20.00nm 4.4mb
MAF 19.95 299 eP 25 20.90 2.3
1.1s 14.90nm 4.2mb
WIT 20.07 320 eP 25 20.00 0.3
CAF 20.08 295 eP 25 21.70 1.6
1.0s 7.80nm 4.0mb
TCF 20.20 299 eP 25 22.70 1.4
1.6s 67.80nm 4.7mb
RJF 20.51 296 eP 25 27.70 3.1X
0.8s 9.65nm 4.2mb
Z 23s 0.10um 3.1MszX
LSF 20.66 299 eP 25 28.00 1.9
1.3s 26.00nm 4.4mb
PUL 20.69 3 eP 25 28.00 1.8
Z 12s 0.40um 4.0MszX
e 25 54.00
NUR 21.49 355 eP 25 35.20 0.9
MFF 21.86 299 eP 25 39.10 0.9
0.9s 14.90nm 4.4mb
LPF 22.73 302 eP 25 46.20 -0.6
1.1s 20.50nm 4.5mb
HFS 22.86 341 eP 25 49.20 1.2
0.4s 1.30nm 3.8mb
Z 17s 0.20um 3.6MszX
LR 34 44.00
KAF 23.02 358 eP 25 50.40 0.9
NB2 24.27 340 P 26 00.90 -0.9
0.7s 1.00nm 3.5mb
MAIO 25.00 87 iPd 26 10.00 0.9
0.6s 7.30nm 4.5mb
eS 30 50.00
EKA 26.34 318 P 26 23.00 1.7
2.6s 114.20nm 5.1mb
ARU 26.51 39 eP 26 24.00 1.1
SVE 27.70 40 ePc 26 47.50 13.8X
BCAO 35.61 196 iPc 27 42.90 -0.7
0.7s 9.00nm 4.8mb
ELT 41.54 50 eP 28 31.00 -1.6
1.3s 11.00nm 4.4mb
GKN 47.78 86 P 29 22.50 -0.8
0.8s 20.00nm 5.2mb
DMN 48.33 86 P 29 26.80 -0.9
KKN 48.38 85 P 29 26.80 -1.2
PKI 48.59 86 P 29 28.50 -1.2
GUN 48.79 85 P 29 30.10 -1.2
GBA 50.30 106 P 29 42.00 -0.5
ZAK 52.44 51 eP 29 57.00 -1.3
1.4s 7.00nm 4.4mb
BOD 56.00 40 eP 30 21.60 -2.8
1.0s 7.00nm 4.6mb
TIK 56.64 22 eP 30 27.00 -1.7
1.0s 9.00nm 4.8mb
LZH 58.47 67 eP 30 41.00 -1.4
1.2s 23.00nm 5.1mb
MGD 70.53 27 eP 32 03.00 2.7X
S.D. = 1.1 on 90 of 125 obs.

---

* MAR 31, 1993 18h 31m 17.56± 1.34s
41.304 S ±16.4km 172.743 E ±15.0km
DEPTH = 167.8 ± 15.1 km
SOUTH ISLAND, NEW ZEALAND (162)

THZ 0.48 165 Pc 31 41.10 0.3
S 31 55.90
QRZ 0.50 341 Pc 31 41.00 -0.2
S 31 55.20
WEL 1.53 90 P 31 48.60 -0.5
S 32 09.20
WVZ 2.32 219 eP 31 58.10 0.3
S 32 26.10
ODZ 4.04 202 eP 32 19.80 0.4
eS 33 04.30
SBCZ 4.54 212 P 32 25.70 -0.3
TLC 4.72 213 eP 32 28.10 -0.4
NOZ 4.87 58 eP 32 30.60 0.3
S.D. = 0.5 on 8 of 8 obs.

? MAR 31, 1993 18h 37m 37.01± 3.98s
3.542 S ±39.1km 151.885 E ±20.8km
DEPTH = 10.0km (geophysicist)
4.6mb (3 obs.)
NEW IRELAND REGION, P.N.G. (190)

RAB 0.70 157 iPd- 37 50.60 -0.3
PMG 7.48 219 eP 39 29.00 0.1
CTA 17.34 198 e(P) 41 35.00 -5.8X
RMQ 23.01 187 iPd 42 43.60 0.3
1.1s 26.00nm 4.7mb
WB2 23.63 225 eP 42 48.70 -0.6
0.4s 3.20nm 4.2mb
i 42 53.80
BRS 23.73 178 iPc 42 50.50 0.2
QLP 24.05 197 eP 42 53.50 0.1
ASPA 26.50 219 eP 43 20.60 4.0X
0.6s 9.40nm 4.7mb
S.D. = 0.5 on 6 of 8 obs.

% MAR 31, 1993 18h 47m 22.63± 0.76s
39.044 N ± 5.4km 27.678 E ± 9.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.0 (ISK).

IZM 0.72 207 iPg 47 36.80 -0.1
iSg 47 48.80
EDC 1.31 6 iPn 47 46.50 -0.3
KCT 1.31 23 iPn 47 46.70 -0.2
BNT 1.32 8 iPn 47 47.60 0.5
KHL 1.61 116 ePn 47 51.60 0.3
ALT 1.89 89 ePn 47 55.10 -0.3
YLV 2.00 40 ePn 47 57.00 0.0
S.D. = 0.4 on 7 of 7 obs.

& MAR 31, 1993 20h 23m 21.20s
36.790 N 89.420 W
DEPTH = 5.0km (geophysicist)
NEW MADRID, MISSOURI REGION (486)
<SLM-P>. MD 3.1 (SLM), 3.3
(TEIC). mbLg 3.3 (GS). Felt (V)
at East Prairie, (IV) at
Bertrand and (III) at Anniston,
Kewanee and Matthews. Also felt
at Charleston and Sikeston.

DWM 0.06 285 iPc 23 22.77 0.0
S 23 24.33
NMMO 0.23 208 iPd 23 25.80 0.0
S 23 28.65
OGTN 0.37 188 iPc 23 28.53 -0.2
S 23 33.36
LDMO 0.40 197 iPc 23 28.79 -0.4
S 23 34.93
BBTN 0.40 184 iPc 23 30.16 0.9
S 23 36.39
ACTN 0.45 169 iPc 23 30.12 -0.1
S 23 36.30
ELC 0.52 17 ePd 23 30.42 -1.1
eS 23 36.54
GRT 0.52 180 iPd 23 31.29 -0.4
MFTN 0.63 178 iPc 23 33.32 -0.4
S 23 41.75
HATI 0.65 199 iPc 23 32.82 -1.3
S 23 41.27
WGAR 1.12 214 ePd 23 42.01 -0.7
S 23 57.96
FVM 1.44 326 iPc 23 45.82 -2.1
eS 24 04.03
NHIL 1.51 41 eP 23 48.73 -0.2
S 24 09.81
BPIL 1.56 25 ePc 23 49.16 -0.4
S 24 09.99
WDIN 1.88 46 ePd 23 54.12 -0.1
S 24 20.19
SLM 1.95 341 ePd 23 55.04 -0.3
S 24 19.92
TYS 1.96 333 ePc 23 54.73 -0.6
S 24 20.62
CCMO 2.10 337 ePc 23 57.02 -0.4
S 24 24.60
OLY 2.10 233 ePd 23 56.21 -1.2
eS 24 23.43
GBTN 4.36 103 ePn 24 29.10 -0.5
eS 25 33.75
UYO 4.87 239 iPc 24 34.80 -2.1
WMOK 7.88 258 (P) 25 15.51 -3.7
eS 27 22.59
22 obs. associated

% MAR 31, 1993 21h 08m 25.71± 0.40s
46.373 N ± 3.9km 1.598 E ± 4.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

LSF 0.13 201 Pg 08 29.30 0.4
Sg 08 32.80
TCF 0.43 101 Pg 08 35.70 1.2
Sg 08 43.20
MAF 0.69 102 Pg 08 40.40 1.0
Sg 08 51.20
BGF 0.88 77 Pg 08 43.00 0.3
Sg 08 55.90
RJF 1.07 183 Pn 08 46.10 0.2
Pg 08 46.40
Sg 09 01.60
HYF 1.15 38 Pg 08 46.00 -1.2
Sg 09 01.10
MFF 1.23 281 Pn 08 43.70 -4.8X
Pg 08 44.40
Sg 08 57.30
AVF 1.28 70 Pn 08 49.40 0.0
Pg 08 49.80
Sg 09 06.70
SSF 1.48 62 Pn 08 51.90 -0.5
Pg 08 53.10
Sg 09 12.50
CAF 1.48 167 Pn 08 53.00 0.5
Pg 08 54.40
Sg 09 15.20
LFF 1.55 203 Pn 08 52.10 -1.3
Pg 08 54.10
Sg 09 14.60
SMF 1.57 79 Pn 08 53.70 0.0
Pg 08 55.20
Sg 09 17.50
LPO 1.71 190 Pn 08 54.90 -0.9
Pg 08 57.50
Sg 09 20.80
LBF 1.75 69 Pn 08 55.70 -0.6
Pg 08 57.90
Sg 09 21.10
LOR 1.79 59 Pn 08 55.80 -1.1
Pg 08 58.00
Sg 09 21.70
LPF 2.45 314 Pg 09 06.10 -0.2
Sg 09 34.90

LDF	2.51	333	Pg	09	07.90	0.7
			Sg	09	37.20	
GRR	2.62	321	Pg	09	08.90	0.2
			Sg	09	39.90	
FLN	2.77	330	Pg	09	12.20	1.2
			Sg	09	45.00	

S.D. = 0.9 on 18 of 19 obs.

• MAR 31, 1993 21h 55m 16.02± 1.33s
37.679 N ±10.9km 21.406 E ± 9.8km
DEPTH = 10.0km (geophysicist)
3.7mb (2 obs.)
SOUTHERN GREECE (368)
ML 3.4 (ATH).

VLS	0.81	308	ePg	55	31.70	-0.1
AGG	1.52	28	ePb	55	42.36	-1.0
			eSb	56	04.08	
VLI	1.55	128	ePb	55	44.00	0.3
ATH	1.85	80	ePb	55	48.50	0.4
			eSb	56	13.00	
IGT	2.03	336	ePn	55	53.68	3.0X
KEK	2.39	329	ePb	55	59.00	3.2X
LIT	2.56	19	iPn	55	59.76	1.5
			eSn	56	33.32	
KZN	2.64	6	ePn	56	00.00	0.6
PAIG	2.86	38	iPn	56	01.74	-0.8
			eSn	56	37.48	
FNA	3.10	360	ePn	56	07.64	1.7
OUR	3.32	36	ePn	56	08.24	-0.8
GRG	3.36	13	ePn	56	11.64	2.0
SOH	3.48	25	ePn	56	09.92	-1.4
KNT	3.66	18	ePn	56	14.20	0.3
			eSn	56	58.65	
SRS	3.83	26	ePn	56	15.36	-0.9
GEC2	12.48	336	Pg	58	14.90	-1.7
HFS	23.01	350	eP	00	18.60	-3.1X
	0.4s	1.80nm			3.9mb	
NB2	24.25	348	P	00	30.40	-3.4X
	0.7s	0.90nm			3.5mb	

S.D. = 1.3 on 14 of 18 obs.

• MAR 31, 1993 22h 05m 45.02± 1.29s
38.366 N ± 6.9km 30.684 E ±15.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.5 (ISK).

ALT	0.82	327	iPg	06	00.20	-0.8
			eSg	06	12.20	
BCK	0.91	185	iPg	06	01.80	-0.6
KHL	0.91	268	ePg	06	02.80	0.2
ELL	1.73	201	ePn	06	16.00	0.6
GPA	1.94	352	ePn	06	19.00	0.6
CSS	4.01	147	eP	06	51.40	3.6X

S.D. = 0.9 on 5 of 6 obs.

• MAR 31, 1993 23h 11m 46.99± 3.21s
38.974 S ±20.4km 175.021 E ±10.0km
DEPTH = 235.3 ± 26.4 km
NORTH ISLAND, NEW ZEALAND (159)

BSZ	0.83	185	P	12	19.90	0.2
WAHZ	1.26	125	P	12	22.20	-0.3
			S	12	46.90	
TTH	1.51	113	P	12	24.60	0.3
MNG	1.68	168	Pc	12	25.80	0.1
			S	12	52.20	
TEHZ	1.72	127	P	12	26.00	0.0
KIW	1.89	183	P	12	27.50	0.0
PGZ	1.91	150	P	12	27.50	-0.1
DIW	2.01	205	P	12	28.90	0.2
CAW	2.13	179	Pc	12	29.90	0.1
MTW	2.21	171	Pc	12	30.30	-0.3
MRW	2.27	186	Pc	12	31.20	0.0
			S	13	02.00	
TCW	2.31	194	P	12	31.80	0.3
BLW	2.42	172	Pc	12	32.50	-0.2
MOW	2.45	176	P	12	32.70	-0.3
ORZ	2.67	225	P	12	34.80	-0.5
			S	13	09.70	
KHZ	3.62	198	P	12	46.70	0.7
LTZ	4.34	208	P	12	54.60	-0.1

S.D. = 0.3 on 17 of 17 obs.

STATION DATA REPORT FOR MARCH, 1993

1489 stations reported 91817 reading arrival groups

X = data received for this 6-hour time period

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

AAE                   X  XX              X    X  X  X X   X  X  X      XXX     X      XX X      XX              X       XXX
AAI                                                                X                 XXXX                XXX                XX
ABH                    X   X  X    XX            X       X X     X          XX                XX                        X X X X
ABHA   X             XXXXX   X X  XXX  XXXXX   XXXXXXXXXXXXXX XX XXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXX  X   XX  X XXX    X X
ABM   X   X            X  X X     XX X  X X     X       X X    X       XX       X   X  XXXX    XX X        X  X X XX X   X XXX      XXX
ACI    X                X   X                         X                         X     X                X         X    X            X
ACO   X XXX  X     X    X    X  X     X XX     XXX  XX XXXX     X  XX XXX X  X XXXXXX  XX X      X      X X XX         X   X    XX
ACTO                         X                             X    X     X      X     X         XX    XX X
ACU                    X    X  XX  X                        X          X                XX   X      XX X     XX            X X
ACX    X X              X XXX     X    X   X  X  X X   XX X X  X X   X X             X  X  XXXX   X   X     X   X   XX        XX      X    X

ADAT                                       XX  X             X         X       X     X            X    X          XX   X
ADE   X   XX     XX X       XXX  X     XXXX    X       X XX XX        XX     X      XX XXXXX       X      X X XXXX           XX        X
ADI    X                  X      X                 X        X            X  X      X     X               XX       X   X                     X
ADK   X   X     XX      X XXX  X X                     X X      X XX X    X     X  X  X   X  X   X   XX    X     X   X     X    X         X
AFR               XX  X   X  XXX                      X  X X           X                     X  X                XX X       XX       X
AGG     XX X  XX   X    XX           X    XXXX  X XX XX      X   XX      XX  X XXXX    XXX X     XX X  X XXXX X  XXXXXXXXXXXXXXXXXXXXXXXX
AGO                     X                              X   XX             X        X   X   X          X            X              X
AGX    X         X      X    X                        X X             X    X      X       X X                X
AIA    XXX          X XXXXXX       XX        X XX X X  XXXX     XX         XX   X    XXX       X XXX   X X        X        XXX X     X XXXXX    XX
AKU    X              X   X                X         X  X X X                         X    X     X      XX           XX  X X      X   X

ALJ   X                 X   XXX X                     X        X                        X       XX XX    XX         XX   X    X
ALN     X  XX X X   XX   XX          X  X XX   XXX X  X  X     X    X  X  XXX X  XXX XX X X       XX X X X X XXXX XXX XXX      XXXX      XX X
ALQ   X  X   X  XX XXX X   XX   XX X  X XX    XXX    X    XXXX X     XXXXXXXX   XXXXXXXXXXXXXX  XXXXX  XXX XXXX    X    X X XXXX  X    XX
ALT      XXXX  XX     X X       X        XXX      XXX     XX   X X           X  X  XXX  X     X X X  XX X X     XXX  XXXX X         XX        X
ANN   X                 X     X          X               X    X  XX    X    XX      X    X      X       X X        XX     XX        X X    XX  X
ANT    X XX XXX  X         XXX XX X    XX XXX   XX X   XX          X X XXX X XX XXXXXXX   X XX  X  XX X X XXX  X XX            X   X   X
ANTZ             X      X X  XX          XX        X X                                   X X        X                          X
AOMJ  X X          X    X      X X X X XX                   X        X X           X X X   XXXX       XX X     X X        X   X     XX   X
APO    X           X  X    XX          XX     X  XX X XXXX XX X       X    X         X X            XX         XXX          XXXXXXX     X
APR   X    X    X     X     X                          X   X          X  X     X                    X       X             X     X

AQBJ                    X                        XX      X X   X          X   X   X     X                X     X
AQU    X    X X XX  XXX    X       XXX  X   X  X    XX XXXXX       X XX   XXX XXXXXX XXX XXXX XX XX X    X    XXXX XXX         XX XX  X
ARA0   X        XXXXXXXXXXX XX X  X  X   X    XX    X  XX    X   X  X XX  X  XX  X   XX  X  X X      XX    XX  X  XX      X      X    X X X
ARE   X    XX XX         X  XXX     X    XXX XXXX  X             X XX X XX XXX  XX  XXXX XX XX  X   X X XX  XXXXX             X   X   XX
ARMA  XX  XXX      X  X  XXXXXXXXX     XXXX XXXXXX XXX XXXXXX  XX    X XX        X   X  XXXX  X   XX X  X X XXXXXX XX XX X XX X X   X
ARN   X XX   X  XX  X  XX XXX    XX  X X X XXX  XXX X XX   X X   XXX  XX     X  X XX XXXX X    X    X X   XXX         X  XX XX   XXXX
ARO       X                             X   X  X XX    X             XX              XX                            X            X
ARU   XX  X   X X  XXX XXXXXXXXXXX XXXXX       XXX X X XXXXX XXX XXX  XXXXX      X XXXXXXXXXX  XX XX      X XX XXXX X  X  XXXX       XX XX
ARUT  XXXXXX XXXXXXXXX XX XXXX X X XXX X    XXX X XX XXXX X      XXX X  X     X XXXXX XX XXX  XXXX     X    XXX  X    X  XXXXXXXX    XXXX
ARV   XX     XXXXXX XXXXX X X     X XX  XX   X XX  XX XXXXX    X    XX XXXX XXXXXX XX   XXXXXXX XX    X X X  XXXXXXX        X XXX      XXXX

ASAJ  X X XX XX  X   X XX XXXXX    X X XXX                XXX XXX    XX X   X  X    XXXXXXX XXXXX     XXXXX X X X XX  X         X X   X   XX X
ASH   X   X    X X  XX  X XXX        X    X X XXXXXXXX XX XX  XX XXX  XXXXX     X XXXXXXXXXX  XXXXX          XX    XX        XX X    X
ASK     XX       X  XX   X X      X  X   X   X X   X      X       X      X    X    X   X   X     X     XXX X  X  X   X   X              X X X  X
ASPA  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX
ASR                                 X   XX    XX      X XXXX                     X   X    X       X                XXX  X    X X    XX  X   XX
ASS   XXXX  XXXXXXX XXXXX    X      XXX   XX  X   XX XXX XXXXX     X XXXX  XXX XXXXXX XX   XXXXX X XXX XX XXX XXXXXXXX      XX XXXX    XXX
ATE           X            X    X                          X  X   X         X           X                          X                    X
ATH      X              XX        XX  X    XX     X    X X   X X X      X X       XX        X X  X  X X             X    XXXXXXXX  XXXXXXXXXXXXX
ATN        X         X   X                  XX  X X X  X XX  X      X    X  XXX X   XX      X XXXX    X XX   X     XX X  XXXXX          XX X
AUE    XX  X     X     X    XXX X     X X X XXX     X XX XX X X X      X        X        X XX     X X XX    X   X X  X      X      X X    X XX

AUH        X     X         XXX X      X X X XXX XX     XX XX X X X      X        X        XX XX     X X XX    X  X X  XX      XX      X X    X XX
AUI   XXX   X    X  XX  X XXX X       X X X XXX XX    X XX XX X X X      X        X        XX XX     X X XX    X    X   X      XX      X X    X XX X
AUL   XXX  XX    X  XX     XXX X      X X X XXX XX X X XX XX X X X      X        X        XX XX     X X XX    X  X X  XX      XX      X X    X XX X
AURF       XX       XX  X  X    XX    X         X X     X X XX      X XX XX       XXX X X    X X  XXXXX     X    XXX        X           XX     X
AUTN       XX        X  X       XX    X         X       XXX XX      X XX  X       XXX X X    X X  XXXXX     X    X X                    XX
AUW                      X  X        X     X        XX XX        X                     X       XX  X      X X XX    X  X X  XX   XX    X     XX
AVE   X     X    X    X X X  XXX X         XXX   X    XXXXX     X          X     XX  X    XXX X XXX X      X      XX           X XX          X   X   X X
AVF   X    X   X XX XXXXXXXXXXXXX X XXXX XXXXXX XXXXXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXX XXXXX XX  XXXX  XXX X XX XXXXXXX XXXXXX
AVY   X    X               X  X X XXX X       X X    X         X X    X       XX          X   X  XXXX    XX XX      X  X X XX X    X XXX      XXX
AYN        X          XX  X            X   X       X  X      X     X X X  XXX  X    X             X XXX  X XX X X     XXXXXXXXXXXX X X   X   XX

BADA       X          X   X            X            X  X     X     X X       X   X    X              X X     X XX X X       X  XX X XXX X X  X
BAG   X    X       XX  X  X  XXX  X    XX       X    XX  X   X          X   X          X XXX  XXXX      XXX X     X  XXXX        X X    X    X
BAI                  X   X                      X     XX X                         X    XX    X                  X    XX                X X X
BAK   X    X                XX                 X       X      X  X  X X  XXX           X  X X  X                     XX   X           X X   X
BAL   X   XX     X       X XXX     XX XXX  X  X    XX  X XX     XX X X X    XX                     X    X X      X X  XX    X X XXXXX  X    X X
BALM  XXX X X XXXX XXX XXXXXXXXX  XXXXXXXXX XX XXXX X X XX X XXXX  X   XXXXX XXXXX XXXXX X  XXXX X X X XXXXXXXX X XX  XX XX XXXX X
BAO   XX XXXXXX XXX X  XX XXX XX X X     XXXXXXXXXXX                 XXXXX       XXXXXXXXX XXXXX XXX      X     XXX X XXX X      XXX   XX XXX
BBP   X XX XXXXXX X    XXXXXXXXXXX  XX XXXXXXXXXXX  XX XXX XXXXXX XXXX XX XXXXX XXXXX XXX  XX     XXXXX XXX  XXX XXX XXXXXX   XXXXXXX
BBS                X       X    X                  X           XXX X        X  XX         X    X    X  X   X XX     X XX  X                X            X
BCAO  XX    XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXX XXXXXXXXXXXXXXXXXX

BCH   XX    X XXXX          XXXX      XXXXX X   XXXX       XXXX    X X  X XX XX    XX       X X  X       XX     X X     XX X               XXXXX     XX X
BCI    X                  X                    X      X   XXXXXX  X
BCK           X          X XXX                XXX  X XX      X  X XXX     X    X XXX XX X       XX XX X  X X    X  XX XX X X         X       XX  X
BCP   X  XX       X      X  XXX  X X     X XX  X XXX   X   XX          X  XX           X   XX X               XXXX X X             XX    X   X X
BCZ      X            X          X                         X     X  X  X                    X X         X  X              XX     X          XX
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

BDF                                          XX X XX             X XXX    XX XXXXXX XXXXX XX XXX  X    XXX X XXX X      XXX  XX XXX
BDI    XXXXX    X    X XXX  X    X  X     X      XX  X  XXX          XXXX    XX XXXXXX  X   XXXXXXXXXXXX      X  X X   X          X X    X  X
BDT    XX  X  XX XX    XX  XXX    X    XXX      XX   XXX XXXXX XXXX  X X XX  X XXXX XX     XX        X      X  X      X  XX  X X   XX  X
BDV     X  XX        X    XX         X     X        X  XX   XXX X        X  X XX X  XXX X  X XXX  X XX X  X               XXX    X    XX X  XX
BER                           X XX          X           X                X           X                X     X   X        X
BERF          XX         XX           X     X           X       X            X X               X               X     X      X              X X
BFD    XX XXX    XXXXXX XX XXXX X X  XXXX XXXX  XXXX X XX XX  X       XX    X   XX    X  XXXX    X    X    X X  XXXXX         X XX       X
BFS     X X  X    XXXXX    XX      X    X    X      XX X       X    X    X    X    X XX      X  XX XX  XXXX  XXX            X       X    X     X   X
BFT     X XX XX   XXXXX   XXXXX  X   XX X XX X  X XXXXX X    X    X X X    X        XXXXXXX XX XXXXX XXX   X   X XXX  XX XX  X          X
BGF    X   XX XX XXXXXXXXXXXXXXX    X XX XXXX XXX XXXXXXXXXXXXXXXXXXXXXX XXXX X X XXXXX XXXXXXXX XX  X XX  XXX X  X XXXXXXX XXXXXX

BGL    XXX  XXXX X  XX  X XXX X X  X XXX XXX XX X XXXX XX X XXXXXX  X    XXX     XXX XX     X X XX  XX  X X  XXX XXX X X X XXX XX X X
BGMT    X        X               X      X       X       X       X       X      X      X X             X       X     X          X X      XX       X        XX
BGR     XX         X  X    X X X X X  X X   XXX XX X X XX XX X X X X   X    XXX       XX XX          XX     X   X X   XXX X X X X     X XX X X
BHB    X        XX X X XXX    X   XXX   X XX    XX X    X XXXX XX   XX X XXX XXXX   XXX   X   XXXXXXXXXXX     X X XXXXXX X XX     X X XXXX  XX X
BHG     X                                                                                                                     XX   XXX             X X X   XX
BHL     X    X         X   XX XX X         XX   X   XX X   X XXX X   XX XXXX XXX X   X  X   XX XXX X    XXXXXX         XX   XXX      XXXX X     X
BIM              X    X   X     X       X X                          X           X    X           X    X        X    X                                   XX  X X
BIP      X X     X XXXX X     X X X     XXXXXX     XX    XXXXXXXXX XXX   X XX XXXX XXXXXXXX XXXXXX XXX XX XXXX    XXX XXX      X XXX X  X       X
BJI    X XXXXX    XX XXX XXXXXXXXXXXXXXXXXXXX XX XXXXXXXXXX XXX XXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX XXXXXXXXXXXXXXX X
BKM    X        XXXXXXXXXX XXXXXXX X XX X     XXX   XXX XXX X X XXX  X    XX XXX XX     X   XX XX XXXX X X   X   XXXXX XX XXXXXXX

BKS                X       XX XXX             X X   XX         XX      X X  X X    X                   X  X         X           XXX                         X            X
BLA    X    X              XX   X                    X       XX              X X       X        X          X X         X                                                X      X
BLE                    X         X         X XXX     XX    X
BLF     X XX XXX XXXXX   XXXXX   X    XX X XX X   XXXXXXX X    X     X X X     XXXX    XXXXXXX XX XXXXXXXXX X   X X XX    XX XX   X     XX X X X X
BLW    X      XX         X   X X        X XX X   X XX               X          X XXX XX   X       X   XX    X      X   XXXX X   XX        XX   X X     XX X       X XXX
BMW      XX X X          X    XXX     X         X     XXX X XX X XXXX X      XX                 X X   X  X         X                XXXXXXXX XXX     XX   X   XXX
BNH                    X        XX           X                      X          X         X        X           X X     XX X    X        X      X
BNI    X        X  X   XXXX   XX   XX        X         X      XX XXX X       XXXXX XX      XXX X X   XXXX  X XXXX  X         XX      X           X XXX   X   X  X
BNN      X   X      X                        X   X               X   X                  X        X             XX          X     X                X                       X      X
BNS                    X   X   X XX X                XX      X   X X  X      XX     X       X X             X X         XXX X                     X                  X X X

BNT     XXXXXX XX X  XXXX         XX        XXXX  X    XX          X XXX   XXX XX XX XXXXX X X  X XX XXX X  X X   XXX XXXXXXX XX XX XXXXXXXXX X
BOB    X  X          X  XXXX   XX  X                 X    X XXXX XX      XX X  XXX XXXXX    X  XXXXX X XXXX              XXX XXX             XXX       X  X
BOD    X   XX  X XX   XX X XXXXXXXXX XXXXX XXXXXXXXXX XXXXXX X   XXX   XXXXX  X XXXXXXXXXXXX  XXXXXX      X XXXXXXX X  X XXXXX X  XX XX
BOG    X X X         X       X   XX     X   X  XX      X             X              X X            X       X X  XX                      XX                     X     X      X
BOM        X                  XXX                   X XXXX                                              XXX   XXXX                                       XXX           X
BONR   XXX    XXXXXXXXXX XXXXXXXXXXXXXXXX    XXX X XX X XX XXX     X XX XX     XX     X X  X      XXX    X       XX          X   XX XX      X
BPA                   X         X X               X            X             X   X      X X            X            X     X XX     X    X    XX    XX XX X   XX
BPI    X   X    X      XXX     X      X                   X                X                          XX X     XX
BRD                         XX  X                 X     X      XX X X   X    X     XX      XX                     X  X                XX       XX                          X
BRG    XX XXXXXXXXXXXXXXXXXXXXXXX XXX XXX X XXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXX XXXXXXX XXX XXXXX XXX X  X XXXXXXXXXXXXXX

BRLK   XXX   X X   X   XX   X XXX X X   X X X XXX   X X X XX XX X X X X    X       X       XX XX     X X XX   XX   X X   XX      XX      X X   XX XX X X
BRNL                        XX   X                               X X X                    X     X          X X       X                  X       X
BRS    XXXXXXX   XXX X X   XXXXXXXX XX XXXXXX XX   XXXX XXXX X   XX   X   XX            XX   XXXXX XXXXXXXXX X XXXXXXX        X     XXXX XXXXXXX
BRT       X       X    X X X           X       X       X      XXXX   X       XX X XX X    XX    XXXX X  X    XXXXXX    XX X XX  X       X  X X X
BRU          X                    X     XX         X          X           X                 X   X                 X         XX                     XXX          X
BRW    X   XX  XXXX XX       XXX X X  X        XX        X  XX     XX       X X   X X  XX  XXXX        XXX          X XX  XXX        XXXXX        XXX
BRY     X   XX         X    XX         X     X        X  XX   XXX X        X  X XX X  XXX X  X XXX  X XX X  X       XXX   XXX     X      XX X  XX
BSD     XX             XX  X    X          X X      X         X  XX       X X               X         X X      XX  X           X      XX      X                XX
BSF    X    XX  X XX XXXXXXXXXXXX X X XX XXX XXXX XX XXXXXX XXXXXXX    XXXXXXX XXXXXXXXXXXXXXXXXXXXX   X    XXXXX XXX X   X   XXXXXX    XXXXX
BSZ    X      X        X   X        X X X  X     XX               X              X    XX XX  X  X   XX   X      X    XX    X     X         X   XX        XX X       XX XX

BTH                X                X X            X       X   X          X  X X X XX X    X               X        X           X                                       X    X
BTO    X XXXXX X XX XXX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXX XXX   XXXX X X XXXXXXXXXXX    XXXX  X X   XXXXXXXXX X XXXX XXX    XXX X
BUC                          XXX          X X          X    X    X            X                   X             X          X                              X                    X
BUC1                    X   XXX             X                X    X                               XX            X          X                 XX       X            X               X
BUD                          XXX          XX       X           XXX X        X     XX                  X             X                 X    X                   XXX       XX   X
BUL     X XX  X     XXXX   XXXXXX     XX     XX XX XXXX XX XXX X    XXXX X   XXXXX XXXXXX XXXXXXXXXXXXXXX XXX   X XXX XXX X    X XX X X XXX XX
BUT                          X      X                    X                 X     X    X              X                      X X      X         X    X
BVA         X                              X               X    X                                X   XX          X        XX X        X
BW06   XXXX     X X X XXX XX XXXXXXXX   XXXXX XXXX XXXX XXXX X     XXXXXX    X X X XXXXXXXXXXXXX   XXXXXX X X   XXXXX X   XX X XXXX   X   XXX
BWA    XXX XXXXX XX   XX XX XXXXXX     XX XX X  XX   XXX XXXX XX   XX X   XX              X XX XXXXX   X X XX X   X X XXXXXX   X XX X XX        XX

BWZ       X X       X X             X           X X              X      XX       X     X X             X     X     X   X           XX   X X     X X     XXX     X       X       XX X
BZK                                                 X        X                                        XX               X      X                      X X     X         X
BZS                                          XXXX    X                                                              XX XX          X
CACB                              X       X  X XX   XXX XXX        XX          X X   XX
CACH      XXX X XX XX      X        X  X XXX  XX   XX    XX   X  XX   X   X       XX      XX    XX XX XX X  XXX       X X  X X         X             XX X    X
CAF    X       XX XX XX   XXXXXXXX     X   X XXX   X X XXXXXXXX XXXXXXXX XXX X X XXXXXXXXXXXXX X XXXXX X    X XX    XX X   X    XXXX XX XXXXX
CALN        XX         XX   X   X    XX                XX       XX           X XX   X     XX   X X    X X   XXXXX    X      XX          X             XX       X
CAN    XXX XXX X XX   XX XX XXXXXX    XXXXX X   XX   XXX XXXX XX XXX XX XXX        XXXX XXXXX   X X  X X  X X XXXXXX  X XX X XX         XX
CAR    X    X               X   XXX               X    XX          X            X        XX        X X   XX X    X  X      X     X             X               X      X       XX
CAW    XX      X     X  X   XXX      XXX X XXXX  X   X XX         XX      XX X X XXXXX   X X   XX      XX X   XXXX X  XXX      XX XX X X XXXX        XXXXX

CBM    X    X       XX XXX X   XX     X       X XX      X    X X    X XX          X        XX  X   X X X  XXXX       XXXX  X      X XX     X          XXXX  X      XX
CBN    X   XX                    X X                    X        X       X              XX       X              X            X        X    X         X   X     X              X    X       X
CCB    X    X    X X     XX X X    X X   X X  X XX   XX     X  X XX X X   X XXXXXX  X     XXX          X XX               X     X X            XX X X     X X   XX XX    X
CCH    X    X   X          X        X         XX                                  XX  XXXXX       XXX                      XX   X XXXXXX              X     X      X
CCM                X             XX                          X              X       X                XX X               X                                         X
CD2    X    X X XXXX XXXXXXXXXXXXXXXX XXXXX    XXXXX XXXXXX XX X XXX X   XXXXXXXX XXXXXXXXXXXX    XXXXXXXXX    XXXXXXXXXXX XXXX XXX     XXX X
CDCB   X   XX   X   X         X   X         X         X    XX X    X        X    X          XX           X X X    XX                X        X       X X                X  X
CDD    X         X   X          XX         X       X    XX         XX XX X X X  X                     XX                   X   X X  X       X      X X       X X
CDF    X     X     X   X XXXXXXXXXXXX  X X   X   XXX X XXXX XXXXXX     XXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXX XXX X  X X XXXXX   XXXXX
CDFW                                                X    X      X                                                       XX   X     X                                    X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

CDR   X X XXXXXXXX XXXXXXXX    XX XXXXXXXXX XXX XXXXXXXXXX     XXXXXXXX XX XXXXXXX X XXXXX XXXXXXXXXXXXXXX XXXX    X XXXX XXXX XX
CEH   X   X       XX X X X  XXX X      X XX   XX      X   X   X     X X  X XX      X X X  XX         X        X   XX   X        XXXX  X    X
CEI     X                X    X                X                                     XX      X     X                     X     X     X         X
CEOS    XX  X X         XX  X  XX XX X XX XXX  XX     X    X   X   X   X X  XXX       X XX  X X X     XXX XX X XX        XX X    XX  XX
CER   X   X  X XX  XX  XX XX     X     XX     XXX  X  X    X    X X X     XX     XX X XX XX XX X X X      XXXXX   XXXX      XXX X   X
CEY                X X XXX  XXX   XX     X     XX  XXXXXXXXXX  XX XX   XXXXXX XXXXXXXXXXXX  X XX X    X XXX XXXX            X  X XXXXXX
CFA     XXXXXXX XXXXX XXXXXX X XXX  XXXXXXXXXX XXXXX  XX XX X  X XXXXX XXXX XX XXXX X XX XX XXXXXXXXXXXXXXX X X
CFR     X  X            X  XX          X         XX        X       X    XXXX   XX  X     X X     XX         XXX  X X X XX    XXX      X   X
CGLM            XX        X              X          X X     X    X X X                      X X                           XX    X       X XX  XX
CGP   XX XXXX  XXXXXX XXX XXXXX X XXXXXXX  XXX  XXXXX XXX XXX X X  XXXX XXXXXX XXX XXXX XXX

CGX     X                X    X     X                                                X      XX X              X  X     X                      X
CHCH      XXX X XXXXXX    XX      X  X XXX  XX XXX    XX   X   XX   X   XX   XXX X XX XXXX XXXXX X   XXX     X X  X X     X       XX X    X X
CHG             XXXX XXX
CHJJ  X XXXX  X XXX XX    XXXXXX    X XXX               XX X XX  XX X      X    XX XXXX XXXXX    X XXXX     X XX  X      X X         XX
CHTO  XXX XXXXXXXX  X XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX X XXXXX XXXXXXXXX XXXXXX XXXXXXXXXXXXX XXXXXXXXX XXXXXXXX XXXXX X
CIR      XX      X XXX  XXX X           XX X  X X     X               X      X           X
CIT   X    XX        XXX X XXXX XXXX XXXXX X  XXXXX X XXXXX XX  XXX  XXXX      XXXXX XXX XX  XXXXX      X XXXXX    X  X X      X  XX
CKI            X  X  XXXX  XX  XX                  X    X  X X X     XX XX XXX X XXX X X  XXXXX XXXXX    X       XXX  X          XX  X  X
CKL   XXX  XXXX X   XXX X XXX X X  X XXX XXX XX X XXXX XX X XXXXXX  X    XXX      XXX XX     X X XX   XX   X X   XXX XXX X    X  XX XX X X
CKN   XXX  X XX X    XX X XXX X X  X XXX XXX   X X XXXX XX X XXXXXX  X    XXX      XXX XX     X X XX   XX   X X   XXX XXX X X X XXX XX X X

CKT   XXX  XXXX X   XXX X XXX X X  X XXX XXX   X X XXXX XX X X XXXX  X    XXX      XXX XX     X X XX   XX   X X   XXX XXX X X X XXX XX X X
CLL   XX  X X   XXXXXXXXXXXXXXX X XX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX XXXX XXXXXXXXXX XXXXXXX XXXXXXXXX XXX X XX X XXXXX  XXXXX
CMB       XX       XX XXX XX XXX XX X XXXXX   XXX    XX XXXX X X XX XXXXXXX     XX XXXXXXXXX X  XXX    X      XXXX  X        XX XX XX  XXXX
CMCZ  X   X          X        X X         XX          X X XX X    X    X X           X          X            X  X                XX     X X       XX X
CMP   X                 X XXXX        X          XX    X XXXX X   X   X X    XXX X XXX   X XX X X      XXXX        XXXX  XXX     XX    X XX  XXX  X
CMS   XX XXXX      XX XX     X XXXXXX XXXXX XXXXX XXXX XX XX   XXX XXX XXX   X     X   XX   XXXX    XX   XX X   X X XXXXXXXXX   XXX XX  XX XX
CN2   X XXXX     XXX XXX XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX XX X XX XXXX      XXXXXXXXXXX     XXXXXXX XXX X XXXXXX XX XXXXXXXX X XXX X
CNB   XX XX      XXX XX X XXXXX X X  XXXX X  XX   XX   XXXX X   XX    X XX         X X  XXXX   X    XX      X XXXXXX XX       X XX       X
CNCB  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXXXXXXXX
CNIL  X          X         X  XXX X               X            X                                  X          X X     XX                     X

CNPM  XXX   XXXX X            X         X    X          X XXXX XX X XXX XX   X    XXX      XXX XX     X X XX   XX   X X   XXX XXX X X X XXX XX X X
CNZ   XX       X        X           XXX X X   X      XX   X                X X XX XX  X X    X   X     X   XX     X   XX       XX  X        XX X        XXXXX
COE            XX   X         XX XX        X  X X X X   XX  X    X XX
COLF                            X         X             X X     X  XX          X  X          X     X     X          X                X
COOL  XX    X      X          X XX          XXXX      X      X   X X X     X      XX     X                  X   X      X X    X    X X    XXX   X     X X
COP     X X             X   X   XX     X   X    X     X         X  XX      X X                X X      XX         X                 XX    X        X    X         X
CP2   XXXXXX XX X   XXX X XXXXX X   XXXXXXXXX XX X XXXXXXX X XXXXXXX XXX XXXX XXXXX XXXXX X XXXX   XX   XXXXXXXXXXXX XXX XXXXX XXXX X
CPA   X         X        XX X XX  X X   X       XXX  X X XXXX   X X X X XX   X      X          XXX XX      X    XX  XX    X       XXX  XX X X   XX XX X
CPAM  XXX   XXXX X   XXX X XXX X X  X XXX XXX    X XXXX XX X XXXXXX   X    XXX      XXX XX     X X XX   XX   X X   XXX XXX X X X  XX XX X X
CPB                       X X             X                                                                     X     X                X            X      X       X

CPD   X     X    X        X        X                        XX    X               X          X                      X X       X                X            X   X
CRE       X    X    X    X  XXXX          X   X  X  X      XX   XXXXXXXX          XXXX XXX XXX XXX XX   XXXXXXXXXXX X X X XX X  X          XXX     X   X
CRM            X    X    X    X           X X                       X              X  X         X X          X    X                                    XX   X X
CROR                                       XX      X       X XXX            X      X      X   X  X                 XXX  X     X X      XX   X   XX
CRP   XXX XX XX XX XX XXX X XXXXX XX XXXXXXXXX XX XXXXXXXXX XXX XXXX   X    XXXX XXXXX XXXXX X X XX  XX  XXXXXXXXXXXX XXX XXXXXXXXXX X
CROM  XX      X     XX        X X    X X     XX   XX          XX X  X  X X X XX   X    XXX      XXX XX            XX X X    X    XX X X X    X   XX XX    X
CRX     X                   X    X          X   X             XX X X   X X  X X   X          X X  X  XX X    X           X  X     XX                          X
CRZF  X    X        XX X   XX XXX         X XXXX  X       X   X    X           X       XX       XXX      XX                  X      X             XX  X
CSI     X           X XX    X X            XX       X          XX   X       X XX   XXX X    XX X  XXX XX X XXXXX X    XXXX XXX  X       XXX XXXXXX XX
CSS   X    XXXX    X    XX XXXXXXXXXX  X XXX X XXXXX XXXXXX X  XXXX XXXXXXXXX     XX  X XXXXXX X XXXXX X    XXXXX  XXX XX        XXXXX   XX XX

CSY   X       XX     X   X      XXX     X     X     XXX       X               XX  XX         X      X  X    XX XX                     X    XX  X    X
CTA   XXX XXXXX XX  XXXXXXXXXXXXXX X XXXXXXXXXXXXXXXXXXXXXXX XX XXXXX XXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXX XXXXXXXX XXXXXXXXXXXXXX XXXXX
CTAO  X     X        X   X      XX                        XX                X                      XX X
CTB   X              X          XXX         X       X    XX XXXX X X        X      X               X                  X XX X       X        X X       X X
CTGM  XX       X     XX         X X    X X     XX   XX       X   X X  X X X         XX        XX XX         XX X X       X  X X X   X  XX XX
CTI   X              X   XXXX   XX  X  X      X         X    XX XXX XX      X XX   XX XXX   XX   X   XXXXX X XXXX      XXXX XXX       X XX XX    XX   X
CTT    X XXXX XXX  X XXXX              X XXX        XXX X XX  X XXX  XX       X XXXXXX       X X  X XX           X X       XXXX          X   X    XX
CVA   XXX    X     XX         X X X X X    XX   XX        XX X  XX X X X X X   X    XXX      XXX XX     X     XX X      X    XX XXX X    X  XXX XX X X
CVL   X    X                X    X    X       X X        X        X      X         X X        X         X X X     X      XXXX            X     X             X     X      X
CVO     X                            X X        X XXXX     X X       X    X      XXXX XXX                   XXXX    XXXXXXXX XXX X X    X XX   XX X

CVP   XXXXXX   XXXXXXX XXXXXXXXXX XXXXXXX X XX X XX XX XXX XXXXX X   XXXXX X XXX XX XXXXXX   X XXXXXXXXXXXXXXXXXXX     XXXXXX     X XXX
CYA                                  X      XXX X XX XX X XXXX     XXX    X X    X   XXX XXXXX X X X   XX X X XXX XXXXXX XX X  XX XXX XXXX X
DAG   XXX X     X      XXX X XXXX    X         XX     XXX XXX     XX     XXXXXXXXXXXXXXX XXXXXXXXXXX X        X    X XXXX     X XX XXXXXXX     XXXX
DAU   X X X        XX XX   X   XX   X XX   XXXXX XXXX   XX XXXX       XXXX      XX X X X XXX XXXXX        XXXX     X    XX     X   XX   XXXXX   X    XX
DAV   X     X        XX XX   X   XXX           XX        X     XX  X    X          X      X                 X   XXXX         X        X XX X      X       X X            X
DBN                    X XX   X   XXX               X       X          X     X           X                X            X                       X
DBO                                      X        X       X          X     X                               X   X   X                  X    X                       X    X
DCN   X X            X    XX   X XXXX              X    XXX     XXX       X         X          X    X    X X       XX             XX     XX           X X      X
DEG               XX           X                  X               XX          X                                     X     XXXX XX X   XX   XX      XXXXX X   X X
DEV                       X               X XX            X    X          X XX X   XX   XX     X X      X     X             XX          X X        X           X X

DFR   XXX   X XX X   XXX X XXX X X  X XXX XXX XX X XXXX XX X X X X XX   X    XX      XXX XX     X X X    XX  X       X XXX     X X XXX XX X X
DHH   X                         XX                      X X              X                    X                         X                          X           X
DHJN    XX   X          XX    X   X X   XX      XXXXXXXXXX XX XX   XX XX X XXXX XX XXXXX XX X X   XXXXXXXXXXX X      X   X X X      X X     X X
DHR   X   X X          X                            X    X      X     X       XX        X           X       X XX          XX     XX        X     X X
DIM             XX                     X    XX      X       X X XXX           X       X                                 X
DIW   XX       X        X X     X      XXX X XXXX  X XX  X        X      X XXX XX XX  X X   XX   X X   X   XX     X     XX      XX XX X      XX  X          XXXX
DIX                    X    XXX          X     X   X        X X XX X X X    XX    XX X X   XX   X XXXXX   X XXXXX        X XX  XXX X      X XXX X     X X
DL2   X     X        XX   X   X XXXX       XXX X XX XX   XXX X    X       X X      X            XXX XXXXX          XXX        X XXXX  X      X     X             XX X
DLA                         X    X                 X                         X              X       X X       XX       X X                XX
DLF                  X  XX   X XXXX                X   XX      XXX      X         X          X     X     X X       X                XX     XX X          X X          X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

DMK     XXXXX XX       X   X        X XXX       X X XX  X X    XX   X XXX XXX  X     X X  X X   X  X X X    XXX X XX X   XX         X
DMN   XXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXX                                    XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX
DMU   X X          XX  X XXXX                   X  XX     XXX X   X      X      X    X    X X     XXX         XX     X X      X X    X
DOG                 X     XX                     X   X                        X                           X X     X           X  X  X  X
DOI              X     XXXX   X  XX             X   X  X    X      XXXXXXXX XX XXX X X   XXX  XX X X  X    XX X  X X      X XX XXX  X
DOT                    X X X     X X     X   X       X X       X X  X        XX          X               X    X        XX      X X X  X       X
DOU   XXX X   X XX XXX XXXXXXXXXX  X XXXX XXXX  XXX XXXXXX X XX XX   XXX XXX XX XXXXXX X XXXXXXX        X XX  XXXX  XX   X XXX  XX XX
DPW   X XXX  X  XX  X  X  XXX X XX  X XX   XXX X XX X XXXX    X X      X X   XXXXXXXXX X    XXX   X X X XX X X    X  XXX  X  XXX
DRA                    X                X                                   XX  X     X X    X                 XX          X          X
DRV   X   X      X        XXXX     X XX    X        X          X              X     X X                                  X X

DSI   XX   XX          XX  X    X               X       XX X    XX XX   X           X X  X  X  X  X        XX XXX         X      X   X
DST   XXXXXXXXXXXXXXXXXX XXXX X X  X XXXXXXXXXXXXXXXX XX XXXX XXX XX XX XXXXX X    XX
DSZ   XXXX            X        XXX X X XX X XX X      X    XX X   X XXX XXXXX  X X  XX XXXXX X  X  XXX   X       X  X XXX XXXX     X XX
DUG   X X X  X  XXXXXX X XXXX XXXX XXXXXX  XXX XXXX XXXXXX     XXXXX XXX X X XXXXXXXXXXX    XXXXX  X X       X X  XX  XXXXX XX  XXX
DUI    XX    X XXXX XXXX   X X   XX     XX    XX       XXX X       XX   XXX X  XX   XXX XXXXXXX XX     X    XXXX XXX       X XXXX X   X
DVD                            X        X        X                              X   X                X       X           XXX     X
DZM   XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXX  XX XXX XXX XX XXXXXXXXXX XXXXXXXXX XXXXXXXX XXXXXXXXXXXXXXXXXX
EAB                    X   X                X                                  X    X     X X                X     X  X  X    X       X
EALH                      XX   X                         X                               X     X  X      XX X     X            X    X
EAU                        X                X            X                         X    X     X X                XX       X  X    X       X

EBAN     X     X     X    XXX X       X   X                      X         X     X X   XX  X       X   X     X    XX          X  X   XX
EBG                                                X X   X                X        X                X          XXX                       X
EBH                    X   X                X            X                         X    X     X                X    X  X  X    X       X
EBL                    X   X                X            X X                       X    X     X X              XX   X  X  X    X       X
EBR                X  X  X  XXX XX     XX     X    X  X  XX      XXX    X       XX    X    XX X    X    X               X            X   X
ECH                X      XX XX          X     X  XX  XXXXX       XX   XX       X    X     X X     XXXX      X XX   X             X X X    X
ECHE                   X  XX  X      X   X       X X   X         X                   X X XXXXX    X  XX X      XX    XX          X XX X   XX
ECO         XX             X    XX X     X       X            X X X                X   XX          X       X       X               X X      X
ECOG     X     X X   X X  XXX XX   X X   X    X XX X   X    X  X                   XX X XXX XXXXXX XXXXXXX X  X    XX          XXX X    XX X
ECP                                                     XX                        X    X     X X              XX   X           X        X

ECRI            X   X  X  X  XXXXXX          X    X  X    XX        X        X  XXX X XXX   X  XX       X    XX X       XX XX
EDC      XXXXXXXX X    XXX             XX  X   XXXXXXX XX XXX  XXX XX XX XXXXX X    XX XX XXX XX X X   XXX XXX XXX XX  X  XXXX    X X
EDI                        X                X            X X                       X    X     X                X    X  X       X
EDU                    X   X                X            X                         X    X       X              X    X  X  X    X       X
EEO   X  XX XX      XXX XXXXX  X  X XX XX  XXXX    XX X   XX        X       XX  X X XXXX XXXX    XXXXX     X XXXXX  X          X X  X  XXX
EGD     XX      X  XX   X X      X  X   X   X  X     X       X     X       X    X    X     X      XXX X  X  X   X   X            X X X  X
EGRA            X      X  X  XXXXX           X      XX      XX       X          X  XXX X XXX     X  XX        XX    XX X    X  XX XX  XX
EGUA             X         X  XX  XX    X X   X           X    X        X        X  XX X XXX XX    X  XXXXXX X XX    XX          XXX     XX X
EHOR     X     X X   X X  XXX X     X X   X      X            X X               X    X X  XXXXX    X    XXX X X  X    XX X        X  X  X
EHUE     X             X  XXX XX     X    X            X   X        X                   X  XX XX        XX X          XX X        X      XX

EJIF           X X     X  XXX X      X    X    X XX    X       XX X   X      X    X X XXX XX   X  XX X     X     XX          X  X   XX
EKA             X X  XX   XXXXXX X     XXX XXX   X XXXXX XXX       X X   XX X     XX   X XXX X    XXXXX X    XXXXX XXXXX  X     XX XX  XX XX
ELC   X   X  X         X   X     X X       XXX X XX X  X      X X XX  X    XXXXX X   XX X    X X X    X X XX   X          X XX X  XXX X
ELF                X      X   X        X      X      X X   X          X X    X X       XX    X X      X XX               X
ELIZ            X  X      X  XX X                        XX             X     X  XX     X      X  X            X          XX  X
ELL           X      X    XXX X X  X  X  XXX  X  X     X     X  X  X    X   XX XXX XX X XX   XXX X XX    X    X  XX XXXX X     XXXX X XX XX
ELO                    X   X                X            X X                      X    X     X                X    X  X  X    X       X
ELT   X  XX  X XX  X  XXXXXX XXX  XXXXX X  XX  X X XXXXXXXX  XXX   XXXXX  X XXXXX XXXXXX  XXXXX      X XXXXXXX X  X XXXXX X  XX XX
ELUQ     X     X          XXX XX       X                 X       X         X  XX      X XX   X  XX X X X        XX         XX X    X
EMEL                      XX  X                                                                     X X   X

EMON                                         X      XX       X   X                X    X                  X                 X
EMS                   XXXX    X         X  X     X X XX X X X      XX   XX X X XXX  X XXXXX  X XXXXX     X XX  XXX X    X XX X   X X
EMUT       XX  X   X          XXX         XX X  X X  X  X XXXX       XXX       X     X XXX  XX X   X XXX      XXX      X  X   XX  X  XXX
ENIJ                   X  XXX XX                     X  X            X                X      XX XX    X  XX X X X XX   XX     X    XX        X
ENN   XX         X    XXX XXXXXXX X    X X  X   XX XXXX XXXXXX    X XX    X     X XX  XXXXXXX    XXXXX    X XXXX  XXX  X X    XXX X  XXXX
ENR   X       XX X X XXX    X   X X   X XX    XX X    X XXXX XX  XX  XXXXXXXXX  XXXX X    XX          X X XXXXXX    XXX XX     XXXX  XX XX
ENSF     X             X  XX X              X   X                     X X          X  X        X                           XX
EPF   XX  X   X    X XX  X X XXXX         X X   X    XX X   XX XXXXX XX   XX X     XXXXXXXXXXX  X XXXX       X XXX          X X XXX XX   XX X
EPLA     X     X       X X  XXX X          X XX      XX         X   X             X X XXXXXX    X  XXX       XX    XX          XX X   XX
EPRU     X     X       X X  XXX XX     X    X    X X     X     X  X    X    X     X X XXX XX    X  XX X X X X XX    XX          XX X

ERE   X   X          XX  XXXXXX       X XXX X    XXXX XXXXX  XX XXX  XXXXX X
ERK                                          X       X                                                       XX  X   X           X
EROQ                   X  XXX X          X           XX     X X          XXX   XXX    X   X      XX    X          X   X   X
ERUA              X X      X  XX  X                  XX       X   X            X    XXX        XX       X   X             X
ESCF            X            X    X                  X  X    X     X          X                      X                     X
ESD                                          X       X                                        X          XX  X   X           X
ESEL                   X  XXXXX          X           X       XX          X X X X X    X   X            X                X       X
ESK                    X   X                     X     X               X       X X                            X           X
ESY                    X   X              X            X X             X    X    X X              X    X    X    X    X       X
ETA                                                   XX               X    X     X               XX   X           X      X

ETER               X       X  XXXXX           X      XX      X            X X X          X   X       X
ETOR                    X  X  XXXXXX      X   X     XXXX X  XX       XXXX  X     X  XXX XXXXXX   X  XX X       XX    XX          XX XX  XX
EVAL     X     X       X X  XX  X           X      X      X      X  X   X          X X XXXXXX   X  XXXX   X   X    XX          XX X   XX
EVIA     X     X X   X X  XXX XX    X X   X       X  X    X      X                 X X XXX XX   X  XX X X    X    XX    X  X XX X   X
EWZ      X         X                                  X     X   X X          X                          X                  X   X         X
EYL      X XX XX     X X    X    X  X     XX    X    XXXXXXXXXXX XX    XX X X XXX XXX   XX     X X XX XXXX X     XXXXXXXXX X     XXXXXXXXXX X
EZN   XXXXXXX XXX  XXXXX     X  X
FAM                                    X X         X X           X   X X   X           X    X X      XX    X          X       X  X
FBA   XXXXXX XXXXXXXXX X XXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXX XXXXX XXXXXX XXXXXXXXXXXXXXX XXXXXXX X XXXXXXXXXX X  XXXXXXXXXXXXXXX
FCC   XXXXX XX  X  XX  XXXXX  XXXX XX XX X XXX X XX XXXXXXXX  X XXX XXXX  X X XXXXXXXXX X XXXXX  X X XXXXX XXX        X XX X  XXXXX
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

FCH      XXX X XXXXXX   XX      X  X XXX  XX XXX    XX  X   XX   X  XX   XXX X XX XXXX XXXXX X  XXX       X X  X X     X        XX X   X X
FDF           X   X   X   X XX  X X            X         XX          XX X        X X  X      X   X                                XX  X X
FEL   X       X   X    XXXX XX     X X    X   X X  XXX XXXXX        XX  XX    X   X    X  XXXX       XXXX      X XX  XX     X     XXX X X X
FHC    X   X           XX XX                         X X XX         X X  XX                X  X  XX          X    XX           X   X    X
FIN   X       XX    X XXX    X   X X     X     X X   X  XXX XX     X XXX XXXX  XXXX X  XXXXXXXXXXX    X    XXXX    X XX        XXX    XX X
FINC  X    XXX    XXX             XX    XX    X X   X XXX        X   X     X       X     X    X X  X X  X X    X   X XX XX XXX X XXX   X   X XX
FIR   X           X   XXXX XXXX X        X     XX    X  XXX X         XX    X    X   X  XX  XXXXX    XXX             XXX X X      X XXX      XX
FLN   XXX    XXX   XXXX   XXXXXX X     XXXXXXXX   X X XX XXXXXX XXXXXXX XXXXX   XXXXX XXXXXXXXXXXXXXXXX      X XXX XXX X  X XXXXXXX   XXXXX
FMW                                X     XX      XX    XX    XXXX               X    X  XX  X   X     X             XXX   X     X   XX  X  XX
FNA     XXXXX  X    X X XX        X   X    XX X   X     XX    X   X   X      XXX   X  XXX    XX X   X  XXXXX X XXXXXX  XXX XXXX  XXXXXXXXXX XX

FNO     X              X  XX                     X                  X                X          X X   X  X     X    XX               X   X    X
FOO      XX      XX      X XX      X  X        X   X             X                                    X                                X X X
FORT  X   XX       X       XXXXX   X  XXXXX X                                  X   X    X   XXX   X   X X    X  XXXX             XX       X
FOX                                                       X         X X    X                     X  X  XX         X    X                  X
FRF   X       X       XXXX X X  X  XXX  X     X XXX XX XXX      X XXXX XXX XX XXXXXXXXXXXXXXXXXXXX  X    XXXXX  X XX        XX XX   XXX
FRI              X          XXX                X              X    X X    X                    X  X                   X           X    XX
FRS      XX XX   XXXX   XXXXXX     X X XX X  XXXX XX X    X   X X X    XXXX         XX X    X  X XX X    X XX   XX      X   X    X X X
FRU   X   XX  X X  XX   XXXXXX   XX X XXX X XXXXXX X XXXXX X   X X  XXXXX    XXXXXXXXXXXX  XXXXX        X XX       X  X  XXXX X      X
FSA   X XXXXXXX XX X    X  XX     X    XX   XX       X  X        X           XX XX  X XXX X     XXXXX X X XXX  X          X X  X
FUR   XX          X  XX XX XX       X  X      X    XX XXXXX    X  X  XX  X   X   X   XXX     XXXX         XXXX     X     XX  X X      X

FVI               X    XXX  XX  X XX    X       X    XX XXX X    XXXXX  XXXXXX  XX   X XX XXX X XX X        XXXXXXXXX       X  XXXXX   XXX
FVM   X   X  X       XX X  XX      X   X       XX  X XX XX X    X    XXXX XX  XXXXXX X  XXXX     XXXX    X X XXXX   X          XXXX X   XXX X
FYU       X          X         X  X X   X         XX          X          X         X               X    X        X  X      X X  X  X
GANF       XX       XX         X     X       X      X           X X          X              X               X   X     X                 X
GAZ   XXX  X   X X     X XXX   X     XXX X  X XXXXXX XX X XX    XX    XX X  X X       X X    X  XX  X    XX  XXX  X X XXX XX   XX
GBA   XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXX XXXXXXXX
GBTN  X   X                     X   X     XX          XX     X       X X XX  X      X X X  XX           X          X                X     X    X X
GBZT    XX   X         XX   XX           X  XX    X    X  XX     X     XX    X  XX XXX  XX   X X     XX                  X        XXX XX  XXX
GCC       X                 XX               X       X      X X  X X   X                  X  X                  X X                   X     X
GDH   X   X XXX XX XX  X  XXX    X      XX X  XXX XX XXXXXXX X XX X     XX          XX  XX X    XXX

GEC2  XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX
GELF       XX       XX         X     X       X      X           X X          X              X               X   X     X                XX
GHO   XXX   XXX XX XXX X XXX X X  X XXX XXX  X X XXXX XX X XXXXXX  X    XXX     XXX XX    X    XXX XX  X X  XXX XXX X X X XXX XX X X
GIB     X          X   X        X                        XX          XXX     X     XX X      X  X          X  X  X
GKN     X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXX                             XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
GL2                                                  X X    X                X                      X          XX  X   X           X
GLA   XX  XX XXXXXX X                               XX X XX      X X  X XX   XXX XXXX XX X      X X   XX   XX                XXXXXX  XXXXX
GLB   XX    X X XX XXX X X X X X    XX  XX      XX X X  X X X X XX  X    XXX      XXX XX          XX X      X    XX X X X X X XXX XX X X
GLD   X XXX  X  XX XXX X  XXX  X    X XX  XXXX    X  XXXX
GLK                                                 XX X    X                                       X            XX  X                 X

GLM   X   X   X X    X X X   X X  X X   XX    X    XX X X  X X X XX  X     XXX       X X            X  X X        XX X X   X X  X  X    X
GMB     X        X     X                      X          X        X   XX       XX                                XX         X  X   X
GMW   X XX X     XX    X  XXX X XX XX  X      X    XX XXXXXX       XX    X       X XXX XX  X        X            XXXXXXXX X XXXXXX  X  XXX
GOGA                                                                      X       XX X  XX       XXXX       X XX    X        XXXX  X   X
GOL      XX  X XXX XXX XX XX   X X  X XX  XXXX   X   XXX       XXXX  XX     X X X X XXXXX    XXXX   XXX   XX    X   X X X XX  X  XXX
GPA      X  X          XX        X     XXX  X    X   XX  X X      X    X  XX XXX          XX       X            X XXXX X        XXX      X X
GPD       X               X          X   X                   X X     X        X                    XX X       XX                       X
GRBF    X     X X       X     X               X         XX       X    X             X  XX        X            XX           XX
GRF   XXX XX  X XXXXXXXXXXXXXXXX X XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX XXXXX X XXXXXXXXXXXXXXXXXXX      XXXXX XXX X  XXXXXXXXX  XXXXX
GRG     X XXX XX    X X XX       X XXX   XXX XX XX XXXX X  X   X    XXXX X XXXX X XXXXX  X  XXXXX XXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXX

GRI     X        X     X                      X              X  X    X       XX             X          XX   XX                X    X
GRM       X  X     XX  XX XX     X     XX     X XX X  X   X      X   XXX      X X XX XX XX X  X        X  X     X X      XXX X   X
GRN              X                            X      X   X      X  XX                 X      XX          X                   X
GRO   X   X        XXX X  XXX       X X XXXXXX X XX  X  XX X X  XXX X  X X XXXXXXX XX   XXXX       X XX  XXX      XX X     XX XX
GRR   XXX   XX  XX XXX XXXXXXXX    XXXXXXX   X XXXX XXXXXXXXXXXXXX XXX X  XXXXXXXXXXXXXXXXXXXXXXX      X XXX XXX X  X XXXXXXX   XXXXX
GRS   X   X      XX XXX XXXXXX  X    X   X X XXXXXX X XXXXX XXX XXX  XXXXX X     XXXXXXXXXX  XXXXXX       X XX XXXX X      XXXX      XX XX
GRT   X   X            X  XX                       X                  X   X               XX X   X  X                          X       X X
GRW     X   X         XX         X           X            X                                  X                      XX  X
GSC   XXXXXX  XXXXX X   XXXXXX  XXX XXXXX   XX XX XX XXXX  XX  X XX X XX   XXXXXXXX XX X X  XXXX  XXX   XX X      XX  XXXXX   XXXX
GTA   X XXXX XX XX XXX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXX XX   XXXXXX   XXXXXXXX XXXXXXXXXXXXX XXXXXXXXXX  X XXXXXXX X XX XXXXX X XXXXX

GUA   X X XXXXX XXX X  X XXXX  X X  XX X   X       XXXXX  XX   X XX  X    X  XXX X X X      X      X   X X   X      X   XXX XX
GUAN    X          X        X   X  X  X    X X       X     X   XX            X              X      X          X      X        X
GUD            X X  X  X  XXX XX         X    X XX    XX     X XX  X         X X XXXXXX   X  XX X     XX    XX X       XX XX  XX
GUMO  X   XX XX XXX XXXX XXXX  X X  XXXX    X  XXX  XXXXX  X     X  X  X     XX XXX XXX X      XXX      X XXXXX   X  X X X XX  XXX XX
GUN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXX                       XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
GYA   X   X X XXXXXXXXXXXXXXXXXXXXXXXX XXXXX XXXXXXXXXXXXX XX  XX XXX   XXXX  X XXXXXXXXXXXXX  XXXXXXXXXX X XXXXXXXXXX  X   XXX   XXXXX
GZH   X   X      XX  X  X  XXXX X    XXXX    XX  XX      X       X               XX  XXXX      X        X XXXXX          X      X X X
GZR                                                                           XX  X    XXX XX           XX XXXX   XX    XXX     X  X
HAE                         XX         X     X  XX               X               X   X   X X     X         XX   XX          X X     X
HAU   X    X  X XXXXXXXXXXXXX XX X XXXX  X X X X X XX XXXXXX XXXXXXX  XXXXXXX XXXXXXXXXXXXXXXXXXXXX  X  XXXXX XXX X  X XXXXXXX  XXXX

HBF   X   X  X          X   X    X               X    X       X                                                          X X   X     X
HBMT                        X    X               X    X       X   X   X X  X       X                           X X    XX     X   X
HBO                                                X                                                            XXX X   X             X
HBZ   XX  X X XX X X   X  X XXXXX    X  X XX   XX   X      XXXXX XXXXX   X   X    XX X      XX   XXX XXXX X XX X   X XX
HCG                         XX         X     X  XX               X               X   X    X     X         XX   X           X X   X
HCY     X  XX      X   X          X    X     X XX  XXX X    X  X XX X  XXX X  X XXX  X XX X  X   XXX  XXX    X   XX X  XX
HDA   X   X   X X  XXX X X  X X  X XX  XX  X X XX X X  X XXXXXX  X   XX      X X XX          X  X X      XX X X  X X  XX XX   X
HFS   XXX X XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXXXXXXXXX XX XXXXXX XXXX          XXX XXX X  X   XXX    XX  XXXXXXXXXXX
HGH                                          X   X           X               X   X   X X   X          XX   XX          X X    X
HHAI    X           X  X        X   X  XXX X X     X X X             X    X      X                                                      X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

HHC    X X XX  XXXX XXXXXXXXXXXXX X XXXXXXXXXXXXXXXXXXXXXX XXXXXXXX XXXX X X XXXXXXXXXXXX XXXXXXXXX X XXXXXXXXX X XXXXXXXXXX XXX XX
HIA    X   X      X  X     X                             X           X     X          XX X
HIN    XXX   X X XX X   X XXX X X  X XX  XX      X XXXX XX X X X XX  X   XXX     XXX XX     X    XXX X     X  XXX XXX X X X  XX XX X X
HJA       XX XXX  X     XX   X   X XX   XXX XXXX XX X X XX    XX    XXX   XXXX XX XXXXX X   X XXX X  XXX  X X X  XX  X     XX  XX  XXX
HKC    XX  X      X      X  XXX  X       X     XX  XX  X  X         X                X  XXXX   X    X     X X  X    X    X    X       X
HLW                      X  XX              X       X   X        X     X    X      XX X   X  X   X    X   X             XXXX
HMR                X     XX  X          X    X      X X
HNR    XXX XXX  XXX  XXXX XXXXXXXXXXXXXXXXXXXXXX  XXXXX    X  X X XXX XXXXXXXXX  X X   X XXXXXXXXXXX    X XXXXXX  XXXXXX XXXX XXXXX
HOF                      XX XX       X  X     X          X     X  XX  X  X   X  XX   XXX    XXX X    X XX  X       X    X  X
HOFF              X       X XX          X     X  XX  XX          XX   X      X        X      XXX        X  X           X X X   X

HON    X  XX     XX XXX X  XXX  X X  X XX    X    X  XX X        X    XX         X X  XX X     XXX          XX   X         X XX        X
HOOJ   X X XX XX      X  X XX XX   X X XX          X XX X X X XX X XX  XX X XXXXXX XXXXX     XXXXX XXX X XX    X      X     X  X  X
HOR                        X               X                                                        X      XX            XXX
HRI    XX  X X             XX X     X       X X    X XXXXXX   X XX  XX    X  X X  XXXXX     XXXX    X   XX  X X X     XXX     XX
HRT       X XX X        X          X     XXX  X  X    XX    X X   XX X X XXX XXX  XX    X X XX XX    X    XXXXXXXX X X          X  X XXXX
HRV       XX     XX XXX X  XXX  X    X XX    X                   X     X             XX X   XXXX           X    X        X XX       X
HRY                         X    X               X    X          X   X   X X         X                  X X    XX      X   X
HTR                        X         X       X   XX              X              X   X    X       X          XX   XX       X X     X
HUR    X       X     XX X X   X X     XX  X    X X XX X X    XXXXXX  X    XX      X X X        X   X         XX X X X X X XXX XX X X
HVAR     X       XXXX  XXX      X  X     XXX  X X XX XXXXX XX  X    X     XX X  XXX XXXXXXXX  X X     XX X  XXXX XX  X       XXXXXXXX XX

HVU      XXX  X  XX XXX X XXXX XXXX XXXXXX XXXX X XX XXXX          XXX    XX X   XXXXXXXXXXX    XXXXX  X X X XXXX X  XX   XX XX XX  XXXX
HYA       XX      X XXX   X X X   X  X  XX  X                     X    X   X          X   XX       XXX X       X                  X X X
HYB    X  XXX XXXXX XXX XXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXX XXXX XXXXXXXXXX XXXXXXXXX   XXXXX XXX X X XXXXXX X XXXXX
HYF    X   X    X  X  XX X XXX        X  X      X X XX X   X      XX  X  XX       X    X  X XX       XXXX  X  X XX    XX X      XXX     XX  X
IFR                X     X X  XXX XX   X XXXXX XX      X X    X         X  X XX X   X X    XXX X    XX   XX     X  X  XX             X   X    X
IGT      XX         X    XX                X X  X X  XX        X             X  XXX    XX          X XX       XXX X  XXX X XX XXXXXXXXXXXXXX
IHA       XXX       X       XX          XX XXX                      X     X    X   X X  X    XX                X  XXX                  X
IIA      X                   XX        X  X          XX X XX X X  X X      X     X X      XXXXX    X        XXXXX    XX   X X        X   X    X
IIDJ      X X  X    X        X    X      XX                 X    XX  XX        X       XXX  XXX X        X          X XX          X X          XX
III      X X        X     X XXXXXX X    X  X XX X X XXX X XXXXXX  X XXXX XXX XXXXX  X XXXXXXX XX XX XXXXXXXXX XX XX XX  XXX X XXX XXXX

IISM     X X        X     X XXX XX      XXXXX        XX XX X XX X X  X XXXX  XX XXXXX  XXXXXXX     XX X  XXXXXXXX  XX   X XX  XX XX XXX XXX
IIT                       X  XX                       X                                                          X    X  X X   X   X  X   X
ILIM                                                                                                    X  X    XXX  XX   X X XXX XX X X
ILT    X   XX  X XX   X    XXXXXXXXX XXXXX X  XXXXXX  XXXXXXX   X XX  XXXX  XXXXXXXXXXXXXX   XXXXX       X XXX                      X
IMA    X XXXXXXXXXX XXX XXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXX XXXXXXXX XXXXXXXXXXXXXXXXXXXXXX   XXXXXXX X XXXXXXXXXX X   XXXXXXXX XXXXXX
IMI    X X      XX X X XXX   X   X X X   X   X     X X   X     XX XX  XX X XXX XXXX XXXXXXX  XXXXXXXXXXX    X X XXXX    X XX          XXX    XX X
INE     XX   X XX X   XXX X XXX X X   X X X XXX XX X XXXX XX X X X X    X     XX       XX XX     X X XX    X   X X  XXX XXX    X X  XX XX X X
INW          X      X  XX  X XXX X X   X X X XXX XX X XXXX XX X X X X    X     XX      XXX XX     X X XX  XX   X X  XX   XX     X X   X XX X
IPM    X    XX      X  X    X XXX  XXX  XXX       X  XXXX X  XX    XX  XX  XXX       XXXXX XXXX      XXXX XX     X XXX  XXXX X   XXX   X XXX
IRK    X    X        XXXXX XXXXXX  XXX     XXXXX  XX XXXX XX XX  X  X X    XXXX    XXXXXXXXXXX      XXXXX       X XXXXXXX X  X X XX  X XXXXX

ISA        XX X XXXXXXXX XXXXXX  X X XXXXX    XXXX   XX XX X X X X  XXXXXXX    XXX X XX XXXX X  XXX    X X   XX X X         XX XXXXX    XXXX
ISK         X X   X      XXX                X           X     X X          X     XXX  X     X XX X XX      X     X XXX X XXX    X  X         X
ISR                        XX  XX      X       X    X     XXXX XXX    X X      XXXX  XXX  X     XXX X   XX XX   XX  XX  XXX X             X  X
ISSF             X            X      X                            X    X      X      X  X                        X                    X
ITU    X     XX    X      X  XXX           X      X       X     X X      X    XX     XXX       XX       X             X  X X X X        X       X
IVA     X   X       X     XX           X      X      X  XX  XXX X        X  X XX X  XXX X  X XXX  X XX X  X    XXX  XXX     X      XX X  XX
IXG        XXX      X        XX  XX      XXX    X X   X   XX         X         X       X  XXXX    XX       XX X      X      X          X    XX
IZM    XXXXXXX XXX        XX XX X XXX  XXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXX XXX  XXXXXX   XXXX                                XXXXXXXXXXXXXX
JACH      XXX X XX XXX    XX       X   X XXX  XX XXX    XX  X   XX   X   XX   X X X XX XXXX XXXXX X   XXX        X X  X X     X         XX X    X
JAQ    XXXXX XX      XXX XXXXX  X  X XX XX X XXX X XX X     X X    X X X X XX   X XXXXXXXXXXX       XXXXX  X X XXXXX XXX X       X X  X  XXXXX

JAU              X            X    X                        X   X    X      X          X                      X                    X
JBO                                  X           X    X  X XX                X X    X    X  X   X                  XX         X     XX  X  XX
JCW                                  X     X     XX    X  X XXXX                        X    X    X  X       X          XX   X    X X    X    X  XX
JLK                                                      X    X                                                      XX  X    X             X
JMB                                                                               XXX  X     XX              XX         XX    XX        X   X
JMI    X       X   XXXXX                                            X                    X       X        XXX
JNE    X       X   XXXXX   X                                        X               X    X       X X      XXXX
JNW    X       X   XXXXX   X                                        X               X    X       X X      XXXX
JSC    X  XX              XX  X   X   X  X X         XX             X    X    XX X     X X   XXXXX     X  X           X X   X     X
JVI                       X  X   X               X                    X  X  X    X  X    X  X   XX       XX   XX X                    X

KAF    XXX X  XX XXXXXXXXXXXXXXXXXX X XXXXX XXXXXXX  X XXX  XXXXXXX XXXXXXXXXXX XXXXXXXXXXXXXXXXX     X XXXXXXXXXXX  XXXXXXXX XXXX XX
KAGJ   X         X  X   X XX   XXX   XX X        XX   XX XXXX   X    X             X XXX  X X   XX       X XX          X   X
KAIM    X    X   XX       X   X X        X          X  X      X              XX     XX X             X   X           X
KAKJ   X XX X  X XXX    X XX XXXX   X XX              XX X XX  XX X  X  X   XX  XXX XXX X   X XXXX       X X          X X          XX
KAS    X X XXX          X  XX               X      X X X XX XXX XXX  XX X   XXXX  XXXX  X    X X  X XXXXX      XXX  XX  X       XXXX   XX XX
KAT    X  X             X  XX                    X    XX X XX  X   X  X  X X  XXX      X   X    XX XX   X XX        XX    XX        X X
KBA    XXX X     X     XXXXXXXXX   X X  XXXXXXXX XXXX XXXXXX  X X XXX XXXXXXXXXX XXX XXXX  XXXXXXXX XX XXXXXXXXX      X  XXXXX  XXXX
KBS                 X   X  XX    XX             X                  X  X           X  X     X X X  X X          XX                       X
KCT    XXXXXXXXXXXX X XXXX        X X  X XXX     XXXXXXXX XX XXX  XXX XX XX XXXXX X   XX X  XXXXX  X X  XXX XXX XXX X   X  XXXXXXXX X
KDC    X X       XX       X XXXXX        XXX  X XX   X  XXX     X XX XX XX    X  XX XX XXXXX X X  X XX  XXXXXX     XX      X  X  X XX

KDS        X  X   X       X  XX      X           X                 X           X X X  XX       X XX  X      X  XX          XXX
KDZ          XX                         XXX     X  X   XXX            XX     XX X X  X X X             X    X X X XXX XXX X   XX  X
KEK                 X   XX X    X    X   XX X  X      XX   X X       X X    X  XX        X X     X XX     X X    XXXXXXXX  XXXXXXXXXXXXX
KER       XXX     X     XXXX X  X X    X  XXX    XXX X XX  XXX X X X XXXX     X X  XXXXXX      XXXXX       X XX    XX X     XXXXXX XX  X
KEV    X                XXX X XXX    X     X          XX  X XXX          XX      X  XX XXXXX     XXXX      X XX    XX X      XXX     XX X
KGM    X   XX            X      XXX    X    XX     XX XXX  X  XX   XX  X    X X XXX X XXX  XXXX    X XXX     X XXX  X           XX       XX
KHC    XXXXXXX XXXXXXXXXXXXXXXXXXXXXXX  XX XX  XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX X XXXXXXXXXXXXXXXXX
KHKI   X X X  X     X                X        X X    XXX XXX X          XX XXX XXX XX  XXXXX X     X  X X   XXXX   X     X  XX X XXX
KHL    X  X  X  XX      XXXXXX  XXXX  X XXX XX     X  X X X       X X  XX        X  X      X X X  X  X XX  XXXXXXXXXX X     XX XXXX        X
KHT    XX  XX X   X  X  XX XXX   X  XXXXX     XX  X    XX  X  XXXX X  XXX  X    XXXXX  XXXX   X  XXXX     X XX X XX X X  XXXXX    XX
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

KHZ   XX XXXX    X X  XXX  X X XXX XXXX XX XX XX XX    XX X XXXXX X XXXXX  X X  XX  X XX X  XXX  X  XXX  XXXX XXXX X XX X  X  XXXXX
KIC           X  X XXX XX XXX XXXX  X  XXXXXXXXXXXX XXXXXXXXX XXXX XXXXXX XXX XXXXXXXXXXX XXXXX XXXX XXXXXXXXX X   X XXXXXX  XXXXX
KIP              X         XX         X    X       X                                  X X      X         X
KIS                     X  XXX        X         XX X XXX      X    X     XX  X   XX X   XXXX        XX  X X   X    X       XX  X
KIV   X   X      X XX  X XXX XXX   X XXX X XXXXXXXX XXXXX XXX XXX  XXXXX  XXXXXXX XXXXXX  XXXXXX    X XX  XXX X  X  XXX
KIW   XX  X X    X X  XXX     XXX X XXXX  X XX XX      X      XXXX X XXXXX  X X  XX        X  XXXX X  XXX    XX XX X X XXXX     XX XX
KKB        X                     X    XXX     X   X    XXX                  XX X X  X XXX            X XXXX  XXX X XXX XXXXXXXXX  X
KKM   X   X      X  X  X  XXX                                                                  XXX  X XXXX X  X X    XX  X    X X
KKN   XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                              XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXX
KLB   X   XX             X XXX    X XXXX  X  X    X  X X      XX X  XX   XX               X   X X     X X  XX    X X X  XX  X   X

KLD          X           X  X  X     X     X   X XX    X X XX    X              X  X             XX XX     X XXXXXXX X  X X XX  X  XX X
KLU   XXX XXXXXXXX XXX X XXXXXXX  XXXXXXXXX XX XXXXXXXXXXX X XXXXX X  XXXXX XXXXXXXXXXX X XXXXX X X XXXXX XXXXXX X X XXXXX XXXXXX
KMI   X X X X  XXX XXXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXX XX XXXXXXXX XXXXXXXX XXXXXXXXXXX XXXXXXX XXX  X XXXXXXX X XX X XXXXXXXXXX
KMOR                                X     X     XX     X XX X                          X   X   X                 XXX  X   X X   XX     XX
KMPM  XX   X     X     XX XX                  X X    X XXXX
KMR              X     X  X                         XX  X       X            X       XX X     X             X    X
KMTA  XXX  X          XX  X    X X  XXX    XX     XXXXXXX XXX XXXXXXX XXXX XX  XXXX XXXX X  XXXXXXXXXXX X  X X  X    X     X X    X
KMY     X   X       X   X X             X        X   X                                                 X    X    X              X
KNA                                                                                                                          XXXXX XX
KNT    XXXXXX  X X X   XXX  X  XX XX X XXXXXXX XXXXXXX X  X  XX XX XXXX XXXXXXXXXXXXXX  X  XXXX XXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXX

KONO                   X   X                X     X  X   X       X           X       X X    X           XX
KOT                                                                    X    X        X X    X      X X   X XX X        X         X
KSH   X   XX XX X   XX XXXXXXXXXXX XXX X XX XXXXX X  XXXX     XXX  XXXXXXXX XXXXXXXXXXXX  XXXXX XXX  X XX XXXX X XX  XXXX X XXX X
KSL        X           XX              X   X       X   X   X            XX       X X    X      X   X  X                        X
KSP        XX X XXXXXXXXXXXXXXXXX XX XXXXX XXX XXXXXXXXXXXXXXXXXXXX             XXXXXXXX   XXXXX  XX XXXXX XXX X  XXXXXXXXXXXXXX
KSR   XXXXX XX  XXXXX  XXXXXX X  XX X XXXX XX X XXXX   XX    X X X   XXXX   XXX XXX XX XXXXXX X     X  XXX  X  XX  XX XX  X X XXX
KUMJ  X          XX  X  X XX X XXX    X X       XX    XX XXXX   X     X          XXXXXX X     XX       X XX  X       X   X
KUR   X   XX  X  X      X  X XX     X  XX X   X  XX  XX X       X X     X          X  XXX X   XXXXXX     X X               X        XX
KUSJ  X X XX XX XX  X XX XXXXX   X X XX             XXXX X XXX  X XX X XXX XXXXXXXX XXXXXX   XXXXX XXX X XX           XX X  XX   XX X
KUZ   XX                  XX  XXX     X     XX    XX X X  X     XX    X X X    X    X  X XX X         X  X     XXX XX X X  XXX  X  XXX

KVN   X X    X   X   X   XX XXX X  X X   X   XXX    XX X XX X    X    X    X      XXXXXX XX X      XXX      X    XX            X XXX XX    XX
KVT         X    X           X           X      XX     X   X    X  X  XX  X    XXXXX                                          X      XX
KZN        X        X    XX X    XX  X   XX X  X      XX     X X X    X X    X  XX        X X    X XX      X X X  XXXXXXXX  XXXXXXXXX XXX
LACI    X             X XX X          XX     X  XXXXXX  X            X  X  XXX        XX       XXXXX  X    XX    XXX X    XX  XXXXX X
LANF                   X XX            X     X  X   XXXXX        XX    X           X   X X      XXX         XX            X X X   X
LAT                                                                                                      X  XXXXXXXXXXXXXXXXXXXXXXXXXXXX
LBF   XX  XXX X XXXXXXXXXXXXXXXX X XXXX XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXX XX  XXXXXXXXX X  X X XXXXX XXXXXX
LBFM   XXX   X                                 XX XXXX X       XXX  XX      X X X XXX X  XX XXX    X    XXX  X     XX XXX  X   XXX
LCCH      XXX X XXXXXX    XX      X  X XXX  XX XXX    XX   X  XX  X  XX   XXX X XX XXXX XXXXX X  XXX      X X     X     X       XX X    X X
LCCM  XXXXXXXXXXX XXX XX XXX XXXXXXX XX X XXX  XXX XXXXXXX  XX XXX X XXX XXXXXXX XXX X X XX XX     X  XXXXX X  XX XXXXXX  X   XXX X

LCI     X          X  X   X                 XX     X     XXXXX X    X    X    X  X    XX X XX X X    X XXX X    XX    XX              X          X
LDF   XXX    XX    XXXXX XXXXXX X     XXXXXXXX  X X XX XXXXXX XXXXXXX XXX X  XXXXXXXXXXXXXXXX XXXXXX X   X XXX XXX X  X XXXXXXX   XXXXX
LDN                    X   X            X                  X   X          X     X X      XX      X X       X XX
LEM   XXX XXXX  XXX XX XX XXX XXX   XXXXX    XXX   XXX XXXXX X X X XX   XXX XXX XXXXXXXXXXXXXXXXXX XXX   XXXXXXXX X  XX X XX   X XXX X
LESF              X          XX                      X       XX             X X          X  XX       XX            XX               XX
LFF   X       XX  X   XX X XXXXXX     X XX  X    X X XX XX XX XXXXXX X XXX X X XXXXXXXXXXXXXXX XXXX   X    X XX    XX X   X X XXX X    XXXXX
LGPM  XXXX X X   X XXX XX XXX     X   X XX    X X X   X XXXX
LHS   X   X    X        XX XX  X   X   X X     X  X XX                X X    X   X XX        XX X    XX XX                      X X   X   X X
LIBD               X       X                    X   X  XXX X        XX  XX       X     X    X          X XX        X                 X X    X
LIC          X XX  XX XX XX   XXXX   XXXXXXXXXX XXXXXXXXXX XXX X XX XXXXX  XXX X XXXXXXXXX XXXXX  X X XXXXXXXXX X      XXXX X   XXXXX

LIJA           X     X  X  XXX X                     X      X                  X       XX  X   X           X  X   X
LIT      XXXXX XX   X X XX                                                XXXX X XXXXXX XXXXX      XXXXX X XXXXXX  XXXXXXXX  XXXXXXXXXXXXX
LJU     X        XX    XXX  XXX    XX     XXX    X    XX XXXXX     XX XX  XXX X  XX XXX XXXXX  X X        XX  XXXXX          X XXX  XXXXX
LKO                                     X             X                       XX              X            X          XXXXXXX XXXXX
LLA       X            X  X            X      X     X X  X X    X     X        X  X           X              XX
LLAV        X         X  XX             X         XX   X    X    X             X            X          X
LLS                XXXX         X  X      X X XX X X      X  XX X X XXX  X XXXXX  X XXXXX      XX   XXX X   X XXXX X   XX X
LMEM  XX              XX XXX          X         XX
LMN   XX XXXXX     XX  X XXX  X  X XX X   XXXXX XX X XXX X   X XXX X XX  X X X XX XXXX X XXXXX  X X XXXXX XXX      XXX   X   XXX X
LMR   X       X      XXXX X    X XXXX  X   X X X XX XXXX     XXXXXXXXXX XX XXXXXX XXXXXXXXXXXXXX X    XXXXX XX XX      XX   X   XXXX

LMZ      X         X        X                      X    X      X     X          XX   X             X                       X    XX       X
LNOR                                    X      X   X  X XXXX          X X   X  XX  X X                   XX              X       XX
LNV      XXX X XXXXXX   XX     X  X XXX  XX XXX   XX  X  XX  X  XX  XXX X XX XXXX XXXXX X  XXX     X X  X X    X      XX X    X X
LOE   X   X      XX  X      XXX         X       XX  XX  X X X   X X X   X   X   XXXXX XXXXX         XXX     X XX      X X    XXX    XXX X
LOF                                                              X  X    XX           X   X      XX      X         X              X
LOMF             X     X   X                  X   X  XXX X     XX  XX    X   X   X X       XXXX      X XX  X         XX X    X
LON   XXXX X X   X X   X  XXX   XX  X  X    XX   XX XXX  X     X X        X    X XXX XX  X      X    X    XXXXXXXX XXXX XXX  X  XXX
LOR   XX  X   X XXXXXXXXXXXXXXXXX X XXXX XXXXXXXX XX XXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXX XXXXX XX  XXXXXXXXX X XX X XXXXX XXXXXX
LPA   X  X             X  XX            X    X        X              X       X        X
LPB   XX XXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXXXXXXXX

LPF   XXX X XXX XXXXXX XXXXXX X     XXXXXXXX  X X XX XXXXXXXXXXXXXX XXX XX XXXXXXXXXXXXXX XXXXXXXXX     X XXX XXX X  X X XXXXX   XXXXX
LPG   X    X XXX XXXXXXXXXXXXXXX X X XX X XX XXXXXX XXXXXX  XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XX  XXXXX XXXXX  X XXXXXXX  XXXXX
LPL   X    X XXX XXXXXXXXXXXXXXX X X XX X XX XXXXXX XXXXXX  XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XX  XXXXX XXXXX  X XXXXXXX  XXXX
LPO   X       XX  X XX  XXXXXXXX    X  X  XX  X X XX XXXXX XXXXXXXX XXXXX  XXXXXXXXXXXXX XX XXXXX     X XX  XX  X  X X XXX XX XXXXX
LPR   X    X   X     X                         XX    X            X  X     X              X X     X            X        X    X
LRCZ  X  X               X X          XX         X X XX X   X X X X        X    X    X X         X  X       XX    X          XX X
LRG   X       X      XXXX XX   X  XXX  X    X X X XX XXXXX     XXXXXX XXX XX XXXXXX XXXXXXXXXXXXX  X    X XXX  X XX    XX XX   XX X
LRM                      X    X                  X               X    X   X X  X        X                X X    XX      X   XX
LSA   X   XX  X XX XXXXXXXXXX XX X XXXXX X  XXX X XXX  XX   XXXX X  XXXXXXXX XXXXX XXXXXX  XXXXXXX X    XXXXXXX X XX XXXXX X XXXXX
LSCZ  X  X         X         X          XX         X X XX X   X XXX X         X    X    X         X  X       X        X   X X      XX X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

LSD   X        X     X XXX    X  XXX       X     X X    X  XXX X     X X X    XXX    XXX  X  XXXXXXXXXX          XX    XXXX      X XXX    XX X
LSF   X   X  XX XX  X  X XXXXXX  X X  X XX   X X XXXXXXXXXXXX XXXX XXX X   XXXXXXXXXXXX XXX XXXX  X  XXXX  XX  X  X XXXXX X XXXXXX
LSK    X                X XXXX       X       XX      X      XX    X X             X    X   XXX         X
LSZ                                                                          X X  XXX   X XXXX XX XXXX  XXX XX X X  X XXX  XX XX    XXXXXXX   XXX
LTX                      X                  X          X  X                  X                X      X                     X   X       X XXXXX          X
LTZ   XXXX XX        X         XXX  XXX XXXXXXX XX        X X XX X   X XXX XXXXX  X X  XX XXXXX XX  X XXX X XX   XXX XX X X XXXX  X    XXXX
LVP                                                         X    X                                                                XX  X   X                 X
LVV   XX                X  X  XXX           X                X                X     X       X         X        X            X   XXX          X         X
LZH   XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXX XX XXXXXXXXXXXXXX
MAF   X   X  XX XX XXXXX XXX XXX X X XX XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXX XX  X XX  XXX X  X XX XX XXXXXXX

MAHZ  X      X X  X X          XX X      X     XX  X              X X X X  X       X            X          X          XX       XX            X
MAIO  X XXXXXXX XXXXXX XXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXX XXXXXXXXX X XXXXXXXXXXXXXX XX
MAK       X                                       X  X  X X    X          X   XXX              XXXX         X XX          XX    XX           X X      X
MAL   X             XX X  X  XXX X          X     X     X  X    X          X     X  X X X   X  XX  X   X  XX   X  XX   X    X      X    X X
MAP             X   X               XXXX    X      XX  XX  X   X      XXX  XX XXX  X  XXXX          X                                       X  X
MASJ              X    X   X           X      X  X    XX  X   X     X  XX X    X          X  X      X X                    XX          X X
MAT   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    XXXXXXXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
MAW   XX  X       X XXXX    XXXX   X  X  X     XX    X    X    XX  XX     X        X X  X XX  XX  X       X X XXX X   X X  XX XXX  X XX
MBH   XX     X            XX X      X  X        X     X X XXX    XX  X  XX    X    XX   XX X  X XXXX X    X XXX         X         XX
MBL                                                X XXXXX XXXXXXXXXXXXXXXXXXXXXX XXXXX XXXX XXXX  XXX XX XXXXXX

MBO   X             X  X      XXX        X X     X          X    X          X    XX       X X    XXX             X             X             XXX X
MBU                XXX X      XXX      X            X  XXX XXXX  X              X X              X             X     X    X           XX   X  XX
MCK   X        X      XX X X   X X    XX   X X  X    XX X X    XXXXXX  X    XXX      X X X           X  X          XX X X X X X XXX X    X
MCMT                      X   X    X              X  X     X          X    X  XX XX X    X     X          X  X         XXXX  X X       X   X
MCNL  XXX  XXX  X  XX  X XXX X    X X X XXX XX X X XX XX X X X  X  X       X       XX XX    X X XX    X  X X  XX    XX    X X   X XX
MCO    X       X          X  X    X      X    X  X X X  X   X        XX X       XXX          X    XX X    X      XX  X                   X       X X
MCQ   X   X  X  X     X  X                 X          X     X             X                  X                  XX          X  X       X X         X
MCW   XXXX    X           X XXXX      X      X           XX X XX X        X                XX     X  X                  XXXXXX    X X  XXX  X    X
MCWV  X             X  XX X  XX            XX          X       X                             X      X       XXXX          X     X             X
MDG   XXX  X  X   X    XXX                  X    XX   X XX XX X X   X   XX X X X XXXX X  X XXXXXXX XX X              X  X XXX X XXXXX     XX

MDI                 X    XXX           X     XX    X X       X    X        X XXX X     X         X   X X XXX   X    X X  XX        X XXX  X
MDJ   X X X         X   X   X   XXXXXXXX XXXXX   XXXX   XXX XXXXX XX  X X    XX     X X XXXXXXXXX   X X XX XX  X XXXXXX  X XXXXXXX XX  XX X
MDM   X   X    X         X        X X  X X   X    X    XX X X  X X X     X      X           X             X  X X           XX X       X X  X  X    X
MDZ   X  XXXXX  XX          XXX        X     XX   XXX XX X XX XX  X      X          XXX  XXX   XXX      XX X        XXXXXXX X X    X       X   X
MEEK  XX  XX X X    XX   XXXXXX      XXXXXX  X X X XXX X XXX XX  X XX XXX      XX XX X  XXXX   XXX XXXX X  X XXX  X  X  X      XX  X X X
MEM                              X               X     X    X                       X X                    X                X               X X
MEMM  X X    XX XXX X   XX XXX     XXX X X    XXX     XX X X     X X   X X    X      X XX XX XX X     XXX    X       XX X          X  XXXXX   XXX
MEMT                         X    X                  X     X          X         X X          X                       X X      XX       X   X
MEO   X XXXX X  X   XXX XXXXX  X  XX XXXX  X   XX XX   XX        XXXX XX     XX X     XXXX     XXXX    XXX XXXXX XXX  XXX X XX XX    XX
MEU     X  X                XX                   X    X X       XX        X     X XX XX      X     XXX   XX   XX X X       XX       XX XX          X    X

MFF   XXX X  XX XX XXX XXXXXXXX    XXXXXXX   X X XX XXXXXX  X X XX XXX X  XXXXXXXXXXXXXXXXXXXXXX       X XX  XXX X  X XXXXX X  XXXXX
MGD   X    XX  X XX XXX X XXXXXXX X XXXXX X  XX XXXX XX XXXXX  X X    XXX   X XXXXX XXXXX    XXXXXX       X XX XXXX X  X X XXX X  XXXXX
MGG             X  X      XX                    X      X                    X X          X             X       XX     X    X XX      XX XX X  XXX
MGH                X      X X          X    X     X          X X  X      XX              X             X     X X X       X  XX     XX XX X    X
MGP          X    X     X                          XX   X          X                                    X                             X           X   X
MGR    XX              XX  XX          X X  XXX     X      XXXXX XX    X XX XXXX X XXXX   XXXXXXX  X XXXXXXX    XXXXXXXXX X  X  XXXXXXXXX  XX
MHC                 XX        XX XX             X    X         X       X X  X X          X          X  X      X          X X           X  XX X       X
MHZ   X  X             X       X X            XX          X X XX X   X XXX X        X     X   X X          X  X       X         XX     X          XX X
MIAR     XX  X XXX XX  X   XXX XX X XX XX   XXXXX XX XX XX    XXX XXX X   XXXXXXXXXXXXX    XXXXX  XXX XXXX    X          XXXXX X  XXX
MID    X    X                 X       X                  X    X X X    X     X           X X   X          X       X          X        X       XX

MIN                       X  X                            X               X                X   X    X          X    X             X  XX  X
MJMA  X     X          XX          X          XX     X  X      X   X X  X XXX       X       X          X XXXXXX  X XX    XX        X     X
MKT                     X  X                  X          X       X   X      X       X  X X              X X           X                    X
MLR    XX XXX XXX   X   XXXXXXX X   X XXXXXX   XXXXXXXXXXXXXX X X  XXX XXXXXX XXXX XXXXXXXXX    XXXXX   XXXXXXXXXXXX X XXX XXXXXXXXXX XX
MMB        XX                          X    XXX    X X  X X XXX               XX  X XX X X  XXX                XXXXXX  XXX X XXX XXXXXXXXXX  X
MME                 X  XXX     X      X               X    X  X XX X      XXXX    X    X                XX
MMK                 X  XXXX    X  X         X         X    XX X X X        XX   XX    X   X   X  XXXX  X XXX X       X XX              X XXX X  XX X
MML                            X                      XX          X                                         X            X                   X X      X
MMN    X                      X               XXX      X      X X    X        XX    XX X    XX X  XXX X  X      XX    XXXX XXX  X        XXXXX XX X XX
MNDI  X X  X              X    X X        X      XX      X       X                       X                X  X                            X    XX

MNG   XX XXXX XXXX X   XXX XXXXXXXX XXXX XX XXXXX XX    XX X  XXXXXX XXXXXX XXX  XX XXXXX XX XXXXXX  XXX    XXX XX X X XXXX  X XXXXXX
MNI   X XX                                                           XXXX                   XXX                     XX X                  XX XXXXXXXX  XXX
MNK   X    X           X  X  X  XXX       X            XX      X X  XX        X     XXX       X  X     XX X     X XX      X XX  XXX           XXX          X
MNO     X                    X                     X  X X      XX XX              XXX  X  X      XXX    X  XX XX X  X XX  X XX X
MNS                                                                                XX XXXXXX XX  XXXXXXX XX X X X X X XXXXXXXX    XX XXX X XX  X
MOF                  X       XX XX            X     X  XX   XXXXX        XX  XX           X    X     X X        XXXX       X XX  X               X X X    X
MOH   X        X X  X X    XX      XXX      XX  X XX   X        X       X X     XX X      X    X          X     XX  X   XX      XX XX X X XX X       XX
MOL      XX        X XXX       X X     X  X               XX                                 X          X           X       X           X     X                X
MOR7        X   X XXXX  X     X      X                X       X         XXXX  X      XX              X    X X     X     XX XXX XX  X      XXX  X X    X
MORO     X  XX                 X                   XX     X              X         X                         X              X        X X                    X X

MOS   XX   X        X XX  XX XX             XX     X  X  X XXXXX  XX XXX    XXX     XX   XXXXXX XX   XX XX      X XX  XXX              X X      XX XX
MOTA  X    X        X X   XX X          X  X XXX  X    XX X X X      X XXX  X    X  XX        X X       XXXXX    X XXXXX   X        X    X X X X X X
MOW   XX    XX        X   X X     X X X XX X    X   XX        X        X  X X XX  X     X   XX   X      X   XXX  X  X X     X     X        XX X       X XXX
MOX   XX   X         XXXXXXXXXXXXX XXX XX  XXXXXXXXXXXXXXXXXXXXX XXXX XXXXXXXXX X XX XXXXXXXX X XXXXXX   X  XXXXX XXX X   X X XXXXX   XXXXX
MOY                                       XXXX     XXXXX X X  XX       X X    XXXX       XXXX    XXXXX  XXXXX         X XXXXXXX X   X XXXXX X   XX X
MOZ                   X          X   XXXX X   X  X XX   X  X             XXXX XX XX     X   XX  XXXX X   X      X   XX        X  XX X X X   X  X    XX X
MPA   XXX  XXXX X  XXX X XXX X X  X XXX XXX    X XXXX XX X X X XX  X     XXX        XXX XX    X X XXX X      X   XXX XXX X X X XXX XX X X
MOZ   XX X  X          X            XX  X X XXXX  X XX          XX          XXX X   X        X  XX  XX X X         X     X      XX X          XX X        XXXXX
MRA      XXXXXX XX XX X XXXX    XXXX   XXXXX XX XXXX X   X     X X   X XXX X XXXX XXXXXXXXX X   XXXXXX XXX XXXXXX  X X XX   X X XXX XX  X
MRCM     X          X        XX XX            X       X X        X X
```

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MRL		XXX			X	XX	X		XX		X	X	X		X				X	XXX	X	X		XX	X	X	X				X
MRRJ	X X	XX X	X		X	X XX	X	X X	XX			X	X		XX X		X	X X	XXX	XXXX	X	XX	XX	X X	XX	X		X	X	XX	
MRW	XX	XXX	X	X	XXX	XX XXX	X	XXX		XX	XX		XX	XXX	XXX	XXX	XX	X X	XX	X	X X	XXX	X X	XXX		XX XX	X	X XX	XX		XXXXX
MRWA	XX	XX X	XX		X	X X	X	XXXX	XX X	XX	XX	X	XXX	X X	XXXXX	X	XX					X	X X	X X	X	XX XX	X X	XX	X		X X
MRX		X			X	XX	X	X	X		X	XX X	XX XXX	X		X XX	X	X	X	XXXX		X X		X X		XX				XX	X
MSCZ	X		X						X			X	XX X	X	X X	X				X X				X				X	X		X
MSU	X	XX X		XXXXXX	X X	XXXXXX	X	XXXXXX	XXX	X	XX	XXXX X		XXXXX	XXX	XX X	XXXX	XXXX	XXXX	XXXX	X	XXXXX	X X	XXXXX	X	XX XX		XXXXXX			XXXXX
MSZ	X X		X			XX						X	XX		X XX	X		X		XX			X	X			XX	X			X
MTA	X	X	X		X XXX				X	X XXX	XXXX	XXX X		XX XXX		X X X		X X	X XXXX	X		XX XX			XX	XXX			X X		X
MTD	X XX		XXXX	X	XXX	X X		XX XX X		XXX	XXX X			XX X X		XXXX		XXX	XXXXX	X		XXXXX	X		XXX	XX			XXX X		X
MTHF				X		X				X					X				X	XX		XX							XX		
MTMJ	X X XX			XX XX	X XXX	XXXX		X XXX				X	X XX	XX X			X	XX	XXXX	XXXXX		X XXXX		X XX	XX	X XXX					XX
MTMW											X	X	X									X			XXX	X	X				X
MTN	XXX	XXXXXXXX	XX	XXXX	XXXX	XXXX	XXXX X		XXXX	XXXXX	XXXX	XXX					X XXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X	XXXX	XXX
MTUM			X XX X		XX XXX			X X X		X X		X X																			
MTW	XX	XX		X	X X		XXX X	XX X	X	X XX			XX	XX X	X XX XX		X X		XX	X		XX XXXX	X	XXX		XX XX		X XX X			XXXXX
MUD	X				X	XX		X X		X X	X		X		X	X X		X X			X X	X X		X XX		XX		X	X		X
MUN	XX	XX X	X		X XXX		X XXXX	X	X	XX	X XX			XX X	X	XX						X	X X	X X	XX		X X	XXXXX	X		X X
MVM			X	X	X	X	X						X			XX X	XX X	X		X	X								XX	X X	
MXC												X X	X				X		X			X			XXX	X					
MZX			X		X						X X	X			X			X		XX X											
NAI		X	X XX		XXX	XXX			X X	X XX	X XX XX	X	XX X	XX XXX			X X	XXX X				XX	X XX			X			XX		X
NANU										X	XXXXX	XXX	XX XX	XX	XXX	XXXX	XX XX	XXXX		XXX	XXX	XX		XXXX	XXXXX	XXXX	XX		XXXXX	XX	
NAO				X						X	X	X						X	X	X					X X		X X		XX		X X
NAV	X	X X			XX	X X	X X	X		X	X		X		X X	X	XXX X		XXX		XXXX			X XX					X X	X	X X
NB2	XXXXX	XXX		XX	XX XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
NCM					X	X						X					X	X			X				X X	X			X	X	
NCT	XXX	XXXX X	XXX X	XXX	X X	X X	X X	XXX	XX X	XXXX	XX X X	X X		X	X	XX		XXX XX		X X X		XX	X		X XXX		X X	XXX	XX X		
NDI	X	XXX XX	XX XX	XXXXXXX	XX X	XXXXX		XXXXXX		X XXX	XXXXX	XX	XXXXX X	XXXX	XXXX	XXXXX	XXXXXXX X		X XXXXXXX	X X X	XXXX X	XXXXX									
NEA	X	X	X		XX X X	X X	X XX	XX	X		XX X X		X XXXX	X	XX				X X			X X X			XX X		X X	X X	X		X
NEV					X X				X													X	X			X			XX	X	X
NEW	X XXX	X XXX	XX	X	XXX X	XX XX	XX		XX	XX X	XXX			X X		XXX X	XXXXX	XXX X		XXXXX		X X	XX XXX		X XXX	X	XX				
NGZ	X	X	X	X		XXX X	X	X	X XX	X				XXXX	XX XX	X X	XX	X	X		X	X	XX		XX XX		XX X				XXX
NIIJ	X	X	X XXX	X XX	XXXX	X XX			X	X XX	XX X		X	XX XXXX	XXXXX	X XXXX		X X	X		X X										XX X
NJ2	X X XX		XXXXXX	XXXXXX XX		XXXXX X	XX XXXX	X	XX	X X X		XX		X X XXXX	XXXX	XXXXXX X	X X	XXXXXXX X	X X XXX	X XXX X											
NKA	XXX	XX X	XXX	X X			X		X XXXX	XX X X	X X		X	XXX	XXX XX		X X	X	XX	X X	XX	XXX X	X X	XXX	XX X						
NKY	X XX		X	X			X	X	X	XX	XXX X		X	X XX X	XXX X	X XXX	X XX X	X	XXX	XXX	X	XX X	XX								
NMCC	X		X X		X X	X	X	X	X			XX X				X X		X													
NNA	XX	XXXX										X XX	XX X		XX	XXXXXXXXX	XXX	XX		XXXX	XXX	XXX X	XXX		XXX	X	X X				
NNT	X							X			X XXX	XXX X	XXX X	XXX				XXX													XXX
NOZ	XX	X XXXX X	XXX	XXXXXXX	X XX	X XX	X XX	XX X	XXXXX	XXXXXX	XX	X	XX X	X X X	XXX	XXXX	XXXX X	XXXX													XXXX X
NPS		X		XX	X	X	X X	XX	X	X	X X	XX	XXXX X	X	X X X	XXX X	X	XXX X	X												
NRA0	XX	XXXXXXXXXXX	XXX	XX	X XX	XX	XX X	X X	X X	X XX	XX	XX	XXXX	XXX XXXX	XX X	XX	X	XX XX	XX												
NRI	X	XX	XX XXX	X XXXX	XX X XX	X XXXXX	X XXXXX	XX	XXX	XXXXX	XXXXXXXXXXXXX	XXXXX	X XXXXXXX	X	XXX X	XXX															
NRZ			X					X	X	X					XX X	X	X X	X	X		X		X			X					X
NSD	X										X					X XX		X											X X		
NSS	X	X X	XXX	XX				X			XX	X	X		X				X		X			X XX	XX	X		X		X	
NST	X	XX	XX X		XXX			XX		XX XX	X X X	X X X	X X	X	X	XXXXX	XXXX	XXXXXXX	X X	X	XXX	XXXXX									
NTYM		X		XX	X		X	X X	XX X	X XX	X X	X X							X X					X			X	XX X			X
NUR	XXX X XXX	XXXX	XXXX	XXXX	XXXX X	XXXXX	XXXXXXX	X XXX	X XXXXX	XXX	XXX	XXXX	XXXX	XXXX	XXXX	X XXXXXXXXXXX	XX XXXXX	XX XX													
NVL	XX XX	X		X XXX	X X		XXXXXXXXX		X					X	XX	XX X X	XX X	X X		X	XX	X							X X		
NWAO	X	XX	X X	X XXX		XX	X	XX	X XXX X	X	X	XX	XX																		
OBN	XXX XXX X	XXXXXX	XXXXXXXX	XX X	XXXXX	XXXXXXX	XXXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX	XXXXXXX	XXXXX	XXXXXXXXXXX	XX XX														
OCO	XX				X			X		X XX	XX				X XX X	XX X X	XX X			X X	XX								XX	X	
ODD1	X	X	X	X X				X	X	X XX	X				X		X	X				XXX	X X	X	X			XX X X	X		
ODZ	X	X	X		X	X	X X	X		X	XX		X XXX X	XX	X	XX XX	X			X X X	X	XX	X	X	XXXX						
OFUJ	X XXXX	X	X	X	XXXXXX	X X XX					X X	X	XXXXX X X	X	XXXXXXX	XXXXX	XXXXXXX X	XX XXX	X X X	X X X	XX X	X XXX									
OGA			X	XX X X		X X	X		X X XX				X	X	XX XXX	X	XX X	XX	XX X X		XXXX	XXX X	X	XXX X	X						
OGE		X			X	X							X	X	X		X		X					X					X		
OHR					XXXXXXXXXXX	X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XX		XXX	XXXX	XXXX	XXXX	XXXX	XXXX			
OJC			XXXXXXXX	XXXXXX	XXX	XXXX X	XXX	XXXXXXXXX	XX X XXX										XXXXXXXX		XXXXX	X	X XX	X X				XXX			X X
OLLA		X			X	X	X		X X X			X	X	X	X	XXX		X X				X X XX		X				X			
OLY	X	X X		XX	X	XX	X X XX		X XX	XX X	X	X	X XX X	X		XXXXXX	XX X	XXX X	X X XX	X		X XX		X X X							
OPT	X	X										XX XX X	X X X	X	X	XX	XX XX	X X XX	X	X X X	X	XX	X	XX							
ORI	X		X XXX X							X	XXXX	X	XX	X X	XX X XXXXXX	X	XXX	X	XXX XX	X	XX XXX	XX	X								
ORO	X	X X	XXXX	XX	X X					X	XXX X		X X	XX X	XX	X XXXX	X X	XX	X		X										X
ORV	XXXXXX X	XX XX	XX XXX	XX X		X	XXX X XX	XXXX X	X XX XXX	XX		XXXXXXXXXX	XXX XXX	X	X			X	XX XX	XXXX											
ORX	X	X	XXX	X	XX		X		X	X	XX X		X X	XX	X	X	XXX XXXXXX	XX	XX X	XX X	X X										
OSS			X XXXX	X		X	X	X X XX	X X X		XX	XX X X	XX	X	X XXXXX	X XXXX	X XX	XXX X	XXXXX X	XX X											
OUR	X X XX	XXX	XX	XX	X	X	XXX XXX	X	XXXXXX X	X	XX XX	XXXX	XXXXXXXXXXX	XXX	XXXX XX	XXXXXX	XXXXXX	X XXXXXXX													
OXX	X X	X X				X											XXX XXXXX	XXXXXXXX	XX X	XX XXXXXX	XX	X XX	XX	X XXX							
PAB	X	XXXXXX	X	XX XXX	XXXX	X XXX	X X	XXXX X	XX X	X X	XX XX	XX XXX	XXXXXX	XXXXXXX	X	XX	XXX	XXX XXX	XX												
PAE	X	X	XX	X	X XXX						X	X X			X		X		X	X X					XX				XX		
PAF	X	X	X		X XXX			X XXXX	X			X	X		X			XXX	XX X		X			XXX				X XXX			
PAG			X X		X X X				X		X	X								X		X	XXXX				X X	XX XX X	XXX		
PAHZ	X	X X	X X		XX		XXXX		XX	XX X		X		XXX X	XX XX		X	X			X	X	X XX		XX XX	X XXXX	X XX				
PAIG	XXXXX XX		X		XX	X X		XX	XXX XXX	XX XXXX	X	X XX	XX	XXXX X	XXXX	XXX XXX		XX X	XXXXXXXXX	XXXXXXXX	XXXXXXXXXXXXX										
PAL	X					X		X	X			X			X X					X	XX X								X X		
PATZ	X	X	X			XX		X	X		X				X	X	X	X	X								X				X
PAX	X	X X XX	XXX	X X X X X			XX XX		X X XX	X X	X XXX	XX	X	XXX	X X X			XX X X		XX X X X X X	XXX XX X X										

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

PCC                       X   X                  X      X        X    X                    X  X                   X                        X     X
PCH     XXX X XXXXXX    XX      X  X XXX  XX XXX   XX  X  XX  X  XX  XXX X XX XXXX XXXXX X  XXX     X X
PCI   XXXXXX X                         X XX          XXXXX  X    X XX  XXX XXXXXX    X XX        X XXX XXX  X
PCP   X       XX   X XXX   X  X X    X     X X   X  XXX XX    X XXX XXXX  XXXX X  XXXXXXXXXXX   X   XXXX    X XX         XXX    XX X
PDB   XXX  XXXX X  XXX X XXX X X  X X X XXX XX X XXXX XX X X X X   X    XXX     XXX XX    X X XX  XX  X X  XXX XXX   X X  XX XX X X
PEC   XX  XXXXXXXXX X  X XXXX  X X XXX      XX X  XX X XX    X     XX X XX   X X X XX XX X X   XXX   XX   XXXX             XXXX  XXXXX
PEL     XXX X XXXXXX  XXXXX    X  X XXXXXXXXXXX XXX  X  XX  X  XXXXXXX X XX XXXX XXXXX X  XXX   X XXX  XXX    X       XX X    X X
PET   X   XX    XX  X  X XXXXXX     XXXXX X  XX  X   X  X X             X  X X  XXXXX   X XXXX      X XX            X XX     XX
PGB         X                        X   XX    X    X   XXX           X X  X  X   X    XX                 X XX  X X   XXX  XXXX     X  X
PGC     X            X   X  XXX    X      X    X    X  X  X XX      X                X    X  X               XX    X         X    X    X

PGD   X  X        X  XXXX   X     X      X  X XX  XXXXXXXXX  X X XXXXXX  XXXXX  XX   XXXXXXXXXXXX X X   XXXX          X XXX    XX
PGF   X   XX         XXXXX XXX  XXXX X  X     X    XX XXXXXX      XXX   XXX X XXXXXXX   XXXXXXXXXXXX  X   X XXX XXX X        XXX     XX X
PGP   XXXXXXX  XXX XXX X  X X XXXXXXXXX X XXXXXXX   XX   XX XX XXXXX XX XXXXX   X X XXXXX XXX  X X  XX XXX XX XX XXXXX  XXXXXXX XX
PGZ   XX     X       X  X X    X    X XXXX  X XX  X  X    XX        XXX XXXXX  X X  XX  X XX XX XX X X  XXX    XX XX X X  XXX     XXXX X
PHAM          XXX XX     XX XX     XX     X    X     XXX X       X X  X XX  X     X  X  X XX X     XX          XX X           X XX     X
PHP                                                                                          X XXX  X XX XX   XXX X XX  XX  XX XX X
PII   X                XXX  X      X           X    X    XX X       X     X    X  X  XX  XXXXXXXXXXXX           X      X         X
PIP   X XXX XXXX X XX XXXXXXXXXXXXXXXXXXXX XX XX XXXXXXXX  X   X XX XXXX  X XXXXXXXXXXXXX XXX XXX  X XXXXX X XX X   XXXXX  X XXX XX
PJG     X X   X XXX   XX XXXX  X X  XX X   X X X    X XXX  X    X XX  X     XX XXX XXX X      XXX      X     XX    X  X X XX  XXX XX
PKEM         X   X       X  XXX    X  X     X                    X X  X               X      X X  X           X     X                X XX

PKI   XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                             XXXX XXXX    XXXXXXXXXXXXXXXXXXX
PLAT  X        X X     X  XX  X                   X                        X       XX XX    X          X     X
PLD                                   X   XXX    X X  X X  XX            XX     XX X X  X XXX                X     XXX X XXX  X
PLDF                      X                            X  XX             X        X    X    X        X          X                X
PLE     X   X        X    XX         X     X       X  XX  XXX X       X  X XX X  XXX X  X XXX  X XX X  X    XXX  XXX     X     XX X  XX
PLM   XX XXX XXXXXX X  X XXXXX X X XXX         X  XX X XX        XX X XX   X X X XX XX X X X XX    XX   XXXX              XXXXX   XXXX
PLP   XXX X X  XXXXXX   XXXX X  XXX XXXXXX    XX  XXXXX XX  XX  X X XXXXXXXXXXXXXXXXXXXXXXX XXXX X XX  XXXX X XXXXXXXXXXXXXXXXX XXXX
PLRM  XXX    XXX X   XX X XXX X X  X XX  XX   X X XXXX XX X XXXXXX  X    XXX     X X XX     X     X  XX        XX X X X X X XXX XX X X
PMG   XX  XXXX   XXXX XXXXXXXX XX XXXXXX   XXXX   XXXX X XXXXX  XXXXXX XXX  XXX XXXXXXXXXXXXXXX XX X  X X XXX X XXX XX X XXXXXX   XXXX
PMO   X   XX     XX  XX X  XXX              XX          X  X                X                   X  XX X                    XX X         X XX        X

PMR   X XXX XXX XX   XX X XXXXXXX X  X XXX X XX XXXXXXXXXXX X XXXXX XXXXXXXX XXXXX XXXXX X  XXXX X   XXXXXXXXXXXX X XXXXXXX XXXXXX
PMS   XXXX XXXXXXX XXX X XXX XXX  XXXXXXXXX  X XXXXXXXXX X XXXXXX   XX  XXXX    XXX XX  X X X XXXXXX     X XXXX XXX XXXXXXXXX XX X X
POF         X        XX      XX      X             XX X X  X    X       X      XX     XX XXX  XX XX    X X          X    XX          X XX
POO   X    XXX X X XXX  X  XXXX    X XXXXX     XXX X  XX XXX      X X    XXXX     XXXXXXXXXX X  XXXXXX     X XXXXXX  X       XXXX X X XXX
PORP  X    X    X       X      X                      XX  X            X  X     X              X        X                      X        X    X
PPCY                      XX     XX       X X    XXX       X    X        X  XX X    X   X     X X X  X X          XX  X X                   X  X
PPD   XX XXXXXX   X X        XX       X    XXXXXXXXX XXXX X XX  XX   X X XX  X    XXXXX XXXXXXXX  XXXXXXXXXX XXXXXXXX  X        XX   X    XX
PPE                       X  XX                X     X    X X  X                 X      XXX  X    X X    XX X    X                     XXX    X
PPI                                                                                                 X XXX XXXXX XXX
PPM      X X   X    X       X XXX XX X  XXX XX XXX X XXX X XX X X  X XXXX XXX XXXXX  XXXXXXXXX XX X   XXXXXXXX XX  X XX  XX XX  XX  XX

PPN   X   XX     XX  X       XXX                         X  X X                  X               X  X                     XX X          XX         X
PPR   XX  X      XXX         XXX                  X    X      X           X     X                  XX                            X       X
PPT   X   X      XX  X       XXX                         X  X X         X  X  X                    X                      XX X           XX
PRAF         XX        XX            X    X        X      X          X X            X                X     X       X              X X
PRI        X    X            XXX                   X      X       X X  X X    X     X        X  X                    X                          X
PRK        XX X         XX              X    X    X X     XX   X X      X              XX         X    X             X   X X X X              X     X    X
PRM        X  X         XX XX  X  X  X  X X     X   X XX           X        X          X      X       X                                     X X   X     X
PRNI       XX           X  XX                                  X                          X          X            X    X                   X       X
PRS        X    X            XX                    X      X       X X  X X    X     X        X  X                    X                          XX
PRU   XX  X    XXXXXXXXXXXXXXXXXXXXXX XX   XXXXXXXXXXXXXXXX XXXX XXX XXXXX XXXX XXXXXXXXX XXXXXXXX XXXXXXXX XXXXX  X    XXXXXX XX XX

PRY   XXXXX XXXXXXXXXX XXXXXX X  XX XXXXXX XXXXXXXX XX XX  XX X XX XXXXX    XXXXXXXXXX XXXXXXXXX X X XX XX   XX XX XX   XX X X X X
PRZ   X    XX              X  XXX  XXX X X X X  X         XX  X       X    XX X    XXXXXXXXXXXX    XXXX        XX      X X      XXXX X
PSN                                        XX              X X                     X          X X                  X    X          X  X     X  X
PSO   X X X                X   X                 X                    X                        XX         X            X                        X     X
PSZ   XX                                  XXX  XXX    XX    XXX  X  X XX  XXXXX          XX     X      X                  XX                X   X    XX  X
PTE   XXX    XXX XX XXX X XXX X X  X XXX XXX  X X XXXX XX X XXX XX  X    XXX      XXX XX     X X XXX XX    X  XXX XXX X X X XXX XX X X
PTI   X XXX  X    X             X      X    X X    XXX     X X                             X                           X
PTJ   XX       X XXXX   XXXX XX     XX     X XXX  XXX XX XXXXX  XXXXXXX  XXXXXX XX XXX XXXXX XX XX XX    XXXXX XXX    X       XXXXX XXXX
PUL                XX   XX X XXX           X       X        X    X        X X    XX        X   XXX  X X     X X             XX   XXX                XXX       X XX
PUYF       XX        XX             X     X         X       X          X X              X                     X    X      X              X X

PUZ   XX    X  X X XX XXX X X XXX  X XX    XX      X      X      XXXXX   XX X      X     X          X     X   XX   X X    XXX XXXX    XX X   X XXXX
PV08      XX  X  XXXXXX XX XXXXX XX   XXXXX XXXX XXX     XXX
PV09  X   XX  X XXXXXXX X  XXX XX X   XXXXX XXXX XXX     XXX        X     X                XX X   X
PV10  X   XX  X  XXXXXX XXXXXXXXXX    XXXXX XXXX XXX     XXX
PVC   X X      X  X    X    XX        X   X     X     X X X X      XX   X      X X X  X          X XX            X              X                XX X
PVL          X                           XX                  X                      X XX          XXXX                          XXX  XX  X XX   XX X    X    X
PVY     X  XX       X     XX         X      X        X  XX  XXX X       X   X XX X  XXX X  X XXX  X XX X  X    XX    XXX    X     XX X   XX
PWA   XXX     XX X    XX X XXX X X     XX XXX    X X XXXX X XX XXXXXX  X    XXX      X X XX   X X    XX  XX    X  XXXXXXX X X X XXX XX    X
PYA   X    X      XX XX  XXXXX                  XXXXXX X X X X  XX XXX     XXXX     XXXXXX XX XX    XXXX        X XX    XX          XXXX      XX X
PYM                        X                                X  XX              X           X     X     X          X                X                   X

PYN                   X     X XX X                  X      X           X                        X     X
PZI      X                  X                     X          X           X     X       XX        X     XX          X      XX             X    X
PZZ   X        XX X X XXX    X  XXX  X XX    XX X   X XXXX XX  XX XXXXXXXXXXX  XX X X   XXXXXXXXXX    X X XXXXXX X XXX XX X XXXX   XX XX
QASM        X           X         X         X     X          X  X XXXX XXX       X         X X    X XXX X   X   X    XX      X      X
QCP        X          X  X  XXX        X     X  X                                        XX          X                          X
QIZ   X    X       X     X  XXX  X       XXX    XX   XX  X  XX      X   XX       X   X  XX X     XXXX X    X XX XXXX X       XX      X X X
QLP                              XXX XXXXXXXXXXXX  XXX XXXX X   X  X  XXX X  X X X XX   XXXX XXX XX XX   XXXXXXXXXXX XXX XX      X  X XX
QRZ   XXXXX X    X X  X     XX X X XXXX XX XX     X    XX      XXXXX XX XX  X X  XX  XXXX X  XX X X   X     XXX XX X X XXXX        XXXX
QUE     XXXXX    XX XXX XXXXXXXX  X XXXXXXXX    XXXXXXXX XX  XXXXXX XXXXXXX XXXXXXXXXX XXX XXXXXXX XX  XXXXXXXXX XXXXXXXXXX X XX XXX
QVP   X X X      XX      X  XXX  X X    XX       X         X           XX XX     X             XXX                    XXX  X  X     X     XX
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

QZH   X         X X X  X  XXX          XX     XX  XX  X    X      X X              XXX    XX        XX       X  X  X  X    X   X        X
RAB   X    X    XX  X  XXXXXX  X  X    XX     X    XX  X           XX  X           X X  X X        XXX       XXX X XX      XXX  XX XX XX
RAGM  XX    X   XX     X X X X X    XX  XX     X  X     X X X  X       XXX    XXX XX            X   XX X X X  X  XX XX  X
RAO                                              XXX XX X X X  XXX   XXXX  X              X   X     X  X       XXX     X    XX  X XXX
RBL                 XX    XXX  XX     XX    X       X   XX XXXXXX   XX XX  XXXXXX  XX  XXXXXXXX X XXXX     X  XXXX X     X  XXXX    XXXX
RDN   XX            X      X XXX X      X   XXX    X X  X XX X X X X             X X      X           X           X        X  X  XX
RDO        XX X    X   XX              X    X X     XX  X X                XX        X X     X          X X  X X X XX     X    X   X
RDP        X X  XXX  XXX           XX            X X  X X XXX  X  X      XX  X  XX  XX   XXX     XX XX   X  XXX   X          XX        XX
RDT    XX     X  X    X  X XXX       X X X X       X    XX         X      X    X           XX     X                     X
RDW   XXX  XXXX X  XXX X XXX X X  X XXX XXX XX X XXXX XX X X X XX  X    XXX     XXX XX    X X XX  XX  X      XX XXX    X X XXX XX    X

RED                                                                                                        X            XX    X X  XX XX X
REF   X X  X                 X                 X X X                  X                    XX  X        X X          X   X   X        X
RES   XXXXX X    XX XX XXXXXX   XXX   XX XXXXXXXX XXXX XXXXX X  XXXX X XXXXX X XXXXX XXXXX    XXXX  XXX XXXXX XXX X  X  XXXX XXXX
REVF                             X          X       XXX X     X XX X     X X X X   X X   XX X         X X                X
RFI             X    XX                     X          X     X     X   X   X              X             X    X
RIV   X   X                XXX          X     X       X                             XX X       X              X                X
RIY             X    XXX            X           X   XX XXX     XXX     XXXXX X X         XXX   X X                 X                 X     X
RJF   X      X  XX XXX XXXXXXXX     X  X XX   X X XXXXXXXXXXXXXXXXX XXXXX    XXXXXX XXXXX XX XXXXX X   X XX   XX X  X  XXXX XX XXXXX
RKG        X                XX         X   X   X          X       X                   X  X  X                                XX      X
RMN        X           X  X                            XX       XX               XX X X   X    X    X          X      X                X

RMP            X X XX  XXX           XX           XX X X XXX  X  X      XX  X    X  XX    XXX  X XX      X   XX X X       X   XX  XX
RMQ   XXXXXXX XXXXX XX   XXXXXXXXX  XXXX XXXXXX XXX XXXX X  XXX  X  X XX       XX    XXXX  X    XX X  X X XXXXXXXXX  XXX XX   X XX XX
RMW     XX X X  XX     X   XXX XX X XX  X     X   XX XXX  X    X  XX            X XXX  X XX X    XX          XXX XX    XXXXXXXX  X  XX
RND   XX       X X    XX X XXX X X    XX   XX    X X XX X X  X XXXXXX  X    XXX      X X XX    X     X  X            XX X X X X X XXX XX X X
RNO                                         X       X                              X  X              XX  X    X          X   X
ROB   X        X  X    XXX    X   X X  X XX   X  X    X  XXX XX  XX XXXXXXXXXX  XX X X    XXXXXXXXXX   X X XXXXXX X X    X    XXXX   XX X
ROCH     XXX X XX XXX    XX      X   X XXX  XX XXX    XX  X  XX  X   XX   XXX X XX XXXX XXX X X  XXX          X X
ROI     XX  X      X XX    X            XXX     X      XXXXX X     XX XX XXXX X X XX X  XXXXXX X XXXXXXX  XXXXXXXXX   X          XXXXXXXXX X
RRL   X         XX X X XXX    X   XXX       XX    XX X        XXX X     X X XX  X XX  XXX         XXXXXXXXX       X     XXX    X XX      X XXX    XX X
RS1   XXX   X XX X  XX  X XXX X X  X X X XXX XX X XXXX XX X X X X   X    XXX     XXX XX    X X XX  XX  X X  XXX XXX     X X  XX XX X X

RS2   XXX   X XX X  X   X XXX X X  X X X XXX XX X XXXX XX X X X X   X    XXX     XXX XX    X X XX   X  X X  XXX XXX     X X  XX XX X X
RSL           X  X  X  X          X         X    X        XX                XX  X           X    X X      XX             XX
RSM                 X   XXX                   X   X  XXXXX      XX XX XX  XXXXXX X     XXXXX X XX  X  X X     X                X X      X
RSNY  X  XX   X   XX XXX XX XXX   X X   X XX    XXX X X  XXXXX          X     XXX     X X X   XXXX    XXXX   X X X XX   X            XXXX  X   XX
RSO   XXX XX XX XX XXX X XXXXXXX  X XXXXXXX XX XXXXXX XX X X XXXXX XX  XXXX XXXXX XXXXX X X XX  XX  XXXXXXXXXXXXX    X XXXXX XXXXX
RSP   X         X  X X XXX    X  XXX               X X       XXX X    X X XX  XXXX  XXX  X    XXXXXXXXX       X     XXX      XX      X XXX    XX X
RSSD  X XXX   X    XXXXX XXXXXXXXXXX XX XX  XXXX XXX  XXXXX        XXXXX XXXXXXX XXXXXXXXXXX    XXXXX  XXX XXXX   X    X X XXXXX X   XXX
RTBS     XXXXXX   X XX X X    X XXX    XXX     X X              X              X   X  XX X XX X    XX  XX      XX  XX   X X      XXXXXXX  X   X
RTCB     XXXX      X  X XXX        XX       XXXXX XXXXX     XX X         X X      X XXXX XXXXX  XX   X XX X XXXXX XXXXXXX X X X   X    XX   XX
RTCV     XXXXXXX XX XX X X XX    XXX    XXX    XX  XXXX    X  XX X           X XXXX XXXX XXXX  X XX XX X X XX XX XXXX X X X    XXX XXX XX   X

RTLL     XXXXXXX XX XX  XX   X      XX    X XXX XX     XXX      X X         X       X XXXX XXXXXXXXX     XX X XXXXX XXXXXXX X X X    X X XX   X
RTPR     XXXXXX   X XX X X        XXX     XX          X                     X XX  X  XXX XX X  X X X  XX X    X       XX XX                X   XX
RTRS     XX  XXX XX XX X X    XX XX X XXX  XXXXXXXXX  XX   XX X X X  X X   X    XXX  XXXX  X XX X            X          X     X    X   XX
RUP                        X      X     XX          X         X X       X           XX                   XX                               X X X X
RUV   X    X      XX   XX X  XXX            XX     X      X  X X        X      X           X  XX X                 XX X          X XX       X
RVC                                                        XX X     X                                               XX  X                 X
RVW                                                        X        X                                               XX  X    X            X
RYD   X  X X         XX    X     X          XX    X  X      X   X XX X XXX       X         X X    X XXXXXX       X    XX       X     X
RZN        XX                        X    XXX   X X  X X XXX             XXX    XX X X       XXX           XXXXXX  XX  X XXX XXXXXXXXXX   X
SAGI                   X      XX           X X X        X X X  XX X   X     X       X X    X  X   X     X    XX XXX         X X       X

SAL             X    XXX                X       X       XX         X   X   X    X    X    XXX  X XXX          X     X
SALF     X          X     X   X X       X          X     XX          X X       X            X               X                     X
SALJ              X     X    X         X              XX       X        XX X          X          X X  X
SAN        XXX X  XX X     XX       X      XX  XX   X    X          X      X    X   X X XX X  X  X          X  X X     X        XX X     X
SAO        X             XX XXX      X     X X  XX  XX   XXX  X X X  X X  XX      XX X     XX X     X X          X X    X        XX XX X       XX
SAOF       XX        XX  X   X    XX   X          X X    XXX XX      X XX XX      XXX X X    X X  XXXXX   X    XXX      X          XX     X
SAW                                 X     XX      X   X  X XXXX          X X   X  XX  X   X       X            XX           X   XX  X  XX
SBA   X                      XX           XX            X               X               X                                    X X  X   X
SBCZ  X  X           X       X X          XX          X X XX X   X XXX X       X    X    X X          X  X     X       XX    X X        XX X
SBF   X   XX  X  X  XXXX XX    X XX X  X    XXXXX XX  XX XX   XXXXXXXXXX XXXX XX XXXXXXXXXXXXXXX  X    XXXXX  XXXX       XXXX     X  XX

SCE                    XXX  X                      X     X                X X                                                     X       X
SCM   X X    X X XX XXX X X X X X    XXX XX    X X XX X X  X XXXXXX  X   XXX     XXX XX    X    XXX    X   X    XX XXX X X X XXX XX X X
SCX       X  X           XXX XX     XX XX          X    XX          XX XXX   X     XX XXX X   X        XX X     X     X    X          XX
SDA    X                                  XX    X  XXX  X           XX  X  XXX          XX         XXXXX    X  XX    XXX X X    X   XXXX
SDF   XX          X   XX  X XXX  X X      XX            XX                                  XXXXX X      XXXX       XXXXX XXX X       XXX      XX X
SDG   XX      X X XX XXX X X X X X     XX  XX    X X XX X X  X XXXXXX  X    XX       X X X           XX    X        XX X X X X X XXX X    X
SDI    XXXXX X XXXXXXXXX XXXXX X XXX  X XXXXXX    XXXXXX X     XXX   X   XXX X   XXX  XXXXXXXXXX XXXX   XX  XXXX XX            XXXXX  X  XX
SDN   X   X     X        X XXXXX          XX            X  XX  X X  X    XX     X XX  X  X XX   X  X       X                X        X
SDV   X XXX X  X        X  X XXXXXX XXXXXXXX XXXX X X   XX X   X XXX XXX  X XXXXXX XXXXX X X  X XXXXXXX XXX   X XX X XXXXX  XXXXXXXX
SEG                       X X               X             X                             X         X   X XX       X    X    X  XX X    X

SEK   XXXXXXXXXXX XXX   XX    X  XX X X X   XXXXXXX XX XX   X X XX XXXXX   XXXXXXX XX XXXXXXXXXXX X XX XXX  XX XX XX  XX   X X XXX
SES   X XXX XXX XXXXXX XX XXX X XX XX XX   XXX XXX  XXXXXX    XX XX   X X X X X XXX XXX X     XXXXX   X  XXX X X  X  X XXXX   X  XXX X
SEW   XXX  XXXX XX XXX X XXX X X  X XXX XXX  X X XXXX XX X XXX XX  X    XXX     XXX XX    X X XX   X  X     XXX XXX X X X XXX XX X X
SEY            X        X     X      X     X    X  X    X      X               X  X               X XX    X X                        X
SFG                 X       X X           X            X                     X                   X    X X     X      X     X          X
SFI   X  X         X  XXXX  X       X      XXX  X XX  XXXXXXXXX  X XXXXX XX  XXXXXX XX  XXXXXXXXXX X X        X X XXX       X XXX     XX X
SGAM     X    X    XX          X X  X     XX  XX         XX X       X X XX  X    XXX    XXX XX            X    XX XXX X     X XXX XX X X
SGO   X X     X XXXXXXXXXX XX        XX      XX      X      XXXXX X      X  X XXXX X XXXX XXXXXXXXXXX XXXXXXXX    XXXX XXX X     XXXXXXX X   X
SHE   X                  X  XX               X      X X    X  X  X X  XXX    X X    X XX X    X XX        XX XXX         X X    X
SHK   X                     XXX              XX   X         X X                     X      X                                    X
```

```
DATE   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

SHL                                                                                      XXXXX         XXXX                    X XXXXXX
SHMJ                       X         X            X    X      X  X   X X    X        X   X     X          X   X X         X X
SHNJ   X         X X X    XX X XX      X         XX    X  XXXX     X     X           XX XXXXX     XX        X XX  X      XX    X
SHW    XXXX X    XX X   X  XXX      XX  X      X   X    XX X       XX          X XXX  X XX      X          XXXXXXXX XXX    XX  X  XX
SHWJ                                 X      XX X  X XX  X    X X XX  XX X   X     X    X      X       XX   X X          X
SIM                        XXX                          X   X        X  XX     XX       X         X       X  XXX            X        X
SIT    X          X  X  X  XXX  X     X XX    X    XX  XX X    X  X   X        X X X  XX X    XXX         XX    X      XXX         X
SIV    XXXXX XX    XXXX XXXXXX XXXXXXXXXXXXXXXXX XXXX XXXXXXXX XXXXXXXXXX    XXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXXX XXXX   XXXXX    XXXX
SIZ                         X                        XX    X  XX X       X      X X       X  X               XX   X          XX
SJG        X   X           X                        X   X       X        X               X X      X            X      X   X

SJI                                   X X                                X X     X           X X                XX X
SKO                     XXXXXXX   X X XXXXXX XXX XXXXXXXXXXXXX XXXX XXXXXX XXXXXXX XXXXX XXXXXXX XX    XXX XXXX X XX  XXXXXXXXXXXX
SKR                X        X XX  X     X  X  X   X  X    X X X    X               X  X X   X       XXXXX     X X                X
SKT    XXX  XXXX XX XXX X XXX X X  X XXX XXX  X X XXXX XX X XXXXXX  X    XXX    XXX XX    X X XX    X    X  XXX XXX X X X XXX XX X X
SLA    XX XX  XX  X         X      X    XX  XXX  XX    X XX          X    XX    XX  X XX X X X XX  X    X    X    X  X    X      X   X   X
SLB    X       X   X        X                                       X                       X                          XX  X
SLE                   XXX   X         X      X   XX X   X           X  XX   X  XX  X XXXXX  X XXXXX        XX  XX          XXX X  XX
SLKI   X                                                                            X                    X  XXXXX X    XXXXX         X  X
SLKM   XXXXXXXXXXXX XXX X XXXXX X  X XXXXXXX XX XXXXXX XXXX XXXXXXXXXXXXXXXX XXXXX XXXXX X XXXXX XX  X XXXXXXXXXX XXX XXXXX XXXX X
SLL      X X X   X    X      X   X    XX  XXXXX    X  X  X  X     XX  X    XX  XX              X X    X    XXX        XXXX         X

SLM        X       X   X   XXX      X XX   X      XX              X     X         X    XX                  X                X           X
SLR    XXXXXXXXXXXXXXXX XXXXXX X  XXXXXXXXX XXXXXXXX XX XX  XX X XX XXXXX   XXXXXXXXXX XXXXXXXXXXXXX XXXXXX   XXXXX XX  XXXXX X XXX
SMF    X   X  XX XX XXXXXXXXX XXX X XXXX XXXXXXXX XXXXXXXXXXX XXXXX XXXX XXXXXXXXX XX XXXXX XXXXX XX  XXXXX XXX X  X XXXXXXX XXX XX
SML    XXX   XXX XX XXX X XXX X X  X XXX XXX  X X XXXX XX X XXXXXX  X    XXX    XXX XX    X    XXX   XX    X  XXX XXX X X X XXX XX X X
SMY    X  XX    XXX  X  X  XXX  XX   X XX    X     X  XX XX          X    X      XX  X  XX X     XXXX         XX    X        X X
SNA                  X  X  XXX    X     XXXXX X          X X    X    X     X     X  X X XX  X     X                     X X   X  X X
SNF    X      X    X    X  XXXXXX          X     XX XXXXXX X XX XX  XX      X X  XXXX X X  X X XX       X X    XX   X    X X X    X X
SNG    X         X  X      XXX        XXX    XX       XX X     XX X  XXXX      XXX  XXXX    X  X      X XX     X   XXXX    X XXX
SNH     X    X    XX     X   X X    X   X       X  X       X             X      XX X                     X         X   X  X  X
SNY    X  XX   XXX XXX X XXXXXXXXX XXXXX  XXXX XXX  XX XX     X X   XX    X X XXX XXXXX     XXXXXXX X X XX XXXX X XXXX XXX X  XX X

SOB1   X  XX  X  XX  X  X  XXXX X XXXXXXXXXXXX  X XX X          X           XXXXXX  XXXXX XXXXXXX X X XXXXX XX        XX  X XXXXXX
SOC        X               X                X  X    X   X  XX XXX  XXX     X X  X    X      X XX       XX   XX        X     X
SOH     XXXXXX XX X X   XXX  X   X XXXX XX XXXX XXXXXXX X  X  XX XX XXXX XXXXXXXXXXXXXX  X  XXXX XXX XXXXXX XXXXXXXXXXXXXXXXXXXXXXXXX
SOI      X  X   X X XX XXX XX    X       XX  X X X  XXXX  X    XX  X  XXX X   XX X  X X XX  XXXXX XX   XXXX  XXXXX  X  XXX XXXXXX X
SOP                X    XX XXX                         X  XXX X   X                                    XX  X         XXX
SPA    XX  XXXX    X  X XXXXXXXX X X  XXXXXX XX   XX  XXXX X    X XX  XXX    XXX X X  XXXX  X   XX X   X XXXXXX X     X X  X  X  XX
SPC     X  X         XXX XXXXXXX X    XXXXXXXXXXX XXXXXXXXXXX XX XXXXXXXXXXX   X  XXXXXXXXX    XXXXXX  XX XXXXX XX      X X
SPU    XXX  XXXX X   XXX X XXX X X  X XXX XXX X X XXXX XX X XXXXXX  X    XXX    XXX XX    X X XX    X    X  XXX XXX X X X XXX XX X X
SQTA   X   X       X X   XX XX       X  X XXX  X   XX X XXX    X XXX  X  XX  XX  X   XXX    XX XXX   X XXXXX   X    XX  XXX X XX  X
SRN     X               XXXX     X      XX    X    XXX   X X           XX  X  XXX      X      XXXXX    XX XX   XXX X XX  XX  XXXXX

SRO    XX  X     XXXXXXXXXXXXXX X XXX XXXXX XXX X XX XXXXX  XXXXXXX XXXX X  XX XXXXXXXXX     XXXX     X XXXXX XXX          XXXX    XXXXX
SRS     XXXXXX XXXX X    XXX  X  XX XXXX XXX XXX XXXXXXX X  X  XX XX XXXX XXXXXXXXXXXXXX  X  XXXX XXX X XXXX XXXXXXXXXX XXXXXXXXXXX
SRU      XXX  X    X  X  X XXX  X  X  XXXXX XXXX XXXX XXXX       XXXXX  XX X    XXXXX XXXXX X XXXXX  X X XXXXX  X    X XX XXX   X  XXX
SSB                X      X       X        X      X      X XX        XX                       X XX X        X
SSE    XXX XX   XXXXXXX XXXXXXXXXX  XXXXX  XXXXXXXXX XX XX X XXX X XXXX XX X XXXXXXXXXXXXX  XXXXXXX     X XXXXXXXXXX  X X XXX X XXXXX
SSF    XX  XX XX XXXXXXXXXXXXXXXXX X XXXX XXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXX XX  XXXX XXXX X XX XXXXXXX XXXXXX
SSK    XX    XXXXXX X XX XXXXXX  X X X X X     X   X   X      X      X   X   XX   X X X XX XX X      XX    XX  X XXXX            XXXXX   XXXX
SSOR                             X    X     XX      X X XX                      XX  X   X      X         XXX  XX  X X       X  XX
SSR                                  XXXX    XX  X    X      X X       X X  XX   X  XXX X X  XX  X    X    XX XXX     X      X   X X   XXX
STAN                    X X             X   X       X      X X  X X                      X X                 X X                      X

STH    X X              X  XX       X    X  X        X X           X        X     X                 X  X         XX    X    XX  X
STK    XX  XXXXX XX       XXXXXXX       XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXX XXXX XXXXXXXXXXX
STR                        X                        XX X         X                X X        X                                 X
STS              X X       XXX X         X      X     XX                    X      XX          X                                      X
STV    X X     XX X X XXX   X  X X  X XX   XX X   X XXXX XX   XX XXXXXXXXXX  XXXX      XXXXXXXXXXX    X X XXXXXX    XXX XX    XXXX  XX XX
STW                              X    X         X  X XX                            X  X                X              X    X    X    X
SUA    XXX  XXXX X   XXX X XXX X X  X XXX XXX  X X XXXX XX X XXXXXX  X    XXX    X X XX    X   XX    X   X X  XXX XXX X X X XXX XX X X
SUE      XXX     X        X X         X          X                X                                   X                            X
SUR                                             XX X   X    X X X  XX X    XX XXXX XX XXXX X X          X  X              X  X   X
SURF                  X X                      X  X X X         X      XX     X   X        X  XXXX X   X        XX                X

SVA    X       X XX XXX X XXXX                              X   X             X  XX         X   X       X   X          X X X        XX
SVE    XX  X   X XX XXX XXXXXX XXXX XXXXX     XX XXXX XXXXX  XX XXX  XXXXX    XXXXXXXXXXXXX  XXXXX      X XX XXXX X      XXX      XX XX
SVO    XX  X XXXXXX     XX  XXXXXXX XXX X
SVW    XXXXXXX XXXX XXX X XXXXXXXX  XXXXXXXX XX  XXXXXXXXXX X XXXXX XX XXXXX XXXXX XXXXX X XXXX XXX  XXXXXXXXXXXX   X XX XX XXXXXX
SWI    X              X  XX                               X         X    XXXXXXX X          XXX             XX X    XX X  X
SWZ     XXX  XX  XXXXX    XX     X  XX    XXX  XX X XX   X XX   X    XX   XXX     XXX XX XX  XXXX XXX     X  XXX  X  X   X   X  X X   X
SYI    XXX  XXX  X   XXX X XXX X X  X X X XXX XX X X XX XX X X X     X     XX      XX XX    X X XX   X  X      X     X     X X   X XX X
SZP    X XX   XXX    XXXXXXX XX XXX XXXXXXXXXXXX X XXX   XX X XXXX XX XX      XX X  X X XX XX X XXX     XXX  X XX XXXX XX  XXXXX   XXX
TAB        X X          XX          X   X     X  XX   X     X XXX XX   X  X    XX XXX     X  X       X   X    XX        XX X    X  XX
TACH      XXX X XXXXXX   XX      X  X XXX  XX XXX   XX  X  XX  X  XX  XXX X XX XXXX XXXXX X  XXX      X X

TATO   X          X        XX                X       X          X                       X X                X
TAU    XX  X      X        XXX         XXX X  X    X  X X     X  X                      X  X       X X          X           X       X
TAVF       XX       XX          X    X        X       X         X X              X             X   X       X               X X
TAZ    X          X          X XX X    X    X                         X   X     X  X                   X
TBH                   XX          X X  X                                                X            X                        X
TBM                                             XX X    X                    X                  X          XX   X   X                X
TBR                     X   X              X         X      X X  X   X                         X  X        XX                   X   X X
TBZ      X                                                           XX    X X X  X        X  X X X    XXXX       X     X     X  X
TCA    X  XXXXXX XXXXXXXXXXX X XXX   XXXXXXXXXXXXXXXXXXXX X X   XXXXX
TCE      X  X         XX         X X  X          X            X X                        X            X                      XX
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
----------------------------------------------------------------------------------------------------------------------------------
TCF   X  XXXXX XX XXXXX XXXXXXX X XXXXXXX XXX X XXXXXXXXXXXXXXXXX XXXXXX XXXXXXXXXXXXXXXXXXXXXX  X  XXXX  XXX X  X XXXXX X XXXXXX
TCW   XX  XX     X X   XX    X X X XXXX  X XX  X      XX     XXX X XXXXX  X    X    XX    X XX X  X X  XX XX  X  X  X X         X
TDH                                                 X    X                                             XX  X   X            X
TDL                                                 X    X                                            XXX  X   X            X
TDS    XX        X XX  XX X           XX     X    XXXXX X     X XX  XX X   XX    XXXXXX  X XXX   X  XXXX XXXX X      XXXXXXXXX XX
TEH                     X   X      X       X    XX      X       X X  X    X X    X X      X  X   X  X XX   XX          X        X
TEHZ  X     X      X  X X    X   X  XXX    XX  X      X       XXX  X XX     X     X    X   XX  X  XX      X  X X   XX X     XXXXX
TER       X                X                      X   X        X X     X           XX               X     X    X
TET               XX  X  X  XXX                                         X           X  X                               X
TGL   XX    X   XX     X X   X X    XX  XX       XX X X  X X X XX      XXX    XXX XX        XX   X       XX X X X   X   X XX   X
----------------------------------------------------------------------------------------------------------------------------------
TGY   X X X     X      XX XXX    X X XXX    X   X   X  X  X  X XXX X     X     X XXXXX              XXX X XX    X     XX XXX
THE     XXX X X X X XX XXX  X  X XX    XX   XX XXX XX  X  X     X  XX X  XXXXX X X XX      X    X  X XX   XXX XXXXXXXXX XX XX X X
THY   X       X    XX               X   X         XX      X X          X       X            X            XX X     X X X   X    X
THZ      XXX  X    X  X     XX X X X XXXXXXX XX   X X XX     X XXX XXXXX  X X  XX XXXXX XX   X X   X   XXXX XXXX X XXXX  X  XXXXX
TIA   X   XX   XXX  XX XX XXX X XX XXXXXXXXXXXXXXXXXX  XX     X X XX X     X XXX XXXXX    XXXXX   X X XXX X X X XXXX XXX X XXX X
TIC           X  X  XX X  XX  X X     XXXXXXXX XXXX XXXXX XX XXX   XXXXX  XX X XXXXXXXXX XXXXX  X X XXX XXXXX        XXX X  XXXXX
TIK   X   XX  X XX     X XXXX XXXX XXXXX    XXXXXXX XXXXXX X  X X XXXXXX  XXXXXXXXXXXXXX  XXXXX     X XXXXXXX X    X XXX    XXXXX
TIM                                  X           X  X   X                 XX  XX          X                  X  X X             X
TIO   X    XXXXXX XX X X XXXXXX X   X XX   XXXXXXXX X    XXX XXX X   X  X   X  X XXX X X   XXX X XX X  XX XXXX        X  X    X
TIR    X             X XX X      X     XX    X  XXXXXX  X           XX  X XXX      XX     XXXXX X XX XX  XXX X XX   XX  XXXXX X
----------------------------------------------------------------------------------------------------------------------------------
TIY   X XXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXX XXXX XXXXXX X XXXXXXXXXXXX XXXXXXXXX  XXXXXXXXX X XXXX XXX X XXX XX
TKL   X   X            X   X                     XX             X     X   X X X   XX     XX                         X    X    X
TKO                                                 X                                                  XX  X   X            X
TKSJ  X   X     XXX X  X XXXX  X  X XXXX            X XXXX    X  X  X       XXXXX XXXXX   XXXXXX    X XXXXX   X XX   X      XX X
TLC      X         X      X X         XX          X X XX X   X XXX X           X   X          X  X      X       X   X XX    XX  X
TLG   X   X   X           XX                                         X X    X  X  XX                                 X X
TMA              X  XXXX   X       X  X      X X XX   X X       XX  XX X X  XX X XXXXX  X XXXXX       XX  XXX X    X XX X   XX X
TNE   X XXXXXX                                        X XXXX X                       XXX          XX                 XXXX
TNP   XXXXX  XXXXXXXX  XX XXXXXX X X XXX   XX    XX XXXX  XX  XXXXXX XX   X XXX XXXX X    XXXX X      XX          X  XX XX  XXX
TNR    X               X XX          X  X           X   X          X  X   XX       X X    X           X   X      X  X   X    X  X
----------------------------------------------------------------------------------------------------------------------------------
TNS    X           XX  XX XX   X    XX X     X  XX  X  XX      XX   X XX  XX  XX  XX X    XXXX        XX XXX         XXX X   X X
TOO   XX XXXX X XXXXXX XXXXXXX X X  XXXXXX  XX XXX XXXXXXX XXX XX XXX      XX XX  XXXX  X    X X  X X XXXXXX XX    XXXX X   XX X
TOUF      XX       XX  X X    XX   X         X X    XXX XX     X XX X    XXX X X  X  X  XXXXX   X   XXX      X       XX     X
TOV   X XXXXX  X          XXX XXXX XXXXXXXX XXXX X X  XX X   X X X   X  X  XXXXX XXXXX X X  X XXX XXX XXX  X XX    XXX X XXXX XX
TPE    X             X XXXX      X     XX   X     XXX  X X          XX  X XXX      X      XXXXX   XX XX   XXX X XX  XX  XX XX
TPMT                       X   X                       X       X       X X           X                 X      XX         X
TPNV  XXXX   XXXXXX X  XXXXXX XX X XXXXX   XXXX  XX XXXX  X  XXXXXX  X   XX XXXXX XXXX X  XXXX    X   XX X        XX XXXXX  XXXX
TPP     X   X         XX         X X  X          X                                X                                   X
TPT   X   XX     X  XX X  XXX          XX   X    X  X          XX     X        X XX X                   X X        X XX      X
TPX       X  X         X XXX X X       X  XX   X XX X XX     X   XX X     X    X XXXX     X      XX X     X  X X   X   X     XX
----------------------------------------------------------------------------------------------------------------------------------
TREF       XX      XX          X    X        X      X          X X            X             X   X     X              X X
TRF   XXX   XXX X  XXX X XXX X X X XX   XXX  X X XXXX XX X XXXXXX  X   XXX   X X XX    X   XX    X       XX XXX X X X XXX XX X X
TRI    X    X  XXX  XXXX  XXX  XX XX XXX   XX XXXXXXXXXX   XXXXXXX XXXXXXX XXXXXXXXXXXXX X XXXXX X X X X XXXXX X X   XXXX XXXXXXX
TRN   X X XXX         XX   X     X X  X          X             X                  X            X                     XX  X
TRO                 X  X             X                    X                 X  XX  X      X           X                    XX
TRT                                   X                            X     X X         X X            X XX X
TSM   X   X              X           X      X                          XX   X  X  XXXX  X      X    X XX  X          X
TSRJ  X          XX XX X XXXX XX    XX              X XX X    X             XXXX XXXXX   X XXXX     X XX XX   X XX   X      XX X
TTA   X XXX    XX   X X X        XXXXXXX X XX  XXX XXXXXX X XXXXX XXXXXXXX XXXXX XXXXX X XXXXXXX   XX XXXXXXX X XX X    XXXXXXXX
TTG    X XX        X   XX        X    X      X XX              X  X XX X  XXX X  X XXX  X XX X  X   XXX  XXX    X   XX X  XX
----------------------------------------------------------------------------------------------------------------------------------
TTH   X     X X    X   XX    XX X     X    XX  X      X      X X   XX X    X   X       X   X      XX     XX XX     XX X     X XX
TUC   X XXX  X XXXXXX XXXXXX XXX X XX     XXX X  X XXXX        XX   XXX  XXXXXXX XXXXX X   XXX   XX  XXXX  X            X  XXX
TUH               X  X   XX      X         XXX   X  X   X      X    XX            XX XX X              X             XX
TUZ   X  X X       X       XX         X    X     X X XX X   X XXX X        X      XX X        X  X         X  XX   X  X     XX
TVO       XX    XX  XX X  XXX          X    X    X  X X        X      X      X    XX X                 XX         X XX       X
TYNO                       X                          X   X    X      X    X        XX   XX X
TZL   XX    X X XX X   X X X X X    XX  X        X X X    X X XX       X     X X X          XX          XX X    X  X XXX X    X
UCC              X XX X  XXX                X    XX XXXXX       X   X      X       X X      X         X    XX        X      X
UER   X   X     X         X X       X X         X X X   X      X    XXX    X  X   XX XX   X         X XX  X X        X X     X
ULC    X   X       X   X         X    X      X XX  XXX X       X  X X  X  XXX X  X XXX  X XX X   X  XXX  XXX    X   XX X XX
----------------------------------------------------------------------------------------------------------------------------------
ULM   XXXXX XX  X  XX  XXXXX XXXXXXX XX X XXX X XX X XXXXXX XX XXX  XX  XX XXXXXXXXXXX X XXXXX  X X XXXXX XX       X X  X   XXX
UNM     X X           X  XX    X  X   X          XX X XX X X  X X  X  X  XX X  X  XXXX   X       X  X   XX                X  X
UPA        XX         X   X    XX X XX  X               X  X X X            X XX  X      X             X           XXX      X
UPP   XXX X X X   XX XX  XX           X    XX    X  X XXXX     X X         X XX XXXXX     XXX       X XXX XXX X  X XXXX    XX X
URZ   XX    X XXXX XX XXX XXXXXXXX X XX XX XXXXX XX   XX X XXXXXX XXXXXX   X  X XX XX X    X XXX  XXX   XXX XXXX X XXXX X XXXXX
UTU   X     X                XX    X       X                      X   X    X                                 X
UYO       XXXXX                  X  X            X X X       XXX         X   X XX XXX X  X  X    XX X                   X      X
UZD                                 XX X    X  XX  XXX X       X   XXX X   X      XXXX                                     XX  X
UZH   X   X      X XXX XXXXXX       XX X   XXXXXXX XXXXX     X XX  XX      XX XXXXXXXX    XX XX     X XX  XXX X X   XXX    XXXXX
VAH   X    X    XX  XX X  XXX         XX   X   X X  X          X     X         X XX X                  XX X       X XX       X
----------------------------------------------------------------------------------------------------------------------------------
VAI   X       X  X  XXXX XX  X        X      X   XX XXX XX   XXXX  XX  XX  X   X   XXX  X XXXX        XX  XX        XXX       X
VAO          XX  X       XX   X     XXX XXXX XXXX     XX       XXX  XX  XXXXXXXXX XX XX  X  XX  X X X X XX XX  X  X XX       X
VAY                   XXXXX  XXXXX XXXXX XXX XXXXXXXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXXXX XXXXXXX XX    XXXXXXXXXXXXXXX XXXXXXXXXXXX
VBEM                             X    X      X  X  X XXXX            X                                XXX X
VBY   X X  XX  XXXXX XXXXXXXX XXXXXXXXXX   XXXXXXXXXXXXX XXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXX     XXXXXXXXXXX X     XXXXXXXXXXX X
VDL                XXX            X  X       X   XX   X        XX  XX X X  XX  X  XXXX  X XXX       X XX  XX  X   X X XX X   X X
VGB   XXXX X     X  X  X  XXX      X  X     X      XXXX X      X     X   X XXX X XX  X     XX    X X XXXXXXXX XXXX XXX  X  XXX
VILF       XX      XX         X     X        X     X           X X           X              X   X     X              X X
VIP                                                                                X  X  X      X                 X X   XX  X  XX
VIPM                             X    XX     X  X  X XXX             X                                XXX
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
-----------------------------------------------------------------------------------------------------------------------------
VITF               X      XX XX                 X     X  XX  XXXXX          XX  XX           X     X    X X       XXXX        X XX   X              XXX X    X
VKA    XX      X    X   X XXXXXX     X     X  X     X     X  XXX X    X    XXX  XX X    X     X  X X       X X     X  X X    X              XXX      X
VLA    X   X      XX   X     XXX XX    XX X        XX   XX  X   XX X   X X           X   XX XXX X      X X        X X   XX            XX
VLI       X          X XXXX       XX  X    XX XX X    XXX   X    XX    X X         XX      XXXX X   X X        X X X  XXXXXXXX XXXXXXXXXXXXXX
VLL                                                       X        X                                               X               XX   X    X          X
VLO    X               X X         X       XX     X     XXX    X X            XX  X  XXX        X       XXXXX     XX XX    XXX              XXXXX
VLS       X          X XXXX X    XX   X    XX X  X                              X                     X X  X        X X X  XXXXXXXX XXXXXXXXXXXXXX
VLZ    XXX    X X XX   XX X X X X X     XX   XXX       X XX X XX X X XXX     X    XXX      XXX XX     X    XXX     X        XX XXX X    X XXX XX X X
VOY            X    XX X XXX  XXX      XX  X XXX     XX   XXXXXXXXXX   XXXXXX XXXXXXX XXX XXXXXXXX   X XXXX           XXX XXXXX  X      XXXXXXXXXXX
VRAC    XX XX    XX    XXX   XXXXX  X     XX XXX   XXX XX XXXXXXX     X XXXXXXXXXXX   XXX XXXXXXXX        XXXXX X X X XX   XXX X XXX XXXX    XXX
-----------------------------------------------------------------------------------------------------------------------------
VRI    X               X   XXXXXXX X   X XXXXXX   XXXXXXXXXX XXX X X X XX XXXXXX XXXX XXXXXXXXX        XXXXX X XXXXXXX XXX X XX      XXXXXXXXX XX
VTS           X                          X     XXX     X     X X XXX             XXX   X XX X X    XXXXX                 XXXXXX                XXXXXXXXX   X
VTY    X   X              X  X X   XX X          X       X       XX   X      XX        X   X   XXXX    X  X        X  X X XX X          XXX       XXX
VUN              X   XXXXXXXXXXX     XX  X     X         X XXX       X    X         X  X X  X                                   X  X    XXX XX   X     X X
VVI                X           X                X     X  XX  X          X   XX    X   X                               X      X         X
WAH2                                   X     X          X X XXXX             X             X    X   X       X              XX              X    XX    X    X
WAHZ   XX      X X   X X    XX      XXXXX XXXX   X XX   X       X         XXXXX XXXXX       X   XX   X      X   XXXX X   XX       XX XX X X XXXX          XXXXX
WARB   XXXXXX X XXXXXXXXXXXXXXXX                                          XX XX XXXX XXXX XXXXXXXXXXXXXXXXXXXXXXX X XXXXXXXXX XXXX XXX XX XX XX
WATA   X   X        X X    XX X          X  X X     X    XX X    X         X XXX   X   XX   X    X    X X      XXXXX    X XXXXX     X        XX   XXX X XXX X
WB2    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-----------------------------------------------------------------------------------------------------------------------------
WDC    X  XX      XX XXX XX XXX   X      X XX     X      X   XXXXX          X X XXX     XX X      XX X   XXXXX         X    XX     X           XX XX
WEL                    X      X           X  X X     X                        X X  XX  X X  XX           X  X     X    X            X              XX X           X
WET     X              X   XXXXX    X    X   X      X      X      XX       X XXX  X  X    X  XXX   XX                                         X  XXX X    X
WHH    X                          XX              XX                          XX XX      X               X                 XX      XX  X      X X      X XX
WHN    X    XX     XX  X   XXXXXX XX    XXXXX     XX XXXXXX    X X     X X   XXXX     X XXXXX XXXXX       XXXX          X XX   X X X   X X XXX     XXX X
WIN    X  XXX XXXX XXX   XXXXXX      X      XX X XXXXX X       X          X    XXX      XXXXXX  XX XX XXX XX       XX XX    XX X        X
WIT    X                X  X  XXX  X                X    X  X XXXX     X                  X        X X         XXX          X      XX      X      X       XX  X
WKYJ   X    X      XXX X  X XXXX   X   X XXXX               X   XXXX     X   X   X        X XXX XXXXX      XXXXX        X XXX X       XXX  X          XX  X
WLF    XXX X    XXXX   XX XXXXXXXXX     X XXXXXXXXXXXXXX XXXXXX      X XX   XXXXXXX XX XXXXXXXX XX XXXXX     X XXXXXXXXX X  X     XXXXX XXX XX
WLS                         XX XX                X      X  XX   XXXXX        XX   XX         X    X    X X       XXXX       X XX                X X X    X
-----------------------------------------------------------------------------------------------------------------------------
WLVO                        X    X                                        X          X         X      X          XX    XX X                                      X
WLZ    XX      X      X X        XX   X X      X      XX  X  X    XX        XXXX XXXXX      X     X   X XX X              X        XX   XX X X    XX      XXXX
WME                     X                                X  X                                          X         X                  X       X   X        X         X
WMOK   X XXX  X     X X X X   XX   XX X XX XX      XXXX XX XX             X XXXXX    XXXXX X   XXXX      XXXXX     XX XXXX     X           XXXX   X   XXX X
WMQ    X X XX XX XX XXX XXXXXXXXXXX XXXXXXXX XXXXXXX XXXXX XXXXXXX  XXXXXXXX XXXXXXXXXXXX XXXXXXXXXX  X XXXXXXX X XXXXXXXXXX XXXXX
WPW                                                      XX X     X                                              X              XX  X                        X
WRA    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
WSI                                           XX                                XXXX        X          X XX        XX  XXXXXX X
WTS    XX        X    XXXX XXXXXXX XX  X X         XXX XX XXXXXX      X XX   X     XX X   XXX XXXXX   XXXXX      X X XX XXXX   X X     XXX X   XX  X
WTTA   XX  X       X X XXXX XX          X   X XXXXXX XXXX XXXXXX      X XXX XX XXXXXXX XX    XXXX    XXXXXXX     X XXXXX XXX       XX    XXXXX XXX X
-----------------------------------------------------------------------------------------------------------------------------
WTV                                    X       XX      XX    X  X XXXX                X X    X   XX   X  X          X               XX             X     XX   X    XX
XAN    X X XXXXXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXXXXXX XXXX XX XXXXXXXX XXXXXXXXXXXX XXXXXXXXXX   XXXXXXXXXXX XXXXXXXXXX XXXXXX
XLV                  X              X    X         X X                X XX X    X                  X           X X       X           X           X      X         X
YAH    XX      X    XX          X X    X X      X   X          X   X X  X X X              XX          XX XX               XX    X               X     X    X   X   X   X
YAK    X XXXXX X XX    XXXX XXXXXXXXX XXXXXXXXXXXXXXX XXXXXXX X XXX   XXXXXXXX XXXXX XXXXXXXXXXX XXX   XX XXX XXX X XX X XXX X XXXXX
YAMJ   X   XXX        X X   X   XXXXXX    X XX                   X   XX X X X X               XXXXX XXXXX   X  XXXX       X XX   X          X X   X       XX
YER                                                                          XXX XXXXXX XX   XX   XXX  X X  X XXX X  X XXX X             XXX   X
YJA    XX   X   XX   X     X                      XX   XX     X XXX                XX          X XX X     X    X    X     X     X X X    XX   X         X   XX
YKA    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
YLV    XX XXXXXXXXX X XXXX XX     X                         X   XX X      XX     X   XX XXX   XX      X X XX XX   XXX     XX XXXX X X X XXX    XXXXX XX X
-----------------------------------------------------------------------------------------------------------------------------
YONJ   X     X       XXX X   X XXXX   X   X XXXX                  X   XXXX     X  X             XXXX XXXXX      XXXXX          X XXXXX          XX     X            XX
YRC                          X                      X   X        X                                        X    X X                          X   X          X            X
YSS    X     XX   X   X XXX X   XXXXXX X X   XX X   XXXXXX  XX XX       X XX    X  X     XXXXXXX XXXXX     XXXXXX       X XXX XXX X   X X X X X    XX X
YUP         XXX         X           XX   XX          XX          X X    X      XX            X           X          X     XXXX     XX         XX X        X       X             X    XX
YYYY   X      XXX   X XX    X        XXX X XX   XX    X XX     XX       XXXXX           XXXX  X        XXXX XXXX           X  X XXXXXX X XXXX X X XX
ZAG                  X    XXX   XX       X     XX        X    X   XXX X   X   X XX   XXX XX   X X X   XXXX   X XX X        X X     X                X    X        X
ZAK    X     XX   X XX XXX XXXXXXXXXXX XXXXX X   XXXXXXX XXXXX XX   XXX   XXX X   X XXXXXXXXXXXX   XXXXXX         X XXXXXXX X   X X XXX X    XX XX
ZLA                      XXXX                  X  X        X X X  X              X  XX   X  XX  XX  XXXX        XXX X        XX    XXX               XXX X    X
ZNT       X                                         X  XX        X     X             X      X     X          X          X                X      X         X    X
ZOBO   XXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX X XXXXXXXXX       XXXX
-----------------------------------------------------------------------------------------------------------------------------
ZON         XXXX     X  X                     XXX    X           X             X       X XXXX   XXX      X          X      XX XXXXXXX X X X      X   X   XX
ZSP                          X                            X                     X    X                    X                       X X                                   X
ZST    XXXXXXXX XXXXXXXXXXXXXXX X XXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX XXXXXXXXXXXXX   XXXXXXX XXX XXXXX XXX    XX XXXXXXXX XXXXX
```

The following stations each reported less than 10 readings:

AAA	AAK	ABL	ACTN	ADH	AFAR	AFIF	AHU	ALB	ALE	ANM	ANMO	ANTI	ANTO	APA	ARC	ARTJ	ARVI
ATA	ATZ	BAC	BBJ	BBTN	BDG	BGG	BGIO	BGM	BGY	BIB	BIR	BLH	BLN	BLO	BMR	BNM	BOH
BORS	BOT	BPBC	BPIL	BPO	BRN	BRNI	BRVW	BTB	BUTX	BVD	BVW	BWD	CALA	CAYA	CBB	CBSW	CCMO
CCW	CHIE	CHJ	CLLP	CLN7	CLNB	CLZ	CME	CMW	CNV	COL	COR	COTA	COZ	CPS	CPW	CPZ	CRF
CRNM	CRNY	CRPM	CRU	CRUV	CSB	CTP	CUSS	CUT	CVAL	CVT	CWF	CYK	CZM	DAF	DHLJ	DHW2	DOMF
DPMT	DRTN	DRZ	DWM	DWY	EBI	ECB	ECK	EDB	EDR	EKR	ELYF	EMM	ENH	EPH	ERC	ERM	ET3
ETB	ETW	EZAM	FBD	FCV	FG2	FG3	FG4	FL2	FOC	FRB	FUO	GBL	GBR	GCD	GCG	GDR	GGC
GHOM	GHV	GHW	GIBL	GIM	GIO	GLH	GMO	GMTN	GRB3	GRB5	GRC1	GRFO	GSM	GT2	GUAC	GULW	GWJ
HATI	HAY	HDW	HITJ	HKL	HLD	HMDT	HNB	HNME	HOJ	HOLB	HPK	HPO	HQL	HSHJ	HSO	HSR	HTW
HYT	IAS	IDE	IIC	IIJ	JEGM	JFWS	JLP	JRSJ	JSA	JVM	KAC	KFNJ	KKH	KNR	KOD	KOE	KOSW
KPL	KRO	KRV	KSB	KSHT	KSI	KSU	KTD	KUG	KWE	LBL	LDMO	LFU	LGAR	LHE	LIS	LISJ	LMI
LMW	LNO	LOCW	LPM	LRDO	LSPF	LTMT	LWH	MADF	MAJO	MAMI	MBC	MBW	MDN	MDRJ	MDW	MEW	MFTN
MHA	MIM	MJ2	MKRJ	MKS	MLS	MMCZ	MMPM	MMR	MNZ	MPOR	MRSJ	MSI	MTS	MTUR	MVIF	MVL	MZDA
NA12	NA2	NA5	NAB	NAC	NAH	NAQJ	NCOR	NDE	NED	NHIL	NLO	NLW	NMMO	NVS	OBC	OD2	OFK
OGTN	OHW	OJEN	OKH	ONR	OOW	OPA	OSD	OSP	OSR	OT2	OTR	OUK	OUT	OZB	PAND	PAS	PATW

PBV	PCG	PCID	PCJ	PCO	PDA	PERF	PFB	PFO	PGO	PGW	PHC	PICO	PIG	PMSA	PNJ	PRP	PRW
PTP	PTS	PTT	PUE	PWL	PYT	QTRJ	RAC	RAR	RCS	RDG	REMR	REMW	RIFB	RLO	RPW	RRO	RSA
RSW	RTC	RUWJ	SAP	SBC	SBM	SDOM	SFS	SGH	SGS	SHB	SHO	SIO	SJAS	SLW	SMW	SNB	SNZO
SOSW	SPD	SPJ	SPW	SRBF	SRFA	SSN	STB	STCO	STD	STID	SVB	SVV	SXM	TAC	TAHZ	TAN	TCO
TGRV	TLE	TLY	TME	TMU	TMW	TOD	TPR	TRGS	TSY	TUL	TVI	TWW	TYS	UDU	UTMA	VAL	VDB
VDCF	VFP	VGZ	VLMM	VTHM	WAJH	WAR	WCC	WDIN	WFB	WGAR	WHB	WIM	WIW	WPB	WRD	WRH	WVZ
WWKK	XAL	XDE	XSO	YAKW	YANA	YBT	YEL	YKU	YLL	YPE	YRH	YTIR					