UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

DECEMBER 1993

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER[1]

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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.

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   DEC 01, 1993  00h 59m 01.28± 0.12s
   57.475 S ± 3.8km   25.685 W ± 5.2km
   DEPTH =  33.0km  (normal)
   5.5mb ( 16 obs.)  5.3Msz ( 17 obs.)
 SOUTH SANDWICH ISLANDS REGION   (153)
      Mw 5.7 (HRV).
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 41S, 79C
      Centroid Location:
      Origin Time        00:59:10.0 0.2
      Lat 57.43S 0.02 Lon  25.23W 0.03
      Dep  45.2 1.4 Half-duration  1.6
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 3.07 0.06  Mtt=-0.50 0.10
        Mff=-2.57 0.07  Mrt=-0.02 0.09
        Mrf= 1.68 0.12  Mtf= 1.25 0.07
       Principal Axes:
        T  Val=  3.55  Plg=73  Azm=286
        N       -0.03     10       160
        P       -3.52     13        68
      Best Double Couple:Mo=3.5*10**17
       NP1:Strike=144 Dip=33 Slip=  71
       NP2:        346     59      102
NVL     20.62 145 iPc   03 40.00   0.2
        2.0s   224.00nm          5.2mb
                   ePP  04 09.00
                   iS   07 30.00
                   ePcP 07 46.00
                   eSS  08 10.00
BLE     37.95  71 e(P)  06 33.00  15.9X
        0.9s    23.53nm
MAW     38.51 142 P     06 23.00   1.5
PEL     38.88 289 iP    06 23.60  -1.5
PPD     40.02 321 iPc   06 35.20   0.6
RTRS    40.66 293 eP    06 39.50  -0.2
RIFB    40.66 328 iPc   06 41.20   1.3
POF     42.23  68 eP    06 56.00   3.4X
        0.5s    7.04nm           4.6mb
FRS     44.68  74 iPc   07 14.50   2.0
        0.8s    7.46nm           4.6mb
SBA     44.71 184 iPc   07 14.70   2.5
BAO     45.01 329 iPd   07 16.70   1.3
                   e    07 32.90
                   e    07 43.20
                   e    07 56.80
BLF     45.64  74 iPc   07 20.70   0.4
        0.8s    18.75nm          5.1mb
MOCB    46.41 304 P     07 25.40  -1.4
SIV     49.16 313 P     07 46.90  -0.9
SLR     49.46  74 iPd   07 49.70  -0.5
        0.9s    33.61nm          5.4mb
     Z  22s     13.33um          5.9Msz
SOB1    49.57 340 iPd   07 51.30   0.3
CCH     50.02 306 Pd    07 53.70  -1.1
CNCB    51.34 304 iPc   08 05.10   0.0
LPB     51.64 304 iPc   08 07.00  -0.2
        1.1s   227.85nm          6.0mb
                   LR   21 06.00
LPAZ    51.87 305 iPc   08 08.30  -0.9
CSY     52.27 159 iPc   07 58.00 -12.9X
        0.5s    39.60nm
PAF     53.11 126 eP    08 32.00  14.7X
                   eS   15 59.00
                   eSS  19 35.00
ARE     53.25 301 eP    08 18.00  -1.1
BUL     54.25  70 iPc   08 24.00  -2.2
                   i    08 35.90
DRV     55.71 173 iP    08 36.00  -0.1
                   S    16 24.00
MTD     58.58  71 iPc   08 41.30 -15.8X
NNA     59.66 298 iP    09 02.00  -2.6
        0.5s    14.79nm          5.4mb
LIC     65.67  23 P     09 44.31   0.0
        0.6s    25.00nm          5.5mb
     Z  20s     2.50um           5.4Msz
KIC     65.87  23 P     09 45.51   0.0
        0.9s    52.00nm          5.6mb
TIC     66.08  23 P     09 46.83  -0.1
        0.6s    37.50nm          5.6mb
LKO     68.79  21 Pc    10 04.09   0.1
        0.8s    59.00nm          5.7mb
KDS     70.67  14 iPc   10 15.20  -0.2
MBO     71.96   9 iP    10 25.10   2.0
TBH     73.68 324 eP    10 34.59   1.3
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TRN     73.94 323 eP      10 35.38    0.6
TCE     74.10 323 eP      10 36.84    1.1
TPR     74.24 324 eP      10 37.41    0.9
OLLA    75.20 318 eP      10 42.20    0.0
SDV     75.60 314 iPc     10 44.20   -0.4
CAR     75.70 318 iP      10 44.00   -1.0
TOV     76.10 315 ePc     10 46.90   -0.4
TUZ     76.15 191 P       10 47.50    0.4
SVB     76.35 324 eP      10 49.07    0.5
MORO    76.54 317 iPd     10 49.90    0.1
SLB     76.81 325 eP      10 52.23    1.1
CANV    76.89 316 iPd     10 52.00    0.4
ODZ     76.94 192 P       10 52.00    0.4
TLC     76.96 191 P       10 51.90    0.0
CMCZ    76.98 191 P       10 52.00    0.1
LSCZ    77.01 191 P       10 52.10    0.1
MSCZ    77.03 191 P       10 52.40    0.3
SBCZ    77.04 191 P       10 52.30    0.1
LRCZ    77.06 191 P       10 52.80    0.4
MHZ     77.07 191 P       10 53.00    0.6
MMCZ    77.14 191 P       10 52.80    0.0
MVM     77.45 325 iPc     10 55.37    0.7
CRM     77.64 325 iPc     10 56.22    0.5
FDF     77.70 325 ePc     10 57.01    1.0
MQZ     78.02 193 P       10 57.20   -0.3
EWZ     78.43 192 P       11 00.10    0.4
LTZ     78.98 193 P       11 02.20   -0.7
UPA     79.38 306 eP      11 04.96   -0.3
THZ     79.90 194 P       11 08.10    0.2
MRW     80.18 195 P       11 09.50    0.2
PGZ     80.54 197 P       11 10.90   -0.3
CPB     80.64 325 eP      11 12.36    0.5
MNG     80.67 196 P       11 12.20    0.3
QRZ     80.87 194 P       11 11.10   -1.9
URZ     82.71 198 P       11 23.10    0.6
MOZ     82.84 196 P       11 22.30   -0.9
HBZ     83.15 199 P       11 25.90    1.1
MUN     85.28 148 eP      11 35.50   -0.2
        1.0s    60.00nm            5.8mb
WCZ     85.42 196 P       11 35.10   -1.2
KLB     86.08 149 eP      11 39.50   -0.2
        1.0s    34.00nm            5.5mb
OUZ     86.24 196 P       11 40.40    0.0
BAL     86.71 148 eP      11 42.50   -0.3
ADE     86.98 167 eP      11 45.00    0.9
CAN     87.45 176 iPc     11 46.80    0.4
CNB     87.47 176 iPc     11 46.80    0.3
        0.6s    14.00nm            5.4mb
BWA     88.32 175 iPc     11 50.50   -0.1
TIO     89.42  16 iPc     11 58.20    2.6
                  i       12 20.00
STK     90.35 169 iPc     11 48.80  -11.3X
        1.8s     6.60nm
AVE     91.73  15 iP      12 05.00   -1.0
                  i       12 28.50
IFR     92.29  17 iP      12 22.00   13.2X
ARMA    92.42 178 eP      12 09.80    0.0
        0.8s     7.00nm            5.1mb
ASPA    97.37 161 iPc     12 31.70   -0.8
        0.8s    18.90nm            5.7mb
     Z  23s     1.20um             5.3MszX
                  e       16 27.80
                  eS      23 20.40
PAB     98.31  17 iP-     12 50.40   14.4X
                  eS      24 23.00
WRA    101.09 161 Pdiff   12 49.00   -0.1
CEH    103.28 318 Pdiff   13 10.00   11.6X
     Z  21s     0.81um             5.2Msz
MYNC   104.45 314 Pdiff   13 10.00    6.3X
     Z  19s     0.61um             5.2Msz
HRV    106.76 326 PKP     17 40.00   16.2X
     Z  20s     0.94um             5.3Msz
MCWV   106.90 319 PKP     17 40.00   15.8X
     Z  19s     0.92um             5.4Msz
BINY   107.86 323 PKP     17 40.00   14.0X
     Z  20s     0.92um             5.3Msz
UYO    107.95 306 iPKPc   17 19.90   -6.5X
LTX    108.17 296 ePKPc   17 25.15   -1.9
GBA    108.42  94 PKP     17 27.00   -0.7
LBNH   108.45 327 PKP     17 40.00   13.0X
     Z  21s     0.98um             5.3Msz
YSNY   108.95 321 PKP     17 40.00   11.9X
     Z  19s     0.91um             5.4Msz
CBM    109.85 331 PKP     17 40.00   10.5X
     Z  20s     1.52um             5.6Msz
TUL    110.01 306 iPKPd   17 32.00    1.8
MEO    110.31 303 iPKPc   17 30.00   -0.8
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WMOK   110.36 303 PKP    17 40.00   9.1X
     Z  19s      0.46um           5.1Msz
GEC2   110.85  27 PKP    17 30.80  -0.7
        0.8s     1.10nm
ACO    112.15 304 iPKPc  17 33.30  -1.0
HYB    112.16  92 ePKP   17 33.50  -1.3
TUC    114.11 292 iPKPc  17 39.16   0.8
     Z  21s      0.55um           5.1Msz
ALQ    114.12 297 PKP    17 50.00  11.6X
     Z  20s      0.84um           5.3Msz
QUE    116.26  75 ePKP   17 43.70   1.1
GLA    116.74 290 ePKPc  17 43.15  -0.1
MAIO   117.34  65 ePKP   17 44.00  -0.3
GOL    117.44 301 ePKPc  17 44.00  -0.6
PV08   118.08 298 ePKPc  17 45.54  -0.5
PV10   118.11 298 ePKPc  17 45.32  -0.6
JAQ    118.14 329 ePKP   17 44.00  -1.2
PV09   118.25 298 ePKP   17 45.63  -0.7
PEC    118.60 289 ePKPc  17 46.59  -0.1
SSK    119.12 289 ePKPc  17 47.58  -0.3
SRU    119.40 297 iPKPc  17 47.58  -0.7
GSC    119.52 290 ePKP   17 49.05   0.5
MSU    119.73 296 ePKPc  17 49.41   0.4
ARUT   119.78 294 ePKP   17 49.55   0.5
EMUT   120.09 298 iPKPc  17 48.99  -0.7
RSSD   120.35 305 iPKPc  17 48.97  -1.0
TPNV   120.53 292 ePKPc  17 50.88   0.4
ISA    120.65 289 iPKPc  17 51.16   0.5
DAU    120.77 298 ePKPc  17 51.03   0.0
DUG    121.35 296 iPKPc  17 52.03   0.1
     Z  20s      0.78um           5.4Msz
NB2    121.66  20 PKP    17 51.40  -0.3
        0.8s     7.10nm
APO    121.72  22 ePKP   17 49.30  -2.4X
        0.6s     2.50nm
ULM    121.85 315 ePKPc  17 53.50   1.2
UPP    121.88  24 iPKP   17 50.90  -1.1
MTUM   122.01 290 ePKP   17 53.73   0.4
BONR   122.34 291 ePKP   17 55.08   1.0
MEMM   122.44 290 ePKP   17 55.49   1.7
MMPM   122.44 290 ePKP   17 54.92   0.6
HVU    122.55 298 ePKPc  17 54.10   0.0
OBN    122.97  37 iPKP   17 53.80  -0.5
        0.8s    35.00nm
                  e      18 03.00
                  e      18 08.00
SAO    123.03 288 PKP    18 00.00   5.0X
     Z  18s      0.42um           5.1Msz
SAO    123.03 288 ePKPc  17 55.73   0.7
KVN    123.07 292 ePKP   17 55.86   0.6
CMB    123.45 289 ePKPc  17 56.30   0.4
        0.9s    30.00nm
ARN    123.52 288 ePKPc  17 56.92   0.9
COE    123.52 288 ePKP   17 57.38   1.4
MHC    123.57 288 ePKPc  17 57.34   1.1
        0.9s    80.00nm
STAN   123.89 288 ePKPc  17 57.64   1.0
DMN    123.92  91 PKP    17 56.60  -0.8
        1.0s    64.00nm
GKN    123.98  90 PKP    17 56.30  -1.1
PKI    124.06  91 PKP    17 56.50  -1.3
CHTO   124.09 110 ePKP   17 57.00  -0.6
KKN    124.16  91 PKP    17 56.80  -1.0
        1.0s    51.00nm
HMR    124.27 288 ePKP   17 59.01   1.6
BKS    124.28 288 ePKPc  17 58.24   0.8
        0.9s   170.00nm
GUN    124.58  92 PKP    17 57.80  -1.0
        1.0s    60.00nm
NTYM   124.89 288 ePKP   17 59.53   1.0
ORV    125.17 290 ePKPc  17 59.24   0.1
        1.1s    20.00nm
FRB    125.28 338 ePKPc  17 57.80  -0.7
        0.9s    24.00nm
LRM    125.47 301 iPKPc  18 00.30   0.5
MIN    125.82 290 ePKPc  18 00.10  -0.5
LMEM   125.95 291 ePKP   18 01.32   0.4
WDC    126.47 290 ePKP   18 01.08  -0.5
LGPM   126.86 290 ePKPc  18 02.98   0.5
YBH    127.41 291 ePKPc  18 03.06  -0.4
        0.9s    20.00nm
ARC    127.47 289 ePKPc  18 01.66  -1.8
VIPM   128.40 295 PKP    18 05.94   0.5
JBO    128.71 296 PKP    18 06.10   0.3
CROR   128.92 295 PKP    18 06.74   0.5
VGB    129.20 295 ePKP   18 05.78   0.1
NEW    129.43 300 ePKP   18 05.88  -1.2
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01d 01h

WAH2 129.51 297 PKP 18 07.71 0.5
RNO 129.52 292 PKP 18 08.31 0.9
DPW 129.66 299 ePKPc 18 06.78 -0.7
HON 130.04 244 PKP 18 20.00 11.1X
Z 19s 0.48um 5.2Msz
ASR 130.06 295 PKP 18 08.62 0.2
EBG 130.10 297 PKP 18 08.76 0.4
SAW 130.10 298 PKP 18 08.07 -0.3
WTV 130.36 298 PKP 18 08.44 -0.4
SDF 130.39 24 iPKP 18 13.10 4.9X
LON 130.59 296 ePKPc 18 09.02 -0.3
KMOR 130.62 294 PKP 18 09.96 0.5
RMW 131.09 296 ePKP 18 09.82 -0.5
BMW 131.09 295 ePKPc 18 10.63 0.3
KMI 131.27 109 PKPd 18 11.00 -0.5
2.0s 80.00nm
pP 18 22.00
GMW 131.62 296 ePKPc 18 [illegible] 43 0.2
JCW 131.66 297 PKP 18 [illegible].12 -0.2
ARU 132.03 48 ePKPc 18 11.20 -0.4
1.7s 100.00nm
e 18 20.00
e 20 33.50
MCW 132.43 297 ePKP 18 12.99 0.3
SVE 133.14 49 ePKPc 18 13.50 -0.2
1.9s 60.00nm
DAG 134.06 2 iPKPc 18 14.60 -0.4
0.6s 8.00nm
YKA 137.78 316 ePKP 18 06.80 -15.6X
0.6s 3.30nm
RES 139.49 338 ePKP 18 16.00 -9.2X
1.0s 20.00nm
LZH 140.53 101 ePKP 18 20.00 -8.4X
Z 23s 0.97um 5.5MszX
E 20s 1.27um
pPKP 18 27.00
ePP 21 25.00
SSE 145.14 125 PKPd 18 35.50 -0.8
1.0s 136.00nm
N 20s 1.40um
MBC 145.62 335 ePKPc 18 37.00 1.2
0.9s 85.00nm
INK 147.43 319 ePKP 18 36.50 -2.4X
0.9s 5.00nm
BALM 148.55 304 ePKP 18 38.67 -2.4X
iPKPbc18 44.40
KAGJ 149.14 138 PKP 18 46.90 4.1X
ZAK 149.76 81 ePKP 18 41.50 -1.6
1.1s 162.00nm
i 18 47.80
BJI 149.93 109 ePKP 18 42.00 -1.7
Z 24s 0.64um 5.3MszX
ePP 22 28.00
eSS 41 18.00
KLU 150.33 303 ePKP 18 41.09 -2.7X
KUMJ 150.34 137 PKP 18 49.30 4.8X
TOA 150.64 304 ePKP 18 50.80 6.6X
PMR 151.82 302 ePKPc 18 52.80 7.0X
PMS 151.91 302 ePKP 18 53.30 7.2X
SLKM 151.98 300 (PKP) 18 47.59 1.4
FBA 152.08 310 ePKPc 18 41.98 -4.2X
iPKPbc18 52.32
ePKPab19 02.22
KDC 152.11 293 ePKP 18 43.73 -2.6X
iPKPbc18 53.18
PWA 152.18 302 ePKP 18 53.60 7.3X
TKSJ 152.79 141 PKP 18 55.80 7.7X
CRP 153.11 301 (PKP) 18 45.95 -2.0
iPKPbc18 54.77
CP2 153.15 301 ePKP 18 45.18 -2.9X
iPKPbc18 55.30
WKYJ 153.51 143 PKP 18 57.80 8.6X
YONJ 153.67 139 PKP 18 57.20 7.9X
IMA 154.68 311 ePKP 18 46.71 -3.2X
iPKPbc18 58.94
SVW 154.69 299 ePKP 18 45.26 -4.6X
i 18 57.81
SDN 155.26 284 (PKP) 18 49.98 -0.7
Z 21s 3.31um 6.1Msz
i 18 58.94
TTA 155.26 304 ePKP 18 47.29 -3.4X
i 19 00.51
BRW 155.64 324 ePKP 19 00.60 9.8X
CIT 156.15 86 ePKP 18 52.50 0.3
BOD 158.74 72 ePKP 18 52.10 -2.9X
1.1s 18.00nm
SMY 167.73 256 PKP 19 10.00 6.4X

Z 20s 2.60um
S.D. = 0.9 on 173 of 220 obs.

DEC 01, 1993 01h 51m 06.59± 0.32s
2.544 S ± 5.8km 139.828 E ± 6.6km
DEPTH = 33.0km (normal)
5.2mb (15 obs.) 4.8Msz (3 obs.)
NEAR NORTH COAST OF IRIAN JAYA (197)

WWKK 3.94 106 eP 52 06.00 -0.3
MNDI 5.24 133 e(P) 52 31.00 6.1X
MDG 6.52 115 eP 52 43.50 0.8
PMG 9.98 133 eP 53 30.00 -0.8
MTN 13.37 220 eP 54 15.60 -1.1
0.3s 134.00nm 6.4mb X
eS 56 42.00
DAV 17.14 304 eP 54 46.00 -19.4X
QIS 17.91 181 eP 55 13.60 -1.3
WB2 18.10 197 eP 55 15.40 -1.9
0.4s 73.80nm 5.2mb
i 55 20.10
iS 58 33.40
CTA 18.53 161 iPd 55 26.00 3.4X
Z 18s 11.34um
i 55 35.00
i(S) 58 22.00
ASPA 21.77 195 iPd 55 58.40 0.9
0.6s 48.40nm 5.1mb
Z 19s 1.70um 4.5Msz
eS 00 02.60
TSM 22.97 287 eP 56 12.00 2.6
KKM 25.08 290 eP 56 32.00 2.1
BAG 26.76 315 eP 56 48.10 2.4
BRS 27.64 155 iPd 56 53.50 0.1
1.3s 9.00nm 4.3mb
Z 18s 9.00um 5.4Msz
i 57 01.00
STK 29.23 177 eP 56 56.90 -10.7X
1.0s 4.50nm
eS 00 39.10
ARMA 29.89 159 eP 57 14.40 0.6
0.6s 7.00nm 4.6mb
NANU 30.85 228 eP 57 22.50 0.3
0.3s 5.00nm 4.8mb
BWA 32.71 167 eP 57 40.60 2.2
COOL 33.26 210 eP 57 42.50 -0.7
CAN 33.71 166 eP 57 46.90 -0.1
CNB 33.79 166 eP 57 51.00 3.2X
0.8s 20.00nm 5.1mb
MRWA 34.89 218 eP 57 57.00 -0.2
0.8s 95.00nm 5.8mb
BAL 35.46 216 eP 58 02.20 0.1
KLB 35.60 213 eP 58 04.00 0.7
MUN 36.76 215 eP 58 13.60 0.6
NST 43.23 296 iPc 59 06.50 -0.2
CHTO 45.47 300 iPc 59 44.00 19.2X
1.6s 43.96nm
BJI 47.60 335 eP 59 40.00 -1.3
2.0s 38.00nm 5.1mb
LZH 51.03 322 Pc 00 06.50 -1.4
2.0s 66.00nm 5.3mb
Z 20s 0.75um 4.7Msz
pP 00 14.00 25kmX
GUN 60.01 304 P 01 12.70 -0.5
0.7s 30.00nm 5.5mb
PKI 60.28 304 P 01 14.10 -0.9
0.6s 13.00nm 5.2mb
KKN 60.47 304 P 01 15.40 -0.7
0.7s 25.00nm 5.5mb
DMN 60.55 304 P 01 16.10 -0.6
0.7s 50.00nm 5.8mb
GKN 61.07 304 P 01 19.40 -0.8
GBA 63.91 286 P 01 38.00 -1.0
YAK 64.85 355 eP 01 44.40 0.1
1.7s 57.00nm 5.4mb
Z 24s 0.70um 4.8MszX
N 24s 0.80um
E 21s 0.70um
QUE 76.55 302 eP 02 56.70 0.7
CRP 81.83 27 eP 03 24.76 1.0
IMA 82.98 22 eP 03 30.10 0.4
1.0s 9.00nm 4.8mb
PMR 83.31 27 eP 03 30.10 -1.1
MAIO 83.71 307 iPc 03 34.60 0.6
BRW 84.12 17 eP 03 34.80 -0.4
BALM 86.33 28 eP 03 45.24 -1.3
MBC 95.03 14 eP 04 26.00 -0.8

ARE 143.75 122 ePKP 10 39.00 -2.4X
KIC 144.48 277 PKP 10 40.36 -2.0X
0.6s 19.00nm
TIC 144.73 278 PKP 10 41.12 -1.7
0.7s 24.00nm
LIC 144.78 277 PKP 10 41.26 -1.6
0.8s 2.50nm
LKO 144.94 283 PKPc 10 41.48 -1.7
0.4s 10.50nm
MOCB 145.64 135 PKP 10 45.50 0.8
CNCB 146.48 126 PKP 10 48.20 1.9
LPB 146.53 125 PKP 10 48.00 1.8
LPAZ 146.63 125 PKP 10 48.40 1.7
CCH 147.63 129 PKP 10 52.40 4.6X
KDS 150.58 291 iPKPd 10 56.90 4.9X
SIV 152.32 132 PKP 11 00.80 6.2X
PPD 153.26 157 ePKP 11 02.40 6.6X
S.D. = 1.2 on 45 of 57 obs.

& DEC 01, 1993 02h 31m 12.32s
49.056 N 122.208 W
DEPTH = 0.0km
BRITISH COLUMBIA, CANADA (23)
<PGC-P>. ML 2.1 (PGC). Felt
(III) at Abbotsford, Chilliwack,
Matsqui and Mission.

VDB 0.08 113 iP 31 14.00 0.2
eS 31 15.20
HNB 0.33 312 eP 31 18.40 -0.5
S 31 23.25
SNB 0.69 246 eP 31 25.27 -0.9
BIB 0.80 296 eP 31 26.70 -1.6
WPB 0.89 313 eP 31 28.18 -1.9
eS 31 40.05
PGC 0.92 244 eP 31 28.42 -2.2
VGZ 0.98 229 eP 31 29.35 -2.4
NAB 1.19 279 eP 31 33.40 -2.0
eS 31 48.80
SHB 1.22 297 eP 31 33.90 -2.1
eS 31 49.88
PFB 1.55 253 eP 31 38.90 -2.4
eS 31 58.79
MGB 1.64 269 eP 31 40.23 -2.4
eS 32 01.70
11 obs. associated

? DEC 01, 1993 02h 55m 37.76± 3.76s
18.335 N ±14.6km 101.757 W ±32.5km
DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

MRX 1.46 21 iP 56 01.66 -0.4
iS 56 19.12
III 2.17 89 iP 56 12.63 0.1
iS 56 34.00
CRX 2.24 61 (P) 56 15.00 1.5
(S) 56 43.00
ACX 2.32 129 iP 56 15.19 0.7
iS 56 41.00
UNM 2.63 67 (P) 56 23.66 4.6X
iS 56 49.50
IIA 3.05 74 (P) 56 25.40 0.7
PPM 3.05 76 iP 56 24.00 -1.4
(S) 56 58.00
IISM 4.20 80 (P) 56 45.74 4.6X
OXX 4.96 104 iP 56 51.00 -1.1
(S) 57 35.00
S.D. = 1.3 on 7 of 9 obs.

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* DEC 01, 1993 03h 10m 44.77± 1.45s
51.578 N ±13.3km 16.176 E ± 8.0km
DEPTH = 5.0km (geophysicist)
POLAND (548)
ML 3.2 (VIE), 2.8 (CLL).

KSP 0.74 174 iP 11 00.00 0.5
0.5s 61.00nm
iS 11 09.80
BRG 1.57 244 iPg 11 14.10 0.8
iSg 11 34.10
PRU 1.90 214 Pn 11 17.70 -0.4
0.4s 52.90nm
Pg 11 19.30
i 11 21.40
Sn 11 36.70
Sg 11 42.60

CLL 2.00 264 ePn 11 19.00 -0.6
iSn 11 41.90
iSg 11 47.90
OJC 2.67 119 eP 11 29.10 0.0
iPg 11 38.30
iS 12 01.50
iSg 12 13.30
KHC 2.96 215 Pn 11 32.50 -0.8
ePg 11 40.00
e 11 47.50
eSn 12 07.00
eSg 12 19.00
MOX 3.02 254 ePn 11 35.00 0.8
iPg 11 42.10
iSg 12 20.00
VKA 3.32 178 ePg 11 48.00 9.6X
eSg 12 31.00
ZST 3.44 170 eP 12 35.90 55.8X
SPC 3.54 131 eP 11 56.80 15.2X
GRF 3.68 241 ePg 11 43.30 -0.2
eSg 12 36.90
S.D. = 0.7 on 8 of 11 obs.

? DEC 01, 1993 03h 34m 35.67± 3.83s
14.252 N ±38.7km 92.923 W ±11.0km
DEPTH = 53.4 ± 12.8 km
4.3mb (5 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

TPX 0.91 45 iP 34 52.00 -0.5
iS 35 08.00
SCX 2.49 6 iP 35 16.50 2.1
iS 35 49.00
OXX 4.62 308 iP 35 45.50 0.7
(S) 36 46.00
IISM 6.36 318 (P) 36 14.00 5.0X
LVVM 6.41 329 (P) 36 05.00 -4.8X
(S) 37 23.00
PPM 7.27 312 iP 36 22.00 -0.3
iS 37 46.00
UNM 7.84 311 (P) 36 28.00 -2.0
CRX 8.25 309 (P) 36 36.50 0.8
MRX 9.59 306 iP 36 53.00 -0.8
UYO 19.88 356 iPc 39 03.50 -1.8
MIAR 20.21 358 eP 39 07.71 -1.1
1.1s 25.98nm 4.5mb
MEO 21.07 347 iPc 39 17.70 0.1
OCO 21.57 350 iPd 39 20.80 -1.9
TUL 21.72 354 iPd 39 17.70 -6.4X
ACO 23.04 347 iPd 39 38.10 1.0
TUC 24.27 321 (P) 39 50.23 1.1
1.1s 7.82nm 4.1mb
PV08 27.94 333 eP 40 24.68 1.3
PV10 27.95 332 (P) 40 23.52 0.1
ARUT 29.69 326 (P) 40 40.12 1.2
LRM 35.52 336 eP 41 30.20 0.5
YKA 50.58 347 eP 43 29.60 -1.1
1.1s 5.70nm 4.5mb
INK 59.95 344 eP 44 38.00 -0.4
1.0s 2.00nm 4.2mb
MBC 63.56 353 eP 45 03.50 1.0
1.0s 2.00nm 4.1mb
S.D. = 1.3 on 20 of 23 obs.
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* DEC 01, 1993 03h 54m 42.21± 1.50s
4.276 S ±12.9km 127.594 E ±17.6km
DEPTH = 254.2 ± 17.8 km
4.8mb (9 obs.)
BANDA SEA (280)

MTN 9.20 158 eP 56 50.50 -1.2
0.5s 320.00nm 5.6mb
eS 58 32.20
TSM 12.91 311 ePd 57 38.00 -0.2
KKM 15.30 312 ePd 58 09.00 1.6
0.9s 70.50nm 5.1mb
WB2 16.91 158 iPc 58 23.60 -1.8
0.4s 55.00nm 5.3mb
eS 01 19.70
QIS 19.96 145 iPc 58 57.20 0.4
ASPA 20.22 163 eP 59 00.50 1.2
0.4s 13.20nm 4.8mb
eS 02 31.70
NANU 21.61 212 eP 59 13.80 1.0
MEEK 23.84 200 eP 59 34.00 -0.2
CTA 24.03 132 iPc 59 37.50 1.5
1.0s 15.00nm 4.5mb

CHTO 36.37 310 iPd 01 24.30 0.2
0.9s 14.92nm 4.5mb
GUN 51.37 311 P 03 23.60 -0.2
0.6s 32.00nm 4.9mb
PKI 51.55 310 P 03 24.30 -0.8
KKN 51.76 311 P 03 26.00 -0.5
0.6s 14.00nm 4.6mb
DMN 51.80 310 P 03 26.40 -0.5
GKN 52.35 310 P 03 30.30 -0.5
0.4s 18.00nm 4.9mb
S.D. = 1.1 on 15 of 15 obs.
----
* DEC 01, 1993 06h 10m 11.79± 1.06s
37.759 N ± 9.2km 22.165 E ±10.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.4 (ATH).

VLI 1.21 149 iPnd 10 34.00 -0.3
ATH 1.25 80 ePn 10 35.00 0.1
AGG 1.27 6 iP 10 33.20 -2.1
iS 10 51.00
VLS 1.31 289 ePn 10 36.30 0.2
LIT 2.35 6 eP 11 29.00 37.9X
KZN 2.56 353 iPnc 10 54.60 0.5
GRG 3.20 3 eP 11 04.92 1.8
KNT 3.45 9 eP 11 07.64 1.1
OHR 3.51 343 ePn 11 06.20 -1.3
SRS 3.53 18 eP 11 10.44 2.7X
S.D. = 1.5 on 8 of 10 obs.
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* DEC 01, 1993 06h 10m 53.65± 0.94s
10.568 N ±15.2km 62.559 W ± 7.6km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)
MD 3.2 (TRN).

TCE 0.80 81 iPc 11 09.18 0.7
eS 11 19.68
TPP 1.12 103 eP 11 14.06 1.0
TRN 1.14 86 iPc 11 13.46 0.1
eS 11 26.88
TBH 1.47 93 eP 11 17.79 -0.3
eS 11 36.38
GRW 1.81 29 eP 11 24.03 0.9
eS 11 40.45
TPR 1.86 71 eP 11 22.64 -1.1
eS 11 44.43
BOT 1.90 72 eP 11 23.18 -1.2
eS 11 45.91
OLLA 4.21 263 iP 11 57.10 -0.2
iS 12 44.50
S.D. = 1.0 on 8 of 8 obs.

& DEC 01, 1993 06h 39m 09.82s
63.079 N 151.368 W
DEPTH = 1.2km
CENTRAL ALASKA (1)
<AEIC>. ML 2.6 (AEIC), 3.1
(PMR).

KTH 0.52 23 eP 39 18.99 -1.1
TRF 0.62 52 eP 39 21.47 -0.6
eS 39 30.03
HUR 0.80 97 eP 39 25.44 -0.3
eS 39 37.04
CUT 0.85 143 eP 39 24.83 -1.8
eS 39 38.62
SKT 1.11 184 eP 39 30.72 -0.7
eS 39 45.98
RND 1.18 73 eP 39 31.90 -0.9
eS 39 48.25
MCK 1.28 58 eP 39 33.65 -0.7
eS 39 53.02
BWN 1.39 37 eP 39 36.12 -0.1
eS 39 55.09
SUA 1.65 170 eP 39 39.77 -0.3
NCG 1.72 193 eP 39 39.91 -1.3
eS 40 04.67
GHO 1.74 138 eP 39 41.23 -0.1
eS 40 04.50
CGLM 1.80 190 eP 39 41.22 -1.1
NEA 1.81 33 eP 39 42.07 -0.3
eS 40 06.59
PLRM 1.82 144 eP 39 42.27 -0.2
PMR 1.82 144 eP 39 40.16 -2.3
CRP 1.86 192 eP 39 41.58 -1.6

eS 40 06.18
CP2 1.87 193 eP 39 42.11 -1.3
BGL 1.88 195 eP 39 42.83 -0.7
CKN 1.90 192 eP 39 43.41 -0.3
SML 1.90 131 eP 39 42.83 -0.9
CKT 1.93 192 eP 39 43.27 -0.8
SPU 1.93 190 eP 39 42.86 -1.3
CKL 1.94 194 eP 39 44.01 -0.4
MLY 1.98 8 eP 39 45.61 0.8
WRH 2.02 45 eP 39 45.88 0.5
eS 40 13.44
PMS 2.03 154 P 39 46.70 1.2
BKG 2.06 192 eP 39 45.14 -0.9
TTA 2.12 268 eP 39 46.90 -0.1
KNK 2.16 140 eP 39 47.99 0.6
CCB 2.23 43 eP 39 49.13 0.7
SCM 2.26 122 eP 39 48.72 -0.2
MDM 2.34 35 eP 39 50.25 0.2
HDA 2.37 54 eP 39 50.22 -0.3
FBA 2.41 39 eP 39 52.53 1.5
CFI 2.55 137 eP 39 53.67 0.8
DFR 2.57 195 eP 39 54.44 1.0
GLM 2.60 41 eP 39 53.43 -0.2
TOA 2.59 110 eP 39 54.50 0.8
NCT 2.63 197 eP 39 53.45 -0.8
SLKM 2.64 168 eP 39 54.66 0.4
REF 2.68 194 eP 39 55.82 0.9
PAX 2.69 90 eP 39 56.53 1.4
RDW 2.69 195 eP 39 56.42 1.2
RS2 2.71 195 eP 39 56.71 1.3
RED 2.75 195 eP 39 56.22 0.2
SVW 2.81 227 (P) 39 54.99 -1.8
eS 40 36.24
KLU 3.00 120 eP 39 59.79 0.3
ILIM 3.10 195 eP 40 01.95 1.1
IMA 3.16 343 eP 40 01.19 -0.6
49 obs. associated

& DEC 01, 1993 07h 41m 02.70s
37.453 N 118.360 W
DEPTH = 9.0km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.8 (GM).

MTUM 0.19 239 iPc 41 06.79 -0.2
MRCM 0.25 332 eP 41 07.80 -0.2
BONR 0.50 5 eP 41 12.85 -0.1
MEMM 0.51 295 eP 41 12.97 0.0
MMPM 0.55 287 eP 41 13.43 -0.5
TNP 1.10 55 eP 41 23.70 0.1
KVN 1.61 7 eP 41 32.90 1.4
eS 41 54.83
CMB 1.71 291 eP 41 33.20 0.4
eS 41 54.74
TPNV 1.76 106 eP 41 33.73 0.0
eS 42 00.12
ISA 1.79 183 eP 41 35.21 1.2
eS 41 57.61
ABL 2.69 195 eP 41 48.16 1.0
11 obs. associated

& DEC 01, 1993 07h 53m 45.31s
60.089 N 152.906 W
DEPTH = 106.5km
2.9mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.03 252 ePc 53 59.48 0.8
eS 54 11.59
INE 0.08 250 ePc 53 59.59 0.7
eS 54 11.97
RED 0.34 11 eP 54 00.36 -0.8
eS 54 12.47
RS2 0.38 11 ePd 54 00.83 -0.7
RDW 0.40 7 ePd 54 00.81 -0.8
eS 54 13.33
REF 0.41 14 ePd 54 00.98 -0.7
eS 54 13.66
OPT 0.47 201 ePc 54 01.12 -0.7
eS 54 13.56
NCT 0.47 359 ePd 54 01.26 -0.7
eS 54 14.11
DFR 0.52 12 iPd 54 01.34 -0.9
eS 54 14.39
PDB 0.71 246 ePd 54 02.81 -0.9
eS 54 16.91

01d 07h

AUL 0.76 201 eP 54 03.29 -0.8
AUE 0.77 198 eP 54 03.14 -1.0
HOM 0.77 124 eP 54 03.54 -0.6
eS 54 17.91
AUW 0.78 202 eP 54 03.43 -0.8
AUH 0.78 201 eP 54 03.41 -0.9
AUI 0.80 199 eP 54 03.85 -0.6
eS 54 18.06
XLV 0.87 136 eP 54 03.96 -1.3
eS 54 19.74
CNPM 1.02 123 ePc 54 05.65 -1.1
eS 54 22.14
BKG 1.03 18 eP 54 06.07 -0.9
eS 54 22.75
NKA 1.06 51 eP 54 07.73 0.7
BRLK 1.07 107 eP 54 06.67 -0.6
eS 54 22.53
CKL 1.15 14 ePd 54 07.44 -0.8
MCNL 1.16 219 ePd 54 06.93 -1.4
CKT 1.17 17 iPd 54 07.48 -1.0
eS 54 25.09
SPU 1.17 21 iPd 54 07.46 -1.0
eS 54 26.00
CKN 1.19 17 eP 54 07.95 -0.8
BGL 1.21 12 iPd 54 08.29 -0.6
CP2 1.22 15 iPd 54 08.30 -0.9
CRP 1.24 17 iPd 54 08.00 -1.4
eS 54 26.69
CGLM 1.30 19 ePd 54 09.13 -0.9
NCG 1.37 15 ePd 54 09.97 -0.9
SLKM 1.40 71 eP 54 09.39 -1.7
SYI 1.51 170 eP 54 10.77 -1.6
eS 54 30.43
SVW 1.69 309 eP 54 12.51 -2.1
eS 54 35.16
SEW 1.73 88 eP 54 13.02 -2.1
SUA 1.74 37 ePd 54 14.44 -1.0
eS 54 37.48
MPA 1.81 76 eP 54 14.56 -1.6
SKT 2.01 19 ePd 54 17.40 -1.4
eS 54 43.71
PMS 2.01 53 P 54 17.20 -1.7
PWA 2.16 42 eP 54 19.02 -1.6
KDC 2.36 175 ePd 54 19.84 -3.5
eS 54 47.70
PLRM 2.39 49 eP 54 21.07 -2.6
PMR 2.39 49 eP 54 20.22 -3.4
LTI 2.53 89 eP 54 23.06 -2.6
KNK 2.56 57 eP 54 23.30 -2.7
eS 54 53.22
GHO 2.58 47 eP 54 23.10 -3.2
MTU 2.64 90 eP 54 24.93 -2.2
CUT 2.65 28 eP 54 25.88 -1.3
eS 54 57.65
SML 2.82 50 ePd 54 26.76 -2.8
HIN 3.21 82 eP 54 32.75 -2.1
TTA 3.22 334 ePd 54 32.45 -2.5
SCM 3.23 55 ePc 54 32.32 -2.9
FID 3.26 75 eP 54 32.89 -2.5
HUR 3.29 27 eP 54 34.88 -1.1
VLZ 3.41 69 eP 54 34.91 -2.5
CVA 3.59 80 eP 54 37.65 -2.3
TRF 3.60 19 eP 54 37.86 -2.4
KTH 3.60 14 eP 54 37.88 -2.3
KLU 3.70 65 eP 54 38.23 -3.4
eS 55 19.55
TOA 3.84 55 P 54 41.00 -2.5
RND 3.85 28 eP 54 41.37 -2.2
SGAM 3.85 81 eP 54 41.13 -2.5
MCK 4.11 25 eP 54 45.05 -2.0
SDG 4.31 52 eP 54 47.24 -2.6
BWN 4.40 20 eP 54 49.32 -1.8
PAX 4.59 48 eP 54 51.01 -2.7
GLB 4.66 69 eP 54 51.07 -3.6
NEA 4.84 20 eP 54 54.15 -3.0
WRH 4.94 25 eP 54 55.50 -2.9
DDM 4.98 39 eP 54 57.73 -1.4
WAX 5.02 82 eP 54 56.79 -2.8
MLY 5.06 10 eP 54 57.46 -2.7
CCB 5.15 25 eP 54 57.95 -3.4
BALM 5.30 75 eP 55 00.77 -2.7
MDM 5.34 22 eP 55 00.98 -3.1
FBA 5.38 24 eP 55 01.18 -3.3
GLM 5.54 25 eP 55 03.54 -3.2
YAH 5.57 82 eP 55 05.25 -2.1
CTGM 5.78 76 eP 55 07.95 -2.3
IMA 6.01 357 (P) 55 10.54 -2.8

YKA 18.37 66 eP 57 49.70 -4.4
0.4s 0.30nm 2.9mb
81 obs. associated

DEC 01, 1993 08h 21m 54.36± 0.66s
6.276 S ± 4.8km 127.988 E ± 7.0km
DEPTH = 361.1 ± 8.1 km
4.9mb (21 obs.)
BANDA SEA (280)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 19S, 24C
Centroid Location:
Origin Time 08:21:58.2 1.1
Lat 6.24S 0.08 Lon 127.88E 0.09
Dep 373.4 2.4 Half-duration 1.1
Moment Tensor; Scale 10**17 Nm
Mrr= 0.17 0.10 Mtt=-1.32 0.11
Mff= 1.15 0.19 Mrt=-0.57 0.07
Mrf=-0.61 0.07 Mtf= 0.03 0.09
Principal Axes:
T Val= 1.47 Plg=27 Azm= 97
N 0.06 55 234
P -1.52 20 356
Best Double Couple:Mo=1.5*10**17
NP1:Strike=134 Dip=55 Slip= 174
NP2: 227 85 35

MTN 7.23 155 iPd 23 40.80 0.5
0.3s 558.00nm 6.2mb X
DAV 13.49 350 ePc+ 24 54.00 -0.8
CTB 13.91 344 ePd 25 00.00 0.7
BIP 14.51 353 eP 25 06.00 0.3
WB2 14.93 156 iPc 25 08.90 -1.3
0.9s 553.30nm 5.9mb
iS 27 45.70
WWKK 15.80 81 eP 25 20.00 0.5
MAP 16.97 346 eP 25 32.00 0.4
KKM 16.97 316 ePd 25 34.50 2.8
PLP 17.58 350 ePd 25 39.00 1.1
MDG 17.73 88 eP 25 40.00 0.6
QIS 18.13 143 iPc 25 43.50 0.2
eS 28 47.50
ASPA 18.20 162 ePd 25 44.50 0.4
0.7s 378.20nm 5.8mb
iS 28 50.70
PMG 19.24 101 eP 25 55.30 0.9
NANU 20.17 215 iPd 26 05.10 1.8
0.5s 28.00nm 4.9mb
QCP 21.88 342 eP 26 20.00 0.1
MEEK 22.13 203 iPd 26 22.20 -0.1
0.3s 25.00nm 5.0mb
CTA 22.43 129 iPc 26 22.50 -2.6
CTA 22.43 129 iPc+ 26 26.00 0.9X
1.8s 727.27nm 5.7mb
i 26 31.00
i 26 41.00
e 27 23.00
e(PP) 28 09.00
eS 30 15.00
KVG 23.05 82 eP 26 20.00 -10.8X
BAG 23.70 342 ePc 26 38.00 1.0
1.2s 96.88nm 5.0mb
FORT 24.37 180 iPd 26 42.60 -0.3
0.8s 105.00nm 5.2mb
COOL 25.31 194 eP 26 50.50 -0.9
MRWA 25.48 205 eP 26 52.50 -0.4
0.3s 19.00nm 4.9mb
BAL 26.42 202 iPd 27 01.10 -0.3
0.3s 8.00nm 4.5mb
KLB 26.94 200 iPd 27 05.80 -0.3
0.3s 20.00nm 4.9mb
MUN 27.84 202 iPd 27 13.40 -0.5
1.0s 80.00nm 5.0mb
NWAO 28.34 199 eP 27 18.20 -0.2
STK 28.47 155 iPc 27 07.60 -11.9X
0.6s 42.00nm
iS 31 26.20
ADE 30.22 162 iPc 27 35.60 0.8
ARMA 32.72 140 iPc 27 56.30 -0.2
0.6s 32.00nm 4.8mb
e 29 17.00
BWA 33.78 149 iPc 28 07.40 2.1
i 28 21.60
e 29 19.60
e 29 30.70

CAN 34.78 149 iPc 28 14.80 1.1
e 28 24.30
e 29 23.20
e 29 29.90
CNB 34.96 149 iPc 28 16.10 0.8
0.6s 28.00nm 4.8mb
SSE 37.72 350 P 28 37.80 -0.4
1.0s 12.00nm 4.2mb
CHTO 37.96 312 eP 28 41.00 0.6
KMI 39.72 323 Pd 28 57.00 2.0
1.5s 90.00nm 4.8mb
Z 16s 1.10um 4.8MszX
DZM 40.30 117 iPd 28 59.90 0.2
MAT 43.66 12 iPd 29 24.60 -1.7
0.9s 25.21nm 4.5mb
BJI 47.36 348 eP 29 54.50 -0.6
1.4s 37.00nm 4.4mb
LZH 47.85 333 iPd 29 59.50 0.4
1.6s 150.00nm 5.0mb
Z 22s 0.41um 4.4Msz
ScP 34 41.50
MSZ 51.69 144 P 30 28.30 0.7
QRZ 52.53 138 P 30 34.40 0.5
BWZ 52.76 143 P 30 35.00 -0.5
EWZ 52.80 142 P 30 36.10 0.3
GUN 52.98 312 P 30 36.00 -1.9
PKI 53.14 311 P 30 36.60 -2.4
THZ 53.22 139 P 30 38.90 -0.2
LTZ 53.31 140 P 30 38.90 -0.8
KKN 53.36 312 P 30 38.50 -1.9
0.6s 28.00nm 4.8mb
DMN 53.39 311 P 30 38.40 -2.3
TUZ 53.41 145 P 30 39.50 -0.7
GKN 53.95 311 P 30 42.60 -2.0
MNG 54.43 136 P 30 46.30 -1.4
URZ 54.61 133 P 30 47.90 -1.1
PGZ 54.97 136 P 30 50.50 -1.1
HBZ 55.24 132 P 30 53.60 0.2
NOZ 55.42 133 P 30 53.90 -0.8
CSY 61.13 188 iPd 31 23.10 -10.2X
0.7s 22.10nm
YAK 68.10 1 iPd 32 23.20 5.6X
1.2s 75.00nm 5.3mb
Z 18s 0.60um 4.9Msz
eS 40 52.00
MAIO 76.68 309 eP 33 09.00 0.9
SYO 83.64 201 iPc 33 46.70 2.9
SPA 83.76 180 iPc 33 44.50 -0.2
0.5s 78.70nm 5.8mb
YKA 107.98 26 ePKP 39 39.40 -1.1
0.5s 0.60nm
LIC 133.31 273 PKP 40 33.53 3.1X
0.7s 6.50nm
NNA 149.36 126 iPKPc 41 02.60 4.1X
1.0s 30.00nm
ARE 150.30 140 ePKP 41 07.00 6.8X
PPD 151.86 181 ePKP 41 09.30 7.3X
CNCB 152.15 146 PKPc 41 05.70 2.5X
LPB 152.31 145 PKP 41 06.00 2.7X
LPAZ 152.49 145 iPKPc 41 05.30 1.5
CCH 152.66 150 PKP 41 04.80 1.1
SIV 156.13 158 PKP 41 09.00 1.0
S.D. = 1.2 on 61 of 72 obs.

% DEC 01, 1993 08h 58m 25.42± 2.54s
40.488 N ±13.3km 27.676 E ±29.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.9 (ISK).

EDC 0.20 135 iPg 58 30.00 0.2
iSg 58 33.00
BNT 0.23 125 iPg 58 30.20 -0.1
iSg 58 33.20
DST 1.14 140 ePn 58 46.80 -0.1
DMK 1.33 3 iPn 58 50.00 0.0
IZI 1.38 96 iPn 58 50.80 0.0
S.D. = 0.2 on 5 of 5 obs.

DEC 01, 1993 09h 25m 56.41± 0.56s
39.162 N ± 5.9km 75.749 E ± 8.2km
DEPTH = 10.0km (geophysicist)
4.3mb (10 obs.) 4.4Msz (1 obs.)
SOUTHERN XINJIANG, CHINA (321)

KSH 0.34 31 Pg 26 05.00 1.5
Sg 26 10.50

WMQ 10.10 59 eP 28 23.60 -1.0
S 30 24.00
NDI 10.52 173 eP 28 31.50 1.2
0.5s 10.56nm 5.5mb X
QUE 11.51 222 eP 28 44.50 0.5
eS 30 51.50
GKN 13.36 144 P 29 07.40 -1.4
0.5s 15.00nm 5.3mb
KKN 13.84 142 P 29 14.20 -1.0
0.6s 14.00nm 5.0mb
DMN 13.91 143 P 29 15.40 -0.7
GUN 14.03 140 P 29 17.90 0.1
PKI 14.09 142 P 29 17.40 -1.1
0.6s 12.00nm 4.8mb
GTA 18.62 82 eP 30 16.00 -0.1
1.0s 4.00nm 3.6mb
Z 14s 0.41um 4.5Msz
POO 20.62 185 eP 30 38.50 -0.1
HYB 21.80 173 eP 30 52.60 2.0
eS 34 48.60
LZH 22.43 89 eP 31 02.50 5.6X
1.5s 24.00nm 4.4mb
GBA 25.50 176 P 31 19.00 -7.5X
S 36 19.00
TIY 28.65 81 eP 31 56.60 1.3
Z 20s 0.87um 4.4Msz
GEC2 44.53 304 P 34 09.20 -0.6
0.6s 2.00nm 4.1mb
NB2 44.59 321 P 34 08.70 -1.4
0.7s 2.10nm 4.1mb
MBC 64.47 4 eP 36 35.00 0.3
0.5s 2.00nm 4.6mb
YKA 78.35 5 eP 37 56.80 -1.1
0.5s 0.80nm 4.0mb
WRA 80.33 125 P 38 10.90 1.6
0.6s 0.50nm 3.7mb
S.D. = 1.2 on 18 of 20 obs.

DEC 01, 1993 09h 34m 20.77± 1.01s
44.783 N ± 5.1km 129.869 W ± 9.0km
DEPTH = 10.0km (geophysicist)
4.1mb (2 obs.)
OFF COAST OF OREGON (30)

TKO 4.58 80 P 35 30.42 -1.4
KMOR 4.59 77 P 35 30.67 -1.2
NLO 4.70 72 P 35 33.12 -0.4
ONR 4.75 62 P 35 34.49 0.4
OOW 4.92 51 P 35 37.09 0.5
OSR 4.93 54 P 35 36.93 0.3
BMW 4.96 68 eP 35 35.86 -1.2
RVW 5.20 72 P 35 39.79 -0.6
OSD 5.24 52 P 35 41.77 0.5
SSOR 5.27 87 P 35 40.79 -0.8
PGO 5.29 80 P 35 41.65 -0.1
GT2 5.40 83 P 35 42.79 -0.6
CZM 5.42 70 P 35 43.13 -0.5
STW 5.45 50 P 35 44.50 0.5
HDW 5.53 56 P 35 45.73 0.5
MTMW 5.53 74 P 35 45.11 -0.2
SHW 5.55 73 eP 35 45.12 -0.4
MEW 5.58 62 P 35 46.68 0.8
LMW 5.63 68 P 35 46.60 -0.1
GMW 5.64 58 eP 35 46.71 0.0
BLN 5.76 54 P 35 49.71 1.4
APM 5.86 78 P 35 49.75 0.0
RVC 5.92 66 Pd 35 50.89 0.2
GULW 5.94 76 P 35 50.51 -0.5
LON 5.97 68 eP 35 50.65 -0.7
VFP 5.98 82 P 35 51.16 -0.4
ASR 5.98 74 P 35 51.45 -0.1
GSM 6.12 64 Pd 35 53.44 -0.1
WPW 6.13 69 P 35 53.21 -0.5
MCW 6.21 49 eP 35 54.98 0.3
RMW 6.21 62 eP 35 52.47 -2.3
JCW 6.46 55 P 35 58.85 0.6
VGB 6.47 80 (P) 35 58.32 -0.1
MBW 6.78 51 P 36 03.98 1.1
RPW 6.82 55 P 36 03.61 0.2
EBG 6.84 69 P 36 03.56 0.0
TBM 6.89 66 P 36 04.37 0.1
ETW 7.20 64 P 36 08.61 -0.1
ORV 8.12 127 eP 36 19.17 -2.3
MEMM 10.87 127 eP 36 59.31 0.0
ARUT 14.18 114 (P) 37 45.61 1.8
MSU 14.63 109 eP 37 50.43 0.7
SRU 15.46 105 (P) 38 02.24 1.7
PV09 16.70 105 (P) 38 18.32 1.7
PV10 16.83 105 (P) 38 19.90 1.7
PV08 17.00 104 (P) 38 21.92 1.5
TUC 19.38 123 eP 38 49.41 -0.2
1.2s 5.20nm 3.7mb
CRP 21.09 329 (P) 39 06.82 -0.6
ULM 23.46 64 eP 39 35.50 4.5X
ACO 24.53 98 iPc 39 42.30 0.8
WMOK 25.78 102 eP 39 53.23 -0.1
0.9s 12.58nm 4.6mb
LTX 25.83 118 eP 39 52.01 -1.9
S.D. = 0.9 on 51 of 52 obs.

? DEC 01, 1993 09h 55m 16.68± 2.69s
10.197 N ±35.6km 61.400 W ±19.5km
DEPTH = 60.0km (geophysicist)
TRINIDAD (98)
MD 2.4 (TRN).

TPP 0.13 337 eP 55 26.77 -0.3
eS 55 34.55
TBH 0.43 49 eP 55 28.52 0.5
eS 55 36.07
TRN 0.45 360 eP 55 27.40 -0.8
eS 55 35.07
TCE 0.61 325 eP 55 30.50 0.6
eS 55 38.05
S.D. = 1.1 on 4 of 4 obs.

% DEC 01, 1993 09h 56m 58.05± 0.76s
44.470 N ± 6.3km 7.273 E ± 8.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

PZZ 0.13 286 P 57 01.39 0.1
S 57 03.30
STV 0.23 171 P 57 02.92 -0.1
ENR 0.27 156 P 57 03.71 0.0
S 57 07.14
BHB 0.37 359 P 57 05.61 -0.1
S 57 10.89
ROB 0.46 112 P 57 07.58 0.1
S 57 13.87
S.D. = 0.1 on 5 of 5 obs.

% DEC 01, 1993 09h 59m 56.29± 0.53s
44.362 N ± 4.9km 7.386 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

STV 0.13 201 Pc 59 59.57 0.1
ENR 0.14 170 Pc 59 59.71 0.1
S 00 01.62
PZZ 0.25 305 Pd 00 02.42 0.8
S 00 06.07
ROB 0.35 101 Pc 00 04.37 0.8
S 00 09.61
BHB 0.49 350 Pd 00 05.97 -0.2
S 00 12.48
IMI 0.58 141 Pd 00 07.05 -1.0
S 00 14.31
FIN 0.61 104 P 00 08.38 -0.2
S 00 16.33
RRL 0.70 323 P 00 10.54 0.2
S 00 20.42
RSP 0.79 353 P 00 10.73 -1.1
S 00 20.74
PCP 0.85 77 Pc 00 13.39 0.7
S 00 24.61
S.D. = 0.8 on 10 of 10 obs.

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* DEC 01, 1993 10h 02m 20.97± 2.15s
44.815 N ± 7.9km 129.749 W ±18.7km
DEPTH = 10.0km (geophysicist)
3.2mb (2 obs.)
OFF COAST OF OREGON (30)

BMW 4.86 68 (P) 03 34.87 -1.1
OSD 5.16 52 P 03 40.81 0.6
STW 5.36 49 P 03 43.39 0.5
HDW 5.44 56 P 03 45.23 1.1
SHW 5.46 73 (P) 03 43.57 -0.9
MEW 5.49 62 Pd 03 45.27 0.5
BLN 5.67 53 P 03 48.60 1.3
GHW 5.67 64 P 03 46.98 -0.3
RVC 5.83 66 P 03 48.68 -0.9
LON 5.88 68 eP 03 49.44 -0.8
ASR 5.89 74 P 03 49.80 -0.7
GLK 5.96 70 P 03 51.53 0.0
WPW 6.04 69 P 03 52.47 -0.1
MCW 6.13 48 Pd 03 54.91 1.2
RPW 6.73 54 P 04 02.52 0.2
TBM 6.80 66 P 04 03.01 -0.2
ETW 7.10 64 P 04 07.50 -0.1
ARUT 14.11 114 eP 05 43.50 0.3
MSU 14.56 110 (P) 05 49.59 0.6
PV09 16.63 105 (P) 06 16.67 0.8
PV10 16.75 105 eP 06 17.94 0.5
GOL 18.73 97 (P) 06 40.91 -1.0
0.7s 1.68nm 3.4mb
YKA 19.76 21 eP 06 52.50 -1.1
0.9s 0.90nm 3.1mb
S.D. = 0.8 on 23 of 23 obs.

DEC 01, 1993 10h 10m 14.85± 0.86s
46.353 N ±10.2km 12.762 E ± 9.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.7 (LJU), 2.0 (VIE). MD 2.1
(TRI).

KBA 0.83 29 iPgc 10 30.80 -0.2
iSg 10 41.50
VOY 0.85 112 iPgc 10 31.70 0.4
eSg 10 43.20
TRI 0.95 132 e(Pg) 10 32.60 -0.3
i(Sg) 10 47.80
SCE 1.00 314 iPgd 10 33.50 -0.4
WTTA 1.20 320 iPgc 10 37.50 0.2
iSg 10 53.20
WATA 1.28 321 iPgc 10 38.90 0.3
iSg 10 56.00
VBY 1.94 115 ePn 10 54.10 6.0X
eSg 11 16.40
S.D. = 0.4 on 6 of 7 obs.

DEC 01, 1993 10h 24m 01.24± 0.42s
42.323 S ± 5.0km 174.175 E ± 5.1km
DEPTH = 33.8 ± 13.4 km
3.4mb (1 obs.)
OFF E. COAST OF S. ISLAND, N.Z. (164)
ML 3.8 (WEL).

CCW 0.57 3 P 24 11.70 -1.1
THZ 1.10 300 Pd 24 19.90 -0.6
TCW 1.11 4 P 24 20.20 -0.4
WEL 1.13 23 P 24 21.30 0.5
MRW 1.16 20 Pd 24 21.40 0.1
MOW 1.21 42 P 24 22.50 0.5
BLW 1.36 46 P 24 24.60 0.4
CAW 1.39 29 P 24 24.70 0.2
LTZ 1.48 251 Pc 24 27.00 1.1
MTW 1.53 41 P 24 26.60 0.0
DIW 1.53 353 P 24 26.10 -0.5
AMW 1.56 50 P 24 27.20 0.2
KIW 1.56 21 P 24 27.50 0.5
MQZ 1.78 218 Pc 24 31.00 0.8
DSZ 1.86 287 eP 24 32.70 1.3
QRZ 1.94 320 P 24 32.30 -0.2
MNG 1.97 30 P 24 32.50 -0.4
PGZ 2.32 43 eP 24 36.90 -1.0
EWZ 2.71 243 eP 24 43.40 0.0
ODZ 3.74 222 P 24 57.50 -0.4
BWZ 3.83 233 eP 24 58.30 -0.9
TUZ 4.89 220 eP 25 13.20 -1.1
WRA 40.25 291 P 31 36.80 0.2
0.6s 0.50nm 3.4mb
S.D. = 0.7 on 23 of 23 obs.

% DEC 01, 1993 12h 13m 00.22± 1.35s
41.086 N ±11.4km 29.553 E ± 9.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

HRT 0.28 162 iPg 13 06.10 0.0
eSg 13 10.10
ISK 0.37 267 iPg 13 08.10 0.2
iSg 13 14.60
EYL 0.69 138 ePg 13 14.10 0.1
IZI 0.75 185 iPg 13 15.00 0.0
DMK 1.54 299 iPn 13 27.60 -0.1

01d 12h

DST 1.64 206 ePn 13 29.00 -0.2
S.D. = 0.2 on 6 of 6 obs.

? DEC 01, 1993 12h 46m 12.72± 6.34s
15.446 N ±55.0km 98.890 W ±15.8km
DEPTH = 33.0km (normal)
OFF COAST OF GUERRERO, MEXICO (65)

ACX 1.69 327 iP 46 39.45 -1.0
iS 47 01.00
OXX 2.64 52 eP 46 54.21 0.1
(S) 47 25.00
III 2.97 349 eP 46 58.00 -0.8
iS 47 31.04
PPM 3.61 4 eP 47 07.00 -1.2
(S) 47 43.00
IIA 3.69 3 iP 47 10.51 1.7
IISM 3.81 22 (P) 47 10.10 -0.3
(S) 47 [illegible]4.00
UNM 3.87 356 (P) 47 [illegible]8.00 6.3X
(S) 47 55.00
MRX 4.77 333 (P) 47 25.50 1.4
(S) 48 17.00
LVVM 4.86 28 (P) 47 30.00 4.6X
(S) 48 26.00
S.D. = 1.4 on 7 of 9 obs.

& DEC 01, 1993 12h 47m 15.00s
47.530 N 70.060 W
DEPTH = 8.0km
SOUTHERN QUEBEC, CANADA (447)
<OTT-P>. mbLg 3.5 (OTT). Felt at
Baie-St.-Paul, La Pocatiere,
Pointe-au-Pic and Riviere-
Ouelle.

CBM 1.45 114 eP 47 42.27 0.8
eS 48 00.51
LBNH 3.54 202 eP 48 10.02 -1.3
LMN 3.99 113 eP 48 16.00 -1.7
JAQ 7.24 332 eP 49 00.50 -3.0
4 obs. associated

DEC 01, 1993 13h 23m 56.47± 0.36s
23.205 S ± 6.7km 70.890 W ± 8.4km
DEPTH = 33.0km (normal)
5.3mb (11 obs.) 5.0Msz (2 obs.)
NEAR COAST OF NORTHERN CHILE (122)

MOCB 5.24 69 P 25 18.70 3.7X
ARE 6.73 355 iPd 25 33.00 -2.9
iS 26 43.50
CNCB 6.92 24 iPc 25 40.10 1.3
LPB 7.14 22 iPc 25 43.30 1.6
Z 15s 24.00um
LR 28 23.00
CCH 7.31 38 P 25 45.30 1.3
LPAZ 7.35 21 iPc 25 44.90 0.0
LR 28 26.00
RTPR 8.08 152 eP 25 52.50 -1.9
ZON 8.54 167 eP 26 16.60 15.8X
PEL 9.90 179 eP 26 00.50 -19.1X
SIV 11.70 54 P 26 40.30 -4.0X
PPD 18.11 90 eP 28 05.10 -2.2
i 28 09.40
RIFB 21.96 86 iPc 28 48.30 -1.0
e 28 50.30
eS 32 42.70
BAO 22.85 75 eP 28 56.20 -2.0
e 29 03.00
i 29 11.10
e 29 18.20
e 29 40.60
SOB1 31.90 69 iPd 30 20.50 -0.8
UYO 61.30 338 iPd 34 09.10 -1.9
TUL 63.34 338 iPd 34 23.10 -1.5
MEO 63.38 335 iPc 34 22.60 -2.3
ACO 65.28 335 iPd 34 35.50 -1.7
NVL 65.90 159 eP 34 41.00 0.2
1.6s 43.00nm 5.3mb
Z 18s 0.50um 4.8Msz
E 18s 0.50um
i 34 48.00
ePP 37 08.00
ePPP 38 35.00
e 39 18.00
e 41 12.00

(S) 43 24.00
eSS 47 32.00
eSSS 50 18.00
SPA 66.94 180 iPc 34 47.40 -0.4
1.0s 125.00nm 6.0mb
KDS 67.53 65 iPc 34 49.90 -2.1
GAC 68.70 357 eP 35 01.00 2.4
LMN 68.95 5 eP 35 01.00 0.8
LIC 70.62 74 P 35 10.28 -0.8
0.9s 23.50nm 5.3mb
Z 19s 1.70um 5.3Msz
TIC 70.82 74 P 35 11.52 -0.8
1.0s 40.00nm 5.4mb
KIC 70.93 74 P 35 12.46 -0.5
0.8s 43.00nm 5.6mb
LKO 71.66 71 Pc 35 16.65 -0.7
0.9s 34.00nm 5.4mb
SBA 73.82 191 eP 35 31.20 2.1
SYO 75.53 160 ePd 35 41.10 2.1
ULM 76.41 344 eP 35 45.50 1.4
JAQ 76.80 357 eP 35 45.00 -1.2
LRM 78.38 332 eP 35 55.90 0.4
POF 79.66 117 iPd 36 04.00 1.4
0.5s 7.04nm 4.9mb
TIO 81.32 51 iPc 36 13.00 1.6
OD2 82.40 329 P 36 16.88 0.4
DPW 82.51 330 P 36 17.42 0.3
AVE 82.53 49 iP 36 19.00 1.6
ASR 82.91 327 P 36 19.57 0.3
EBG 82.94 328 P 36 20.06 0.7
SAW 82.95 329 P 36 19.30 0.0
WTV 83.20 329 P 36 20.60 -0.1
MAW 83.22 164 eP 36 21.00 0.5
0.8s 17.65nm 5.2mb
ETW 83.32 329 P 36 21.15 -0.2
FRS 83.87 120 e(P) 36 26.00 1.5
IFR 84.25 50 eP 36 45.00 18.6X
BLF 84.81 119 eP 36 29.00 -0.5
EVAL 85.36 46 eP 36 33.00 1.3
EJIF 85.60 47 eP 36 35.00 2.1
EPRU 86.03 47 eP 36 36.00 0.9
EHOR 86.49 46 eP 36 38.00 0.8
FRB 86.68 1 eP 36 37.00 -0.5
1.2s 18.00nm 5.2mb
EBAN 87.65 47 eP 36 45.00 2.1
PAB 88.01 45 eP 36 55.50 10.8X
eS 47 25.00
BUL 90.49 112 iPd 36 57.00 0.1
CSY 90.78 181 eP 36 48.10 -9.1X
0.9s 8.60nm 5.1mb
YKA 92.19 341 eP 37 02.60 -0.9
0.8s 3.80nm 4.9mb
RES 98.88 354 eP 37 46.00 12.3X
INK 101.91 340 ePdiff38 01.00 13.4X
MBC 103.56 349 ePdiff38 10.50 15.7X
BKM 109.38 240 iPKPd 42 27.00 1.2
OBN 118.65 39 (PKP) 42 46.00 3.7X
e 42 55.00
ASPA 127.55 209 ePKP 42 59.60 -0.9
0.6s 12.90nm
i 43 07.00
WRA 130.55 212 PKP 42 59.20 -7.0X
0.7s 0.60nm
YAK 138.74 345 ePKP 43 22.10 1.7
QUE 141.86 70 ePKP 43 22.50 -4.8X
KUSJ 144.56 313 ePKP 43 28.90 -2.3X
GUA 144.77 261 ePKP 43 31.20 -1.2
0.8s 208.96nm
GUMO 144.83 261 ePKP 43 31.00 -1.4
0.9s 297.50nm
PJG 144.83 261 ePKP 43 31.10 -1.4
BOD 145.20 355 iPKPd 43 30.40 -1.4
1.3s 53.00nm
ASAJ 145.50 315 ePKP 43 33.30 0.5
POO 146.78 91 ePKP 43 36.00 0.3
KOD 147.15 108 ePKP 43 40.00 3.3X
GBA 148.53 102 PKP 43 43.00 4.5X
LEM 150.12 177 iPKPd 43 47.20 6.0X
KAKJ 150.21 303 ePKP 43 45.80 5.3X
IRK 150.75 6 ePKP 43 54.80 14.0X
e 43 58.80
NIIJ 150.77 305 ePKP 43 47.20 5.9X
HYB 150.81 96 ePKP 43 48.20 6.2X
NDI 150.86 72 ePKP 43 46.00 4.3X
CIT 151.05 354 ePKP 43 58.00 16.7X
CHJJ 151.16 303 ePKP 43 48.70 6.7X
MAT 151.60 305 iPKPd 43 48.80 6.2X

1.0s 48.00nm
MTMJ 151.90 305 ePKP 43 49.80 6.6X
IIDJ 152.18 303 ePKP 43 50.00 6.5X
ZAK 152.49 8 ePKP 43 51.00 7.6X
1.3s 35.00nm
PKI 158.16 74 PKP 44 05.40 13.3X
GUN 158.54 73 PKP 44 03.20 10.7X
BJI 162.18 342 ePKP 44 04.00 8.6X
Z 24s 0.39um 5.2Msz
LZH 166.38 18 ePKP 44 03.50 3.9X
1.6s 22.00nm
sP 44 14.50
KMI 173.88 71 ePKP 44 08.00 3.9X
pP 44 13.50
S.D. = 1.4 on 58 of 91 obs.

DEC 01, 1993 13h 42m 15.61± 0.27s
17.497 S ± 4.4km 168.189 E ± 5.6km
DEPTH = 76.3km (12 depth phases)
5.1mb (17 obs.)
VANUATU ISLANDS (186)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 19C
Centroid Location:
Origin Time 13:42:19.0 0.9
Lat 17.11S 0.17 Lon 168.27E 0.13
Dep 81.6 7.1 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-3.51 1.39 Mtt=-2.20 1.45
Mff= 5.72 1.47 Mrt=-5.99 0.55
Mrf=-5.65 0.59 Mtf= 3.74 2.05
Principal Axes:
T Val= 11.21 Plg=28 Azm=119
N -2.07 23 223
P -9.14 52 346
Best Double Couple:Mo=1.0*10**17
NP1:Strike=165 Dip=27 Slip=-151
NP2: 48 77 -66

PVC 0.27 154 iPd 42 27.50 0.1
iS 42 36.10
DZM 4.84 200 iPd 43 25.20 -2.4
iS 44 14.40
SVA 9.80 95 eP 44 38.20 2.2
HNR 11.33 314 P 44 57.00 0.3
BRS 17.30 233 iPd- 46 16.00 2.3
0.6s 42.50nm 4.9mb
e 46 23.00
i(S) 49 23.00
e 49 39.00
i(ScP)51 34.50
OUZ 18.30 166 P 46 25.90 0.1
e 46 41.70
e 46 49.90
ARMA 19.83 227 eP 46 43.20 0.2
0.5s 153.00nm 5.6mb
i 46 55.00 54kmX
i 47 06.70
e 51 47.00
KUZ 20.30 162 P 46 47.40 -0.2
RAB 20.53 308 eP 46 52.00 1.8
CTA 20.92 259 iPc 46 55.00 0.9
1.0s 35.00nm 4.6mb
e 47 08.00 56kmX
e 47 20.00
eS 50 45.00
e 51 05.00
eScS 57 24.50
MOZ 21.72 166 P 47 02.80 0.9
e 47 20.30 80km
HBZ 21.91 158 P 47 03.70 -0.1
PMG 21.96 289 eP 47 05.00 0.5
URZ 22.11 161 P 47 05.90 0.1
RIV 22.31 220 iPc 47 09.30 1.5
0.5s *******nm 7.7mb X
ipP 47 29.40 94kmX
PUZ 22.32 159 P 47 07.00 -0.9
e 47 27.80 97kmX
PAHZ 22.65 162 P 47 12.50 1.4
NOZ 22.74 160 P 47 12.40 0.5
TTH 23.21 163 P 47 17.70 1.2
WAHZ 23.23 164 P 47 17.40 0.6
LAT 23.32 295 e(P) 47 19.00 1.2
QRZ 23.55 172 P 47 21.60 1.8
MNG 23.89 166 P 47 22.90 -0.2

e 47 38.80 69km
KIW 24.00 167 P 47 23.20 -1.0
PGZ 24.08 165 P 47 24.30 -0.6
0.7s 218.00nm 5.7mb
TCW 24.21 169 P 47 26.70 0.5
e 47 45.50 84km
CAW 24.26 167 P 47 25.90 -0.9
MRW 24.31 168 P 47 26.10 -1.1
e 47 45.30 86km
CNB 24.40 220 iPd 47 28.30 0.1
1.1s 71.00nm 5.0mb
e 47 36.30 28kmX
i 47 59.30
MTW 24.41 167 Pc 47 27.20 -0.9
BWA 24.42 223 eP 47 27.60 -0.8
i 47 46.20 83km
THZ 24.52 171 P 47 29.20 -0.1
BLW 24.60 167 P 47 29.20 -0.8
e 47 45.20 69km
AMW 24.61 166 P 47 28.90 -1.1
CAN 24.63 220 eP 47 31.50 1.1
i 47 49.40 79km
MDG 25.08 296 eP 47 36.00 1.3
LTZ 25.44 173 P 47 37.50 -0.4
e 47 53.70 70km
EWZ 26.03 176 P 47 43.50 0.3
STK 27.99 234 iPd 47 49.50 -11.8X
0.9s 5.10nm
i 48 06.90 75km
WB2 32.11 260 eP 48 36.00 -1.9
0.8s 7.90nm 4.6mb
epP 48 55.40 83km
ASPA 32.63 253 iPd 48 41.00 -1.4
0.5s 39.20nm 5.5mb
ipP 49 05.20 108kmX
MEEK 46.60 250 iPd 50 37.80 -0.2
NANU 49.53 255 iPc 51 01.00 0.2
0.9s 80.00nm 5.7mb
PPR 55.88 295 ePd 51 47.00 -1.0
BAG 57.75 303 eP 52 00.00 -1.5
LEM 59.94 272 iPc 52 17.00 0.2
SBA 60.39 180 iPc 52 19.10 0.4
MAT 60.75 333 (P) 52 20.00 -1.7
1.2s 31.25nm 5.3mb
CSY 61.33 203 eP 52 14.20 -11.0X
0.5s 9.40nm
ipP 52 31.80 67km
IPM 69.79 282 ePd 53 19.50 -0.7
SPA 72.61 180 iPd 53 35.70 -0.8
0.9s 59.09nm 5.5mb
LOE 74.03 294 eP 53 40.00 -5.4X
NST 74.73 292 eP 53 48.00 -1.4
BJI 74.96 321 eP 53 50.00 -0.3
1.3s 24.00nm 5.0mb
KMI 76.51 302 PKPc 54 00.50 0.8
CHTO 77.02 295 ePd 54 13.00 10.7X
1.0s 17.00nm
LZH 80.83 312 ePKP 54 23.00 0.2
Z 25s 0.59um 4.8MszX
sPKP 54 44.00
YAK 84.90 343 iPc 54 44.60 1.7
1.5s 83.00nm 5.5mb
TTA 84.93 16 eP 54 42.66 -0.5
0.9s 10.04nm 4.8mb
SYO 86.34 196 ePc 54 51.90 1.8
CMB 86.75 49 eP 54 52.56 -0.1
1.0s 5.94nm 4.6mb
FBA 88.71 17 eP 54 58.93 -2.5
0.8s 8.89nm 5.0mb
NVL 90.45 188 iPc 55 09.00 -0.6
1.0s 17.00nm 5.3mb
i 55 29.00 72km
e 03 31.00
GUN 91.50 299 P 55 14.70 -0.9
PKI 91.78 298 P 55 16.40 -0.5
KKN 91.96 298 P 55 17.20 -0.4
DMN 92.05 298 P 55 18.00 0.0
GKN 92.57 298 P 55 19.40 -0.9
GBA 94.71 283 P 55 31.00 0.9
YKA 99.59 27 eP 55 50.00 -1.2
1.1s 2.90nm 4.8mb
KHC 142.34 333 ePKP 01 57.00 15.9X
e 02 07.00
e 03 23.50
GEC2 142.49 332 PKP 01 36.80 -4.6X
1.1s 2.66nm
e 01 43.90

OHR 143.43 317 ePKP 01 40.00 -3.2X
KBA 143.95 330 iPKPc 01 41.20 -2.9X
1.1s 17.50nm
i 02 07.80
i 02 26.00
WTTA 144.60 332 i(PKP)01 43.90 -1.3
WLF 144.79 340 iPKPc 01 45.00 -0.1
i 02 06.00
DOU 144.90 342 PKPc 01 44.80 -0.5
ECP 145.13 354 iPKPc 01 47.80 2.2X
OGA 145.17 332 iPKPc 01 46.20 0.0
0.8s 10.00nm
CDF 145.46 337 ePKP 01 45.80 -0.7
1.0s 48.40nm
BSF 146.12 337 ePKP 01 47.60 0.0
HAU 146.14 338 ePKP 01 47.70 0.2
0.8s 15.05nm
FLN 147.48 346 ePKP 01 51.20 1.6
0.8s 12.65nm
LDF 147.55 345 ePKP 01 51.30 1.6
0.8s 9.65nm
LOR 147.63 340 ePKP 01 52.00 2.1
0.8s 11.80nm
LBF 147.84 340 ePKP 01 52.50 2.2X
0.7s 9.15nm
GRR 147.92 346 ePKP 01 52.70 2.4X
SSF 147.92 340 ePKP 01 52.90 2.5X
0.9s 16.70nm
LPL 148.06 335 ePKP 01 53.70 2.7X
0.8s 7.95nm
LPG 148.07 335 ePKP 01 53.90 2.8X
0.9s 13.10nm
SMF 148.18 339 ePKP 01 53.40 2.6X
AVF 148.21 340 ePKP 01 53.20 2.4X
LPF 148.30 346 ePKP 01 53.80 2.9X
0.8s 16.50nm
BGF 148.58 340 ePKP 01 54.50 3.0X
0.7s 10.80nm
MAF 148.97 340 ePKP 01 55.50 3.4X
TCF 149.02 341 ePKP 01 55.60 3.4X
1.2s 28.25nm
LSF 149.26 342 ePKP 01 56.00 3.4X
1.0s 18.20nm
PGF 149.38 329 ePKP 01 56.50 3.5X
1.3s 112.30nm
MFF 149.41 344 ePKP 01 56.50 3.8X
0.7s 10.70nm
LMR 149.93 333 ePKP 01 57.80 4.2X
RJF 150.12 341 ePKP 01 58.40 4.5X
0.6s 4.95nm
CAF 150.28 340 ePKP 01 59.00 4.8X
LFF 150.69 342 ePKP 01 59.90 5.2X
LPO 150.78 341 ePKP 02 00.20 5.3X
EPF 152.53 340 ePKP 02 04.30 6.8X
S.D. = 1.1 on 76 of 105 obs.

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* DEC 01, 1993 14h 54m 51.90± 0.34s
45.017 N ± 5.5km 93.770 E ± 5.2km
DEPTH = 33.0km (normal)
4.7mb (23 obs.)
MONGOLIA (334)
ML 4.6 (BJI).

WMQ 4.51 257 iPnc 56 01.80 2.0
Pg 56 12.50
Sn 56 55.00
Sg 57 12.00
UER 6.56 2 eP 56 28.50 0.1
eS 57 26.50
GTA 7.18 139 Pn 56 33.50 -3.8X
Z 10s 2.82um
E 10s 2.80um
Sg 58 26.50
ZAK 8.36 47 eP 56 54.00 0.3
IRK 10.06 40 ePg 57 44.50 27.4X
1.5s 25.00nm
e 59 14.00
e 59 36.00
eSg 59 55.80
LZH 11.75 136 eP 57 36.00 -4.3X
1.2s 25.00nm 5.3mb
Z 14s 1.26um
PP 57 45.00
NVS 11.93 329 eP 57 27.00 -15.5X
BTO 12.72 105 eP 57 49.00 -4.2X
N 10s 0.81um
HHC 13.68 101 Pd 58 04.00 -1.9

Z 12s 1.33um
KSH 14.29 253 P 58 14.20 0.2
0.5s 10.00nm 4.7mb
CIT 14.86 55 eP 58 28.00 6.8X
LSA 15.43 189 eP 58 31.00 1.8
1.0s 9.00nm 4.0mb
TIY 15.78 111 eP 58 31.40 -1.8
Z 10s 1.27um
pP 58 38.00
XAN 16.00 128 P 58 31.00 -5.0X
Z 12s 1.63um
pP 58 40.50
sP 58 46.50
CD2 16.12 148 eP 58 40.20 2.6X
BJI 17.23 99 eP 58 52.00 0.6
Z 10s 1.01um
BOD 17.99 37 eP 59 00.50 -0.2
1.2s 12.00nm 3.9mb
GUN 18.20 203 P 59 02.20 -1.7
GKN 18.48 206 P 59 06.40 -0.8
KKN 18.48 204 P 59 06.20 -1.1
0.8s 46.00nm 4.7mb
PKI 18.65 204 P 59 08.20 -1.3
0.8s 44.00nm 4.7mb
DMN 18.70 205 P 59 09.00 -1.0
0.8s 36.00nm 4.6mb
TIA 19.74 108 eP 59 20.40 -1.3
KMI 21.14 157 eP 59 37.50 1.0
1.0s 40.00nm 4.8mb
GYA 21.22 146 P 59 35.20 -2.0
1.0s 54.00nm 4.9mb
N 14s 0.89um
E 14s 1.22um
WHN 21.67 125 Pc 59 42.00 0.5
0.6s 22.00nm 4.8mb
SNY 21.83 88 Pc 59 44.00 1.0
CN2 22.59 82 Pc 59 53.00 2.4
1.0s 23.00nm 4.6mb
NJ2 23.40 115 eP 00 00.00 1.5
SVE 23.74 312 eP 00 02.50 0.9
1.9s 40.00nm 4.6mb
e 00 42.80
ARU 24.73 310 iPc 00 12.00 0.8
MDJ 25.29 78 eP 00 18.50 1.8
SSE 25.53 114 Pd 00 21.00 2.0
1.0s 35.00nm 4.9mb
QUE 25.74 244 eP 00 21.80 0.5
MAIO 27.26 263 eP 00 35.00 0.0
TIK 31.51 20 eP 01 11.00 -1.5
1.0s 19.00nm 4.9mb
e 01 27.00
i 11 40.00
OBN 37.07 307 eP 02 00.00 -0.3
1.2s 40.00nm 5.2mb
UPP 46.03 317 iP 03 13.80 0.2
APO 47.58 319 eP 03 24.70 -1.2
0.4s 4.10nm 4.8mb
NB2 48.66 320 P 03 33.00 -1.3
0.8s 7.00nm 4.7mb
CLL 51.67 308 iPd 03 57.10 -0.2
GEC2 52.41 305 P 04 02.80 -0.3
0.4s 0.47nm 3.8mb
MBC 57.16 9 eP 04 37.00 -0.2
IMA 57.82 26 eP 04 39.94 -2.2
0.6s 1.06nm 4.1mb
EKA 58.02 318 P 04 45.67 2.2
1.0s 57.10nm 5.6mb
INK 61.61 18 eP 05 06.50 -1.5
YKA 70.45 14 eP 06 02.60 -1.8
0.6s 1.00nm 4.1mb
WRA 74.46 141 P 06 28.90 0.3
0.8s 4.00nm 4.5mb
WB2 74.47 141 eP 06 30.30 1.7
0.9s 5.10nm 4.5mb
LPAZ 147.56 326 PKP 14 34.20 1.7
LPB 147.77 326 ePKP 14 42.00 9.4X
CNCB 147.97 326 PKP 14 37.00 3.9X
MOCB 150.85 318 PKP 14 43.00 5.7X
S.D. = 1.4 on 42 of 53 obs.

% DEC 01, 1993 15h 10m 23.53± 1.22s
40.479 N ± 7.9km 22.843 E ± 8.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE 0.18 31 ePg 10 27.78 0.2
eSg 10 29.74

01d 15h

SOH 0.52 49 ePg 10 34.10 0.1
GRG 0.58 325 ePg 10 35.46 0.1
KNT 0.68 4 ePg 10 36.82 -0.3
PAIG 0.85 130 iPg 10 39.82 0.0
SRS 0.85 42 ePg 10 39.86 -0.1
eSg 10 51.98
S.D. = 0.2 on 6 of 6 obs.

DEC 01, 1993 15h 26m 53.44± 1.10s
43.058 N ± 7.7km 18.755 E ± 6.6km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.8 (TTG).

BRY 0.22 225 iPgd 26 58.45 0.2
iSg 27 01.62
NKY 0.30 144 iPgd 26 59.90 0.1
iSg 27 04.55
PLE 0.54 60 iPgd 27 04.30 -0.1
iSg 27 12.43
HCY 0.64 197 iPgc 27 05.98 -0.3
iSg 27 15.40
TTG 0.73 149 iPgd 27 07.12 -0.6
iSg 27 18.65
BDV 0.78 176 iPgd 27 08.59 0.0
iSg. 27 20.04
IVA 0.86 102 iPgd 27 10.27 0.2
iSg 27 22.89
PVY 1.01 117 iPgd 27 12.69 0.1
iSg 27 27.86
ULC 1.15 161 iPgc 27 15.55 0.5
iSg 27 32.62
S.D. = 0.4 on 9 of 9 obs.

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* DEC 01, 1993 15h 29m 08.60± 2.07s
40.971 N ± 8.1km 20.865 E ±17.9km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

SKO 1.09 23 ePg 29 29.00 -0.1
iSg 29 43.00
Lg 29 45.50
GRG 1.16 90 iPb 29 29.78 -0.6
iSb 29 48.34
VAY 1.33 74 ePn 29 33.30 0.1
LIT 1.51 125 ePb 29 36.26 0.5
eSb 29 58.98
KNT 1.55 82 ePb 29 36.66 0.4
iSb 29 57.90
AGG 2.25 149 ePn 29 46.14 -0.3
S.D. = 0.5 on 6 of 6 obs.

& DEC 01, 1993 15h 43m 34.11s
59.509 N 152.779 W
DEPTH = 85.8km
SOUTHERN ALASKA (2)
<AEIC>.

OPT 0.27 302 iP 43 46.53 -0.6
AUE 0.34 244 eP 43 46.85 -0.6
AUL 0.36 249 eP 43 47.08 -0.5
AGU 0.37 246 eP 43 47.47 -0.3
AUH 0.37 247 eP 43 47.46 -0.3
AUI 0.37 243 eP 43 47.00 -0.7
eS 43 56.64
AUW 0.38 249 eP 43 47.21 -0.5
INE 0.57 346 eP 43 48.84 -0.6
eS 43 59.72
ILIM 0.58 351 eP 43 48.82 -0.6
HOM 0.60 75 eP 43 49.04 -0.4
CDD 0.73 218 iP 43 49.90 -0.9
PDB 0.77 292 eP 43 50.43 -0.8
eS 44 02.96
CNPM 0.79 88 eP 43 50.50 -0.9
MCNL 0.86 249 eP 43 51.31 -0.9
RED 0.91 0 eP 43 52.62 -0.3
eS 44 06.27
SYI 0.92 167 eP 43 52.13 -0.7
eS 44 05.43
RDW 0.98 359 eP 43 53.48 -0.2
eS 44 07.67
REF 0.98 2 eP 43 53.52 -0.3
eS 44 08.05
BRLK 1.00 74 eP 43 53.73 0.0
eS 44 06.73
NCT 1.06 356 eP 43 54.33 -0.3
eS 44 09.40
DFR 1.09 2 eP 43 54.73 -0.2
BKG 1.59 9 eP 44 01.33 0.0
SLKM 1.63 51 eP 44 01.17 -0.6
CKL 1.71 7 eP 44 02.96 0.1
SPU 1.72 12 eP 44 02.90 -0.1
CKT 1.72 9 eP 44 03.00 -0.1
CKN 1.75 10 eP 44 03.54 0.2
BGL 1.77 6 eP 44 03.87 0.1
CP2 1.78 8 eP 44 04.07 0.1
CRP 1.79 10 eP 44 04.05 0.0
CGLM 1.85 12 eP 44 04.78 0.1
NCG 1.93 9 eP 44 05.84 0.0
MPA 1.98 59 eP 44 06.19 -0.2
SVW 2.14 320 eP 44 08.13 -0.5
SUA 2.21 26 eP 44 09.32 -0.3
LTI 2.55 76 eP 44 13.15 -1.0
SKT 2.55 13 eP 44 13.87 -0.4
KNK 2.87 46 eP 44 17.14 -1.5
GHO 2.96 38 eP 44 19.14 -0.8
CUT 3.15 22 eP 44 21.78 -0.7
SML 3.18 42 eP 44 21.53 -1.4
SCM 3.55 47 eP 44 26.86 -1.3
KLU 3.93 57 eP 44 31.37 -2.0
43 obs. associated

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* DEC 01, 1993 15h 43m 34.68± 1.94s
17.343 N ±10.4km 147.086 E ±23.6km
DEPTH = 61.8 ± 18.6 km
4.4mb (5 obs.)
MARIANA ISLANDS REGION (215)

GUMO 4.30 210 eP 44 39.30 0.2
eS 45 29.90
PJG 4.30 210 eP 44 39.00 -0.1
GUA 4.32 209 eP 44 39.50 0.1
MAT 20.67 339 (P) 48 12.00 0.2
0.9s 10.08nm 4.1mb
Z 20s 2.84um 4.6Msz
WB2 39.11 199 iPd 50 57.10 -0.7
0.6s 21.40nm 5.2mb
ASPA 42.74 198 eP 51 28.70 1.0
0.8s 6.10nm 4.4mb
Z 22s 1.00um 4.7Msz
iS 07 15.90
iScS 12 11.90
INK 70.10 23 eP 54 41.00 -0.9
MBC 74.13 14 eP 55 07.00 1.3
MAIO 78.05 304 eP 55 28.00 -0.7
YKA 78.56 28 eP 55 29.80 -1.0
0.5s 1.10nm 4.1mb
RES 80.42 14 eP 55 41.00 0.4
DAG 85.70 357 iPc 56 08.20 0.6
0.8s 3.73nm 4.6mb
PV10 89.82 50 (P) 56 28.56 0.1
LPAZ 146.30 93 PKP 03 13.30 2.9X
LPB 146.36 94 ePKP 03 07.00 -3.2X
CNCB 146.50 94 PKP 03 13.70 3.1X
MOCB 148.90 102 PKP 03 17.50 3.3X
S.D. = 0.8 on 13 of 17 obs.

DEC 01, 1993 15h 55m 07.64± 1.18s
10.312 N ± 4.6km 126.550 E ± 6.4km
DEPTH = 51.8 ± 11.0 km
5.1mb (35 obs.) 4.9Msz (8 obs.)
PHILIPPINE ISLANDS REGION (248)

BIP 2.09 188 iP 55 39.50 -1.5
DAV 3.35 197 eP 56 01.00 2.3
CTB 3.87 217 ePc 56 05.00 -1.1
GQP 5.37 312 ePc 56 24.00 -3.3X
eS 57 11.00
PGP 6.33 301 eP 56 44.00 3.3X
TGY 6.66 305 ePd 56 44.00 -1.4
QCP 6.86 309 eP 57 13.50 25.4X
QVP 6.90 309 eP 57 08.00 19.2X
PPR 7.72 267 ePd 57 02.00 1.9
BCP 8.38 317 eP 57 19.20 9.8X
BAG 8.39 317 eP 57 06.00 -3.6X
CVP 8.66 329 eP 57 17.00 3.9X
TSM 10.48 236 ePd 57 45.30 7.3X
KKM 11.07 248 ePc 57 48.00 1.8
HKC 16.82 317 ePd 59 03.00 1.9
eS 02 15.00
SSE 21.27 347 P 59 51.80 0.1
1.5s 18.00nm 4.2mb
Z 20s 1.80um 4.5Msz
N 10s 0.80um
E 10s 0.70um
S 03 28.00
sS 03 44.00
WWKK 21.93 128 eP 00 00.00 1.5
TPI 22.86 236 ePc 00 09.00 1.4
e 02 00.00
MTN 23.45 169 eP 00 13.50 0.2
KGM 24.50 252 eP 00 24.00 0.4
TKSJ 24.54 15 P 00 24.20 0.4
PCT 24.92 283 eP 00 29.00 1.5
LOE 25.09 289 eP 00 26.00 -3.2X
WKYJ 25.20 18 P 00 28.60 -1.5
LEM 25.40 229 ePd 00 32.00 -0.3
1.7s 146.15nm 5.2mb
eS 05 12.00
eLR 08 23.00
YONJ 25.55 13 P 00 33.30 0.0
SNG 25.82 265 eP 00 37.80 1.8
eS 05 22.00
IPM 25.93 259 ePd 00 36.00 -1.1
0.7s 23.70nm 4.8mb
NST 26.27 284 eP 00 40.00 -0.1
NNT 26.37 278 eP 00 41.00 -0.1
KMI 26.97 306 eP 00 44.00 -2.8
1.2s 40.00nm 4.9mb
Z 16s 3.60um 5.0MszX
N 10s 0.90um
E 10s 1.00um
pP 00 49.50 19kmX
S 05 18.00
SS 05 40.00
KHT 27.64 282 eP 00 58.50 5.9X
CHTO 27.99 291 eP 00 54.10 -1.7
PMG 28.36 133 eP 00 57.00 -2.1
BJI 31.01 344 eP 01 21.50 -0.9
1.5s 28.00nm 4.8mb
Z 16s 1.17um 4.6MszX
N 11s 0.58um
ePP 02 22.00
eS 06 20.00
esS 06 28.00
eScP 08 00.00
eScS 11 56.00
WRA 31.03 166 P 01 20.79 -2.1
1.1s 3.60nm 4.0mb X
WB2 31.03 166 eP 01 19.60 -3.3X
1.1s 6.30nm 4.3mb
LZH 32.90 325 P 01 37.50 -1.8
2.0s 93.00nm 5.3mb
Z 16s 2.78um 5.1MszX
E 13s 1.47um
pP 01 49.00 43kmX
sP 01 55.00
PP 02 55.00
eS 06 54.00
sS 07 16.00
SS 09 00.00
QIS 33.26 157 eP 01 41.30 -1.0
NANU 34.41 198 eP 01 49.00 -3.2X
ASPA 34.53 168 eP 01 50.90 -2.4
1.3s 17.20nm 4.8mb
CTA 35.90 147 iPd 02 05.00 0.0
1.5s 222.22nm 5.9mb
Z 18s 6.53um 5.4Msz
e 03 31.00
eS 07 30.00
e 10 00.00
e(ScS) 12 24.00
MEEK 37.53 192 iPd 02 18.20 -0.4
MRWA 40.60 194 iPd 02 43.20 -0.9
0.5s 22.00nm 5.2mb
FORT 40.88 178 eP 02 46.50 0.2
COOL 41.29 187 eP 02 47.50 -2.2
BAL 41.77 193 eP 02 53.00 -0.6
GUN 41.98 300 P 02 51.60 -4.3X
PKI 42.29 300 P 02 53.40 -5.0X
KLB 42.51 191 eP 02 59.00 -0.7
DMN 42.56 300 P 02 54.60 -6.0X
CIT 42.89 348 eP 03 03.50 0.9
GKN 43.06 300 P 03 00.00 -4.6X
MUN 43.20 193 eP 03 04.80 -0.5
1.0s 70.00nm 5.4mb
NWAO 43.90 191 eP 03 11.60 0.6
ZAK 44.33 339 iPd 03 14.30 0.1
1.8s 71.00nm 5.1mb
e 05 00.50
eS 09 44.00

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                 e     13 03.00
STK     44.36 162 eP    03 01.20 -13.5X
        2.5s     8.30nm
                 iPP   04 46.10
BRS     45.29 146 iPc   03 22.00  -0.3
        1.0s    22.00nm           5.0mb
                 i     03 35.00
                 i     05 05.00
                 eS    10 00.00
                 e     13 27.00
IRK     45.57 341 eP    03 14.00 -10.2X
        1.9s    67.00nm
      Z  14s     0.66um         4.7MszX
      N  16s     0.71um
      E  13s     0.62um
                 e     03 35.50
                 e     03 45.00
                 e     03 53.50
                 e     05 36.00
                 eS    10 02.00
                 e     10 24.00
                 e     12 46.00
                 e     13 18.00
                 e     14 06.00
ADE     46.48 166 e(P)  03 33.00   1.4
HYB     47.03 284 eP    03 34.60  -1.6
ARMA    47.13 150 eP    03 37.50   0.6
        1.2s    46.00nm           5.3mb
                 e     04 52.50
GBA     48.10 279 P     03 43.00  -1.5
KOD     48.26 275 eP    03 45.00  -1.2
BOD     48.37 351 eP    03 45.20  -0.9
        1.5s    32.00nm           5.1mb
BWA     49.09 156 iPc   03 53.80   1.8
CAN     50.11 156 eP    04 00.70   1.0
CNB     50.25 156 iPc   04 01.80   1.0
        1.3s   200.00nm           6.0mb
                 i     04 22.00
DZM     50.66 130 iPc   04 04.10  -0.1
POO     51.54 285 eP    04 07.50  -3.4X
YAK     51.66   2 iPd   04 11.30   0.2
        1.0s   163.00nm           6.0mb
      Z  18s     0.90um          4.8Msz
      N  16s     0.90um
      E  20s     0.40um
QUE     58.66 299 eP    05 04.50   1.9
TIK     61.29   1 iPc   05 18.00  -1.6
        3.0s   200.00nm           5.7mb
      Z  18s     1.00um          5.0Msz
                 i     05 29.00
                 e     07 38.00
                 ePPP  09 10.00
                 iS    13 35.00
ASH     66.56 307 eP    05 49.00  -5.7X
ILT     67.70  20 eP    06 00.00  -1.3
        1.6s    56.00nm           5.3mb
      Z  20s     0.60um          4.8Msz
      E  20s     0.40um
                 i     06 09.60
                 i     06 22.90
SVE     68.32 327 ePd   06 04.00  -1.4
        2.4s    60.00nm           5.2mb
      Z  15s     0.70um         5.0MszX
      N  14s     0.50um
      E  14s     0.50um
                 e     08 43.00
                 eS    15 04.00
                 e     16 00.00
ARU     69.32 327 eP    06 10.00  -1.5
        2.2s    80.00nm           5.3mb
      Z  16s     0.50um         4.9MszX
      N  18s     0.50um
      E  16s     0.50um
                 eS    15 14.00
                 e     16 07.00
SVW     75.15  29 eP    06 46.90   0.8
        1.3s    85.64nm           5.5mb
TTA     75.16  28 eP    06 48.20   2.0
IMA     76.49  24 eP    06 52.46  -1.2
        1.4s    24.48nm           5.0mb
CP2     76.80  29 eP    06 55.60   0.0
CRP     76.84  29 eP    06 55.27  -0.5
SLKM    77.76  30 eP    07 00.41  -0.2
PWA     77.94  29 eP    07 01.80   0.3
        1.1s    56.90nm           5.5mb
PYA     78.25 313 eP    07 12.00   8.3X
PMR     78.30  29 eP    07 03.26  -0.2
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        1.3s    68.27nm           5.5mb
KIV     78.52 313 eP    07 06.70   1.4
        1.2s    13.00nm           4.8mb
                 e     07 16.20
                 e     17 20.90
TOA     79.69  29 eP    07 12.90   1.7
OBN     81.60 324 eP    07 13.00  -8.3X
      Z  20s     0.80um          5.1Msz
      E  20s     0.40um
INK     84.15  22 eP    07 35.00   0.9
        1.5s    19.00nm           4.9mb
MBC     85.61  13 eP    07 43.00   1.6
        1.0s     4.00nm           4.6mb
DAG     90.76 352 iPd   08 05.30  -0.7
        0.8s    17.16nm           5.5mb
RES     91.41  10 eP    08 10.50   1.5
        1.0s     4.00nm           4.8mb
UZH     91.58 320 iPd   08 11.70   1.5
        1.2s    45.00nm           5.8mb
                 i     08 27.30
APO     91.86 333 eP    08 10.90  -0.4
        0.5s     1.10nm           4.6mb
      Z  19s     0.37um          4.8Msz
                 LR    43 52.00
SPC     92.70 321 eP    08 16.00   0.4
YKA     93.61  24 eP    08 19.00  -0.3
        1.2s     6.40nm           4.9mb
SRO     94.37 320 eP    08 30.20   7.1X
KSP     94.50 323 eP    08 25.00   1.4
ZST     94.99 321 eP    08 34.50   8.5X
BRG     95.86 324 eP    08 35.90   6.0X
        1.5s    26.00nm           5.5mb
                 e     08 42.00
PRU     95.87 323 eP    08 39.50   9.6X
CLL     96.22 325 e(P)  08 43.00  11.5X
        1.8s    42.00nm
KHC     96.79 322 eP    08 39.00   4.8X
GEC2    96.83 322 P     08 34.80   0.4
        0.7s     0.60nm           4.2mb
                 e     08 38.80
                 e     08 45.00
MOX     97.29 324 eP    08 47.10  10.7X
        1.9s    38.00nm
      Z  20s     0.40um          4.9Msz
GRF     97.94 324 eP    08 52.00  12.7X
LKO    128.46 291 PKP   14 22.28  10.9X
        1.2s    12.00nm
LIC    129.06 287 PKP   14 15.93   3.4X
        1.2s    21.00nm
CNCB   164.47 116 PKPc  15 12.00   4.0X
LPB    164.47 115 ePKP  15 11.00   3.1X
LPAZ   164.53 114 PKP   15 09.90   1.7
SIV    170.68 128 PKP   15 13.30   1.6
     S.D. = 1.3  on  79 of 113 obs.
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& DEC 01, 1993  16h 15m 06.19s
   61.841 N         149.917 W
   DEPTH =  38.6km
 SOUTHERN ALASKA                 ( 2)
        <AEIC>. ML 3.4 (AEIC), 3.4
        (PMR). Felt (II) at Palmer.

PWA      0.19 175 iPd   15 13.60   0.3
PLRM     0.45 123 iPc   15 15.29  -0.9
                  eS    15 23.65
PMR      0.45 123 eP    15 15.09  -1.1
                  eS    15 22.48
GHO      0.48  98 iPc   15 16.13  -0.5
                  eS    15 24.83
SUA      0.55 227 ePc   15 17.17  -0.5
                  eS    15 27.25
PMS      0.62 164 iPd   15 18.20  -0.4
SML      0.75  92 iPc   15 19.34  -1.1
                  eS    15 30.34
SKT      0.78 281 iPc   15 19.67  -1.1
                  eS    15 30.77
KNK      0.82 121 iPc   15 20.55  -0.8
                  eS    15 32.66
HUR      1.15   6 iPd   15 25.35  -0.7
                  eS    15 39.98
CRP      1.22 243 eP    15 25.85  -1.3
SPU      1.22 238 ePc   15 26.46  -0.6
                  eS    15 43.14
SCM      1.23  89 iPc   15 26.57  -0.7
                  eS    15 43.57
CP2      1.25 244 eP    15 26.71  -1.0
SLKM     1.35 186 eP    15 27.85  -1.0
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BKG      1.37 237 ePc   15 28.66  -0.5
                  eS    15 47.48
DHY      1.71  43 eP    15 33.41  -0.8
                  eS    15 56.15
KTH      1.78 345 ePd   15 34.33  -0.8
                  eS    15 56.64
TOA      1.79  80 iPc   15 35.40   0.2
VLZ      1.86 111 eP    15 35.10  -1.1
                  eS    15 58.61
REF      1.91 226 eP    15 36.49  -0.7
                  eS    15 59.27
KLU      1.94  99 iPc   15 36.57  -0.9
RED      1.99 225 eP    15 37.60  -0.5
                  eS    16 02.82
BRLK     2.14 193 eP    15 40.62   0.4
                  eS    16 09.14
SDG      2.16  70 eP    15 40.35  -0.2
                  eS    16 07.87
HIN      2.20 130 eP    15 39.94  -1.2
                  eS    16 06.87
BWN      2.35   5 eP    15 41.35  -1.8
INE      2.35 222 eP    15 40.84  -2.6
                  eS    16 11.23
THY      2.49  49 eP    15 45.73   0.5
DDM      2.70  42 eP    15 49.28   1.0
WRH      2.77  17 eP    15 47.62  -1.5
NEA      2.77   8 eP    15 47.47  -1.8
SVW      2.83 257 eP    15 48.09  -2.0
HDA      2.91  26 eP    15 50.49  -0.6
GLB      2.94  95 eP    15 50.08  -1.6
                  eS    16 24.17
CCB      2.97  18 eP    15 50.22  -1.8
TTA      3.04 294 eP    15 50.56  -2.5
FBA      3.22  16 eP    15 53.60  -1.8
MDM      3.22  13 eP    15 54.17  -1.4
MLY      3.22 354 eP    15 53.73  -1.9
GLM      3.36  19 eP    15 55.84  -1.7
TMW      3.53  62 eP    16 00.79   0.8
BALM     3.73  99 eP    16 00.47  -2.3
CTGM     4.22  98 eP    16 08.13  -1.7
YAH      4.23 107 eP    16 08.37  -1.8
KDC      4.31 199 eP    16 07.55  -3.3
IMA      4.56 340 eP    16 10.06  -4.6
YKA     16.38  72 eP    18 52.80  -1.7
        0.7s     0.30nm         2.5mb X
        48 obs. associated
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& DEC 01, 1993  16h 35m 20.48s
   37.517 N         118.635 W
   DEPTH =  12.7km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
        <GM-P>. MD 3.2 (GM). ML 3.3
        (GS), 3.2 (BRK).

CASR     0.09  49 P     35 23.26  -0.4
ORC      0.12 352 P     35 23.78  -0.3
MTUM     0.17 161 iPc   35 24.45  -0.3
MRCM     0.19  33 eP    35 24.47  -0.5
BHPR     0.25 152 P     35 25.80  -0.3
MCSM     0.25 303 P     35 26.11  -0.1
MEMM     0.28 302 iPd   35 26.60   0.0
MMPM     0.33 287 ePc   35 26.99  -0.6
BONR     0.51  31 eP    35 30.58  -0.5
FRI      1.00 239 iP    35 38.89  -0.3
                  eS    35 51.78
TNP      1.26  63 eP    35 44.16   0.4
WLHM     1.39 169 P     35 45.88   0.1
CMB      1.48 291 ePc   35 47.18   0.3
                  eS    36 06.35
MOYM     1.58 285 P     35 49.09   0.9
KVN      1.59  15 eP    35 49.99   1.4
WCHM     1.69 164 P     35 51.52   1.4
NMC      1.77 160 P     35 52.90   1.8
WORM     1.84 170 P     35 53.91   1.7
PKEM     1.87 220 (P)   35 54.03   1.5
BRMM     1.88 249 P     35 54.56   2.0
BMSM     1.93 244 P     35 55.18   1.8
TPNV     1.99 106 eP    35 54.21  -0.1
WBSM     2.02 168 P     35 57.12   2.3
WJPM     2.11 177 P     35 58.56   2.6
PRI      2.13 230 iP    35 58.19   1.8
                  eS    36 26.94
EKH      2.20 248 P     35 59.58   2.3
LTR      2.23 254 P     35 59.31   1.7
HJSM     2.24 253 P     35 59.52   1.7
BHRM     2.24 250 P     36 00.34   2.5
ARN      2.31 267 eP    35 59.97   1.1
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01d 16h

HSPM 2.33 261 P 36 01.27 2.1
SAO 2.37 252 iP 36 01.05 1.4
BMTC 2.38 179 P 36 03.55 3.7
MHC 2.40 267 eP 36 02.19 2.0
JRRM 2.51 260 P 36 03.24 1.6
GSC 2.66 146 (P) 36 05.70 1.8
ABL 2.70 190 eP 36 06.59 1.9
ORV 3.03 313 (P) 36 09.27 0.2
ARUT 4.13 85 ePn 36 24.60 -0.2
39 obs. associated

DEC 01, 1993 16h 41m 44.20± 0.44s
53.783 N ± 9.0km 160.256 E ± 7.3km
DEPTH = 33.0km (normal)
4.8mb (25 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

MAT 23.06 231 (P) 46 49.00 1.6
0.7s 8.90nm 4.4mb
IMA 25.47 43 iP 47 10.80 0.3
0.9s 2.00nm 3.7mb X
INK 33.27 38 eP 48 20.00 0.0
MBC 36.37 23 eP 48 47.50 1.1
1.0s 3.00nm 4.2mb
YKA 42.59 43 eP 49 37.80 -0.3
0.7s 2.00nm 4.0mb
RES 42.65 22 eP 49 49.50 11.0X
0.5s 1.00nm
GUN 58.92 276 P 51 41.20 -1.5
RSSD 58.94 57 eP 51 41.90 -0.7
0.8s 7.17nm 4.8mb
KKN 59.36 276 P 51 44.50 -1.2
PKI 59.45 276 P 51 46.00 -0.4
GKN 59.59 277 P 51 46.20 -0.9
PV08 60.60 64 (P) 51 53.71 -0.4
APO 62.90 342 eP 52 07.10 -1.8
0.4s 1.60nm 4.5mb
NB2 62.91 344 P 52 07.70 -1.2
0.5s 2.90nm 4.7mb
LTX 70.28 67 (P) 52 55.28 -0.9
CLL 71.74 339 eP 53 04.00 -0.5
PRU 72.65 338 P 53 09.50 -0.4
GRF 73.65 340 eP 53 16.90 1.2
0.9s 16.00nm 5.0mb
KHC 73.67 338 eP 53 16.50 0.6
1.0s 5.40nm 4.5mb
MEM 73.75 343 iPd 53 16.52 0.3
1.0s 7.70nm 4.7mb
GEC2 73.91 338 P 53 17.50 0.1
0.5s 1.98nm 4.3mb
DOU 74.49 344 P 53 20.90 0.4
GBA 74.92 272 P 53 24.00 0.5
CDF 75.64 342 eP 53 27.20 -0.2
0.6s 2.55nm 4.4mb
KBA 75.66 337 iPc 53 28.60 1.0
0.9s 17.90nm 5.1mb
i 53 42.20
HAU 76.20 342 eP 53 30.20 -0.2
0.6s 4.95nm 4.7mb
BSF 76.29 342 eP 53 30.50 -0.5
1.0s 7.80nm 4.7mb
FLN 76.54 347 eP 53 31.60 -0.7
0.8s 10.50nm 4.9mb
LDF 76.66 347 eP 53 32.40 -0.5
WRA 76.75 205 P 53 33.80 0.1
1.0s 0.70nm 3.6mb X
GRR 76.96 347 eP 53 34.20 -0.4
0.7s 14.20nm 5.1mb
LPF 77.33 347 eP 53 36.60 0.0
LOR 77.35 344 eP 53 36.60 -0.2
0.7s 5.85nm 4.7mb
LBF 77.60 344 eP 53 37.80 -0.4
SSF 77.61 344 eP 53 38.10 -0.1
AVF 77.90 344 eP 53 39.70 -0.1
1.0s 10.40nm 4.8mb
LPL 78.53 341 eP 53 44.50 0.9
0.8s 14.25nm 5.0mb
LPG 78.54 341 eP 53 44.80 1.0
0.8s 13.70nm 5.0mb
TCF 78.57 345 eP 53 43.60 0.1
MFF 78.61 346 eP 53 43.80 0.1
LSF 78.71 345 eP 53 44.50 0.2
0.9s 11.95nm 4.9mb
RJF 79.63 345 eP 53 49.70 0.4
1.2s 23.80nm 5.1mb
CAF 79.92 344 eP 53 51.70 0.8
0.7s 6.85nm 4.8mb
LFF 80.11 345 eP 53 52.50 0.7
LPO 80.29 345 eP 53 53.60 0.8
0.6s 10.00nm 5.0mb
FRF 80.43 341 eP 53 54.10 0.5
LRG 80.59 341 eP 53 55.00 0.6
0.7s 18.40nm 5.2mb
LMR 80.68 341 eP 53 55.30 0.4
S.D. = 0.7 on 47 of 48 obs.

DEC 01, 1993 17h 24m 27.20± 0.29s
12.131 N ± 5.7km 86.416 W ± 4.5km
DEPTH = 125.7km (7 depth phases)
4.7mb (26 obs.)
NICARAGUA (75)

BRU 5.03 131 iP 25 43.46 1.4
eS 26 40.37
DVD 5.36 133 iP 25 47.07 1.0
eS 26 52.30
TPX 6.32 297 (P) 25 59.00 -0.3
ECO 7.15 112 eP 26 11.10 0.4
UPA 7.45 114 eP 26 15.26 0.5
eS 27 41.12
SCX 7.56 308 (P) 26 20.00 3.8X
OXX 11.12 297 (P) 27 03.86 -0.1
LVVM 12.26 309 (P) 27 17.50 -1.1
IISM 12.57 304 (P) 27 23.59 0.9
PPM 13.63 302 (P) 27 38.19 1.1
IIA 13.70 302 (P) 27 38.51 1.2
ACX 13.84 291 (P) 27 40.72 1.5
UNM 14.22 302 (P) 27 45.00 0.7
CRX 14.67 301 (P) 27 51.00 0.9
SDV 15.85 100 iPc 28 05.90 1.1
MRX 16.07 300 (P) 28 10.32 3.0
TOV 16.49 96 ePn 28 13.90 1.3
eSn 28 38.40
AGX 18.00 305 (P) 28 32.00 1.0
CAR 19.18 93 eP 28 43.50 -0.3
MZX 21.99 303 (P) 29 13.50 1.5
OXF 22.45 354 eP 29 15.84 -0.5
0.7s 42.15nm 4.9mb
MYNC 22.93 5 eP 29 23.11 2.0
0.6s 14.71nm 4.5mb
e 29 39.53 72kmX
UYO 23.13 343 iPc 29 24.10 1.1
MIAR 23.25 345 eP 29 24.76 0.7
0.9s 40.73nm 4.8mb
LTX 23.47 319 eP 29 25.87 -0.6
CEH 24.56 14 eP 29 37.82 1.1
0.9s 84.99nm 5.2mb
SVB 24.57 85 eP 29 38.04 1.0
SLB 24.78 83 eP 29 40.41 1.4
MEO 25.12 336 iPd 29 41.10 -0.8
TUL 25.15 342 iPd 29 42.00 -0.2
WMOK 25.16 335 eP 29 41.31 -1.0
0.9s 95.72nm 5.3mb
OCO 25.35 339 iPc 29 44.70 0.6
NNA 25.78 158 iPd 29 49.30 1.1
1.3s 38.46nm 4.8mb
ACO 27.01 337 iPd 29 58.50 -0.8
MCWV 28.03 11 eP 30 08.33 0.0
0.7s 17.86nm 4.9mb
ALQ 29.09 325 eP 30 17.41 -0.9
0.7s 12.22nm 4.7mb
TUC 30.07 316 eP 30 27.12 0.3
0.9s 27.33nm 5.0mb
e 30 33.57 22kmX
YSNY 31.00 11 eP 30 34.95 0.2
0.9s 8.04nm 4.5mb
BINY 31.31 15 eP 30 38.26 0.8
1.0s 76.92nm 5.4mb
GLD 32.15 332 (P) 30 43.74 -1.3
0.8s 24.70nm 5.0mb
PV08 32.94 327 eP 30 52.48 0.4
PV10 33.01 326 eP 30 51.52 -1.1
e 31 20.15 131km
PV09 33.15 326 eP 30 53.91 0.1
e 32 16.03 451kmX
GLA 33.31 313 eP 30 54.81 -0.2
LPAZ 33.53 147 P 30 56.60 -1.1
LPB 33.75 147 P 30 58.00 -1.4
RSNY 33.88 15 eP 30 59.79 0.1
1.0s 62.60nm 5.3mb
CNCB 34.04 147 P 31 02.10 0.1
GAC 34.73 13 ePd 31 07.30 0.4
MSU 34.87 323 eP 31 08.73 0.2
ePcP 32 37.00
PLM 34.92 312 eP 31 08.83 -0.2
EMUT 35.00 326 eP 31 09.68 0.0
e 31 38.46 131km
ARUT 35.15 321 eP 31 11.30 0.4
e 31 39.81 126km
RSSD 35.30 338 eP 31 12.39 0.3
0.7s 2.16nm 4.1mb
e 31 38.55 114kmX
PEC 35.41 313 eP 31 12.46 -0.5
0.9s 19.28nm 4.9mb
CCH 35.52 145 P 31 13.60 -0.7
DAU 35.66 327 eP 31 15.11 -0.2
e 32 44.29 478kmX
GSC 35.89 315 eP 31 16.72 -0.3
DUG 36.37 325 eP 31 20.37 -0.7
1.2s 9.92nm 4.5mb
TPNV 36.43 318 eP 31 21.98 0.4
0.8s 12.70nm 4.8mb
SIV 37.54 137 P 31 29.30 -1.7
CBM 37.97 20 eP 31 34.17 0.0
0.8s 10.87nm 4.7mb
LMN 38.30 25 ePc 31 37.70 0.7
BONR 38.34 318 eP 31 38.25 0.4
e 32 06.21 124km
PHAM 38.68 313 eP 31 40.66 0.3
ULM 38.80 350 eP 31 42.50 1.5
LRM 40.20 332 eP 31 53.40 0.4
e 32 20.40 118km
ARN 40.21 315 eP 31 50.48 -2.5
ORV 41.31 318 eP 32 02.39 0.5
e 32 29.71 120km
JAQ 42.43 9 ePd 32 09.40 -1.4
LGPM 42.89 319 eP 32 13.45 -1.4
NEW 44.18 331 (P) 32 24.56 -0.5
0.7s 2.07nm 4.0mb
RTLL 46.52 159 eP 32 33.50 -10.3X
RTCB 46.54 159 eP 32 34.00 -10.1X
BDFB 46.97 125 eP 32 44.20 -3.5X
0.9s 14.88nm 4.7mb
e 33 14.14 131km
MCW 47.32 328 eP 32 47.86 -2.1
FRB 53.06 10 eP 33 31.00 -2.1
1.0s 6.00nm 4.5mb
YKA 54.19 344 eP 33 38.20 -3.3X
1.0s 2.70nm 4.1mb
RES 62.72 357 eP 34 39.50 -1.0
1.0s 5.00nm 4.4mb
INK 63.81 342 eP 34 46.00 -1.8
1.2s 6.00nm 4.4mb
MBC 66.47 352 eP 35 04.00 -0.7
1.0s 7.00nm 4.5mb
FBA 67.13 336 (P) 35 09.36 0.3
e 35 26.67 64kmX
LKO 79.15 82 P 36 17.61 -2.5
0.7s 4.00nm 4.3mb
STK 131.79 238 iPKPd 43 15.40 -12.1X
0.6s 8.30nm
ASPA 140.09 248 iPKPc 43 37.90 -5.5X
0.7s 22.70nm
i 43 42.50
WRA 140.15 253 PKP 43 36.50 -7.0X
0.7s 1.80nm
MTN 143.36 265 ePKP 43 47.50 -1.7
COOL 148.43 229 ePKP 44 00.50 3.2X
GBA 149.83 33 PKP 44 02.00 2.3X
NWAO 150.04 222 ePKP 44 04.30 4.7X
KLB 150.48 225 ePKP 44 05.20 4.9X
1.0s 74.00nm
MUN 151.31 223 ePKP 44 08.50 7.0X
BAL 151.79 226 ePKP 44 07.80 5.5X
0.8s 73.00nm
MEEK 152.40 235 ePKP 44 10.00 6.6X
MRWA 153.09 227 ePKP 44 10.70 6.5X
S.D. = 1.1 on 79 of 95 obs.

DEC 01, 1993 17h 32m 57.20± 0.74s
41.157 N ± 9.1km 20.172 E ± 6.9km
DEPTH = 15.3 ± 5.0 km
ALBANIA (391)
ML 2.8 (TTG).

OHR 0.48 95 iPg 33 04.20 -2.6
0.4s 330.00nm
i 33 09.70
iSg 33 12.00
ULC 1.06 320 iPgc 33 15.69 -1.1
iSg 33 33.63

SKO 1.25 49 iPg 33 19.80 -0.2
iSg 33 37.00
Lg 33 41.00
TTG 1.44 332 iPgd 33 22.25 -0.4
iSg 33 45.69
PVY 1.44 354 iPgc 33 22.51 -0.3
iSg 33 45.63
BDV 1.51 319 iPnd 33 23.84 0.2
iSn 33 47.54
GRG 1.70 96 ePb 33 27.28 0.9
eSb 33 49.88
IVA 1.73 353 iPnd 33 27.31 0.5
iSn 33 52.69
HCY 1.80 316 iPnd 33 28.04 0.2
iSn 33 54.31
VAY 1.82 84 ePn 33 29.40 1.3
NKY 1.87 333 iPnd 33 29.42 0.4
iSn 33 55.89
LIT 2.06 120 ePn 33 31.60 0.0
eSn 34 01.92
KNT 2.06 89 ePn 33 31.84 0.2
BRY 2.12 326 iPnd 33 32.94 0.3
iSn 34 01.95
PLE 2.25 345 iPnc 33 34.48 0.0
iSn 34 05.24
SOH 2.43 97 ePn 33 37.60 0.6
SRS 2.58 90 ePn 33 38.96 -0.2
AGG 2.70 141 ePn 33 40.68 -0.1
S.D. = 0.9 on 18 of 18 obs.

% DEC 01, 1993 17h 57m 46.23± 0.62s
40.518 N ± 4.5km 22.755 E ± 5.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE 0.20 55 iPg 57 50.60 0.1
iSg 57 53.48
LIT 0.46 206 iPg 57 55.60 -0.1
eSg 58 02.64
GRG 0.51 329 ePg 57 56.64 0.0
eSg 58 04.96
SOH 0.55 56 iPg 57 57.14 -0.2
eSg 58 05.94
KNT 0.65 10 ePg 57 59.32 0.1
eSg 58 08.48
SRS 0.87 46 ePg 58 03.06 0.0
iSg 58 16.28
PAIG 0.92 130 ePg 58 04.04 0.2
eSg 58 16.64
OUR 0.95 101 ePg 58 04.24 -0.1
eSg 58 18.12
S.D. = 0.1 on 8 of 8 obs.

DEC 01, 1993 19h 13m 34.01± 0.28s
5.280 S ± 4.6km 131.160 E ± 5.8km
DEPTH = 106.1km (2 depth phases)
5.1mb (19 obs.)
BANDA SEA (280)

MTN 7.52 180 iPc 15 20.80 -1.8
0.2s 444.00nm 6.7mb X
WWKK 12.53 83 eP 16 29.00 -0.9
TSM 16.33 305 eP 17 19.00 0.6
PMG 16.39 105 eP 17 19.00 -0.1
QIS 17.26 152 eP 17 28.50 -1.4
eS 20 28.70
ASPA 18.47 172 iPc 17 42.80 -1.7
0.7s 277.00nm 5.7mb
iS 20 58.10
iScS 29 15.70
KKM 18.69 307 ePc 17 48.50 1.5
0.7s 69.00nm 5.1mb
CTA 20.79 136 iPd 18 09.00 0.4
0.8s 37.31nm 4.8mb
i 18 20.00
eS 21 54.00
i 22 23.00
i 24 17.00
i 24 26.00
CTA 20.79 136 iP 18 13.00 4.4X
1.0s 135.00nm 5.2mb
i 18 24.00
NANU 22.88 220 eP 18 29.80 0.6
0.3s 9.00nm 4.6mb
BAG 23.96 334 ePc 18 40.10 0.2
0.9s 84.03nm 5.2mb
MEEK 24.38 208 eP 18 44.00 0.2
FORT 25.53 186 eP 18 54.00 -0.4
COOL 27.16 199 eP 19 10.00 0.7
MRWA 27.80 209 iPd 19 15.10 0.0
0.3s 8.00nm 4.9mb
BAL 28.63 207 eP 19 23.00 0.4
KLB 29.04 204 eP 19 26.50 0.3
MUN 30.02 206 eP 19 35.50 0.6
BRS 30.12 139 iPd 19 35.50 -0.4
1.0s 10.00nm 4.5mb
e 20 23.00
ADE 30.35 168 e(P) 19 39.30 1.4
ARMA 31.58 145 iPc 19 49.60 0.9
0.8s 16.00nm 4.8mb
IPM 31.65 288 ePc 19 49.20 -0.3
0.8s 28.70nm 5.1mb
BWA 33.12 153 eP 20 04.10 2.1
CAN 34.13 153 eP 20 11.90 1.2
NNT 35.93 300 eP 20 26.00 -0.1
LOE 36.78 308 iPc 20 33.00 -0.3
NST 37.11 305 iPc 20 36.80 0.7
SSE 37.41 346 P 20 38.50 0.2
1.0s 12.00nm 4.8mb
KHT 37.94 302 eP 20 43.30 0.2
CHTO 39.76 308 iPc 20 58.60 0.4
1.1s 94.23nm 5.5mb
KMI 40.95 319 eP 21 08.50 0.4
1.0s 60.00nm 5.4mb
pP 21 34.00 110km
sP 21 44.50
MAT 42.12 8 eP 21 17.00 -0.3
1.0s 16.00nm 4.8mb
BJI 47.16 344 eP 21 57.00 -0.5
1.0s 9.00nm 4.5mb
LZH 48.47 330 iPc 22 08.20 0.3
1.8s 62.00nm 5.2mb
pP 22 32.50 102km
GUN 54.72 310 P 22 55.00 -0.3
PKI 54.92 309 P 22 56.00 -0.7
KKN 55.12 309 P 22 57.60 -0.4
DMN 55.17 309 P 22 58.20 -0.2
KOD 55.65 286 eP 23 01.00 -1.0
GKN 55.73 309 P 23 02.00 -0.2
GBA 56.53 290 P 23 07.00 -0.9
HYB 56.62 295 iPc 23 07.70 -1.0
1.0s 50.00nm 5.5mb
POO 61.22 294 iPd 23 37.90 -2.5
0.8s 26.12nm 5.3mb
NDI 61.88 306 iPc 23 43.00 -1.6
0.8s 29.85nm 5.4mb
YAK 67.11 359 eP 24 18.90 1.1
QUE 70.77 304 eP 24 42.60 1.3
MAIO 78.51 309 iPc 25 26.80 1.4
LKO 136.92 278 PKP 32 49.82 2.7X
0.8s 7.50nm
MOCB 148.91 149 PKP 33 14.70 6.6X
CNCB 151.02 140 PKP 33 21.00 9.5X
LPB 151.15 139 ePKP 33 19.00 7.5X
LPAZ 151.30 139 PKP 33 20.60 8.6X
S.D. = 1.0 on 46 of 52 obs.

DEC 01, 1993 19h 44m 54.63± 0.45s
2.367 N ± 7.2km 125.506 E ± 9.1km
DEPTH = 33.0km (normal)
4.9mb (9 obs.)
TALAUD ISLANDS, INDONESIA (263)

TSM 7.86 284 eP 46 51.00 1.5
WWKK 19.06 108 eP 49 18.50 1.4
ASPA 27.14 163 iPc 50 36.30 -0.6
0.8s 17.10nm 4.7mb
eS 55 11.30
MEEK 29.59 193 eP 50 58.50 -0.6
MRWA 32.70 196 iPc 51 27.20 0.9
0.8s 14.00nm 4.9mb
FORT 33.05 176 eP 51 29.00 -0.3
BAL 33.85 194 eP 51 36.50 0.2
KLB 34.57 192 eP 51 42.00 -0.4
MUN 35.28 194 eP 51 48.50 0.0
STK 37.33 157 iPc 51 53.30 -12.5X
1.0s 13.20nm
BJI 38.44 348 eP 52 13.50 -1.6
1.0s 6.00nm 4.4mb
LZH 39.08 332 eP 52 20.50 -0.2
2.0s 43.00nm 4.9mb
BRS 39.57 140 iPc 52 23.50 -1.2
0.5s 14.00nm 5.0mb
ARMA 41.04 145 iPc 52 37.20 0.4
0.6s 42.00nm 5.3mb
GUN 45.56 308 P 53 14.50 0.6
0.8s 23.00nm 5.1mb
KKN 45.98 307 P 53 15.60 -1.4
YAK 59.59 2 iPd 54 57.60 0.3
1.0s 1.00nm 3.9mb
IMA 84.12 24 eP 57 24.41 0.9
0.7s 4.70nm 4.8mb
S.D. = 1.0 on 17 of 18 obs.

DEC 01, 1993 21h 06m 15.18± 0.65s
44.737 N ± 3.8km 6.852 E ± 7.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.4 (GEN), 1.9 (LDG).

RRL 0.19 345 P 06 19.56 0.0
S 06 23.04
PZZ 0.29 142 P 06 21.16 -0.2
S 06 25.51
BHB 0.31 70 P 06 22.49 0.8
S 06 27.89
RSP 0.50 35 P 06 25.97 0.5
S 06 33.75
STV 0.60 145 P 06 26.51 -0.8
S 06 34.80
ENR 0.65 141 P 06 27.57 -0.7
S 06 36.81
LSD 0.75 17 P 06 29.39 -0.7
S 06 40.15
LPG 0.76 355 Pg 06 30.20 -0.1
Sg 06 40.50
LPL 0.78 354 Pg 06 30.50 -0.1
Sg 06 40.50
ROB 0.85 121 P 06 30.86 -0.8
SBF 0.97 154 Pg 06 35.30 1.7
Sg 06 47.50
LMR 1.42 190 Pg 06 41.40 0.3
Sg 06 59.50
S.D. = 0.8 on 12 of 12 obs.

% DEC 01, 1993 21h 29m 51.47± 2.98s
37.047 S ±18.1km 176.811 E ±11.1km
DEPTH = 290.1 ± 24.0 km
NORTH ISLAND, NEW ZEALAND (159)

KUZ 0.92 289 eP 30 30.30 -0.4
URZ 1.23 169 Pc 30 30.70 -1.6
S 30 53.40
HBZ 1.31 115 P 30 33.20 0.5
PUZ 1.54 132 P 30 34.00 -0.3
eS 30 58.70
PAHZ 1.82 174 eP 30 35.70 -0.6
NOZ 1.84 149 P 30 37.00 0.6
MOZ 2.16 227 P 30 39.60 0.6
MGZ 2.20 207 P 30 40.30 0.9
MAHZ 2.30 159 eP 30 41.10 0.9
CNZ 2.37 204 eP 30 41.40 0.4
TTH 2.49 180 P 30 42.30 0.4
WAHZ 2.67 188 P 30 43.50 -0.2
PGZ 3.59 187 P 30 53.20 0.1
MNG 3.71 196 P 30 54.30 -0.2
S 31 35.20
KIW 4.09 201 P 30 58.60 0.0
MTW 4.23 194 P 30 59.70 -0.5
CAW 4.28 198 P 31 00.60 -0.1
AMW 4.33 191 P 31 01.40 0.1
DIW 4.37 210 eP 31 01.90 0.0
BLW 4.44 193 P 31 02.10 -0.5
MRW 4.49 201 P 31 02.90 -0.2
eS 31 52.20
MOW 4.53 195 P 31 03.40 -0.3
TCW 4.60 205 P 31 04.60 0.1
LTZ 6.71 210 eP 31 30.00 0.3
S.D. = 0.6 on 24 of 24 obs.

DEC 01, 1993 22h 04m 22.36± 0.31s
12.781 S ± 6.1km 44.766 E ± 5.8km
DEPTH = 10.0km (geophysicist)
5.2mb (41 obs.) 4.8Msz (7 obs.)
NORTHWEST OF MADAGASCAR (574)

MTD 13.35 251 iPnd 07 47.10 12.4X
i 10 17.30
iLg 11 05.00
NAI 13.89 325 iPc 07 41.00 -0.9
BUL 17.13 243 iPnd 08 23.20 -0.5

01d 22h

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SLR     20.17 228 iPc    08 58.00  -2.1
        0.8s    18.66nm          4.5mb
      Z 18s     9.62um           5.2Msz
BLF     23.71 224 iPd    09 35.50   0.0
        0.7s    45.00nm          5.2mb
ARO     24.23 355 eP+    09 43.00   2.5
FRS     24.70 224 iPc    09 44.00  -0.9
        0.7s    13.70nm          4.7mb
POF     28.35 230 iPc    10 19.00   0.4
        0.5s    17.61nm          5.1mb
GBA     41.66  52 P      12 13.00   0.1
POO     42.32  43 iPd    12 17.50  -0.8
        1.5s    97.22nm          5.3mb
HYB     44.87  49 iPc    12 39.20   0.1
        1.0s    50.00nm          5.4mb
QUE     47.77  26 eP     13 02.80   0.8
TAB     50.60   2 eP     13 25.00   1.4
MAIO    50.76  15 iPc    13 25.20   0.4
                  eS     20 56.00
NDI     51.80  37 iPc    13 31.70  -1.0
        0.5s    28.17nm          5.5mb
ERE     52.69 360 iP     13 40.00   0.7
KIC     52.74 288 P      13 41.49   1.5
LIC     52.96 288 P      13 43.07   1.4
      Z 20s     1.00um           4.9Msz
TIC     53.10 288 P      13 44.21   1.5
        0.9s    30.50nm          5.3mb
MTA     54.21   0 eP     13 50.00  -0.2
LKO     54.71 291 Pd     13 56.17   1.6
        1.1s    26.00nm          5.2mb
GRO     55.86   1 iPc+   14 04.00   1.7
        2.0s   240.00nm          5.9mb
                  i      14 55.00
GKN     55.99  43 P      14 02.60  -1.1
DMN     56.05  44 P      14 03.40  -0.9
        1.0s    74.00nm          5.7mb
PKI     56.23  44 P      14 04.50  -1.2
        1.0s    56.00nm          5.5mb
KKN     56.28  44 P      14 05.20  -0.7
SYO     56.28 182 ePd    14 07.60   2.6
KIV     56.49 358 iPc    14 08.00   1.0
      Z 18s     0.80um           4.9Msz
                  e      14 15.50
                  eS     21 57.40
PYA     56.56 359 eP     14 08.00   0.6
        1.3s   150.00nm          5.9mb
                  e      15 03.00
GUN     56.76  44 P      14 08.70  -0.9
VAY     57.60 340 eP     14 15.80   1.0
SKO     58.56 340 iP     14 22.50   1.0
KHT     59.92  64 eP     14 29.80  -1.5
MLR     60.44 345 ePd    14 42.30   7.7X
NVL     61.40 192 P      14 41.00   0.4
        1.0s    23.00nm          5.3mb
                  e      16 55.00
NST     61.64  64 eP     14 38.00  -5.0X
FRU     61.74  25 iPd    14 44.80   1.4
CHTO    61.94  60 iPc    14 44.00  -1.1
        1.9s   135.63nm          5.8mb
LEM     62.10  91 iPd    14 47.00   0.5
UZH     64.31 344 eP     15 00.00  -0.2
                  e      15 05.30
SRO     64.77 341 iP     15 09.80   6.7X
SPC     65.39 343 eP     15 07.70   0.3
OJC     66.44 343 eP     15 10.00  -3.9X
GEC2    67.23 338 P      15 19.00  -0.1
        0.8s     4.65nm          4.7mb
                  e      15 25.10
                  e      15 31.70
                  e      15 36.40
LPG     67.40 332 eP     15 19.20  -1.2
        0.8s     9.80nm          5.0mb
LPL     67.42 332 eP     15 19.20  -1.3
        0.9s    11.80nm          5.1mb
KHC     67.52 338 eP     15 20.40  -0.4
        1.3s    10.90nm          4.9mb
                  e      15 37.00
                  e      16 03.50
PRU     67.90 339 eP     15 23.20   0.1
                  e      15 30.00
KMI     67.90  56 Pc+    15 23.00  -0.9
        1.8s   130.00nm          5.8mb
                  pP     15 32.50  30kmX
OBN     67.97 355 ePd    15 24.00   0.6
        1.8s    72.00nm          5.6mb
      Z 20s     0.50um           4.7Msz
                  i      15 29.00
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                  e      15 50.00
KSP     68.06 341 eP     15 24.00  -0.1
MOS     68.52 356 eP     15 28.00   1.2
                  e      15 59.00
GRF     68.85 337 eP     15 29.00   0.0
BRG     68.85 340 eP     15 28.60  -0.4
        1.5s    18.00nm          5.0mb
                  e      15 33.50
BSF     69.16 334 eP     15 29.20  -1.9
        1.1s    19.05nm          5.2mb
CAF     69.23 329 eP     15 30.80  -0.7
        1.1s    19.80nm          5.2mb
PAB     69.25 321 eP     15 34.10   2.3
                  eS     25 01.00
CDF     69.40 334 eP     15 30.10  -2.5
        1.0s     9.00nm          4.9mb
MOX     69.48 338 eP     15 40.00   7.1X
        1.9s    32.00nm          5.2mb
HAU     69.49 334 eP     15 31.00  -2.0
        0.9s    11.45nm          5.0mb
CLL     69.54 339 e(P)   15 41.00   7.8X
        1.7s    20.00nm          5.0mb
LBF     69.79 332 eP     15 34.30  -0.6
ARU     69.88   8 iPc    15 36.00   0.8
        1.4s   100.00nm          5.8mb
                  i      15 41.60
                  e      16 05.00
AVF     69.94 331 eP     15 34.10  -1.6
BGF     70.01 331 eP     15 34.80  -1.4
LOR     70.05 332 eP     15 34.70  -1.8
        0.9s    12.60nm          5.0mb
      Z 21s     0.22um           4.4Msz
SSF     70.07 331 eP     15 36.10  -0.4
TCF     70.13 330 eP     15 36.00  -0.9
LSF     70.43 330 eP     15 37.80  -1.0
SVE     70.58   9 iPc    15 40.00   0.6
        1.9s    80.00nm          5.5mb
      Z 16s     0.50um           4.9MszX
      N 16s     0.50um
      E 16s     0.50um
                  e      16 07.00
LZH     73.91  46 iPc    15 59.70  -0.2
        1.5s    79.00nm          5.5mb
                  pP     16 07.00  23kmX
TSM     74.55  82 ePc    16 04.80   1.0
APO     77.11 345 eP     16 17.90   0.5
        0.8s    15.80nm          5.1mb
      Z 18s     0.20um           4.5Msz
                  LR     42 43.00
NAO     78.17 344 P      16 24.40   1.2
        1.0s     9.60nm          4.8mb
EKA     78.86 334 P      16 35.20   8.1X
ZAK     80.95  34 eP     16 39.30   1.0
        1.9s    55.00nm          5.3mb
ASPA    84.19 113 iPc    16 55.90   0.1
        1.0s    16.20nm          5.2mb
BJI     84.38  47 eP     16 57.50   1.2
        1.5s    42.00nm          5.4mb
      Z 28s     0.70um           4.9MszX
      N 18s     0.78um
SSE     85.21  57 Pc     17 01.20   0.6
        1.1s    27.00nm          5.4mb
      Z 20s     0.50um           4.9Msz
      E 14s     0.40um
                  S      27 27.00
WRA     85.33 109 P      17 02.00   0.5
        0.8s    13.90nm          5.2mb
WB2     85.34 109 eP     17 01.60   0.0
        0.8s    19.00nm          5.4mb
BOD     90.14  30 eP     17 23.60  -0.2
        1.1s    16.00nm          5.2mb
YKA    128.21 348 ePKP   23 29.50  -0.7
        1.0s     2.50nm
MEO    140.27 310 iPKPd  23 59.80   6.0X
     S.D. = 1.1  on  75 of  84 obs.
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*  DEC 01, 1993  22h 18m 29.12± 0.62s
   1.494 N ±10.1km   66.765 E ± 9.6km
   DEPTH =  10.0km  (geophysicist)
   5.1mb ( 17 obs.)  4.9Msz (  7 obs.)
 CARLSBERG RIDGE                  (421)
      Mw 5.3 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 17S, 27C
      Centroid Location:
      Origin Time        22:18:32.8 0.6
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```
      Lat  1.30N 0.12 Lon  66.77E 0.09
      Dep  15.0 FIX Half-duration  1.1
      Moment Tensor;   Scale 10**16 Nm
        Mrr=-2.85 1.52  Mtt=-2.95 0.92
        Mff= 5.80 1.09  Mrt= 4.56 1.91
        Mrf=-6.67 2.96  Mtf=-7.66 1.54
       Principal Axes:
        T  Val= 14.08  Plg=25  Azm= 59
        N       -6.40      53      291
        P       -7.69      25      162
      Best Double Couple:Mo=1.1*10**17
       NP1:Strike=201 Dip=53 Slip=   0
       NP2:       291     90      -143
KOD     13.73  50 eP     21 42.00  -4.6X
GBA     16.01  41 P      22 17.00   0.9
POO     18.30  22 eP     22 41.50  -3.5X
HYB     19.61  36 eP     22 58.10  -2.8
        1.0s    50.00nm          4.8mb
                  eS     26 46.80
QUE     28.54   0 eP     24 30.70   3.4X
DMN     31.35  32 P      24 53.20   0.7
GKN     31.42  31 P      24 53.40   0.4
PKI     31.49  33 P      24 55.20   1.4
KKN     31.59  32 P      24 54.80   0.2
GUN     32.01  33 P      24 58.80   0.4
MAIO    35.28 350 iPd    25 28.00   1.7
NST     35.79  65 eP     25 32.00   1.3
TAB     40.95 335 eP     26 15.00   1.2
LEM     41.60 102 ePc    26 20.70   1.3
KMI     41.90  53 Pc     26 23.50   1.6
        1.4s   110.00nm          5.4mb
      Z 22s     1.50um           4.8Msz
      N 16s     0.90um
      E 16s     1.30um
                  pP     26 33.50  34kmX
                  S      32 46.00
ERE     43.50 335 iP     26 35.00   0.5
                  e      33 11.00
GRO     45.72 339 eP     26 54.00   1.8
KIV     47.38 336 eP     27 05.00  -0.5
      Z 17s     0.20um           4.2MszX
                  e      28 40.70
LZH     48.61  41 eP     27 15.00  -0.3
        2.0s    53.00nm          5.2mb
      Z 22s     1.32um           4.9Msz
      E 15s     0.65um
                  pP     27 21.00  20kmX
                  sP     27 24.00
                  PP     29 05.00
                  S      34 17.00
                  SS     37 42.00
ARU     55.13 354 eP     28 02.00  -1.7
        2.0s    60.00nm          5.3mb
      Z 16s     0.50um           4.7MszX
      N 16s     0.50um
MLR     56.60 327 ePd    28 14.20  -0.5
SKO     57.22 321 eP     28 26.60   7.6X
ZAK     57.71  27 eP     28 22.00  -0.2
        1.6s    28.00nm          5.0mb
      Z 14s     0.59um           4.8MszX
      N 16s     0.58um
      E 16s     0.58um
                  eS     36 23.00
OBN     58.81 340 ePc    28 29.00  -0.8
        2.0s   160.00nm          5.8mb
BJI     58.94  43 eP     28 30.00  -1.0
        1.3s    12.00nm          4.9mb
      Z 20s     0.85um           4.9Msz
                  eS     36 32.00
SPC     61.91 327 eP     28 50.40  -1.1
CIT     63.70  30 eP     29 03.00   0.0
KHC     65.61 325 eP     29 11.60  -3.9X
        1.0s     5.40nm          4.7mb
                  e      29 22.00
                  e      30 16.00
BRG     66.25 327 eP     29 20.50   1.0
        1.3s    12.00nm          4.9mb
CLL     66.98 327 e(P)   29 21.00  -3.1X
BOD     67.45  25 eP     29 24.90  -2.1
        1.6s    28.00nm          5.2mb
WRA     69.51 112 P      29 39.80  -0.7
        0.6s     6.10nm          4.9mb
WB2     69.52 112 iPc    29 39.30  -1.3
        0.6s    12.50nm          5.2mb
ASPA    69.77 116 iPc    29 41.40  -0.7
        1.6s    11.60nm          4.8mb
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     Z  21s     0.10um           4.0Msz
YAK    76.28  26 eP     30 19.40  -0.1
       1.5s    44.00nm           5.3mb
     Z  18s     1.20um           5.2Msz
TIK    80.05  17 eP     30 39.00  -1.1
       2.0s   102.00nm           5.5mb
     Z  20s     0.60um           4.9Msz
NVL    80.45 196 Pd     30 43.00   0.8
       1.2s    31.00nm           5.2mb
CTA    80.65 111 iPc    30 45.00   0.7
     Z  22s     2.59um           5.5Msz
                 eSKS   40 51.00
DAG    87.53 347 iPd    31 17.20  -0.8
       0.9s    10.08nm           5.1mb
     S.D. = 1.2  on  33 of  39 obs.
-------------------------------------
& DEC 01, 1993  23h 38m 08.87s
  34.619 N            116.657 W
   DEPTH =   4.2km
 SOUTHERN CALIFORNIA              ( 43)
     <PAS-P>. ML 2.9 (PAS).

GSC      0.69 350 ePd    38 21.91  -0.8
PEC      0.84 210 ePc    38 24.27  -1.3
SSK      0.95 245 ePc    38 26.50  -1.1
PLM      1.27 188 eP     38 32.37  -0.8
ISA      1.82 306 eP     38 40.50  -0.7
ABL      2.12 277 eP     38 43.77  -2.0
GLA      2.18 135 eP     38 48.68   2.2
TPNV     2.35   8 eP     38 47.70  -1.3
BONR     3.58 339 ePn    39 06.72   0.1
                  ePg    39 15.86
       9 obs. associated
-------------------------------------
% DEC 02, 1993  00h 10m 45.76± 2.39s
  44.726 N ± 7.5km    6.700 E ±20.5km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                           (538)
     ML 2.1 (GEN).

RRL      0.20  17 P      10 50.45   0.1
                  S      10 53.51
PZZ      0.36 127 P      10 53.79   0.5
                  S      10 59.28
BHB      0.42  74 P      10 54.11  -0.2
                  S      10 59.92
STV      0.66 137 P      10 58.64  -0.3
ENR      0.72 134 P      10 59.78  -0.2
     S.D. = 0.5  on   5 of   5 obs.
-------------------------------------
& DEC 02, 1993  00h 14m 03.42s
  60.391 N            152.310 W
   DEPTH =  86.9km
   2.8mb (  1 obs.)
 SOUTHERN ALASKA                  (  2)
     <AEIC>.

REF      0.22 297 iPc    14 15.99   1.1
                  eS     14 25.83
RED      0.23 277 iPc    14 15.86   1.0
                  eS     14 25.73
RSO      0.23 288 iPd    14 15.59   0.6
RS2      0.23 288 iPc    14 16.17   1.2
                  eS     14 26.15
RDW      0.26 291 eP     14 16.15  -0.6
DFR      0.27 317 iPc    14 15.93  -0.7
NCT      0.35 299 eP     14 16.13  -1.0
ILIM     0.45 226 ePd    14 16.86  -0.9
                  eS     14 27.75
INE      0.50 229 ePd    14 17.35  -0.9
                  eS     14 28.69
INW      0.52 232 ePd    14 17.64  -0.7
                  eS     14 28.91
NKA      0.64  56 ePc    14 20.22   1.0
BKG      0.68   2 ePc    14 19.05  -0.7
SPU      0.80   9 iPd    14 20.21  -0.8
                  eS     14 33.19
CKL      0.81 359 iPd    14 20.27  -0.9
HOM      0.81 155 eP     14 21.05   0.1
CKT      0.81   4 iPd    14 20.25  -0.9
CKN      0.84   4 eP     14 20.67  -0.7
OPT      0.87 212 iPd    14 21.30  -0.4
BGL      0.88 357 iPd    14 21.15  -0.7
CP2      0.88   2 iPd    14 21.06  -0.9
                  eS     14 34.19
CRP      0.88   5 iPd    14 20.70  -1.3
                  eS     14 34.31
CGLM     0.93   9 iPd    14 21.67  -0.8
BRLK     0.95 131 eP     14 22.20  -0.4
                  eS     14 36.70
XLV      0.99 162 eP     14 22.40  -0.6
                  eS     14 37.71
NCG      1.02   4 eP     14 22.49  -1.0
CNPM     1.02 148 eP     14 22.86  -0.6
                  eS     14 38.23
SLKM     1.04  83 eP     14 22.65  -1.1
PDB      1.12 238 iPd    14 23.57  -1.0
                  eS     14 39.52
AUL      1.16 210 eP     14 24.47  -0.6
AUE      1.17 208 eP     14 24.30  -0.8
AUH      1.18 210 eP     14 24.78  -0.6
AUW      1.18 210 ePd    14 24.69  -0.6
SUA      1.32  35 ePd    14 26.56  -0.7
                  eS     14 44.53
SEW      1.46 100 ePc    14 27.30  -1.5
MCNL     1.59 221 ePd    14 29.39  -1.2
                  eS     14 49.23
CDD      1.61 205 eP     14 29.86  -1.1
SKT      1.64  13 ePd    14 29.83  -1.4
                  eS     14 50.93
PWA      1.73  42 eP     14 31.67  -0.8
SVW      1.78 295 eP     14 30.78  -2.4
SYI      1.79 181 eP     14 32.43  -0.7
PLRM     1.96  51 eP     14 33.71  -1.8
PMR      1.96  51 eP     14 32.94  -2.6
                  eS     14 57.90
KNK      2.14  60 eP     14 36.35  -1.7
GHO      2.15  48 eP     14 36.39  -1.8
CUT      2.25  25 eP     14 37.97  -1.4
SML      2.40  52 ePd    14 39.46  -2.0
SCM      2.82  57 eP     14 45.48  -1.8
HIN      2.88  87 eP     14 46.21  -1.9
VZW      2.91  74 eP     14 47.11  -1.4
VLZ      3.03  73 eP     14 48.50  -1.5
TRF      3.22  16 eP     14 50.68  -2.2
KTH      3.24  11 eP     14 51.31  -1.8
KLU      3.31  68 eP     14 51.25  -2.8
TOA      3.43  57 P      14 52.00  -3.7
RND      3.44  27 eP     14 53.72  -2.1
DHY      3.57  39 eP     14 55.65  -2.2
SDG      3.89  54 eP     14 58.04  -4.0
PAX      4.16  49 eP     15 03.96  -2.0
GLB      4.28  72 eP     15 04.72  -2.8
WRH      4.54  24 eP     15 08.28  -2.8
DDM      4.56  39 eP     15 09.54  -1.9
HDA      4.74  29 eP     15 11.25  -2.6
CCB      4.75  24 eP     15 11.19  -2.8
BALM     4.94  78 eP     15 14.36  -2.4
YKA     17.98  67 eP     18 05.90  -2.7
         0.5s     0.30nm          2.8mb
         65 obs. associated
-------------------------------------
* DEC 02, 1993  00h 54m 06.53± 2.05s
  15.790 N ±23.6km    96.169 W ±10.8km
  DEPTH =  61.9 ± 19.5 km
  3.3mb (  1 obs.)
 NEAR COAST OF OAXACA, MEXICO     ( 66)

OXX      1.39 338 iP-    54 30.10  -0.2
                  iS     54 51.28
IISM     3.38 340 (P)    54 59.00   1.0
SCX      3.52  74 eP     55 00.00   0.0
                  iS     55 43.00
ACX      3.70 287 (P)    55 03.00   0.5
                  iS     55 37.00
PPM      4.01 325 iP     55 08.00   0.6
                  iS     55 54.00
UNM      4.55 321 eP     55 13.00  -1.6
                  iS     56 03.00
CRX      4.91 318 (P)    55 16.50  -3.4X
                  iS     56 13.00
MRX      6.17 310 (P)    55 40.00   2.9X
YKA     48.43 349 eP     02 43.90  -0.3
         0.6s     0.20nm          3.3mb
     S.D. = 1.2  on   7 of   9 obs.
-------------------------------------
  DEC 02, 1993  01h 23m 58.19± 0.69s
  43.012 N ± 5.9km    18.782 E ± 4.5km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
     ML 2.7 (TTG).

BRY      0.21 238 iPgd   24 02.32  -0.5
                  iSg    24 05.10
NKY      0.25 141 iPgc   24 04.10   0.5
                  iSg    24 08.36
PLE      0.55  54 iPgc   24 08.72  -0.6
                  iSg    24 16.96
HCY      0.60 200 iPgd   24 09.92  -0.4
                  iSg    24 18.99
TTG      0.68 149 iPgc   24 10.95  -0.7
                  iSg    24 22.23
BDV      0.73 177 iPgd   24 12.42  -0.1
                  iSg    24 23.73
IVA      0.83  99 iPgc   24 14.51   0.2
                  iSg    24 27.42
PVY      0.97 115 iPgd   24 17.14   0.4
                  iSg    24 31.95
ULC      1.10 162 iPgc   24 19.37   0.5
                  iSg    24 36.28
HVAR     1.72 276 iPnd   24 29.10   0.8
                  iSn    24 52.60
SKO      2.22 117 ePn    24 39.70   4.1X
OHR      2.42 141 ePn    24 43.00   4.5X
     S.D. = 0.6  on  10 of  12 obs.
-------------------------------------
  DEC 02, 1993  01h 25m 03.58± 0.97s
  42.950 N ± 8.3km    18.765 E ± 5.5km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
     ML 2.8 (TTG).

NKY      0.22 129 iPgc   25 08.70   0.3
                  iSg    25 13.29
HCY      0.54 201 iPgd   25 14.29  -0.2
                  iSg    25 23.25
TTG      0.64 145 iPgc   25 15.58  -0.7
                  iSg    25 26.99
BDV      0.67 176 iPgc   25 16.82   0.0
                  iSg    25 27.92
IVA      0.84  95 iPgc   25 19.54  -0.2
                  iSg    25 32.61
PVY      0.96 111 iPgc   25 22.07   0.2
                  iSg    25 37.08
ULC      1.05 160 iPgc   25 24.05   0.7
                  iSg    25 40.82
HVAR     1.71 278 iPn    25 33.70   0.1
                  iSn    25 57.90
     S.D. = 0.5  on   8 of   8 obs.
-------------------------------------
& DEC 02, 1993  02h 44m 45.41s
  63.113 N            151.510 W
  DEPTH =  13.4km
 CENTRAL ALASKA                   (  1)
     <AEIC>. ML 3.2 (AEIC), 3.4
     (PMR).

KTH      0.52  31 iP     44 55.09  -0.7
TRF      0.65  58 eP     44 57.61  -0.6
HUR      0.86  98 eP     45 01.75   0.0
                  eS     45 13.41
CUT      0.91 141 iP     45 03.14   0.6
SKT      1.14 180 iP     45 06.86   0.5
                  eS     45 21.88
RND      1.24  75 eP     45 07.98  -0.2
                  eS     45 24.69
MCK      1.31  61 eP     45 09.50   0.1
                  eS     45 26.85
BWN      1.40  40 eP     45 10.39  -0.1
                  eS     45 30.73
PWA      1.65 152 P      45 15.10   1.0
SUA      1.69 167 eP     45 15.61   0.7
                  eS     45 37.77
NCG      1.74 190 eP     45 15.94   0.4
GHO      1.80 137 eP     45 16.60   0.2
                  eS     45 40.71
NEA      1.82  35 eP     45 15.21  -1.4
CGLM     1.83 188 eP     45 17.26   0.5
CRP      1.88 190 eP     45 17.45  -0.1
                  eS     45 43.25
DHY      1.88  89 eP     45 17.86   0.2
                  eS     45 43.81
CP2      1.89 191 eP     45 18.23   0.5
                  eS     45 43.28
PLRM     1.89 143 eP     45 18.32   0.8
                  eS     45 43.39
PMR      1.89 143 eP     45 17.98   0.5
                  eS     45 43.10
BGL      1.90 193 eP     45 18.84   1.0
CKN      1.92 190 eP     45 19.27   1.2
CKT      1.95 190 eP     45 19.18   0.7
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02d 02h

MLY 1.96 10 eP 45 17.61 -1.0
SPU 1.96 188 eP 45 19.10 0.5
CKL 1.96 192 eP 45 19.92 1.2
SML 1.97 130 eP 45 18.91 0.1
eS 45 45.15
WRH 2.04 47 eP 45 18.28 -1.5
TTA 2.06 267 eP 45 18.49 -1.7
eS 45 49.36
BKG 2.08 190 eP 45 20.15 -0.3
PMS 2.09 153 P 45 20.30 -0.2
KNK 2.23 139 eP 45 23.05 0.6
CCB 2.25 45 eP 45 20.86 -1.9
SCM 2.33 122 eP 45 24.59 0.6
MDM 2.35 36 eP 45 22.29 -1.9
NKA 2.38 177 eP 45 27.91 3.3
HDA 2.40 55 eP 45 25.59 0.6
FBA 2.43 41 eP 45 26.22 0.9
DFR 2.59 193 eP 45 28.82 1.1
GLM 2.61 42 eP 45 26.47 -1.5
DDM 2.63 73 eP 45 28.60 0.4
NCT 2.65 195 eP 45 30.21 1.6
TOA 2.67 110 P 45 29.20 0.4
SLKM 2.69 166 eP 45 29.51 0.5
RDW 2.71 194 eP 45 30.86 1.3
RS2 2.72 193 eP 45 31.28 1.5
PAX 2.76 90 eP 45 29.97 -0.1
SVW 2.79 226 eP 45 30.28 -0.2
eS 46 12.21
SDG 2.80 99 eP 45 30.77 0.1
MPA 2.82 158 eP 45 32.03 1.1
TZL 3.01 108 eP 45 34.81 1.2
KLU 3.08 119 eP 45 35.42 0.9
IMA 3.11 343 eP 45 33.32 -1.8
VLZ 3.14 127 eP 45 35.86 0.5
SEW 3.18 161 eP 45 37.76 1.9
CNPM 3.60 178 eP 45 43.00 1.0
GLB 3.97 112 eP 45 47.62 0.4
BALM 4.79 112 eP 45 58.69 -0.2
WAX 4.90 119 eP 46 00.84 0.4
58 obs. associated

DEC 02, 1993 02h 49m 46.23± 0.29s
47.317 N ± 3.3km 10.654 E ± 2.7km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 3.5 (GRF), 3.5 (LDG), 3.2 (VIE), 3.2 (CLL), 3.0 (FUR). MD 3.5 (STR), 3.0 (TRI).

MOTA 0.31 85 iPgc 49 51.80 -0.9
iSg 49 57.30
SQTA 0.39 104 iPgc 49 53.20 -1.1
iSg 49 59.00
OGA 0.52 150 iPgd 49 55.30 -1.4
WATA 0.63 88 iPgc 49 57.50 -1.5
iSg 50 06.50
WTTA 0.67 94 iPgc 49 58.30 -1.4
iSg 50 07.70
OSS 0.72 209 iPc 49 58.80 -1.7
SCE 0.77 111 iPgd 49 59.80 -1.6
FUR 0.95 26 iPgc 50 05.50 1.2
eSg 50 19.50
VDL 1.16 225 iPd 50 07.00 -1.1
LLS 1.22 249 iPc 50 09.50 0.5
SLE 1.53 288 eP 50 14.00 0.3
ZLA 1.55 277 eP 50 14.40 0.5
BHG 1.56 74 iPgd 50 15.90 1.8
TMA 1.72 226 eP 50 18.50 1.9
KBA 1.85 96 iPgd 50 21.30 2.9X
iSg 50 47.20
FEL 1.87 288 ePn 50 18.70 0.0
BBS 2.14 275 P 50 27.07 4.5X
MMK 2.24 237 P 50 25.10 0.9
WET 2.36 38 iPnc 50 25.40 -0.2
GRF 2.41 9 ePn 50 26.50 0.2
iPgd 50 33.20
eSg 51 04.10
MOF 2.44 284 P 50 33.56 6.7X
S 51 04.01
SRBF 2.47 311 P 50 34.07 7.0X
WLS 2.48 297 P 50 34.09 6.8X
S 51 04.87
ORX 2.50 229 P 50 30.08 2.4
CDF 2.52 297 Pn 50 28.20 0.2
Pg 50 34.80
Sg 51 06.40
DIX 2.55 242 P 50 30.40 1.8
VOY 2.57 119 ePn 50 30.20 1.5
eSn 51 02.40
LOMF 2.60 272 P 50 34.93 5.8X
S 51 08.82
BSF 2.66 283 Pn 50 29.30 -0.8
Pg 50 37.60
Sg 51 11.20
KHC 2.67 46 Pn 50 30.00 0.0
ePg 50 38.00
eSn 51 02.00
TRI 2.68 126 e(Pn) 50 31.30 1.1
e(Pg) 50 33.30
e(Sg) 51 05.10
EMS 2.85 245 eP 50 33.50 0.7
LJU 2.96 114 e(Pn) 50 47.00 12.9X
HAU 2.99 285 Pn 50 34.10 -0.5
Pg 50 42.40
Sg 51 20.50
LSD 3.05 234 P 50 36.63 1.0
HOF 3.11 15 iPgc 50 45.70 9.5X
PCP 3.14 209 P 50 38.69 2.0
RSP 3.20 229 P 50 34.52 -3.1X
TNS 3.25 334 ePnd 50 37.80 -0.6
ePgd 50 51.70
eSn 51 15.60
eSg 51 32.10
LPG 3.26 237 Pn 50 39.90 1.3
Sg 51 29.30
LPL 3.26 238 Pn 50 39.80 1.2
Sg 51 29.20
VITF 3.28 288 P 50 44.79 6.2X
S 51 25.40
ABH 3.29 322 ePn 50 39.10 0.2
RUP 3.38 316 ePn 50 40.60 0.5
MOX 3.39 10 ePn 50 42.00 1.7
ePg 50 53.10
iSg 51 34.50
BHB 3.42 225 P 50 38.69 -2.0
FIN 3.55 210 P 50 43.68 1.2
ROB 3.60 214 P 50 43.68 0.5
RRL 3.60 230 P 50 44.45 1.0
VBY 3.66 118 ePn 50 45.70 1.6
iSn 51 30.90
PRU 3.71 43 ePn 50 44.50 -0.3
0.3s 15.40nm
ePg 50 54.20
i 51 10.70
Sg 51 42.70
PZZ 3.75 223 P 50 43.72 -1.8
WLF 3.81 310 iPd 50 46.76 0.7
iS 50 58.60
ENR 3.83 217 P 50 45.64 -0.9
STV 3.86 218 P 50 46.15 -0.8
IMI 3.92 211 P 50 48.07 0.2
VKA 3.93 74 eP 50 58.50 10.5X
iPg 51 01.80
e 51 48.00
iSg 51 52.80
SAOF 3.98 214 P 50 49.21 0.6
S 51 37.49
TOUF 4.08 217 P 50 51.70 1.6
SBF 4.13 214 Pn 50 50.90 0.2
Sn 51 37.50
BRG 4.16 30 iPg 51 04.30 13.1X
iSg 51 58.20
eSg 09 44.60
CLL 4.28 20 e(Pg) 51 10.00 17.1X
eSg 52 02.00
MEM 4.50 319 iPc 50 56.03 0.2
iS 51 09.31
LBF 4.57 268 Pn 50 56.00 -1.0
Pg 51 11.00
Sn 51 46.30
Sg 52 11.20
LOR 4.62 272 Pn 50 56.90 -0.9
Pg 51 12.30
Sn 51 46.80
Sg 52 11.00
FRF 4.70 218 Pn 50 59.00 0.2
Sn 51 51.60
SMF 4.71 264 Pn 50 57.80 -1.2
Pg 51 14.10
Sn 51 48.70
Sg 52 15.10
SSF 4.88 270 Pn 51 00.30 -1.1
Pg 51 17.10
Sg 52 19.20
DOU 4.88 307 iP 51 21.60 20.2X
LRG 4.91 220 Pn 51 02.50 0.8
LMR 4.94 218 Pn 51 00.90 -1.3
AVF 5.02 267 Pn 51 02.10 -1.2
PLDF 5.03 257 P 50 27.07 -36.4X
BGF 5.40 265 Pn 51 06.60 -2.2
HYF 5.45 272 Pn 51 08.70 -0.8
TCF 5.89 263 Pn 51 13.90 -1.7
Sn 52 18.30
CAF 6.43 251 Pn 51 21.80 -1.5
S.D. = 1.2 on 62 of 77 obs.

& DEC 02, 1993 03h 07m 05.07s
37.638 N 118.951 W
DEPTH = 7.6km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.0 (GM). ML 2.7 (GS).

MEMM 0.03 18 iPc 07 06.66 0.0
MCSM 0.04 65 P 07 06.77 -0.3
MMPM 0.07 245 iPc 07 07.03 -0.3
HTCR 0.18 127 P 07 08.88 -0.2
MRCM 0.35 84 iPd 07 12.20 -0.1
MTUM 0.42 133 iPd 07 13.26 -0.3
BHPR 0.50 132 P 07 14.93 -0.3
CWCR 0.53 105 P 07 15.53 -0.3
BONR 0.60 58 ePc 07 16.88 -0.4
CMB 1.20 290 iPd 07 26.99 -0.7
TNP 1.44 72 eP 07 32.40 0.7
KVN 1.56 25 eP 07 33.70 0.3
BAVM 1.65 271 P 07 39.91 5.4
PHBM 1.66 214 P 07 35.22 0.7
BRMM 1.70 242 P 07 37.32 2.2
WCHM 1.89 158 P 07 39.64 1.4
VPEM 1.92 151 P 07 40.68 2.2
NMC 1.98 155 P 07 41.43 2.1
RCWM 1.98 148 P 07 41.97 2.6
ISA 2.01 169 iPc 07 41.54 1.8
LTR 2.03 249 P 07 41.36 1.4
ARN 2.07 263 (P) 07 41.58 0.9
WOFM 2.11 175 P 07 43.10 1.8
PHAM 2.14 213 (P) 07 42.88 1.2
LRC 2.18 231 P 07 43.93 1.8
WBSM 2.20 162 P 07 45.15 2.5
COE 2.20 261 (P) 07 43.44 1.0
TPNV 2.26 107 ePc 07 46.75 3.2
WSHM 2.32 149 P 07 48.56 4.3
ARVC 2.51 178 P 07 49.68 2.8
MARC 2.65 187 P 07 50.40 1.5
ABL 2.79 185 eP 07 51.76 0.6
32 obs. associated

DEC 02, 1993 04h 31m 52.92± 0.57s
40.796 S ± 5.2km 174.911 E ± 7.0km
DEPTH = 103.5 ± 8.3 km
4.3mb (2 obs.)
COOK STRAIT, NEW ZEALAND (163)

KIW 0.07 180 Pd 32 04.40 -2.7
CAW 0.33 159 P 32 07.60 -0.7
MRW 0.46 200 P 32 08.70 -0.3
MNG 0.47 68 Pc 32 07.90 -1.2
S 32 16.00
WEL 0.50 192 Pc 32 09.50 0.2
S 32 18.60
MTW 0.58 129 P 32 10.10 0.2
TCW 0.64 229 P 32 09.90 -0.4
BLW 0.71 144 P 32 12.10 1.1
DIW 0.75 269 P 32 09.90 -1.5
AMW 0.82 129 eP 32 13.20 1.2
BSZ 1.00 1 P 32 13.10 -0.7
PGZ 1.05 81 P 32 15.00 0.6
CCW 1.09 209 P 32 17.20 2.4
WAHZ 1.56 46 P 32 20.80 0.3
NRZ 1.64 332 eP 32 22.20 0.7
CNZ 1.67 17 eP 32 22.90 0.9
THZ 1.80 237 P 32 25.30 1.8
QRZ 1.81 268 Pc 32 24.40 0.8
MGZ 1.86 15 eP 32 25.20 0.9
MOZ 2.29 358 P 32 31.20 1.3
LTZ 2.80 224 eP 32 38.50 1.7
URZ 3.05 35 P 32 39.10 -1.1
MQZ 3.36 209 P 32 44.90 0.6
EWZ 4.06 227 eP 32 54.60 0.7
HBZ 4.14 41 eP 32 53.80 -1.2
BWZ 5.26 223 eP 33 09.70 -0.8

ODZ 5.28 215 P 33 10.60 -0.1
MSCZ 5.89 221 eP 33 18.70 -0.6
LRCZ 5.91 222 P 33 18.90 -0.7
LSCZ 5.93 221 eP 33 18.70 -1.1
SBCZ 5.94 222 eP 33 18.80 -1.2
MMCZ 5.97 223 eP 33 20.00 -0.5
CMCZ 6.00 222 eP 33 20.00 -0.8
TUZ 6.43 215 eP 33 26.60 0.0
WB2 40.24 289 iPc 39 26.60 5.6X
0.3s 4.50nm 4.8mb
WRA 40.25 289 P 39 27.20 6.1X
0.6s 0.90nm 3.8mb
S.D. = 1.1 on 34 of 36 obs.

DEC 02, 1993 05h 25m 33.86± 0.57s
39.429 N ± 4.7km 20.343 E ± 4.7km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.4 (ATH).

IGT 0.10 355 iPg 25 35.68 -1.0
KEK 0.51 304 iPbd 25 44.20 0.0
VLS 1.26 171 ePb 25 57.50 0.1
KZN 1.41 51 ePb 26 57.50 57.9X
AGG 1.60 104 ePb 26 02.24 0.0
eSb 26 27.16
OHR 1.72 12 iPn 26 04.20 0.2
i 26 07.00
iSn 26 29.50
Lg 26 37.50
LIT 1.79 67 iPn 26 04.96 0.0
eSn 26 31.56
GRG 2.19 45 iPn 26 11.16 0.2
eSn 26 42.80
THE 2.34 58 ePn 26 13.03 0.0
VAY 2.54 41 iPn 26 16.00 0.2
KNT 2.61 48 ePn 26 17.00 0.2
PAIG 2.62 78 ePn 26 16.40 -0.6
SKO 2.67 18 iPn 26 18.30 0.6
iPg 26 23.00
i 26 27.50
iSn 26 46.40
iSg 26 51.00
i 26 55.00
Lg 27 06.50
OUR 2.94 71 ePn 26 21.12 -0.4
SRS 3.00 55 ePn 26 22.66 0.3
S.D. = 0.4 on 14 of 15 obs.

DEC 02, 1993 06h 23m 52.89± 0.37s
44.144 N ± 2.7km 7.907 E ± 2.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (GEN).

ROB 0.15 350 P 23 56.74 0.2
S 23 58.89
FIN 0.23 73 P 23 57.74 0.0
S 24 00.90
IMI 0.23 183 P 23 58.02 0.1
S 24 00.99
SAOF 0.30 238 Pg 23 58.92 -0.2
ENR 0.36 283 P 24 00.17 -0.2
S 24 05.34
AUTN 0.38 247 Pg 24 00.63 -0.1
STV 0.43 284 P 24 01.77 0.1
S 24 07.26
AURF 0.49 239 Pg 24 02.86 0.0
TOUF 0.49 255 Pg 24 03.03 0.1
MVIF 0.60 246 Pg 24 04.94 -0.1
Sg 24 13.39
PCP 0.61 49 P 24 04.93 -0.2
S 24 13.31
PZZ 0.68 302 P 24 06.28 -0.2
S 24 15.32
CALN 0.83 242 Pg 24 09.43 0.3
BHB 0.84 327 P 24 08.91 -0.2
RSP 1.11 335 P 24 13.40 -0.4
S 24 26.93
RRL 1.12 314 P 24 13.72 -0.3
S 24 27.92
LSD 1.42 338 P 24 18.80 -0.2
LPG 1.58 329 Pg 24 21.90 0.6
Sg 24 41.20
LPL 1.61 329 Pg 24 22.30 0.7
Sg 24 40.40
S.D. = 0.3 on 19 of 19 obs.

? DEC 02, 1993 08h 35m 18.52± 1.93s
36.010 N ±12.9km 7.554 W ±27.8km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

EVAL 1.70 22 iPd 35 49.01 0.7
e 36 11.70
EHOR 2.59 45 eP 36 00.11 -1.0
e 36 32.10
IFR 3.19 141 iPn 36 16.00 6.1X
iSn 37 02.00
ECOG 3.45 67 eP 36 14.56 1.1
e 36 55.20
EBAN 3.70 53 eP 36 16.30 -0.7
e 36 59.70
TIO 5.08 177 iPn 36 36.50 -0.1
iSn 37 37.50
S.D. = 1.3 on 5 of 6 obs.

DEC 02, 1993 08h 40m 43.22± 0.72s
40.484 N ± 6.5km 21.818 E ± 5.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.45 312 ePg 40 52.44 0.0
iSg 41 01.84
LIT 0.64 126 ePg 40 54.40 -1.7
GRG 0.65 43 iPg 40 55.72 -0.5
THE 0.89 80 ePg 41 01.76 1.6
OHR 1.00 309 ePn 41 02.30 0.2
VAY 1.01 34 ePn 41 01.40 -0.9
KNT 1.06 50 ePg 41 03.36 0.1
SOH 1.22 73 ePb 41 06.00 0.1
AGG 1.51 165 ePb 41 10.88 0.5
PAIG 1.53 111 ePb 41 10.32 -0.3
OUR 1.66 94 ePb 41 13.32 0.9
S.D. = 1.0 on 11 of 11 obs.

? DEC 02, 1993 09h 01m 43.55± 2.47s
21.399 S ±28.6km 179.315 W ±41.7km
DEPTH = 631.4 ± 17.1 km
4.9mb (8 obs.)
FIJI ISLANDS REGION (181)

SVA 3.88 327 eP 03 10.90 0.1
VUN 3.97 328 eP 03 11.40 0.0
DZM 13.25 264 iPc 04 34.10 -0.3
BRS 26.08 251 iP 06 31.00 -0.7
ARMA 27.57 245 iPc 06 45.30 0.5
0.6s 20.00nm 4.9mb
CNB 30.71 236 iPd 07 11.80 0.5
0.6s 23.00nm 5.0mb
CTA 32.19 266 iPd 07 24.70 0.9
0.8s 18.66nm 4.8mb
STK 36.30 245 iPd 07 46.10 -11.6X
1.0s 7.90nm
ASPA 43.13 258 iPd 08 52.70 0.3
0.5s 35.70nm 5.1mb
iS 14 33.50
WB2 43.26 263 iPc 08 53.30 -0.1
0.9s 33.60nm 4.8mb
i 14 41.60
WRA 43.27 263 P 08 53.50 0.0
0.8s 10.20nm 4.3mb
FORT 47.81 247 eP 09 27.20 -0.8
MTN 47.95 272 iPc 09 29.20 -0.1
0.5s 33.00nm 5.1mb
WARB 49.39 253 eP 09 39.70 0.0
0.4s 4.00nm 4.2mb
S.D. = 0.5 on 13 of 14 obs.

% DEC 02, 1993 10h 43m 44.87± 0.62s
44.147 N ± 5.6km 7.920 E ± 4.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

ROB 0.15 347 P 43 48.69 0.2
S 43 51.06
FIN 0.22 73 P 43 49.74 0.2
IMI 0.24 185 P 43 49.87 -0.1
S 43 53.07
ENR 0.37 283 P 43 52.34 -0.1
S 43 57.28
STV 0.44 283 P 43 54.48 0.6
S 43 59.43
PCP 0.60 48 P 43 56.92 -0.1
S 44 04.97
PZZ 0.69 302 P 43 58.25 -0.3
BHB 0.84 326 P 44 00.70 -0.4
S 44 11.52
S.D. = 0.4 on 8 of 8 obs.

& DEC 02, 1993 11h 10m 22.96s
66.245 N 148.265 W
DEPTH = 24.4km
NORTHERN ALASKA (676)
<AEIC>. ML 2.5 (AEIC).

FYU 1.26 74 eP 10 44.39 -0.7
eS 11 01.28
MDM 1.29 179 eP 10 44.62 -0.9
eS 11 01.59
GLM 1.31 164 eP 10 45.23 -0.7
eS 11 02.35
FBA 1.37 172 P 10 46.00 -0.6
S 11 03.90
MLY 1.59 221 eP 10 48.94 -1.0
CCB 1.62 173 eP 10 50.46 0.3
eS 11 10.23
NEA 1.71 192 eP 10 51.92 0.4
eS 11 12.95
WRH 1.78 178 eP 10 53.30 0.7
eS 11 15.55
HDA 1.93 163 eP 10 55.73 1.0
eS 11 19.88
BWN 2.14 194 eP 10 59.07 1.2
IMA 2.21 268 P 11 00.00 1.1
11 obs. associated

& DEC 02, 1993 12h 10m 23.89s
37.638 N 118.945 W
DEPTH = 7.6km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.8 (GM).

MRCM 0.35 84 eP 10 30.96 -0.1
BONR 0.60 58 eP 10 35.70 -0.3
TNP 1.44 72 eP 10 51.03 0.5
ARN 2.08 263 eP 11 00.24 0.7
PHAM 2.14 213 eP 11 04.25 3.7
ORV 2.77 315 eP 11 11.59 2.2
6 obs. associated

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* DEC 02, 1993 12h 38m 07.38± 1.89s
41.541 N ±17.8km 22.332 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (SKO).

VAY 0.28 141 iPg 38 13.40 0.1
0.3s 180.00nm
iSg 38 18.80
KNT 0.57 131 iPg 38 18.33 -0.6
eSg 38 27.84
GRG 0.59 175 ePg 38 19.16 -0.1
eSg 38 30.04
SRS 1.04 114 ePg 38 27.46 0.5
eSg 38 42.04
FNA 1.05 224 iPg 38 27.64 0.5
eSg 38 44.32
SOH 1.05 133 ePg 38 27.32 0.0
iSg 38 43.56
OHR 1.23 250 ePn 38 30.00 -0.3
S.D. = 0.5 on 7 of 7 obs.

? DEC 02, 1993 13h 29m 55.63± 0.94s
40.395 N ±11.6km 28.742 E ± 6.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

YLV 0.51 70 ePg 30 06.00 0.0
eSg 30 15.30
BNT 0.63 267 iPg 30 08.30 0.0
eSg 30 17.30
EDC 0.67 266 iPg 30 09.00 0.0
iSg 30 19.00
DST 0.79 186 iPg 30 11.10 0.0
eSg 30 23.50
S.D. = 0.0 on 4 of 4 obs.

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* DEC 02, 1993 13h 52m 20.99± 0.83s

02d 13h

27.717 N ± 8.0km 141.067 E ±13.9km
DEPTH = 33.0km (normal)
4.8mb (10 obs.) 4.1Msz (1 obs.)
BONIN ISLANDS REGION (212)

WKYJ 8.00 325 eP 54 20.80 2.8
IIDJ 8.19 342 eP 54 22.60 2.0
CHJJ 8.49 349 P 54 24.30 -0.3
KAKJ 8.50 355 eP 54 23.30 -1.4
TKSJ 8.68 318 P 54 33.50 6.2X
MAT 9.13 345 eP 54 34.00 0.6
eS 56 29.00
MTMJ 9.26 343 eP 54 34.70 -0.7
NIIJ 9.65 350 eP 54 39.30 -1.4
BJI 23.96 307 eP 57 31.00 -2.1
1.5s 17.00nm 4.4mb
Z 16s 0.29um 3.8MszX
eS 01 32.00
LZH 32.53 294 Pd 58 50.50 -0.7
1.0s 37.00nm 5.2mb
Z 20s 0.35um 4.1Msz
YAK 35.12 351 eP 59 11.30 -1.8
1.0s 30.00nm 5.2mb
CHTO 39.54 266 eP 59 52.10 1.3
WB2 47.82 189 iPc 00 57.70 0.2
0.8s 38.50nm 5.5mb
iScP 06 55.60
GUN 48.45 284 P 01 02.80 0.0
PKI 48.93 284 P 01 06.00 -0.5
0.9s 18.00nm 5.1mb
KKN 48.99 284 P 01 07.20 0.4
0.9s 23.00nm 5.2mb
DMN 49.18 284 P 01 08.20 -0.2
GKN 49.49 284 P 01 10.40 -0.2
ASPA 51.55 188 eP 01 25.70 -0.3
0.9s 7.70nm 4.7mb
FBA 57.27 29 eP 02 09.90 2.5
0.7s 1.00nm 4.0mb
GBA 60.59 270 P 02 31.00 -0.1
RES 71.69 13 eP 03 41.50 0.4
1.0s 3.00nm 4.3mb
YKA 72.07 28 eP 03 42.80 -0.7
1.1s 2.10nm 4.0mb
LPAZ 150.71 73 PKP 12 09.00 2.0X
LPB 150.85 74 PKP 12 14.00 7.1X
CNCB 151.08 74 PKP 12 10.20 2.7X
S.D. = 1.3 on 22 of 26 obs.

DEC 02, 1993 13h 56m 03.53± 0.52s
42.892 N ± 6.5km 31.666 E ± 6.8km
DEPTH = 10.0km (geophysicist)
BLACK SEA (360)
MG 3.3 (DDA).

BZK 1.97 117 ePn 56 36.50 -0.7
KAS 2.18 133 ePn 56 40.80 0.4
iSg 57 05.00
SGKT 2.33 173 eP 56 43.60 0.8
eS 57 10.90
HRT 2.55 216 eP 56 45.00 -0.7
KART 2.61 130 eP 56 46.80 0.1
NAL 2.70 186 eP 56 57.70 9.8X
IZI 3.04 214 eP 56 52.30 -0.3
CFR 3.42 313 ePc 56 57.50 -0.4
e 15 41.00
ISR 4.32 303 eP 57 11.50 0.7
VRI 4.63 312 iPc 57 16.00 0.9
CLI 4.81 321 iPd 57 17.00 -0.7
MLR 4.87 304 ePd 57 18.50 -0.1
S.D. = 0.7 on 11 of 12 obs.

? DEC 02, 1993 14h 37m 26.38± 2.58s
34.604 S ±26.3km 70.844 W ±14.9km
DEPTH = 100.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

CAC 0.53 23 iP 37 42.69 -0.1
iS 37 56.11
LNV 0.80 324 iP 37 44.93 0.0
iS 37 58.44
TACH 0.95 355 iP+ 37 46.53 0.0
iS 38 02.30
PCH 1.02 16 iP+ 37 47.45 0.1
iS 38 04.26
LCCH 1.28 332 iP 37 50.39 0.1
iS 38 08.70
FCH 1.35 20 iP+ 37 51.54 0.0
iS 38 11.82
PEL 1.46 5 iP 37 52.97 0.4
iS 38 13.23
ROCH 1.63 355 iP 37 54.61 -0.3
iS 38 17.89
JACH 1.93 6 iP 37 58.60 0.0
iS 38 23.88
S.D. = 0.2 on 9 of 9 obs.

DEC 02, 1993 14h 39m 17.69± 0.19s
36.405 N ± 4.0km 70.394 E ± 3.2km
DEPTH = 219.9km (3 depth phases)
4.8mb (50 obs.)
HINDU KUSH REGION, AFGHANISTAN (718)

KSH 5.36 54 iPc 40 37.90 0.0
S 41 37.90
QUE 6.84 206 eP 40 57.90 1.1
eS 42 15.60
FRU 7.20 26 iPn 41 00.00 -1.3
iS 42 18.00
NDI 9.61 141 iPd 41 31.30 -1.3
0.4s 796.61nm 6.3mb X
ASH 9.74 283 eP 41 31.00 -3.2X
1.2s 370.00nm 5.5mb
S 43 17.00
GKN 14.67 121 P 42 35.40 -1.0
WMQ 15.15 55 iPc 42 41.00 -1.2
1.0s 80.00nm 5.1mb
PP 42 55.00
PcP 47 39.00
PcS 51 12.50
DMN 15.24 121 P 42 42.40 -1.1
KKN 15.25 120 P 42 42.30 -1.2
PKI 15.47 120 P 42 45.00 -1.4
GUN 15.60 119 P 42 46.80 -1.1
SHI 16.42 251 eP 42 59.00 1.3
POO 18.06 169 iPd 43 15.90 0.6
1.0s 90.00nm 5.2mb
TAB 19.23 282 eP 43 33.00 5.7X
GRO 20.15 298 eP 43 38.00 1.7
2.0s 360.00nm 5.6mb
i 44 14.00
i 47 46.00
HYB 20.25 157 eP 43 38.50 0.9
1.0s 95.00nm 5.3mb
e 43 44.50 22kmX
e 44 42.00
eS 47 21.00
ERE 20.65 288 iP 43 44.00 2.6
i 44 47.00
SVE 21.44 345 iPc 43 50.00 1.1
2.0s 160.00nm 5.2mb
Z 12s 0.50um 4.1MszX
N 12s 0.20um
e 44 20.00 158kmX
i 44 54.50
eS 47 36.00
ARU 21.53 342 eP 43 51.50 1.7
1.5s 560.00nm 5.9mb X
e 44 25.00
e 44 59.00
eS 47 36.00
e 47 45.00
PYA 22.15 299 iP 43 57.80 1.8
i 44 29.10
i 47 50.00
KIV 22.40 298 eP 44 02.60 4.1X
UER 22.66 41 iPc 44 02.20 1.4
1.6s 230.00nm 5.5mb
GTA 23.36 74 iPd 44 10.00 2.2
1.2s 66.00nm 5.1mb
GBA 23.57 163 P 44 11.00 1.3
S 49 01.00
KOD 26.83 164 eP 44 41.00 1.0
LZH 26.91 81 eP 44 40.50 0.1
1.6s 27.00nm 4.7mb
ScP 51 14.50
ScS 55 05.50
ZAK 27.42 49 iPc 44 45.50 0.8
e 45 30.50 227km
e 45 56.50
OBN 29.67 320 eP 45 04.00 -0.6
1.2s 50.00nm 5.1mb
epP 45 47.00 213km
(S) 49 45.00
eSS 51 32.00
KMI 29.85 103 eP 45 07.00 0.2
CHTO 30.61 117 eP 45 14.00 0.8
BTO 31.11 70 eP 45 18.40 0.9
XAN 31.43 83 P 45 20.00 -0.2
0.6s 12.00nm 4.7mb
BDT 31.69 119 eP 45 24.00 1.4
HHC 32.25 69 P 45 28.60 1.1
GYA 32.34 97 iPc 45 29.00 0.7
1.0s 18.00nm 4.7mb
PcP 48 11.00
S 50 25.20
ScP 51 33.00
TIY 33.37 75 Pc 45 37.60 0.5
LOE 33.53 116 iPc 45 38.00 -0.5
NST 33.55 120 eP 45 40.00 1.4
CIT 34.11 49 eP 45 44.00 0.8
MLR 34.40 299 eP 45 48.00 2.2
PUL 34.71 325 ePc 45 48.00 -0.1
1.0s 160.00nm 5.6mb
BOD 35.83 39 iPc 45 55.80 -1.7
1.1s 92.00nm 5.3mb
UZH 36.91 305 eP 46 21.00 14.3X
1.0s 15.00nm
KAF 37.44 327 iP 46 11.10 0.1
0.7s 14.50nm 4.7mb
NUR 37.62 325 iP 46 12.60 0.1
0.7s 19.80nm 4.8mb
SPC 38.27 306 eP 46 18.10 -0.2
SDF 39.72 335 iP 46 29.50 -0.2
NJ2 39.97 82 Pd 46 33.50 1.3
1.1s 20.00nm 4.5mb
ScP 52 00.40
PRU 41.96 307 P 46 49.80 1.5
SSE 42.17 82 Pc 46 51.00 0.8
1.0s 16.00nm 4.5mb
BRG 42.30 308 iP 46 52.00 1.0
1.0s 12.00nm 4.3mb
IPM 42.37 131 ePc 46 54.00 2.1
0.6s 30.50nm 5.0mb
GEC2 42.59 305 P 46 53.70 0.2
1.2s 3.16nm 3.7mb X
e 46 58.40 16kmX
e 48 41.50
HFS 42.84 322 eP 46 54.50 -0.8
0.4s 5.10nm 4.3mb
CLL 42.87 309 eP 46 56.00 0.4
GRF 44.13 307 ePc 47 07.50 1.8
1.2s 25.00nm 4.5mb
NAO 44.33 323 P 47 06.60 -0.6
0.9s 37.70nm 4.8mb
YAK 44.34 35 iPc+ 47 06.70 -0.5
0.8s 261.00nm 5.7mb
e 47 48.00 190kmX
i 48 17.00
e(S) 53 23.00
TIK 46.04 22 iPd 47 20.00 -0.5
1.0s 105.00nm 5.2mb
e 49 12.00 645kmX
ePPP 50 04.00
eS 53 49.00
esS 55 10.00
CDF 46.87 305 eP 47 27.20 -0.3
BSF 47.29 305 eP 47 30.10 -0.6
0.9s 12.80nm 4.3mb
HAU 47.55 305 eP 47 32.10 -0.6
LPG 47.78 302 eP 47 34.50 -0.3
1.0s 10.00nm 4.2mb
LPL 47.79 302 eP 47 34.60 -0.2
LBF 49.33 304 eP 47 45.30 -1.0
LOR 49.35 305 eP 47 45.30 -1.1
SMF 49.50 304 eP 47 46.90 -0.7
0.9s 15.55nm 4.5mb
SSF 49.63 304 eP 47 47.70 -0.8
1.2s 15.75nm 4.4mb
AVF 49.79 304 eP 47 49.00 -0.8
0.9s 15.40nm 4.5mb
MAF 50.46 304 eP 47 54.50 -0.4
TCF 50.68 304 eP 47 56.20 -0.4
1.1s 19.55nm 4.5mb
CAF 51.13 302 eP 47 58.90 -1.1
1.0s 10.40nm 4.3mb
LSF 51.15 304 eP 47 58.90 -1.2
RJF 51.41 303 eP 48 00.90 -1.1
0.9s 8.20nm 4.2mb
LDF 51.65 307 eP 48 02.50 -1.2
LPO 51.80 302 eP 48 04.20 -0.7
FLN 51.84 307 eP 48 03.80 -1.3

```
EKA     52.02 316 P      48 07.42   1.1
        1.0s    38.10nm         4.9mb
LFF     52.03 302 eP     48 06.10  -0.5
GRR     52.17 307 eP     48 06.30  -1.3
YSS     53.23  54 iPd    48 15.30  -0.1
        0.8s    60.00nm         5.2mb
MAT     53.44  68 eP     48 16.00  -1.1
        0.8s    11.19nm         4.5mb
DAG     54.71 344 iPc    48 24.90  -0.9
        0.8s    37.31nm         5.1mb
ILT     64.02  23 iPc    49 29.00  -0.4
        1.3s    48.00nm         5.1mb
MBC     67.45   3 eP     49 52.00   1.0
        0.6s    10.00nm         4.7mb
BRW     67.52  15 eP     49 51.40  -0.1
RES     68.76 356 eP     49 49.50  -9.5X
ANM     70.31  22 (P)    50 08.37  -0.3
IMA     72.36  17 eP     50 19.89  -1.0
        1.1s    19.30nm         4.7mb
LKO     73.14 270 Pc     50 24.94  -1.2
        0.4s     3.50nm         4.4mb
INK     74.08   9 eP     50 31.00   0.4
        1.0s    12.00nm         4.6mb
TTA     74.28  20 eP     50 32.20   0.2
KIC     74.29 266 P      50 31.63  -1.1
        0.6s    15.50nm         4.9mb
TIC     74.35 267 P      50 30.93  -2.2
        0.6s     7.50nm         4.6mb
LIC     74.60 266 P      50 33.92  -0.6
        0.6s     9.00nm         4.7mb
FBA     74.69  16 eP     50 34.26   0.0
        0.9s    28.01nm         5.0mb
FRB     75.01 342 eP     50 36.00   0.0
SVW     75.85  21 eP     50 41.30   0.4
CP2     76.67  20 eP     50 45.52  -0.1
PMR     77.21  18 eP     50 47.74  -0.5
        0.8s    27.98nm         5.0mb
TOA     77.48  17 eP     50 50.90   1.0
KLU     78.08  17 eP     50 52.88  -0.3
MRWA    78.09 140 eP     50 52.50  -1.0
BALM    79.29  16 eP     50 59.77   0.0
BAL     79.57 141 eP     51 00.50  -0.9
MUN     80.42 142 eP     51 05.20  -0.7
YKA     81.36   2 eP     51 10.80   0.4
        0.7s    11.40nm         4.7mb
NWAO    81.69 142 eP     51 12.00  -0.5
COOL    82.12 138 eP     51 14.50  -0.3
WB2     82.36 121 iPd    51 15.10  -1.2
        0.4s    23.50nm         5.3mb
                i        52 08.50 220km
ASPA    84.60 124 iPd    51 26.70  -0.8
        0.6s    18.80nm         5.0mb
JAQ     85.50 341 eP     51 31.50  -0.1
ULM     92.87 351 eP     52 09.00   2.7
     S.D. = 1.0  on 108 of 113 obs.
--------------------------------------
? DEC  02, 1993  15h 32m 38.80± 2.13s
  29.545 S ±10.4km  177.966 W ±42.8km
  DEPTH = 407.8 ± 15.3 km
  4.5mb (  8 obs.)
 KERMADEC ISLANDS, NEW ZEALAND   (178)

RAO      0.30   8 iPd    33 29.20  -0.7
                  iS     34 03.50
HBZ      8.61 200 eP     34 41.70   0.0
PUZ      9.07 199 P      34 48.50   1.5
                  eS     36 23.70
URZ      9.61 204 eP     34 53.30   0.2
                  eS     36 34.70
NOZ      9.64 199 P      34 55.20   1.7
PAHZ    10.16 203 eP     34 59.00  -0.7
TTH     10.85 202 eP     35 09.00   1.5
WAHZ    11.15 203 eP     35 10.20  -0.9
PGZ     12.01 202 P      35 21.40   0.3
MNG     12.28 204 P      35 21.10  -2.9X
QRZ     13.67 212 eP     35 36.60  -2.2
THZ     14.26 209 P      35 43.00  -2.2
                  eS     38 11.20
DZM     15.88 294 iPc    36 02.50   0.2
MQZ     16.00 205 eP     36 02.70  -0.5
                  eS     38 47.90
BRS     25.78 268 iPc    37 36.00  -0.6
        0.6s     7.00nm         4.3mb
ARMA    26.32 260 eP     37 42.20   0.7
        0.4s     8.00nm         4.5mb
CTA     33.70 278 iPc    38 45.00  -0.4
        1.0s    20.00nm         4.4mb

STK     34.71 256 iPd    38 42.40 -11.4X
        0.5s     9.50nm
ASPA    43.19 266 iPd    40 03.00  -0.3
        0.4s    27.80nm         5.0mb
WB2     44.09 271 iPc    40 09.70  -0.7
        0.3s    34.20nm         5.2mb
WRA     44.10 271 P      40 10.90   0.4
        0.6s    11.80nm         4.4mb
FORT    46.30 254 eP     40 27.50   0.0
COOL    52.05 252 eP     41 11.00   0.3
BAL     55.79 251 eP     41 37.50   0.0
MRWA    56.80 253 eP     41 45.20   0.7
        0.9s    21.00nm         4.5mb
NANU    59.45 260 iPd    42 04.20   1.5
        0.4s     6.00nm         4.4mb
NAO    148.17 352 PKP    51 46.90  12.8X
        0.7s     3.50nm
HFS    148.41 349 ePKP   51 46.60  12.2X
        0.4s     2.10nm
     S.D. = 1.1  on  24 of  28 obs.
--------------------------------------
% DEC  02, 1993  16h 10m 25.37± 0.69s
  36.987 N ± 6.8km    3.658 W ± 6.1km
  DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR             (385)
       mbLg 2.9 (MDD). Felt (III) in
       the Padul area, Spain.

EGUA     0.17 154 iPd    10 28.96  -0.3
                  e      10 32.10
ECOG     0.30  14 iPd    10 30.21  -1.4
                  e      10 35.60
EMAL     0.66 250 eP     10 36.19  -2.3
                  e      10 44.90
ENIJ     1.16  90 eP     10 47.06   0.0
                  e      11 02.70
EBAN     1.18 355 iPd    10 47.04  -0.4
                  e      11 02.80
EHUE     1.18  45 eP     10 48.20   0.7
                  e      11 04.60
EPRU     1.26 270 eP     10 49.52   0.7
                  e      11 07.10
EHOR     1.52 304 eP     10 53.11   0.6
                  e      11 12.20
EJIF     1.55 250 eP     10 54.63   1.6
                  e      11 14.30
EVIA     1.89  29 eP     10 58.81   0.8
                  e      11 20.90
PAB      2.61 348 e(Pn)  11 12.00   3.6X
                  ePg    11 19.50
                  e(Sn)  11 45.50
                  iSg    11 50.00
     S.D. = 1.3  on  10 of  11 obs.
--------------------------------------
  DEC  02, 1993  17h 06m 00.10± 0.71s
  42.986 N ± 6.4km   18.774 E ± 4.7km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
       ML 2.2 (TTG).

BRY      0.19 243 iPgd   06 03.75  -0.6
                  iSg    06 06.69
NKY      0.24 136 iPgc   06 05.54   0.3
                  iSg    06 10.19
PLE      0.57  53 iPgc   06 10.99  -0.7
                  iSg    06 19.84
HCY      0.58 201 iPgd   06 11.40  -0.4
                  iSg    06 20.46
TTG      0.66 147 iPgd   06 12.23  -1.0
                  iSg    06 23.70
BDV      0.70 177 iPgc   06 14.16   0.2
                  iSg    06 25.22
IVA      0.83  98 iPgd   06 16.55   0.3
                  iSg    06 29.52
PVY      0.97 113 iPgc   06 19.11   0.6
                  iSg    06 34.07
ULC      1.08 161 iPgc   06 21.02   0.6
                  iSg    06 37.93
HVAR     1.71 277 iPn    06 31.10   0.9
                  iSn    06 56.20
     S.D. = 0.7  on  10 of  10 obs.
--------------------------------------
? DEC  02, 1993  18h 09m 02.40± 3.93s
  40.301 N ±10.4km   24.189 E ±29.6km
  DEPTH =   5.0km  (geophysicist)
 AEGEAN SEA                      (365)

OUR      0.16 282 ePg    09 05.43  -0.3
                  eSg    09 06.42
PAIG     0.54 226 ePg    09 13.26   0.0
SRS      0.93 331 ePg    09 20.22  -0.5
                  eSg    09 30.06
KNT      1.30 312 ePg    09 27.78   0.8
                  iSg    09 44.46
     S.D. = 0.9  on   4 of   4 obs.
--------------------------------------
  DEC  02, 1993  18h 12m 56.63± 0.41s
  49.139 N ± 3.5km    6.880 E ± 4.8km
  DEPTH =  10.0km  (geophysicist)
 GERMANY                         (543)
       ML 2.6 (STR), 2.2 (UCC).

RUP      0.58  12 ePg    13 07.50  -0.8
LANF     0.63 104 Pg     13 08.70  -0.6
SRBF     0.68 109 Pg     13 10.18   0.1
WLF      0.71 318 iPd    13 10.15  -0.4
                  iS     13 19.47
HOFF     0.74 105 Pg     13 11.01  -0.1
CDF      0.77 160 Pg     13 11.05  -0.7
                  Sg     13 23.04
WLS      0.79 157 Pg     13 11.30  -0.8
                  Sg     13 23.72
ABH      0.86  30 ePg    13 12.30  -0.9
VITF     1.10 213 Pg     13 16.75  -0.5
                  Sg     13 30.53
MOF      1.30 172 Pg     13 20.83   0.1
BSF      1.31 183 Pg     13 20.74  -0.2
FEL      1.47 149 Pg     13 24.41   1.1
TNS      1.49  43 ePnd   13 24.80   1.3
                  eSn    13 43.70
                  eSg    13 47.90
MEM      1.58 339 iPd    13 24.56  -0.1
                  iS     13 44.63
ENN      1.74 340 ePg    13 29.00   1.9
        0.7s    23.20nm
                  eS     13 49.00
SLE      1.74 141 ePc    13 28.30   1.2
DOU      1.77 304 Pc     13 27.00  -0.5
                  iS     13 48.90
LOMF     1.79 181 Pg     13 30.28   2.4X
SNF      2.17 310 iP     13 40.70   7.4X
LLS      2.68 147 ePc    13 41.70   0.9
GRF      2.89  77 ePg    13 52.20   8.7X
                  eSg    14 28.20
KHC      4.40  88 ePn    14 04.00  -1.0
                  ePg    14 17.50
                  e      14 26.50
                  eSn    14 53.40
                  eSg    15 16.00
     S.D. = 0.9  on  19 of  22 obs.
--------------------------------------
% DEC  02, 1993  18h 17m 12.97± 1.01s
  45.134 N ± 5.3km    8.252 E ± 8.7km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
       ML 2.4 (GEN).

ORX      0.53 339 P      17 23.41  -0.4
                  S      17 31.66
PCP      0.63 160 P      17 25.72   0.1
RSP      0.70 272 P      17 28.14   1.2
BHB      0.76 248 P      17 27.89   0.0
LSD      0.84 293 P      17 29.46   0.1
ROB      0.88 198 P      17 30.70   0.7
FIN      0.93 182 P      17 31.09   0.4
PZZ      1.03 233 P      17 31.20  -1.4
ENR      1.08 213 P      17 32.76  -0.7
                  S      17 47.77
STV      1.11 217 P      17 34.16   0.3
IMI      1.25 192 P      17 35.83  -0.4
     S.D. = 0.8  on  11 of  11 obs.
--------------------------------------
? DEC  02, 1993  18h 36m 31.91± 1.77s
  22.931 S ±15.7km  171.691 E ±23.6km
  DEPTH =  33.0km  (normal)
  4.7mb (  7 obs.)
 LOYALTY ISLANDS REGION          (189)

DZM      4.93 279 iPc    37 45.20  -0.5
                  iS     38 42.60
BKM      6.15 328 iPc    38 03.80   0.8
ARMA    19.40 243 eP     41 02.40   4.0X
        1.0s    14.00nm         4.2mb
CNB     23.02 233 eP     41 37.60   2.5
```

02d 18h

0.9s 8.00nm 4.2mb
CTA 23.83 272 iPd 41 45.00 2.0
ASPA 34.65 261 iPc 43 20.00 -0.6
0.6s 16.80nm 5.1mb
WB2 34.83 268 iPd 43 20.40 -1.7
0.4s 8.00nm 5.0mb
WRA 34.84 268 P 43 20.90 -1.2
0.5s 2.50nm 4.4mb
WARB 40.95 256 iPd 44 13.70 0.4
0.5s 7.00nm 4.6mb
MEEK 48.05 254 eP 45 09.80 -0.5
BAL 49.28 249 eP 45 19.00 -0.7
MRWA 50.03 250 eP 45 25.00 -0.5
0.8s 19.00nm 5.2mb
NANU 51.51 259 eP 45 37.00 0.2
GEC2 148.81 331 PKP 56 13.40 -0.2
1.1s 1.49nm
S.D. = 1.3 on 13 of 14 obs.

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* DEC 02, 1993 18h 45m 37.90± 2.08s
31.739 S ± 8.7km 72.456 W ±19.0km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)
MD 4.4 (SAN).

IHA 1.46 152 ePd• 46 06.90 4.8X
eS 46 24.80
ROCH 1.73 136 iP+ 46 05.58 -0.8
iS 46 26.90
JACH 1.84 121 iP 46 06.63 -1.1
iS 46 28.08
LCCH 1.89 157 iPd 46 08.72 0.4
PEL 2.05 134 iPd 46 10.18 -0.6
iS 46 33.70
SAN 2.28 139 iP+ 46 15.04 1.0
TACH 2.30 147 iP+ 46 14.68 0.4
LNV 2.38 159 iPd 46 15.59 0.2
FCH 2.42 131 iP 46 15.39 -0.9
iS 46 43.89
PCH 2.49 139 iP 46 16.60 -0.5
iS 46 46.34
CACH 2.84 147 iPd 46 22.88 0.9
RTRS 3.01 59 eP 46 24.00 -0.4
(S) 47 03.00
ZON 3.23 88 eP 46 29.80 2.3
RTCV 3.34 93 eP 46 29.00 -0.1
S 47 12.00
RTLL 3.43 84 e(P)d 46 30.80 0.4
S 47 55.20
RTPR 5.30 76 eP 46 56.00 -0.8
(S) 48 03.50
LKO 75.88 69 Pd 57 22.88 -0.3
1.0s 12.00nm 4.9mb
S.D. = 1.0 on 16 of 17 obs.

& DEC 02, 1993 19h 31m 53.17s
35.911 N 117.728 W
DEPTH = 7.3km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 2.7 (PAS).

ISA 0.65 248 eP 32 05.38 -1.0
TPNV 1.58 49 eP 32 22.63 0.9
MTUM 1.59 335 eP 32 22.73 0.8
ABL 1.61 230 eP 32 22.48 0.2
SSK 1.70 179 (P) 32 23.55 0.1
MMPM 1.99 329 (P) 32 28.74 0.8
MEMM 2.00 331 eP 32 28.18 0.5
BCH 2.05 250 (P) 32 28.37 -0.2
PEC 2.07 167 eP 32 27.79 -0.9
BONR 2.09 347 eP 32 29.36 0.1
PHAM 2.17 269 (P) 32 29.85 -0.4
TNP 2.21 11 eP 32 29.32 -1.6
PLM 2.65 164 (P) 32 35.84 -1.4
13 obs. associated

DEC 02, 1993 19h 40m 25.49± 0.35s
38.757 N ± 4.0km 25.963 E ± 3.1km
DEPTH = 9.9 ± 2.8 km
4.0mb (4 obs.)
AEGEAN SEA (365)
ML 3.8 (ISK). MD 3.9 (ATH).

PRK 0.54 26 ePg 40 37.10 0.6
IZM 1.08 109 iPn 40 47.10 1.3
ATH 1.93 247 ePn 40 59.50 0.8
CIN 2.03 124 eP 41 00.00 -0.2
PAIG 2.12 304 ePn 41 03.54 2.1
eSn 41 30.54
ALN 2.14 2 ePn 41 01.62 -0.1
EDC 2.16 42 iPn 41 01.00 -1.1
OUR 2.20 316 iPn 41 01.74 -0.8
DST 2.24 67 iPn 41 03.70 0.5
RDO 2.41 352 ePn 41 05.00 -0.5
KHL 2.82 98 ePn 41 12.00 0.4
AGG 2.85 276 ePn 41 13.10 1.2
THE 2.98 310 ePn 41 14.94 1.4
SRS 2.98 323 ePn 41 12.54 -1.1
LIT 3.01 298 ePn 41 13.78 -0.3
eSn 41 47.00
IZI 3.14 59 ePn 41 15.10 -0.9
VLI 3.15 231 ePn 41 13.50 -2.5
YLV 3.19 54 ePn 41 17.00 0.2
ISK 3.31 45 ePn 41 18.50 0.1
ITU 3.32 44 ePn 40 27.50 -51.0X
iSg 41 14.00
DMK 3.35 24 iPn 41 18.20 -0.8
KNT 3.36 317 ePn 41 18.62 -0.5
NPS 3.50 185 ePn 41 19.20 -1.9
GRG 3.51 310 ePn 41 21.02 -0.2
HRT 3.52 53 ePn 41 22.00 0.6
KZN 3.59 297 ePn 41 22.50 0.0
VAM 3.63 203 ePn 41 23.80 0.9
VAY 3.65 316 iPn 41 24.70 1.5
i 41 34.70
EYL 3.71 60 ePn 41 24.00 -0.2
ELL 3.71 121 ePn 41 25.50 1.2
BCK 3.87 108 iPn 41 26.70 0.3
KSL 3.90 131 ePn 41 27.00 0.2
OHR 4.61 302 ePn 41 38.50 1.5
SKO 4.72 314 ePn 41 37.00 -1.4
i 41 39.30
ISR 6.39 4 eP 42 07.00 5.0X
MLR 6.73 360 eP 42 06.00 -0.9
GEC2 13.40 323 P 43 52.30 14.1X
0.9s 0.68nm
e 43 54.60
LPG 15.75 301 eP 44 15.10 5.9X
0.7s 6.05nm 3.9mb
LPL 15.77 302 eP 44 15.40 6.1X
0.6s 2.05nm 3.5mb
SMF 18.03 303 eP 44 38.40 0.7
SSF 18.38 304 eP 44 41.00 -0.9
BGF 18.66 302 eP 44 45.90 0.5
1.2s 16.65nm 4.1mb
LFF 19.74 296 eP 45 03.10 4.9X
1.1s 17.85nm 4.3mb
S.D. = 1.1 on 37 of 43 obs.

& DEC 02, 1993 20h 30m 06.40s
64.930 N 133.700 W
DEPTH = 18.0km (geophysicist)
4.8mb (20 obs.)
SOUTHERN YUKON TERRITORY, CANADA(18)
<PGC-P>. ML 4.7 (PGC).

DAWY 2.61 253 P 30 47.20 -1.3
S 31 18.10
INK 3.39 1 P 30 58.00 -1.5
TMW 4.38 253 P 31 11.00 -2.6
S 32 00.50
DOT 4.69 259 eP 31 15.78 -2.3
eS 32 11.77
FYU 5.03 294 eP 31 20.20 -2.5
DJE 5.26 266 eP 31 23.65 -2.3
CTGM 5.29 225 eP 31 24.66 -1.9
eS 32 26.36
DDM 5.41 263 eP 31 25.36 -2.8
PAX 5.55 255 eP 31 27.27 -2.9
BALM 5.55 229 eP 31 27.55 -2.6
eS 32 29.37
BCPM 5.70 212 eP 31 30.98 -1.3
HDA 5.72 271 eP 31 30.02 -2.4
PCA 5.72 215 eP 31 30.82 -1.7
GLB 5.76 237 eP 31 30.28 -2.8
SDG 5.79 251 P 31 30.80 -2.6
GLM 5.82 277 P 31 30.80 -3.0
YAH 5.89 223 eP 31 34.59 -0.5
PNL 5.91 209 eP 31 33.49 -1.6
CHX 5.97 219 eP 31 36.10 0.1
FBA 6.00 276 eP 31 32.44 -3.9
CCB 6.04 274 eP 31 33.57 -3.3
WAX 6.16 227 eP 31 37.83 -0.8
eS 32 46.47
MDM 6.17 277 eP 31 35.89 -3.0
WRH 6.19 272 eP 31 35.35 -3.7
WRG 6.24 222 eP 31 38.12 -1.7
eS 32 48.91
TOA 6.26 249 eP 31 40.50 0.4
DHY 6.29 259 eP 31 38.33 -2.4
KLU 6.51 244 eP 31 40.83 -2.9
HMT 6.70 231 eP 31 44.16 -2.2
MCK 6.73 267 eP 31 44.37 -2.3
RND 6.79 264 eP 31 46.07 -1.6
RAGM 6.80 233 eP 31 46.49 -1.3
BWN 6.84 271 eP 31 44.02 -4.2
VLZ 6.89 242 eP 31 47.37 -1.5
VZW 7.02 242 eP 31 49.02 -1.8
CVA 7.06 237 eP 31 49.75 -1.6
FID 7.19 240 eP 31 51.61 -1.5
MLY 7.23 279 eP 31 49.76 -3.9
SML 7.28 251 eP 31 49.93 -4.5
TRF 7.39 266 eP 31 52.47 -3.6
HIN 7.44 238 eP 31 54.45 -2.2
GHO 7.54 252 eP 31 57.38 -0.7
KNK 7.54 249 P 31 46.40 -11.7
KTH 7.63 267 eP 31 56.35 -3.0
PMR 7.72 251 (P) 31 59.33 -1.1
CUT 7.79 259 eP 31 59.84 -1.6
PMS 8.08 250 eP 32 04.70 -0.9
IMA 8.37 287 eP 32 05.49 -4.3
MPA 8.45 245 eP 32 09.46 -1.3
SKT 8.51 258 eP 32 09.68 -1.9
SLKM 8.77 247 eP 32 14.10 -1.2
YKW3 8.78 97 P 32 10.60 -4.6
YKA 8.81 97 eP 32 17.80 2.1
0.4s 21.30nm 5.8mb
NCG 9.05 256 eP 32 18.47 -0.7
CRP 9.12 255 eP 32 17.77 -2.4
SPU 9.13 254 eP 32 20.31 0.2
CP2 9.16 255 eP 32 18.36 -2.4
TTA 10.01 269 eP 32 28.55 -3.7
SVW 10.64 259 eP 32 37.09 -3.9
BRW 10.64 317 (P) 32 34.35 -6.5
MBC 12.26 16 eP 32 58.50 -4.2
0.5s 14.00nm 5.4mb
RES 16.18 37 eP 33 48.50 -5.4
0.6s 11.00nm 4.2mb
NEW 18.93 144 P 34 30.00 1.7
VGB 20.72 154 eP 34 47.78 -0.3
ULM 24.54 109 eP 35 33.00 7.4
FRB 27.14 62 eP 35 51.50 1.8
0.8s 4.00nm 4.1mb
DAG 32.97 23 eP 36 40.50 -0.9
0.5s 4.23nm 4.6mb
ALQ 34.21 138 eP 36 52.72 -0.1
0.7s 3.03nm 4.3mb
HFS 52.87 20 eP 39 19.10 -3.5
0.4s 1.10nm 4.2mb
GRR 61.23 34 eP 40 19.60 -2.4
0.5s 2.75nm 4.6mb
LPF 61.52 34 eP 40 21.90 -2.1
0.5s 4.10nm 4.8mb
LOR 63.36 31 eP 40 34.10 -2.2
0.7s 5.30nm 4.8mb
SSF 63.48 31 eP 40 34.90 -2.1
0.8s 8.60nm 5.0mb
AVF 63.70 31 eP 40 36.20 -2.3
0.7s 3.65nm 4.6mb
LSF 63.80 33 eP 40 36.80 -2.4
BGF 63.81 32 eP 40 36.90 -2.3
0.5s 4.30nm 4.9mb
TCF 63.92 32 eP 40 37.70 -2.3
0.7s 5.85nm 4.9mb
SMF 63.95 31 eP 40 37.70 -2.4
LFF 64.85 34 eP 40 44.00 -2.0
CAF 65.17 33 eP 40 46.00 -2.1
0.7s 4.95nm 4.8mb
LPO 65.20 34 eP 40 46.20 -2.0
LPL 65.65 29 eP 40 49.90 -1.5
0.7s 1.85nm 4.4mb
WMQ 66.87 329 P 40 57.20 -1.8
1.0s 70.00nm 5.8mb
pP 41 02.70 18kmX
sP 41 06.00
GTA 67.93 318 eP 41 03.70 -2.1
1.0s 8.00nm 4.8mb
LZH 69.80 313 P 41 16.00 -1.4
1.2s 30.00nm 5.3mb
GUN 82.49 325 P 42 28.20 -1.1
GKN 82.70 326 P 42 29.00 -1.1

KKN 82.75 326 P 42 29.80 -0.6
0.6s 8.00nm 5.0mb
PKI 82.93 326 P 42 30.40 -1.1
DMN 82.97 326 P 42 31.00 -0.6
90 obs. associated

& DEC 02, 1993 20h 47m 59.85s
60.079 N 152.961 W
DEPTH = 109.8km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.00 32 eP 48 14.34 0.7
eS 48 26.47
RED 0.35 15 eP 48 15.33 -0.8
eS 48 28.32
RS2 0.40 15 eP 48 15.79 -0.8
RDW 0.41 10 eP 48 15.72 -0.9
eS 48 29.18
REF 0.43 17 iP 48 15.90 -0.8
eS 48 28.53
OPT 0.45 198 eP 48 16.03 -0.6
eS 48 29.16
NCT 0.48 2 eP 48 16.21 -0.7
eS 48 29.06
DFR 0.53 15 eP 48 16.27 -1.0
PDB 0.69 245 eP 48 17.60 -0.7
eS 48 31.60
AUL 0.74 199 eP 48 18.45 -0.3
AUW 0.76 200 eP 48 18.55 -0.4
HOM 0.79 122 eP 48 18.68 -0.5
eS 48 32.90
CNPM 1.03 122 eP 48 20.70 -1.0
eS 48 37.38
BKG 1.05 19 eP 48 21.15 -0.8
eS 48 37.89
NKA 1.08 51 eP 48 22.85 0.7
BRLK 1.09 106 eP 48 21.86 -0.5
eS 48 37.80
CKL 1.16 15 eP 48 22.40 -0.8
CKT 1.19 18 eP 48 22.45 -1.0
SPU 1.19 22 eP 48 22.64 -0.8
CDD 1.20 197 eP 48 22.44 -1.1
CKN 1.21 18 eP 48 23.28 -0.4
BGL 1.22 13 eP 48 23.28 -0.6
CP2 1.24 16 eP 48 23.08 -1.1
CRP 1.26 18 eP 48 23.00 -1.3
eS 48 41.23
CGLM 1.32 20 eP 48 24.24 -0.7
NCG 1.39 16 eP 48 25.27 -0.5
SLKM 1.43 71 eP 48 24.62 -1.6
eS 48 43.97
SYI 1.50 169 eP 48 25.72 -1.3
SVW 1.67 309 iPd 48 27.48 -1.7
SEW 1.76 88 eP 48 28.37 -1.8
SUA 1.77 37 eP 48 29.75 -0.7
MPA 1.84 76 eP 48 29.56 -1.7
SKT 2.03 19 eP 48 32.55 -1.2
eS 48 58.27
PMS 2.04 54 P 48 32.50 -1.4
S 48 57.50
KNK 2.59 57 eP 48 38.61 -2.4
MTU 2.67 90 eP 48 40.23 -1.9
CUT 2.67 28 eP 48 41.01 -1.1
SML 2.85 50 eP 48 42.27 -2.3
HIN 3.24 82 eP 48 47.69 -2.1
FID 3.28 75 eP 48 47.94 -2.5
KLU 3.73 65 eP 48 53.23 -3.3
SGAM 3.88 80 eP 48 56.09 -2.5
42 obs. associated

DEC 02, 1993 21h 28m 59.12± 0.66s
36.835 N ± 7.9km 26.659 E ± 7.1km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
ML 4.2 (ATH).

CIN 1.37 56 eP 29 23.00 -1.3
IZM 1.63 17 iPn 29 27.50 -0.5
NPS 1.78 209 ePn 29 28.80 -1.4
PRK 2.43 353 ePn 29 40.00 0.6
VAM 2.45 235 ePn 29 40.00 0.3
ATH 2.60 297 ePb 29 48.00 6.1X
eSn 30 23.20
ELL 2.61 91 ePn 29 43.50 1.3
KHL 2.72 56 ePn 29 54.00 10.3X
VLI 2.99 269 ePn 29 48.50 1.1
DST 3.17 29 ePn 29 56.00 6.0X
BCK 3.20 78 ePn 29 51.00 0.5
EDC 3.63 15 eP 30 06.00 9.5X
RDO 4.39 349 ePn 30 06.80 -0.5
S.D. = 1.1 on 9 of 13 obs.

% DEC 02, 1993 22h 03m 59.40± 0.54s
42.874 S ± 5.0km 172.549 E ± 7.2km
DEPTH = 5.0km (geophysicist)
SOUTH ISLAND, NEW ZEALAND (162)
ML 4.2 (WEL).

LTZ 0.23 294 Pd 04 05.10 1.1
S 04 07.80
MQZ 0.84 175 Pc 04 18.90 2.9
eS 04 32.20
THZ 1.14 13 P 04 21.10 -0.2
DSZ 1.26 334 eP 04 23.90 0.7
EWZ 1.39 242 P 04 26.70 1.2
QRZ 2.05 360 P 04 35.20 0.3
MRW 2.30 45 eP 04 38.50 0.0
BWZ 2.55 228 eP 04 42.10 0.1
ODZ 2.57 212 eP 04 42.40 0.1
MNG 3.15 45 eP 04 49.40 -1.1
MSCZ 3.17 225 P 04 50.40 -0.5
LSCZ 3.21 225 eP 04 50.30 -1.2
SBCZ 3.22 225 P 04 50.80 -0.9
MMCZ 3.26 228 eP 04 51.20 -1.1
CMCZ 3.28 225 P 04 51.60 -0.9
TUZ 3.72 213 P 04 58.40 -0.3
MOZ 4.69 22 eP 05 12.40 -0.1
S.D. = 1.1 on 17 of 17 obs.

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* DEC 02, 1993 22h 04m 38.49± 1.29s
24.868 N ±33.1km 95.794 E ±22.6km
DEPTH = 33.0km (normal)
4.9mb (4 obs.)
MYANMAR (296)

CHTO 6.70 153 ePn 06 17.30 0.2
ePg 06 36.00
eSg 07 49.80
GUN 9.39 291 P 06 56.60 1.6
PKI 9.71 288 P 06 58.60 -0.7
KKN 9.87 289 P 07 01.80 0.4
DMN 9.98 288 P 07 02.20 -0.7
GKN 10.47 290 P 07 09.00 -0.6
NDI 17.02 287 eP 08 43.00 7.4X
WRA 58.23 136 P 14 32.50 0.4
0.5s 1.80nm 4.4mb
WB2 58.23 136 iPd 14 32.10 -0.1
0.3s 7.00nm 5.2mb
ASPA 60.76 140 iPc 14 49.10 -0.5
0.6s 10.00nm 5.1mb
HFS 64.88 327 eP 15 22.00 5.6X
0.4s 2.20nm 4.6mb
RTLL 164.70 242 ePKPc 24 55.20 15.0X
RTCB 164.91 241 ePKPc 24 54.40 13.9X
S.D. = 0.9 on 9 of 13 obs.

? DEC 02, 1993 22h 24m 43.07± 5.98s
31.706 S ±51.9km 69.832 W ±39.9km
DEPTH = 150.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.2 (SAN).

JACH 1.17 213 iPd 25 09.35 -0.4
(S) 25 34.47
PEL 1.61 206 iP+ 25 14.30 0.2
iS 25 41.02
ROCH 1.61 218 iPd 25 14.43 0.0
iS 25 42.26
FCH 1.66 193 iP 25 15.33 0.2
iS 25 43.08
PCH 1.99 197 iP 25 18.71 0.1
iS 25 50.41
TACH 2.15 205 iP+ 25 20.31 -0.1
iS 25 53.65
LCCH 2.29 219 iPd 25 22.83 0.7
CACH 2.49 195 iP+ 25 24.74 0.1
LNV 2.61 210 (P) 25 25.12 -0.8
S.D. = 0.5 on 9 of 9 obs.

? DEC 02, 1993 23h 39m 21.60± 0.88s
44.321 N ± 8.7km 7.319 E ±17.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

STV 0.08 177 P 39 23.84 -0.3
ENR 0.12 142 P 39 24.85 0.2
PZZ 0.24 320 P 39 27.00 0.2
S 39 30.17
BHB 0.52 356 P 39 32.03 -0.2
S 39 39.32
S.D. = 0.4 on 4 of 4 obs.

DEC 03, 1993 00h 01m 32.91± 0.47s
24.193 N ± 6.9km 122.080 E ± 6.4km
DEPTH = 33.0km (normal)
4.7mb (19 obs.)
TAIWAN REGION (243)
ML 4.5 (BJI).

QZH 3.26 284 Pnc 02 23.30 0.4
CVP 6.46 182 eP 03 14.00 5.8X
eS 04 17.00
SSE 6.92 354 Pc 03 16.20 1.6
1.0s 47.00nm 5.4mb
N 10s 0.80um
E 10s 0.90um
S 04 30.00
HKC 7.51 257 iPd 03 23.80 0.9
GZH 8.09 264 iPc 03 32.40 1.4
MCO 8.11 257 e(P) 03 30.90 -0.4
NJ2 8.33 341 Pc 03 33.80 -0.5
S 05 04.00
QIZ 12.48 248 eP 04 33.30 2.2
eS 06 46.00
GYA 14.12 282 iPd 04 53.80 0.9
1.0s 24.00nm 4.8mb
Z 12s 0.98um 3.8MszX
pP 05 02.00
XAN 15.10 313 P 05 06.30 0.7
Z 10s 0.64um
pP 05 11.90
PP 05 20.00
SS 08 13.00
TIY 15.80 331 eP 05 20.00 5.4X
Z 12s 1.08um
S 08 12.00
BJI 16.57 344 eP 05 27.00 2.8
Z 12s 0.30um
epP 05 35.00
ePP 05 45.00
eS 08 32.00
CD2 17.56 296 iPd 05 36.60 -0.3
S 08 53.50
SNY 17.63 4 Pc 05 40.00 2.4
Z 14s 0.71um
S 08 56.00
HHC 18.80 335 P 05 55.20 3.1X
1.4s 15.00nm 4.0mb
BTO 19.24 331 eP 06 01.00 3.7X
N 10s 0.36um
E 10s 0.22um
ePP 06 18.00
eS 09 30.00
LZH 19.69 311 iPc 06 02.50 0.0
2.0s 250.00nm 5.2mb
Z 23s 0.63um
sP 06 16.00
PP 06 22.00
sS 09 45.00
LOE 20.18 254 iPd 06 08.50 1.0
CHTO 22.17 261 eP 06 28.10 0.3
1.6s 90.55nm 5.0mb
NST 22.28 252 eP 06 30.50 1.6
GTA 24.16 314 P 06 47.00 -0.2
2.0s 76.00nm 4.9mb
GUN 32.66 284 P 08 04.00 -0.6
PKI 33.09 284 P 08 06.40 -1.9
KKN 33.19 284 P 08 07.80 -1.3
DMN 33.36 284 P 08 09.20 -1.4
GKN 33.75 285 P 08 12.80 -1.1
WMQ 34.24 313 P 08 17.50 -0.4
1.5s 9.50nm 4.5mb
POO 45.10 273 eP 09 46.00 -2.1
WRA 45.46 164 P 09 51.80 1.0
0.5s 3.30nm 4.5mb
WB2 45.47 164 eP 09 51.30 0.4
0.4s 8.90nm 5.0mb
e 10 01.30
ASPA 48.94 166 iPd 10 19.30 1.2

03d 00h

0.4s 4.00nm 4.8mb
i 10 37.10
QUE 49.01 290 eP 10 19.50 0.6
CTA 49.92 150 e(P) 10 29.00 3.4X
IMA 65.83 26 (P) 12 18.10 1.0
0.6s 1.35nm 4.2mb
CP2 67.04 32 eP 12 25.87 0.9
SLKM 68.14 32 eP 12 31.34 -0.3
KLU 69.99 31 eP 12 43.19 0.2
INK 72.91 22 eP 13 00.50 0.2
HFS 77.96 331 eP 13 27.10 -2.0
0.5s 2.00nm 4.4mb
Z 16s 0.22um 4.6MszX
LR 44 58.00
RES 78.52 9 eP 13 32.50 0.5
NAO 78.87 332 P 13 32.30 -1.8
0.7s 5.80nm 4.7mb
KSP 80.93 322 eP 14 11.20 25.9X
YKA 82.64 23 eP 13 54.50 0.5
0.5s 3.20nm 4.6mb
GEC2 83.35 321 P 13 57.80 -0.3
0.7s 1.10nm 4.1mb
e 14 00.90
e 14 03.60
GRF 84.34 322 e(P) 14 30.00 27.1X
LPG 89.15 321 eP 14 25.80 -1.1
0.6s 2.25nm 4.7mb
LPL 89.15 321 eP 14 25.80 -1.0
0.6s 2.70nm 4.7mb
SSF 90.07 323 eP 14 29.30 -1.5
SMF 90.13 323 eP 14 29.80 -1.3
0.7s 3.95nm 4.8mb
AVF 90.32 323 eP 14 30.50 -1.4
0.6s 3.50nm 4.8mb
TOV 144.29 20 ePKPc 21 07.00 -1.1
ePP 21 07.40
SDV 144.86 22 ePKP 21 08.30 -0.9
LPAZ 167.61 53 PKP 21 41.40 3.3X
e 21 52.00
LPB 167.79 53 ePKP 21 54.00 16.1X
CNCB 168.05 54 ePKP 21 56.00 17.7X
S.D. = 1.3 on 45 of 55 obs.

DEC 03, 1993 00h 14m 55.74± 0.69s
42.972 N ± 6.3km 18.788 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.1 (TTG).

BRY 0.19 248 iPgd 14 59.46 -0.6
iSg 15 02.50
NKY 0.22 136 iPgc 15 01.20 0.6
iSg 15 04.97
HCY 0.57 202 iPgc 15 06.65 -0.6
iSg 15 15.30
PLE 0.57 51 iPgd 15 06.53 -0.9
iSg 15 15.50
TTG 0.64 147 iPgc 15 08.03 -0.6
iSg 15 18.82
BDV 0.69 178 iPgc 15 09.20 -0.2
iSg 15 19.83
IVA 0.82 97 iPgd 15 11.82 0.1
iSg 15 24.52
PVY 0.95 113 iPgd 15 14.39 0.5
iSg 15 28.89
ULC 1.06 161 iPgc 15 16.27 0.5
iSg 15 32.44
HVAR 1.73 278 iPn 15 27.10 1.1
iSn 15 52.00
S.D. = 0.7 on 10 of 10 obs.

DEC 03, 1993 00h 25m 07.52± 0.55s
44.757 N ± 3.3km 6.800 E ± 6.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (GEN), 2.0 (LDG).

RRL 0.16 356 P 25 11.21 -0.2
PZZ 0.33 139 P 25 13.88 -0.6
S 25 18.70
BHB 0.34 75 P 25 14.94 0.4
S 25 20.48
RSP 0.51 39 P 25 18.27 0.4
S 25 25.56
STV 0.64 144 P 25 19.87 -0.5
LPG 0.74 357 Pg 25 22.00 -0.3
Sg 25 31.60
LSD 0.74 20 P 25 22.50 0.2
LPL 0.76 356 Pg 25 22.30 -0.2
Sg 25 31.50
SBF 1.00 153 Pg 25 29.30 2.7X
Sg 25 46.20
FRF 1.20 185 Pg 25 30.40 0.5
Sg 25 45.40
LMR 1.44 188 Pg 25 33.90 0.3
Sg 25 52.60
S.D. = 0.4 on 10 of 11 obs.

& DEC 03, 1993 00h 34m 08.18s
34.828 N 120.425 W
DEPTH = 0.8km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.7 (PAS). Felt.

BCH 0.45 38 iPd 34 16.86 -0.4
ABL 0.99 88 eP 34 26.22 -1.8
eS 34 39.66
PHAM 1.01 1 eP 34 26.42 -1.7
eS 34 39.00
GSC 3.01 80 (Pn) 34 56.99 -1.0
4 obs. associated

DEC 03, 1993 00h 47m 36.20± 0.15s
44.739 N ± 1.5km 6.769 E ± 1.7km
DEPTH = 10.4 ± 1.3 km
FRANCE (538)
ML 3.2 (LDG), 3.1 (GEN).

RRL 0.18 3 P 47 40.05 -0.4
S 47 43.22
PZZ 0.33 135 P 47 42.74 -0.4
S 47 48.20
BHB 0.37 74 P 47 43.81 0.0
S 47 49.67
RSP 0.54 40 P 47 47.05 -0.1
S 47 54.25
STV 0.63 141 P 47 48.54 -0.4
ENR 0.69 137 P 47 49.48 -0.5
S 47 59.28
LPG 0.76 359 Pg 47 50.80 -0.4
Sg 48 00.60
LSD 0.77 21 P 47 50.76 -0.6
LPL 0.78 358 Pg 47 51.20 -0.3
Sg 48 01.10
TOUF 0.80 154 Pg 47 51.78 -0.1
AUTN 0.88 147 Pg 47 52.95 -0.3
MVIF 0.89 162 Pg 47 52.86 -0.4
ROB 0.90 119 P 47 53.44 -0.1
S 48 06.43
SAOF 0.94 143 Pg 47 54.14 0.0
Sg 48 07.68
AURF 0.94 155 Pg 47 54.20 0.0
Sg 48 08.79
RSL 0.95 354 Pg 47 54.32 -0.1
Sg 48 08.47
CALN 0.99 175 Pg 47 55.11 0.1
SBF 1.00 151 Pg 47 55.70 0.6
Sg 48 10.00
IMI 1.15 135 P 47 58.10 0.3
S 48 13.16
FIN 1.16 117 P 47 58.01 0.2
S 48 12.74
FRF 1.18 184 Pn 47 58.30 0.1
Sg 48 15.90
ORX 1.24 43 P 47 58.98 -0.3
S 48 15.58
PCP 1.28 98 P 48 00.19 0.2
S 48 17.69
LRG 1.32 193 Pn 48 01.10 0.6
Sg 48 20.10
EMS 1.34 5 ePd 48 01.50 0.6
DIX 1.42 18 ePc 48 03.10 0.9
LMR 1.42 188 Pn 48 02.70 0.8
Sg 48 22.60
MMK 1.56 32 ePc 48 05.50 1.3
SSB 1.67 290 Pn 48 06.11 0.5
Pg 48 07.77
Sg 48 29.67
TMA 2.02 47 ePc 48 11.00 0.3
COLF 2.31 291 Pn 48 14.69 -0.2
Pg 48 19.61
Sg 48 48.16
PLDF 2.54 300 Pn 48 17.93 -0.2
Pg 48 24.16
Sg 48 55.39
LBL 2.55 282 Pn 48 18.43 0.2
Pg 48 24.21
Sg 48 55.67
VDL 2.58 46 ePc 48 19.60 0.8
LLS 2.64 35 eP 48 23.10 3.4X
PGF 2.72 143 Pn 48 21.20 0.4
Sn 48 53.30
SMF 2.80 314 Pn 48 22.70 0.9
Pg 48 28.70
Sg 49 05.40
PYM 2.84 292 Pn 48 22.92 0.4
Pg 48 30.62
Sg 49 08.35
AGO 2.88 298 Pn 48 23.42 0.5
Pg 48 30.88
Sg 49 06.88
LBF 2.97 320 Pn 48 25.00 0.7
Pg 48 31.60
Sn 48 59.80
Sg 49 10.20
BSF 3.09 0 Pn 48 26.50 0.5
AVF 3.15 312 Pn 48 27.30 0.6
Pg 48 35.50
Sg 49 16.80
LOR 3.24 322 Pn 48 28.50 0.4
Pg 48 37.80
Sn 49 05.30
Sg 49 19.40
SSF 3.25 317 Pn 48 28.70 0.5
Pg 48 37.50
Sg 49 19.10
SLE 3.26 21 ePd 48 28.50 0.2
HAU 3.28 355 Pn 48 28.80 0.2
Sn 49 06.20
Sg 49 20.40
BGF 3.30 305 Pn 48 29.20 0.3
Pg 48 38.00
Sg 49 21.40
CAF 3.35 275 Pn 48 29.70 0.0
TCF 3.56 297 Pn 48 33.00 0.4
CDF 3.69 5 Pn 48 34.10 -0.4
RJF 3.77 280 Pn 48 35.80 0.2
LSF 3.98 294 Pn 48 38.80 0.2
MFF 5.19 293 Pn 48 55.00 -0.7
LDF 6.11 312 Pn 49 07.80 -0.8
GEC2 6.29 47 Pn 49 10.30 -0.9
0.4s 0.85nm 3.9mb
LPF 6.33 304 Pn 49 10.00 -1.7
GRR 6.40 307 Pn 49 11.70 -1.1
FLN 6.40 312 Pn 49 11.70 -1.1
S.D. = 0.6 on 57 of 58 obs.

? DEC 03, 1993 01h 15m 18.44± 2.35s
22.390 S ±18.7km 68.024 W ±20.3km
DEPTH = 217.5 ± 40.8 km
NORTHERN CHILE (123)

YJA 2.35 85 e(P) 16 03.20 0.5
MOCB 2.49 63 P 16 04.60 0.4
SLA 3.29 136 ePc 16 12.30 -0.7
CNCB 5.55 0 Pc 16 40.00 -1.4
LPB 5.83 359 eP 16 46.00 1.1
LPAZ 6.07 359 P 16 46.20 -2.0
ARE 6.74 330 eP 16 58.00 1.5
eS 18 04.00
SIV 9.14 47 P 17 28.00 0.6
S.D. = 1.6 on 8 of 8 obs.

? DEC 03, 1993 01h 31m 08.03± 1.07s
39.479 N ± 9.0km 27.786 E ±11.1km
DEPTH = 5.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

DST 0.66 79 ePg 31 21.00 -0.3
eSg 31 30.00
EDC 0.87 4 ePn 31 25.00 -0.2
IZM 1.15 201 ePn 31 30.10 0.0
IZI 1.55 56 ePn 31 37.00 0.5
S.D. = 0.6 on 4 of 4 obs.

? DEC 03, 1993 01h 32m 41.75± 6.56s
32.015 S ±49.4km 71.565 W ±18.1km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.8 (SAN).

JACH 1.06 129 iP 33 01.98 0.2
iS 33 16.81
ROCH 1.06 154 iP+ 33 01.66 -0.3
iS 33 17.48
PEL 1.35 147 iP+ 33 06.13 -0.5
iS 33 24.19
LCCH 1.46 180 iPd 33 07.03 -1.0
iS 33 26.33
FCH 1.69 141 iP+ 33 11.64 -0.2
iS 33 35.07
TACH 1.72 162 iP 33 11.91 0.0
iS 33 34.84
PCH 1.83 151 iP 33 13.52 0.0
iS 33 39.20
LNV 1.94 176 iPd 33 16.06 1.0
iS 33 40.53
CACH 2.25 159 iPd 33 20.40 0.7
iS 33 50.35
S.D. = 0.7 on 9 of 9 obs.

? DEC 03, 1993 01h 36m 00.13± 1.07s
39.485 N ± 9.0km 27.791 E ±11.0km
DEPTH = 5.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

DST 0.66 79 ePg 36 13.00 -0.3
eSg 36 22.00
EDC 0.86 4 iPn 36 17.00 -0.2
IZM 1.16 201 ePn 36 22.30 0.0
IZI 1.55 56 ePn 36 29.00 0.5
S.D. = 0.6 on 4 of 4 obs.

& DEC 03, 1993 01h 51m 24.75s
34.259 N 116.721 W
DEPTH = 1.6km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.8 (PAS), 3.8 (GS).
Felt (III) at Cabazon and
Calimesa. Felt (II) at Highland.

PEC 0.52 225 iPd 51 34.60 -0.5
SSK 0.81 267 iPd 51 39.98 -0.9
PLM 0.91 187 ePd 51 41.89 -1.2
WBSM 1.73 318 P 51 57.43 1.2
BMTC 1.78 300 P 51 56.70 -0.2
WJPM 1.85 309 P 51 57.25 -0.6
FTC 1.89 289 P 52 00.03 1.5
ARVC 1.94 297 P 51 58.54 -0.6
WCHM 1.96 326 P 52 02.03 2.3
GLA 1.99 127 ePc 51 57.64 -2.2
ISA 2.01 315 eP 51 58.40 -1.8
WOFM 2.07 308 P 52 03.37 2.2
ABL 2.15 287 eP 52 00.57 -1.7
RYS 2.21 281 P 52 04.52 1.3
MARC 2.28 290 P 52 02.72 -1.4
WLHM 2.29 326 P 52 07.61 3.0
LPC 2.49 276 P 52 06.65 -0.5
SYP 2.71 277 P 52 09.59 -0.7
TPNV 2.71 8 eP 52 09.02 -1.3
BCH 2.92 289 eP 52 11.84 -1.4
PHAM 3.40 299 (Pn) 52 18.80 -1.2
MTUM 3.43 335 (Pn) 52 19.69 -0.9
ePg 52 28.61
MMPM 3.83 331 ePn 52 25.28 -1.2
TNP 3.84 354 ePn 52 24.59 -1.8
BONR 3.90 341 ePn 52 26.49 -0.9
ARUT 4.41 36 eP 52 32.97 -1.5
CMB 4.79 323 ePn 52 37.68 -2.2
KVN 4.91 347 (Pn) 52 41.33 -0.3
MSU 5.61 40 ePn 52 49.73 -1.8
DUG 6.69 27 (Pn) 53 06.42 -0.3
ePg 53 29.12
SRU 6.94 44 (Pn) 53 08.41 -1.9
EMUT 7.28 39 (P) 53 12.68 -2.4
PV10 7.44 54 eP 53 14.67 -2.6
PV09 7.44 53 eP 53 15.72 -1.6
DAU 7.53 34 (Pn) 53 17.11 -1.4
PV08 7.80 54 eP 53 20.45 -2.0
ALQ 8.49 83 (Pn) 53 30.87 -1.1
ePg 53 58.46
37 obs. associated

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* DEC 03, 1993 02h 27m 38.87± 2.51s
37.541 N ±14.7km 22.824 E ±12.1km
DEPTH = 98.4 ± 36.5 km
SOUTHERN GREECE (368)

VLI 0.83 174 iPc 27 57.00 -0.6
eS 28 08.80
ATH 0.83 58 eP 27 58.50 0.9
eS 28 11.50
AGG 1.53 345 ePb 28 04.80 -1.0
eSb 28 23.04
VLS 1.88 290 eP 28 11.20 0.9
eS 28 34.00
PAIG 2.48 15 ePn 28 17.96 -0.2
eSn 28 47.44
LIT 2.57 354 ePn 28 19.08 -0.4
OUR 2.93 18 ePn 28 24.52 0.1
KNT 3.62 1 ePn 28 34.16 0.4
SRS 3.62 9 ePn 28 33.88 0.0
S.D. = 0.8 on 9 of 9 obs.

DEC 03, 1993 02h 38m 10.43± 0.33s
42.457 N ± 4.1km 141.385 E ± 4.9km
DEPTH = 120.1 ± 3.6 km
4.7mb (46 obs.)
HOKKAIDO, JAPAN REGION (224)

MRRJ 0.23 262 iP+ 38 27.60 0.7
S 38 39.50
SAP 0.60 356 iP 38 29.60 0.3
iS 38 43.00
HOOJ 1.41 92 iPd 38 37.50 0.4
eS 38 57.00
ASAJ 1.90 29 iP+ 38 43.00 0.0
eS 39 05.90
AOMJ 2.04 202 P 38 46.10 1.2
KUSJ 2.53 74 iP+ 38 50.40 -0.8
eS 39 18.60
OFUJ 3.38 176 eP 39 01.40 -1.1
eS 39 38.30
YAMJ 4.40 194 eP 39 16.60 0.3
YSS 4.66 11 iPnd 39 19.20 -0.5
e 40 12.30
KUR 5.45 57 iPnd 39 31.50 1.0
eS 40 30.40
NIIJ 5.52 200 P 39 31.50 -0.1
KAKJ 6.31 189 P 39 38.20 -4.2X
S 40 47.80
MTMJ 6.48 206 P 39 45.30 0.4
CHJJ 6.66 197 P 39 46.10 -1.1
S 40 57.10
IIDJ 7.47 202 P 39 56.70 -1.6
S 41 20.80
WKYJ 9.40 211 eP 40 23.50 -0.7
YONJ 9.53 223 eP 40 28.70 2.8
TKSJ 10.24 217 eP 40 31.30 -4.0X
BJI 19.09 271 eP 42 24.00 -2.1
1.5s 14.00nm 4.1mb
YAK 20.79 344 iPd 42 39.80 -3.5X
0.9s 92.00nm 5.1mb
e(S) 46 25.00
CIT 21.03 307 eP 42 43.80 -2.1
ZAK 27.19 300 eP 43 43.40 -0.8
1.2s 18.00nm 4.5mb
TIK 29.90 352 eP 44 03.00 -5.3X
1.0s 10.00nm 4.5mb
e 45 09.00
ILT 33.14 26 iPc 44 33.80 -2.8
1.4s 25.00nm 4.8mb
BRW 41.48 25 eP 45 45.40 -1.0
IMA 42.10 33 eP 45 50.14 -1.6
0.7s 6.99nm 4.5mb
PMS 44.22 40 eP 46 08.00 -0.9
FBA 44.60 35 eP 46 11.49 -0.3
1.0s 12.77nm 4.6mb
TOA 45.69 39 eP 46 21.50 1.0
GUN 46.84 271 P 46 30.40 0.1
KKN 47.35 271 P 46 34.00 -0.2
PKI 47.37 271 P 46 34.80 0.3
DMN 47.58 271 P 46 36.60 0.6
0.8s 36.00nm 5.2mb
GKN 47.71 272 P 46 37.20 0.3
INK 49.62 29 eP 46 50.00 -0.8
0.5s 4.00nm 4.6mb
MBC 51.35 18 eP 47 04.50 0.6
0.5s 2.00nm 4.3mb
ARU 52.36 316 eP 47 12.00 0.3
RES 57.37 15 ePd 47 46.30 -1.4
0.8s 9.00nm 4.8mb
YKA 59.17 32 eP 47 58.90 -1.5
0.5s 3.10nm 4.6mb
DAG 60.39 355 iPd 48 07.40 -1.1
0.8s 19.40nm 5.2mb
MAIO 61.27 294 eP 48 15.00 -0.1
WB2 62.42 187 iPc 48 20.00 -2.7
0.9s 6.60nm 4.6mb
i 48 49.20
WRA 62.42 187 P 48 21.79 -0.9
0.9s 3.00nm 4.3mb
KAF 63.51 332 iP 48 28.40 -1.0
0.6s 16.10nm 5.1mb
NUR 65.18 331 iP 48 39.40 -0.8
0.5s 23.30nm 5.4mb
ASPA 66.15 188 iPd 48 46.70 -0.1
0.5s 4.40nm 4.6mb
KIV 67.39 309 eP 48 55.40 0.6
1.0s 35.00nm 5.2mb
NAO 69.48 337 P 49 06.20 -1.0
0.7s 9.20nm 4.7mb
WARB 69.64 194 iPc 49 09.40 0.9
0.6s 9.00nm 4.8mb
FRB 71.51 14 eP 49 18.50 -0.8
0.6s 3.00nm 4.3mb
TNP 72.68 54 eP 49 28.70 1.7
0.8s 5.29nm 4.4mb
OJC 74.55 325 eP 49 37.70 0.4
ULM 75.01 34 eP 49 42.00 2.1
EMUT 75.25 49 eP 49 42.16 0.3
MSU 75.36 51 eP 49 42.87 0.4
KSP 75.50 328 eP 49 42.80 0.1
SRU 75.89 50 eP 49 45.56 0.1
BRG 76.39 329 i(P) 49 48.10 0.4
CLL 76.40 330 iPd 49 47.50 -0.2
1.0s 13.00nm 4.7mb
PRU 76.87 328 eP 49 50.00 -0.4
e 49 55.80
PV09 77.10 49 eP 49 53.10 0.8
PV10 77.24 49 eP 49 53.98 1.0
PV08 77.32 49 eP 49 54.06 0.5
KHC 77.93 328 P 49 57.10 0.8
1.0s 6.40nm 4.4mb
e 50 02.00
EKA 78.02 340 P 49 58.33 1.7
GEC2 78.11 328 P 49 57.50 0.1
1.2s 3.43nm 4.0mb
e 50 00.70
e 50 05.40
GRF 78.38 330 iPd 49 59.70 1.0
1.2s 31.00nm 5.0mb
CDF 80.89 331 eP 50 12.30 0.1
1.0s 8.20nm 4.5mb
HAU 81.56 331 eP 50 15.70 0.0
LOR 83.07 332 eP 50 23.30 -0.2
1.0s 12.40nm 4.8mb
LBF 83.27 332 eP 50 24.30 -0.2
0.9s 6.20nm 4.5mb
SSF 83.36 333 eP 50 25.00 0.0
1.0s 8.40nm 4.6mb
LPL 83.54 330 eP 50 26.60 0.4
0.5s 3.45nm 4.5mb
LPG 83.55 330 eP 50 26.60 0.3
0.6s 6.75nm 4.7mb
GRR 83.61 336 eP 50 26.30 0.1
0.8s 11.15nm 4.8mb
SMF 83.61 332 eP 50 26.30 0.1
1.0s 13.40nm 4.8mb
AVF 83.65 332 eP 50 26.60 0.2
0.8s 14.50nm 4.9mb
LPF 83.98 336 eP 50 28.30 0.3
0.7s 10.80nm 4.8mb
MAF 84.42 333 eP 50 31.00 0.7
TCF 84.48 333 eP 50 31.10 0.5
0.7s 3.95nm 4.4mb
SBF 84.67 328 eP 50 31.30 -0.4
0.9s 21.95nm 5.0mb
LSF 84.74 333 eP 50 32.30 0.4
0.7s 7.60nm 4.7mb
MFF 84.97 334 eP 50 33.50 0.5
0.5s 3.05nm 4.4mb
LRG 85.43 329 eP 50 35.30 0.0
0.6s 8.85nm 4.9mb
LMR 85.48 329 eP 50 35.50 -0.1
0.7s 8.95nm 4.8mb
RJF 85.57 333 eP 50 36.80 0.7
CAF 85.72 332 eP 50 37.90 1.0
0.9s 11.45nm 4.8mb
LFF 86.16 333 eP 50 39.90 1.0
1.1s 29.05nm 5.1mb
LPO 86.23 333 eP 50 40.40 1.1

03d 02h

0.6s 6.95nm 4.8mb
LPAZ 143.70 53 PKP 57 28.50 -5.2X
LPB 143.91 53 ePKP 57 31.00 -2.8X
CNCB 144.20 53 PKP 57 34.00 -0.5
CCH 145.73 52 PKP 57 37.60 0.8
SOB1 146.82 4 (PKP) 57 35.00 -3.3X
SIV 147.34 43 PKP 57 41.80 2.8X
S.D. = 1.0 on 87 of 95 obs.

DEC 03, 1993 03h 30m 26.22± 0.21s
21.994 N ± 3.5km 142.998 E ± 4.9km
DEPTH = 256.6km (2 depth phases)
4.8mb (32 obs.)
MARIANA ISLANDS REGION (215)

GUMO 8.55 168 eP 32 27.20 0.0
1.0s 476.30nm 5.5mb
PJG 8.55 168 eP 32 27.50 0.3
GUA 8.60 167 eP 32 27.30 -0.6
0.7s 191.78nm 5.2mb
WKYJ 13.81 333 P 33 32.70 -0.4
IIDJ 14.15 343 P 33 35.20 -2.0
KAGJ 14.17 313 P 33 41.20 3.7X
TKSJ 14.31 328 P 33 40.90 1.8
KAKJ 14.37 351 P 33 35.90 -3.9X
S . 36 07.70
CHJJ 14.43 347 P 33 34.80 -5.8X
S 36 08.10
TSRJ 14.82 337 P 33 44.20 -1.1
KUMJ 15.06 317 P 33 51.30 3.1X
MAT 15.08 345 P 33 48.00 -0.5
MTMJ 15.22 344 P 33 48.60 -1.7
YONJ 15.57 330 P 33 54.60 0.2
NIIJ 15.58 348 P 33 51.80 -2.6
SHNJ 15.99 322 P 34 00.00 0.7
YAMJ 16.33 352 eP 34 02.40 -0.5
eS 37 04.10
OFUJ 17.07 356 eP 34 10.00 -0.8
eS 37 18.40
AOMJ 18.64 354 eP 34 27.70 0.6
HOOJ 20.33 1 eP 34 45.20 1.2
MRRJ 20.44 356 P 34 46.90 1.9
KUSJ 21.09 3 eP 34 52.00 0.5
BAG 21.88 259 eP 35 01.00 1.6
ASAJ 22.07 359 P 35 02.30 1.4
YSS 24.97 360 eP 35 27.00 -1.0
SMY 38.85 30 (P) 37 28.46 0.5
1.3s 102.15nm 5.2mb
YAK 41.03 350 iPd 37 44.20 -1.6
0.9s 102.00nm 5.2mb
eS 43 37.00
ZAK 42.00 322 iPd 37 54.60 0.7
0.9s 28.00nm 4.7mb
WB2 42.53 192 iPd 37 57.50 -0.9
0.3s 16.70nm 4.9mb
ipP 38 07.40 33kmX
iPP 38 47.70
iS 43 15.90
WRA 42.53 192 P 37 57.79 -0.7
0.7s 29.70nm 4.8mb
ADK 43.05 36 eP 38 01.61 -0.7
0.6s 12.93nm 4.4mb
ASPA 46.24 192 iPc 38 26.40 -1.5
0.6s 47.90nm 5.0mb
iScP 43 31.40
iS 44 55.00
DZM 49.40 151 iPd 38 50.20 -2.1
TIK 50.32 354 eP 38 52.00 -6.6X
0.6s 14.00nm 4.6mb
e 39 44.00 239kmX
WARB 50.45 199 iPc 38 59.70 -0.4
0.3s 8.00nm 4.6mb
ILT 51.67 17 iPd 39 08.00 -0.7
1.0s 54.00nm 4.9mb
GUN 51.74 289 P 39 10.60 0.3
NANU 51.75 213 iPc 39 09.70 -0.1
0.4s 12.00nm 4.7mb
PKI 52.19 288 P 39 13.60 0.0
KKN 52.28 289 P 39 14.60 0.6
DMN 52.45 289 P 39 15.80 0.4
GKN 52.82 289 P 39 18.40 0.5
SDN 53.26 36 iPd 39 18.95 -1.6
0.6s 86.50nm 5.4mb
STK 53.59 181 iPc 39 08.80 -14.4X
FORT 54.40 196 eP 39 27.60 -1.4
MRWA 57.18 208 iPd 39 47.70 -1.1
0.3s 3.00nm 4.4mb
SVW 57.22 30 iPd 39 48.54 -0.3
0.8s 60.58nm 5.3mb
TTA 57.52 28 iPd 39 50.21 -0.8
0.9s 12.30nm 4.5mb
KDC 58.10 35 eP 39 53.72 -1.2
0.7s 12.81nm 4.6mb
CP2 58.85 31 eP 39 59.83 -0.5
CRP 58.90 31 eP 39 59.62 -0.9
IMA 59.34 25 iPd 40 03.14 -0.4
0.6s 11.14nm 4.7mb
SLKM 59.69 32 eP 40 03.96 -1.9
BRW 59.94 19 iPc 40 07.18 -0.1
PMR 60.38 31 iPd 40 08.57 -1.9
0.7s 62.47nm 5.3mb
FBA 61.49 27 iPd 40 16.17 -1.6
0.8s 25.67nm 4.9mb
TOA 61.84 30 eP 40 20.00 -0.2
KLU 61.90 31 iPd 40 19.91 -0.7
GBA 62.59 274 P 40 26.00 0.2
BALM 63.59 32 iPd 40 30.73 -1.0
INK 67.37 24 ePd 40 54.70 -0.8
0.8s 9.00nm 4.6mb
SVE 67.74 324 ePd 40 58.20 0.2
ARU 68.91 324 iPd 41 05.00 -0.1
MBC 70.61 15 ePd 41 15.50 0.4
0.5s 8.00nm 4.7mb
MAIO 72.28 303 eP 41 28.00 2.2
YKA 76.28 28 eP 41 47.40 -0.5
0.5s 11.10nm 4.8mb
RES 76.83 13 eP 41 51.00 0.2
0.7s 5.00nm 4.4mb
JCW 77.19 43 P 41 54.01 0.8
SHW 77.63 45 eP 41 57.13 1.3
FMW 77.76 44 P 41 56.75 0.1
SSOR 77.91 46 P 41 58.23 0.8
ASR 78.06 45 P 41 58.58 0.3
EBG 78.48 44 P 42 00.52 0.1
WTV 78.60 43 P 42 01.16 0.1
VGB 78.81 45 iPd 42 03.02 0.8
CROR 78.85 46 P 42 03.07 0.6
LGPM 78.95 50 iPd 42 04.20 1.1
SAW 78.95 43 P 42 03.08 0.2
WAH2 79.18 44 P 42 04.62 0.6
VIPM 79.26 46 P 42 05.28 0.5
LBFM 79.47 50 iPd 42 06.47 0.5
DPW 79.65 43 eP 42 07.08 0.5
NTYM 79.92 53 eP 42 08.85 0.7
NEW 80.18 42 iPc 42 09.84 0.5
0.8s 15.90nm 4.8mb
epP 43 10.11 253km
ORV 80.37 51 eP 42 10.65 0.2
ARN 81.12 53 iPd 42 15.28 0.8
CMB 81.72 52 iPc 42 18.43 0.8
0.6s 16.56nm 5.0mb
KAF 82.38 335 iP 42 19.90 -0.5
KVN 83.00 51 iPc 42 25.48 1.1
BONR 83.28 52 iPc 42 26.96 1.0
NUR 83.94 334 eP 42 28.00 -0.3
TNP 84.02 51 iPc 42 30.51 1.0
1.3s 5.68nm 4.2mb
TPNV 85.17 52 eP 42 35.93 0.7
0.7s 8.52nm 4.7mb
GSC 85.42 54 iPd 42 37.07 0.7
HVU 85.61 47 eP 42 38.36 1.1
PEC 85.72 55 eP 42 37.64 -0.2
0.8s 13.45nm 4.8mb
DUG 86.27 48 eP 42 41.03 0.5
1.0s 10.02nm 4.6mb
ARUT 86.86 50 eP 42 44.71 1.3
DAU 87.24 47 eP 42 45.98 0.6
PV10 89.70 48 eP 42 57.06 0.1
(pP) 44 00.09 260km
FRB 91.05 13 eP 43 02.00 -0.3
0.7s 3.00nm 4.3mb
LPAZ 150.08 85 PKP 49 45.20 1.3
LPB 150.18 85 PKP 49 48.00 4.2X
CNCB 150.36 85 PKP 49 46.00 1.7
MOCB 153.38 94 PKP 49 57.90 9.5X
S.D. = 1.0 on 97 of 105 obs.

? DEC 03, 1993 03h 41m 44.26± 7.74s
34.968 S ±50.7km 71.745 W ±39.3km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.2 (SAN).

LNV 1.05 15 iP 42 03.16 0.5
iS 42 16.56
CACH 1.27 48 iP+ 42 06.02 0.1
iS 42 22.76
TACH 1.47 27 iP 42 08.77 0.0
LCCH 1.50 6 (P) 42 08.59 -0.5
iS 42 30.46
PCH 1.69 38 iP+ 42 11.80 -0.1
iS 42 34.18
SAN 1.76 31 iP 42 13.53 0.6
iS 42 36.49
PEL 2.02 26 iPd 42 17.16 0.4
iS 42 43.35
FCH 2.03 37 eP 42 16.96 -0.2
iS 42 43.24
ROCH 2.08 17 eP 42 17.85 0.1
(S) 42 44.81
JACH 2.47 23 iP+ 42 22.87 -0.4
RTLL 4.55 38 eP 42 52.00 -0.7
MRA 5.64 65 e(P) 43 09.00 1.0
TCA 7.01 61 ePd 43 26.20 -1.1
S.D. = 0.6 on 13 of 13 obs.

DEC 03, 1993 04h 29m 52.58± 0.34s
44.032 N ± 2.8km 7.685 E ± 2.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (LDG), 2.5 (GEN).

SAOF 0.10 244 Pg 29 55.15 -0.2
AUTN 0.19 259 Pg 29 56.90 0.0
IMI 0.19 129 P 29 57.06 0.2
S 30 00.42
SBF 0.25 227 Pg 29 58.30 0.4
Sg 30 01.90
ENR 0.27 316 P 29 58.12 -0.2
S 30 01.91
ROB 0.29 27 P 29 59.17 0.4
S 30 03.45
AURF 0.30 241 Pg 29 59.18 0.4
Sg 30 03.36
TOUF 0.32 267 Pg 29 59.20 0.0
STV 0.34 309 P 29 59.35 -0.2
S 30 03.70
REVF 0.37 218 Pg 29 58.92 -1.3
MVIF 0.41 251 Pg 30 01.21 0.2
Sg 30 07.13
FIN 0.42 65 P 30 01.19 0.1
S 30 06.85
PZZ 0.63 319 P 30 04.94 -0.4
S 30 13.29
CALN 0.64 244 Pg 30 05.09 -0.4
PCP 0.80 50 P 30 09.19 1.0
BHB 0.86 340 P 30 08.50 -0.7
S 30 19.11
FRF 0.89 238 Pg 30 10.50 0.9
Sg 30 21.80
LMR 1.10 231 Pg 30 13.80 0.5
Sg 30 28.90
LRG 1.12 239 Pg 30 14.50 0.9
Sg 30 28.90
RSP 1.16 345 P 30 13.58 -0.8
LPG 1.61 336 Pg 30 21.70 0.3
LPL 1.63 336 Pg 30 22.00 0.4
Sg 30 44.50
PGF 1.77 147 Pn 30 22.00 -1.5
Sn 30 42.90
S.D. = 0.7 on 23 of 23 obs.

DEC 03, 1993 05h 01m 24.53± 0.36s
51.139 N ± 8.0km 179.322 E ± 4.1km
DEPTH = 33.0km (normal)
4.7mb (37 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)
ML 4.7 (PMR).

ADK 2.60 72 eP 02 06.81 1.6
eS 02 38.79
SMY 3.60 298 eP 02 19.92 0.6
eS 03 04.14
SDN 12.78 63 eP 04 24.04 -2.4X
SVW 17.05 45 eP 05 23.92 2.2
0.7s 26.39nm 4.5mb
KDC 17.59 57 eP 05 26.67 -1.6X
0.5s 8.19nm 4.1mb
TTA 17.73 39 eP 05 31.39 1.2
0.9s 23.49nm 4.3mb
CP2 18.63 46 (P) 05 43.52 2.1

CRP 18.67 46 eP 05 42.63 0.8
SLKM 19.34 49 eP 05 49.45 -0.3
PWA 19.83 46 eP 05 55.60 0.7
0.7s 53.90nm 5.0mb
PMS 19.85 47 eP 05 54.90 -0.4
PMR 20.15 47 eP 05 57.10 -1.2
0.6s 13.50nm 4.5mb
IMA 20.28 32 eP 05 59.34 -0.4
0.8s 19.00nm 4.5mb
TOA 21.64 46 eP 06 13.30 -0.3
FBA 21.86 38 eP 06 16.55 0.8
0.6s 13.58nm 4.6mb
BRW 22.95 20 (P) 06 25.74 -0.7
BALM 23.23 50 eP 06 27.81 -1.6
INK 28.33 35 eP 07 17.00 0.2
1.0s 8.00nm 4.4mb
YAK 28.68 312 eP 07 20.30 0.3
1.2s 50.00nm 5.1mb
MBC 34.27 22 eP 08 10.50 1.5
0.9s 13.00nm 4.9mb
YKA 36.25 46 eP 08 24.80 -1.1
0.7s 7.10nm 4.7mb
LON 38.02 73 eP 08 41.32 0.3
NEW 40.07 68 eP 08 57.25 -0.9
0.6s 6.51nm 4.6mb
RES 40.45 24 eP 09 02.50 1.7
1.0s 3.00nm 4.0mb
BJI 44.27 281 eP 09 34.00 1.6
1.0s 6.00nm 4.4mb
BONR 45.04 82 eP 09 39.37 0.3
TNP 45.64 81 eP 09 44.65 1.0
0.7s 7.28nm 4.7mb
PTI 45.76 72 eP 09 45.03 0.5
HVU 46.15 74 eP 09 48.18 0.6
TPNV 46.95 81 eP 09 53.74 -0.2
0.7s 9.56nm 4.9mb
DUG 47.07 76 eP 09 54.27 -0.6
0.6s 5.56nm 4.7mb
MSU 48.49 77 eP 10 06.86 0.7
PLM 48.88 86 eP 10 09.27 0.2
SRU 49.13 75 eP 10 12.03 1.1
PV09 50.36 75 eP 10 20.51 0.0
PV10 50.50 75 eP 10 21.54 0.0
ULM 50.80 56 eP 10 24.00 0.7
GOL 51.88 72 eP 10 32.26 0.3
0.7s 13.85nm 5.0mb
GLD 51.93 71 eP 10 33.31 1.0
1.1s 12.76nm 4.8mb
FRB 53.84 31 eP 10 45.00 -0.8
0.9s 5.00nm 4.5mb
LZH 54.31 285 Pd 10 50.00 0.1
2.0s 73.00nm 5.4mb
Z 15s 0.48um 4.7MszX
ACO 57.54 70 iPc 11 11.80 -1.2
JAQ 58.08 42 eP 11 14.50 -2.0
WMOK 59.09 72 eP 11 23.21 -0.6
0.7s 11.10nm 5.1mb
LTX 59.86 80 eP 11 28.21 -1.0
TUL 60.06 69 iPc 11 29.90 -0.5
UYO 62.06 69 iPc 11 43.20 -0.8
MIAR 62.31 69 eP 11 44.79 -0.9
1.0s 13.86nm 5.0mb
OXF 64.76 66 eP 12 01.50 -0.2
0.9s 38.14nm 5.5mb
NAO 68.01 354 P 12 20.50 -1.5
0.7s 7.00nm 4.9mb
HFS 68.48 352 eP 12 22.70 -2.2
0.4s 2.80nm 4.6mb
GUN 70.85 291 P 12 40.40 0.1
KKN 71.29 291 P 12 43.20 0.4
PKI 71.37 291 P 12 43.80 0.3
GKN 71.51 292 P 12 44.20 0.1
DMN 71.52 291 P 12 45.00 0.7
EKA 73.88 1 P 12 58.55 1.3
2.0s 8.90nm 4.4mb
QUE 79.58 306 eP 13 32.50 2.6
GEC2 79.64 350 P 13 29.40 -0.4
0.6s 0.80nm 3.9mb
e 13 33.70
LDF 80.65 360 eP 13 34.00 -1.0
0.7s 8.95nm 4.9mb
GRR 80.85 0 eP 13 34.80 -1.3
1.0s 14.60nm 4.9mb
WB2 81.03 222 iPc 13 37.30 0.0
0.8s 4.00nm 4.5mb
WRA 81.03 222 P 13 37.50 0.2
0.7s 2.10nm 4.2mb
HAU 81.05 355 eP 13 36.80 -0.4
0.6s 2.45nm 4.4mb
LPF 81.21 0 eP 13 36.70 -1.2
SSF 82.11 357 eP 13 42.60 -0.1
0.9s 5.40nm 4.6mb
AVF 82.39 357 eP 13 43.90 -0.2
SMF 82.52 357 eP 13 44.20 -0.6
0.7s 4.95nm 4.7mb
LSF 82.97 358 eP 13 46.10 -1.1
HYB 83.19 289 eP 13 50.00 1.3
RJF 83.92 358 eP 13 51.10 -0.9
LFF 84.30 359 eP 13 53.00 -0.9
LPO 84.55 359 eP 13 54.20 -1.0
0.9s 9.65nm 5.0mb
POO 85.07 293 eP 13 58.50 0.2
GBA 86.83 288 P 14 06.70 -0.2
0.9s 6.50nm 4.9mb
S.D. = 1.0 on 73 of 75 obs.

DEC 03, 1993 05h 41m 08.28± 0.20s
51.204 N ± 4.6km 179.308 E ± 2.4km
DEPTH = 33.0km (normal)
5.2mb (96 obs.) 5.0Msz (36 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)
Mw 5.6 (HRV). Felt on Adak.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 37S, 59C
Centroid Location:
Origin Time 05:41:10.8 0.4
Lat 51.26N 0.04 Lon 179.62E 0.06
Dep 15.0 BDY Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr= 1.63 0.05 Mtt=-1.54 0.06
Mff=-0.09 0.05 Mrt= 2.18 0.23
Mrf= 0.30 0.19 Mtf=-0.58 0.07
Principal Axes:
T Val= 2.74 Plg=63 Azm= 0
N 0.07 6 258
P -2.81 26 165
Best Double Couple:Mo=2.8*10**17
NP1:Strike=241 Dip=20 Slip= 72
NP2: 80 71 96

ADK 2.59 73 eP 41 50.18 1.4
(S) 42 19.78
SMY 3.56 297 eP 42 03.24 0.7
eS 42 51.17
SDN 12.76 63 eP 44 08.33 -1.6
PET 12.82 286 eP 44 16.00 5.3X
Z 18s 4.40um
eS 46 34.00
SKR 14.63 277 eP 44 39.00 4.4X
1.0s 220.00nm 5.6mb
Z 18s 4.60um
N 14s 4.50um
E 18s 4.80um
eS 47 11.00
ANM 15.61 25 (P) 44 48.59 1.4
ILT 16.78 3 iPc 45 04.00 2.1
1.8s 280.00nm 5.1mb
Z 16s 8.60um
N 16s 4.50um
E 16s 4.10um
iS 48 12.00
SVW 17.01 45 eP 45 06.06 1.0
0.9s 555.15nm 5.7mb
KDC 17.56 57 eP 45 08.94 -2.8
0.5s 17.75nm 4.5mb
TTA 17.69 39 eP 45 15.02 1.6
1.2s 116.83nm 4.9mb
CP2 18.59 46 eP 45 25.26 0.6
CRP 18.63 46 eP 45 25.62 0.5
SLKM 19.30 49 eP 45 31.32 -1.7
PWA 19.79 46 eP 45 37.60 -0.7
PMS 19.81 48 eP 45 37.20 -1.4
PMR 20.11 47 eP 45 40.60 -1.1
PMR 20.11 47 P 45 50.00 8.3X
Z 21s 4.29um 4.8Msz
IMA 20.23 32 eP 45 42.34 -0.7
1.1s 79.67nm 5.0mb
KLU 21.57 48 eP 45 55.24 -1.5
TOA 21.60 46 eP 45 56.90 -0.1
FBA 21.82 39 eP 45 59.08 0.0
1.2s 111.79nm 5.2mb
BRW 22.90 20 eP 46 09.57 0.0
BALM 23.19 50 eP 46 11.63 -1.2
YSS 24.15 274 ePc 46 23.60 1.6
SIT 26.81 60 P 47 00.00 13.2X
Z 21s 3.19um 4.8Msz
INK 28.29 35 eP 46 59.50 -0.6
1.0s 26.00nm 4.9mb
TIK 30.20 331 iPd 47 16.00 -1.3
2.0s 41.00nm 4.9mb
Z 16s 5.50um 5.3MszX
i 47 29.00
i 50 17.00
iPS 53 57.00
i 57 52.00
MBC 34.21 22 eP 47 54.00 1.8
0.8s 43.00nm 5.4mb
HON 34.70 141 P 48 10.00 13.1X
Z 20s 2.19um 4.9Msz
YKA 36.21 46 eP 48 08.90 -0.5
0.8s 20.90nm 5.1mb
BOD 37.03 306 iPc 48 15.90 -0.4
1.0s 11.00nm 4.7mb
GMW 37.04 72 eP 48 17.32 0.8
BMW 37.28 74 eP 48 19.29 0.6
FMW 38.00 73 P 48 26.36 1.5
LON 38.01 73 eP 48 25.14 0.4
SHW 38.02 74 eP 48 25.95 1.0
ASR 38.43 74 P 48 29.71 1.3
SSOR 38.56 76 P 48 31.34 1.9
WTV 38.66 71 P 48 30.78 0.6
EBG 38.67 72 P 48 31.50 1.2
SAW 38.99 70 P 48 33.34 0.5
VBEM 38.99 75 P 48 34.55 1.5
VGB 39.24 74 eP 48 35.48 0.4
WAH2 39.35 72 P 48 36.73 0.9
CROR 39.39 75 P 48 37.83 1.5
CIT 39.56 298 eP 48 38.00 0.4
DPW 39.61 69 eP 48 37.97 -0.1
JBO 39.84 74 P 48 40.78 0.8
VIPM 39.86 75 P 48 41.45 1.1
KMPM 39.95 83 eP 48 41.46 0.4
NEW 40.06 68 eP 48 41.25 -0.5
0.9s 17.88nm 4.8mb
YBH 40.08 80 ePc 48 43.76 1.7
1.3s 70.00nm 5.3mb
RES 40.39 24 eP 48 45.00 0.9
0.7s 9.00nm 4.6mb
LGPM 40.47 81 eP 48 47.01 1.7
LNOR 40.56 72 P 48 46.42 0.5
LBFM 40.81 80 eP 48 49.44 1.2
WDC 40.84 82 iPc 48 49.60 1.4
1.1s 40.00nm 5.1mb
WDC 40.84 82 P 49 00.00 11.8X
Z 18s 0.77um 4.6Msz
LMEM 41.47 81 (P) 48 54.68 1.1
MIN 41.56 81 ePc 48 54.70 0.4
1.5s 110.00nm 5.4mb
NTYM 42.06 84 (P) 48 57.13 -1.0
ORV 42.09 82 eP 48 57.95 -0.5
HMR 42.74 84 (P) 49 02.28 -1.5
MHC 43.34 85 iPc 49 09.39 0.6
1.3s 70.00nm 5.2mb
COE 43.37 85 eP 49 08.99 0.1
ARN 43.40 85 eP 49 09.07 -0.2
CMB 43.70 83 eP 49 12.03 0.4
1.1s 30.74nm 5.0mb
Z 21s 1.89um 5.0Msz
SAO 43.82 85 iPc 49 12.94 0.4
2.4s 230.00nm 5.5mb
SAO 43.82 85 P 49 20.00 7.4X
Z 18s 1.31um 4.9Msz
BJI 44.25 281 eP 49 16.50 0.5
1.0s 17.00nm 4.8mb
Z 20s 1.57um 4.9Msz
N 18s 1.80um
ePP 51 04.00
eS 55 52.00
esS 56 00.00
eSS 59 04.00
KVN 44.50 80 eP 49 19.33 1.0
MMPM 44.80 83 eP 49 21.69 0.7
MEMM 44.83 83 eP 49 21.92 1.3
BONR 45.04 82 eP 49 23.56 0.7
PHAM 45.06 86 eP 49 23.02 0.4
MTUM 45.25 83 eP 49 25.00 0.6
TNP 45.64 81 eP 49 27.52 0.1
0.9s 35.24nm 5.3mb
PTI 45.75 73 eP 49 29.05 0.9
ZAK 46.02 300 iPc 49 30.40 0.5

03d 05h

1.6s 109.00nm 5.5mb
Z 16s 2.48um 5.3MszX
N 17s 1.96um
E 18s 1.21um
e 51 07.00
eS 56 21.00
e 59 30.00
HVU 46.14 74 eP 49 31.06 -0.2
ISA 46.37 84 eP 49 32.48 -0.6
1.2s 43.95nm 5.3mb
Z 19s 1.40um 4.9Msz
ABL 46.43 86 eP 49 33.45 -0.2
SSE 46.80 268 Pc 49 36.80 0.4
1.2s 66.00nm 5.5mb
Z 20s 1.10um 4.8Msz
S 56 32.00
TPNV 46.95 82 eP 49 37.97 0.3
0.6s 25.17nm 5.4mb
DUG 47.07 76 eP 49 38.45 -0.1
1.3s 129.91nm 5.8mb
Z 20s 1.22um 4.9Msz
GSC 47.65 84 eP 49 43.38 0.2
SSK 47.80 85 eP 49 44.62 0.1
DAU 47.88 75 eP 49 45.42 0.2
ARUT 48.16 79 eP 49 46.53 -0.7
PEC 48.34 85 eP 49 47.85 -0.7
1.3s 44.60nm 5.3mb
MSU 48.49 77 eP 49 49.74 -0.1
EMUT 48.51 75 eP 49 50.10 0.1
PLM 48.88 86 eP 49 52.78 -0.1
SRU 49.13 75 eP 49 54.22 -0.4
RSSD 49.92 66 eP 49 59.22 -1.5
0.7s 6.30nm 4.8mb
PV09 50.35 75 eP 50 03.76 -0.5
PV10 50.49 75 eP 50 04.69 -0.5
PV08 50.60 75 eP 50 05.50 -0.7
ULM 50.77 56 eP 50 08.00 1.2
DAG 51.78 5 iPd 50 13.50 -0.7
0.6s 22.67nm 5.3mb
GOL 51.86 72 eP 50 15.43 -0.2
1.3s 130.95nm 5.7mb
GLD 51.92 71 eP 50 16.29 0.3
1.5s 158.33nm 5.8mb
TUC 53.38 82 eP 50 26.88 0.1
FRB 53.79 31 eP 50 28.00 -1.2
0.7s 13.00nm 5.1mb
LZH 54.29 285 iPc 50 33.60 0.1
2.0s 212.00nm 5.8mb
Z 18s 1.72um 5.2Msz
E 15s 1.21um
pP 50 55.00 86kmX
sP 51 04.00
PP 52 42.00
eS 58 16.00
eSS 02 06.00
ALQ 54.29 77 ePc 50 32.98 -0.6
0.9s 12.77nm 5.0mb
Z 22s 1.45um 5.0Msz
e 50 46.29
S 58 13.55
ACO 57.53 70 iPc 50 56.00 -0.7
JAQ 58.04 42 eP 50 57.50 -2.4
WMOK 59.08 72 eP 51 06.70 -0.8
0.8s 33.35nm 5.5mb
Z 19s 1.43um 5.1Msz
MEO 59.17 72 iPd 51 06.90 -1.2
OCO 59.32 70 iPc 51 10.00 0.9
LTX 59.85 80 eP 51 10.70 -2.3
TUL 60.05 69 iPc 51 13.50 -0.6
SVE 61.11 327 eP 51 12.10 -8.9X
2.8s 220.00nm 5.8mb
UYO 62.04 69 iPc 51 26.10 -1.6
ARU 62.13 327 eP 51 28.50 0.6
1.5s 160.00nm 5.9mb
Z 20s 1.50um 5.2Msz
N 18s 1.50um
E 18s 1.50um
e 51 40.00
MIAR 62.30 69 ePc 51 28.21 -1.1
1.6s 195.61nm 6.0mb
Z 19s 0.64um 4.8Msz
e 51 43.00
KMI 62.57 277 Pc 51 30.50 -1.0
1.6s 70.00nm 5.5mb
Z 22s 1.50um 5.1Msz
pP 51 43.50 46kmX
sP 51 53.00

eS 00 03.00
GAC 63.97 49 eP 51 38.00 -2.2
OXF 64.74 66 eP 51 44.22 -1.1
0.5s 63.26nm 6.0mb
Z 19s 0.76um 4.9Msz
YSNY 64.85 53 eP 51 44.70 -1.3
0.9s 43.51nm 5.6mb
Z 21s 1.33um 5.1Msz
KAF 65.01 346 iP 51 44.70 -2.0
0.3s 3.60nm 4.9mb
RSNY 65.28 49 eP 51 48.11 -0.6
1.0s 15.51nm 5.1mb
FRU 65.85 309 eP 51 52.80 0.4
1.8s 110.00nm 5.7mb
Z 20s 1.80um 5.3Msz
E 20s 2.00um
e 52 03.00
e 52 25.00
e 54 20.50
MCWV 66.25 56 P 52 00.00 5.0X
Z 19s 1.09um 5.1Msz
BINY 66.33 52 eP 51 53.83 -1.6
1.1s 40.11nm 5.4mb
Z 20s 1.31um 5.1Msz
CBM 66.39 44 eP 51 53.16 -2.5
0.9s 17.07nm 5.1mb
Z 20s 2.63um 5.4Msz
MOL 66.39 356 eP 51 54.28 -1.1
LBNH 66.74 48 eP 51 55.59 -2.4
1.1s 21.07nm 5.2mb
Z 21s 1.79um 5.3Msz
NUR 66.79 347 iP 51 56.60 -1.4
0.5s 5.90nm 4.9mb
MYNC 67.32 62 eP 52 00.54 -1.3
0.9s 20.80nm 5.2mb
Z 20s 1.18um 5.1Msz
NAO 67.94 354 P 52 04.10 -1.2
0.9s 35.10nm 5.5mb
NRA0 67.98 354 P 52 04.70 -0.9
NRE0 67.98 354 P 52 05.70 0.1
ScS 01 59.50
SS 06 10.50
LSCT 68.07 50 P 52 20.00 13.6X
Z 19s 1.00um 5.0Msz
HRV 68.24 49 P 52 20.00 12.6X
Z 21s 1.08um 5.1Msz
MRX 68.37 85 (P) 52 10.00 1.4
HFS 68.41 352 eP 52 06.30 -1.9
0.4s 7.30nm 5.1mb
Z 16s 0.51um 4.8MszX
LR 17 43.00
LMN 68.66 42 eP 52 09.00 -1.0
KONO 69.19 354 eP 52 14.50 1.5
CEH 69.45 58 eP 52 13.52 -1.5
0.6s 14.46nm 5.2mb
CRX 69.54 84 (P) 52 17.00 0.8
CHTO 69.58 275 iPc 52 15.00 -1.0
1.4s 32.69nm 5.2mb
OBN 69.61 338 iPd 52 15.00 -0.6
1.0s 35.00nm 5.4mb
Z 19s 1.60um 5.3Msz
N 19s 3.20um
E 20s 1.50um
e 52 35.00
GUN 70.81 291 P 52 24.20 0.3
KKN 71.26 291 P 52 26.80 0.4
PKI 71.34 291 P 52 27.40 0.3
GKN 71.47 292 P 52 27.80 0.2
DMN 71.49 291 P 52 28.20 0.3
MNK 72.62 343 eP 52 29.00 -4.8X
Z 15s 2.40um 5.6MszX
OXX 73.13 84 (P) 52 41.00 3.4X
NIL 73.53 303 iPc 52 43.00 3.5X
0.2s 0.06nm 3.3mb X
NNT 73.77 270 eP 52 39.30 -1.7
EKA 73.81 1 P 52 41.72 1.0
1.0s 24.20nm 5.2mb
DZM 73.83 192 iPc 52 44.90 3.7X
DCN 75.68 4 eP 52 52.00 0.6
DLF 75.76 4 eP 52 52.00 0.1
CTA 76.69 212 e(PKP)52 50.00 -7.5X
e 52 55.00
eSKS 02 42.00
CLL 77.21 351 eP 52 59.00 -1.0
1.6s 24.00nm 5.0mb
OJC 77.46 347 eP 53 01.60 0.1
BRG 77.54 351 iP 53 02.20 0.3

1.3s 20.00nm 5.0mb
GRO 77.58 327 eP 53 04.50 2.3
PYA 77.84 329 eP 53 03.00 -0.7
1.0s 100.00nm 5.8mb
Z 20s 2.00um 5.4Msz
MOX 77.99 352 eP 53 04.30 -0.1
1.5s 23.00nm 5.0mb
KIV 78.03 330 iPc 53 05.40 0.6
2.6s 159.00nm 5.6mb
(S) 03 13.30
ENN 78.25 356 eP 53 05.50 -0.3
1.0s 30.00nm 5.3mb
PRU 78.35 350 eP 53 06.30 -0.1
SPC 78.40 346 eP 53 07.20 0.3
SNF 78.57 357 P 53 08.20 0.7
UZH 78.61 345 eP 53 00.50 -7.3X
GRF 78.97 352 ePc 53 10.00 0.2
1.5s 47.00nm 5.3mb
DOU 78.98 357 P 53 10.40 0.6
KHC 79.30 351 Pc 53 12.00 0.4
1.4s 18.40nm 4.9mb
Z 20s 1.30um 5.3Msz
N 20s 1.10um
E 18s 0.60um
e 53 41.50
MTA 79.35 327 iPc 53 12.00 0.1
0.8s 80.00nm 5.8mb
QUE 79.53 305 eP 53 15.50 2.1
GEC2 79.57 350 P 53 12.60 -0.6
0.7s 2.34nm 4.3mb
e 53 17.20
ZST 79.81 348 eP 53 14.20 -0.1
HOFF 79.96 354 P 53 15.90 0.8
SRO 80.02 347 iP 53 16.00 0.6
FLN 80.41 360 eP 53 17.10 -0.4
1.1s 42.25nm 5.4mb
Z 20s 0.45um 4.8Msz
WLS 80.52 355 P 53 18.32 0.1
CDF 80.53 355 eP 53 17.90 -0.4
0.7s 6.15nm 4.7mb
LDF 80.58 360 eP 53 18.00 -0.4
0.9s 27.70nm 5.3mb
GRR 80.79 0 eP 53 19.40 -0.1
0.9s 28.85nm 5.3mb
ERE 80.80 327 iP+ 53 21.00 1.2
MLR 80.97 341 ePc 53 20.00 -0.7
HAU 80.99 355 eP 53 20.40 -0.2
Z 21s 0.43um 4.8Msz
WB5 81.00 222 eP 53 19.30 -1.6
epP 53 33.80 50kmX
FEL 81.02 354 P 53 20.95 0.0
WB2 81.07 222 iPc 53 20.00 -1.3
0.8s 9.40nm 4.8mb
ipP 53 30.50 33kmX
WRA 81.07 222 P 53 20.50 -0.8
0.8s 5.20nm 4.6mb
SLE 81.10 354 ePd 53 21.20 0.0
BSF 81.14 355 eP 53 21.10 -0.4
LPF 81.15 0 eP 53 21.40 0.1
0.6s 11.25nm 5.0mb
KBA 81.36 350 iPc 53 23.40 0.6
0.7s 25.60nm 5.3mb
i 53 26.50
CMP 81.37 342 ePd 53 26.00 3.4X
ZLA 81.39 354 ePd 53 23.20 0.5
LOR 81.83 357 eP 53 24.80 -0.2
0.6s 8.50nm 4.9mb
Z 21s 0.65um 5.0Msz
HYF 81.87 358 eP 53 25.50 0.3
LLS 81.95 353 ePd 53 26.20 0.3
TAB 82.03 324 eP 53 26.00 -0.3
OSS 82.04 352 ePd 53 27.00 0.7
SSF 82.05 357 eP 53 26.10 0.0
0.7s 8.60nm 4.9mb
LBF 82.11 357 eP 53 26.10 -0.4
AVF 82.33 357 eP 53 27.50 0.0
1.2s 30.95nm 5.2mb
SMF 82.45 357 eP 53 28.20 -0.1
0.7s 11.90nm 5.1mb
BGF 82.57 358 eP 53 29.00 0.1
0.7s 7.40nm 4.9mb
MFF 82.57 360 eP 53 29.00 0.2
0.9s 16.05nm 5.1mb
TMA 82.72 353 ePd 53 30.20 0.3
MMK 82.84 354 ePd 53 31.80 1.2
DIX 82.85 354 ePd 53 31.80 1.2
TCF 82.86 358 eP 53 30.30 -0.1

0.7s 5.50nm 4.8mb
LSF 82.91 358 eP 53 30.50 -0.1
0.9s 17.05nm 5.1mb
AGO 83.07 357 P 53 32.41 0.9
PLDF 83.14 357 P 53 32.78 0.9
HYB 83.16 289 eP 53 32.00 -0.3
1.0s 80.00nm 5.8mb
e 53 48.50
PYM 83.37 357 P 53 33.84 0.7
LPL 83.45 355 eP 53 34.60 0.9
0.9s 10.50nm 5.0mb
LPG 83.47 355 eP 53 34.80 0.9
0.9s 10.00nm 4.9mb
RJF 83.86 358 eP 53 35.60 0.1
0.8s 11.80nm 5.1mb
Z 21s 0.45um 4.8Msz
LBL 83.89 357 P 53 36.48 0.8
CAF 84.22 358 eP 53 37.70 0.3
LFF 84.23 359 eP 53 37.70 0.4
0.9s 23.10nm 5.4mb
LPO 84.48 359 eP 53 38.80 0.2
0.9s 21.15nm 5.3mb
ASPA 84.57 221 iPd 53 39.40 0.2
1.0s 8.00nm 4.9mb
Z 21s 0.40um 4.8Msz
FIR 84.83 351 e(P) 53 32.00 -8.3X
TOUF 84.91 354 P 53 41.49 0.4
AUTN 84.92 354 P 53 40.91 -0.2
SAOF 84.92 354 P 53 41.44 0.6
MVIF 85.04 354 P 53 39.08 -2.5
POO 85.04 293 iPc 53 41.00 -0.8
1.0s 30.00nm 5.4mb
SBF 85.05 354 eP 53 41.50 -0.1
1.0s 38.80nm 5.6mb
SKO 85.22 344 eP 53 43.00 0.6
FRF 85.40 355 eP 53 43.30 0.1
1.2s 39.00nm 5.5mb
LRG 85.52 355 eP 53 44.40 0.6
1.2s 37.20nm 5.5mb
Z 21s 0.50um 4.9Msz
LMR 85.64 355 eP 53 44.60 0.2
0.9s 16.70nm 5.3mb
EPF 86.14 359 eP 53 46.50 -0.5
0.8s 7.10nm 4.9mb
PGF 86.25 353 eP 53 47.60 0.0
0.8s 27.95nm 5.5mb
GBA 86.80 288 Pd 53 50.00 -0.5
LPAZ 116.65 83 PKP 59 52.70 1.3
LPB 116.85 83 ePKP 59 52.00 0.5
CNCB 117.13 83 PKP 59 52.80 0.6
LKO 119.35 6 PKP 59 55.21 -0.7
0.9s 4.00nm
TIC 122.26 5 PKP 00 00.25 -1.1
0.9s 11.50nm
LIC 122.68 5 PKP 00 01.93 -0.2
0.5s 3.00nm
Z 21s 0.45um 5.1Msz
SOB1 126.72 53 ePKP 00 05.80 -4.3X
BDF 128.33 64 (PKP) 00 11.30 -1.9X
0.8s 0.40nm
SPA 141.01 180 ePKPc 00 28.40 -7.1X
1.2s 21.13nm
MAW 145.62 217 iPKPc 00 43.30 0.1
2.0s 40.90nm
SLR 146.31 308 iPKPc 00 45.60 -0.3
0.7s 44.52nm
BOSA 150.11 309 ePKP 00 57.07 5.6X
BLF 150.14 307 iPKPc 00 57.00 5.2X
0.8s 62.50nm
SYO 153.93 212 ePKPc 01 05.80 10.0X
NVL 159.54 192 PKP 01 02.00 -0.8
e 01 54.00
S.D. = 1.0 on 229 of 254 obs.

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* DEC 03, 1993 06h 49m 23.62± 1.03s
51.174 N ±20.9km 179.352 E ± 7.5km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

ADK 2.58 72 eP 50 05.08 1.2
SMY 3.60 298 eP 50 19.33 0.9
eS 51 05.58
TTA 17.69 39 (P) 53 28.79 -0.1
SLKM 19.30 49 eP 53 48.65 0.3
IMA 20.24 32 eP 53 58.14 -0.3
1.1s 8.53nm 4.0mb
FBA 21.83 38 eP 54 14.39 -0.1
0.7s 2.98nm 3.8mb
YKA 36.21 46 eP 56 23.40 -1.3
0.5s 0.90nm 3.9mb
GUN 70.85 291 P 00 39.60 0.2
0.4s 7.00nm 5.1mb
KKN 71.29 291 P 00 41.40 -0.5
0.3s 5.00nm 5.0mb
PKI 71.38 291 P 00 42.40 -0.2
GKN 71.51 292 P 00 43.00 -0.2
DMN 71.53 291 P 00 43.60 0.2
S.D. = 0.7 on 12 of 12 obs.

? DEC 03, 1993 08h 38m 46.58± 1.32s
40.460 N ± 7.5km 23.667 E ±23.1km
DEPTH = 5.0km (geophysicist)
GREECE (364)

SOH 0.43 327 ePg 38 55.38 0.1
eSg 39 01.66
PAIG 0.53 179 iPg 38 57.25 0.0
iSg 39 04.85
SRS 0.66 355 ePg 38 59.74 0.0
eSg 39 08.22
KNT 0.91 320 ePg 39 04.38 -0.1
eSg 39 16.10
S.D. = 0.2 on 4 of 4 obs.

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* DEC 03, 1993 09h 01m 07.01± 1.09s
6.815 N ±15.1km 73.061 W ± 8.7km
DEPTH = 165.0 ± 14.0 km
4.1mb (1 obs.)
NORTHERN COLOMBIA (99)

SDV 3.17 49 ePnc 01 58.50 0.7
iSn 02 36.60
TOV 4.38 47 ePnc 02 13.70 0.3
ePP 02 14.20
eSn 03 04.00
CEOS 5.17 65 eP 02 22.70 -1.1
UPA 6.76 289 eP 02 44.77 -0.2
eS 04 01.70
ECO 7.04 292 eP 02 48.55 -0.1
eS 04 06.69
LPB 23.71 168 P 06 06.00 0.3
ULM 47.31 340 eP 09 27.00 1.4
YKA 63.29 340 eP 11 18.70 -1.3
0.5s 1.20nm 4.1mb
WB2 150.38 241 iPKPd 20 40.20 4.7X
0.4s 4.60nm
WRA 150.39 241 PKP 20 39.30 3.8X
0.6s 1.20nm
S.D. = 1.2 on 8 of 10 obs.

? DEC 03, 1993 09h 12m 06.44± 1.06s
39.151 N ± 8.6km 27.505 E ±17.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.78 194 ePg 12 21.60 0.0
eSg 12 35.10
DST 0.98 62 ePn 12 25.10 0.0
EDC 1.23 13 ePn 12 29.00 -0.2
BNT 1.25 15 iPn 12 29.80 0.2
S.D. = 0.3 on 4 of 4 obs.

? DEC 03, 1993 09h 52m 59.12± 1.21s
39.167 N ± 8.7km 27.412 E ±18.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.78 189 ePg 53 14.30 0.0
eSg 53 26.10
DST 1.04 65 iPn 53 18.80 0.0
EDC 1.23 16 ePn 53 22.50 0.5
BNT 1.25 18 ePn 53 21.80 -0.6
S.D. = 0.8 on 4 of 4 obs.

DEC 03, 1993 10h 16m 19.13± 0.29s
49.954 S ± 6.1km 114.201 E ±10.8km
DEPTH = 10.0km (geophysicist)
5.3mb (14 obs.) 5.3Msz (3 obs.)
SOUTH OF AUSTRALIA (437)
Mw 5.5 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 30S, 51C
Centroid Location:
Origin Time 10:16:24.0 0.4
Lat 50.08S 0.04 Lon 114.15E 0.07
Dep 15.0 FIX Half-duration 1.3
Moment Tensor; Scale 10**17 Nm
Mrr=-0.11 0.05 Mtt= 1.59 0.06
Mff=-1.47 0.07 Mrt= 0.06 0.22
Mrf=-0.35 0.19 Mtf= 0.89 0.07
Principal Axes:
T Val= 1.83 Plg= 1 Azm=165
N -0.04 78 70
P -1.79 12 255
Best Double Couple:Mo=1.8*10**17
NP1:Strike=299 Dip=81 Slip= -8
NP2: 30 82 -171

CSY 16.49 185 eP 19 59.60 -12.1X
0.9s 28.60nm
NWAO 17.16 9 eP 20 20.70 0.3
MUN 18.02 6 eP 20 30.80 -0.3
KLB 18.54 10 eP 20 37.00 -0.5
MRWA 20.75 4 eP 21 02.00 -0.4
0.7s 48.00nm 5.0mb
DRV 21.27 151 iP 21 10.00 2.6
S 25 10.00
ADE 23.33 59 eP 21 28.40 0.2
STK 27.23 59 iPc 21 52.10 -12.9X
CAN 29.17 73 eP 22 28.70 6.1X
ASPA 30.42 38 iPd 22 32.70 -1.1
1.1s 35.50nm 5.1mb
MAW 30.71 216 P 22 35.29 -0.5
WRA 33.97 35 P 23 03.00 -1.8
0.8s 19.70nm 5.1mb
WB2 33.97 35 eP 23 02.20 -2.6
1.0s 29.70nm 5.2mb
epP 24 55.10
ARMA 34.14 69 eP 23 07.00 0.7
1.0s 29.00nm 5.2mb
CTA 39.18 52 eP 23 28.00 -20.8X
i 23 48.50
i 23 53.70
eS 29 45.00
SYO 39.33 213 ePd- 23 48.20 -1.3
SPA 40.23 180 ePd 23 54.50 -2.8
0.8s 41.67nm 5.2mb
LEM 43.34 350 ePd 24 25.50 2.4
eS 30 56.00
NVL 47.59 206 iPd 24 56.00 -0.3
1.0s 35.00nm 5.4mb
Z 17s 1.50um 5.0MszX
N 17s 1.00um
E 17s 1.30um
e 25 52.00
ePP 26 47.00
ePPP 27 29.00
eS 31 50.00
eSS 35 10.00
e 36 38.00
KGM 52.61 346 eP 25 36.00 0.8
IPM 55.50 344 ePd 25 55.60 -0.9
NNT 63.56 344 eP 26 52.40 0.5
KHT 65.91 343 eP 27 06.00 -1.2
NST 66.51 345 eP 27 11.50 0.5
CHTO 69.78 345 eP 27 31.70 0.3
GBA 71.05 322 P 27 44.60 5.4X
1.0s 2.00nm 4.2mb X
BUL 72.06 260 iP 27 36.90 -8.6X
KMI 75.43 349 Pd 28 07.00 2.1
1.5s 160.00nm 5.9mb
Z 20s 4.00um 5.7Msz
PcP 28 16.00
pP 28 27.50 77kmX
sP 28 37.50
eS 37 48.00
sS 38 25.00
PKI 81.31 334 PKP 28 37.00 -0.2
1.2s 62.00nm 5.5mb
DMN 81.43 334 PKP 28 37.80 0.1
GUN 81.50 335 PKP 28 37.60 -0.6
1.1s 88.00nm 5.7mb
KKN 81.55 334 PKP 28 38.80 0.5
0.9s 30.00nm 5.4mb
GKN 81.94 334 PKP 28 39.40 -0.8
1.0s 56.00nm 5.6mb
LZH 86.16 352 Pc 29 02.00 0.6

03d 10h

1.5s 48.00nm 5.5mb
Z 20s 1.24um 5.3Msz
E 18s 1.20um
pP 29 12.50 33kmX
eSKS 39 30.00
BJI 89.63 2 eP 29 19.00 1.3
1.0s 7.00nm 4.9mb
Z 22s 0.87um 5.1Msz
eS 40 12.00
esS 41 10.00
eSS 46 20.00
GEC2 130.61 301 PKP 35 30.60 -0.5
1.1s 2.86nm
e 35 36.90
e 35 43.10
BONR 141.11 87 ePKP 35 54.76 3.4X
INK 143.10 35 ePKP 35 51.00 -2.4X
1.5s 12.00nm
MCW 143.57 69 ePKP 35 55.54 0.6
ARUT 144.15 91 ePKP 35 56.08 -0.4
MXC 144.24 74 PKP 35 54.50 -1.6
PRW 144.46 75 PKP 35 55.41 -1.1
BVW 144.60 74 PKP 35 55.87 -0.9
ETW 144.65 72 PKP 35 55.55 -1.4
GBL 144.77 74 PKP 35 56.27 -0.7
WIW 144.80 75 PKP 35 56.67 -0.3
LTX 144.82 112 ePKP 35 55.32 -2.4X
NLW 144.84 72 PKP 35 56.14 -1.1
CRF 144.91 74 PKP 35 56.51 -0.7
WTV 144.93 72 PKP 35 56.17 -1.1
EPH 145.00 73 PKP 35 56.63 -0.8
MSU 145.39 91 ePKP 35 59.24 0.6
ePP 37 51.17
OD2 145.57 73 PKP 35 58.60 0.2
DUG 145.90 88 ePKP 35 59.92 0.6
DPW 146.07 73 ePKP 36 00.05 0.8
MBC 146.41 20 ePKP 36 01.00 2.1X
1.0s 5.00nm
HVU 146.76 86 ePKP 36 01.35 0.7
SRU 146.79 92 ePKP 36 02.11 1.3
ALQ 146.91 101 ePKP 36 02.04 0.9
ePP 37 55.46
EMUT 146.99 90 ePKP 36 02.65 1.4
PV10 147.33 94 ePKP 36 03.37 1.6
PV09 147.34 94 ePKP 36 02.51 0.6
PTI 147.56 84 ePKP 36 01.74 -0.2
DAG 147.59 342 iPKPc 36 02.30 1.6
0.9s 15.13nm
PV08 147.70 94 ePKP 36 04.17 1.7
GOL 150.44 95 ePKP 36 07.94 1.3
GLD 150.56 95 ePKP 36 07.07 0.4
YKA 150.88 46 ePKP 36 04.80 -1.4
0.8s 7.50nm
WMOK 151.55 110 ePKP 36 12.88 4.8X
MEO 151.70 110 iPKPd 36 14.20 5.9X
RES 152.37 16 ePKP 36 15.00 7.0X
1.0s 6.00nm
ACO 152.61 106 iPKPc 36 16.70 7.1X
UYO 153.73 116 iPKPc 36 18.40 7.2X
TUL 154.15 111 iPKPc 36 30.10 18.4X
S.D. = 1.2 on 58 of 74 obs.

? DEC 03, 1993 11h 09m 29.98± 1.75s
23.709 S ±17.4km 179.932 W ±17.1km
DEPTH = 544.1 ± 20.0 km
4.9mb (13 obs.)
SOUTH OF FIJI ISLANDS (171)

MBU 6.82 349 iP 11 15.80 -1.1
DZM 12.66 275 iPc 12 18.70 2.8
ARMA 26.15 249 iPd 14 23.40 0.5
0.6s 28.00nm 5.1mb
CNB 29.00 239 iPd 14 48.10 0.4
0.6s 25.00nm 5.0mb
CAN 29.29 240 iPd 14 50.20 0.1
BWA 29.54 242 iPd 14 44.90 -7.4X
CTA 31.54 270 iPd 15 10.00 0.7
0.6s 140.00nm 5.8mb
PMG 34.49 289 iPd 15 34.70 0.6
STK 34.86 248 iPd 15 24.70 -12.3X
QIS 37.53 267 eP 15 59.00 -0.1
ASPA 42.13 260 iPd 16 36.10 -0.1
0.6s 59.30nm 5.3mb
iScP 21 22.90
iS 22 17.50
WB2 42.47 266 iPc 16 38.40 -0.5
0.4s 14.50nm 4.9mb
iPcP 19 14.80
iScP 21 25.10
eS 22 21.10
WRA 42.48 266 P 16 38.50 -0.5
0.4s 29.70nm 5.2mb
FORT 46.44 249 iPd 17 08.60 -1.0
0.5s 51.00nm 5.3mb
WARB 48.22 255 iPd 17 22.60 -0.6
0.3s 9.00nm 4.8mb
COOL 52.34 248 eP 17 52.00 -1.4
KLB 55.12 247 iPd 18 12.10 -0.9
RKG 55.35 243 iPc 18 14.00 -0.6
0.2s 2.00nm 4.1mb
MBL 55.37 260 iPd 18 13.80 -1.1
0.3s 8.00nm 4.5mb
MUN 56.37 246 eP 18 20.90 -0.8
MRWA 57.01 250 iPd 18 25.40 -0.7
0.4s 16.00nm 4.7mb
NANU 58.88 257 iPd 18 38.90 0.0
0.4s 19.00nm 4.8mb
SPA 66.43 180 iPc 19 27.10 0.2
0.8s 20.83nm 4.7mb
SYO 83.23 193 iPc 21 01.70 1.9
eS 30 01.60
CHTO 89.67 291 eP 21 33.80 2.6
IMA 91.70 10 iP 21 39.50 -0.3
NAO 142.16 351 PKP 27 58.20 -3.0X
0.7s 2.60nm
HFS 142.37 349 ePKP 27 58.00 -3.6X
0.3s 6.10nm
KSP 150.13 339 iPKPd 28 21.90 7.5X
e 28 29.80
CLL 150.69 343 iPKPd 28 22.90 7.7X
0.8s 11.00nm
BRG 150.82 342 iPKP 28 23.00 7.6X
GEC2 152.70 340 PKP 28 27.00 8.7X
0.5s 0.68nm
e 28 41.30
S.D. = 1.2 on 24 of 32 obs.

% DEC 03, 1993 11h 56m 42.98± 0.74s
40.663 N ± 6.0km 22.985 E ± 6.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE 0.03 207 iPg 56 44.16 -0.8
eSg 56 45.76
SOH 0.32 60 ePg 56 49.08 -0.6
eSg 56 54.08
KNT 0.50 352 ePg 56 53.16 0.0
eSg 57 01.80
GRG 0.53 304 ePg 56 54.23 0.5
SRS 0.65 45 iPg 56 56.16 0.2
PAIG 0.91 144 ePg 57 01.00 0.7
iSg 57 11.68
S.D. = 0.8 on 6 of 6 obs.

DEC 03, 1993 12h 22m 17.68± 0.33s
15.684 S ±10.0km 171.986 W ±10.4km
DEPTH = 10.0km (geophysicist)
5.0mb (10 obs.) 4.5Msz (1 obs.)
SAMOA ISLANDS REGION (169)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 6S, 9C
Centroid Location:
Origin Time 12:22:26.3 1.5
Lat 15.76S FIX;Lon 171.74W FIX
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 2.27 1.03 Mtt= 4.61 1.50
Mff=-6.88 0.69 Mrt=-8.27 1.95
Mrf=-3.23 3.15 Mtf=-0.09 0.99
Principal Axes:
T Val= 12.02 Plg=42 Azm=172
N -3.30 35 43
P -8.72 29 290
Best Double Couple:Mo=1.0*10**17
NP1:Strike=329 Dip=36 Slip= 13
NP2: 228 82 126

AFI 1.78 7 iPc 22 49.00 0.3
MBU 9.01 261 eP 24 36.20 5.3X
SVA 9.46 254 eP 24 41.20 4.1X
DZM 21.36 249 iPc 27 06.50 -1.1
ARMA 36.37 240 eP 29 24.20 0.0
0.7s 10.00nm 4.8mb
CNB 39.66 233 eP 29 53.00 1.3
1.0s 29.00nm 4.9mb
CTA 39.91 257 eP 29 55.00 1.2
e 36 06.00
STK 45.08 240 iPc 30 23.70 -12.2X
1.1s 8.20nm
WB2 51.10 257 iPd 31 22.40 -0.5
1.1s 20.50nm 5.0mb
WRA 51.11 257 P 31 22.40 -0.5
0.9s 6.00nm 4.5mb
ASPA 51.32 252 eP 31 24.40 -0.2
1.0s 100.40nm 5.7mb
Z 20s 0.50um 4.5Msz
iS 38 40.80
WARB 57.82 249 iPc 32 11.40 -0.6
0.4s 4.00nm 4.8mb
SPA 74.41 180 iPc 33 57.20 -0.4
1.0s 50.00nm 5.5mb
MSU 77.68 44 eP 34 16.75 0.2
SRU 79.09 44 eP 34 24.58 0.3
LTX 79.64 56 eP 34 26.30 -1.0
PV10 79.73 45 eP 34 27.54 -0.3
FBA 82.43 10 eP 34 40.67 -0.4
0.8s 9.66nm 5.0mb
MAW 87.96 198 P 35 09.50 0.8
1.0s 25.00nm 5.5mb
INK 88.22 13 eP 35 10.00 0.2
YKA 89.82 23 eP 35 16.70 -0.8
1.2s 2.50nm 4.3mb
SYO 92.60 191 ePc 35 31.60 1.2
NVL 93.73 181 P 35 34.00 -1.5
GBA 113.08 278 Pdiff 36 46.00 -17.3X
CLL 144.24 355 ePKP 41 53.00 -2.4X
KSP 144.30 351 ePKP 41 53.70 -1.9
e 42 03.00
MOX 145.01 356 ePKP 41 55.90 -0.9
1.1s 20.00nm
e 42 05.20
SPC 145.12 346 ePKP 41 56.80 -0.5
PRU 145.38 353 iPKPd 41 57.30 -0.1
1.1s 27.60nm
i 42 06.50
e 56 50.50
e 57 44.80
eSg 57 58.50
DOU 145.57 4 PKPd 41 58.00 0.3
GRF 145.98 356 ePKPc 41 59.60 1.1
e 42 08.80
KHC 146.34 353 ePKP 42 00.00 0.9
1.3s 24.80nm
e 42 08.50
e 42 17.50
e 42 36.50
GRR 146.58 11 ePKP 42 00.60 1.2
GEC2 146.60 353 PKP 42 00.80 1.2
0.9s 3.91nm
e 42 10.40
e 42 19.30
MLR 146.68 337 ePKP 41 59.00 -0.9
ZST 146.73 349 ePKP 42 02.00 2.3X
LPF 146.89 11 iPKPc 42 01.50 1.6
1.2s 45.20nm
CDF 147.36 1 iPKPc 42 03.10 2.3X
1.2s 27.35nm
HAU 147.74 2 iPKPc 42 04.20 2.8X
1.1s 22.20nm
BHG 147.80 354 iPKPd 42 05.00 3.5X
LOR 148.32 5 iPKPc 42 05.80 3.5X
1.2s 24.70nm
MFF 148.43 11 ePKP 42 05.80 3.3X
1.1s 21.00nm
SSF 148.49 6 iPKPc 42 06.30 3.7X
1.3s 49.80nm
LBF 148.61 5 iPKPc 42 06.50 3.7X
1.2s 30.95nm
AVF 148.74 6 iPKPc 42 06.60 3.6X
1.2s 24.10nm
SMF 148.94 6 ePKP 42 07.10 3.8X
LSF 149.05 9 iPKPc 42 07.20 3.7X
1.3s 41.90nm
TCF 149.10 8 iPKPc 42 07.50 3.9X
1.6s 43.55nm
MAF 149.22 7 ePKP 42 08.10 4.3X
1.2s 35.70nm
RJF 149.97 9 ePKP 42 09.80 4.9X
LFF 150.20 10 ePKP 42 10.40 5.2X

1.1s 40.80nm
LPL 150.24 2 ePKP 42 11.70 6.1X
1.1s 12.70nm
LPG 150.26 2 ePKP 42 11.90 6.2X
1.0s 14.60nm
CAF 150.42 9 ePKP 42 11.20 5.6X
1.3s 20.20nm
LPO 150.52 10 ePKP 42 11.10 5.4X
1.1s 33.70nm
SKO 151.36 339 ePKP 42 21.80 14.7X
FIR 151.86 355 ePKP 42 14.00 6.3X
OHR 152.35 339 ePKP 42 12.50 3.9X
S.D. = 0.9 on 31 of 58 obs.

DEC 03, 1993 12h 36m 25.52± 0.17s
60.353 S ± 6.0km 20.446 W ± 4.8km
DEPTH = 10.0km (geophysicist)
5.5mb (21 obs.) 5.2Msz (24 obs.)
SOUTHWESTERN ATLANTIC OCEAN (156)
Mw 5.5 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 42S, 72C
Centroid Location:
Origin Time 12:36:29.4 0.2
Lat 60.74S 0.03 Lon 19.81W 0.07
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**17 Nm
Mrr=-2.02 0.05 Mtt= 2.11 0.07
Mff=-0.09 0.06 Mrt= 0.42 0.23
Mrf=-0.43 0.19 Mtf= 0.56 0.06
Principal Axes:
T Val= 2.27 Plg= 4 Azm=347
N -0.09 15 78
P -2.18 75 242
Best Double Couple:Mo=2.2*10**17
NP1:Strike= 62 Dip=43 Slip=-112
NP2: 271 51 -71

NVL 16.68 142 iPc+ 40 16.00 -4.5X
2.0s 821.00nm 5.5mb
Z 16s 6.00um
N 16s 2.50um
E 16s 4.50um
e 40 43.00
e 41 10.00
e 41 33.00
e 42 04.00
PS 43 37.00
e 43 59.00
SYO 25.96 135 ePc+ 42 01.00 1.7
SPA 29.82 180 iPc 42 33.70 -0.9
1.6s 1250.00nm 6.5mb
MAW 34.55 138 P 43 15.70 0.1
1.1s 88.89nm 5.6mb
LPA 35.06 299 eP- 43 20.00 -0.3
Z 21s 2.87um 5.0Msz
eS 48 46.00
CACH 41.52 286 iPd 44 13.05 -1.3
VAO 41.67 322 eP 44 17.50 1.9
PCH 41.89 287 iP+ 44 17.03 -0.3
SBA 41.97 182 iPd 44 19.70 2.3
FCH 42.02 287 iPd 44 18.81 0.1
LNV 42.04 285 iPd 44 17.63 -0.8
TACH 42.06 286 iPd 44 18.15 -0.5
SAN 42.10 287 iPd 44 19.19 0.2
PEL 42.36 287 iP+ 44 20.31 -0.9
1.1s 1000.00nm 6.5mb
LCCH 42.51 286 iPd 44 22.15 -0.2
ROCH 42.66 287 iP+ 44 23.64 -0.2
JACH 42.70 287 iPd 44 24.30 0.3
FRS 43.12 66 eP 44 28.50 1.2
0.9s 58.82nm 5.3mb
PPD 43.98 317 eP 44 35.10 0.7
BLF 44.06 66 eP 44 34.00 -1.1
0.7s 15.00nm 4.9mb
BOSA 44.13 65 eP 44 36.47 1.0
1.2s 73.83nm 5.4mb
RIFB 44.58 322 iPd 44 40.80 1.4
i 44 47.30
e 46 31.30
SLR 47.90 66 iPc 45 03.50 -2.1
1.2s 93.75nm 5.8mb
Z 18s 7.22um 5.7Msz
CSY 48.57 156 iPd 45 01.00 -9.1X
1.2s 22.60nm 5.1mb
BDFB 48.92 324 eP 45 14.43 0.9
1.4s 69.04nm 5.5mb
MOCB 50.25 301 P 45 23.80 -0.3
DRV 52.47 170 eP 45 55.00 15.1X
S 53 15.00
BUL 52.91 63 eP 45 40.00 -3.9X
SIV 53.10 308 P 45 44.10 -1.1
SOB1 53.28 335 eP 45 46.00 -0.5
CCH 53.89 302 P 45 48.70 -2.6
CNCB 55.19 301 iPd 46 02.10 0.9
LPB 55.49 301 P 46 04.70 1.6
1.2s 250.00nm 6.1mb
Z 22s 2.22um 5.2Msz
LR 02 14.00
LPAZ 55.72 301 iPd 46 05.00 0.0
LR 02 22.00
ARE 57.02 297 iPd 46 14.00 -0.1
MTD 57.18 64 eP 46 00.50 -14.4X
NNA 63.37 294 iPd 46 57.70 0.6
1.0s 85.00nm 5.9mb
LIC 67.48 17 P 47 23.66 0.2
1.4s 110.00nm 5.9mb
KIC 67.65 17 P 47 24.68 0.1
1.0s 68.00nm 5.8mb
TIC 67.89 17 P 47 26.16 0.1
0.8s 43.00nm 5.7mb
LKO 70.67 16 Pd 47 43.43 0.3
0.9s 46.00nm 5.6mb
MBO 74.54 4 eP 48 06.20 0.4
ADE 83.49 163 eP 48 58.70 4.3X
CAN 84.28 171 iPc 48 59.10 0.7
BWA 85.12 171 eP 49 01.30 -1.3
STK 86.92 165 iPd 48 59.00 -12.5X
2.6s 8.60nm
ARMA 89.33 173 eP 49 23.60 0.4
1.0s 19.00nm 5.3mb
WARB 89.67 151 eP 49 25.00 0.2
0.7s 14.00nm 5.3mb
ASPA 93.70 157 eP 49 43.20 -0.2
1.1s 18.90nm 5.4mb
Z 21s 1.50um 5.4Msz
WRA 97.41 156 P 49 59.79 -0.6
0.9s 1.70nm 4.7mb
WB2 97.41 156 eP 49 59.50 -0.9
0.9s 3.70nm 5.0mb
MYNC 108.39 309 PKP 55 10.00 15.0X
Z 19s 0.62um 5.2Msz
OXF 110.00 305 PKP 55 10.00 12.0X
Z 20s 0.74um 5.3Msz
LSCT 110.46 320 PKP 55 10.00 11.3X
Z 21s 0.64um 5.2Msz
HRV 110.69 322 PKP 55 10.00 11.0X
Z 20s 0.57um 5.2Msz
MCWV 110.86 315 PKP 55 10.00 10.5X
Z 21s 0.68um 5.2Msz
BHG 111.07 23 iPKPc 55 15.10 15.5X
MIAR 111.76 302 PKP 55 10.00 8.7X
Z 19s 0.45um 5.1Msz
BINY 111.82 319 PKP 55 10.00 8.8X
Z 20s 0.58um 5.2Msz
GEC2 112.31 24 PKP 54 59.50 -2.6X
1.1s 1.68nm
LBNH 112.38 323 PKP 55 10.00 7.8X
Z 20s 0.69um 5.2Msz
YSNY 112.91 317 PKP 55 10.00 6.7X
Z 21s 0.58um 5.1Msz
CBM 113.73 326 PKP 55 20.00 15.2X
Z 18s 0.73um 5.3Msz
WMOK 114.17 298 PKP 55 20.00 13.9X
Z 20s 0.55um 5.2Msz
QUE 114.49 72 ePKP 55 06.50 -0.5
ACO 115.97 299 iPKPc 55 09.70 0.3
ALQ 117.79 292 PKP 55 20.00 6.8X
Z 20s 0.46um 5.1Msz
CHTO 120.61 106 ePKP 55 11.90 -6.8X
DMN 121.22 88 PKP 55 19.60 -0.4
GKN 121.31 88 PKP 55 19.20 -0.8
0.8s 24.00nm
PKI 121.33 89 PKP 55 19.60 -0.7
KKN 121.45 89 PKP 55 19.80 -0.6
0.9s 20.00nm
PV10 121.79 292 ePKP 55 19.97 -0.8
GUN 121.85 89 PKP 55 20.60 -0.7
1.0s 38.00nm
PV09 121.93 292 ePKP 55 21.94 0.9
GSC 122.97 284 ePKP 55 23.10 0.3
HFS 123.04 20 ePKP 55 21.60 -0.4
0.4s 1.00nm
SRU 123.07 292 ePKP 55 22.08 -1.0
ePP 57 01.54
MSU 123.35 290 ePKP 55 23.34 -0.4
ARUT 123.37 289 ePKP 55 24.17 0.5
ePP 57 04.43
TPNV 124.03 286 ePKP 55 25.79 0.8
ISA 124.07 283 PKP 55 40.00 15.0X
Z 20s 0.56um 5.2Msz
RSSD 124.19 300 ePKP 55 23.85 -1.3
DAU 124.45 292 ePKP 55 26.14 0.2
MOS 124.53 36 ePKP 55 26.00 0.9
DUG 124.99 291 ePKP 55 26.50 -0.2
Z 21s 0.48um 5.1Msz
ePP 57 15.52
NUR 125.47 25 ePKP 55 27.00 0.2
ULM 125.80 310 ePKP 55 30.00 2.2X
BONR 125.81 285 ePKP 55 28.88 0.2
HVU 126.23 292 ePKP 55 29.19 0.0
SAO 126.39 282 PKP 55 40.00 10.6X
Z 21s 0.73um 5.3Msz
KVN 126.58 286 ePKP 55 30.97 1.0
CMB 126.88 284 ePKP 55 30.39 0.0
Z 19s 0.43um 5.1Msz
ARN 126.89 282 ePKP 55 31.36 1.0
PTI 126.90 293 ePKP 55 30.48 0.1
KAF 127.27 25 ePKP 55 29.10 -1.1
0.9s 25.70nm
HMR 127.66 282 ePKP 55 32.66 1.0
KMI 127.81 106 ePKP 55 33.00 0.3
2.0s 70.00nm
Z 20s 1.50um 5.7Msz
sPKP 55 46.00
ePP 57 36.00
FRU 128.32 69 ePKP 55 33.00 0.1
2.2s 60.00nm
e 55 42.50
LBFM 130.19 285 ePKP 55 36.94 0.2
LGPM 130.30 284 ePKP 55 37.59 0.7
HON 130.98 236 PKP 55 50.00 11.5X
Z 21s 0.49um 5.2Msz
ARU 131.96 47 ePKP 55 40.00 0.7
2.0s 100.00nm
SVE 133.02 48 ePKPc 55 40.00 -1.3
2.9s 100.00nm
LON 134.21 290 ePKP 55 44.14 0.1
DAG 136.87 1 iPKPc 55 48.80 0.7
0.8s 12.69nm
LZH 137.37 99 ePKP 55 50.00 -0.5
Z 22s 0.71um 5.4Msz
N 20s 1.15um
PP 59 26.00
YKA 141.74 312 ePKP 55 50.50 -6.8X
0.9s 13.40nm
RES 143.23 335 ePKP 55 56.00 -3.6X
1.0s 37.00nm
BJI 146.45 107 ePKP 56 06.50 0.5
2.0s 96.00nm
Z 24s 0.64um 5.3MszX
SIT 147.24 294 PKP 56 20.00 13.3X
Z 20s 0.61um 5.4Msz
ZAK 147.49 82 iPKPc 56 07.50 0.2
2.0s 273.00nm
TKSJ 148.82 136 ePKP 56 15.30 5.3X
MBC 149.41 332 ePKP 56 09.00 -0.7
1.4s 78.00nm
WKYJ 149.56 138 ePKP 56 17.60 6.4X
YONJ 149.71 134 ePKP 56 17.10 5.7X
INK 151.39 314 ePKPd 56 18.50 5.7X
1.0s 46.00nm
BALM 152.35 297 ePKP 56 21.97 7.3X
CIT 153.59 88 ePKP 56 22.00 5.4X
KLU 154.12 296 ePKP 56 25.86 8.8X
ePKPab56 39.29
TOA 154.45 298 ePKP 56 26.10 8.7X
FBA 155.98 304 ePKP 56 28.60 9.3X
ePKPab56 46.96
BOD 156.92 76 ePKP 56 19.20 -1.5
1.8s 34.00nm
IMA 158.61 305 ePKP 56 19.68 -3.0X
TIK 163.42 35 ePKP 56 24.00 -3.3X
2.0s 29.00nm
e 56 32.00
e 01 05.00
S.D. = 0.9 on 85 of 125 obs.

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* DEC 03, 1993 12h 54m 17.20± 1.59s
43.874 N ±17.2km 12.238 E ± 8.6km

03d 12h

DEPTH = 22.2 ± 8.4 km
CENTRAL ITALY (381)
ML 3.5 (VIE), 3.1 (LDG), 2.8
(LJU). MD 3.4 (TRI), 3.2 (FIR).

FIR 0.72 263 ePg 54 31.00 0.1
iSg 54 44.50
RIY 2.12 45 ePn 54 52.60 0.6
iSn 55 18.10
TRI 2.13 30 e(Pn) 54 51.50 -0.6
e 54 56.50
e 55 15.20
e(Sg) 55 23.00
CEY 2.43 39 ePn 55 02.10 5.8X
e(Sn) 55 26.10
e(Sg) 55 36.10
VOY 2.46 28 ePn 54 51.70 -5.1X
ePg 54 56.50
eSn 55 24.20
eSg 55 32.20
VBY 2.70 52 ePn 54 58.60 -1.6
i 55 09.20
i 55 25.80
i 55 32.60
i 55 45.80
LJU 2.71 36 e(Pn) 55 01.50 1.1
e 55 08.50
eSn 55 31.90
PGF 2.71 242 Pn 55 06.90 6.4X
Sn 55 41.00
OGA 3.11 344 ePn 55 07.20 1.0
KBA 3.30 13 iPnd 55 09.20 0.4
iPg 55 18.30
iSn 55 44.80
i 55 58.50
PTJ 3.33 51 e(Pn) 55 16.10 6.9X
iSn 56 06.70
WTTA 3.42 353 iPnd 55 11.70 1.2
iSn 55 50.30
i 56 04.50
SBF 3.47 271 Pn 55 15.00 3.8X
Sn 55 54.30
LPG 4.24 294 Pn 55 23.90 1.6
Sn 56 09.60
LPL 4.26 295 Pn 55 23.70 1.2
Sn 56 09.60
LRG 4.29 266 Pn 55 26.20 3.6X
Sn 56 14.60
KHC 5.34 10 ePn 55 32.50 -5.1X
e 55 56.50
e 56 21.50
eSn 56 33.00
e 57 14.50
BSF 5.49 318 Pn 55 38.60 -1.2
Sn 56 35.20
CDF 5.70 325 Pn 55 41.40 -1.3
HAU 5.83 317 Pn 55 43.30 -1.1
Sn 56 43.80
SMF 6.54 298 Pn 55 54.30 -0.3
LBF 6.59 301 Pn 55 54.90 -0.4
LOR 6.79 303 Pn 55 57.70 -0.3
Sn 57 09.00
MOX 6.79 357 e(P) 56 23.80 25.8X
e 57 51.20
AVF 6.91 298 Pn 55 59.70 0.0
SSF 6.92 300 Pn 55 59.40 -0.4
S.D. = 1.1 on 18 of 26 obs.

% DEC 03, 1993 12h 59m 12.19± 1.20s
40.628 N ± 8.7km 22.772 E ± 8.4km
DEPTH = 5.0km (geophysicist)
GREECE (364)

THE 0.15 88 iPg 59 15.52 0.3
iSg 59 17.80
GRG 0.43 319 ePg 59 21.00 0.1
iSg 59 26.72
SOH 0.48 66 ePg 59 21.80 -0.1
eSg 59 29.64
KNT 0.54 10 ePg 59 22.84 -0.2
eSg 59 30.80
PAIG 0.99 135 ePg 59 31.16 -0.2
iSg 59 44.48
S.D. = 0.3 on 5 of 5 obs.

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* DEC 03, 1993 13h 01m 28.36± 0.94s
38.393 N ± 8.4km 22.173 E ±10.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

AGG 0.64 11 ePg 01 40.41 -0.8
eSg 01 51.44
VLS 1.26 261 eP 01 51.40 -0.5
eS 02 08.00
LIT 1.72 8 ePb 02 01.00 2.4X
eSb 02 26.64
VLI 1.78 160 eP 01 59.60 0.2
PAIG 1.93 37 ePb 02 01.12 -0.4
KZN 1.94 351 eP 02 03.10 1.4
eS 02 31.20
S.D. = 1.2 on 5 of 6 obs.

% DEC 03, 1993 13h 02m 06.40± 2.12s
40.774 N ± 8.9km 27.594 E ±29.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

EDC 0.47 154 iPg 02 16.00 0.0
eSg 02 22.50
BNT 0.49 149 iPg 02 15.50 -0.8
iSg 02 22.50
DMK 1.05 7 ePn 02 26.10 -0.2
DST 1.41 145 ePn 02 33.00 0.8
IZI 1.50 106 ePn 02 33.50 0.1
S.D. = 0.8 on 5 of 5 obs.

DEC 03, 1993 13h 16m 15.64± 0.69s
4.967 N ± 7.4km 75.556 W ± 8.2km
DEPTH = 155.2 ± 7.4 km
4.6mb (6 obs.)
COLOMBIA (103)

BOG 1.52 103 iPc 16 48.00 1.5
iS 17 10.50
FUQ 1.88 74 iPc 16 51.00 0.6
BMG 3.23 50 iPc 17 08.00 1.1
PSO 4.14 205 eP 17 18.00 -1.0
UPA 5.61 316 eP 17 40.04 1.9
eS 18 42.96
e 18 43.61
ECO 5.99 317 eP 17 40.68 -2.6
eS 18 44.94
SDV 6.25 51 ePnd 17 47.20 0.4
iSn 18 56.70
TOV 7.46 50 ePd 17 06.10 -56.9X
iPP 18 03.30
iSn 19 24.20
MORO 9.26 50 iPc 18 25.80 -1.2
GUAC 9.71 57 iPc 18 32.20 -0.8
OLLA 10.02 59 iPd 18 35.30 -1.7
LPAZ 22.36 161 P 21 01.10 -1.2
LPB 22.60 161 eP 21 05.00 0.6
CNCB 22.90 161 P 21 08.10 0.7
CCH 24.08 157 P 21 18.50 0.0
SIV 25.28 146 P 21 28.70 -0.7
MOCB 27.81 160 P 21 52.40 -0.5
BDFB 34.10 127 eP 22 47.05 -0.6
0.6s 14.01nm 4.9mb
YKA 64.19 341 eP 26 36.80 1.3
0.5s 2.10nm 4.3mb
LKO 69.46 82 P 27 10.13 0.5
0.6s 5.50nm 4.5mb
TIC 70.14 85 P 27 14.19 0.4
0.8s 7.00nm 4.6mb
LIC 70.16 85 P 27 14.05 0.2
0.5s 6.50nm 4.7mb
KIC 70.43 85 P 27 16.57 1.1
0.6s 18.00nm 5.0mb
GKN 142.06 29 PKP 35 29.10 -2.7X
KKN 142.55 29 PKP 35 30.60 -2.1X
0.6s 9.00nm
DMN 142.62 29 PKP 35 31.00 -1.9
GUN 142.73 28 PKP 35 31.60 -1.6
PKI 142.79 29 PKP 35 31.00 -2.3X
0.7s 14.00nm
ASPA 146.07 234 ePKP 35 40.50 1.9
0.6s 21.00nm
WB2 147.31 240 ePKP 35 42.30 1.7
0.5s 10.20nm
WRA 147.32 240 PKP 35 43.00 2.4X
0.7s 2.80nm
GBA 147.45 55 PKP 35 45.00 4.1X
MUN 150.95 201 ePKP 35 53.60 7.7X
S.D. = 1.3 on 26 of 33 obs.

? DEC 03, 1993 13h 23m 14.62± 4.47s
39.582 N ±33.5km 29.622 E ±23.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZI 0.76 351 iPg 23 29.00 -0.6
eSg 23 40.00
DST 0.77 272 ePg 23 29.00 -0.7
eSg 23 40.50
EYL 1.07 23 ePn 23 34.90 0.1
BNT 1.52 301 ePn 23 42.30 0.4
EDC 1.55 300 ePn 23 43.00 0.7
S.D. = 0.8 on 5 of 5 obs.

% DEC 03, 1993 16h 53m 23.08± 1.31s
34.106 S ±15.4km 70.438 W ±16.2km
DEPTH = 110.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.1 (SAN).

CACH 0.13 265 iPd 53 38.90 0.1
iS 53 51.63
PCH 0.49 353 iP+ 53 40.25 0.1
iS 53 53.31
TACH 0.61 317 iPd 53 40.95 0.0
iS 53 54.56
FCH 0.79 9 iP+ 53 42.52 -0.3
iS 53 57.88
LNV 0.82 280 iP+ 53 42.75 0.0
iS 53 58.20
PEL 0.98 348 (P) 53 40.00 -4.4X
iS 54 00.23
LCCH 1.13 303 iPd 53 45.81 -0.2
ROCH 1.23 337 iP 53 47.40 0.1
iS 54 05.66
JACH 1.43 355 iP 53 49.69 0.2
iS 54 09.66
S.D. = 0.2 on 8 of 9 obs.

& DEC 03, 1993 17h 44m 20.27s
34.405 N 118.402 W
DEPTH = 7.3km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS), 3.0 (GS).
Felt in the San Fernando area.

SSK 0.62 108 eP 44 31.21 -1.5
ABL 0.81 304 eP 44 34.51 -1.9
eS 44 46.47
PEC 1.15 116 eP 44 40.70 -1.4
eS 44 56.20
ISA 1.26 357 eP 44 42.78 -1.1
eS 45 01.01
BCH 1.59 300 eP 44 47.92 -1.0
eS 45 10.70
GSC 1.59 55 eP 44 47.86 -1.1
PLM 1.66 129 eP 44 47.99 -2.0
eS 45 11.60
MTUM 2.94 357 ePg 45 13.77 5.3
TPNV 3.08 34 ePn 45 09.36 -1.0
ePg 45 17.20
eS 45 59.18
MMPM 3.24 351 ePg 45 17.79 5.0
MEMM 3.28 353 (Pn) 45 11.80 -1.3
iPg 45 20.16
BONR 3.54 1 (Pn) 45 17.40 0.3
ePg 45 25.09
TNP 3.79 14 (Pn) 45 20.77 0.2
ePg 45 31.93
13 obs. associated

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* DEC 03, 1993 18h 16m 42.15± 2.52s
17.190 N ±14.7km 60.982 W ±20.8km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.5 (FDF). MD 3.1 (TRN).

ANG 0.81 268 eP 16 56.54 -0.6
eS 17 08.11
BPA 0.85 260 eP 16 56.96 -0.7
S 17 07.80
DEG 0.88 185 eP 16 57.73 -0.4
S 17 09.51
CPB 0.92 299 eP 16 58.47 -0.3

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              eS      17 17.11
SFG     0.95 192 eP   16 59.38    0.2
MGH     1.27 249 eP   17 03.80    0.1
              S       17 20.20
MGG     1.30 194 eP   17 04.65    0.5
PAG     1.33 210 eP   17 04.43   -0.2
              S       17 25.60
NEV     1.52 268 eP   17 07.92    0.6
SKI     1.68 275 eP   17 10.59    0.9
     S.D. = 0.6  on  10 of  10 obs.
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   DEC  03, 1993  18h 28m 56.78± 1.29s
   29.322 N ± 9.3km  130.614 E ± 7.1km
   DEPTH =  42.2 ± 11.0 km
   4.4mb ( 15 obs.)  4.3Msz (  1 obs.)
  RYUKYU ISLANDS                 (238)

KAGJ    1.87    7 P   29 27.20    0.3
              eS      29 54.30
KUMJ    3.21    3 P   29 46.60    0.7
SHNJ    4.81    5 eP  30 07.60   -1.0
TKSJ    5.49   31 P   30 18.10   -0.2
YONJ    6.33   22 P   30 29.30   -0.7
WKYJ    6.47   40 P   30 30.70   -1.3
CHJJ    9.74   44 P   31 17.80    0.5
BJI    15.96  316 eP  32 42.00    2.2
       1.0s     10.00nm          3.9mb
     Z  16s      1.23um
     N  11s      0.59um
LZH    23.47  294 P   34 04.50    1.0
       2.0s     63.00nm          4.8mb
     Z  18s      1.03um          4.3Msz
     E  12s      0.57um
              pP      34 14.00  34kmX
              sP      34 17.00
              PP      34 35.00
              eS      38 10.00
KMI    25.11  267 eP  34 20.00    0.5
       0.8s     40.00nm          5.0mb
     Z  14s      1.70um          4.7MszX
              pP      34 33.00  53kmX
NNT    33.15  246 eP  35 30.80   -0.6
GUN    39.12  279 P   36 22.20   -0.2
PKI    39.60  279 P   36 25.80   -0.6
       0.9s     39.00nm          5.2mb
KKN    39.66  279 P   36 26.60   -0.1
       0.9s     49.00nm          5.3mb
DMN    39.85  279 P   36 28.40    0.0
GKN    40.17  280 P   36 30.20   -0.6
NDI    46.36  283 iPd 37 20.00   -0.7
WRA    49.11  175 P   37 43.20    1.0
       1.0s      1.70nm          4.0mb
WB2    49.11  175 eP  37 42.00   -0.2
       1.2s      4.40nm          4.4mb
IMA    57.81   28 eP  38 47.40    1.3
       1.0s      1.80nm          4.1mb
INK    65.22   24 eP  39 36.00    0.3
MBC    66.33   14 eP  39 43.50    0.8
       0.9s      5.00nm          4.6mb
RES    72.12   11 eP  40 19.00    0.7
       0.9s      8.00nm          4.7mb
YKA    74.84   26 eP  40 34.70    0.4
       0.8s      1.70nm          4.1mb
HFS    77.06  333 eP  40 45.20   -1.6
       0.5s      1.30nm          4.2mb
NAO    77.75  334 P   40 48.60   -2.1
       0.7s      2.90nm          4.4mb
CLL    82.81  326 e(P) 41 17.00  -0.7
              e       41 22.00
GEC2   83.99  324 PKP 41 24.10    0.1
       0.8s      0.97nm          3.9mb
FRB    86.01    8 eP  41 34.50    0.8
       0.8s      4.00nm          4.7mb
VAO   173.34  340 ePKP 48 57.20  -5.5X
     S.D. = 1.0  on  29 of  30 obs.
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*  DEC  03, 1993  18h 45m 00.94± 0.82s
   23.163 S ± 8.8km  66.510 W ±12.1km
   DEPTH = 214.0 ± 10.3 km
   4.0mb (  1 obs.)
  JUJUY PROVINCE, ARGENTINA      (128)

MOCB    2.07   23 P   45 42.50    0.5
CCH     5.76    4 P   46 27.00    0.6
CNCB    6.47  347 iPc 46 37.20    1.5
LPB     6.76  347 P   46 39.00   -0.4
LPAZ    7.01  347 P   46 43.20    0.5
RTPR    7.11  180 eP  46 43.00   -0.4
ARE     8.15  324 eP  46 56.00   -1.4
              iS      48 23.00
CFA     8.55  190 ePd 47 20.00   17.7X
SIV     8.78   37 P   47 03.40   -1.9
PPD    14.08   88 eP  48 13.10    0.5
YKA    93.50  340 eP  57 52.20   -0.6
       0.5s      0.60nm          4.0mb
WB2   132.57  207 ePKP 03 52.30   0.1
       0.7s      2.30nm
WRA   132.57  207 PKP 03 53.00    0.8
       0.5s      0.70nm
     S.D. = 1.1  on  12 of  13 obs.
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%  DEC  03, 1993  19h 22m 52.03± 2.65s
   44.647 N ± 8.3km    6.683 E ±21.5km
   DEPTH =  10.0km  (geophysicist)
  FRANCE                         (538)
      ML 1.7 (GEN).

RRL     0.28   15 P   22 58.20    0.2
              S       23 01.61
PZZ     0.33  115 P   22 59.60    0.7
              S       23 03.81
BHB     0.46   65 P   23 01.02   -0.3
              S       23 06.55
STV     0.61  131 P   23 04.16   -0.3
              S       23 12.68
ENR     0.68  128 P   23 05.29   -0.2
              S       23 14.11
     S.D. = 0.6  on   5 of   5 obs.
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&  DEC  03, 1993  19h 25m 48.68s
   62.775 N          151.158 W
   DEPTH =  93.1km
  CENTRAL ALASKA                 (  1)
      &lt;AEIC&gt;.

CUT     0.55  132 iP  26 04.19   -0.2
              eS      26 16.06
HUR     0.73   73 eP  26 05.53   -0.5
              eS      26 18.36
TRF     0.79   30 eP  26 06.50   -0.3
              eS      26 20.62
KTH     0.79    8 eP  26 06.47   -0.2
SKT     0.82  192 iP  26 06.52   -0.4
              eS      26 20.36
RND     1.23   58 eP  26 11.10   -0.5
              eS      26 27.91
PWA     1.28  151 P   26 11.80   -0.3
              S       26 30.00
SUA     1.33  171 eP  26 13.12    0.2
              eS      26 31.52
MCK     1.39   45 eP  26 13.15   -0.5
GHO     1.45  133 eP  26 14.61    0.2
              eS      26 34.83
NCG     1.45  199 eP  26 13.82   -0.7
PLRM    1.52  140 eP  26 14.69   -0.5
PMR     1.52  140 eP  26 14.39   -0.8
CGLM    1.53  196 eP  26 14.89   -0.5
              eS      26 35.05
CRP     1.59  198 eP  26 15.02   -1.2
CP2     1.60  199 eP  26 15.75   -0.7
BGL     1.62  202 eP  26 16.86    0.2
CKN     1.63  198 eP  26 16.87    0.2
SML     1.64  125 eP  26 16.14   -0.7
              eS      26 39.16
SPU     1.65  195 eP  26 16.50   -0.5
              eS      26 38.69
CKT     1.66  198 eP  26 17.11    0.0
CKL     1.68  200 eP  26 17.46    0.1
PMS     1.71  153 P   26 17.70    0.0
DHY     1.76   78 eP  26 17.54   -0.9
              eS      26 39.68
BKG     1.79  197 eP  26 18.14   -0.7
KNK     1.87  136 eP  26 19.16   -0.6
SCM     2.02  116 eP  26 21.88    0.0
NEA     2.03   26 eP  26 21.02   -0.9
WRH     2.19   37 eP  26 22.94   -1.0
MLY     2.27    4 eP  26 24.41   -0.8
DFR     2.31  199 eP  26 25.46   -0.3
SLKM    2.32  168 eP  26 25.56   -0.3
PWL     2.34  144 eP  26 27.00    0.9
NCT     2.38  202 eP  26 27.44    0.8
CCB     2.40   37 eP  26 25.51   -1.4
TOA     2.41  104 P   26 28.70    1.6
MPA     2.45  159 eP  26 27.82    0.3
HDA     2.49   47 eP  26 26.82   -1.3
MDM     2.55   29 eP  26 27.89   -1.0
DDM     2.60   65 eP  26 29.45   -0.2
FBA     2.60   33 eP  26 28.12   -1.5
SDG     2.60   93 eP  26 30.71    1.0
PAX     2.61   83 eP  26 29.34   -0.6
SVW     2.69  234 P   26 30.20   -0.7
ILB     2.76   42 eP  26 30.10   -1.7
              eS      27 02.93
IL1     2.76   42 eP  26 30.17   -1.6
KLU     2.78  115 eP  26 31.95   -0.1
GLM     2.78   35 eP  26 31.03   -1.0
CNPM    3.26  181 eP  26 37.79   -0.9
IM3     3.41  342 eP  26 39.87   -0.9
BC3     4.30   82 eP  26 50.83   -2.2
BM3     5.42   28 eP  27 06.66   -1.9
        52 obs. associated
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   DEC  03, 1993  19h 31m 14.38± 0.51s
   37.646 N ± 4.9km  118.959 W ± 4.8km
   DEPTH =   5.0km  (geophysicist)
  CALIFORNIA-NEVADA BORDER REGION ( 40)
      ML 2.8 (GS).

MEMM    0.03   37 ePd 31 16.02    0.5
MMPM    0.07  237 iPc 31 16.49    0.2
MTUM    0.43  133 eP  31 22.52   -0.5
BONR    0.61   59 ePc 31 25.99   -0.5
              eS      31 35.04
CMB     1.19  289 (P) 31 36.40   -0.7
TNP     1.44   72 eP  31 40.84   -0.6
KVN     1.56   25 eP  31 43.82    0.9
ISA     2.02  169 iPc 31 50.93    1.4
              eS      32 16.59
PHAM    2.14  213 (P) 31 56.36    5.0X
TPNV    2.27  107 (Pn) 31 53.39   0.1
BCH     2.62  201 (P) 31 58.02   -0.1
ABL     2.80  184 (Pn) 32 00.32  -0.5
     S.D. = 0.8  on  11 of  12 obs.
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%  DEC  03, 1993  20h 30m 32.96± 1.21s
   33.151 S ± 5.1km   70.304 W ± 9.1km
   DEPTH =   5.0km  (geophysicist)
  CHILE-ARGENTINA BORDER REGION  (127)
      MD 3.6 (SAN).

FCH     0.18  176 iPd 30 36.96    0.3
              iS      30 39.60
PEL     0.32  271 Pd  30 39.98    0.6
              iS      30 45.17
PCH     0.50  200 iP  30 43.30    0.3
              iS      30 50.97
JACH    0.53  332 iPd 30 43.37   -0.2
              iS      30 50.82
ROCH    0.62  287 iP  30 45.52    0.1
              iS      30 54.87
TACH    0.73  226 iP  30 47.27   -0.3
CACH    0.99  194 iP+ 30 52.29   -0.1
              iS      31 06.41
LCCH    1.11  253 iPd 30 54.13   -0.1
              iS      31 09.34
LNV     1.22  229 iP+ 30 55.53   -0.6
              iS      31 12.15
     S.D. = 0.4  on   9 of   9 obs.
-------------------------------------
   DEC  03, 1993  23h 07m 13.82± 0.64s
   39.085 N ± 5.1km   23.322 E ± 7.5km
   DEPTH =  16.4 ±  7.2 km
  AEGEAN SEA                     (365)
      MD 3.1 (ATH).

AGG     0.77  266 ePg 07 28.40   -0.1
              eSg     07 40.60
PAIG    0.89   18 ePg 07 30.68    0.3
              eSg     07 43.52
ATH     1.15  164 iPgd 07 35.00   0.1
              eSb     07 48.00
LIT     1.20  328 ePb 07 36.00    0.3
              eSb     07 53.80
OUR     1.35   22 ePb 07 37.68   -0.2
THE     1.57  350 ePb 07 40.60   -0.4
KZN     1.71  316 ePn 07 47.10    4.0X
GRG     2.00  340 ePn 07 47.04   -0.3
SRS     2.04    6 iPn 07 47.44   -0.4
              eSn     08 13.16
KNT     2.10  351 ePn 07 49.08    0.3
              eSn     08 15.16
```

03d 23h

VAY 2.31 346 ePn 07 52.00 0.3
OHR 2.80 317 ePn 08 01.80 3.0X
S.D. = 0.4 on 10 of 12 obs.

& DEC 03, 1993 23h 11m 44.14s
35.309 N 118.602 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 2.8 (PAS), 3.0 (GS).

ISA 0.37 17 iPd 11 51.09 -0.5
eS 11 56.11
ABL 0.68 228 iPc 11 56.42 -1.4
BCH 1.22 265 iPc 12 05.87 -1.6
eS 12 22.36
SSK 1.33 145 (P) 12 08.67 -0.7
eS 12 28.10
GSC 1.47 90 eP 12 10.20 -1.3
eS 12 33.56
PHAM 1.56 290 (P) 12 11.63 -1.0
PEC 1.85 140 eP 12 16.16 -0.7
eS 12 41.06
MTUM 2.04 1 eP 12 20.71 0.9
eS 12 47.57
MMPM 2.32 352 eP 12 25.15 1.1
eS 12 55.41
MEMM 2.37 354 eP 12 26.54 2.2
eS 12 56.57
PLM 2.42 143 (P) 12 26.31 0.9
TPNV 2.51 49 (P) 12 26.05 -0.5
eS 13 03.83
12 obs. associated

DEC 03, 1993 23h 11m 57.70± 0.55s
39.143 N ± 7.3km 75.639 E ± 7.5km
DEPTH = 10.0km (geophysicist)
4.3mb (12 obs.)
SOUTHERN XINJIANG, CHINA (321)

KSH 0.41 40 Pg 12 07.00 0.9
Sg 12 12.50
WMQ 10.18 59 P 14 27.60 0.6
S 16 18.50
NDI 10.51 172 eP 14 33.50 2.0
QUE 11.44 221 eP 14 46.60 2.3
eS 16 53.60
MAIO 13.09 263 eP 15 04.00 -2.4
eS 17 28.00
GKN 13.40 143 P 15 09.20 -1.3
0.4s 15.00nm 5.4mb X
KKN 13.88 142 P 15 15.40 -1.5
0.5s 22.00nm 5.3mb
GUN 14.07 140 P 15 18.40 -1.2
0.4s 12.00nm 5.0mb
PKI 14.12 142 P 15 18.70 -1.6
0.5s 15.00nm 5.0mb
GTA 18.71 82 eP 16 18.00 -0.4
1.5s 8.00nm 3.7mb
HYB 21.80 172 eP 16 54.00 2.2
e 17 17.00
LZH 22.51 89 eP 17 04.00 5.0X
1.0s 17.00nm 4.5mb
XAN 27.11 90 eP 17 44.00 1.4
MCO 36.46 106 eP 18 50.10 -14.6X
HFS 43.34 320 eP 20 00.10 -1.1
0.6s 3.00nm 4.3mb
GEC2 44.47 304 P 20 11.20 0.5
0.6s 1.36nm 4.0mb
e 20 15.70
NAO 44.74 321 P 20 11.40 -1.2
0.9s 3.20nm 4.2mb
LPG 49.92 301 eP 20 54.40 0.7
0.8s 2.70nm 4.3mb
LPL 49.92 301 eP 20 53.80 0.2
0.6s 2.00nm 4.3mb
MBC 64.49 4 eP 22 37.00 0.8
YKA 78.38 5 eP 23 58.50 -0.9
0.6s 1.40nm 4.2mb
WRA 80.39 125 P 24 18.60 7.7X
1.0s 0.50nm 3.5mb
S.D. = 1.5 on 19 of 22 obs.

? DEC 03, 1993 23h 13m 03.51± 1.09s
13.139 N ±17.7km 93.772 W ±40.4km
DEPTH = 33.0km (normal)
4.2mb (3 obs.)
OFF COAST OF CHIAPAS, MEXICO (68)

UYO 20.94 358 iPd 17 46.60 0.6
MIAR 21.31 0 P 17 48.56 -1.2
1.0s 21.56nm 4.5mb
WMOK 21.98 349 eP 18 03.53 7.1X
0.8s 8.15nm 4.2mb
MEO 21.99 349 iPc 18 03.50 7.0X
TUL 22.75 356 iPd 18 05.40 1.4
ACO 23.95 349 iPc 18 21.10 5.4X
ULM 37.05 358 eP 20 08.00 -4.1X
LPAZ 38.70 138 P 20 17.80 -9.2X
LPB 38.90 139 eP 20 29.00 0.5
CNCB 39.18 139 P 20 31.50 0.5
CCH 40.80 137 eP 20 43.00 -1.1
YKA 51.48 348 eP 22 04.60 -3.1X
0.8s 1.80nm 4.1mb
INK 60.78 344 eP 23 13.00 -1.2
RES 61.54 360 eP 23 07.50 -11.8X
WRA 133.51 255 PKP 32 19.50 0.4
0.7s 0.40nm
S.D. = 1.2 on 8 of 15 obs.

DEC 03, 1993 23h 27m 02.74± 1.14s
39.350 N ± 9.2km 22.841 E ± 8.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

AGG 0.51 231 iPg 27 12.66 -0.5
eSg 27 21.74
LIT 0.80 340 iPg 27 16.74 -1.5
eSg 27 26.78
eSg 27 28.10
PAIG 0.87 48 iPg 27 20.06 0.7
eSg 27 32.82
THE 1.28 4 ePb 27 25.90 -0.6
eSb 27 42.86
OUR 1.32 41 ePb 27 26.90 -0.2
GRG 1.64 348 ePb 27 32.22 0.5
eSb 27 54.30
KNT 1.81 1 iPb 27 33.50 -0.7
FNA 1.82 322 ePb 27 34.65 0.3
eSb 27 59.94
VAY 1.98 354 ePn 27 36.80 0.2
OHR 2.35 319 ePn 27 44.00 1.9
SKO 2.83 338 ePn 27 58.60 9.8X
S.D. = 1.1 on 10 of 11 obs.

% DEC 04, 1993 00h 42m 14.46± 1.26s
37.786 N ±24.0km 25.529 W ± 6.9km
DEPTH = 10.0km (geophysicist)
AZORES ISLANDS (405)

CML 0.02 223 iP 42 15.93 -0.5
eS 42 20.16
LFA 0.04 110 iP 42 15.68 -0.9
eS 42 19.41
FAC 0.10 263 eP 42 16.93 -0.2
iS 42 22.90
FRA 0.14 101 eP 42 17.98 0.2
SDCA 0.17 87 eP 42 18.23 -0.1
S.D. = 0.6 on 5 of 5 obs.

& DEC 04, 1993 00h 59m 55.51s
37.821 N 119.977 W
DEPTH = 29.5km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.7 (GM).

CMB 0.39 304 eP 00 03.22 -1.0
eS 00 09.12
MMPM 0.78 105 eP 00 10.01 -0.7
eS 00 20.41
MEMM 0.84 100 eP 00 11.19 0.0
eS 00 22.53
MTUM 1.22 112 eP 00 17.42 0.7
eS 00 33.10
ARN 1.32 250 eP 00 18.01 -0.1
eS 00 35.15
BONR 1.33 84 eP 00 20.00 1.5
6 obs. associated
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* DEC 04, 1993 01h 24m 12.21± 0.81s
35.653 N ± 7.8km 24.330 E ± 9.6km
DEPTH = 10.0km (geophysicist)
3.4mb (2 obs.)
CRETE (370)
MD 3.5 (ATH).

VAM 0.27 203 ePg 24 18.00 0.1
NPS 1.12 110 ePb 24 33.00 -0.2
VLI 1.55 314 ePb 24 39.00 -0.9
GEC2 15.33 333 Pn 27 50.40 0.2
0.5s 0.49nm 3.1mb
KHC 15.61 333 eP 27 54.50 0.7
1.0s 3.50nm 3.6mb
e 28 05.00
S.D. = 0.8 on 5 of 5 obs.

? DEC 04, 1993 01h 43m 03.27± 6.03s
44.858 N ± 9.5km 6.660 E ±41.6km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 1.5 (GEN).

RRL 0.11 55 P 43 05.57 -0.2
S 43 07.31
BHB 0.43 92 P 43 11.84 0.0
S 43 17.70
PZZ 0.47 138 P 43 12.80 0.0
S 43 19.12
RSP 0.52 55 P 43 13.81 0.2
S 43 20.72
S.D. = 0.3 on 4 of 4 obs.

& DEC 04, 1993 02h 02m 12.05s
59.968 N 152.861 W
DEPTH = 97.5km
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.14 313 eP 02 25.33 0.7
eS 02 36.15
INW 0.17 306 eP 02 25.26 0.7
eS 02 36.44
OPT 0.37 211 iP 02 26.17 -0.8
eS 02 37.73
RED 0.45 6 eP 02 26.65 -0.9
eS 02 38.27
RS2 0.50 6 eP 02 28.13 0.1
RDW 0.52 3 eP 02 27.53 -0.6
eS 02 39.89
REF 0.53 9 eP 02 27.49 -0.8
eS 02 39.48
NCT 0.60 357 eP 02 27.77 -0.9
eS 02 40.25
DFR 0.63 8 eP 02 28.12 -0.9
eS 02 40.19
AUL 0.66 207 eP 02 28.32 -0.8
AUE 0.66 203 eP 02 28.18 -0.9
AUH 0.67 206 eP 02 28.46 -0.9
AUW 0.68 208 eP 02 28.39 -0.8
HOM 0.69 116 eP 02 28.76 -0.6
eS 02 42.00
PDB 0.70 256 eP 02 28.61 -0.8
eS 02 41.59
CNPM 0.93 118 eP 02 30.77 -1.1
eS 02 45.16
BRLK 1.02 101 eP 02 31.89 -0.9
eS 02 47.03
CDD 1.12 201 eP 02 32.61 -1.3
eS 02 48.88
NKA 1.12 45 eP 02 34.65 0.7
BKG 1.14 15 iP 02 33.51 -0.8
eS 02 50.22
CKL 1.26 12 eP 02 34.81 -0.9
CKT 1.28 14 eP 02 34.89 -1.0
SPU 1.28 18 eP 02 34.85 -1.1
CKN 1.30 15 eP 02 35.43 -0.8
BGL 1.32 10 eP 02 35.67 -0.8
CP2 1.34 13 eP 02 35.62 -1.1
CRP 1.35 15 eP 02 35.49 -1.4
CGLM 1.41 17 eP 02 36.57 -0.9
SLKM 1.42 67 eP 02 36.61 -1.0
eS 02 54.86
NCG 1.48 13 eP 02 37.68 -0.8
SEW 1.72 84 eP 02 39.45 -1.8
eS 03 01.36
SVW 1.78 311 eP 02 40.31 -1.9
MPA 1.82 72 eP 02 41.20 -1.5
SUA 1.83 34 eP 02 42.36 -0.5
PMS 2.07 50 P 02 44.50 -1.5
SKT 2.12 17 eP 02 45.44 -1.2
PWL 2.42 66 eP 02 47.99 -2.6
LTI 2.52 86 eP 02 49.59 -2.3
KNK 2.61 54 eP 02 50.99 -2.2

MTU 2.62 87 eP 02 51.50 -1.8
CUT 2.75 26 eP 02 54.51 -0.6
SML 2.88 48 eP 02 54.92 -2.0
HIN 3.21 80 eP 02 59.13 -2.2
VLZ 3.43 67 eP 03 02.94 -1.4
KLU 3.74 63 eP 03 05.61 -3.1
IM3 6.05 357 eP 03 38.85 -1.7
46 obs. associated

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* DEC 04, 1993 02h 33m 05.03± 1.02s
6.206 S ±11.4km 146.256 E ±11.7km
DEPTH = 33.0km (normal)
3.4mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.29 263 eP 33 12.60 -0.2
eS 33 19.00
LAT 0.87 122 ePc 33 20.00 -0.9
MDG 1.06 333 eP 33 24.00 0.4
PMG 3.30 164 eP 33 57.00 1.4
WWKK 3.67 314 eP 34 09.00 8.1X
WB2 17.90 219 eP 37 12.50 -0.7
0.6s 1.80nm 3.4mb
WRA 17.90 219 P 37 28.00 14.7X
0.8s 0.50nm
S.D. = 1.3 on 5 of 7 obs.

DEC 04, 1993 02h 52m 17.78± 0.49s
31.751 S ±10.1km 69.425 W ±10.3km
DEPTH = 150.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.0 (SAN).

RTCB 0.60 64 iPc 52 38.80 -1.2
RTCV 0.76 98 iPd 52 40.90 -0.1
RTLL 0.92 63 iPc 52 41.50 -0.7
CFA 1.02 82 ePd 52 42.90 -0.2
JACH 1.36 227 iP+ 52 45.94 -0.4
iS 53 07.12
RTRS 1.58 359 iPd 52 49.40 1.0
S 53 11.00
FCH 1.73 205 iP+ 52 51.66 1.1
iS 53 16.04
PEL 1.75 217 iP+ 52 50.41 -0.1
iS 53 13.53
ROCH 1.81 227 iPd 52 50.70 -0.7
iS 53 14.27
PCH 2.08 206 eP 52 54.92 0.6
iS 53 22.78
TACH 2.29 214 iP+ 52 56.75 0.0
iS 53 25.29
LCCH 2.50 226 iPd 52 59.01 -0.3
(S) 53 29.37
CACH 2.56 202 iP+ 53 01.32 1.1
iS 53 33.34
LNV 2.76 217 iPd 53 01.66 -0.9
(S) 53 33.57
RTPR 2.89 61 eP 53 05.00 0.8
S.D. = 0.8 on 15 of 15 obs.

% DEC 04, 1993 04h 11m 39.61± 3.41s
33.252 S ± 9.1km 72.086 W ±25.2km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)
MD 3.7 (SAN).

LCCH 0.49 117 iP+ 11 50.10 0.6
iS 11 56.24
LNV 0.90 141 iP+ 11 56.84 0.0
iS 12 07.30
ROCH 0.94 73 iPd 11 57.78 0.0
iS 12 08.80
TACH 1.04 113 iP+ 11 58.63 -0.6
iS 12 10.33
PEL 1.18 85 iPd 12 01.59 -0.1
iS 12 14.95
PCH 1.37 106 iP 12 04.62 -0.1
JACH 1.38 66 iP 12 05.33 0.4
iS 12 22.51
FCH 1.51 93 iPd 12 06.58 -0.4
iS 12 24.34
CACH 1.51 125 iPd 12 07.00 0.2
iS 12 25.96
S.D. = 0.4 on 9 of 9 obs.

% DEC 04, 1993 04h 34m 52.79± 1.13s
41.975 N ± 8.9km 19.198 E ± 6.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.8 (TTG).

ULC 0.04 107 iPgd 34 54.81 -0.1
iSg 34 56.38
BDV 0.41 318 iPgc 35 01.09 -0.1
iSg 35 07.86
TTG 0.46 6 iPgd 35 01.92 -0.2
iSg 35 09.57
HCY 0.70 313 iPgd 35 06.63 0.0
iSg 35 17.04
PVY 0.85 43 iPgc 35 09.03 -0.2
iSg 35 22.00
NKY 0.85 350 iPgd 35 09.15 -0.1
iSg 35 22.31
IVA 1.04 30 iPgd 35 12.36 0.0
iSg 35 28.41
BRY 1.04 333 iPgd 35 12.59 0.0
iSg 35 28.72
PLE 1.36 6 iPgd 35 18.54 0.6
iSg 35 39.45
S.D. = 0.3 on 9 of 9 obs.

% DEC 04, 1993 05h 09m 01.06± 0.72s
44.472 N ± 6.1km 7.283 E ± 8.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

PZZ 0.13 284 P 09 04.54 0.1
S 09 06.51
STV 0.23 173 P 09 06.06 0.0
S 09 09.03
ENR 0.26 158 P 09 06.92 0.2
S 09 10.27
BHB 0.37 358 P 09 08.57 -0.1
S 09 14.11
ROB 0.46 113 P 09 10.77 0.4
S 09 17.73
IMI 0.71 142 P 09 14.48 -0.6
S.D. = 0.5 on 6 of 6 obs.

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* DEC 04, 1993 05h 50m 25.47± 1.77s
17.576 N ±14.6km 61.290 W ±16.1km
DEPTH = 61.9 ± 19.2 km
4.1mb (1 obs.)
LEEWARD ISLANDS (92)
MD 3.9 (TRN).

CPB 0.52 277 eP 50 38.68 0.9
ANG 0.66 231 eP 50 37.80 -1.7
eS 50 49.50
BPA 0.76 226 eP 50 39.30 -1.3
S 50 50.00
MGH 1.23 226 eP 50 46.68 -0.1
eS 51 02.83
DEG 1.27 170 eP 50 46.10 -1.4
NEV 1.30 251 eP 50 48.45 0.7
eS 51 07.90
SKI 1.40 260 eP 50 50.27 1.0
eS 51 08.06
PAG 1.58 194 eP 50 51.20 -0.5
S 51 14.00
CRM 2.83 173 eP 51 09.15 0.0
FDF 2.83 177 ePd 51 09.30 0.1
S 51 44.30
MVM 3.03 173 eP 51 12.20 0.2
S 51 49.40
SLW 3.55 174 eP 51 22.87 3.5X
SLB 3.74 176 eP 51 23.12 1.1
SVV 4.23 179 eP 51 29.62 0.7
SVB 4.28 180 eP 51 30.87 1.3
YKA 57.97 334 eP 00 12.90 -0.7
0.9s 1.30nm 4.1mb
S.D. = 1.1 on 15 of 16 obs.

DEC 04, 1993 05h 53m 50.68± 1.02s
6.533 S ± 8.8km 154.975 E ± 7.6km
DEPTH = 76.7 ± 11.6 km
4.5mb (5 obs.)
SOLOMON ISLANDS (193)

RAB 3.64 310 iPc 54 46.70 0.9
iS 55 39.50
HNR 5.71 121 eP 55 15.00 0.3
eS 56 09.00
KVG 5.71 313 eP 55 15.00 0.3
LAT 7.92 269 ePd 55 44.20 -1.2
PMG 8.25 249 eP 55 48.70 -1.2
YYYY 8.96 271 eP 56 00.00 0.3
CTA 15.91 211 iPc 57 37.00 5.5X
1.0s 15.00nm 4.1mb
DZM 19.01 146 iPc 58 08.00 -1.4
QIS 20.41 225 eP 58 24.30 0.3
ARMA 23.97 187 iPd 59 00.70 1.5
0.8s 37.00nm 4.9mb
WB2 24.06 234 iPc 59 01.30 1.3
0.4s 20.70nm 4.9mb
ASPA 26.47 228 iPd 59 22.40 -0.2
0.6s 8.40nm 4.4mb
i 00 30.30
CHTO 60.68 296 eP 03 55.90 -0.7
SLKM 79.33 24 eP 05 48.87 -0.5
YKA 95.94 28 eP 07 10.10 0.1
0.8s 0.50nm 4.1mb
S.D. = 1.0 on 14 of 15 obs.

& DEC 04, 1993 06h 14m 02.72s
57.643 N 155.021 W
DEPTH = 46.1km
ALASKA PENINSULA (12)
<AEIC>. ML 2.7 (AEIC).

KDC 1.36 85 eP 14 28.84 3.2
eS 14 40.99
CDD 1.48 29 eP 14 26.21 -1.2
eS 14 45.38
MCNL 1.59 13 iP 14 27.71 -1.1
eS 14 46.78
SYI 1.70 54 eP 14 29.33 -1.1
eS 14 49.50
AUH 1.91 25 eP 14 32.67 -0.9
AUW 1.91 25 eP 14 32.63 -0.8
AUE 1.93 26 eP 14 32.86 -0.7
AUL 1.93 25 eP 14 32.96 -0.8
PDB 2.19 11 eP 14 35.82 -1.6
OPT 2.22 24 eP 14 36.62 -1.2
INW 2.62 21 eP 14 41.96 -1.7
INE 2.63 22 eP 14 42.11 -1.7
ILIM 2.67 23 eP 14 42.43 -1.9
CNPM 2.74 45 eP 14 42.85 -2.4
RDW 3.07 21 eP 14 48.10 -2.0
REF 3.10 22 eP 14 48.46 -2.0
NCT 3.12 19 eP 14 48.62 -2.1
DFR 3.19 21 eP 14 49.76 -2.0
BKG 3.72 21 eP 14 56.94 -2.2
SLKM 3.79 39 eP 14 56.64 -3.6
CKL 3.82 20 eP 14 58.25 -2.4
CKT 3.85 21 eP 14 58.51 -2.5
SPU 3.86 22 eP 14 58.40 -2.8
BGL 3.87 19 eP 14 59.34 -2.1
CP2 3.90 20 (P) 14 58.87 -3.0
CGLM 3.98 21 eP 15 00.44 -2.5
MPA 4.08 43 eP 15 01.73 -2.5
SUA 4.41 28 eP 15 06.74 -2.2
SKT 4.69 21 eP 15 09.79 -3.1
BALM 7.32 57 eP 15 44.48 -5.3
30 obs. associated

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* DEC 04, 1993 07h 53m 13.83± 1.14s
35.917 N ±22.1km 26.885 E ± 8.8km
DEPTH = 172.3 ± 13.7 km
3.9mb (7 obs.)
CRETE (370)

NPS 1.23 238 iPc 53 43.00 0.1
eS 54 02.00
CIN 1.94 30 iPd 53 59.00 9.0X
KSL 2.20 84 iPc 53 55.00 2.1X
eS 54 22.00
VAM 2.24 258 eP 53 53.60 0.1
eS 54 21.00
ELL 2.58 70 iPn 53 58.50 0.9
VLI 3.29 285 eP 54 06.00 -0.2
BCK 3.35 62 ePn 54 06.00 -1.1
GEC2 16.15 327 Pn 56 52.50 0.0
0.5s 1.20nm 3.5mb
KHC 16.41 328 eP 56 56.00 0.3
SBF 16.88 304 eP 57 01.80 0.4
LMR 17.33 301 eP 57 04.70 -2.0
GRF 17.88 325 e(P) 57 08.00 -4.7X
LPG 17.97 308 eP 57 14.50 0.4
0.4s 1.70nm 3.8mb

04d 07h

LPL 17.99 308 eP 57 14.60 0.4
0.4s 2.25nm 3.9mb
SMF 20.29 309 eP 57 36.70 -1.0
1.0s 9.00nm 4.2mb
LBF 20.35 310 eP 57 39.00 0.8
0.6s 3.00nm 3.9mb
SSF 20.67 310 eP 57 42.30 0.9
0.3s 1.60nm 4.0mb
BGF 20.89 308 eP 57 43.50 -0.1
0.5s 4.00nm 4.1mb
S.D. = 0.9 on 15 of 18 obs.

DEC 04, 1993 08h 01m 54.86± 1.19s
12.151 N ± 6.5km 125.673 E ±10.5km
DEPTH = 38.6 ± 10.5 km
4.8mb (14 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

PLP 1.19 215 ePd 02 15.00 -0.3
iS 02 24.20
MAP 2.46 223 iPd 02 35.00 1.5
iS 03 03.00
GQP 3.60 299 ePc 02 55.00 5.4X
eS 03 37.50
BIP 3.94 172 eP 02 54.50 -0.1
PGP 4.80 287 eP • 03 07.00 0.4
TGY 5.01 293 eP 03 13.50 3.8X
DAV 5.03 181 eP 03 24.80 14.9X
QCP 5.11 299 eP 03 36.00 25.0X
CTB 5.13 197 eP 03 25.00 13.7X
BAG 6.50 311 ePc 03 30.60 -0.2
eS 04 49.00
CVP 6.66 326 eP 03 31.00 -1.8
GYA 22.85 311 iPd 06 58.40 2.3
1.0s 24.00nm 4.6mb
Z 24s 0.66um 4.0MszX
WWKK 23.75 130 e(P) 07 00.00 -4.8X
KMI 25.22 304 eP 07 20.00 0.9
1.0s 40.00nm 4.9mb
CHTO 26.58 288 eP 07 30.20 -1.3
XAN 26.61 328 P 07 31.00 -0.6
1.0s 9.00nm 4.3mb
pP 07 40.00 32kmX
sP 07 44.50
CD2 27.54 316 eP 07 40.20 -0.1
TIY 28.08 337 eP 07 45.20 0.2
Z 16s 0.95um 4.5MszX
LZH 30.91 324 eP 08 11.00 0.5
1.5s 32.00nm 4.9mb
Z 16s 0.59um 4.3MszX
HHC 31.16 339 eP 08 12.20 -0.3
GTA 35.51 324 eP 08 50.50 0.2
1.4s 12.00nm 4.6mb
Z 16s 0.34um 4.2MszX
ASPA 36.50 167 iPc 08 58.00 -0.5
0.6s 5.20nm 4.6mb
WARB 38.11 179 eP 09 11.00 -1.1
0.5s 8.00nm 4.8mb
GUN 40.33 299 P 09 30.50 -0.5
PKI 40.65 298 P 09 33.00 -0.6
KKN 40.81 299 P 09 34.80 0.0
1.0s 56.00nm 5.3mb
DMN 40.92 298 P 09 35.60 -0.1
1.2s 76.00nm 5.3mb
GKN 41.42 299 P 09 39.20 -0.5
WMQ 45.39 321 P 10 12.70 1.1
0.8s 8.30nm 4.7mb
Z 16s 0.52um 4.6MszX
pP 10 17.50 16kmX
sP 10 20.00
STK 46.36 161 eP 10 04.80 -14.4X
1.1s 2.50nm
MAIO 63.75 305 eP 12 25.00 -0.4
IMA 75.18 25 eP 13 35.90 0.8
1.1s 3.75nm 4.3mb
INK 82.76 22 eP 14 16.00 0.1
KAF 83.70 332 iP 14 20.60 -0.2
0.9s 17.20nm 5.2mb
MBC 84.02 13 eP 14 23.50 1.3
NUR 84.88 331 iP 14 26.80 0.1
0.8s 21.50nm 5.4mb
HFS 90.12 332 eP 14 51.20 -0.9
0.5s 1.20nm 4.5mb
S.D. = 0.9 on 30 of 37 obs.

DEC 04, 1993 08h 36m 01.54± 0.22s
46.280 N ± 2.1km 7.430 E ± 2.4km
DEPTH = 7.5 ± 1.9 km
SWITZERLAND (544)
ML 3.4 (LDG), 3.3 (STR).

DIX 0.20 184 iPc 36 06.60 0.7
EMS 0.41 239 iPc 36 10.50 0.7
MMK 0.44 121 iPd 36 10.00 -0.4
ORX 0.75 149 P 36 15.88 -0.7
S 36 24.98
RSL 0.82 224 Pg 36 17.70 0.0
Sg 36 28.31
LSD 0.84 193 Pc 36 17.76 -0.5
S 36 28.30
LPL 0.91 213 Pg 36 19.20 -0.1
Sg 36 31.20
LPG 0.91 211 Pg 36 19.50 0.0
Sg 36 31.20
TMA 1.02 99 iPd 36 20.70 -0.4
RSP 1.13 186 P 36 23.03 -0.1
S 36 35.71
LOMF 1.15 339 Pg 36 24.70 1.4
BBS 1.19 3 Pg 36 26.05 2.1
LLS 1.23 61 iPc 36 24.50 -0.3
ZLA 1.37 28 iPc 36 27.20 0.2
VDL 1.43 81 eP 36 28.10 0.1
RRL 1.43 199 P 36 28.39 0.3
S 36 45.99
BHB 1.44 185 P 36 28.27 0.2
S 36 44.23
MOF 1.59 353 Pn 36 30.35 0.2
Pg 36 32.84
Sg 36 52.99
BSF 1.61 345 Pn 36 30.80 0.3
Sg 36 53.80
FEL 1.65 14 ePn 36 30.50 -0.5
SLE 1.66 26 iPc 36 30.70 -0.4
PZZ 1.79 188 P 36 34.05 0.9
S 36 53.85
HAU 1.88 337 Pn 36 34.70 0.4
Sg 37 01.70
PCP 1.91 155 P 36 36.98 2.2
S 36 57.21
OSS 1.92 77 eP 36 36.80 1.8
ROB 2.01 171 P 36 36.27 0.0
S 36 57.69
STV 2.04 182 P 36 35.94 -0.7
S 36 56.73
ENR 2.05 180 P 36 36.86 -0.1
S 36 58.41
WLS 2.13 359 Pn 36 37.61 -0.4
CDF 2.14 357 Pn 36 37.70 -0.4
Sg 37 09.50
FIN 2.14 165 P 36 39.27 1.1
VITF 2.17 334 Pn 36 39.06 0.5
SSB 2.26 245 Pg 36 45.00 5.2X
Sg 37 14.22
IMI 2.39 172 P 36 43.66 1.9
SBF 2.42 180 Pn 36 43.30 1.2
Sg 37 17.40
LBF 2.48 288 Pn 36 43.90 0.9
Pg 36 49.30
Sg 37 20.20
SMF 2.51 280 Pn 36 44.60 1.3
Pg 36 49.80
Sg 37 21.90
OGA 2.55 75 iPnc 36 50.50 6.4X
LOR 2.65 293 Pn 36 46.80 1.5
Pg 36 52.40
Sg 37 25.80
FRF 2.78 192 Pg 36 53.60 6.4X
Sg 37 29.30
SSF 2.81 288 Pn 36 49.10 1.4
Pg 36 55.30
Sg 37 30.20
AVF 2.86 282 Pn 36 48.70 0.3
Sg 37 31.70
LRG 2.93 195 Pg 36 56.00 6.7X
Sg 37 34.30
WTTA 3.05 70 iPnd 36 52.70 1.5
i 37 42.40
BGF 3.18 277 Pn 36 53.20 0.3
MAF 3.38 271 Pn 36 55.80 0.1
Sg 37 49.30
WLF 3.49 346 iP 37 53.31 56.0X
TCF 3.62 272 Pn 36 59.60 0.4
Pg 37 09.20
Sg 37 56.30
PGF 3.90 163 Pn 37 03.10 -0.1
CAF 4.00 252 Pn 37 04.10 -0.5
Sg 38 07.00
LSF 4.09 272 Pn 37 06.00 0.2
Pg 37 18.70
Sg 38 11.60
KBA 4.15 77 iP 37 08.40 1.6
i 37 21.80
i 37 23.80
GRF 4.26 35 ePg 37 21.50 13.3X
e(Sn) 38 06.60
eSg 38 17.70
DOU 4.26 335 iP 37 08.90 0.7
i 37 09.90
iS 37 53.60
SNF 4.72 335 iP 37 14.10 -0.7
KHC 5.04 53 ePn 37 17.50 -1.7
ePg 37 37.00
e 38 13.00
Sg 38 43.40
e 39 27.00
MFF 5.25 276 Pn 37 22.10 -0.1
FLN 5.91 298 Pn 37 30.30 -1.2
GRR 6.02 294 Pn 37 32.00 -1.0
PRU 6.03 49 ePn 37 54.80 21.5X
eSg 39 13.00
LPF 6.04 290 Pn 37 32.00 -1.3
S.D. = 0.9 on 54 of 61 obs.

? DEC 04, 1993 08h 54m 10.49± 1.00s
39.087 N ± 9.2km 27.604 E ±17.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.74 201 ePg 54 25.00 0.0
eSg 54 38.00
DST 0.95 57 ePn 54 28.60 0.0
EDC 1.27 9 ePn 54 34.50 0.4
BNT 1.29 11 ePn 54 34.00 -0.4
S.D. = 0.6 on 4 of 4 obs.

? DEC 04, 1993 09h 14m 58.77± 1.20s
39.180 N ± 8.9km 27.434 E ±18.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.79 190 ePg 15 14.20 0.0
eSg 15 26.20
DST 1.02 65 iPn 15 18.10 0.0
EDC 1.21 16 ePn 15 22.00 0.7
BNT 1.23 18 ePn 15 21.00 -0.7
S.D. = 1.0 on 4 of 4 obs.

DEC 04, 1993 09h 30m 14.41± 0.12s
41.757 N ± 2.7km 141.937 E ± 2.6km
DEPTH = 84.2km (30 depth phases)
5.2mb (97 obs.)
HOKKAIDO, JAPAN REGION (224)
Mw 5.2 (HRV). Felt (IV JMA) at Tomakomai; (III JMA) at Hiroo, Muroran and Urakawa; (II JMA) at Hakodate, Iwamizawa, Kushiro, Obihiro and Otaru; (I JMA) at Sapporo. Also felt (IV JMA) at Mutsu; (II JMA) at Aomori and Hachinohe, Honshu.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 20C
Centroid Location:
Origin Time 09:30:16.0 0.6
Lat 41.93N 0.08 Lon 141.69E 0.12
Dep 75.3 6.2 Half-duration 1.4
Moment Tensor; Scale 10**16 Nm
Mrr=-3.50 0.61 Mtt= 6.28 0.71
Mff=-2.78 0.93 Mrt=-3.59 0.80
Mrf= 2.66 0.75 Mtf=-5.25 1.02
Principal Axes:
T Val= 10.09 Plg=18 Azm=206
N -4.16 46 315
P -5.93 38 101
Best Double Couple:Mo=8.0*10**16
NP1:Strike=250 Dip=49 Slip=-163
NP2: 149 77 -42

MRRJ		0.93	316	iPd	30 32.80	-0.3
				S	30 46.20	
HOOJ		1.18	58	iP+	30 35.80	-0.4
SAP		1.38	341	iP	30 38.60	0.0
				eS	30 56.00	
AOMJ		1.68	225	P	30 43.00	0.4
				eS	31 04.90	
ASAJ		2.42	12	iP+	30 52.80	0.2
				eS	31 23.00	
KUSJ		2.45	56	iP+	30 51.30	-1.8
				eS	31 18.50	
OFUJ		2.68	184	P	30 54.70	-1.6
				eS	31 27.10	
YAMJ		3.87	203	P	31 12.60	-0.1
				eS	31 57.40	
NIIJ		5.05	208	P	31 29.10	-0.1
YSS		5.29	6	iPc+	31 31.10	-1.4
		0.7s	130.00nm			5.3mb
	Z	16s	3.10um			4.7MszX
	N	18s	2.00um			
	E	18s	2.00um			
				iS	32 27.00	
KUR		5.54	49	iPd	31 34.00	-2.0
		0.4s	940.00nm			6.4mb X
	Z	14s	5.40um			4.5Msz
	N	14s	5.40um			
	E	14s	10.80um			
				iS	32 34.50	
KAKJ		5.71	194	P	31 34.30	-4.1X
				S	32 37.50	
MAT		5.96	210	iPc	31 41.70	-0.2
				eS	32 48.00	
MTMJ		6.08	213	P	31 44.20	0.6
CHJJ		6.14	203	P	31 42.00	-2.4
IIDJ		7.01	208	P	31 55.40	-1.0
VLA		7.55	284	iPc	32 03.50	-0.3
				iS	33 29.90	
TSRJ		7.76	219	P	32 08.20	1.6
WKYJ		9.03	216	P	32 22.40	-1.7
YONJ		9.33	228	P	32 27.30	-0.8
TKSJ		9.95	221	P	32 35.70	-0.8
SHK		10.25	228	eP	32 41.40	0.8
SHNJ		11.44	232	P	32 57.90	1.4
KUMJ		12.77	227	eP	33 14.60	0.6
SKR		13.23	43	eP	33 15.50	-4.5X
		0.6s	60.00nm			5.4mb
	Z	14s	3.30um			4.9Msz
	E	16s	2.80um			
				eS	35 39.90	
KAGJ		13.78	224	P	33 26.60	-0.7
BJI		19.53	274	eP	34 35.00	-2.6
		1.0s	48.00nm			4.8mb
	Z	16s	0.88um			5.3MszX
	N	14s	0.95um			
				ePP	34 54.00	
				eS	38 08.00	
				eSS	38 36.00	
SSE		19.75	244	P	34 37.50	-2.4
		1.0s	59.00nm			4.9mb
	Z	20s	0.90um			5.7Msz
	N	14s	0.70um			
	E	14s	0.70um			
YAK		21.57	344	eP	34 54.20	-4.0X
		0.9s	72.00nm			5.0mb
				ipP	35 12.00	82km
				iPP	35 27.00	
				ePPP	35 40.00	
				eS	38 46.00	
				ePcP	39 03.00	
				eSS	39 19.00	
				eSSS	42 16.00	
				eScS	46 09.50	
CIT		21.78	308	eP	34 58.00	-2.5
BOD		23.84	322	eP	35 20.20	-0.2
		0.9s	25.00nm			4.6mb
IRK		27.43	305	eP	35 54.10	0.2
		1.0s	36.00nm			4.9mb
	Z	14s	0.54um			4.3MszX
	E	12s	0.46um			
				e	36 10.00	
ZAK		27.90	301	iPd	35 57.40	-0.6
		1.3s	33.00nm			4.8mb
	Z	12s	0.98um			4.6MszX
				e	36 16.00	
				e	39 12.00	
CVP		29.51	222	eP	36 12.00	-0.9
LZH		30.00	272	eP	36 16.00	-1.2
		1.4s	39.00nm			4.9mb
	Z	18s	0.64um			4.3Msz
	E	10s	0.31um			
				pP	36 26.50	38kmX
				PP	37 12.50	
				eS	41 10.00	
TIK		30.65	352	eP	36 20.00	-2.3
				e	36 46.00	
				e	37 30.00	
BAG		31.23	222	eP	36 27.50	-0.7
ILT		33.59	26	iPd	36 46.00	-2.0
		1.4s	6.00nm			4.3mb
	Z	20s	0.80um			4.4Msz
	N	18s	0.50um			
	E	18s	0.40um			
				i	37 05.00	
				iS	42 00.50	
KMI		36.32	255	eP	37 11.50	-0.4
		1.0s	50.00nm			5.4mb
	Z	22s	1.20um			4.6Msz
				pP	37 19.50	27kmX
				eS	42 44.00	
CGP		36.50	210	ePd	37 32.00	18.8X
TTA		41.38	38	eP	37 53.31	0.0
		1.1s	19.20nm			4.8mb
				e	38 12.52	
SVW		41.58	40	eP	37 55.65	0.7
		0.9s	41.48nm			5.3mb
BRW		41.94	25	eP	37 56.67	-1.1
LOE		42.03	247	eP	38 01.50	2.4
IMA		42.46	33	eP	38 01.73	-0.6
		0.6s	8.49nm			4.8mb
CHTO		43.02	251	ePc	38 08.10	0.9
		0.9s	42.20nm			5.3mb
CP2		43.20	40	eP	38 09.28	0.8
CRP		43.24	40	eP	38 09.44	0.7
KDC		43.45	45	eP	38 09.29	-0.9
		0.7s	56.99nm			5.5mb
BDT		44.03	249	eP	38 16.00	0.7
SHL		44.06	265	eP	38 15.50	-0.3
				eS	44 41.50	
SLKM		44.26	41	eP	38 16.14	-0.7
NST		44.33	247	eP	38 18.50	0.8
PMR		44.66	39	eP	38 19.33	-0.6
		0.6s	39.53nm			5.4mb
FBA		44.94	35	eP	38 22.36	0.2
		0.5s	28.96nm			5.4mb
				epP	38 42.28	82km
TOA		45.98	38	eP	38 31.70	1.2
KHT		46.01	247	eP	38 31.70	0.6
KLU		46.20	39	eP	38 32.37	0.2
GUN		47.26	272	P	38 41.80	0.4
KKN		47.77	272	P	38 45.80	0.6
PKI		47.80	272	P	38 45.60	0.1
BALM		47.98	39	eP	38 46.11	-0.1
DMN		48.00	272	P	38 47.40	0.4
GKN		48.14	273	P	38 48.20	0.2
FRU		48.57	295	ePd	38 51.00	0.0
		1.8s	50.00nm			5.2mb
				e	39 09.00	
INK		50.03	29	eP	39 01.50	-0.2
		0.5s	20.00nm			5.4mb
SNG		50.21	238	eP	39 05.90	2.2
MBC		51.90	17	eP	39 16.50	0.7
		0.6s	4.00nm			4.6mb
SVE		51.95	316	iPd	39 16.00	-0.4
	Z	14s	0.80um			4.9MszX
	N	14s	0.20um			
	E	14s	0.50um			
				e	39 36.20	
				e	51 51.00	
IPM		51.96	236	ePc	39 18.00	1.0
KGM		52.60	232	ePd	39 22.90	1.2
ARU		53.15	316	iPd	39 25.00	-0.3
		1.0s	80.00nm			5.7mb
	Z	16s	0.50um			4.7MszX
	E	16s	0.50um			
				e	39 43.00	
				e	39 55.50	
				eS	46 55.00	
NDI		53.31	278	iP	39 26.80	0.0
				eS	46 53.50	
KLI		57.39	225	eP	39 56.30	0.0
LEM		57.64	222	iPd	39 58.20	0.0
RES		57.94	15	ePd	39 58.50	-1.0
		0.5s	21.00nm			5.5mb
YKA		59.55	32	eP	40 10.40	-0.5
		0.9s	17.80nm			5.2mb
QUE		60.02	285	eP	40 14.50	-0.3
SDF		60.83	336	iP	40 18.90	-0.6
DAG		61.12	355	iPc	40 20.00	-1.4
		0.8s	32.84nm			5.5mb
CTA		61.66	175	iPc	40 25.00	-0.6
		1.5s	41.67nm			5.3mb
POO		61.67	270	eP	40 32.00	6.1X
WB2		61.79	188	iPc	40 24.80	-1.6
		0.6s	54.00nm			5.8mb
WRA		61.79	188	P	40 21.20	-5.2X
		0.5s	24.00nm			5.5mb
ASH		61.81	297	eP	40 24.00	-2.6
MAIO		61.93	295	iPd	40 27.00	-0.5
GBA		62.08	263	Pc	40 28.00	-0.6
MOS		63.73	322	eP	40 39.00	0.0
				e	41 01.00	
GMW		63.81	49	eP	40 39.66	0.0
				epP	41 01.62	86km
JCW		63.92	48	P	40 40.26	-0.1
BMW		64.16	50	P	40 42.45	0.5
KAF		64.32	332	iP	40 41.60	-1.1
		0.8s	41.00nm			5.4mb
OBN		64.58	322	iPd	40 44.00	-0.5
		1.0s	70.00nm			5.5mb
	Z	16s	1.10um			5.1MszX
				i	41 03.00	
FMW		64.78	49	P	40 45.00	-1.2
LON		64.81	49	eP	40 44.83	-1.4
				epP	41 07.53	89km
SHW		64.88	50	eP	40 47.18	0.4
				epP	41 08.47	82km
ASR		65.27	50	P	40 49.11	-0.1
WTV		65.30	47	Pd	40 48.73	-0.6
EBG		65.41	48	P	40 50.43	0.4
ASPA		65.52	188	iPc	40 50.20	-0.5
		1.2s	22.80nm			5.0mb
				eS	49 24.30	
SSOR		65.52	51	P	40 51.19	0.4
SAW		65.60	47	Pd	40 50.71	-0.5
VBEM		65.91	50	P	40 53.49	0.1
NUR		65.99	331	iP	40 52.50	-0.9
WAH2		66.06	48	P	40 54.14	0.0
VGB		66.11	50	eP	40 54.75	0.3
DPW		66.15	46	eP	40 54.07	-0.7
				epP	41 16.31	86km
CROR		66.30	50	P	40 55.83	0.1
NEW		66.50	46	eP	40 56.43	-0.6
		1.4s	42.44nm			5.2mb
VIPM		66.79	51	P	40 59.14	0.1
KMPM		67.10	56	eP	41 01.42	0.5
				epP	41 24.04	88km
LGPM		67.60	55	eP	41 03.90	-0.2
				epP	41 26.23	86km
PYA		67.90	310	iP	41 04.00	-1.8
	Z	16s	1.00um			5.1MszX
				i	41 31.00	
LBFM		67.91	54	eP	41 05.72	-0.5
				epP	41 28.76	89km
WDC		67.97	55	eP	41 06.40	0.1
		1.2s	50.00nm			5.3mb
				e	41 30.25	
KIV		68.16	310	iPd	41 08.00	0.5
		1.1s	181.00nm			5.9mb
				e	41 27.50	
				(S)	50 35.00	
LMEM		68.59	54	eP	41 10.07	-0.3
UPP		68.90	333	iP	41 10.20	-1.4
WARB		69.06	195	iPc	41 13.50	0.5
		0.4s	7.00nm			4.9mb
ORV		69.22	55	eP	41 13.39	-0.6
		1.1s	50.00nm			5.3mb
ERE		69.38	306	iP	41 15.00	-0.1
MNK		69.38	325	eP	41 12.00	-2.7
BKS		69.79	57	eP	41 16.75	-0.7
				e	41 40.65	
HMR		69.89	57	eP	41 19.12	1.1
HFS		69.96	335	eP	41 17.20	-0.9
		0.4s	13.80nm			5.2mb
	Z	15s	0.22um			4.5MszX
				LR	10 10.00	
NAO		70.29	337	P	41 17.50	-2.6
COE		70.52	57	eP	41 21.78	-0.2
				epP	41 43.98	85km
ARN		70.55	57	eP	41 21.41	-0.8
				epP	41 43.55	85km
CMB		70.84	56	eP	41 24.10	0.1

04d 09h

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         1.5s   120.00nm          5.6mb
                 e     41 47.45
KER     71.30 300 eP   41 27.00    0.1
KVN     71.61  54 eP   41 29.03    0.3
                 epP   41 51.08   84km
MEMM    71.97  55 eP   41 29.65   -0.9
FRB     72.09  14 eP   41 30.00   -0.9
         0.9s    30.00nm          5.2mb
BONR    72.18  55 eP   41 32.69    0.4
                 epP   41 54.66   84km
PHAM    72.20  58 eP   41 32.44    0.4
                 epP   41 54.44   84km
MRCM    72.23  55 eP   41 32.96    0.5
MTUM    72.40  56 eP   41 33.47    0.1
                 epP   41 55.18   82km
PTI     72.48  48 eP   41 34.64    0.8
                 epP   41 56.70   84km
TNP     72.76  54 eP   41 35.51    0.0
         2.0s    22.27nm          4.7mb
                 epP   41 57.53   84km
BCH     72.81  58 eP   41 36.17    0.4
                 epP   41 58.35   84km
HVU     72.97  49 eP   41 36.88    0.2
STK     73.27 180 iPc  41 25.60  -12.4X
         0.9s     7.30nm
ISA     73.53  57 eP   41 38.82   -1.0
         1.3s    33.26nm          5.1mb
                 epP   41 59.31   77km
ABL     73.57  58 eP   41 40.54    0.2
                 epP   42 03.02   85km
DUG     73.99  50 ePd  41 43.11    0.5
         1.0s    63.79nm          5.5mb
TPNV    74.07  55 eP   41 43.32    0.2
         0.8s    43.26nm          5.4mb
DAU     74.74  49 eP   41 47.59    0.5
SSK     74.95  58 eP   41 48.24    0.0
CFR     75.19 318 eP   41 49.00   -0.1
ARUT    75.22  52 eP   41 49.66    0.0
                 epP   42 11.67   83km
ULM     75.36  34 eP   41 52.50    2.5
OJC     75.36 326 iPd  41 50.50    0.4
         0.9s    93.00nm          5.7mb
                 i     41 58.50
                 i     42 09.40
EMUT    75.39  49 eP   41 51.00    0.2
VRI     75.41 319 ePc  41 46.00   -4.4X
MSU     75.48  51 eP   41 51.72    0.4
                 epP   42 14.37   86km
PEC     75.49  58 eP   41 50.71   -0.5
         0.8s    26.05nm          5.2mb
                 epP   42 13.37   86km
SPC     75.95 325 eP   41 53.20   -0.4
PLM     76.03  58 eP   41 53.98   -0.4
                 epP   42 16.56   85km
SRU     76.03  50 eP   41 54.43    0.1
                 ePcP  44 46.48
MLR     76.06 319 eP   41 47.00   -7.3X
KSP     76.31 328 iPd  41 55.80    0.4
         1.0s    41.00nm          5.3mb
                 i     42 15.30
MUN     77.11 202 eP   42 04.00    4.1X
BRG     77.20 329 iP   42 02.00    1.7
         1.0s    14.00nm          4.8mb
                 i     42 22.60
CLL     77.21 330 iPd  42 00.20   -0.1
         1.3s    51.00nm          5.3mb
                 e     42 24.00
PV09    77.24  50 eP   42 01.53    0.3
PV10    77.38  50 eP   42 02.52    0.6
                 epP   42 24.44   82km
PV08    77.46  49 eP   42 02.52    0.1
                 epP   42 24.85   84km
GLA     77.51  57 eP   42 02.72    0.3
                 epP   42 24.97   84km
PRU     77.68 328 iPd  42 03.40    0.5
         1.0s    40.30nm          5.3mb
                 e     42 22.60
                 ePP   46 07.00
SRO     77.83 325 eP   42 05.00    1.2
ZST     78.05 326 eP   42 05.70    0.7
MOX     78.26 330 ePd  42 06.60    0.4
         1.4s    29.00nm          5.0mb
                 e     42 29.70
HOF     78.44 330 iPc  42 08.00    0.8
         1.0s    22.00nm          5.0mb
GOL     78.50  47 eP   42 08.08    0.1
         1.8s    10.05nm          4.4mb
GLD     78.54  46 eP   42 09.21    1.0
         1.5s   120.47nm          5.6mb
                 epP   42 30.98   82km
                 esP   42 42.33
KHC     78.74 328 iPd  42 10.00    1.1
         1.0s    25.00nm          5.1mb
                 e     42 30.00
EKA     78.82 341 P    42 10.25    1.1
         1.0s    15.30nm          4.8mb
GEC2    78.92 328 e(P) 42 10.10    0.2
         0.8s     6.60nm          4.6mb
WET     79.00 329 iPd  42 10.90    0.6
         1.0s    11.00nm          4.7mb
GRF     79.19 330 iPd  42 12.50    1.2
         1.2s    93.00nm          5.6mb
TBO     79.24  32 eP   42 21.00    9.4X
RKG     79.33 201 eP   42 13.80    1.8
ALN     79.34 316 eP   42 13.56    1.4
JAQ     79.47  22 eP   42 11.50   -1.2
BHG     80.15 328 iPd  42 17.70    1.3
         0.9s    42.00nm          5.3mb
ENN     80.17 333 eP   42 17.00    0.6
         1.0s    39.00nm          5.3mb
FUR     80.42 329 iPd  42 18.90    1.0
         1.0s    60.00nm          5.4mb
SRS     80.43 318 eP   42 19.12    1.1
KBA     80.48 327 iPd  42 18.70    0.3
         0.9s    27.90nm          5.1mb
                 i     42 19.40
KNT     80.75 318 eP   42 20.84    1.1
SOH     80.77 318 eP   42 17.76   -2.1
VAY     80.79 318 iP   42 20.70    0.8
PLE     80.80 321 iPd  42 21.36    1.3
OUR     80.81 317 eP   42 20.52    0.5
LJU     80.82 326 ePd  42 20.30    0.3
SKO     80.86 319 iP   42 21.60    1.3
         1.1s    65.00nm          5.4mb
IVA     80.91 321 iPd  42 21.67    1.0
SNF     80.93 334 P    42 16.10   -4.4X
WTTA    81.01 328 iPd  42 21.80    0.6
         0.8s    18.70nm          5.0mb
                 i     42 41.30
WLF     81.03 333 P    42 24.00    3.0X
PVY     81.09 321 iPd  42 22.39    0.8
GRG     81.15 318 eP   42 22.40    0.6
MOTA    81.16 329 iPd  42 22.50    0.6
         0.9s    42.90nm          5.3mb
SQTA    81.22 328 iPd  42 22.90    0.7
         0.8s    19.80nm          5.1mb
ALQ     81.26  51 iPd  42 23.70    0.9
         1.1s    36.57nm          5.2mb
PAIG    81.27 317 eP   42 23.48    1.1
NKY     81.38 321 iPd  42 23.33    0.2
TRI     81.41 326 eP   42 22.60   -0.4
RIY     81.44 326 eP   42 23.10   -0.1
BRY     81.52 322 iPd  42 23.77   -0.1
TTG     81.55 321 iPd  42 23.43   -0.4
OGA     81.58 328 iPc  42 25.40    1.2
         0.9s    12.00nm          4.8mb
CDF     81.70 331 iPd  42 25.20    0.6
         1.1s    26.60nm          5.0mb
OHR     81.82 319 iP   42 26.00    0.6
         0.9s    50.00nm          5.4mb
HCY     81.90 321 iPd  42 24.45   -1.2
BSF     82.36 331 eP   42 28.30    0.2
HAU     82.38 332 eP   42 28.40    0.3
         0.9s    15.05nm          4.9mb
       Z 22s      0.15um          4.3Msz
ORX     83.78 329 P    42 33.60   -1.8
LOR     83.87 333 iPd  42 36.20    0.4
         0.9s    29.50nm          5.3mb
       Z 21s      0.15um          4.3Msz
ACO     84.03  45 iPc  42 37.00    0.2
LBF     84.08 333 iPd  42 37.20    0.4
         1.1s    35.90nm          5.3mb
SSF     84.17 333 iPd  42 37.80    0.5
         0.9s    19.65nm          5.1mb
LSD     84.24 330 P    42 38.12    0.2
RSL     84.24 330 P    42 38.09    0.3
LPL     84.35 330 iPd  42 39.40    1.0
         0.9s    29.95nm          5.3mb
GRR     84.41 336 eP   42 39.10    0.7
         0.9s    29.15nm          5.3mb
SMF     84.42 332 iPd  42 39.20    0.7
         1.0s    31.80nm          5.3mb
RSP     84.46 330 P    42 38.54   -0.3
AVF     84.46 333 iPd  42 39.40    0.7
         0.9s    32.90nm          5.3mb
PCP     84.48 329 P    42 38.47   -0.4
BHB     84.72 329 P    42 38.62   -1.4
LPF     84.79 336 eP   42 41.20    0.9
RRL     84.83 330 P    42 41.43    0.5
FIN     84.89 329 P    42 40.04   -0.9
ROB     84.95 329 P    42 40.65   -0.6
PZZ     85.07 329 P    42 40.64   -1.3
ENR     85.18 329 P    42 41.01   -1.4
STV     85.20 329 P    42 40.70   -1.8
MAF     85.23 333 iPd  42 43.80    1.3
         1.1s    82.80nm          5.6mb
IMI     85.26 329 P    42 42.64   -0.2
TCF     85.29 333 eP   42 44.00    1.1
         1.2s    24.70nm          5.1mb
AUTN    85.37 329 P    42 41.78   -1.8
TOUF    85.43 329 P    42 43.21   -0.6
COLF    85.45 332 P    42 44.78    1.1
SBF     85.48 329 iPd  42 43.90    0.0
         1.0s    36.00nm          5.3mb
AURF    85.50 329 P    42 43.21   -0.9
LSF     85.55 334 eP   42 45.10    0.9
         0.9s    52.75nm          5.6mb
MVIF    85.56 329 P    42 42.58   -1.9
WMOK    85.70  46 ePd  42 45.36    0.2
         0.9s    37.24nm          5.4mb
MEO     85.77  46 iPc  42 45.50    0.0
MFF     85.78 335 iPd  42 46.50    1.2
         0.9s    38.65nm          5.4mb
CALN    85.79 329 P    42 44.53   -1.0
OCO     85.80  45 iPd  42 47.40    1.8
PGF     85.96 327 P    42 46.07   -0.3
FRF     86.04 329 iPd  42 46.80    0.2
         1.3s    40.05nm          5.3mb
LRG     86.24 329 eP   42 48.10    0.5
         1.0s    31.20nm          5.3mb
LMR     86.29 329 iPd  42 48.30    0.5
         1.0s    28.20nm          5.3mb
TUL     86.38  43 iPd  42 49.20    0.8
RJF     86.38 333 iPd  42 49.50    1.2
         1.0s    25.60nm          5.2mb
       Z 19s      0.15um          4.4Msz
CAF     86.53 333 iPd  42 50.70    1.7
         0.9s    49.65nm          5.6mb
GAC     86.74  25 eP   42 50.00    0.0
LTX     86.93  53 eP   42 51.38    0.0
LFF     86.96 334 iPd  42 52.70    1.6
         1.0s    53.20nm          5.6mb
LPO     87.04 333 iPd  42 53.00    1.5
         0.9s    34.55nm          5.4mb
FVM     87.39  39 eP   42 53.79    0.5
         0.9s    13.36nm          5.0mb
CBM     87.74  20 eP   42 54.77    0.0
         1.1s    33.94nm          5.4mb
UYO     88.42  44 iPd  42 58.00   -0.3
ELC     88.51  38 eP   42 58.83    0.2
                 epP   43 21.73   84km
YSNY    88.55  29 eP   42 58.75   -0.1
         1.0s    27.41nm          5.4mb
                 epP   43 20.91   81km
MIAR    88.58  43 P    42 59.48    0.5
         1.4s     4.49nm          4.4mb
LST     88.89  39 eP   43 01.05    0.6
LBNH    89.16  24 eP   43 02.54    0.9
         0.9s     9.80nm          5.0mb
LMN     89.57  18 eP   43 04.50    0.9
BINY    89.69  27 eP   43 03.95   -0.2
         1.0s    22.14nm          5.3mb
ETOR    91.57 333 eP   43 08.90   -4.1X
LKO    120.88 322 PKPd 48 58.14   -0.6
         0.9s    15.00nm
TIC    123.15 320 PKP  49 02.69   -0.4
         0.9s     9.50nm
KIC    123.26 319 PKP  49 02.97   -0.3
         0.8s    17.50nm
LIC    123.51 319 PKP  49 03.63   -0.1
         1.0s    26.50nm
SLR    123.87 264 iPKPc 49 05.10   0.7
         0.8s    14.93nm
BLF    127.27 262 ePKP 49 09.20   -1.7
         0.7s    10.00nm
FRS    128.25 262 ePKP 49 12.10   -0.3
         0.8s     7.46nm
LPAZ   143.78  55 PKP  49 39.40   -3.0X
LPB    143.99  55 PKP  49 41.30   -1.1
CNCB   144.28  55 PKP  49 42.80   -0.3
CCH    145.84  53 PKP  49 46.20    0.7
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SOB1 147.49 5 ePKP 49 48.50 0.7
e 49 50.60
SIV 147.57 45 PKP 49 48.00 0.1
MOCB 149.06 57 PKP 49 52.20 1.5
PEL 152.84 82 iPKP 50 03.40 8.0X
1.0s 130.00nm
S.D. = 0.9 on 274 of 290 obs.

% DEC 04, 1993 09h 42m 43.05± 1.06s
44.018 N ± 9.6km 7.652 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

IMI 0.20 122 P 42 47.66 0.1
S 42 50.98
ENR 0.27 321 P 42 48.90 0.2
S 42 52.50
ROB 0.32 30 P 42 49.98 0.3
S 42 54.35
STV 0.33 314 P 42 49.82 0.0
S 42 54.11
FIN 0.44 64 P 42 51.78 -0.3
S 42 57.47
PZZ 0.63 321 P 42 55.51 -0.3
S 43 03.55
S.D. = 0.3 on 6 of 6 obs.

% DEC 04, 1993 09h 47m 51.82± 0.78s
40.664 N ± 6.3km 22.975 E ± 8.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE 0.03 193 ePg 47 52.84 -1.0
iSg 47 53.80
SOH 0.33 61 ePg 47 58.30 -0.4
eSg 48 03.44
KNT 0.50 353 iPg 48 02.30 0.3
eSg 48 10.69
SRS 0.65 46 ePg 48 04.56 -0.3
eSg 48 13.32
LIT 0.67 214 ePg 48 05.68 0.5
OUR 0.84 113 ePg 48 08.69 0.7
S.D. = 0.8 on 6 of 6 obs.

% DEC 04, 1993 10h 46m 54.27± 1.49s
32.123 S ±19.9km 67.508 W ± 8.5km
DEPTH = 10.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)

CFA 0.81 309 ePd 47 09.80 -0.2
S 47 21.80
RTLL 1.14 314 eP 47 15.30 -0.3
RTCB 1.27 300 eP 47 18.50 0.6
S 47 36.50
MRA 1.55 101 e(P) 47 21.10 -0.8
S 47 40.00
RTPR 2.01 25 eP 47 28.00 -0.5
S 47 54.00
RTRS 2.57 319 eP 47 40.00 3.4X
S 48 14.00
TCA 2.61 73 eP 47 38.50 1.3
(S) 48 10.00
S.D. = 1.0 on 6 of 7 obs.

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* DEC 04, 1993 10h 59m 51.50± 1.86s
11.937 N ±15.2km 125.855 E ±17.6km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

PLP 1.15 228 ePd 00 10.20 -1.1
iS 00 20.50
MAP 2.44 229 iPc 00 31.00 1.1
eS 00 57.00
BIP 3.71 174 eP 00 48.00 0.1
GQP 3.86 301 eP 00 50.00 0.0
eS 01 38.00
ASPA 36.25 167 eP 06 53.60 -0.1
1.4s 5.30nm 4.3mb
S.D. = 1.1 on 5 of 5 obs.

& DEC 04, 1993 11h 10m 16.33s
61.543 N 148.052 W
DEPTH = 34.6km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

KNK 0.23 236 eP 10 23.28 -0.2
SML 0.30 333 iP 10 23.42 -0.8
eS 10 29.37
CFI 0.39 159 eP 10 25.01 -0.3
SCM 0.45 50 eP 10 25.13 -1.2
eS 10 32.17
GHO 0.48 299 eP 10 25.81 -0.8
eS 10 33.83
PLRM 0.52 276 eP 10 26.48 -0.7
eS 10 34.64
PMR 0.52 276 eP 10 26.18 -1.0
eS 10 34.06
PWL 0.70 191 eP 10 28.06 -1.7
PMS 0.79 248 P 10 29.70 -1.3
VZW 0.87 123 eP 10 31.58 -0.7
VLZ 0.93 116 eP 10 31.93 -1.0
eS 10 44.05
KLU 1.02 92 eP 10 33.43 -1.0
eS 10 47.25
TOA 1.06 57 P 10 34.70 -0.2
S 10 50.40
FID 1.10 136 eP 10 34.72 -0.8
MPA 1.23 212 eP 10 37.75 0.3
SUA 1.29 268 eP 10 38.75 0.3
TZL 1.35 67 eP 10 39.00 -0.1
CUT 1.36 311 eP 10 39.04 -0.2
eS 10 56.58
HIN 1.38 146 eP 10 40.11 0.5
SLKM 1.48 226 eP 10 41.50 0.4
CVA 1.50 131 eP 10 41.89 0.6
LTI 1.51 176 eP 10 41.98 0.5
SDG 1.54 49 eP 10 41.66 -0.2
DHY 1.57 11 eP 10 41.79 -0.7
eS 11 01.45
MTU 1.57 173 eP 10 43.28 0.9
SEW 1.60 206 eP 10 43.23 0.6
HUR 1.62 333 eP 10 43.11 0.1
eS 11 03.47
SKT 1.71 286 eP 10 44.70 0.4
SGAM 1.74 126 eP 10 44.51 -0.1
NKA 1.74 244 eP 10 47.30 2.6
PAX 1.87 39 eP 10 46.63 -0.1
RND 1.91 349 eP 10 47.41 0.2
CGLM 1.92 265 eP 10 47.86 0.6
SPU 1.96 261 eP 10 48.31 0.4
NCG 1.98 268 eP 10 48.79 0.6
CRP 1.99 264 eP 10 48.02 -0.5
CKN 2.01 263 eP 10 49.05 0.4
RAGM 2.01 124 eP 10 49.19 0.5
CKT 2.03 262 eP 10 49.23 0.3
CP2 2.03 264 eP 10 49.11 0.0
GLB 2.04 91 eP 10 48.55 -0.5
eS 11 13.78
BKG 2.09 259 eP 10 49.99 0.2
CKL 2.09 262 eP 10 50.10 0.2
BGL 2.11 264 eP 10 50.28 0.2
TRF 2.18 333 eP 10 51.51 0.4
HMT 2.21 122 eP 10 51.15 -0.3
MCK 2.24 350 eP 10 52.11 0.3
KTH 2.42 328 eP 10 55.00 0.6
DFR 2.45 249 eP 10 55.05 0.2
REF 2.50 247 eP 10 55.64 0.0
CRQM 2.51 106 eP 10 55.91 0.1
RDW 2.55 247 eP 10 56.45 0.1
CNPM 2.56 219 eP 10 56.91 0.5
NCT 2.57 250 eP 10 56.52 0.0
TGL 2.65 105 eP 10 57.71 -0.1
BALM 2.80 98 eP 10 58.88 -1.0
ILIM 2.82 241 eP 11 00.67 0.6
HDA 2.92 9 eP 11 01.72 0.3
CCB 3.12 2 eP 11 04.86 0.6
IL1 3.28 9 eP 11 05.83 -0.8
ILB 3.28 9 eP 11 06.26 -0.4
CTGM 3.30 97 eP 11 06.54 -0.5
BC3 3.30 60 eP 11 07.44 0.5
FBA 3.37 2 eP 11 07.53 -0.4
IM3 5.12 333 eP 11 31.08 -1.6
65 obs. associated

& DEC 04, 1993 11h 22m 45.74s
63.276 N 151.111 W
DEPTH = 7.8km
CENTRAL ALASKA (1)
<AEIC>. ML 2.8 (AEIC), 3.2
(PMR).

KTH 0.29 17 iP 22 51.36 -0.4
TRF 0.41 64 iP 22 53.77 -0.3
eS 22 59.95
HUR 0.73 113 eP 22 59.56 -0.8
eS 23 09.52
CUT 0.96 156 iP 23 03.89 -0.2
RND 1.03 82 eP 23 04.55 -0.9
eS 23 18.69
MCK 1.08 64 eP 23 05.81 -0.4
BWN 1.16 38 eP 23 07.60 0.0
eS 23 24.93
SKT 1.32 189 eP 23 09.61 -0.7
eS 23 27.43
NEA 1.59 34 eP 23 12.31 -1.9
DHY 1.71 95 eP 23 16.52 0.4
PWA 1.73 160 P 23 16.10 -0.1
MLY 1.77 5 eP 23 15.39 -1.5
WRH 1.80 47 eP 23 15.80 -1.5
GHO 1.82 145 eP 23 16.55 -1.1
SUA 1.83 174 eP 23 17.72 -0.1
PLRM 1.92 151 eP 23 18.76 -0.3
PMR 1.92 151 eP 23 18.52 -0.6
NCG 1.94 195 eP 23 19.03 -0.4
eS 23 44.40
SML 1.96 138 eP 23 18.53 -1.1
CCB 2.01 45 eP 23 21.43 1.2
CGLM 2.02 192 eP 23 19.87 -0.7
CRP 2.07 194 eP 23 20.95 -0.5
CP2 2.09 195 eP 23 21.13 -0.5
BGL 2.11 197 eP 23 22.29 0.4
MDM 2.11 36 eP 23 21.62 -0.2
CKN 2.12 194 eP 23 22.13 0.1
CKT 2.15 194 eP 23 22.13 -0.3
SPU 2.15 192 eP 23 21.71 -0.7
HDA 2.16 57 eP 23 21.39 -1.2
PMS 2.16 160 eP 23 23.70 1.1
CKL 2.16 196 eP 23 22.14 -0.6
FBA 2.19 40 eP 23 20.60 -2.3
KNK 2.24 145 eP 23 23.59 -0.2
TTA 2.26 263 eP 23 24.69 0.7
SCM 2.27 128 eP 23 24.08 -0.2
BKG 2.28 194 eP 23 24.02 -0.3
GLM 2.37 42 eP 23 25.17 -0.4
IL1 2.39 49 eP 23 23.67 -2.2
ILB 2.39 49 eP 23 23.88 -1.9
TOA 2.56 115 P 23 28.00 -0.3
PAX 2.58 94 eP 23 28.90 0.3
CFI 2.62 142 eP 23 29.36 0.3
SDG 2.66 104 eP 23 29.56 -0.1
PWL 2.76 150 eP 23 31.16 0.1
DFR 2.79 196 eP 23 31.18 -0.5
SLKM 2.81 171 eP 23 32.29 0.4
NCT 2.86 198 eP 23 31.67 -0.9
REF 2.90 196 eP 23 33.69 0.5
REF 2.90 196 eP 23 33.10 -0.1
eS 24 08.73
MPA 2.92 163 eP 23 33.32 0.0
IM3 2.95 339 eP 23 31.71 -2.0
KLU 3.01 124 eP 23 34.86 0.2
IMA 3.01 340 eP 23 32.51 -2.3
SVW 3.03 226 (P) 23 35.79 0.8
VLZ 3.11 132 eP 23 35.57 -0.3
eS 24 13.93
ILIM 3.33 196 eP 23 39.14 0.0
FID 3.35 137 eP 23 39.44 0.0
LTI 3.60 153 eP 23 42.10 -0.9
HIN 3.62 141 eP 23 43.23 -0.1
CNPM 3.76 181 eP 23 45.04 -0.3
PDB 3.80 204 eP 23 44.44 -1.4
GLB 3.87 115 eP 23 45.61 -1.2
SGAM 3.94 132 eP 23 47.14 -0.7
BC3 4.23 89 eP 23 51.05 -1.0
BALM 4.68 115 eP 23 57.73 -0.8
BM3 4.97 30 eP 23 58.75 -3.7
66 obs. associated

? DEC 04, 1993 12h 01m 35.62± 1.03s
39.100 N ± 8.8km 27.524 E ±17.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.73 196 ePg 01 50.00 0.0
eSg 02 02.30
DST 0.99 59 ePn 01 54.50 0.0
EDC 1.27 12 ePn 01 59.00 -0.2
BNT 1.29 14 ePn 01 59.80 0.3
S.D. = 0.3 on 4 of 4 obs.

DEC 04, 1993 12h 05m 18.04± 0.65s
41.261 N ± 6.8km 21.900 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.5 (SKO).

GRG 0.49 129 ePg 05 26.94 -1.0
eSg 05 33.26
VAY 0.51 83 iPg 05 28.40 0.1
0.2s 40.00nm
iSg 05 35.60
FNA 0.62 220 ePg 05 31.22 0.7
eSg 05 40.54
KNT 0.76 97 ePg 05 32.70 -0.2
eSg 05 43.02
SKO 0.79 334 ePg 05 33.70 0.3
eSg 05 48.30
OHR 0.84 260 ePg 05 33.50 -0.9
SOH 1.18 111 ePg 05 40.74 0.6
LIT 1.24 159 ePb 05 41.64 0.5
S.D. = 0.8 on 8 of 8 obs.

? DEC 04, 1993 12h 32m 31.75± 1.51s
47.131 N ±31.0km 152.563 E ±28.0km
DEPTH = 33.0km (normal)
4.2mb (5 obs.)
KURIL ISLANDS (221)

KUSJ 6.86 237 eP 34 12.60 0.0
eS 35 27.80
ASAJ 7.58 250 eP 34 29.70 7.1X
FBA 36.10 39 eP 39 32.90 1.0
0.5s 1.10nm 4.0mb
pP 39 46.80 53kmX
YKA 50.84 37 eP 41 29.70 -1.0
0.7s 1.20nm 4.0mb
HFS 67.97 339 eP 43 28.60 -0.4
0.4s 3.70nm 4.8mb
[illegible]O 68.02 341 P 43 29.30 -0.1
0.7s 3.60nm 4.6mb
[illegible]EC2 77.95 334 P 44 28.50 0.6
0.5s 0.67nm 3.9mb
S.D. = 0.9 on 6 of 7 obs.

DEC 04, 1993 12h 55m 46.33± 0.29s
3.620 S ± 4.9km 131.248 E ± 5.9km
DEPTH = 33.0km (normal)
5.0mb (15 obs.) 4.4Msz (3 obs.)
IRIAN JAYA REGION, INDONESIA (196)

JAY 9.51 84 ePc 58 02.50 -1.6
eS 59 42.80
WB2 16.50 170 iPd 59 31.90 -5.2X
0.3s 12.90nm 4.5mb
i 59 40.80
eS 02 26.00
PMG 16.81 111 eP 59 40.00 -1.0
KKM 17.82 303 eP 59 57.00 3.3X
QIS 18.70 155 eP 00 04.20 -0.2
eS 03 20.20
ASPA 20.09 173 iPc 00 19.50 -0.7
1.0s 129.40nm 5.2mb
Z 22s 1.20um 4.2Msz
eS 03 53.10
MBL 20.67 212 eP 00 24.50 -1.6
0.3s 7.00nm 4.5mb
CTA 21.95 139 iPc 00 39.80 0.7
1.2s 132.81nm 5.2mb
e 04 31.00
e 04 38.00
eS 04 45.00
BAG 22.52 332 eP 00 45.30 0.3
WARB 22.87 191 eP 00 49.00 0.9
0.5s 19.00nm 4.8mb
CVP 23.14 337 ePc 00 52.00 1.2
LEM 23.74 261 iPc 00 56.70 -0.2
NANU 24.22 218 iPd 01 00.80 -0.4
0.3s 6.00nm 4.6mb
MEEK 25.89 207 eP 01 17.00 -0.1
FORT 27.18 186 eP 01 29.00 0.1
MRWA 29.29 208 eP 01 47.00 -1.0
STK 29.75 162 iPd 01 39.50 -12.5X
0.9s 26.20nm
IPM 31.28 285 ePc 02 06.00 0.2
ARMA 32.89 146 iPc 02 20.30 0.5
1.1s 20.00nm 4.9mb
BWA 34.56 155 eP 02 45.20 11.1X
CAN 35.57 155 iPd 02 44.50 1.8
CNB 35.72 154 iPc 02 46.00 1.9
0.7s 32.00nm 5.4mb
NST 36.27 303 eP 02 49.00 0.2
CHTO 38.84 306 ePd 03 11.00 0.6
1.2s 32.29nm 5.0mb
KMI 39.78 317 Pc 03 18.00 -0.4
1.5s 70.00nm 5.2mb
Z 20s 1.10um 4.7Msz
pP 03 37.00 78kmX
BJI 45.60 344 eP 04 05.00 -0.2
1.5s 28.00nm 5.0mb
Z 20s 0.42um 4.4Msz
eS 11 06.00
LZH 47.08 329 Pd 04 17.50 0.3
1.5s 69.00nm 5.4mb
Z 17s 0.44um 4.5MszX
pP 04 24.00 22kmX
SHL 47.93 309 iP 04 13.80 -10.3X
GUN 53.75 309 P 05 07.70 -0.7
0.8s 20.00nm 5.2mb
PKI 53.96 308 P 05 08.80 -1.1
KKN 54.16 308 P 05 10.40 -0.8
DMN 54.22 308 P 05 10.80 -0.9
GKN 54.76 308 P 05 14.80 -0.8
YAK 65.46 359 iPd 06 28.20 0.3
1.7s 45.00nm 5.3mb
QUE 69.92 304 eP 06 57.80 1.0
MAIO 77.56 308 iPd 07 42.80 1.8
TTA 85.43 26 eP 08 21.67 0.0
1.0s 7.53nm 4.9mb
e 08 29.78
SYO 87.27 201 ePd 08 34.00 3.4X
INK 95.28 22 eP 09 08.00 0.2
MOCB 150.26 147 PKP 15 34.00 2.3X
CNCB 152.20 137 PKP 15 38.00 3.1X
LPB 152.31 137 PKP 15 43.00 8.2X
LPAZ 152.46 136 PKP 15 37.80 2.5X
SIV 157.02 148 PKP 15 40.40 -0.3
S.D. = 0.9 on 34 of 44 obs.

? DEC 04, 1993 13h 06m 01.26± 1.00s
44.440 N ± 7.1km 7.322 E ±13.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

PZZ 0.17 293 P 06 05.26 0.0
S 06 07.50
STV 0.20 180 P 06 05.53 -0.1
S 06 08.14
ENR 0.22 162 P 06 06.22 0.1
S 06 09.19
BHB 0.40 354 P 06 09.51 0.0
S 06 14.87
S.D. = 0.1 on 4 of 4 obs.

DEC 04, 1993 14h 11m 28.75± 0.15s
69.741 N ± 1.8km 146.709 W ± 3.0km
DEPTH = 10.0km (geophysicist)
4.9mb (49 obs.) 4.6Msz (4 obs.)
NORTHERN ALASKA (676)
ML 4.8 (AEIC). Felt (IV) at
Prudhoe Bay. Also felt at
Deadhorse.

BM3 2.46 161 P 12 10.10 0.6
S 12 50.30
FYU 3.24 169 eP 12 20.65 0.1
BRW 3.71 300 eP 12 26.97 -0.3
IMA 4.53 219 ePc 12 37.89 -1.1
IM3 4.62 219 eP 12 39.29 -0.9
eS 13 34.90
GLM 4.78 183 P 12 41.90 -0.7
S 13 39.50
MDM 4.84 188 eP 12 43.38 0.0
eS 13 40.39
FBA 4.88 185 eP 12 43.57 -0.3
MLY 4.98 200 eP 12 45.69 0.4
IL1 4.99 181 eP 12 45.29 -0.2
ILB 4.99 181 P 12 45.20 -0.3
CCB 5.14 185 eP 12 47.25 -0.2
eS 13 46.89
NEA 5.27 191 eP 12 49.18 -0.2
WRH 5.32 186 eP 12 49.95 -0.2
HDA 5.36 181 P 12 50.00 -0.7
BWN 5.70 192 eP 12 55.29 -0.1
DJE 5.75 175 eP 12 56.01 -0.2
DDM 5.99 176 P 12 59.00 -0.6
MCK 6.10 189 eP 13 01.34 0.3
DOT 6.21 169 P 13 01.70 -0.9
THY 6.36 176 eP 13 04.60 -0.3
eS 14 15.15
RND 6.42 189 eP 13 05.75 0.1
KTH 6.44 197 eP 13 05.46 -0.4
TRF 6.48 194 eP 13 06.24 -0.3
TMW 6.61 165 eP 13 07.86 -0.5
DHY 6.70 183 eP 13 10.08 0.4
eS 14 26.77
PAX 6.82 175 eP 13 10.89 -0.4
eS 14 29.42
HUR 6.89 191 eP 13 12.93 0.7
BC3 6.99 161 eP 13 12.51 -1.1
SDG 7.26 176 eP 13 17.07 -0.4
CUT 7.51 193 eP 13 20.85 0.0
TOA 7.67 178 P 13 23.20 0.0
TZL 7.75 176 eP 13 23.97 -0.2
TTA 7.79 213 eP 13 23.30 -1.5
SCM 7.95 182 eP 13 27.34 0.3
SML 8.00 186 eP 13 27.44 -0.3
SKT 8.04 196 eP 13 28.06 -0.2
GHO 8.05 188 eP 13 27.07 -1.5
PWA 8.23 191 P 13 30.70 -0.2
PLRM 8.24 188 eP 13 30.59 -0.5
PMR 8.24 188 eP 13 30.52 -0.6
KLU 8.29 177 eP 13 32.15 0.3
KNK 8.40 186 eP 13 33.72 0.4
GLB 8.42 170 eP 13 33.08 -0.6
SUA 8.48 193 eP 13 34.14 -0.4
CFI 8.61 183 eP 13 36.60 0.5
PMS 8.61 189 P 13 36.50 0.2
VLZ 8.65 179 eP 13 34.70 -2.0X
NCG 8.67 198 eP 13 36.30 -0.8
CGLM 8.75 197 eP 13 37.60 -0.6
CRP 8.80 197 eP 13 39.21 0.2
CP2 8.81 198 eP 13 39.92 0.7
BGL 8.83 198 P 13 39.27 -0.1
CKN 8.85 197 eP 13 41.02 1.5
ANM 8.89 243 eP 13 37.98 -2.1X
BALM 8.93 166 eP 13 40.25 -0.4
BKG 9.00 197 eP 13 41.97 0.2
CTGM 9.09 163 eP 13 42.72 -0.3
SLKM 9.39 191 eP 13 46.43 -0.5
SVW 9.42 207 eP 13 45.80 -1.6
WAX 9.47 168 eP 13 49.82 1.7
HMT 9.50 173 eP 13 50.37 1.8
DFR 9.52 198 eP 13 50.04 1.2
NCT 9.57 199 eP 13 50.37 0.8
LTI 9.75 183 eP 13 54.19 2.2
MBC 10.21 38 P 13 54.00 -4.1X
0.5s 45.40nm 6.2mb X
CDD 11.25 199 eP 14 11.79 -0.7
ILT 11.63 276 eP 14 14.00 -3.5X
1.0s 70.00nm 5.9mb
Z 12s 8.00um
N 12s 3.20um
E 12s 5.60um
iS 16 17.00
KDC 12.30 195 eP 14 24.89 -1.7
YKA 14.71 104 eP 14 52.20 -6.2X
0.6s 44.70nm 5.2mb
SDN 15.72 210 eP 15 12.12 0.7
1.1s 113.47nm 5.0mb
RES 16.08 49 P 15 11.50 -4.4X
0.5s 17.20nm 4.4mb
NEW 25.87 131 eP 17 02.81 1.0
1.2s 28.10nm 4.8mb
TIK 25.87 314 iPd 17 02.50 0.9
2.0s 82.00nm 5.1mb
DPW 25.95 133 eP 17 05.69 3.1X
LON 26.12 139 eP 17 06.77 2.5X
FRB 29.38 63 eP 17 31.00 -2.5X
0.7s 4.00nm 4.3mb
DAG 30.36 21 iPc 17 40.90 -1.2
0.4s 15.25nm 5.2mb
ULM 30.69 103 eP 17 47.00 1.7
LGPM 31.47 144 eP 17 53.54 1.2
YAK 32.34 299 eP 17 59.50 -0.1
0.9s 46.00nm 5.4mb
Z 18s 1.00um 4.6Msz
N 19s 0.90um
HVU 33.03 130 eP 18 07.51 1.4
RSSD 33.41 118 eP 18 08.88 -0.5

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      0.9s     9.64nm          4.7mb
TBO   34.27  98 eP    18 26.00   9.4X
DUG   34.51 131 eP    18 19.23   0.4
      1.0s    21.56nm          5.0mb
JAQ   34.72  80 eP    18 18.50  -1.8
EMUT  35.40 129 eP    18 27.18   0.6
SRU   36.13 129 eP    18 34.15   1.4
MSU   36.25 131 eP    18 34.96   1.2
ARUT  36.61 133 eP    18 37.23   0.5
TPNV  36.72 137 eP    18 38.50   0.9
      0.8s    13.32nm          4.8mb
GLD   37.04 122 eP    18 41.38   1.0
      1.4s    36.10nm          5.0mb
GOL   37.05 122 eP    18 41.13   0.7
      1.3s    26.30nm          4.8mb
PV09  37.09 127 eP    18 41.16   0.3
PV08  37.15 127 eP    18 44.31   2.9X
PV10  37.23 127 eP    18 42.55   0.6
GSC   38.16 139 eP    18 50.49   0.8
PEC   39.44 140 eP    19 00.81   0.6
      1.1s    19.50nm          4.7mb
BOD   40.30 305 eP    19 07.30   0.2
      0.7s    33.00nm          5.1mb
GLA   40.78 137 eP    19 12.12   0.8
ALQ   41.16 126 eP    19 15.68   1.0
      1.2s    19.16nm          4.7mb
GAC   41.65  87 eP    19 18.00  -0.2
ACO   41.70 117 iPc   19 13.70  -5.1X
TUC   42.48 133 eP    19 28.06   2.7X
      0.9s     7.40nm          4.4mb
RSNY  42.98  87 eP    19 28.41  -0.8
      1.0s     9.18nm          4.5mb
CBM   43.12  79 eP    19 28.97  -1.3
      0.9s    22.47nm          4.9mb
YSNY  43.41  92 eP    19 31.13  -1.6
TUL   43.48 114 iP    19 34.50   1.2
WMOK  43.62 118 eP    19 33.80  -0.7
      1.1s     8.98nm          4.5mb
LBNH  44.16  85 eP    19 37.81  -0.9
      1.0s    19.55nm          4.9mb
BINY  44.54  90 eP    19 40.74  -1.1
      0.8s    14.30nm          4.9mb
LMN   45.20  77 eP    19 45.50  -1.6
MCWV  45.45  95 (P)   19 48.46  -0.7
UYO   45.51 113 iPd   19 51.80   2.1
OXF   46.84 108 eP    19 59.32  -0.8
      0.9s    30.60nm          5.4mb
LTX   47.22 126 eP    20 02.94  -0.4
IRK   47.94 308 ePc   20 09.00   0.3
      1.4s    22.00nm          5.1mb
    Z 14s      1.12um          5.0MszX
    N 12s      0.83um
    E 12s      0.41um
                 e    20 29.30
MYNC  48.10 102 eP    20 09.29  -0.9
      0.8s     6.86nm          4.8mb
KAF   48.34   4 eP    20 10.40  -1.2
NAO   48.75  14 P     20 13.00  -1.8
      0.8s     4.10nm          4.5mb
CN2   49.00 287 eP    20 17.10   0.2
      0.8s     8.40nm          4.8mb
    Z 14s      0.83um          4.9MszX
                 epP  20 27.00  33kmX
CEH   49.10  97 eP    20 16.88  -0.8
      0.8s    14.88nm          5.1mb
HFS   49.66  13 eP    20 19.60  -2.2
      0.5s     4.90nm          4.8mb
    Z 16s      0.23um          4.3MszX
                 LR   38 35.00
NUR   49.90   6 eP    20 26.00   2.5
ZAK   49.92 308 eP    20 24.80   0.9
      1.8s    20.00nm          4.8mb
    N 11s      1.15um
                 e    22 23.00
MAT   51.10 271 eP    20 33.00  -0.1
      0.9s    18.49nm          5.0mb
SVE   52.22 341 ePd   20 41.50   0.2
      2.1s    60.00nm          5.2mb
    Z 20s      0.75um          4.7Msz
    N 20s      0.50um
    E 20s      0.30um
EKA   52.47  25 P     20 45.45   2.3
ARU   52.84 343 iPd   20 45.70  -0.2
                 e    21 02.00
YONJ  53.98 275 P     20 55.20   0.7
WKYJ  54.11 272 P     20 56.30   0.7
TKSJ  54.86 273 P     21 01.30   0.2

BJI   55.42 292 eP    21 19.00  13.9X
    Z 20s      0.78um          4.8Msz
HHC   56.15 297 eP    21 13.00   2.5
    Z 13s      1.55um          5.3MszX
    N 13s      0.53um
    E 11s      0.48um
CLL   58.36  15 eP    21 27.00   1.2
TIY   58.74 294 eP    21 28.50  -0.2
    Z 14s      2.26um          5.4MszX
    N 13s      1.02um
    E 13s      1.09um
BRG   58.87  14 e(P)  21 28.60  -0.8
WMQ   60.00 317 P     21 37.50   0.1
      1.0s     8.30nm          4.8mb
    Z 28s      0.99um          4.8MszX
                 pP   21 44.00  21kmX
                 sP   21 47.00
KHC   60.57  15 P     21 43.40   2.2
      1.4s    14.50nm          4.9mb
                 e    22 25.00
GEC2  60.86  15 P     21 42.50  -0.7
      0.7s     2.35nm          4.4mb
                 e    21 45.40
                 e    21 48.80
                 PcP  21 59.00
GTA   60.97 306 eP    21 44.40   0.2
      1.2s    22.00nm          5.2mb
    Z 16s      1.09um          5.1MszX
    N 15s      0.71um
LOR   61.33  22 eP    21 45.00  -1.3
      0.4s     1.90nm          4.6mb
    Z 22s      0.20um          4.2Msz
SSF   61.48  23 eP    21 45.70  -1.7
      0.5s     3.00nm          4.7mb
ZST   61.78  12 eP    21 48.00  -1.3
NJ2   61.83 286 Pd    21 49.50  -0.3
      1.0s    16.00nm          5.2mb
LSF   62.00  24 eP    21 49.30  -1.6
      0.6s    13.35nm          5.3mb
TCF   62.06  24 eP    21 49.60  -1.7
      0.7s     7.30nm          5.0mb
KBA   62.58  15 i(P)  21 54.80  -0.1
                 i    21 59.00
LZH   62.89 301 Pc    21 57.00   0.0
      1.5s    40.00nm          5.4mb
    Z 15s      1.26um          5.2MszX
    N 13s      0.66um
XAN   63.22 296 P     21 57.70  -1.4
    Z 15s      1.52um          5.3MszX
    N 12s      1.18um
    E 12s      0.77um
                 pP   22 02.00  14kmX
                 eS   30 32.00
CAF   63.38  24 eP    21 58.40  -1.6
LPL   63.42  21 eP    22 01.60   1.1
      0.8s     3.65nm          4.6mb
LPG   63.44  21 eP    22 01.90   1.2
SBF   65.13  20 eP    22 10.90  -0.6
      0.7s    11.35nm          5.2mb
LRG   65.40  21 eP    22 12.90  -0.2
      1.1s    16.10nm          5.1mb
PAB   67.60  31 eP    22 29.40   2.1
CD2   67.73 299 iPd   22 27.80  -0.3
OHR   69.08  10 e(P)  22 36.30  -0.1
GYA   70.97 295 P     22 48.00  -0.2
MAIO  72.54 338 eP    23 01.00   3.6X
TIO   75.41  35 iP    23 14.50   0.3
GUN   75.57 313 P     23 16.00   0.6
      0.8s    42.00nm          5.6mb
GKN   75.79 315 P     23 17.00   0.6
KKN   75.84 314 P     23 16.80   0.1
      0.8s    30.00nm          5.4mb
PKI   76.01 314 P     23 18.10   0.2
DMN   76.05 314 P     23 18.80   0.8
      0.8s    21.00nm          5.3mb
TOV   76.35  99 eP    23 20.00   0.5
QUE   77.41 331 eP    23 27.30   1.9
CHTO  80.53 299 eP    23 42.30   0.0
   S.D. = 1.0  on 154 of 169 obs.
-------------------------------------
* DEC  04, 1993  15h 42m 37.29± 1.74s
  11.490 S ±12.8km  166.299 E ±13.4km
  DEPTH = 140.0 ± 14.0 km
  4.6mb ( 6 obs.)
 SANTA CRUZ ISLANDS              (184)

BKM    6.42 163 iP    44 12.00   1.2

                 iS   45 31.80
HNR    6.57 288 P     44 12.00  -0.8
                 S    45 04.00
DZM   10.52 179 iPc   45 04.10  -1.5
PMG   18.94 274 eP    46 51.00   0.9
LAT   19.64 282 ePd   46 58.10   0.7
CTA   21.08 244 iPc   47 13.00   1.0
      1.0s    17.50nm          4.4mb
MDG   21.22 285 ePd   47 13.90   0.6
ARMA  23.24 214 iPd   47 34.30   1.2
      0.7s    11.00nm          4.4mb
STK   30.51 224 iPd   48 26.40 -12.9X
      1.7s     3.90nm
WB2   31.83 251 iPd   48 50.20  -0.8
      1.0s    16.70nm          4.8mb
WRA   31.84 251 P     48 50.50  -0.6
      0.9s     6.50nm          4.4mb
ASPA  33.09 244 iPc   49 00.60  -1.3
      0.8s    21.30nm          4.9mb
KMI   71.81 301 eP    53 47.50   0.4
      1.5s    50.00nm          5.1mb
CHTO  72.90 294 eP    53 53.50   0.2
PKI   87.33 299 P     55 10.40   0.1
KKN   87.49 299 P     55 10.90   0.0
DMN   87.60 299 P     55 11.80   0.3
GKN   88.09 299 P     55 12.40  -1.3
PPD  130.29 132 (PKP) 01 41.00   7.7X
SOB1 146.03 126 (PKP) 02 02.00  -0.2
                 e    03 26.00
   S.D. = 1.0  on  18 of  20 obs.
-------------------------------------
  DEC  04, 1993  16h 53m 51.08± 0.51s
  40.167 N ± 4.8km   21.473 E ± 4.5km
  DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)
     MD 3.2 (ATH).

KZN    0.27  59 iPbd  53 57.30   0.5
                 eSb  54 03.40
FNA    0.62 353 iPg   54 03.08  -0.5
                 eSg  54 13.52
LIT    0.78  95 iPg   54 05.92  -0.4
                 eSg  54 19.16
GRG    1.06  42 ePg   54 11.88   0.8
                 eSg  54 27.80
OHR    1.07 332 iPn   54 09.70  -1.6
                 i    54 11.10
                 iSg  54 28.70
IGT    1.08 235 ePg   54 11.88   0.4
                 eSg  54 26.04
AGG    1.32 150 ePb   54 14.76  -0.8
                 eSb  54 33.24
KEK    1.36 251 ePb   54 17.00   0.9
VAY    1.42  36 iPn   54 17.00   0.1
KNT    1.47  47 ePb   54 17.98   0.4
                 eSb  54 36.40
SOH    1.58  65 ePb   54 19.24   0.1
                 eSb  54 41.52
PAIG   1.71  97 ePb   54 20.60  -0.5
SKO    1.80 359 ePn   54 23.00   0.6
   S.D. = 0.8  on  13 of  13 obs.
-------------------------------------
  DEC  04, 1993  17h 21m 23.26± 0.24s
   3.590 S ± 4.1km  131.256 E ± 5.6km
  DEPTH =  33.0km  (normal)
  5.3mb ( 36 obs.)  4.8Msz ( 10 obs.)
 IRIAN JAYA REGION, INDONESIA    (196)
     Mw 5.5 (HRV).
     CENTROID, MOMENT TENSOR     (HRV)
     Data Used: GDSN
     L.P.B.: 24S, 32C
     Centroid Location:
     Origin Time       17:21:23.2 1.1
     Lat  3.83S 0.09 Lon 131.14E 0.07
     Dep  15.0 BDY Half-duration  1.3
     Moment Tensor;    Scale 10**17 Nm
       Mrr= 0.93 0.08  Mtt=-0.30 0.07
       Mff=-0.62 0.12  Mrt=-1.52 0.22
       Mrf= 1.34 0.22  Mtf= 0.41 0.06
      Principal Axes:
       T  Val=  2.26  Plg=57  Azm=216
       N       -0.07     5        314
       P       -2.19    33         47
     Best Double Couple:Mo=2.2*10**17
      NP1:Strike=156 Dip=13 Slip= 113
      NP2:       313    78         85
```

04d 17h

JAY 9.50 84 ePd 23 33.50 -7.4X
1.3s 6.00nm 4.6mb
eS 25 11.30
DAV 12.03 332 eP 24 16.00 0.6
MDG 14.57 97 eP 24 58.30 9.2X
TSM 15.50 300 ePc 25 02.50 1.4
LAT 15.98 102 eP 25 12.80 5.5X
WB2 16.53 170 iPd 25 08.50 -5.9X
i 25 18.20
iS 28 07.00
PMG 16.82 111 eP 25 17.00 -1.0
KKM 17.81 302 ePd 25 33.50 3.0X
1.4s 577.50nm 5.5mb
QIS 18.72 155 eP 25 40.40 -1.2
eS 28 58.20
ASPA 20.12 173 iPd 25 56.50 -0.9
0.9s 296.60nm 5.6mb
Z 21s 3.20um 4.6Msz
eS 29 29.50
MBL 20.70 212 iPd 26 01.60 -1.7
1.0s 390.00nm 5.7mb
CTA 21.97 139 iPc 26 17.00 0.8
1.0s 170.00nm 5.4mb
Z 18s 4.79um 5.0Msz
i 26 21.50
eS 30 07.00
i(S) 30 18.00
BAG 22.50 332 ePd 26 20.90 -0.8
eS 30 28.00
WARB 22.90 191 eP 26 26.00 0.7
0.5s 51.00nm 5.3mb
TPI 23.58 271 ePc 26 34.50 2.5
e 29 00.00
LEM 23.76 261 ePc 26 33.00 -0.9
e(S) 31 18.00
eLR 33 16.00
NANU 24.25 218 iPd 26 38.10 -0.3
0.4s 35.00nm 5.3mb
MEEK 25.92 207 iPd 26 53.10 -1.2
0.8s 64.00nm 5.3mb
KLI 26.36 266 eP 26 57.00 -1.4
FORT 27.21 186 iPd 27 06.20 0.1
0.6s 45.00nm 5.3mb
KGM 28.47 281 ePd 27 19.00 1.3
MRWA 29.32 208 eP 27 23.90 -1.3
STK 29.77 162 iPc 27 16.20 -13.0X
0.9s 47.20nm
BAL 30.18 206 eP 27 30.90 -2.0
KLB 30.61 203 eP 27 46.80 10.2X
IPM 31.28 285 ePc 27 42.80 0.1
0.7s 44.00nm 5.4mb
MUN 31.58 205 eP 27 44.10 -1.0
ADE 31.98 168 iPc 27 50.00 1.4
NWAO 32.00 203 eP 27 47.00 -1.8
SNG 32.40 289 eP 27 53.40 1.0
ARMA 32.91 146 iPd 27 57.10 0.2
0.9s 21.00nm 5.0mb
RKG 33.55 202 eP 28 02.80 0.5
BWA 34.58 155 iPc 28 22.10 10.8X
CAN 35.59 155 eP 28 21.30 1.4
CNB 35.75 154 iPd 28 23.00 1.8
1.0s 78.00nm 5.6mb
SSE 35.80 345 Pc 28 21.00 -0.6
1.0s 16.00nm 4.9mb
Z 20s 1.10um 4.6Msz
N 14s 0.50um
S 33 54.00
LOE 35.84 307 iPd 28 22.00 -0.1
NST 36.26 303 eP 28 26.00 0.4
KHT 37.16 300 iPc 28 33.70 0.5
TKSJ 37.46 4 P 28 34.60 -0.9
BDT 37.98 304 eP 28 41.00 1.0
0.6s 32.20nm 5.4mb
YONJ 38.63 3 P 28 44.30 -1.0
DZM 38.75 121 iPd 28 46.70 0.0
CHTO 38.83 306 ePc 28 47.90 0.7
1.0s 52.75nm 5.3mb
KMI 39.76 317 Pc 28 56.00 0.8
1.0s 80.00nm 5.4mb
Z 20s 2.00um 5.0Msz
pP 29 03.50 25kmX
sP 29 07.50
eS 35 00.00
MAT 40.45 9 eP 28 58.00 -2.4
1.0s 16.00nm 4.7mb
Z 20s 2.13um 5.0Msz
eS 35 15.00
YAMJ 42.34 10 eP 29 15.40 -0.5
OFUJ 43.53 12 eP 29 30.90 5.4X
BJI 45.57 344 eP 29 41.00 -0.9
1.0s 33.00nm 5.2mb
Z 22s 0.93um 4.7Msz
eS 36 20.00
LZH 47.06 329 iPc 29 54.00 0.0
1.5s 111.00nm 5.6mb
Z 22s 0.97um 4.7Msz
E 12s 0.52um
sP 30 20.00
S 36 43.00
SHL 47.92 309 eP 30 05.00 4.1X
eS 36 56.00
GUN 53.74 309 P 30 45.70 0.5
PKI 53.95 308 P 30 45.60 -1.1
0.8s 36.00nm 5.4mb
KKN 54.15 308 P 30 47.40 -0.7
DMN 54.20 308 P 30 48.00 -0.5
0.8s 71.00nm 5.7mb
GKN 54.75 308 P 30 51.80 -0.7
KOD 55.29 285 eP 30 56.00 -0.7
HYB 56.02 294 iPc 31 00.30 -1.3
1.0s 50.00nm 5.5mb
GBA 56.06 289 P 31 00.50 -1.3
0.8s 11.00nm 4.9mb
AFI 57.10 104 iPc 30 57.80 -11.6X
e 56 00.00
ZAK 58.90 339 iPc 31 20.80 -0.5
1.2s 20.00nm 5.1mb
Z 16s 0.40um 4.6MszX
N 16s 0.29um
E 14s 0.30um
e 32 09.50
eS 39 17.00
IRK 60.15 341 ePc 31 29.50 -0.5
1.2s 41.00nm 5.4mb
Z 20s 0.47um 4.6Msz
N 18s 0.35um
E 19s 0.31um
e 31 40.00
POO 60.63 293 eP 31 24.50 -9.3X
NDI 60.97 306 iP 31 31.00 -4.9X
BOD 62.77 350 iPc 31 45.30 -2.1
1.2s 28.00nm 5.3mb
YAK 65.43 359 iPc 32 04.80 0.1
0.8s 94.00nm 5.9mb
Z 19s 1.10um 5.1Msz
N 17s 0.70um
FRU 68.80 319 eP 32 27.00 0.5
e 32 48.00
QUE 69.91 304 eP 32 33.80 0.1
MAIO 77.54 308 iPc 33 19.00 1.1
eS 43 08.00
MAW 78.56 201 P 33 24.50 1.8
1.1s 44.44nm 5.4mb
ILT 79.34 17 eP 33 26.00 -0.9
Z 20s 1.90um 5.4Msz
N 20s 0.30um
E 20s 0.30um
SVE 82.52 328 ePc 33 45.00 1.1
2.1s 80.00nm 5.4mb
Z 15s 0.40um 4.9MszX
N 16s 0.30um
E 16s 0.50um
eS 44 02.00
ePS 45 11.00
ARU 83.47 328 eP 33 49.00 0.2
TTA 85.40 26 eP 33 59.01 0.5
0.9s 10.79nm 5.1mb
SPA 86.43 180 iPc 34 04.50 0.8
0.8s 41.67nm 5.7mb
IMA 87.24 23 (P) 34 08.19 0.6
0.8s 2.76nm 4.6mb
SYO 87.31 201 ePc 34 11.10 3.5X
TAB 88.20 308 iPd 34 15.00 2.2
FBA 89.39 25 eP 34 17.39 -0.3
0.9s 3.75nm 4.7mb
INK 95.25 22 eP 34 44.50 -0.1
1.0s 2.00nm 4.5mb
MBC 98.03 13 eP 34 58.00 0.9
1.0s 3.00nm 4.8mb
RES 104.10 11 ePdiff35 25.00 0.8
YKA 104.16 26 ePdiff35 23.90 -0.8
1.1s 0.90nm 4.5mb
ACO 123.25 48 iPKPd 40 20.00 1.2
UYO 127.78 49 iPKPc 40 28.60 1.0
LKO 136.75 280 PKP 40 35.66 -9.6X
ARE 149.96 132 ePKP 41 16.00 7.9X
MOCB 150.28 147 PKP 41 11.00 2.3X
CNCB 152.21 137 PKP 41 14.00 2.2X
LPB 152.33 137 PKP 41 14.00 2.2X
LPAZ 152.48 136 PKP 41 14.90 2.6X
CCH 153.00 141 PKP 41 21.90 9.3X
VAO 153.51 184 ePKP 41 21.90 9.0X
SIV 157.04 148 PKP 41 19.20 1.5
SOB1 165.07 212 ePKP 41 27.90 1.8
S.D. = 1.1 on 73 of 95 obs.

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* DEC 04, 1993 17h 27m 32.52± 0.91s
36.331 N ±15.0km 31.043 E ±15.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.7 (CSS).

ELL 1.00 295 iPn 27 52.50 0.9
BCK 1.19 342 iPn 27 55.30 0.6
PPCY 1.79 143 eP 28 05.00 1.3
CSS 2.31 126 eP 28 10.00 -1.2
KHL 2.33 329 ePn 28 11.50 -0.1
CIN 2.69 299 iPc 28 15.00 -1.5
S.D. = 1.5 on 6 of 6 obs.

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* DEC 04, 1993 17h 30m 04.34± 1.49s
4.793 S ±15.5km 144.717 E ±12.9km
DEPTH = 116.4 ± 21.0 km
4.6mb (2 obs.)
NEAR N COAST OF NEW GUINEA, PNG.(200)

MDG 1.15 113 ePc 30 27.70 -0.2
WWKK 1.59 317 eP 30 33.00 -0.1
MNDI 1.72 218 iP 30 34.60 -0.2
YYYY 1.90 139 eP 30 38.00 1.0
LAT 2.94 129 eP 30 53.50 3.1X
PMG 5.18 152 eP 31 20.00 -0.9
WB2 18.13 213 iPd 34 10.50 0.3
0.8s 26.00nm 4.6mb
ASPA 21.47 208 eP 34 52.40 7.5X
0.9s 33.90nm 4.7mb
LKO 150.17 281 PKPc 49 48.43 9.7X
0.6s 13.00nm
S.D. = 1.0 on 6 of 9 obs.

? DEC 04, 1993 17h 58m 55.02± 0.86s
45.583 N ±17.2km 26.525 E ±17.7km
DEPTH = 130.0km (geophysicist)
ROMANIA (358)

VRI 0.32 26 iPd 59 13.50 0.7
MLR 0.42 258 iPc 59 13.50 -0.6
ISR 0.45 178 iPc 59 14.50 0.4
CLI 1.10 28 iPc 59 19.00 -0.2
CFR 1.21 109 iPd 59 20.00 -0.3
S.D. = 0.7 on 5 of 5 obs.

? DEC 04, 1993 18h 12m 57.67± 1.69s
11.295 N ±25.3km 86.241 W ±13.8km
DEPTH = 33.0km (normal)
4.7mb (6 obs.)
NEAR COAST OF NICARAGUA (74)

TOV 16.24 94 eP 16 45.00 -0.1
OXF 23.29 353 P 18 04.41 1.0
1.0s 83.07nm 5.2mb
MYNC 23.75 4 P 18 09.84 1.9
0.7s 7.18nm 4.3mb
UYO 23.97 343 iPd 18 10.60 0.5
LTX 24.21 320 P 18 12.80 0.2
CEH 25.33 14 P 18 24.02 0.9
0.7s 13.46nm 4.7mb
MEO 25.94 336 iPc 18 28.10 -0.8
WMOK 25.98 336 P 18 28.41 -0.8
0.9s 44.61nm 5.1mb
TUL 25.99 342 iPc 18 28.60 -0.7
ELC 26.02 355 eP 18 29.09 -0.4
OCO 26.19 339 iPc 18 29.10 -2.0
ACO 27.84 337 iPc 18 45.20 -1.0
BINY 32.07 14 P 19 23.66 -0.1
0.9s 10.22nm 4.7mb
SRU 35.13 326 eP 19 49.28 -1.2
PLM 35.61 313 eP 19 56.40 1.8
EMUT 35.79 327 eP 19 56.57 0.4
DUG 37.15 325 P 20 08.01 0.6
LMN 38.98 24 eP 20 35.00 12.4X

BONR 39.08 318 eP 20 25.70 1.9
ULM 39.64 350 eP 20 28.00 0.0
YKA 55.03 344 eP 22 24.20 -4.0X
0.9s 2.10nm 4.2mb
INK 64.66 342 eP 23 32.00 -2.1
S.D. = 1.2 on 20 of 22 obs.

? DEC 04, 1993 18h 45m 15.08± 1.06s
5.469 N ±14.2km 32.091 E ±19.3km
DEPTH = 10.0km (geophysicist)
4.2mb (2 obs.)
SUDAN (557)

NAI 8.19 145 iPnc 47 17.00 0.0
Z 20s 0.32um
iSg 49 26.00
GEC2 45.96 343 P 53 40.30 0.1
0.6s 0.86nm 4.0mb
e 53 44.80
e 53 48.90
e 53 51.10
KHC 46.26 343 eP 53 42.00 -0.4
GKN 54.58 59 P 54 46.60 0.2
DMN 54.89 60 P 54 49.50 0.7
KKN 55.08 60 P 54 50.30 0.1
GUN 55.63 60 P 54 53.20 -1.0
NAO 57.51 348 P 55 07.00 0.3
0.7s 3.00nm 4.4mb
S.D. = 0.6 on 8 of 8 obs.

DEC 04, 1993 20h 05m 20.75± 0.58s
43.874 N ± 6.9km 18.533 E ± 8.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.2 (TTG), 2.9 (TIR). Felt
(IV) in the Sarajevo area,
Bosnia and Herzegovina.

PLE 0.83 131 iPgc 05 35.66 -1.2
iSg 05 46.67
BRY 0.97 180 iPgd 05 37.93 -1.4
iSg 05 53.11
NKY 1.11 162 iPgd 05 41.05 -0.7
iSg 05 57.34
IVA 1.41 135 iPgc 05 45.94 -0.6
iSg 06 06.07
HCY 1.43 181 iPgc 05 46.73 0.1
iSg 06 08.67
TTG 1.54 159 iPgc 05 48.10 -0.1
iSg 06 10.78
BDV 1.60 172 iPnd 05 50.44 1.2
iSn 06 13.72
PVY 1.66 140 iPnc 05 50.75 0.7
iSn 06 14.22
HVAR 1.67 246 iPnc 05 50.10 0.0
iSn 06 14.20
SDA 1.95 158 ePn 05 55.20 0.9
iSn 06 22.00
ULC 1.98 164 iPnc 05 56.14 1.4
iSn 06 22.81
PTJ 2.73 319 eP 06 09.90 4.4X
VBY 2.85 306 ePn 06 06.50 -0.6
i 06 12.40
SKO 2.86 131 ePn 06 14.70 7.5X
OHR 3.23 148 ePn 06 15.50 3.0X
RIY 3.31 298 i(Pn) 06 13.40 -0.2
LJU 3.57 309 ePn 06 17.50 0.2
e(Sg) 07 25.00
TRI 3.86 300 e(Pn) 06 24.30 2.9X
e 06 30.70
e(Sg) 07 26.00
VOY 3.94 305 ePn 06 22.10 -0.5
eSn 07 07.10
MLR 5.53 70 eP 07 03.00 17.8X
KHC 6.27 329 ePn 06 56.40 0.8
e 07 03.00
e 07 26.50
eSg 08 12.50
e 08 28.00
S.D. = 0.9 on 16 of 21 obs.

& DEC 04, 1993 20h 07m 42.59s
60.222 N 146.343 W
DEPTH = 5.6km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

HIN 0.19 336 iPd 07 47.11 0.5
eS 07 50.66
CVA 0.44 42 iPd 07 51.08 -0.3
eS 07 59.12
FID 0.53 353 eP 07 52.75 -0.5
SGAM 0.63 63 eP 07 54.81 -0.4
MTU 0.70 251 ePd 07 55.99 -0.5
MID 0.80 180 P 07 58.50 0.1
RAGM 0.85 78 ePc 07 58.46 -0.9
eS 08 11.60
VLZ 0.91 0 eP 07 59.25 -1.2
eS 08 12.56
KAIM 1.01 106 eP 08 00.94 -1.2
eS 08 16.62
HMT 1.04 83 ePc 08 01.93 -0.8
eS 08 16.39
PWL 1.17 304 ePc 08 03.17 -1.8
CFI 1.19 325 eP 08 03.61 -1.6
KLU 1.29 9 eP 08 05.47 -1.5
eS 08 23.28
MPA 1.52 281 ePc 08 08.39 -2.0
eS 08 28.75
SEW 1.56 267 eP 08 08.76 -2.1
eS 08 29.44
KNK 1.58 320 ePc 08 10.39 -0.9
eS 08 31.74
CRQM 1.67 70 eP 08 10.95 -1.8
GLB 1.74 44 eP 08 12.12 -1.5
eS 08 35.12
WAX 1.75 81 eP 08 11.48 -2.3
TGL 1.82 71 eP 08 12.88 -1.9
SML 1.86 330 eP 08 14.39 -1.0
TZL 1.88 13 eP 08 15.31 -0.3
TOA 1.89 2 P 08 15.30 -0.5
PLRM 1.94 316 eP 08 14.58 -1.8
SLKM 1.95 280 ePc 08 14.32 -2.3
GHO 2.00 322 eP 08 16.34 -1.1
BALM 2.13 66 eP 08 17.26 -2.1
SDG 2.35 9 eP 08 21.28 -1.1
SUA 2.49 302 eP 08 24.00 -0.4
CTGM 2.58 71 eP 08 24.64 -1.2
SKT 3.07 307 eP 08 31.13 -1.5
NCG 3.09 295 eP 08 30.55 -2.3
DFR 3.17 279 eP 08 30.68 -3.4
BC3 3.59 35 eP 08 37.92 -2.1
IL1 4.57 357 eP 08 49.86 -4.1
ILB 4.57 357 eP 08 50.73 -3.2
36 obs. associated

DEC 04, 1993 20h 50m 49.43± 0.50s
43.352 N ± 4.1km 8.246 E ± 4.7km
DEPTH = 21.1 ± 5.0 km
CORSICA (380)
ML 2.6 (LDG), 2.6 (GEN).

IMI 0.62 335 Pd 51 01.78 0.3
S 51 08.69
SBF 0.78 311 Pg 51 04.30 0.1
Sg 51 11.80
SAOF 0.81 322 Pg 51 04.69 0.0
Sg 51 14.40
AURF 0.86 309 Pg 51 05.58 0.0
Sg 51 16.04
FIN 0.86 358 Pd 51 05.56 0.0
S 51 14.78
AUTN 0.88 318 Pg 51 06.03 0.0
Sg 51 16.98
MVIF 0.96 305 Pg 51 07.68 0.3
Sg 51 19.32
PGF 0.98 145 Pn 51 07.80 0.2
Sn 51 23.30
ROB 0.98 344 Pd 51 07.67 0.0
S 51 18.36
TOUF 0.98 313 Pg 51 07.83 0.1
ENR 1.06 326 Pd 51 08.93 -0.1
S 51 19.95
CALN 1.06 293 Pg 51 08.97 -0.2
Sg 51 21.61
STV 1.11 324 P 51 09.89 0.0
S 51 21.51
FRF 1.18 281 Pn 51 10.50 -0.3
Sn 51 23.90
PCP 1.21 10 P 51 10.71 -0.5
S 51 24.56
LMR 1.27 270 Pn 51 11.60 -0.3
Sn 51 26.10
LRG 1.38 275 Pn 51 13.70 0.2
Sn 51 29.40
PZZ 1.42 325 P 51 14.40 0.2
S 51 29.08
S.D. = 0.2 on 18 of 18 obs.

% DEC 04, 1993 21h 21m 48.90± 1.31s
9.985 N ± 9.7km 70.027 W ±11.5km
DEPTH = 10.0km (geophysicist)
VENEZUELA (101)

TOV 0.30 130 iPgd 21 54.80 -0.4
iSg 21 59.30
SDV 1.24 209 ePnd 22 12.10 -0.1
iSn 22 29.00
CANV 1.58 48 iPc 22 17.20 0.2
iS 22 46.40
MORO 1.90 62 eP 22 21.30 -0.4
CEOS 1.92 119 iPc 22 22.80 0.8
iS 22 48.30
S.D. = 0.7 on 5 of 5 obs.

% DEC 04, 1993 21h 46m 15.52± 0.95s
39.354 N ± 8.3km 27.949 E ±11.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

DST 0.58 64 ePg 46 26.60 -0.8
eSg 46 35.60
EDC 0.99 356 iPg 46 34.00 -0.4
eSg 46 47.00
BNT 1.00 359 iPg 46 34.60 0.1
eSg 46 47.60
IZM 1.09 210 ePn 46 36.10 0.0
IZI 1.53 50 ePn 46 44.00 1.0
S.D. = 0.9 on 5 of 5 obs.

% DEC 04, 1993 22h 12m 17.11± 0.96s
42.286 N ± 7.1km 19.614 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.6 (TTG).

TTG 0.30 299 iPgd 12 24.21 0.9
iSg 12 30.02
PVY 0.41 41 iPgd 12 25.73 0.2
iSg 12 33.14
ULC 0.42 220 iPgc 12 25.83 0.1
iSg 12 33.09
BDV 0.58 270 iPgc 12 28.52 -0.4
iSg 12 38.12
IVA 0.62 20 iPgc 12 29.44 -0.2
iSg 12 39.49
NKY 0.70 319 iPgd 12 30.56 -0.4
iSg 12 41.49
HCY 0.84 281 iPgc 12 33.26 -0.1
iSg 12 46.15
BRY 1.00 308 iPgc 12 36.09 -0.1
iSg 12 51.26
S.D. = 0.5 on 8 of 8 obs.

& DEC 04, 1993 22h 15m 19.53s
42.303 N 122.011 W
DEPTH = 8.1km
5.2mb (77 obs.) 5.2Msz (12 obs.)
OREGON (32)
Mw 5.4 (HRV). <SEA-P>. ML 5.4
(BRK). Mo=1.2*10**17 Nm (PPT).
Damage (VII) at Klamath Falls.
Also slight damage (VI) at
Tulelake, California. Felt (V)
at Bonanza, Chiloquin, Dairy,
Malin, Medford, Merrill and
Midland; (IV) at Ashland, Eagle
Point, Fort Klamath, Gold Hill,
Grants Pass, Jacksonville, Keno,
Phoenix, Prospect and Trail.
Also felt (V) at Canby and
Dorris; (IV) at Cedarville,
Etna, Grenada, Montague and
Yreka, California.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 29S, 50C
Centroid Location:
Origin Time 22:15:25.3 0.4
Lat 42.21N 0.05 Lon 121.82W 0.05

04d 22h

Dep 15.0 FIX Half-duration 1.4
Moment Tensor; Scale 10**17 Nm
Mrr=-1.62 0.05 Mtt= 0.52 0.05
Mff= 1.11 0.06 Mrt=-0.11 0.19
Mrf=-0.40 0.19 Mtf=-0.59 0.05
Principal Axes:
T Val= 1.50 Plg= 5 Azm= 59
N 0.20 9 150
P -1.70 79 301
Best Double Couple:Mo=1.6*10**17
NP1:Strike=139 Dip=41 Slip=-104
NP2: 338 51 -78

VRC	0.16	282	Pc	15 23.26	0.3
HAMO	0.24	173	Pc	15 24.59	0.0
BBOR	0.76	320	Pd	15 33.71	-1.0
YBH	0.77	223	ePd	15 33.50	-1.3
			iS	15 44.19	
LASM	0.77	155	P	15 33.91	-1.1
LMPM	0.82	188	P	15 34.90	-0.9
LBFM	0.96	175	eP	15 37.33	-0.8
DBO	1.22	312	P	15 41.67	-0.8
LBKM	1.31	202	P	15 42.32	-1.8
HSO	1.46	327	P	15 46.14	-0.1
LGPM	1.52	204	eP	15 45.60	-1.5
NCOR	1.54	24	P	15 48.05	0.6
HBO	1.56	352	P	15 48.06	0.4
WDC	1.77	193	eP	15 49.67	-0.9
LMEM	1.79	169	eP	15 51.15	0.0
TCO	1.83	9	P	15 52.32	0.6
LCFM	1.85	168	P	15 52.81	0.7
KHBM	1.88	209	P	15 52.64	0.3
LRDM	1.88	167	P	15 53.54	1.2
MIN	1.98	171	iPd	15 54.24	0.4
			iS	16 21.11	
RNO	2.05	322	P	15 56.56	1.9
FBO	2.05	349	P	15 55.57	0.8
ARC	2.10	228	ePc	15 56.56	1.1
			iS	16 24.46	
FHC	2.11	225	iPd	15 56.17	0.6
KBRM	2.15	224	P	15 57.00	0.9
EKR	2.27	226	iPd	15 58.13	0.3
GMO	2.27	19	P	15 58.69	0.7
BPO	2.36	6	P	16 00.37	1.0
VIPM	2.43	24	P	16 00.45	0.2
KMPM	2.46	221	eP	16 00.65	0.0
MPOR	2.47	334	P	16 02.95	2.1
KBBM	2.52	214	P	16 02.57	1.1
SSOR	2.57	353	P	16 02.96	0.7
KSMM	2.67	218	P	16 03.93	0.2
KJJM	2.69	221	P	16 03.83	0.0
ORV	2.77	172	ePd	16 05.53	0.5
			iS	16 44.45	
VBEM	2.77	6	P	16 09.40	4.2
CROR	2.78	15	P	16 05.80	0.6
GT2	2.86	356	P	16 09.52	3.2
TDH	2.99	3	P	16 11.93	3.7
VFP	3.04	7	P	16 10.16	1.2
VTHM	3.06	20	P	16 10.46	1.3
AARM	3.11	166	P	16 12.43	2.5
GCBM	3.13	202	P	16 10.17	0.0
VLL	3.17	4	P	16 15.93	5.2
PGO	3.18	354	P	16 13.35	2.6
VLMM	3.23	360	P	16 13.69	2.0
TKO	3.24	342	P	16 13.99	2.3
WPO	3.32	351	P	16 15.74	3.0
VGB	3.33	15	eP	16 14.07	1.1
GNAM	3.34	202	P	16 12.84	-0.2
APM	3.44	4	P	16 20.07	5.5
AFDM	3.44	166	P	16 16.12	1.6
APRM	3.48	170	P	16 16.69	1.7
KMOR	3.50	343	P	16 19.72	4.4
JBO	3.53	26	P	16 19.38	3.7
GGUM	3.62	199	P	16 19.37	2.2
GULW	3.63	5	P	16 18.73	1.4
NMHM	3.66	188	P	16 17.54	-0.2
MTMW	3.72	358	P	16 19.63	1.0
GL2	3.75	13	P	16 20.34	1.3
LVP	3.78	356	P	16 20.42	1.1
CDFW	3.81	360	P	16 22.10	2.3
ASR	3.86	4	P	16 22.61	2.1
HSR	3.87	358	P	16 22.33	1.6
RVW	3.88	352	P	16 22.50	1.7
SHW	3.89	358	eP	16 22.39	1.4
ESD	3.89	359	P	16 23.56	2.5
REMW	3.90	358	P	16 22.69	1.5
FL2	3.90	357	P	16 23.21	2.1

NLO	3.92	345	P	16 23.80	2.4
PATW	3.93	24	P	16 25.21	3.8
NTYM	3.94	187	eP	16 21.43	-0.1
ADWM	3.96	167	P	16 19.84	-2.0
NTBM	4.11	190	P	16 26.78	2.8
HMR	4.15	178	eP	16 25.46	1.0
PRW	4.25	22	P	16 31.46	5.5
BMW	4.26	349	eP	16 28.59	2.4
GLK	4.27	4	P	16 29.28	2.9
ZSP	4.36	183	iPd	16 28.32	0.8
LMW	4.37	357	P	16 30.54	2.8
KVN	4.40	136	eP	16 29.22	0.9
WPW	4.41	4	P	16 31.49	3.2
BKS	4.42	182	iP	16 28.92	0.4
BRVW	4.42	18	P	16 30.39	1.9
CMB	4.44	163	iPd	16 29.20	0.4
RSW	4.44	22	P	16 30.62	1.9
MXC	4.45	15	P	16 30.36	1.6
LON	4.45	2	eP	16 30.63	1.8
LNOR	4.46	36	P	16 30.45	1.4
NAC	4.51	10	P	16 31.35	1.7
REMR	4.52	1	P	16 31.87	2.0
WIW	4.57	24	P	16 31.74	1.3
MDW	4.60	20	P	16 32.43	1.5
FMW	4.63	3	P	16 33.82	2.2
RVC	4.64	0	P	16 33.48	1.9
MJ2	4.66	23	P	16 33.24	1.5
GBL	4.67	22	P	16 33.43	1.5
ONR	4.74	345	P	16 44.80	11.8
WAH2	4.78	21	P	16 34.86	1.3
OT2	4.84	23	P	16 35.54	1.1
CRF	4.89	22	P	16 36.09	1.0
STAN	4.90	182	ePd	16 36.99	1.8
GSM	4.90	2	P	16 38.11	2.8
ARN	4.96	176	eP	16 35.83	-0.3
MHC	4.96	177	ePd	16 35.92	-0.3
COE	5.05	177	(P)	16 37.02	-0.3
WRD	5.09	23	P	16 38.48	0.5
RMW	5.16	2	eP	16 40.27	1.4
BONR	5.19	146	eP	16 40.82	1.2
MEMM	5.20	152	(P)	16 41.61	2.2
MMPM	5.22	153	eP	16 41.23	1.2
GMW	5.27	354	eP	16 41.68	1.2
MRCM	5.35	149	(P)	16 41.27	-0.6
HDW	5.40	352	P	16 45.27	3.0
ETW	5.43	12	P	16 44.33	1.4
HTW	5.50	2	P	16 45.71	1.9
SAO	5.55	175	eP	16 44.15	-0.3
TNP	5.59	137	eP	16 45.29	0.1
WTV	5.59	14	P	16 51.19	6.2
FRI	5.59	161	iPd	16 45.86	0.8
MTUM	5.61	151	eP	16 47.10	1.6
OSD	5.65	348	P	16 49.94	4.0
SAW	5.71	18	P	16 46.94	0.3
JCW	5.89	1	P	16 51.81	2.6
DPW	6.18	25	eP	16 52.24	-1.1
PRI	6.24	170	iPd	16 54.31	0.1
PKEM	6.41	166	(P)	16 57.39	0.9
MBW	6.48	1	P	16 58.71	1.0
PHAM	6.58	168	eP	16 58.76	-0.2
NEW	6.89	28	eP	17 04.99	1.8
HVU	6.90	91	eP	17 04.63	1.1
TPNV	6.95	138	eP	17 05.57	1.2
PTI	7.14	82	P	17 09.10	2.2
ISA	7.18	156	eP	17 08.18	0.8
DUG	7.24	104	eP	17 07.30	-1.1
BCH	7.26	167	(P)	17 08.12	-0.5
ABL	7.75	163	eP	17 14.90	-0.7
ARUT	7.97	122	eP	17 18.51	-0.1
DAU	8.31	100	(P)	17 24.74	1.3
MSU	8.40	114	eP	17 24.48	-0.2
SSK	8.76	156	(P)	17 30.81	1.2
EMUT	8.82	103	eP	17 31.33	0.9
PEC	9.22	154	eP	17 36.33	0.5
SRU	9.29	106	eP	17 38.08	1.2
PLM	9.82	154	(P)	17 44.95	0.8
PV09	10.53	107	eP	17 54.78	0.7
PV10	10.65	107	eP	17 56.69	1.0
GLA	10.84	146	(P)	17 57.27	-0.8
PV08	10.84	106	eP	17 59.52	1.1
GOL	12.84	96	eP	18 24.49	-0.8
GLD	12.93	96	eP	18 25.93	-0.5
RSSD	13.24	76	(P)	18 31.29	0.7
TUC	13.38	135	(P)	18 33.29	1.0
ACO	18.49	100	iPc	19 38.00	0.3
WMOK	19.65	105	eP	19 50.22	-1.4
	0.9s	176.28nm			5.4mb

ULM	19.66	57	eP	19 53.00	1.4
LTX	19.66	125	eP	19 50.68	-1.2
MEO	19.76	105	iPd	19 51.70	-1.1
OCO	20.22	101	iPd	19 57.20	-0.4
FNO	20.39	102	iPc	19 59.70	0.3
YKA	20.69	10	eP	20 01.70	-0.6
	0.8s	25.30nm			4.6mb
TUL	21.28	99	iPc	20 07.60	-0.9
BALM	22.43	334	eP	20 20.94	1.0
UYO	23.04	102	iPc	20 25.50	-0.6
TBO	23.60	63	eP	20 42.00	10.6
KLU	23.98	331	eP	20 34.67	-0.3
FVM	24.45	90	eP	20 38.56	-1.2
	0.7s	10.73nm			4.6mb
TOA	24.48	332	eP	20 44.10	4.2
KDC	24.66	319	(P)	20 41.42	-0.1
	1.1s	20.65nm			4.7mb
SLKM	25.01	326	eP	20 45.75	0.7
PMR	25.22	329	eP	20 48.14	1.3
	1.0s	107.46nm			5.5mb
LST	25.50	92	eP	20 48.60	-1.2
CRP	26.22	327	eP	20 58.16	1.7
CP2	26.26	327	eP	20 58.45	1.6
OXF	26.58	96	eP	20 57.97	-1.9
	0.9s	116.24nm			5.6mb
INK	26.78	351	eP	21 01.00	-0.2
	1.2s	16.00nm			4.6mb
FBA	26.95	336	eP	21 05.10	2.2
	0.9s	34.40nm			5.0mb
SVW	27.60	325	eP	21 10.10	1.2
	0.9s	53.69nm			5.3mb
TTA	28.64	328	eP	21 19.31	1.0
	1.0s	11.75nm			4.6mb
IMA	29.56	334	eP	21 26.25	-0.4
	1.0s	28.01nm			5.0mb
MYNC	30.25	91	eP	21 30.38	-2.6
	0.9s	29.49nm			5.1mb
MCWV	31.71	80	eP	21 46.16	0.4
	0.8s	11.15nm			4.8mb
YSNY	31.85	75	eP	21 45.50	-1.5
	0.8s	15.54nm			5.0mb
JAQ	32.44	53	eP	21 51.00	-1.0
GAC	33.28	68	eP	22 00.50	1.2
CEH	33.64	86	eP	22 00.84	-1.7
	0.6s	19.07nm			5.2mb
BINY	33.75	74	eP	22 01.74	-1.7
	0.9s	23.33nm			5.1mb
BRW	33.76	341	eP	22 04.29	1.1
CBN	34.02	82	eP	22 05.00	-0.8
MBC	34.06	1	eP	22 06.50	0.7
	1.0s	6.00nm			4.5mb
RES	34.72	12	eP	22 12.00	0.5
	0.9s	3.00nm			4.2mb
PNJ	35.44	76	e(P)	22 16.26	-1.7
			e(pP)	22 19.36	10kmX
LBNH	36.07	69	eP	22 22.21	-1.1
	0.7s	11.63nm			4.8mb
FRB	37.15	36	eP	22 32.00	-0.1
	0.9s	13.00nm			4.7mb
ILT	39.21	330	iPd	22 50.60	1.3
	1.2s	140.00nm			5.5mb
	Z 16s	1.20um			4.8MszX
	E 16s	0.70um			
			eS	28 48.00	
LMN	40.50	65	eP	23 01.00	0.7
DAG	52.16	16	iPd	24 30.50	-1.6
	0.7s	10.27nm			4.9mb
TOV	55.86	110	eP	25 00.30	0.3
SDV	55.91	111	eP	25 00.30	-0.3
CAR	57.38	107	iP	25 08.00	-3.0
YAK	61.21	329	iPd	25 36.80	0.1
	1.1s	80.00nm			5.8mb
	Z 15s	1.00um			5.1MszX
	N 20s	1.10um			
SDF	68.01	13	iP	26 20.40	-0.4
NNA	68.08	132	iPc	26 20.90	-1.0
	0.9s	33.61nm			5.5mb
BOD	69.76	332	eP	26 29.20	-2.5
	0.9s	37.00nm			5.5mb
EKA	69.77	32	P	26 32.60	0.8
NAO	70.28	22	P	26 34.80	-0.1
	0.8s	12.50nm			5.1mb
HFS	71.65	22	eP	26 42.00	-1.2
	0.9s	50.10nm			5.6mb
	Z 17s	0.77um			5.0MszX
			LR	51 46.00	
MDJ	72.41	315	eP	26 48.70	0.8

MAT 72.78 304 eP 26 50.00 -0.3
1.0s 37.00nm 5.4mb
eS 36 20.00
KAF 72.84 15 iP 26 48.90 -1.3
0.6s 22.60nm 5.4mb
UPP 72.92 20 iP 26 50.10 -0.5
NUR 73.98 16 eP 26 56.80 0.1
ARE 74.71 130 iPd 27 02.00 0.1
1.0s 70.00nm 5.6mb
CN2 75.13 316 eP 27 04.90 1.1
1.0s 17.00nm 5.0mb
Z 20s 0.50um 4.8Msz
WKYJ 75.91 303 P 27 09.40 0.9
LDF 76.04 36 eP 27 09.30 0.5
LPF 76.06 36 eP 27 09.70 0.7
0.9s 21.80nm 5.3mb
WTS 76.14 30 eP 27 10.00 0.7
0.8s 9.10nm 4.9mb
UCC 76.17 32 P 27 16.00 6.5
SNF 76.37 32 P 27 16.00 5.4
LPAZ 76.52 127 iPd 27 10.50 -2.2
LPB 76.73 127 P 27 13.00 -0.6
ENN 76.80 31 eP 27 14.00 1.0
0.9s 19.40nm 5.2mb
DOU 76.82 32 Pc 27 14.50 1.4
CNCB 77.02 127 P 27 14.30 -1.1
TKSJ 77.02 304 P 27 15.10 0.5
ERUA 77.33 44 eP 27 16.90 0.7
SNY 77.50 316 eP 27 17.00 -0.1
eS 37 12.00
MFF 77.55 37 eP 27 17.90 0.7
1.2s 24.70nm 5.2mb
WLF 77.77 32 P 27 21.00 2.6
HYF 78.24 35 eP 27 21.90 0.8
CCH 78.56 126 P 27 22.50 -1.1
LOR 78.76 34 iPd 27 24.70 0.8
1.0s 20.40nm 5.1mb
Z 18s 2.40um 5.6Msz
SSF 78.77 35 iPd 27 24.70 0.7
0.9s 9.65nm 4.8mb
TCF 78.82 36 iPd 27 24.70 0.4
0.9s 15.40nm 5.0mb
BGF 78.89 35 iPd 27 25.00 0.4
0.7s 11.25nm 5.0mb
CLL 78.89 27 eP 27 24.00 -0.5
1.1s 27.00nm 5.2mb
AVF 78.92 35 iPd 27 25.10 0.3
0.8s 10.05nm 4.9mb
MOX 78.98 28 eP 27 24.40 -0.6
1.2s 15.00nm 4.9mb
Z 19s 1.00um 5.2Msz
eS 37 30.00
LBF 79.03 34 eP 27 25.90 0.4
0.7s 5.20nm 4.7mb
MAF 79.03 36 eP 27 25.90 0.5
0.8s 9.00nm 4.8mb
HAU 79.18 32 eP 27 27.00 0.8
1.6s 32.95nm 5.1mb
Z 21s 1.10um 5.2Msz
CDF 79.22 32 iPd 27 27.20 0.7
1.0s 14.00nm 4.9mb
LFF 79.22 37 eP 27 27.20 0.8
1.4s 51.85nm 5.4mb
SMF 79.24 35 eP 27 26.90 0.3
0.9s 8.70nm 4.8mb
BSF 79.50 32 iPd 27 28.60 0.5
0.9s 14.40nm 5.0mb
BRG 79.58 27 iP 27 26.60 -1.7
1.5s 52.00nm 5.3mb
i 27 33.00
EPLA 79.58 45 eP 27 29.20 0.7
GRF 79.64 29 iPc 27 30.00 1.4
1.0s 22.00nm 5.1mb
Z 21s 0.50um 4.8Msz
CAF 79.82 37 eP 27 30.10 0.3
0.9s 14.60nm 5.0mb
GUD 80.14 43 eP 27 32.60 1.0
KSP 80.36 25 eP 27 31.80 -0.7
i 27 33.50
PRU 80.53 27 iPd 27 34.00 0.6
0.9s 12.20nm 4.9mb
Z 16s 0.80um 5.2MszX
i 27 37.20
SIV 80.62 122 P 27 32.50 -1.8
MNK 80.68 18 eP 27 32.00 -2.1
MOS 80.81 11 eP 27 37.00 2.3
Z 18s 2.10um 5.5Msz

e 27 42.00
EGRA 80.85 40 eP 27 37.90 2.7
PAB 80.86 44 eP 27 35.00 -0.4
KHC 80.94 28 P 27 36.70 1.1
1.0s 5.40nm 4.5mb
Z 20s 1.30um 5.3Msz
N 20s 1.20um
E 20s 0.50um
e 27 45.50
e 28 05.00
EVAL 81.04 47 eP 27 37.00 0.7
ETOR 81.05 42 eP 27 36.20 -0.2
GEC2 81.22 28 P 27 36.70 -0.5
0.7s 3.16nm 4.4mb
e 27 39.70
e 27 40.90
PcP 27 43.30
PcP 27 44.10
SVE 81.23 359 iPc 27 36.50 -0.4
2.5s 120.00nm 5.5mb
Z 14s 0.60um 5.1MszX
N 15s 0.60um
E 15s 0.50um
OBN 81.27 12 iP 27 37.30 0.1
1.0s 52.00nm 5.5mb
Z 24s 2.20um 5.4MszX
N 24s 1.90um
E 20s 0.70um
e 37 52.00
LPL 81.35 34 eP 27 39.30 1.2
0.7s 6.05nm 4.8mb
LPG 81.37 34 eP 27 39.60 1.3
1.3s 19.85nm 5.0mb
ARU 81.67 360 eP 27 38.50 -0.7
Z 18s 1.00um 5.2Msz
N 20s 0.50um
i 27 39.70
e 27 43.50
MOCB 81.86 128 P 27 40.30 -0.9
OJC 81.99 24 eP 27 41.80 0.8
EBAN 82.18 45 eP 27 42.40 0.1
EVIA 82.48 43 eP 27 45.00 1.1
BJI 82.56 319 eP 27 45.00 0.9
Z 20s 0.60um 5.0Msz
ZST 82.93 26 eP 27 44.30 -1.6
ECOG 82.96 45 eP 27 47.90 1.4
SPC 83.04 24 eP 27 46.90 0.1
EHUE 83.06 44 eP 27 48.60 1.7
SRO 83.66 26 eP 27 49.90 0.2
MME 84.04 32 P 27 52.75 0.8
0.9s 37.40nm 5.6mb
HHC 84.10 322 Pd 27 53.60 1.4
1.0s 22.00nm 5.3mb
UZH 84.14 23 eP 27 52.50 0.4
PII 84.36 32 P 27 53.56 0.3
1.3s 45.40nm 5.5mb
RIY 84.46 29 eP 27 53.40 -0.3
FIR 84.61 32 eP 27 55.50 1.0
PGF 84.72 34 iPd 27 55.70 0.4
0.9s 11.45nm 5.1mb
SFI 84.72 32 P 27 56.52 1.5
1.4s 115.70nm 5.9mb
RSM 84.94 31 P 27 57.65 1.5
1.3s 127.50nm 6.0mb
BTO 85.00 323 eP 27 57.00 0.3
CRE 85.00 32 P 27 57.25 0.6
1.1s 19.50nm 5.2mb
TIA 85.03 316 eP 27 55.90 -0.9
1.0s 60.00nm 5.8mb
ARV 85.50 31 P 27 59.68 0.7
1.5s 139.00nm 5.9mb
ASS 85.75 32 P 28 00.16 -0.2
0.9s 25.70nm 5.4mb
TIY 86.20 320 eP 28 03.40 0.7
Z 20s 0.75um 5.1Msz
E 11s 0.37um
MNS 86.34 32 P 28 03.88 0.6
0.7s 12.80nm 5.2mb
SSE 86.69 310 P 28 06.50 1.4
1.0s 20.00nm 5.3mb
NJ2 87.28 312 Pd 28 08.80 0.9
1.0s 23.00nm 5.4mb
SDI 87.36 31 P 28 08.84 0.6
1.4s 35.60nm 5.4mb
MLR 88.03 22 eP 28 11.00 -0.5
CFR 88.91 21 eP 28 16.00 0.5
BAO 89.02 112 eP 28 15.50 -1.0

e 28 19.80
e 28 30.10
SOB1 89.63 103 eP 28 19.40 0.1
ORI 89.79 31 P 28 21.22 1.4
0.8s 48.50nm 5.8mb
SKO 89.86 26 iP 28 20.70 0.6
WMQ 90.21 339 P 28 22.00 0.2
Z 19s 0.79um 5.2Msz
GTA 90.24 329 eP 28 22.00 -0.1
1.5s 19.00nm 5.1mb
Z 18s 0.80um 5.2Msz
OHR 90.42 27 eP 28 18.00 -4.8
VAY 90.82 26 iP 28 24.60 0.1
XAN 90.84 320 P 28 25.20 0.4
1.0s 11.00nm 5.1mb
pP 28 30.00 15kmX
PPD 91.29 119 eP 28 27.40 0.6
LZH 91.45 324 eP 28 27.00 -0.7
1.5s 32.00nm 5.4mb
Z 17s 0.64um 5.1MszX
E 17s 0.68um
KIV 93.04 11 (P) 28 38.40 3.5
Z 23s 0.80um 5.1MszX
FRU 93.94 348 eP 28 40.00 1.1
WB2 113.07 264 iPKPd 33 58.80 -0.4
0.7s 5.60nm
WRA 113.08 264 PKP 33 57.70 -1.5
0.6s 2.20nm
ASPA 115.67 261 ePKP 34 03.40 -0.8
1.0s 6.80nm
Z 23s 0.30um 4.8MszX
GBA 121.56 338 PKP 34 16.00 0.5
SPA 132.11 180 iPKPd 34 33.60 -0.8
1.1s 59.52nm
BUL 146.82 57 iPKP 35 00.60 -1.7
SLR 150.55 65 iPKPd 35 13.20 5.2
0.9s 63.03nm
FRS 150.94 75 ePKP 35 13.00 4.7
0.7s 13.70nm
BLF 151.19 73 iPKPc 35 12.70 3.8
1.1s 67.57nm
SYO 151.53 166 ePKPc 35 06.10 -1.8
322 obs. associated

? DEC 04, 1993 22h 44m 51.94±11.07s
35.326 S ±97.3km 70.898 W ±23.3km
DEPTH = 100.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

CACH 1.23 12 iP 45 15.45 0.0
iS 45 34.21
LNV 1.43 343 iP 45 17.74 0.1
iS 45 37.09
TACH 1.67 359 iPd 45 20.66 -0.1
iS 45 42.49
PCH 1.73 11 iP 45 21.48 -0.1
iS 45 44.99
LCCH 1.93 343 iP 45 23.82 -0.2
iS 45 48.32
FCH 2.06 14 iP 45 26.35 0.3
iS 45 54.14
ROCH 2.35 358 iP 45 30.67 0.8
JACH 2.65 6 iP 45 33.14 -0.7
iS 46 07.45
S.D. = 0.5 on 8 of 8 obs.

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* DEC 04, 1993 22h 45m 01.98± 4.66s
42.156 N ±34.6km 122.092 W ±11.2km
DEPTH = 5.0km (geophysicist)
OREGON (32)

LASM 0.68 145 P 45 15.30 -0.2
LGBM 0.81 185 P 45 18.93 0.5
LBFM 0.82 169 eP 45 18.77 0.2
LBKM 1.15 202 P 45 23.59 -0.5
KOMM 1.34 230 P 45 27.43 0.1
LGPM 1.36 204 eP 45 27.31 -0.4
KMPM 2.31 222 (P) 45 41.61 0.2
ORV 2.64 170 (P) 45 46.06 0.1
S.D. = 0.4 on 8 of 8 obs.

& DEC 04, 1993 22h 54m 21.00s
42.300 N 122.000 W
DEPTH = 10.0km (geophysicist)
OREGON (32)
<SPEC>. ML 2.9 (GS). Held to mainshock location.

04d 22h

LMPM 0.82 189 P 54 37.00 0.0
LBFM 0.96 175 eP 54 39.23 -0.1
eS 54 52.58
LGBM 0.97 189 P 54 39.72 0.2
LBKM 1.31 203 P 54 44.63 -0.7
KOMM 1.49 227 P 54 47.79 -0.1
LGPM 1.52 204 eP 54 47.73 -0.6
LMEM 1.79 169 (P) 54 54.34 2.0
FHC 2.11 226 (P) 54 59.14 2.3
KMPM 2.47 221 (P) 55 03.73 1.8
9 obs. associated

DEC 04, 1993 23h 16m 52.44± 0.60s
33.838 S ± 4.5km 71.913 W ± 6.0km
DEPTH = 50.0 ± 4.4 km
5.5mb (25 obs.) 5.2Msz (9 obs.)
NEAR COAST OF CENTRAL CHILE (135)
Mw 5.6 (HRV). MD 5.0 (SAN). Felt (IV) at Rancagua and San Antonio; (III) at Curico; (II) at Valparaiso.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 31S, 43C
Centroid Location:
Origin Time 23:16:59.4 0.3
Lat 33.57S 0.07 Lon 72.22W 0.07
Dep 28.8 3.5 Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr= 1.16 0.08 Mtt= 0.18 0.14
Mff=-1.34 0.12 Mrt= 1.02 0.20
Mrf=-2.76 0.32 Mtf=-0.32 0.12
Principal Axes:
T Val= 3.28 Plg=54 Azm= 58
N -0.14 12 165
P -3.14 34 264
Best Double Couple:Mo=3.2*10**17
NP1:Strike= 35 Dip=16 Slip= 140
NP2: 163 80 77

LNV 0.43 106 iP+ 17 01.65 -1.3
LCCH 0.46 38 iP+ 17 01.82 -1.5
TACH 0.83 77 iP+ 17 07.78 -0.3
IHA 0.84 16 iPc 17 07.60 -0.6
iS 17 21.70
SAN 1.11 70 iP+ 17 12.51 0.6
iS 17 32.40
CACH 1.13 105 iP+ 17 12.83 0.6
ROCH 1.15 41 iPd 17 12.81 0.2
PCH 1.19 80 iP+ 17 13.46 0.4
PEL 1.24 56 iP+ 17 14.76 1.0
FCH 1.45 70 iP+ 17 17.95 1.0
JACH 1.60 44 iPd 17 19.70 0.9
LPA 11.60 99 eP+ 19 37.00 -1.0
eS 21 44.00
MOCB 13.71 25 P 20 02.50 -4.0X
CCH 17.19 19 eP 20 49.00 -2.0
ARE 17.31 1 eP 20 53.00 0.6
CNCB 17.32 13 P 20 53.00 0.2
LPB 17.57 12 P 20 57.10 1.3
1.0s 360.00nm 5.5mb
Z 22s 27.41um
S 24 24.00
LR 27 28.00
LPAZ 17.80 12 iPd 20 58.50 -0.4
S 24 24.00
LR 27 35.00
SIV 20.28 31 P 21 24.60 -2.1
NNA 22.21 347 iPc 21 45.80 -0.3
1.3s 121.15nm 5.2mb
VAO 24.39 70 eP 22 07.20 -0.2
VAO 24.39 70 eP 22 08.40 1.0
epP 22 15.00 23kmX
e(sP) 22 28.00
e(S) 26 29.00
BAO 28.18 56 Pd 22 41.10 -1.3
e 23 05.70
i 31 57.90
e 32 08.40
i 34 52.20
BDF 28.22 56 Pd 22 41.90 -0.9
1.5s 3.70nm 3.8mb X
i 22 51.00
i 32 03.80
PSO 35.21 351 eP 23 46.00 1.6
SOB1 37.59 57 iPd 24 03.40 -0.7
BOG 38.31 357 eP 24 13.00 2.6

eS 30 09.00
BMG 40.70 358 eP 24 28.00 -1.9
SDV 42.50 2 iPc 24 44.30 -0.5
TOV 43.43 3 ePc 24 52.00 -0.2
CAR 44.35 7 iP 24 56.00 -3.7X
PORP 51.84 6 P 25 56.50 -1.3
CLLP 51.88 6 P 25 56.90 -1.1
SPA 56.35 180 iPc 26 29.80 -0.8
1.0s 175.00nm 6.0mb
NVL 56.43 157 iPc 26 30.00 -0.8
1.0s 122.00nm 5.9mb
Z 18s 2.00um 5.3Msz
N 18s 1.00um
E 18s 1.50um
e 26 43.00
ePcP 27 25.00
ePP 28 35.00
ePPP 29 44.00
e 31 23.00
eS 34 18.00
ePS 34 40.00
eSS 38 04.00
eSSS 40 30.00
SYO 65.95 158 ePc 27 35.80 0.7
eS 36 21.00
MYNC 69.50 349 P 28 10.00 12.4X
Z 19s 0.55um 4.8Msz
OXF 69.94 345 eP 27 58.45 -1.8
1.1s 177.04nm 5.9mb
UYO 70.88 340 iPc 28 05.40 -0.6
MBO 70.96 57 iPc 28 07.70 0.8
MIAR 70.99 341 ePc 28 05.75 -0.9
1.2s 42.79nm 5.3mb
Z 19s 0.39um 4.7Msz
CBN 71.86 355 eP 28 11.00 -0.7
ELC 72.57 346 eP 28 16.00 0.0
MEO 72.69 337 iPc 28 05.90 -11.0X
TUL 72.89 340 iPc 28 17.50 -0.4
OCO 73.03 338 iPc 28 10.60 -8.2X
MAW 73.31 164 iP+ 28 20.00 0.0
0.9s 65.79nm 5.6mb
MCWV 73.50 354 eP 28 20.57 -0.8
1.4s 93.07nm 5.5mb
LIC 74.62 71 P 28 28.60 0.1
1.3s 133.50nm 5.7mb
Z 19s 2.25um 5.5Msz
ACO 74.63 338 iPd 28 27.40 -0.7
TIC 74.88 71 P 28 30.18 0.2
1.4s 139.00nm 5.7mb
KIC 74.93 72 P 28 30.52 0.3
1.0s 96.50nm 5.7mb
KIC 74.93 72 iPc 28 38.50 8.2X
1.3s 102.50nm 5.6mb
TUC 75.29 327 eP 28 33.35 1.3
1.4s 36.55nm 5.1mb
YSNY 76.19 355 eP 28 36.03 -0.8
1.4s 181.74nm 5.8mb
LKO 76.21 68 Pc 28 37.89 0.4
1.1s 225.50nm 6.0mb
LBNH 77.71 360 eP 28 45.29 0.2
1.4s 98.75nm 5.6mb
RSNY 78.05 358 eP 28 46.62 -0.4
0.9s 36.08nm 5.4mb
GAC 79.24 357 eP 28 54.00 0.6
GOL 79.45 334 eP 28 54.94 -0.2
1.3s 39.22nm 5.2mb
Z 18s 0.59um 5.0Msz
FRS 79.49 119 eP 28 54.30 -1.1
1.0s 44.00nm 5.3mb
LMN 79.58 5 ePc 28 55.80 0.5
PEC 79.64 323 eP 28 57.79 1.8
1.4s 31.94nm 5.1mb
PV09 79.83 331 eP 28 59.00 1.7
BLF 80.47 119 eP 29 00.70 -0.2
0.9s 23.08nm 5.1mb
CBM 80.47 3 P 29 10.00 10.0X
Z 19s 0.45um 4.8Msz
TNP 83.02 326 eP 29 15.69 1.9
1.0s 27.00nm 5.2mb
TBO 83.59 348 eP 29 26.00 9.8X
SLR 83.89 117 iPc 29 18.60 0.0
0.8s 29.85nm 5.4mb
Z 18s 3.09um 5.7Msz
CMB 84.51 324 eP 29 21.51 0.4
1.1s 10.36nm 4.8mb
ULM 86.37 345 eP 29 32.00 2.0
BUL 87.31 112 iPd 29 30.60 -5.0X

JAQ 87.34 358 eP 29 34.00 -0.6
TIO 88.69 51 iP 29 44.00 2.1
i 29 52.70
LSZ 89.76 108 iPc 29 48.50 1.2
1.5s 2.00nm 4.2mb X
i 33 18.00
EBAN 95.54 47 iPd 30 14.00 0.8
PAB 96.08 46 eP 30 16.40 0.7
eS 41 08.00
YKA 101.94 341 ePdiff30 40.50 -1.0
0.9s 1.80nm 4.7mb
GRF 110.91 44 ePKP 35 22.20 1.0
e(PP) 39 58.00
GEC2 111.97 45 PKP 35 23.00 -0.4
e 35 28.60
e 35 34.70
KHC 112.02 45 ePKP 35 42.00 18.6X
e 35 46.00
e 36 21.50
CLL 112.65 43 ePKP 35 25.00 0.6
MBC 113.79 349 PKP 35 26.60 0.6
SKSac 41 58.80
SKSdf 42 52.00
PS 45 51.40
PKKP 46 14.80
PPS 47 13.70
PPS 47 14.00
P'P' 54 15.40
P'P' 54 16.00
SSS 56 58.60
ASPA 117.76 207 ePKP 35 33.90 -1.3
1.0s 5.70nm
MLR 118.29 52 ePKP 35 23.50 -12.2X
CSS 119.73 66 ePKP 35 48.00 9.4X
WB2 120.95 209 iPKPd 35 40.10 -1.2
1.2s 7.30nm
WRA 120.95 209 PKP 35 40.70 -0.6
0.8s 4.50nm
WB5 121.00 209 ePKP 35 40.10 -1.3
i 54 46.40
MNK 121.86 43 ePKP 35 41.00 -0.9
Z 20s 2.10um 5.8Msz
NUR 121.92 35 ePKP 35 41.40 -0.4
0.9s 27.50nm
KAF 123.03 34 iPKP 35 43.10 -0.8
UQSK 123.25 79 ePKP 35 46.00 0.4
OBN 127.26 43 ePKP 35 50.00 -2.4X
1.1s 55.00nm
i 36 04.00
e 37 57.00
MOS 127.92 43 ePKP 35 43.00 -10.6X
e 38 02.00
KIV 129.32 58 iPKPc 35 56.70 -0.1
PYA 129.59 58 iPKP 35 58.00 0.8
e 38 06.00
MTA 130.35 61 ePKP 35 56.00 -2.7X
e 43 02.00
TAB 130.63 66 ePKP 36 00.00 0.4
ARU 139.58 41 ePKP 36 05.00 -10.6X
Z 20s 1.00um 5.6Msz
N 18s 0.50um
E 18s 1.00um
i 36 16.00
ASH 139.88 69 ePKP 36 13.40 -3.3X
MAIO 140.48 72 ePKP 36 10.00 -8.0X
TIK 140.57 350 ePKP 36 07.00 -9.9X
1.0s 9.00nm
i 36 17.00
SVE 140.58 40 ePKP 36 11.00 -6.4X
1.5s 40.00nm
KOD 143.40 123 ePKP 36 22.00 -2.0
QUE 145.09 84 iPKPc 36 26.50 0.2
1.3s 913.46nm
GBA 145.67 118 PKP 36 28.00 0.6
POO 145.89 108 iPKP 36 24.60 -3.2X
1.1s 145.57nm
KGM 148.03 171 ePKPd 36 34.20 2.9X
YAK 148.61 340 iPKPd 36 29.90 -0.8
1.0s 40.00nm
i 36 33.00
i 36 37.00
HYB 148.90 114 iPKPc 36 36.20 3.6X
1.2s 214.30nm
KUSJ 150.07 299 ePKP 36 36.30 2.8X
IPM 150.16 166 ePKPc 36 34.00 -0.6
YSS 150.79 307 iPKPd 36 40.50 6.0X
e 36 49.50

NIL 151.11 81 iPKP 36 38.50 3.0X
0.9s 0.02nm
iPKPab36 44.50
HOOJ 151.18 298 ePKP 36 41.40 6.2X
KKM 151.34 197 ePKP 36 45.00 8.6X
ASAJ 151.43 301 ePKP 36 41.40 5.8X
FRU 152.40 61 ePKP 36 39.00 1.9
1.5s 150.00nm
e 40 28.00
SNG 152.58 164 ePKP 36 38.90 0.8
NDI 153.17 93 ePKP 36 39.50 0.9
MAT 155.28 285 (PKP) 36 40.00 -1.2
BOD 155.63 352 ePKP 36 38.70 -2.3X
GKN 159.08 100 PKP 36 46.20 -0.1
1.2s 64.00nm
KKN 159.52 101 PKP 36 46.80 -0.1
PKI 159.54 102 PKP 36 47.20 0.1
1.4s 61.00nm
GUN 160.06 101 PKP 36 47.80 0.1
BDT 161.57 151 ePKP 36 50.00 1.1
1.0s 34.50nm
CHTO 162.95 149 ePKP 36 50.70 0.4
ZAK 163.09 11 ePKP 36 50.00 0.5
2.0s 22.00nm
SHL 163.70 116 iPKP 36 51.50 0.4
ePP• 41 30.00
KMI 170.15 150 PKPc 36 56.00 0.0
1.5s 50.00nm
pP 37 08.00
sP 37 11.00
BJI 171.05 316 ePKP 36 55.00 -0.6
Z 22s 1.06um 4.8Msz
eSS 03 04.00
ePP 42 04.00
LZH 175.86 56 PKP 36 58.50 0.8
Z 20s 0.94um 5.3MszX
pPKP 37 09.00
e 38 37.00
PP 42 30.00
S.D. = 1.0 on 104 of 134 obs.

? DEC 04, 1993 23h 17m 12.14±10.29s
32.895 S ±61.3km 70.319 W ±75.4km
DEPTH = 174.2 ± 19.4 km
CHILE-ARGENTINA BORDER REGION (127)

RTCV 1.83 56 iPc 17 47.00 -0.4
RTCB 1.91 43 ePc 17 48.20 -0.1
CFA 2.18 54 ePc 17 52.00 0.7
RTLL 2.21 46 ePc 17 51.60 0.0
RTRS 2.81 15 iPd 17 57.20 -1.5X
MRA 3.92 84 ePc 18 12.10 -0.5
RTPR 4.15 53 eP 18 16.00 0.4
TCA 5.10 74 ePc 18 28.50 0.4
CYA 5.91 42 ePc 18 37.90 -0.7X
S 20 16.50
FSA 7.76 30 ePd 19 02.30 -0.8
SLA 9.17 29 ePd 19 21.00 -1.0
HJA 10.57 25 ePc 19 44.80 4.7X
YJA 11.50 23 ePc 19 54.00 1.3
MOX 109.98 42 ePdiff30 54.00 -28.5X
1.3s 17.00nm
Z 18s 0.80um 5.3Msz
e 40 14.90
WRA 122.42 208 PKP 36 05.90 17.5X
0.8s 2.10nm
SHI 131.55 78 ePKP 36 03.00 -2.9X
MDJ 160.61 313 ePKP 36 45.60 -5.8X
HHC 171.92 350 PKP 36 57.60 -2.7X
S.D. = 0.9 on 10 of 18 obs.

& DEC 04, 1993 23h 23m 30.52s
42.264 N 121.993 W
DEPTH = 6.1km
3.6mb (1 obs.)
OREGON (32)
<SEA-P>. ML 3.7 (GS), 3.8 (BRK).
MD 3.4 (SEA).

VRC 0.18 294 Pc 23 34.60 0.3
HAMO 0.20 175 Pd 23 34.82 0.2
S 23 38.31
LASM 0.73 155 P 23 44.12 -1.1
YBH 0.75 225 ePc 23 43.95 -1.7
eS 23 53.89
LMPM 0.79 189 P 23 45.25 -1.0
BBOR 0.80 321 Pd 23 45.50 -1.1
LGBM 0.93 189 P 23 47.84 -1.0
DBO 1.26 313 Pc 23 53.68 -0.6
LBKM 1.28 203 P 23 53.18 -1.6
KSXM 1.47 253 P 23 56.31 -1.3
KOMM 1.47 228 P 23 56.79 -0.9
HSO 1.50 328 P 23 57.73 -0.3
NCOR 1.57 23 P 23 59.30 0.1
HBO 1.60 351 Pc 23 59.65 0.1
WDC 1.73 194 ePc 24 00.82 -0.5
eS 24 24.51
LCFM 1.81 169 P 24 02.88 0.1
LRDM 1.84 167 P 24 03.09 0.1
KHBM 1.85 210 P 24 04.09 0.9
LSLM 1.86 169 P 24 03.74 0.5
TCO 1.86 9 P 24 03.55 0.1
LHKM 1.90 163 P 24 03.78 -0.3
MIN 1.94 171 ePd 24 04.03 -0.4
RNO 2.09 323 P 24 08.30 1.8
FBO 2.09 348 P 24 07.38 0.8
GMO 2.30 19 P 24 11.22 1.5
VIPM 2.46 24 P 24 11.83 -0.1
SSOR 2.61 353 P 24 14.18 0.1
OGOM 2.62 174 P 24 15.03 0.9
OBHM 2.64 171 P 24 12.80 -1.7
KSMM 2.65 219 P 24 14.89 0.3
ORV 2.73 172 eP 24 15.98 0.3
eS 24 53.65
AVRM 3.28 170 P 24 23.85 0.4
APRM 3.43 170 P 24 26.23 0.6
CMB 4.40 163 eP 24 38.90 -0.5
YKA 20.73 10 eP 28 12.50 -1.5
0.7s 2.30nm 3.6mb
35 obs. associated

DEC 04, 1993 23h 34m 11.16± 0.49s
28.886 N ± 4.5km 34.903 E ± 5.8km
DEPTH = 10.0km (geophysicist)
4.4mb (8 obs.) 4.5Msz (3 obs.)
EGYPT (553)
MD 4.9 (RYD), 4.4 (HLW).

BADA 0.37 166 iPc 34 19.60 0.8
AQBJ 0.85 9 Pd 34 28.06 0.5
MRSJ 0.88 25 Pc 34 28.91 0.9
AYN 0.96 91 iPc 34 35.30 5.9X
eS 34 50.30
MDRJ 0.98 55 Pd 34 31.29 1.5
HITJ 1.18 44 Pd 34 34.62 1.3
NAQJ 1.23 25 Pd 34 34.39 0.3
SHWJ 1.58 19 Pd 34 39.28 -0.2
JRDJ 1.95 20 Pd 34 44.87 0.1
DHLJ 1.98 13 Pd 34 44.33 -0.6
LISJ 2.40 12 Pd 34 50.81 -0.2
MKRJ 2.73 13 Pd 34 54.89 -1.1
MASJ 2.92 14 Pd 34 57.15 -1.4
MDSJ 2.98 23 Pc 34 58.68 -0.7
KFNJ 3.04 13 Pd 34 58.97 -1.2
WAJH 3.08 151 iPd 34 59.60 -1.0
SALJ 3.19 12 Pd 35 00.92 -1.4
HLW 3.26 288 ePn 35 03.00 -0.3
BURJ 3.43 13 Pc 35 05.74 -0.2
ARTJ 3.74 26 Pd 34 29.00 -41.3X
BHL 5.04 7 P 35 36.00 7.3X
S 37 00.00
QASM 8.15 108 eP 36 10.00 -2.4
eS 38 16.00
AFIF 8.81 121 eP 36 23.00 1.4
ELL 8.89 333 eP 36 23.50 0.7
TAIF 9.03 146 eP 36 25.00 0.3
CIN 10.39 328 eP 36 41.00 -2.3
RYD 11.25 109 eP 37 00.00 4.9X
KER 11.74 59 eP 37 16.00 14.2X
KMSA 12.16 132 eP 37 18.60 11.2X
eS 40 10.00
OHR 16.77 320 eP 38 06.50 -1.2
SKO 17.03 324 iP 38 12.00 1.2
i 38 20.00
RIY 23.08 321 eP 39 19.90 2.1
TRI 23.65 321 eP 39 26.50 3.2X
OJC 24.19 336 eP 39 32.00 3.5X
e 39 40.00
GEC2 25.72 327 P 39 45.30 2.0
0.9s 3.65nm 4.1mb
e 39 54.60
e 40 03.10
KHC 25.98 327 eP 39 49.50 3.9X
1.0s 5.40nm 4.2mb
Z 18s 1.10um 4.4Msz
N 18s 0.50um
E 18s 1.10um
e 40 20.00
e 40 31.00
e 41 31.50
KSP 26.03 333 eP 39 56.50 10.5X
PRU 26.14 329 eP 39 48.50 1.5
Z 19s 1.30um 4.5Msz
e 40 41.50
BRG 27.04 330 eP 39 58.20 2.9X
Z 19s 2.50um 4.8Msz
N 19s 0.73um
E 19s 0.12um
LPG 27.69 314 eP 40 04.80 3.1X
0.9s 7.20nm 4.4mb
LPL 27.71 314 eP 40 04.80 3.0X
1.2s 14.30nm 4.6mb
CLL 27.77 330 e(P) 40 03.00 1.1
1.3s 17.00nm 4.7mb
BSF 28.80 319 eP 40 11.40 0.0
0.9s 4.90nm 4.3mb
HYB 41.52 96 eP 42 09.70 9.3X
LKO 42.53 251 Pd 42 06.73 -2.0
0.8s 11.00nm 4.6mb
YKA 85.71 346 eP 46 51.70 0.5
0.9s 0.80nm 3.9mb
S.D. = 1.3 on 32 of 46 obs.

% DEC 04, 1993 23h 38m 37.63± 3.97s
33.841 S ±13.3km 71.780 W ±28.5km
DEPTH = 20.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.6 (SAN).

LNV 0.33 110 iP 38 44.54 -0.2
iS 38 52.66
LCCH 0.41 26 iP 38 45.38 -0.7
iS 38 54.74
TACH 0.73 75 iP 38 51.41 -0.1
iS 39 05.34
CACH 1.02 106 iP 38 56.40 -0.1
PCH 1.08 79 iP 38 57.44 -0.1
iS 39 16.16
ROCH 1.08 37 iP 38 57.02 -0.7
iS 39 15.53
PEL 1.15 53 iP+ 38 59.08 0.5
iS 39 17.06
FCH 1.34 68 iP 39 01.95 0.3
iS 39 23.77
JACH 1.53 41 iP 39 05.14 1.1
S.D. = 0.6 on 9 of 9 obs.

? DEC 04, 1993 23h 40m 29.09± 3.80s
42.234 N ±26.7km 122.102 W ±13.1km
DEPTH = 5.0km (geophysicist)
OREGON (32)
MD 2.6 (GS).

LASM 0.75 148 P 40 43.34 -0.7
LMPM 0.75 183 P 40 44.31 0.3
LGBM 0.89 184 P 40 46.93 0.1
LBFM 0.90 170 eP 40 46.71 -0.2
eS 40 59.53
LBKM 1.22 200 P 40 52.08 -0.3
KOMM 1.39 227 P 40 54.04 -1.2
KMPM 2.37 221 (P) 41 10.35 1.0
ORV 2.71 170 (P) 41 14.97 0.8
S.D. = 0.9 on 8 of 8 obs.

& DEC 04, 1993 23h 44m 13.23s
42.263 N 121.993 W
DEPTH = 6.6km
3.1mb (1 obs.)
OREGON (32)
<SEA-P>. MD 2.6 (SEA), 2.9 (GS).

VRC 0.18 294 P 44 17.37 0.3
HAMO 0.19 175 Pd 44 17.49 0.1
S 44 21.08
LASM 0.73 155 P 44 26.86 -1.0
YBH 0.75 225 eP 44 26.67 -1.6
eS 44 36.64
LMPM 0.78 189 P 44 27.86 -1.1
BBOR 0.80 321 Pd 44 28.08 -1.2
LGBM 0.93 189 P 44 30.53 -0.9
DBO 1.26 313 P 44 36.27 -0.7

04d 23h

```
LBKM    1.28 203 P      44 35.81  -1.6
KSXM    1.47 254 P      44 39.09  -1.2
KOMM    1.47 228 P      44 39.77  -0.5
HSO     1.50 328 P      44 40.58  -0.1
LHCM    1.50 166 P      44 40.34  -0.4
NCOR    1.57  23 P      44 42.29   0.5
HBO     1.60 351 P      44 43.32   1.1
WDC     1.73 194 eP     44 43.05  -0.9
LCFM    1.81 169 P      44 45.93   0.6
LDBM    1.84 175 P      44 46.29   0.7
LSLM    1.86 169 P      44 46.38   0.5
TCO     1.87   9 P      44 46.39   0.3
LHKM    1.90 163 P      44 47.47   0.8
MIN     1.94 171 P      44 47.93   0.8
RNO     2.09 323 P      44 50.74   1.6
LCMM    2.14 170 P      44 52.04   1.9
KPPM    2.18 209 P      44 51.18   0.6
YKA    20.73  10 eP     48 58.90   2.3
        0.8s     0.70nm          3.1mb
        26 obs. associated
-------------------------------------
& DEC 04, 1993  23h 50m 21.26s
  42.251 N           121.959 W
  DEPTH =  10.5km
  3.7mb (  1 obs.)
 OREGON                          ( 32)
      <SEA-P>. ML 4.0 (GS), 3.8 (BRK).

LAB     0.08 282 Pc     50 23.87  -0.1
HAMO    0.18 183 P      50 25.40  -0.1
                 S      50 28.87
VRC     0.21 294 Pc     50 25.96   0.1
LASM    0.71 156 P      50 34.47  -0.9
YBH     0.76 227 ePc    50 34.56  -1.6
                 eS     50 47.75
LMPM    0.78 191 P      50 35.59  -0.9
BBOR    0.83 320 P      50 36.58  -0.8
LBFM    0.90 177 ePc    50 37.96  -0.7
LGBM    0.92 191 P      50 38.20  -0.8
LBKM    1.28 205 P      50 43.10  -2.0
KOMM    1.48 229 P      50 46.54  -1.4
KSXM    1.49 254 P      50 47.34  -0.8
LGPM    1.49 206 eP     50 46.54  -1.6
HSO     1.52 327 P      50 48.61   0.1
NCOR    1.57  22 P      50 49.91   0.5
HBO     1.61 351 Pd     50 50.38   0.4
WDC     1.73 195 ePd    50 51.62   0.2
                 eS     51 17.20
LMEM    1.74 170 eP     50 52.02   0.3
LCFM    1.79 169 P      50 53.54   0.9
LDBM    1.82 176 P      50 53.29   0.3
LSLM    1.84 170 P      50 54.02   0.8
TCO     1.87   8 P      50 54.37   0.6
KHMM    1.91 225 P      50 57.88   3.6
MIN     1.92 172 eP     50 52.84  -1.6
FHC     2.10 227 eP     50 56.60  -0.3
FBO     2.11 348 P      50 58.53   1.5
RNO     2.11 322 P      50 58.29   1.2
GMO     2.31  18 P      51 01.88   1.9
KKPM    2.35 207 P      51 02.53   2.0
BPO     2.41   5 P      51 02.45   1.0
KMPM    2.45 222 eP     51 01.96   0.0
VIPM    2.46  23 P      51 03.72   1.6
MPOR    2.53 333 P      51 04.72   1.6
KBSM    2.64 208 P      51 05.03   0.4
KSMM    2.66 220 P      51 07.30   2.4
ORV     2.72 172 eP     51 06.20   0.5
KFPM    2.84 204 P      51 12.81   5.4
VGB     3.37  14 (P)    51 14.90  -0.1
ARJM    3.64 168 P      51 27.96   9.1
SHW     3.95 357 (P)    51 20.72  -2.5
BMW     4.32 348 eP     51 32.90   4.4
KVN     4.34 136 (P)    51 27.48  -1.4
CMB     4.38 164 eP     51 29.98   0.7
LON     4.50   1 eP     51 32.30   1.3
BONR    5.13 146 eP     51 40.34   0.2
MEMM    5.13 152 (P)    51 41.46   1.6
MMPM    5.15 153 (P)    51 42.18   1.6
GMW     5.33 354 (P)    51 40.52  -2.2
TNP     5.52 137 (P)    51 44.85  -0.8
HVU     6.86  91 (P)    52 01.30  -3.1
NEW     6.91  28 eP     52 02.73  -2.3
ARUT    7.91 121 eP     52 20.46   1.3
MSU     8.35 113 (P)    52 29.38   4.0
SRU     9.24 106 (P)    52 38.31   0.7
YKA    20.74  10 eP     55 05.40   1.3
        0.7s     2.70nm          3.7mb

        55 obs. associated
-------------------------------------
  DEC 05, 1993  00h 10m 56.57± 0.62s
  27.931 N ±11.6km   55.269 E ± 5.9km
  DEPTH =  10.0km  (geophysicist)
  4.4mb ( 18 obs.)
 SOUTHERN IRAN                    (353)

MAIO    9.08  22 eP     13 12.00   1.3
QUE    10.47  75 eP     13 29.50  -0.4
HYB    23.86 111 eP     16 29.50  18.5X
OHR    31.09 304 e(P)   17 17.20   0.0
GEC2   38.08 315 P      18 17.10  -0.1
        0.5s     1.19nm          3.9mb
                 e      18 20.70
KHC    38.25 315 Pc     18 18.90   0.4
        1.0s     7.00nm          4.4mb
                 e      18 27.50
GRF    39.89 315 eP     18 33.00   0.9
LPG    41.98 308 eP     18 50.30   0.7
        0.8s     7.40nm          4.5mb
LPL    41.99 308 eP     18 50.30   0.6
        0.6s     5.50nm          4.5mb
BSF    42.31 311 eP     18 51.60  -0.5
        0.6s     3.50nm          4.3mb
HAU    42.63 312 eP     18 54.10  -0.6
        0.6s     3.95nm          4.3mb
HFS    42.72 331 eP     18 54.10  -1.0
        0.4s     1.60nm          4.1mb
LBF    44.07 310 eP     19 06.10  -0.3
        0.7s     2.75nm          4.2mb
SMF    44.13 309 eP     19 06.70  -0.1
LOR    44.19 310 eP     19 06.90  -0.4
        0.7s     4.50nm          4.4mb
SSF    44.40 310 eP     19 09.00   0.0
        0.8s     8.20nm          4.7mb
BGF    44.80 309 eP     19 12.10  -0.2
        0.6s     3.80nm          4.5mb
MAF    44.96 309 eP     19 13.70   0.1
TCF    45.21 309 eP     19 15.70   0.1
        0.6s     5.95nm          4.7mb
CAF    45.22 307 eP     19 16.10   0.4
        0.8s     5.90nm          4.6mb
LFF    46.16 307 eP     19 23.60   0.6
        0.7s     8.50nm          4.9mb
LDF    46.99 312 eP     19 28.80  -0.8
        0.4s     5.90nm          5.0mb
FLN    47.25 312 eP     19 30.90  -0.7
GRR    47.46 311 eP     19 32.90  -0.4
LPF    47.56 311 eP     19 33.80  -0.2
LKO    59.88 265 P      21 06.56   1.3
        0.7s     4.50nm          4.7mb
YKA    89.53 355 eP     23 54.20  -0.9
        0.7s     1.10nm          4.2mb
WRA    90.01 113 P      23 58.20   0.2
        0.7s     0.70nm          4.0mb
    S.D. = 0.6  on  27 of  28 obs.
-------------------------------------
  DEC 05, 1993  00h 27m 08.51± 0.76s
  42.224 N ± 5.7km  122.089 W ± 6.9km
  DEPTH =   5.0km  (geophysicist)
 OREGON                          ( 32)
      ML 3.0 (GS).

LASM    0.73 148 P      27 22.82  -0.4
LMPM    0.74 184 P      27 23.57   0.3
LGBM    0.88 185 P      27 26.20   0.1
LBFM    0.89 170 eP     27 25.98  -0.2
                 eS     27 38.52
LBKM    1.22 201 P      27 31.53  -0.2
KSXM    1.39 254 P      27 34.70   0.1
KOMM    1.39 228 P      27 34.66   0.0
LGPM    1.42 203 eP     27 34.36  -0.8
LMEM    1.73 167 (P)    27 41.05   1.5
FHC     2.01 226 (P)    27 42.62  -0.9
LCMM    2.12 168 P      27 44.56  -0.7
KMPM    2.37 221 (P)    27 49.99   1.3
VGB     3.42  16 eP     28 03.65   0.0
    S.D. = 0.8  on  13 of  13 obs.
-------------------------------------
& DEC 05, 1993  00h 38m 08.28s
  42.311 N           122.039 W
  DEPTH =   0.1km
 OREGON                          ( 32)
      <SEA-P>. MD 2.6 (SEA).

VRC     0.13 281 P      38 12.05   1.1
BBOR    0.74 321 P      38 23.24   0.1
                 S      38 35.06
DBO     1.20 313 P      38 31.20  -0.4
                 S      38 48.34
HSO     1.44 328 P      38 35.46  -0.2
                 S      38 55.21
        4 obs. associated
-------------------------------------
  DEC 05, 1993  00h 38m 32.09± 0.40s
  51.789 N ± 8.9km  178.053 E ± 4.5km
  DEPTH =  85.4km  (  5 depth phases)
  4.5mb ( 21 obs.)
 RAT ISLANDS, ALEUTIAN ISLANDS   (  6)
      Felt (IV) on Adak.

SMY     2.60 293 eP     39 12.03  -0.9
ADK     3.27  86 ePc    39 22.53   0.5
                 eS     39 55.84
SVW    17.17  47 eP     42 28.89   1.3
        0.9s    34.16nm          4.6mb
TTA    17.74  41 eP     42 34.02  -0.7
        0.9s     7.03nm          3.9mb
KDC    17.91  59 eP     42 33.70  -3.0
        0.7s     9.60nm          4.1mb
CP2    18.77  48 eP     42 47.34   0.3
CRP    18.81  48 eP     42 47.36  -0.1
PMS    20.01  49 eP     42 59.80  -0.2
IMA    20.17  34 eP     43 01.11  -0.5
        1.0s    12.93nm          4.2mb
PMR    20.29  48 eP     43 03.60   0.8
        0.7s    23.80nm          4.6mb
TOA    21.78  48 eP     43 20.00   2.2
FBA    21.86  40 eP     43 19.13   0.6
        0.8s     5.56nm          4.0mb
BRW    22.62  21 eP     43 28.10   2.2
YAK    27.65 311 iPc    44 11.90  -1.2
        1.2s    30.00nm          4.8mb
      Z 20s      0.80um          4.3Msz
      E 18s      0.70um
INK    28.26  36 eP     44 19.00   0.4
        0.6s     1.00nm          3.6mb
MBC    33.97  22 eP     45 10.00   1.4
        0.9s     8.00nm          4.6mb
YKA    36.37  46 eP     45 28.80  -0.3
        0.8s     3.00nm          4.3mb
RES    40.18  24 eP     46 01.50   0.8
        0.9s     6.00nm          4.5mb
NEW    40.57  68 eP     46 03.64  -0.7
        0.5s     3.98nm          4.5mb
BJI    43.37 280 eP     46 27.50   0.3
        1.0s     7.00nm          4.4mb
BONR   45.74  82 eP     46 47.23   0.7
                 epP    47 07.38  83km
TNP    46.32  81 eP     46 50.83  -0.2
        0.9s    18.49nm          5.0mb
                 epP    47 12.27  89km
TPNV   47.64  81 eP     47 01.73   0.3
        0.7s     8.78nm          4.8mb
                 epP    47 21.55  81km
DUG    47.68  75 eP     47 00.81  -0.9
        0.6s     4.16nm          4.5mb
                 epP    47 22.97  92km
ARUT   48.81  78 (P)    47 09.54  -0.9
PLM    49.62  85 eP     47 16.77   0.1
                 epP    47 37.16  83km
GOL    52.42  71 eP     47 36.97  -1.0
        0.5s     2.79nm          4.5mb
LZH    53.38 284 Pd     47 45.00   0.1
        1.6s    46.00nm          5.3mb
                 pP     48 03.00  70kmX
FRB    53.68  30 eP     47 45.50  -1.0
LTX    60.52  79 eP     48 34.33  -1.1
FVM    62.14  63 (P)    48 45.95  -0.2
KAF    64.25 346 iP     48 58.20  -1.5
NUR    66.03 346 iP     49 10.00  -1.1
NC3    66.79 353 P      49 15.50  -0.4
        1.1s    11.60nm          4.7mb
SHL    68.05 284 iP     49 24.00  -0.5
OBN    68.77 337 eP     49 28.00  -0.3
GUN    69.88 290 P      49 36.40   0.5
KKN    70.32 290 P      49 39.00   0.6
PKI    70.40 290 P      49 39.30   0.2
GKN    70.53 291 P      49 40.00   0.3
ZST    79.07 347 e(P)   50 29.30   1.4
WB2    80.98 221 iPd    50 39.30   0.9
        0.9s     5.60nm          4.5mb
WRA    80.99 221 P      50 39.50   1.1
```

0.8s 2.00nm 4.1mb
HYB 82.23 288 eP 50 44.70 -0.4
GBA 85.88 287 P 51 03.00 -0.5
SLR 145.33 307 iPKPc 58 02.00 0.6
0.9s 33.61nm
BLF 149.16 306 iPKPc 58 11.20 3.7X
0.6s 10.71nm
FRS 150.12 307 ePKP 58 14.00 5.4X
S.D. = 1.0 on 46 of 48 obs.

DEC 05, 1993 00h 58m 20.23± 0.55s
27.831 N ± 7.7km 102.737 W ± 5.1km
DEPTH = 5.0km (geophysicist)
4.7mb (19 obs.)
NORTHERN MEXICO (522)

LTX 1.71 332 ePd 58 50.44 -0.4
WMOK 7.67 25 ePn 00 14.64 -0.7
MEO 7.79 26 iPc 00 15.70 -1.3
TUC 8.28 305 ePn 00 23.94 0.0
FNO 8.69 30 iPd 00 40.90 11.3X
OCO 8.88 29 iPd 00 34.10 1.9
ACO 9.35 18 iPc 00 36.90 -1.8
UYO 9.50 46 iPd 00 41.60 0.9
TUL 9.98 34 iPd 00 45.70 -1.7
MIAR 10.31 47 ePn 00 58.26 6.4X
GLA 11.65 299 (P) 01 10.52 0.2
PV10 11.76 335 ePn 01 12.97 1.0
GOL 12.04 350 ePn 01 17.69 2.0
OXF 13.21 56 ePn 01 31.84 0.8
MSU 13.25 326 eP 01 35.75 3.8X
PLM 13.35 298 (P) 01 31.89 -1.3
ARUT 13.39 321 (P) 01 39.82 6.2X
EMUT 13.70 333 (P) 01 41.11 3.3X
FVM 14.46 42 eP 01 46.31 -1.2
TPNV 14.58 312 eP 01 54.07 4.8X
0.8s 10.65nm 4.5mb
ELC 14.77 47 eP 01 50.42 -1.2
DUG 14.88 329 eP 01 54.44 1.3
TNP 15.86 314 eP 02 09.48 3.4X
0.9s 11.57nm 4.1mb
HVU 16.16 332 (P) 02 16.00 6.3X
RSSD 16.29 357 (P) 02 15.66 4.2X
BONR 16.50 312 eP 02 17.31 3.1X
MYNC 17.43 61 (P) 02 26.53 0.8
1.0s 22.72nm 4.3mb
LBFM 20.69 316 eP 03 03.45 -0.5
CEH 21.59 62 eP 03 12.45 -0.5
0.8s 14.86nm 4.4mb
ULM 22.99 11 eP 03 32.50 5.8X
TBO 23.20 23 eP 03 49.00 20.2X
CBN 23.58 58 eP 03 34.00 1.4
YSNY 24.48 47 eP 03 42.44 1.1
0.8s 18.49nm 4.8mb
GAC 27.99 43 eP 04 13.50 -0.3
JAQ 32.66 30 eP 04 58.00 2.8X
YKA 35.54 351 eP 05 17.50 -2.4
0.9s 1.80nm 3.9mb
INK 44.44 344 eP 06 34.00 0.5
0.9s 2.00nm 4.0mb
MBC 49.15 355 eP 07 13.00 2.5X
DAG 61.75 15 iPc 08 40.00 -1.6
0.7s 10.96nm 5.2mb
PPD 70.17 130 (P) 09 36.00 -0.2
SOB1 70.20 112 eP 09 34.90 -1.6
EKA 72.73 36 P 09 51.09 0.1
3.0s 26.50nm 4.8mb
FLN 77.07 42 eP 10 16.20 0.2
1.3s 48.00nm 5.4mb
LPF 77.07 42 eP 10 16.10 0.1
LFF 79.61 45 eP 10 30.30 0.3
1.1s 22.45nm 5.1mb
TCF 79.85 43 eP 10 31.50 0.1
0.7s 7.40nm 4.8mb
RJF 79.91 44 eP 10 31.80 0.1
1.2s 19.05nm 4.9mb
BGF 80.10 42 eP 10 32.60 0.0
MAF 80.10 43 eP 10 32.90 0.2
SSF 80.24 42 eP 10 33.40 0.0
1.1s 11.50nm 4.8mb
LOR 80.34 41 eP 10 34.30 0.4
0.9s 6.70nm 4.6mb
LBF 80.55 42 eP 10 35.30 0.2
0.9s 9.65nm 4.8mb
SMF 80.65 42 eP 10 35.50 -0.1
1.2s 14.90nm 4.9mb
HAU 81.39 40 eP 10 40.00 0.5
GRF 83.13 37 eP 10 49.60 1.1
BRG 83.84 35 eP 10 53.40 1.4
GEC2 84.94 36 P 10 58.50 0.8
0.6s 1.67nm 4.4mb
e 11 00.10
LKO 91.85 78 Pd 11 30.47 -0.7
0.7s 16.50nm 5.5mb
WRA 127.61 265 PKP 17 30.80 2.0X
0.7s 0.30nm
S.D. = 1.0 on 44 of 59 obs.

& DEC 05, 1993 01h 07m 24.32s
67.515 N 145.892 W
DEPTH = 6.3km
3.8mb (1 obs.)
NORTHERN ALASKA (676)
<AEIC>. ML 3.5 (AEIC), 3.9
(PMR).

BM3 0.50 100 eP 07 33.95 -0.5
eS 07 41.17
FYU 0.99 164 eP 07 42.93 -0.5
GLM 2.61 194 eP 08 07.54 -0.2
eS 08 40.15
MDM 2.74 201 eP 08 09.04 -0.5
FBA 2.74 197 eP 08 08.72 -0.8
IL1 2.79 189 eP 08 09.59 -0.6
ILB 2.79 189 eP 08 09.67 -0.6
eS 08 44.40
CCB 2.98 196 eP 08 12.46 -0.5
HDA 3.15 188 eP 08 15.44 0.0
MLY 3.17 220 eP 08 15.57 -0.1
WRH 3.19 197 eP 08 15.65 -0.2
NEA 3.22 205 eP 08 16.81 0.4
IMA 3.41 248 ePn 08 19.44 0.3
ePg 08 28.76
IM3 3.47 247 eP 08 20.39 0.4
DJE 3.50 178 eP 08 20.07 -0.3
BWN 3.66 205 eP 08 22.43 -0.3
DDM 3.74 180 eP 08 23.32 -0.6
DOT 3.96 168 eP 08 26.37 -0.5
MCK 4.00 200 eP 08 27.44 0.0
TMW 4.38 163 eP 08 32.10 -0.7
TRF 4.47 206 eP 08 33.96 -0.3
DHY 4.50 189 eP 08 34.81 0.1
PAX 4.57 178 eP 08 34.87 -0.7
INK 4.74 75 P 08 37.00 -0.9
0.6s 8.40nm
BC3 4.79 157 eP 08 37.02 -1.7
SDG 5.01 178 eP 08 41.19 -0.6
TOA 5.43 181 eP 08 47.70 -0.2
CUT 5.46 202 eP 08 48.11 0.1
TZL 5.50 178 eP 08 48.39 -0.3
SCM 5.74 187 eP 08 52.12 0.0
SML 5.83 191 eP 08 52.19 -1.1
GHO 5.91 194 eP 08 54.06 -0.5
KLU 6.05 180 eP 08 56.04 -0.4
SKT 6.06 206 eP 08 55.43 -1.1
PMR 6.11 195 eP 08 57.90 0.7
PWA 6.13 198 eP 08 59.90 2.4
GLB 6.16 171 eP 08 57.02 -1.1
KNK 6.23 191 eP 08 58.60 -0.3
SUA 6.42 201 eP 09 01.66 -0.2
PMS 6.49 196 eP 09 04.00 1.3
BALM 6.68 165 eP 09 03.85 -1.7
NCG 6.70 207 eP 09 05.36 -0.4
CGLM 6.77 206 eP 09 06.92 0.3
CRP 6.83 206 eP 09 04.55 -3.0
CTGM 6.87 161 P 09 06.50 -1.6
SGAM 7.05 177 eP 09 06.92 -3.6
SLKM 7.29 197 eP 09 13.62 -0.2
YKA 14.03 96 eP 10 40.90 -4.6
0.6s 1.00nm 3.8mb
48 obs. associated

DEC 05, 1993 01h 30m 57.80± 0.23s
41.970 N ± 2.5km 19.117 E ± 2.0km
DEPTH = 8.4 ± 1.9 km
4.6mb (6 obs.)
ALBANIA (391)
ML 4.3 (ROM), 4.1 (TTG), 3.9
(TIR), 3.5 (LJU). MD 3.9 (FIR).
Felt (VI) at Ulcinj,
(V) at Bar and (III) at
Podgorica, Yugoslavia.

ULC 0.10 94 iPgc 30 59.18 -1.2
iSg 31 00.76
SDA 0.30 74 iPgd 31 00.30 -3.6X
iSg 31 03.70
BDV 0.38 326 iPgd 31 06.15 0.6
iSg 31 13.19
TTG 0.47 13 iPgd 31 06.91 -0.4
iSg 31 14.57
LACI 0.55 127 iPgc 31 07.50 -1.5
iSg 31 14.00
HCY 0.66 316 ePg 31 11.33 0.2
iSg 31 22.54
BCI 0.81 60 iPgc 31 11.60 -2.1
iSg 31 22.50
TIR 0.84 138 iPg 31 12.10 -2.0
iSg 31 25.80
NKY 0.85 354 iPgc 31 14.12 -0.2
iSg 31 27.63
PVY 0.89 45 iPgc 31 13.65 -1.5
iSg 31 26.56
BRY 1.02 336 iPgc 31 17.60 0.2
iSg 31 33.98
IVA 1.07 32 iPgc 31 17.22 -0.9
iSg 31 33.12
PLE 1.37 8 iPgc 31 23.48 0.2
iSg 31 44.41
OHR 1.53 124 iPn 31 25.00 -0.4
i 31 27.70
iSn 31 49.00
VLO 1.53 169 iPn 31 26.80 1.5
iSn 31 49.80
SKO 1.73 89 iPn 31 30.30 2.0
i 31 48.00
i 31 50.50
iSn 31 52.00
iSg 31 53.30
LR 32 06.50
TPE 1.80 158 iPnc 31 30.50 1.1
iSn 32 01.10
BRT 1.81 233 P 31 30.45 1.1
LCI 1.86 209 P 31 28.36 -1.7
FNA 2.07 124 iPn 31 35.56 2.3
eSn 32 02.16
HVAR 2.31 302 iPnc 31 38.80 2.1
iSn 32 08.60
KEK 2.31 167 iPbc 31 36.60 -0.1
IGT 2.60 159 ePn 31 41.32 0.5
eSn 32 13.04
KZN 2.60 129 iPbd 31 42.20 1.3
GRG 2.67 111 ePn 31 42.96 1.1
eSn 32 17.60
VAY 2.67 103 iPn 31 43.00 1.2
iSn 32 16.00
ORI 2.78 228 P 31 43.93 0.6
KNT 2.95 105 iPn 31 46.84 1.1
eSn 32 22.54
LIT 3.16 125 ePn 31 50.40 1.6
iSn 32 28.84
THE 3.19 113 iPn 31 49.81 0.6
SGO 3.20 245 P 31 49.58 0.3
MGR 3.26 237 P 31 50.75 0.6
SOH 3.39 108 ePn 31 52.76 0.7
SRS 3.47 103 ePn 31 53.92 0.8
eSn 32 35.88
GRI 3.76 214 P 31 56.54 -0.8
AGG 3.83 139 ePn 31 58.53 0.2
eSn 32 44.24
VLS 3.95 163 ePn 31 58.80 -1.2
SDI 3.97 268 P 32 01.76 1.5
PAIG 4.01 119 iPn 32 00.84 0.0
OUR 4.02 112 iPn 32 01.04 0.1
AQU 4.26 277 P 32 05.96 1.5
GZR 4.33 37 ePd 32 07.00 1.6
ZAG 4.46 331 ePn 32 10.00 2.8X
VBY 4.51 323 iPnd 32 09.50 1.7
iSg 33 25.20
PTJ 4.54 331 ePn 32 09.40 1.0
iSn 33 03.50
SOI 4.55 212 P 32 07.23 -1.2
DEV 4.77 34 ePc 32 18.00 6.4X
ARV 4.80 291 P 32 12.43 0.4
MNS 4.80 277 P 32 13.26 1.1
RIY 4.81 316 iPnd 32 13.00 0.8
RDO 4.89 98 ePb 32 31.60 18.3X
ASS 4.90 285 P 32 14.68 1.2
TNR 5.24 44 ePc 32 28.00 9.7X
LJU 5.24 322 ePn 32 19.50 1.2
eSn 33 23.10

05d 01h

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RSM     5.27 294 P      32 19.47   0.8
ALN     5.32  99 ePn    32 19.84   0.5
ATH     5.33 137 ePb    32 20.00   0.5
TRI     5.38 316 e(Pn)  32 20.30   0.1
                 e(Pg)  32 41.50
                 e      32 57.20
                 e(Sn)  33 21.00
                 e(Sb)  33 44.00
                 e(Sg)  33 52.60
CMP     5.42  51 ePd    32 22.00   1.2
CRE     5.53 290 P      32 23.15   0.7
VOY     5.54 319 ePnd   32 23.30   0.7
                 eSn    33 26.90
BUC     5.66  62 eP     32 33.00   8.9X
SFI     5.68 293 P      32 25.87   1.5
PGD     5.75 292 P      32 27.12   1.5
SRO     5.87 355 e(Pn)  32 27.80   0.7
                 i      33 38.60
                 i      33 46.40
SOP     6.00 343 e(P)   32 31.00   2.2
VLI     6.02 149 ePb    32 29.00  -0.2
FIR     6.05 290 ePn    32 31.00   1.4
                 iSn    33 37.00
MLR     6.07  52 ePc    32 31.50   1.4
                 e      54 45.00
PRK     6.09 114 ePn .  32 31.20   1.1
ZST     6.39 348 e(Pn)  32 35.30   0.9
                 i      33 49.20
FVI     6.48 318 P      32 35.45  -0.3
BMR     6.50  27 ePd    32 55.00  19.1X
MME     6.55 293 P      32 37.27   0.3
PII     6.55 288 P      32 36.52  -0.3
KBA     6.56 323 iPnd   32 37.50   0.4
                 iSn    33 51.20
                 iSgSg  34 40.00
BDI     6.59 291 P      32 36.61  -0.7
VKA     6.60 344 e(P)   32 43.00   5.6X
                 i      33 56.40
VRI     6.74  52 ePd    32 49.00   9.6X
CTI     6.75 310 P      32 38.97  -0.7
EDC     6.80 101 eP     32 40.00  -0.2
BNT     6.84 101 eP     32 38.40  -2.4
UZH     7.03  18 eP     32 43.00  -0.4
      1.0s      25.00nm          5.3mb
    Z 12s        2.00um          4.8Msz
    N 12s        1.00um
    E 12s        1.50um
SAL     7.20 303 P      32 44.38  -1.4
BHG     7.26 325 iPc    32 47.90   1.3
      1.0s      49.00nm          5.6mb X
CFR     7.31  61 eP     32 47.00  -0.3
WTTA    7.51 317 iPnd   32 50.20  -0.2
                 iSn    34 18.10
PGF     7.53 278 Pn     32 50.50  -0.1
BOB     7.58 295 P      32 51.09  -0.1
OGA     7.58 313 eP     32 52.80   1.4
DST     7.59 105 eP     32 50.90  -0.5
MDI     7.79 302 P      32 52.56  -1.5
GEC2    7.86 333 Pn     32 54.00  -1.1
OSS     7.97 309 ePc    32 57.30   0.5
HRT     8.02  95 iP     32 56.70  -0.6
PCP     8.13 292 eP     32 46.00 -13.0X
KHC     8.15 333 eP     32 59.00  -0.1
      1.0s       8.90nm          5.0mb X
                 e      33 09.50
                 e      33 31.00
                 e      33 39.00
                 e      34 35.00
                 e      34 43.00
                 e      34 53.00
VDL     8.27 306 iPd    33 01.60   0.6
CKI     8.29 291 P      32 59.15  -2.0
VAI     8.42 301 P      33 01.38  -1.5
TMA     8.46 303 ePd    33 01.80  -1.8
KIS     8.60  51 eP     33 05.00  -0.4
    Z 13s        0.80um          5.2Msz
PRU     8.63 340 Pd     33 06.90   1.2
                 e      33 42.00
                 e      34 44.00
                 e      34 57.20
LLS     8.74 307 ePc    33 08.70   1.2
SBF     8.78 286 Pn     33 06.80  -1.2
                 Sn     34 40.80
KSP     9.09 349 eP     33 14.00   1.9
                 e      34 53.00
FRF     9.31 284 Pn     33 14.50  -0.7
DIX     9.38 300 iPc    33 15.20  -1.2
LMR     9.39 283 Pn     33 16.50   0.2
GRF     9.48 327 ePg    33 12.50  -5.0X
                 e(Sg)  34 53.00
LRG     9.51 283 Pn     33 17.60  -0.3
BNI     9.55 293 P      33 18.97   0.3
BRG     9.59 340 e(P)   33 19.50   0.5
                 e      33 26.00
                 e      35 31.30
LPG     9.62 296 Pn     33 16.60  -3.2X
                 Sn     35 00.20
LPL     9.64 296 Pn     33 16.90  -3.1X
                 Sn     35 00.30
EMS     9.69 299 ePc    33 19.80  -0.8
MOX    10.10 332 e(P)   33 25.20  -0.9
                 e      35 27.00
CLL    10.24 338 ePn    33 26.00  -1.9
                 e      36 41.00
BSF    10.52 308 Pn     33 31.20  -0.8
                 Sn     35 24.00
CDF    10.54 312 Pn     33 30.80  -1.5
HAU    10.87 308 Pn     33 35.30  -1.3
                 Sn     35 31.60
SMF    11.90 298 Pn     33 47.20  -3.4X
                 Sn     35 55.10
LBF    11.92 300 Pn     33 48.20  -2.7
                 Sn     35 55.10
LOR    12.09 301 Pn     33 50.50  -2.7
                 Sn     36 01.00
SSF    12.25 300 Pn     33 52.20  -3.1X
BGF    12.53 297 Pn     33 55.90  -3.2X
OBN    17.44  35 eP     35 03.00   0.3
       1.0s     18.00nm          4.2mb
HFS    18.49 351 eP     35 15.30  -0.4
       0.3s      0.90nm          3.4mb X
NUR    18.87   8 eP     35 20.80   0.5
NC3    19.88 349 P      35 30.40  -1.6
       1.1s      7.10nm          3.9mb
KAF    20.63  10 iP     35 38.30  -1.6
LKO    38.93 221 P      38 25.95   0.2
       0.8s      6.50nm          4.4mb
FRU    40.36  69 iP     38 37.00  -0.4
                 i      38 39.00
NDI    48.37  86 eP     39 39.00  -2.9X
WMQ    48.94  63 Pc     39 36.50  -9.7X
       1.2s     20.00nm          5.0mb
     Z 14s       1.82um          5.2MszX
     E 15s       1.13um
                 pP     39 45.50  30kmX
                 PcS    44 53.50
                 eSS    49 48.00
HHC    65.80  56 eP     41 44.70  -0.9
       1.0s      9.00nm          4.9mb
CN2    72.08  47 eP     42 23.00  -1.2
     S.D. = 1.2  on 119 of 137 obs.
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  DEC 05, 1993  01h 31m 18.36± 0.96s
  12.130 N ± 4.4km  125.702 E ± 8.0km
  DEPTH =  34.3 ±  8.3 km
  4.8mb ( 19 obs.)  4.6Msz (  7 obs.)
 SAMAR, PHILIPPINE ISLANDS          (251)

PLP     1.19 217 ePd    31 39.00   0.1
                 iS     31 53.80
MAP     2.47 223 iPd    31 58.50   1.4
                 iS     32 24.00
GQP     3.63 299 eP     32 18.20   4.6X
                 eS     33 13.00
CGP     3.78 195 eP     32 33.00  17.2X
                 eS     33 16.00
BIP     3.92 172 ePc    32 16.40  -1.3
PGP     4.83 287 ePc    32 32.00   1.3
DAV     5.01 181 ePc    32 41.00   7.7X
TGY     5.04 293 eP     32 37.50   3.7X
CTB     5.12 197 ePd    32 43.00   8.3X
QCP     5.14 299 eP     32 45.00   9.9X
BAG     6.54 311 ePc    32 54.20  -0.7
                 eS     33 55.50
CVP     6.69 326 ePc    32 55.40  -1.5
SSE    19.33 348 Pc     35 45.00   1.3
       1.0s     19.00nm          4.3mb
     Z 16s       0.90um
     N 14s       0.70um
     E 15s       0.90um
                 pP     35 53.50  32kmX
                 sP     35 56.00
NJ2    20.80 343 Pc     36 00.00   0.7
WHN    21.13 332 Pd     36 04.00   1.4
       1.2s     45.00nm          4.7mb
     N 14s       1.57um
                 pP     36 20.50  75kmX
GYA    22.89 311 iPd    36 21.20   0.8
       1.2s     52.00nm          4.9mb
     Z 18s       2.18um          4.6Msz
     N 16s       1.56um
     E 16s       0.85um
                 pP     36 38.60  78kmX
                 S      40 40.00
TPI    23.25 232 ePd    36 24.50   0.7
                 e      38 00.00
TRT    23.60 214 ePc    35 58.10 -29.1X
LOE    23.76 286 eP     36 29.00   0.3
KGM    24.35 247 ePd    36 35.40   0.9
NST    25.06 281 eP     36 41.00  -0.3
TIA    25.19 344 eP     36 42.30  -0.1
KMI    25.25 304 Pc     36 43.50   0.1
       1.4s     70.00nm          5.1mb
     Z 20s       2.40um          4.7Msz
     N 15s       0.90um
     E 15s       1.00um
                 pP     36 59.00  66kmX
                 S      41 30.00
IPM    25.52 255 ePd    36 45.10  -0.6
XAN    26.64 328 P      36 55.00  -0.9
       1.0s     18.00nm          4.6mb
     Z 16s       1.55um          4.7MszX
     N 12s       0.87um
     E 12s       0.77um
                 pP     37 03.50  30kmX
                 sP     37 07.50
                 PP     37 48.00
                 S      41 40.00
                 ScS    47 35.00
CD2    27.58 316 eP     37 04.00  -0.5
       1.2s     75.00nm          5.2mb
     Z 18s       1.74um          4.7Msz
                 S      42 08.00
TIY    28.11 337 eP     37 08.10  -1.1
     Z 18s       1.70um          4.7Msz
     N 15s       1.11um
     E 13s       0.85um
BJI    29.05 345 eP     37 17.00  -0.5
       1.5s     14.00nm          4.4mb
     N 14s       0.40um
                 epP    37 25.00  28kmX
LZH    30.95 324 Pc     37 34.50  -0.2
       1.5s     64.00nm          5.2mb
     Z 16s       1.85um          4.8MszX
     N 14s       1.39um
                 pP     37 42.50  28kmX
HHC    31.19 339 eP     37 37.00   0.3
       1.2s     18.00nm          4.8mb
     Z 20s       0.75um          4.4Msz
     N 16s       0.37um
     E 14s       0.62um
BTO    31.54 337 eP     37 39.00  -0.8
WB2    32.99 165 iPd    37 51.70  -0.8
       1.2s      3.60nm          4.1mb
SHL    34.57 298 eP     38 05.00  -1.4
GTA    35.55 324 eP     38 14.50   0.0
       1.5s     32.00nm          5.0mb
     Z 14s       1.28um          4.8MszX
     E 14s       0.41um
                 pP     38 23.00  29kmX
                 sP     38 26.00
ASPA   36.47 167 eP     38 22.20  -0.1
       0.6s      7.60nm          4.8mb
     Z 20s       0.30um          4.1Msz
                 eS     43 57.00
LSA    36.51 304 P      38 23.70   0.5
       1.0s     27.00nm          5.1mb
WARB   38.09 179 eP     38 36.30   0.4
       0.4s      7.00nm          4.9mb
HYB    45.80 283 eP     39 37.70  -1.4
STK    46.33 161 eP     39 29.20 -13.8X
       1.4s      3.90nm
GBA    47.02 277 P      39 48.00  -0.7
YAK    49.89   2 eP     40 11.40   1.2
       1.3s     71.00nm          5.5mb
                 i      40 19.00
                 e      40 57.00
KSH    51.56 311 eP     40 24.00   0.4
QUE    57.06 298 eP     41 03.00  -1.1
TAB    74.31 306 eP     42 55.00   0.4
OBN    79.65 324 eP     43 24.00   0.2
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1.5s 70.00nm 5.4mb
Z 18s 0.70um 5.0Msz
E 18s 0.60um
i 43 32.00
e 43 53.00
INK 82.77 22 eP 43 51.00 11.0X
KAF 83.73 332 iP 43 44.90 -0.1
MBC 84.03 13 eP 43 48.00 1.7
NUR 84.91 331 iP 43 51.40 0.5
NC3 90.67 334 P 44 19.20 0.5
0.9s 3.30nm 4.7mb
VAY 91.72 313 eP 44 23.40 -0.5
YKA 92.29 24 eP 44 35.70 9.6X
1.3s 1.70nm 4.3mb
SKO 92.32 314 eP 44 25.50 -1.2
GEC2 94.89 322 P 44 38.70 0.2
1.5s 3.41nm 4.6mb
e 44 47.60
LPB 165.93 110 ePKP 51 33.00 11.0X
CNCB 165.96 111 PKP 51 32.00 9.8X
LPAZ 165.97 109 PKP 51 25.40 3.1X
S.D. = 0.9 on 44 of 57 obs.

% DEC 05, 1993 01h 37m 58.12± 3.55s
41.937 N ±25.9km 19.252 E ± 7.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.8 (TTG).

ULC 0.03 356 iPgd 37 59.57 -0.6
iSg 38 00.64
BDV 0.47 318 iPgc 38 07.43 -0.2
iSg 38 14.72
TTG 0.49 1 iPgc 38 07.70 -0.4
iSg 38 15.47
HCY 0.76 313 ePg 38 12.76 -0.2
iSg 38 24.37
PVY 0.85 39 iPgd 38 13.99 -0.6
iSg 38 26.75
NKY 0.90 348 iPgd 38 15.28 -0.1
iSg 38 28.91
IVA 1.05 27 iPgc 38 17.90 -0.1
iSg 38 33.55
BRY 1.10 332 iPgd 38 19.11 0.3
iSg 38 35.52
PLE 1.40 4 iPgc 38 24.49 0.8
iSg 38 45.49
S.D. = 0.5 on 9 of 9 obs.

DEC 05, 1993 01h 53m 08.46± 0.34s
39.606 N ± 3.7km 27.388 E ± 3.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.4 (ISK). MD 3.4 (ATH).

EDC 0.82 26 iPg 53 25.00 0.6
BNT 0.85 28 iPg 53 24.20 -0.7
iSg 53 37.20
PRK 0.94 248 ePb 53 26.00 -0.3
eSb 53 41.00
DST 0.96 90 iPg 53 27.30 0.6
IZM 1.21 185 iPn 53 31.10 0.1
ALN 1.65 322 eP 53 40.20 2.7X
eS 54 02.12
IZI 1.76 65 iPn 53 38.90 -0.4
ISK 1.94 41 ePn 53 41.90 0.2
ITU 1.95 39 ePn 53 45.00 3.1X
iSg 54 22.00
GBZT 1.97 52 ePn 53 42.30 0.1
CIN 2.08 165 iPnc 53 43.00 -0.8
RDO 2.09 318 ePn 53 45.10 1.2
KHL 2.10 127 ePn 53 45.10 0.9
HRT 2.13 54 iPn 53 43.70 -0.8
DMK 2.23 7 iPn 53 45.40 -0.6
OUR 2.72 287 eP 53 52.80 -0.1
NAL 3.07 78 eP 54 07.00 9.0X
eS 54 51.00
SRS 3.27 299 eP 54 00.68 -0.1
SOH 3.32 293 eP 54 01.44 -0.1
SGKT 3.71 73 eP 54 07.30 0.1
KNT 3.76 296 eP 54 08.00 0.2
VAY 4.05 297 ePn 54 28.40 16.5X
S.D. = 0.6 on 18 of 22 obs.

% DEC 05, 1993 02h 00m 54.16± 3.61s
41.924 N ±26.2km 19.247 E ± 7.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.5 (TTG).

ULC 0.04 3 iPgd 00 55.48 -0.8
iSg 00 56.22
BDV 0.48 319 iPgd 01 03.55 -0.3
iSg 01 10.60
TTG 0.51 1 iPgc 01 04.08 -0.3
iSg 01 11.73
HCY 0.76 313 iPgc 01 08.87 -0.2
iSg 01 20.19
PVY 0.86 39 iPgc 01 10.54 -0.3
iSg 01 23.20
NKY 0.91 348 iPgc 01 11.67 0.1
iSg 01 25.07
IVA 1.06 27 iPgd 01 14.08 -0.1
iSg 01 30.29
BRY 1.11 332 iPgc 01 15.22 0.2
iSg 01 31.84
PLE 1.41 4 iPgd 01 20.69 0.7
iSg 01 41.82
S.D. = 0.5 on 9 of 9 obs.

? DEC 05, 1993 02h 11m 28.42± 6.13s
42.326 N ±36.6km 121.985 W ±34.0km
DEPTH = 5.0km (geophysicist)
OREGON (32)
MD 2.8 (GS).

LMPM 0.85 189 P 11 45.34 -0.1
LBFM 0.98 176 eP 11 47.90 0.2
epP 12 00.98
LGBM 0.99 189 P 11 48.11 0.2
LBKM 1.34 203 P 11 53.97 0.2
KSXM 1.49 251 P 11 56.18 0.2
KOMM 1.52 227 P 11 56.97 0.6
LGPM 1.55 204 iPc 11 56.06 -0.8
eS 12 15.88
LMEM 1.81 170 eP 12 04.19 3.5X
KMPM 2.49 221 (P) 12 09.77 -0.6
S.D. = 0.6 on 8 of 9 obs.

& DEC 05, 1993 02h 26m 57.95s
60.025 N 153.464 W
DEPTH = 139.2km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.17 75 P 27 16.30 0.7
S 27 31.10
INE 0.20 80 P 27 16.50 0.7
S 27 31.50
ILIM 0.26 77 P 27 16.30 0.5
S 27 31.10
OPT 0.39 162 P 27 17.20 1.0
S 27 32.30
PDB 0.44 237 P 27 17.20 -0.8
S 27 32.20
RED 0.52 41 P 27 17.70 -0.9
RDW 0.56 35 P 27 18.10 -0.8
RS2 0.56 38 P 27 18.10 -0.8
NCT 0.60 26 P 27 18.20 -0.8
S 27 33.70
REF 0.60 39 P 27 18.20 -0.9
AUL 0.65 179 P 27 18.70 -0.5
AUW 0.66 180 P 27 18.70 -0.5
AUH 0.66 179 P 27 16.80 -2.6
AUE 0.67 176 P 27 18.60 -0.7
DFR 0.69 34 P 27 18.60 -1.0
S 27 35.60
AUI 0.69 178 P 27 17.10 -2.4
MCNL 0.95 208 P 27 20.60 -1.0
S 27 38.00
HOM 0.99 111 eP 27 21.08 -0.8
CDD 1.10 185 eP 27 22.04 -0.9
BKG 1.21 29 iP 27 23.40 -0.6
eS 27 43.49
CNPM 1.23 113 P 27 23.10 -1.1
S 27 42.50
CKL 1.30 25 P 27 24.50 -0.5
BRLK 1.33 100 eP 27 24.31 -0.9
eS 27 43.83
CKT 1.33 27 eP 27 24.67 -0.7
BGL 1.35 23 eP 27 25.25 -0.3
SPU 1.35 30 iP 27 24.71 -0.8
CKN 1.36 27 P 27 25.10 -0.5
CP2 1.38 25 eP 27 25.69 -0.3
CRP 1.40 27 eP 27 25.73 -0.4
CGLM 1.47 29 eP 27 26.10 -0.8
SVW 1.52 316 eP 27 25.83 -1.5
SYI 1.52 158 eP 27 25.88 -1.4
NCG 1.53 24 eP 27 27.26 -0.2
SLKM 1.69 72 eP 27 27.76 -1.4
SUA 1.97 42 P 27 31.60 -1.0
SEW 2.01 86 P 27 31.60 -1.4
MPA 2.10 75 eP 27 32.67 -1.3
KDC 2.34 167 (P) 27 36.59 -0.4
PLRM 2.64 52 eP 27 38.62 -2.2
PMR 2.64 52 eP 27 37.60 -3.2
PWL 2.68 70 eP 27 39.95 -1.4
LTI 2.82 87 eP 27 41.70 -1.4
GHO 2.83 50 eP 27 40.82 -2.5
KNK 2.83 58 eP 27 40.76 -2.5
CUT 2.84 32 eP 27 42.58 -0.8
MTU 2.92 88 eP 27 43.34 -1.1
CFI 3.04 65 eP 27 45.00 -0.9
SML 3.08 52 eP 27 43.86 -2.7
HUR 3.48 30 eP 27 51.18 -0.7
HIN 3.49 81 eP 27 50.00 -2.0
SCM 3.50 56 eP 27 49.58 -2.5
FID 3.54 75 eP 27 50.36 -2.2
VLZ 3.69 69 eP 27 53.39 -1.1
KTH 3.74 18 eP 27 53.97 -1.3
TRF 3.76 22 eP 27 53.90 -1.7
KLU 3.98 65 eP 27 55.74 -2.8
FBA 5.55 26 eP 28 16.61 -2.9
IL1 5.66 30 eP 28 18.16 -2.8
ILB 5.66 30 eP 28 18.23 -2.7
59 obs. associated

? DEC 05, 1993 02h 29m 34.84± 1.13s
31.382 S ±20.7km 68.411 W ±34.3km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.07 316 iPd 29 49.50 0.2
S 30 00.20
CFA 0.27 147 iPd 29 51.00 1.2
S 30 21.00
RTCB 0.35 253 iPd 29 51.20 1.2
S 29 59.00
RTCV 0.49 193 eP 29 51.00 0.2
S 29 59.00
RTRS 1.51 323 eP 30 02.00 0.5
S 30 21.00
S.D. = 0.7 on 5 of 5 obs.

& DEC 05, 1993 02h 36m 00.50s
42.283 N 122.020 W
DEPTH = 4.7km
2.9mb (1 obs.)
OREGON (32)
<SEA-P>. ML 3.3 (GS). MD 3.1
(SEA).

VRC 0.16 290 Pc 36 04.18 0.4
HAMO 0.22 170 P 36 05.04 0.1
S 36 09.00
YBH 0.75 223 eP 36 13.60 -2.1
eS 36 23.84
LASM 0.76 154 P 36 14.22 -1.7
BBOR 0.78 321 P 36 15.07 -1.1
LMPM 0.80 188 P 36 15.10 -1.6
LBFM 0.94 174 eP 36 17.65 -1.4
LGBM 0.95 188 P 36 17.75 -1.5
DBO 1.23 313 P 36 22.91 -1.0
LBKM 1.29 202 P 36 23.19 -1.8
KSXM 1.45 253 P 36 26.20 -1.4
KOMM 1.47 227 P 36 26.01 -1.8
HSO 1.47 328 P 36 27.24 -0.6
LGPM 1.50 204 eP 36 25.97 -2.3
NCOR 1.56 24 P 36 29.50 0.3
HBO 1.58 352 P 36 29.40 0.0
WDC 1.75 193 eP 36 30.33 -1.3
LMEM 1.78 169 eP 36 32.23 -0.1
TCO 1.85 9 P 36 33.35 0.0
LDBM 1.86 174 P 36 35.75 2.3
LSLM 1.88 169 P 36 36.02 2.3
MIN 1.96 171 eP 36 37.14 2.2
RNO 2.06 323 P 36 37.73 1.5
BPO 2.38 6 P 36 41.19 0.1
KMPM 2.44 221 eP 36 42.38 0.5
MPOR 2.49 334 P 36 43.84 1.4
SSOR 2.59 353 P 36 43.94 0.0

05d 02h

```
ORV      2.75 172 eP     36 46.05   -0.1
VGB      3.35  15 (P)    36 56.41    1.7
YKA     20.72  10 eP     40 44.00    0.0
         0.7s     0.40nm            2.9mb
         30 obs. associated
-------------------------------------------
   DEC 05, 1993  02h 36m 10.26± 0.20s
   52.097 N ± 5.3km  173.913 W ± 3.0km
   DEPTH =  29.5km  ( 14 depth phases)
   5.0mb ( 59 obs.)  4.7Msz (  8 obs.)
  ANDREANOF ISLANDS, ALEUTIAN IS. (  7)
       Mw 5.0 (HRV). ML 5.4 (PMR). Felt
       strongly on Atka. Also felt on
       Adak.
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 18S, 25C
       Centroid Location:
       Origin Time       02:36:11.8 0.8
       Lat 52.52N 0.12 Lon 174.53W 0.12
       Dep  36.4 8.0 Half-duration  1.0
       Moment Tensor;    Scale 10**16 Nm
         Mrr=-2.53 0.51  Mtt= 0.62 0.73
         Mff= 1.90 0.32  Mrt= 1.93 0.94
         Mrf=-0.65 1.14  Mtf=-2.74 0.50
        Principal Axes:
         T  Val=  4.51   Plg=14  Azm= 49
         N       -0.97      27       312
         P       -3.53      59       164
       Best Double Couple:Mo=4.0*10**16
        NP1:Strike=171 Dip=39 Slip= -44
        NP2:       297     64      -120

ADK      1.73 264 ePc    36 38.67    0.0
SMY      7.36 280 (P)    37 58.34    0.0
SDN      8.59  63 eP     38 15.64    0.1
ANM     13.26  16 eP     39 20.11    1.2
SVW     13.48  41 eP     39 21.81    0.0
         0.3s    13.99nm            5.4mb
KDC     13.53  57 eP     39 21.32   -1.0
         1.0s    30.84nm            5.2mb
TTA     14.44  34 eP     39 35.59    1.2
         1.4s    74.62nm            5.0mb
CP2     14.96  44 eP     39 43.25    1.9
CRP     15.00  44 eP     39 43.78    2.0
SLKM    15.54  48 eP     39 49.32    0.7
ILT     16.03 353 iP     40 01.90    7.2X
         1.3s   173.00nm            5.0mb
      Z  20s      3.90um            4.5Msz
      N  16s      2.50um
PWA     16.15  44 eP     40 00.10    3.7X
         1.1s   170.30nm            5.1mb
PMR     16.45  45 eP     40 00.42    0.2
         0.9s    16.45nm            4.2mb
PET     16.67 284 eP     40 18.00   14.9X
IMA     17.31  28 eP     40 12.60    1.5
         0.9s    13.02nm            4.1mb
KLU     17.85  47 eP     40 16.07   -1.7
TOA     17.95  45 eP     40 20.50    1.5
FBA     18.54  36 eP     40 25.10   -1.0
         1.0s    16.05nm            4.2mb
BALM    19.38  50 eP     40 33.14   -3.3X
BRW     20.76  16 eP     40 48.87   -1.8
INK     25.14  35 eP     41 33.00   -0.7
         0.9s    35.00nm            5.0mb
KUSJ    28.97 269 eP     42 06.40   -2.6X
HOOJ    30.24 268 eP     42 23.90    3.6X
YAK     31.22 311 iPc    42 34.70    5.9X
         0.8s    73.00nm            5.6mb
      Z  18s      2.00um            4.8Msz
      N  20s      0.70um
      E  17s      1.30um
TIK     31.53 329 iPc    42 36.60    5.2X
         2.0s    82.00nm            5.2mb
      Z  16s      1.00um            4.6MszX
                   e     43 42.00
                   e     45 27.00
MBC     31.81  22 iPd    42 34.50    0.7
                   pP    42 42.80   29km
                   sP    42 46.70
                   PP    43 37.00
                   PPP   43 56.50
                   PcP   45 24.80
                   ScS   53 00.50
YKA     32.51  48 eP     42 43.40    3.3X
         1.0s     4.00nm            4.3mb
GMW     32.73  77 eP     42 41.88   -0.3

BMW     32.97  79 eP     42 44.27    0.0
OFUJ    33.17 265 eP     42 50.80    4.8X
FMW     33.69  78 P      42 51.21    0.5
LON     33.70  78 eP     42 51.36    0.7
ASR     34.12  79 P      42 54.56    0.2
SSOR    34.24  81 P      42 55.91    0.5
WTV     34.36  75 P      42 56.30    0.0
EBG     34.37  77 P      42 56.90    0.5
VBEM    34.67  80 P      42 59.59    0.4
SAW     34.69  75 P      42 59.14    0.0
YAMJ    34.73 265 eP     43 04.50    5.0X
WAH2    35.04  77 P      43 02.51    0.4
CROR    35.07  80 P      43 02.83    0.3
DPW     35.32  74 (P)    43 04.14   -0.4
JBO     35.53  79 P      43 06.41    0.1
VIPM    35.55  81 P      43 06.99    0.3
NEW     35.78  73 iPc    43 08.03   -0.4
         0.8s    24.09nm            5.2mb
YBH     35.78  86 eP     43 10.06    1.5
         1.5s    60.00nm            5.3mb
                   e     43 16.06
KAKJ    35.91 262 P      43 09.10   -0.4
NIIJ    35.95 265 P      43 09.00   -0.9
LNOR    36.25  77 P      43 12.48    0.0
LBFM    36.51  86 eP     43 15.53    0.7
WDC     36.55  88 eP     43 16.25    1.3
         1.2s    30.00nm            5.1mb
                   e     43 22.10
CHJJ    36.73 263 P      43 16.50    0.0
MAT     36.89 264 eP     43 18.00    0.2
         1.1s    26.58nm            5.0mb
      Z  20s      0.71um            4.5Msz
                   (S)   49 11.00
MTMJ    37.11 265 P      43 24.90    5.1X
MIN     37.27  87 eP     43 21.24    0.1
         1.4s    40.00nm            5.1mb
                   e     43 27.29
IIDJ    37.77 263 P      43 25.00   -0.2
ORV     37.80  88 eP     43 25.24   -0.2
         1.7s    50.00nm            5.1mb
RES     37.82  25 eP     43 31.50    6.4X
BKS     38.38  91 eP     43 31.04    0.7
                   e     43 36.59
TSRJ    38.91 265 P      43 39.50    4.7X
MHC     39.08  91 eP     43 36.74    0.4
         1.6s    80.00nm            5.2mb
                   e     43 45.29
COE     39.12  91 iPd    43 37.10    0.6
ARN     39.15  91 iPd    43 37.18    0.4
CMB     39.42  89 iPd    43 39.79    0.7
         1.3s    22.72nm            4.8mb
                   epP   43 48.43   29km
WKYJ    40.02 264 eP     43 44.70    0.6
WKYJ    40.02 264 P      43 49.30    5.2X
CN2     40.37 283 eP     43 51.00    4.3X
         0.8s     5.90nm            4.4mb
                   epP   43 55.00   14kmX
MMPM    40.53  89 iPc    43 49.79    1.2
MEMM    40.55  89 eP     43 50.01    1.8
YONJ    40.69 267 eP     43 54.90    5.4X
BONR    40.76  88 eP     43 50.95    0.6
PHAM    40.82  92 (P)    43 51.47    0.9
MTUM    40.98  89 eP     43 53.05    1.0
TKSJ    41.13 265 P      43 53.10    0.0
TNP     41.35  87 iPd    43 55.57    0.5
         1.2s    37.18nm            5.0mb
PTI     41.44  78 iPd    43 56.64    0.9
HVU     41.83  79 iPd    43 59.34    0.4
ISA     42.12  90 iPd    44 01.02   -0.2
         0.8s    18.97nm            4.9mb
                   epP   44 09.13   27km
ABL     42.19  92 (P)    44 01.59   -0.5
SNY     42.63 282 Pc     44 10.00    4.7X
      Z  22s      0.75um            4.5Msz
TPNV    42.66  87 iPd    44 06.06    0.2
         0.8s    31.94nm            5.1mb
                   epP   44 14.66   29km
DUG     42.75  81 iPd    44 06.82    0.3
         1.1s    65.86nm            5.3mb
CIT     42.83 300 eP     44 12.00    5.1X
SHNJ    42.85 267 P      44 07.40    0.3
DAU     43.57  80 iPd    44 13.72    0.4
ARUT    43.86  84 iPd    44 15.55    0.0
KUMJ    44.09 266 eP     44 17.10   -0.2
PEC     44.10  91 iPd    44 16.93   -0.4
         0.8s    19.28nm            5.0mb
MSU     44.18  83 iPd    44 18.54    0.3

PLM     44.64  92 iPd    44 22.36    0.4
                   epP   44 31.09   29km
SRU     44.81  81 iPd    44 23.24    0.0
RSSD    45.66  71 eP     44 28.40   -1.6
         0.6s     7.96nm            4.8mb
GLA     46.10  90 iPd    44 33.21   -0.1
                   epP   44 41.99   29km
PV10    46.17  81 eP     44 34.02   -0.1
PV08    46.29  80 eP     44 34.60   -0.5
ULM     46.72  60 eP     44 39.00    1.0
GOL     47.56  77 iPd    44 44.81   -0.3
         0.9s    69.09nm            5.7mb
                   (pP)  44 53.77   30km
GLD     47.62  77 iPd    44 45.85    0.4
         1.1s    58.15nm            5.5mb
                   epP   44 55.31   32km
TUC     49.10  88 eP     44 57.55    0.7
                   epP   45 03.82   21km
ZAK     49.15 303 eP     45 00.50    3.6X
         1.4s    16.00nm            4.9mb
                   e     46 21.20
ALQ     49.98  82 ePd    45 03.10   -0.7
         1.3s    35.36nm            5.2mb
                   epP   45 12.82   32km
                   e     45 45.56
                   iPcP  46 23.77
                   ePP   47 18.77
                   iScP  50 28.37
TIA     50.06 280 eP     45 06.80    2.7
DAG     50.44   7 eP     45 10.50    4.1X
         0.7s     8.90nm            4.9mb
FRB     50.79  34 eP     45 08.00   -1.2
         0.6s     3.00nm            4.4mb
SSE     51.03 272 P      45 15.50    4.1X
         1.0s    35.00nm            5.3mb
      Z  20s      0.90um            4.8Msz
                   pP    45 26.50   38km
BTO     51.44 289 eP     45 19.00    4.3X
NJ2     51.80 275 eP     45 20.60    3.3X
TIY     51.89 285 iPc    45 21.40    3.3X
      Z  20s      0.75um            4.7Msz
ACO     53.23  75 iPc    45 25.80   -2.2
OCO     55.02  75 iPd    45 40.80   -0.4
TUL     55.76  74 iPd    45 44.90   -1.5
XAN     56.47 284 P      45 55.30    3.6X
FVM     57.48  69 eP     45 56.14   -2.5
         0.9s     5.73nm            4.6mb
UYO     57.75  75 iPd    45 58.40   -2.2
MIAR    58.01  74 iPd    46 00.58   -1.9
         1.1s    59.03nm            5.5mb
                   epP   46 10.23   32km
LZH     58.06 289 Pc     46 07.50    4.5X
         1.5s    40.00nm            5.2mb
      Z  18s      0.69um            4.8Msz
                   pP    46 13.50   20km
GTA     58.08 294 eP     46 05.50    2.4
      Z  16s      1.14um            5.1MszX
      E  13s      0.52um
SDF     59.83 351 iP     46 20.60    5.9X
GAC     60.13  53 eP     46 15.00   -2.0
OXF     60.48  71 eP     46 17.44   -2.1
         0.9s     5.95nm            4.7mb
YSNY    60.87  57 (P)    46 19.19   -3.0X
         0.9s    16.14nm            5.2mb
WMQ     61.45 305 P      46 30.50    4.4X
         0.5s     7.00nm            5.0mb
      Z  22s      0.83um            4.8Msz
                   ScS   56 12.00
CD2     61.77 285 eP     46 32.00    3.6X
BINY    62.39  56 eP     46 30.39   -1.9
         0.8s    20.74nm            5.3mb
SVE     62.58 330 eP     46 27.70   -5.6X
      Z  14s      0.50um            4.8MszX
      N  12s      0.50um
      E  12s      0.20um
CBM     62.74  48 eP     46 33.03   -1.5
         0.6s     3.23nm            4.6mb
GYA     63.24 279 P      46 43.00    4.8X
         1.0s    22.00nm            5.2mb
                   pP    46 54.00   36km
KAF     65.01 350 eP     46 48.90   -0.3
LMN     65.06  47 eP     46 45.00   -4.7X
CEH     65.34  63 eP     46 50.01   -1.6
         0.8s    18.65nm            5.2mb
KMI     66.60 281 Pc     47 05.00    4.8X
         1.0s    30.00nm            5.4mb
                   pP    47 10.00   16kmX
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NC3 66.91 357 P 47 06.70 5.4X
0.9s 8.90nm 4.9mb
HFS 67.96 356 eP 47 06.10 -1.8
0.4s 1.20nm 4.4mb
FRU 68.47 313 eP 47 10.00 -1.4
1.8s 30.00nm 5.1mb
e 47 42.00
LSA 70.01 293 P 47 27.10 5.5X
OBN 70.21 342 eP 47 25.70 4.0X
1.0s 14.20nm 5.0mb
Z 17s 327.20um 7.6MszX
N 17s 219.90um
E 17s 313.10um
e 47 29.40
(SS) 00 24.40
CHTO 73.66 280 eP 47 49.00 6.2X
BDT 74.82 279 eP 47 49.50 0.0
DZM 75.82 199 iPd 47 55.00 -0.2
NIL 76.45 308 iPd 48 05.60 7.0X
0.7s 0.01nm 1.8mb X
iPcP 48 15.70
KSP 77.07 353 eP 48 02.00 0.2
BRG 77.19 355 e(P) 48 07.80 5.4X
PRU 78.04 354 eP 48 12.00 4.9X
e 48 18.00
GRF 78.50 357 eP 48 09.40 -0.3
KHC 78.95 355 eP 48 04.50 -7.7X
1.0s 5.40nm 4.5mb
e 48 11.60
e 48 24.50
GEC2 79.23 355 PKP 48 12.50 -1.3
0.6s 0.46nm 3.7mb X
e 48 17.80
e 48 21.90
e 48 25.70
e 48 32.30
e 48 37.40
ZST 79.64 353 eP 48 12.60 -3.3X
CTA 79.83 218 iPd 48 17.00 -0.2
1.0s 20.00nm 5.1mb
i 48 33.00
CDF 79.86 359 eP 48 22.80 5.6X
BSF 80.45 360 eP 48 25.10 4.8X
LOR 81.00 2 eP 48 28.00 4.9X
0.8s 3.65nm 4.4mb
Z 19s 0.10um 4.2Msz
SSF 81.20 2 eP 48 29.10 5.0X
LBF 81.28 1 eP 48 29.30 4.6X
AVF 81.46 2 eP 48 30.40 4.9X
1.3s 13.00nm 4.8mb
SNG 81.60 271 eP 48 33.80 7.1X
SMF 81.62 2 eP 48 31.30 4.9X
1.0s 9.00nm 4.7mb
LSF 81.96 3 eP 48 33.00 4.9X
1.0s 9.00nm 4.8mb
QUE 82.32 310 eP 48 35.80 5.3X
QIS 82.92 223 eP 48 32.40 -0.9
IPM 83.38 269 ePd 48 36.80 0.8
KGM 83.97 266 eP 48 40.00 1.1
WB5 84.63 228 iPc 48 41.00 -1.0
iPcP 48 47.20
WB2 84.69 228 iPd 48 41.70 -0.6
0.7s 9.20nm 5.1mb
i 48 47.80
WRA 84.69 228 P 48 42.00 -0.3
0.6s 4.10nm 4.8mb
TPI 85.07 259 ePd 48 50.50 6.1X
e 49 00.00
SKO 85.37 349 iP 48 45.00 -0.6
i 48 51.00
VAY 85.86 348 eP 48 47.70 -0.4
OHR 86.29 349 eP 48 41.00 -9.3X
HYB 86.75 294 eP 48 55.70 2.9
e 49 22.40
ARMA 87.54 209 eP 48 57.00 0.7
1.0s 61.00nm 5.8mb
ePcP 49 03.30
ASPA 88.13 226 iPd 48 58.80 -0.3
0.9s 23.30nm 5.5mb
i 49 05.00
POO 88.44 299 eP 49 01.00 0.0
STK 92.25 217 iPc 49 05.40 -12.7X
0.9s 9.00nm
i 49 11.40
BDF 124.09 70 ePKP 55 06.00 -1.5
1.2s 0.50nm
i 55 13.50
LSZ 139.26 326 iPKP 55 38.00 1.7
SPA 141.91 180 ePKPc 55 32.70 -6.9X
0.7s 11.72nm
BUL 143.59 323 ePKP 55 34.50 -9.4X
SLR 148.77 319 ePKP 55 56.00 3.7X
MAW 148.92 218 iPKPc 55 54.90 3.9X
0.5s 12.18nm
ipPKP 56 01.50
BLF 152.61 319 ePKP 56 02.50 4.6X
FRS 153.52 320 ePKP 56 06.50 7.6X
S.D. = 1.1 on 118 of 181 obs.

DEC 05, 1993 03h 26m 32.37± 0.57s
42.249 N ± 4.6km 122.016 W ± 6.6km
DEPTH = 5.0km (geophysicist)
OREGON (32)
ML 3.7 (GS).

LASM 0.73 153 P 26 47.24 0.3
LMPM 0.77 188 P 26 48.11 0.2
LBFM 0.91 174 eP 26 50.58 0.2
LGBM 0.91 188 P 26 50.75 0.3
LBKM 1.26 203 P 26 55.47 -0.9
KOMM 1.45 228 P 26 59.36 0.0
LGPM 1.47 205 eP 26 58.72 -0.9
WDC 1.71 193 eP 27 02.46 -0.6
LMEM 1.74 169 eP 27 04.14 0.5
FHC 2.07 226 eP 27 10.10 1.9
KMPM 2.42 222 (P) 27 12.13 -1.2
ORV 2.72 172 eP 27 18.71 1.2
VGB 3.39 15 (P) 27 27.13 0.1
SHW 3.95 358 (P) 27 35.00 0.0
KVN 4.37 136 (P) 27 39.98 -1.1
CMB 4.39 163 (P) 27 41.16 -0.1
BONR 5.15 145 (P) 27 52.29 0.1
MEMM 5.15 152 (P) 27 55.71 3.7X
S.D. = 0.9 on 17 of 18 obs.

& DEC 05, 1993 03h 26m 56.69s
42.297 N 122.016 W
DEPTH = 4.1km
3.2mb (1 obs.)
OREGON (32)
<SEA-P>. MD 3.4 (SEA).

VRC 0.15 285 P 27 00.29 0.4
HAMO 0.23 172 P 27 01.62 0.2
S 27 05.50
BBOR 0.77 320 P 27 11.16 -0.9
DBO 1.22 313 P 27 19.79 -0.2
NCOR 1.55 24 P 27 23.63 -1.6
HBO 1.56 352 P 27 24.38 -1.1
YKA 20.70 10 eP 31 39.90 -0.3
0.9s 1.10nm 3.2mb
7 obs. associated

? DEC 05, 1993 05h 09m 20.08± 5.32s
34.030 S ±25.3km 72.206 W ±32.9km
DEPTH = 5.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.3 (SAN).

LNV 0.66 84 iP 09 34.12 0.7
iS 09 42.03
LCCH 0.77 44 iPd 09 35.36 -0.1
TACH 1.12 71 iP 09 40.45 -1.1
CACH 1.34 94 iP 09 45.49 0.2
iS 10 03.67
ROCH 1.45 44 iP+ 09 46.97 -0.3
PCH 1.47 74 iPd 09 46.97 -0.3
iS 10 05.29
PEL 1.55 56 eP 09 49.01 0.6
iS 10 07.83
FCH 1.74 67 iP+ 09 50.88 -0.6
iS 10 14.16
JACH 1.90 46 iP+ 09 54.39 0.8
S.D. = 0.7 on 9 of 9 obs.

? DEC 05, 1993 05h 11m 53.95± 4.93s
33.974 S ±19.5km 72.097 W ±32.0km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)
MD 4.0 (SAN).

LNV 0.57 88 iP+ 12 06.47 1.0
iS 12 14.61
LCCH 0.66 42 iP+ 12 07.60 0.5
iS 12 17.32
TACH 1.02 72 iP 12 12.75 -0.4
iS 12 27.50
IHA 1.02 22 eP 12 13.50 0.3
iS 12 27.80
CACH 1.25 97 iP+ 12 17.43 0.1
iS 12 34.44
SAN 1.30 67 iP+ 12 17.66 -0.4
iS 12 36.28
ROCH 1.35 43 eP 12 18.54 -0.4
iS 12 37.54
PCH 1.36 75 eP 12 18.39 -0.7
iS 12 37.41
PEL 1.44 55 iPd 12 20.40 0.3
iS 12 40.02
FCH 1.64 67 eP 12 23.14 -0.1
iS 12 46.32
JACH 1.80 45 eP 12 25.31 -0.1
iS 12 50.86
RTCV 3.66 56 eP 12 45.00 -6.9X
RTCB 3.72 49 ePd 12 44.30 -8.5X
CFA 4.02 55 ePd 12 48.00 -8.9X
S 13 46.20
RTLL 4.04 50 ePd 12 48.00 -9.2X
S 13 44.30
RTRS 4.40 31 eP 12 53.00 -9.3X
RTPR 5.99 54 eP 13 16.00 -8.7X
CNCB 17.48 13 P 15 52.00 -8.1X
LPB 17.74 13 P 15 55.10 -7.9X
LPAZ 17.97 12 P 15 54.80 -11.4X
S.D. = 0.5 on 11 of 20 obs.

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* DEC 05, 1993 05h 23m 10.72± 1.79s
43.726 N ±15.1km 18.677 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.6 (TTG). Felt (IV) in the
Sarajevo area, Bosnia and
Herzegovina.

PLE 0.66 127 ePg 23 23.05 -0.8
iSg 23 34.64
BRY 0.83 187 iPgd 23 25.87 -1.0
iSg 23 40.57
NKY 0.94 165 iPgd 23 28.61 -0.2
iSg 23 44.90
IVA 1.23 133 iPgd 23 33.54 -0.2
iSg 23 54.23
HCY 1.28 186 iPgd 23 34.49 -0.1
iSg 23 55.81
TTG 1.36 162 iPgd 23 36.31 0.6
iSg 23 58.78
BDV 1.45 176 iPnc 23 37.37 0.4
iSn 24 01.13
PVY 1.48 140 iPnc 23 37.90 0.4
iSn 24 02.05
HVAR 1.71 252 ePn 23 40.60 -0.2
iSn 24 02.90
ULC 1.81 166 iPnd 23 43.26 1.0
iSn 24 10.48
S.D. = 0.7 on 10 of 10 obs.

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* DEC 05, 1993 05h 52m 44.51± 4.37s
33.904 S ±17.6km 71.994 W ±27.2km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.9 (SAN).

LNV 0.49 96 iP+ 52 55.37 1.0
iS 53 03.28
LCCH 0.55 40 iP 52 56.58 0.8
iS 53 05.27
TACH 0.91 74 iP+ 53 01.67 -0.3
iS 53 15.58
IHA 0.92 19 eP 53 02.20 0.1
(S) 53 17.50
CACH 1.18 101 iP+ 53 06.40 -0.2
iS 53 23.25
SAN 1.20 68 eP 53 06.79 -0.1
iS 53 24.17
ROCH 1.24 42 eP 53 07.31 -0.4
iS 53 25.31
PCH 1.26 78 iP+ 53 07.31 -0.8
iS 53 26.42
PEL 1.33 56 eP 53 09.19 0.1
iS 53 27.14
FCH 1.53 68 iPd 53 12.07 -0.2

iS 53 34.68
JACH 1.69 44 eP 53 14.36 0.0
iS 53 38.79
RTCB 3.61 49 eP 53 33.20 -8.6X
CFA 3.91 55 eP 53 39.00 -6.9X
RTLL 3.93 50 eP 53 36.30 -9.9X
S 54 32.80
S.D. = 0.6 on 11 of 14 obs.

& DEC 05, 1993 06h 25m 06.23s
37.264 N 121.643 W
DEPTH = 7.1km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.2 (GM). ML 3.4
(BRK), 3.4 (GS).

COE 0.02 255 iPd 25 07.90 0.2
MHC 0.08 1 ePc 25 08.43 0.0
eS 25 10.19
ARN 0.12 46 iPd 25 09.06 0.1
MHR 0.13 317 P 25 09.69 0.6
JNAM 0.18 242 P 25 10.50 0.4
JHLM 0.22 225 P 25 11.15 0.4
EUC 0.25 212 P 25 11.85 0.4
JBZM 0.27 205 P 25 12.72 0.9
JTGM 0.30 218 P 25 13.02 0.7
CBC 0.33 182 P 25 13.43 0.4
CVAL 0.37 346 P 25 14.09 0.5
HCOM 0.38 188 P 25 14.43 0.5
JSMM 0.42 263 P 25 15.10 0.3
JBLM 0.44 252 P 25 15.07 -0.1
SFT 0.45 289 P 25 15.39 0.1
STAN 0.45 288 ePc 25 15.40 0.2
PKH 0.45 155 P 25 16.12 0.8
LT3 0.45 270 P 25 15.73 0.3
SAO 0.52 162 eP 25 17.00 0.3
FRP 0.52 166 P 25 17.04 0.3
BGH 0.56 278 P 25 17.59 0.1
MTC 0.56 347 P 25 18.44 0.9
JCPM 0.63 301 P 25 18.35 -0.5
BGC 0.64 329 P 25 19.70 0.6
CSVM 0.66 335 P 25 20.38 0.8
JEGM 0.70 291 eP 25 19.30 -0.9
EKH 0.71 148 P 25 20.12 -0.3
CVPM 0.77 324 P 25 21.77 0.2
BKS 0.77 323 ePd 25 21.38 -0.2
eS 25 32.88
ZSP 0.84 325 iP 25 22.82 0.2
HMR 0.90 352 eP 25 24.19 0.5
eS 25 38.75
SHG 0.90 160 P 25 23.12 -0.7
CPMM 0.91 319 P 25 23.64 -0.3
BPOM 1.04 186 P 25 25.62 -0.5
HVC 1.11 143 P 25 26.78 -0.6
AASM 1.24 20 P 25 28.36 -1.1
CMB 1.26 52 ePd 25 29.35 -0.6
eS 25 46.09
PTV 1.37 147 P 25 30.87 -0.9
NTYM 1.38 325 eP 25 30.42 -1.4
ALAM 1.41 22 P 25 31.14 -1.1
NSHM 1.47 329 P 25 32.29 -0.8
ARJM 1.52 21 P 25 32.81 -1.0
FRI 1.57 99 iP 25 33.68 -0.8
NMHM 1.61 331 P 25 34.02 -1.2
GAXM 1.69 329 P 25 34.97 -1.3
PKEM 1.72 134 eP 25 36.84 0.1
PADM 1.74 159 P 25 40.24 3.2
PHAM 1.74 145 eP 25 35.92 -1.2
GBGM 1.75 332 P 25 36.59 -0.7
AVRM 1.78 9 P 25 37.52 -0.1
GCVM 1.85 325 P 25 42.58 4.0
GRTM 1.86 334 P 25 47.31 8.6
OHCM 2.07 3 P 25 41.16 -0.6
MMPM 2.11 80 eP 25 43.04 0.3
MEMM 2.19 79 eP 25 44.38 0.9
ORV 2.29 3 eP 25 43.30 -1.7
OGOM 2.39 1 P 25 46.61 0.3
MTUM 2.46 87 eP 25 47.73 0.2
BONR 2.74 74 eP 25 52.23 0.5
ISA 3.01 121 eP 25 53.27 -2.0
LMEM 3.27 1 (P) 25 58.65 -0.4
KVN 3.31 56 (Pn) 25 58.84 -0.9
TNP 3.60 76 ePn 26 03.77 -0.1
TPNV 4.32 93 (Pn) 26 14.38 0.3
64 obs. associated

DEC 05, 1993 06h 36m 27.13± 0.83s
19.860 N ± 3.5km 121.230 E ± 5.6km
DEPTH = 55.9 ± 8.2 km
4.7mb (29 obs.)
PHILIPPINE ISLANDS REGION (248)

PIP 1.63 201 iPc 36 54.50 0.6
iS 37 20.00
CVP 2.22 165 iPd 37 03.80 1.7
eS 37 37.00
SZP 2.41 198 iPc 37 05.00 0.1
iS 37 28.00
TGY 5.73 183 eP 38 03.00 11.2X
PGP 6.33 182 eP 38 04.00 3.9X
HKC 7.02 291 iPc 38 05.00 -4.8X
GZH 8.01 295 P 38 22.20 -1.3
Z 14s 1.78um
E 14s 1.58um
WHN 12.32 331 Pc 39 22.00 0.0
1.0s 30.00nm 5.2mb
GYA 14.91 299 P 39 55.40 -0.9
1.0s 24.00nm 4.4mb
Z 16s 1.47um 4.3Msz
pP 40 02.60
KUMJ 15.27 32 eP 40 05.50 4.8X
TIA 16.69 348 Pc 40 18.40 -0.2
XAN 17.86 325 P 40 32.50 -0.8
1.0s 19.00nm 4.2mb
Z 14s 1.19um 5.0Msz
N 10s 0.69um
pP 40 41.50
sP 40 46.50
KMI 17.87 290 eP 40 35.50 1.9
1.5s 50.00nm 4.4mb
Z 16s 1.80um
pP 40 42.00
CD2 19.22 308 eP 40 48.20 -1.4
1.0s 66.00nm 4.8mb
TIY 19.37 339 eP 40 50.50 -0.7
Z 16s 1.90um
N 16s 1.68um
NST 20.51 262 eP 41 07.00 3.8X
BJI 20.58 349 eP 41 02.50 -1.2
1.0s 33.00nm 4.6mb
Z 16s 0.58um 4.0MszX
N 13s 0.34um
eS 44 44.00
CHTO 21.06 271 ePc 41 09.90 1.2
1.0s 15.75nm 4.3mb
IIDJ 21.41 40 P 41 13.00 0.8
SNY 21.99 5 Pc 41 17.70 -0.2
MTMJ 22.10 38 P 41 20.40 1.2
LZH 22.24 320 Pd 41 21.50 0.9
1.5s 66.00nm 4.8mb
Z 17s 0.83um 4.2MszX
N 12s 0.63um
eS 45 25.00
MAT 22.30 38 eP 41 21.00 -0.1
1.0s 9.00nm 4.2mb
eS 45 46.00
CHJJ 22.44 40 P 41 22.40 -0.1
HHC 22.49 341 Pc 41 23.80 0.8
1.0s 11.00nm 4.2mb
Z 16s 1.19um 4.4MszX
N 14s 0.52um
BTO 22.79 338 eP 41 26.00 0.1
YAMJ 24.48 38 eP 41 42.60 0.3
OFUJ 26.04 38 eP 41 55.40 -1.4
GTA 26.83 321 eP 42 04.50 0.3
1.5s 8.00nm 4.1mb
Z 26s 1.24um 4.3MszX
LSA 28.94 296 P 42 25.70 1.8
GUN 33.21 291 P 43 00.80 -0.6
0.8s 31.00nm 5.2mb
PKI 33.59 290 P 43 05.00 0.4
KKN 33.73 290 P 43 04.60 -1.1
GKN 34.31 291 P 43 11.00 0.3
WMQ 36.78 318 eP 43 28.50 -2.8
Z 14s 0.63um 4.6MszX
MBL 40.79 182 eP 44 03.50 -1.2
0.8s 31.00nm 5.1mb
WRA 41.59 161 P 44 09.90 -1.4
0.6s 26.90nm 5.2mb
WB2 41.59 161 iPc 44 09.50 -1.8
0.6s 48.80nm 5.4mb
eS 50 21.60
NANU 42.53 188 iPd 44 19.90 1.0
0.7s 17.00nm 4.9mb
QIS 44.01 155 iPd 44 30.10 -0.9
ASPA 44.99 163 iPd 44 38.30 -0.6
0.3s 45.10nm 5.8mb X
eS 51 19.00
WARB 46.07 173 eP 44 47.60 0.3
0.4s 18.00nm 5.4mb
MEEK 46.29 183 eP 44 48.50 -0.6
CTA 46.66 147 iPd 44 52.50 0.4
0.8s 16.79nm 5.0mb
MRWA 49.05 186 eP 45 10.60 0.0
0.8s 24.00nm 5.3mb
BAL 50.36 185 eP 45 20.20 -0.4
COOL 50.45 180 eP 45 20.50 -0.8
FORT 50.77 172 eP 45 23.80 0.1
0.8s 87.00nm 5.8mb X
KLB 51.27 184 eP 45 26.50 -0.9
MUN 51.77 185 eP 45 31.10 -0.1
NWAO 52.63 184 iPd 45 37.90 0.2
RKG 54.27 184 eP 45 50.40 0.6
0.4s 6.00nm 5.0mb
STK 55.02 159 iPc 45 41.10 -14.2X
0.6s 6.20nm
DZM 60.73 131 iPc 46 35.00 -0.6
CNB 61.02 154 iPd 46 38.10 0.8
0.9s 28.00nm 5.4mb
TTA 69.23 29 eP 47 29.50 -0.5
1.2s 10.95nm 4.7mb
IMA 70.05 26 eP 47 34.33 -0.7
1.1s 4.94nm 4.4mb
FBA 72.63 27 eP 47 51.02 0.8
0.7s 2.54nm 4.3mb
KAF 74.93 331 eP 48 15.80 12.2X
INK 77.21 22 eP 48 16.50 0.2
MBC 77.45 12 eP 48 18.50 0.9
MLR 79.69 315 eP 48 30.00 -0.5
DAG 80.65 351 iPc 48 34.80 -0.1
0.5s 9.15nm 5.0mb
HFS 81.35 331 eP 48 38.20 -0.6
0.5s 1.60nm 4.2mb
NC3 81.87 333 PKP 48 40.40 -1.1
1.0s 3.10nm 4.3mb
RES 82.91 9 eP 48 49.00 2.3
VAY 83.38 311 eP 48 53.50 3.8X
KSP 83.84 322 eP 48 53.40 1.5
e 49 06.30
SKO 83.94 312 eP 48 55.00 2.4
BRG 85.18 323 eP 49 11.00 12.4X
CLL 85.52 323 eP 49 14.00 13.7X
1.1s 14.00nm
GEC2 86.20 321 P 49 06.00 2.1
0.6s 0.54nm 3.9mb
e 49 21.10
YKA 86.92 23 eP 49 06.50 -0.5
0.7s 3.50nm 4.7mb
FRB 96.32 4 eP 49 51.00 0.4
S.D. = 1.1 on 64 of 74 obs.

DEC 05, 1993 06h 47m 13.33± 0.77s
17.874 S ± 7.7km 63.399 W ± 8.6km
DEPTH = 66.1 ± 11.3 km
3.9mb (1 obs.)
CENTRAL BOLIVIA (120)

CCH 2.65 280 P 47 55.50 0.6
SIV 2.91 50 P 47 58.30 0.0
MOCB 3.97 212 P 48 13.40 -0.1
CNCB 4.50 283 P 48 17.10 -4.1X
LPB 4.69 286 P 48 23.00 -0.6
YJA 4.71 204 ePc 48 24.00 0.1
LPAZ 4.79 289 P 48 19.70 -5.6X
HJA 5.64 199 ePc 48 36.50 0.0
YKA 89.61 339 eP 00 04.90 0.3
0.7s 0.50nm 3.9mb
CLL 95.56 38 eP 00 32.00 -0.2
e 01 18.00
S.D. = 0.5 on 8 of 10 obs.

& DEC 05, 1993 06h 58m 39.42s
42.298 N 122.027 W
DEPTH = 2.2km
OREGON (32)
<SEA-P>. MD 2.6 (SEA). ML 3.0
(GS).

LAB 0.04 222 Pc 58 40.77 0.3
VRC 0.15 285 Pc 58 42.88 0.5
S 58 45.98

HAMO 0.23 170 P 58 44.62 0.5
S 58 48.56
LASM 0.77 154 P 58 53.64 -1.3
LMPM 0.82 187 P 58 54.50 -1.2
LBFM 0.96 174 eP 58 56.99 -1.5
LGBM 0.96 188 P 58 57.24 -1.4
DBO 1.22 313 P 59 02.12 -0.7
LBKM 1.30 202 P 59 02.73 -1.6
HSO 1.45 328 P 59 05.99 -0.8
KOMM 1.47 227 P 59 08.76 1.6
LGPM 1.51 204 eP 59 05.28 -2.3
NCOR 1.55 25 P 59 08.10 -0.2
HBO 1.56 352 P 59 08.28 -0.1
LMEM 1.79 169 (P) 59 10.74 -1.0
FHC 2.10 225 eP 59 15.29 -0.7
KMPM 2.45 221 (P) 59 23.37 2.2
17 obs. associated

DEC 05, 1993 07h 08m 32.52± 0.87s
41.956 N ± 7.1km 19.233 E ± 5.7km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.2 (TTG).

ULC 0.01 58 iPgc 08 33.21 -1.2
iSg 08 34.38
BDV 0.45 317 iPgd 08 41.03 -0.6
iSg 08 48.46
TTG 0.47 2 iPgd 08 41.44 -0.7
iSg 08 49.20
HCY 0.73 312 iPgc 08 46.27 -0.7
iSg 08 58.17
PVY 0.84 40 iPgc 08 48.12 -0.7
iSg 09 00.97
NKY 0.87 349 iPgc 08 48.83 -0.6
iSg 09 02.61
IVA 1.04 28 iPgd 08 51.62 -0.6
iSg 09 07.62
BRY 1.07 332 iPgd 08 52.56 -0.3
iSg 09 09.44
PLE 1.38 5 iPgd 08 58.44 0.6
iSg 09 19.56
OHR 1.45 125 ePn 08 58.50 -0.3
SKO 1.65 89 ePn 09 01.50 -0.1
S.D. = 0.5 on 11 of 11 obs.

DEC 05, 1993 07h 13m 39.15± 0.55s
40.706 N ± 7.5km 29.867 E ± 5.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.2 (ISK).

HRT 0.19 307 iPg 13 42.20 -1.2
EYL 0.26 122 iPg 13 43.70 -1.0
GBZT 0.33 285 ePg 13 46.50 0.5
iSg 13 51.80
ISK 0.71 301 iPg 13 52.20 -0.9
ITU 0.76 302 ePg 13 55.00 1.0
iSg 14 05.00
NAL 1.21 114 eP 14 01.50 -0.2
eS 14 18.00
DST 1.45 221 ePn 14 05.10 -0.4
BNT 1.52 257 ePn 14 06.50 0.0
EDC 1.57 257 ePn 14 07.00 -0.1
SGKT 1.67 94 iP 14 10.00 1.2
eS 14 33.80
DMK 1.94 306 ePn 14 13.00 0.5
KHL 2.39 186 ePn 14 19.70 0.6
S.D. = 0.9 on 12 of 12 obs.

? DEC 05, 1993 07h 30m 54.99± 5.06s
33.998 S ±19.3km 72.328 W ±35.7km
DEPTH = 5.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)
MD 3.5 (SAN).

LNV 0.76 87 iP+ 31 11.04 0.8
iS 31 19.12
LCCH 0.82 51 iP+ 31 11.67 0.3
iS 31 20.18
TACH 1.21 74 iP+ 31 17.16 -0.8
(S) 31 30.73
CACH 1.44 95 iP+ 31 22.17 0.3
iS 31 42.24
SAN 1.49 69 iPd 31 22.22 -0.3
ROCH 1.50 47 eP 31 22.52 -0.3
iS 31 41.76
PCH 1.56 77 iP+ 31 22.83 -0.6
iS 31 42.39
PEL 1.61 59 iPd 31 24.61 0.3
iS 31 43.93
FCH 1.83 69 iP+ 31 27.35 -0.2
(S) 31 49.56
JACH 1.96 48 eP 31 29.87 0.6
iS 31 55.38
S.D. = 0.6 on 10 of 10 obs.

DEC 05, 1993 07h 36m 07.97± 4.66s
38.314 S ±58.0km 73.804 W ±41.7km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

LNV 4.76 25 iP 37 19.93 0.7
iS 38 08.95
CACH 4.92 33 iP 37 21.97 0.2
iS 38 13.10
LCCH 5.16 21 iP 37 24.67 -0.2
iS 38 17.24
TACH 5.20 27 iPd 37 25.41 -0.1
iS 38 18.62
PCH 5.39 31 iP 37 28.02 -0.2
iS 38 24.54
SAN 5.48 29 iP 37 29.62 0.2
FCH 5.74 31 iP 37 33.15 -0.2
iS 38 33.81
PEL 5.75 27 iPd 37 33.35 0.1
iS 38 32.86
ROCH 5.79 24 iP+ 37 34.26 0.1
iS 38 34.08
JACH 6.20 26 iPd 37 39.05 -0.7
RTCB 7.95 33 ePd 37 52.70 -11.6X
RTLL 8.23 34 ePd 37 55.60 -12.5X
CNCB 22.02 15 P 41 03.20 1.3
LPB 22.27 15 P 41 04.00 -0.2
LPAZ 22.50 14 P 41 05.70 -1.0
S.D. = 0.6 on 13 of 15 obs.

& DEC 05, 1993 07h 46m 42.86s
42.295 N 122.033 W
DEPTH = 2.8km
OREGON (32)
<SEA-P>. MD 2.8 (SEA). ML 2.8 (GS).

LAB 0.04 220 Pc 46 44.24 0.3
VRC 0.14 287 Pc 46 46.43 0.7
S 46 48.81
HAMO 0.23 168 P 46 47.86 0.3
BBOR 0.76 321 Pd 46 57.11 -0.9
LBFM 0.95 174 eP 47 00.46 -1.4
DBO 1.21 313 P 47 05.19 -1.0
HSO 1.45 328 P 47 09.44 -0.7
LGPM 1.50 204 eP 47 08.90 -2.0
eS 47 25.70
WDC 1.76 193 eP 47 13.19 -1.2
RNO 2.04 323 P 47 18.94 0.3
FHC 2.09 225 eP 47 19.53 0.2
KMPM 2.45 221 (P) 47 24.17 -0.3
ORV 2.77 171 eP 47 28.06 -0.9
VGB 3.35 15 (P) 47 35.75 -1.4
14 obs. associated

DEC 05, 1993 07h 54m 30.44± 1.24s
33.903 S ± 9.4km 69.813 W ± 6.9km
DEPTH = 5.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).

PCH 0.65 296 iP+ 54 43.12 -0.3
iS 54 48.84
CACH 0.69 252 iP+ 54 45.29 1.1
iS 54 52.59
FCH 0.70 325 iP 54 45.30 0.9
iS 54 52.63
SAN 0.84 302 iP+ 54 46.53 -0.6
iS 54 54.58
TACH 0.97 285 iP+ 54 48.70 -0.6
iS 54 58.36
PEL 1.05 316 iP+ 54 50.85 0.1
iS 55 02.20
LNV 1.33 267 iP+ 54 55.11 -0.3
iS 55 09.60
ROCH 1.37 313 iPd 54 55.94 -0.4
iS 55 11.28
JACH 1.38 332 iP 54 57.34 0.9
iS 55 13.88
LCCH 1.53 286 iP 54 58.06 -0.3
iS 55 15.27
RTCV 2.30 28 eP 55 10.00 0.3
S 55 44.00
CFA 2.65 31 ePd 55 14.00 -0.6
S.D. = 0.7 on 12 of 12 obs.

DEC 05, 1993 08h 01m 16.26± 1.23s
41.923 N ± 9.7km 19.170 E ± 8.1km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.9 (TTG).

ULC 0.07 56 iPgc 01 17.83 -0.8
iSg 01 18.63
BDV 0.44 325 iPgc 01 25.28 0.0
iSg 01 32.59
TTG 0.51 8 iPgc 01 26.13 -0.5
iSg 01 34.10
HCY 0.72 317 iPgc 01 30.45 0.0
iSg 01 42.13
NKY 0.90 352 iPgc 01 33.42 -0.1
iSg 01 47.22
PVY 0.90 41 iPgc 01 32.97 -0.6
iSg 01 45.98
BRY 1.08 335 iPgd 01 36.83 0.1
iSg 01 53.54
IVA 1.09 29 iPgc 01 36.72 -0.1
iSg 01 52.60
PLE 1.42 7 iPgc 01 43.04 0.9
iSg 02 04.03
OHR 1.47 123 iPn 01 41.50 -1.3
SKO 1.69 88 iPn 01 48.40 2.4
iSg 02 13.00
iSn 02 14.50
VAY 2.62 102 ePn 02 11.40 12.1X
S.D. = 1.1 on 11 of 12 obs.

? DEC 05, 1993 08h 27m 28.88± 1.01s
39.458 N ± 9.1km 27.853 E ±12.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.9 (ISK).

DST 0.62 76 iPg 27 41.50 0.2
iSg 27 50.60
BNT 0.90 3 iPg 27 46.20 0.1
IZM 1.15 204 ePn 27 50.50 0.0
YLV 1.61 46 ePn 27 57.20 -0.3
S.D. = 0.3 on 4 of 4 obs.

? DEC 05, 1993 08h 37m 00.58± 1.04s
39.118 N ± 8.7km 27.507 E ±17.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.74 195 ePg 37 15.20 0.0
eSg 37 28.20
DST 1.00 60 ePn 37 19.50 0.0
EDC 1.26 13 ePn 37 24.00 0.1
BNT 1.28 14 ePn 37 24.20 -0.1
S.D. = 0.1 on 4 of 4 obs.

? DEC 05, 1993 09h 32m 13.23± 5.45s
39.206 N ± 9.7km 26.508 E ±55.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

IZM 1.00 144 ePg 32 32.20 0.0
eSg 32 45.20
EDC 1.55 42 ePn 32 41.00 0.2
BNT 1.58 43 ePn 32 41.20 -0.2
DST 1.69 76 ePn 32 43.00 0.0
S.D. = 0.2 on 4 of 4 obs.

? DEC 05, 1993 09h 34m 58.16± 1.41s
40.409 N ±10.1km 21.792 E ± 9.0km
DEPTH = 5.0km (geophysicist)
GREECE (364)

LIT 0.62 120 ePg 35 10.54 0.0
eSg 35 23.30
GRG 0.72 40 ePg 35 11.98 -0.5

05d 09h

OHR 1.03 313 ePn 35 18.00 -0.1
VAY 1.09 33 ePn 35 20.00 1.0
KNT 1.13 48 ePb 35 19.38 -0.4
eSb 35 39.10
S.D. = 0.8 on 5 of 5 obs.

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* DEC 05, 1993 09h 34m 58.98± 0.79s
4.266 S ± 8.9km 142.974 E ±14.4km
DEPTH = 125.6 ± 12.8 km
4.6mb (2 obs.)
NEW GUINEA, PAPUA NEW GUINEA (202)

WWKK 0.91 45 iPd 35 20.90 -0.1
MNDI 2.00 160 eP 35 34.00 0.6
YYYY 3.57 123 eP 35 53.50 -0.4
LAT 4.66 121 eP 36 08.50 0.0
WB2 17.70 208 iPd 38 58.10 -1.1
0.6s 57.10nm 5.0mb X
iS 42 26.20
ASPA 21.18 204 eP 39 36.20 0.3
0.9s 11.20nm 4.2mb
WARB 26.83 214 eP 40 30.00 0.5
GUN 63.57 304 P 45 19.20 0.1
GKN 64.64 304 P 45 25.80 0.0
YAK 66.88 353 eP 45 33.30 -5.9X
1.0s 25.00nm 5.1mb
S.D. = 0.6 on 9 of 10 obs.

? DEC 05, 1993 09h 41m 22.15± 1.03s
39.114 N ± 9.0km 27.558 E ±17.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

IZM 0.75 198 ePg 41 36.90 0.0
eSg 41 50.70
DST 0.96 59 ePn 41 40.50 0.0
EDC 1.25 11 ePn 41 45.00 -0.4
BNT 1.27 13 ePn 41 46.20 0.5
S.D. = 0.6 on 4 of 4 obs.

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* DEC 05, 1993 09h 43m 19.26± 1.72s
41.180 N ± 9.4km 20.344 E ±13.4km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)

OHR 0.35 101 iPgc 43 25.50 -0.8
0.3s 290.00nm
iSg 43 31.90
SKO 1.14 46 iPg 43 41.00 -0.1
iSg 43 58.50
GRG 1.57 97 ePb 43 48.21 0.3
iSb 44 10.82
IGT 1.65 180 ePb 43 48.60 -0.3
eSb 44 10.88
VAY 1.68 84 iPn 43 48.00 -1.5
KNT 1.93 90 ePn 43 53.92 0.9
eSn 44 20.16
LIT 1.96 123 ePn 43 54.08 0.6
eSn 44 20.80
SOH 2.31 98 ePn 43 58.76 0.2
SRS 2.45 90 ePn 44 01.23 0.6
eSn 44 31.96
AGG 2.64 144 ePn 44 03.12 -0.1
OUR 2.89 106 ePn 44 07.00 0.2
S.D. = 0.8 on 11 of 11 obs.

% DEC 05, 1993 09h 50m 22.22± 1.80s
12.120 N ± 8.6km 126.185 E ±20.3km
DEPTH = 33.0km (normal)
PHILIPPINE ISLANDS REGION (248)

PLP 1.52 231 ePd 50 46.30 -1.0
MAP 2.80 231 iPd 51 06.00 0.3
BIP 3.87 179 eP 51 21.00 0.1
eS 52 13.00
CGP 3.93 202 iPc 51 22.00 0.3
CTB 5.27 202 ePc 51 54.00 13.3X
TGY 5.48 292 ePd 51 45.00 1.2
BCP 6.89 309 eP 52 03.00 -0.7
CVP 6.97 323 ePd 52 04.60 -0.1
S.D. = 0.9 on 7 of 8 obs.

? DEC 05, 1993 10h 05m 05.35± 1.00s
39.148 N ± 8.7km 27.595 E ±16.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.79 199 ePg 05 20.80 0.0
eSg 05 35.10
DST 0.92 60 ePn 05 23.00 0.0
EDC 1.21 10 ePn 05 28.00 0.0
BNT 1.23 12 ePn 05 28.20 -0.1
S.D. = 0.1 on 4 of 4 obs.

? DEC 05, 1993 10h 52m 57.11± 1.01s
39.142 N ± 8.7km 27.579 E ±16.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.78 199 ePg 53 12.40 0.0
eSg 53 25.40
DST 0.94 60 ePn 53 15.00 0.0
EDC 1.22 10 ePn 53 20.00 0.2
BNT 1.24 12 ePn 53 20.00 -0.2
S.D. = 0.2 on 4 of 4 obs.

? DEC 05, 1993 10h 54m 06.24± 1.19s
39.147 N ± 8.9km 27.427 E ±18.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.76 190 ePg 54 21.10 0.0
eSg 54 33.60
DST 1.04 63 ePn 54 25.90 0.0
EDC 1.25 16 ePn 54 30.00 0.6
BNT 1.27 17 ePn 54 29.10 -0.7
S.D. = 0.9 on 4 of 4 obs.

% DEC 05, 1993 10h 55m 48.81± 3.93s
41.929 N ±28.9km 19.237 E ± 7.3km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.7 (TTG).

ULC 0.04 15 iPgc 55 49.70 -1.2
iSg 55 50.36
BDV 0.47 319 iPgd 55 57.79 -0.5
iSg 56 04.54
TTG 0.50 2 iPgd 55 58.14 -0.8
iSg 56 05.95
HCY 0.75 314 iPgc 56 03.14 -0.4
iSg 56 13.98
PVY 0.86 39 iPgc 56 04.96 -0.5
iSg 56 17.92
IVA 1.06 27 iPgc 56 08.52 -0.3
iSg 56 24.73
BRY 1.10 332 iPgd 56 09.52 0.0
iSg 56 25.36
S.D. = 0.5 on 7 of 7 obs.

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* DEC 05, 1993 11h 18m 26.12± 2.32s
20.792 S ±14.1km 67.379 W ±19.0km
DEPTH = 203.9 ± 33.2 km
SOUTHERN BOLIVIA (125)

MOCB 1.69 106 P 19 02.40 -0.3
HJA 3.03 143 ePd 19 16.90 0.2
S 19 54.50
CCH 3.59 19 P 19 24.40 0.6
CNCB 4.00 352 P 19 29.10 -0.1
LPB 4.29 351 P 19 33.00 0.3
LPAZ 4.54 351 P 19 35.40 -0.6
SIV 7.66 52 P 20 15.80 -0.2
S.D. = 0.6 on 7 of 7 obs.

% DEC 05, 1993 11h 29m 56.83± 0.69s
44.354 N ± 6.1km 7.304 E ± 7.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

STV 0.11 172 P 30 00.07 0.3
S 30 01.90
ENR 0.15 147 P 30 00.62 0.2
S 30 03.00
PZZ 0.21 316 P 30 01.45 0.0
S 30 04.70
ROB 0.41 98 P 30 05.66 0.4
S 30 11.51
BHB 0.49 357 P 30 06.73 0.0
S 30 13.12
IMI 0.61 136 P 30 08.59 -0.6
S 30 16.69
FIN 0.67 102 P 30 09.93 -0.2
S 30 18.83
S.D. = 0.4 on 7 of 7 obs.

DEC 05, 1993 11h 35m 57.89± 0.92s
41.981 N ± 7.7km 19.185 E ± 7.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.6 (TTG).

ULC 0.05 110 iPgd 35 58.49 -1.6
iSg 35 59.48
BDV 0.40 319 iPgd 36 06.23 0.1
iSg 36 13.72
TTG 0.45 7 iPgd 36 06.93 -0.1
iSg 36 14.78
HCY 0.69 313 iPgd 36 11.20 -0.4
iSg 36 [illegible].66
NKY 0.84 351 iPgc 36 [illegible]17 -0.1
iSg 3[illegible] .87
PVY 0.85 43 iPgd 36 [illegible].58 -0.7
iSg 36 26.07
BRY 1.03 333 iPgc 36 17.63 0.1
iSg 36 34.63
IVA 1.03 30 iPgc 36 17.40 -0.1
iSg 36 33.26
PLE 1.36 6 iPgd 36 23.60 0.7
iSg 36 44.67
OHR 1.49 125 ePn 36 25.50 0.7
SKO 1.68 90 iPn 36 28.80 1.3
S.D. = 0.9 on 11 of 11 obs.

& DEC 05, 1993 12h 19m 31.07s
63.289 N 151.081 W
DEPTH = 7.4km
CENTRAL ALASKA (1)
<AEIC>. ML 2.6 (AEIC).

KTH 0.27 15 iP 19 36.31 -0.4
eS 19 40.45
TRF 0.39 65 iP 19 38.82 -0.2
eS 19 45.00
HUR 0.73 115 eP 19 44.78 -0.8
eS 19 54.71
CUT 0.96 157 iP 19 49.27 -0.3
RND 1.01 82 eP 19 49.66 -0.9
eS 20 03.36
MCK 1.06 64 eP 19 50.86 -0.4
BWN 1.14 38 eP 19 52.99 0.3
SKT 1.33 189 eP 19 55.24 -0.6
eS 20 13.09
NEA 1.57 33 eP 19 59.50 0.2
DHY 1.69 96 eP 20 01.40 0.1
eS 20 24.75
PWA 1.74 161 P 20 01.50 -0.2
MLY 1.76 5 eP 20 01.55 -0.5
WRH 1.78 47 eP 20 02.91 0.6
GHO 1.82 146 eP 20 02.39 -0.7
SUA 1.84 175 eP 20 03.61 0.2
PLRM 1.93 151 eP 20 03.93 -0.6
PMR 1.93 151 eP 20 03.70 -0.8
SML 1.96 138 eP 20 04.65 -0.4
NCG 1.96 195 eP 20 04.63 -0.5
CCB 1.99 45 eP 20 03.20 -2.2
CGLM 2.04 193 eP 20 05.78 -0.4
CRP 2.09 194 eP 20 06.15 -0.9
MDM 2.09 35 eP 20 04.75 -2.2
CP2 2.10 195 eP 20 07.46 0.2
BGL 2.12 197 eP 20 08.33 0.9
CKN 2.14 194 eP 20 07.99 0.4
HDA 2.14 57 eP 20 05.95 -1.7
CKT 2.16 195 eP 20 08.08 0.1
SPU 2.16 193 eP 20 08.25 0.2
FBA 2.17 40 eP 20 09.74 1.7
eS 20 38.27
PMS 2.17 160 P 20 09.30 1.2
KNK 2.25 146 eP 20 08.87 -0.3
TTA 2.27 263 eP 20 07.61 -2.0
SCM 2.27 128 eP 20 10.80 1.2
BKG 2.30 195 eP 20 09.91 0.0
GLM 2.35 42 eP 20 09.04 -1.7
IL1 2.37 49 eP 20 09.68 -1.3
ILB 2.37 49 eP 20 08.68 -2.3
DDM 2.39 76 eP 20 11.12 -0.1

```
TOA      2.56 116 P       20 16.10    2.5
PAX      2.57  95 eP      20 14.50    0.7
CFI      2.62 142 eP      20 14.83    0.4
SDG      2.65 104 eP      20 16.21    1.3
PWL      2.76 151 eP      20 16.71    0.2
DFR      2.81 196 eP      20 17.90    0.6
SLKM     2.82 171 eP      20 18.29    0.9
REF      2.91 196 eP      20 18.99    0.2
IM3      2.94 338 eP      20 16.90   -2.1
KLU      3.00 125 eP      20 20.62    0.7
IMA      3.01 339 eP      20 16.95   -3.1
SVW      3.05 226 (P)     20 21.92    1.3
       51 obs. associated
-----------------------------------------
% DEC  05, 1993  12h 59m 18.13± 3.59s
  41.893 N ±26.3km    19.190 E ± 7.1km
  DEPTH =  10.0km  (geophysicist)
 ALBANIA                            (391)
      ML 2.2 (TTG).

ULC      0.08  33 iPgd  59 20.12   -0.5
                  iSg   59 21.71
BDV      0.47 325 iPgd  59 27.37   -0.4
                  iSg   59 34.93
TTG      0.54   6 iPgd  59 28.53   -0.5
                  iSg.  59 36.71
HCY      0.76 317 iPgd  59 32.65   -0.2
                  iSg   59 44.46
PVY      0.91  39 iPgc  59 35.50   -0.1
                  iSg   59 48.69
NKY      0.93 351 iPgd  59 36.16    0.2
                  iSg   59 49.81
IVA      1.11  28 iPgc  59 39.19    0.2
                  iSg   59 55.33
BRY      1.11 335 iPgd  59 39.39    0.3
                  iSg   59 55.92
PLE      1.44   6 iPgc  59 45.57    1.2
                  iSg   00 06.72
    S.D. = 0.6  on   9 of   9 obs.
-----------------------------------------
% DEC  05, 1993  14h 11m 50.92± 0.90s
  39.296 N ± 9.0km    22.545 E ±14.4km
  DEPTH =  33.0km  (normal)
 GREECE                             (364)

AGG      0.32 211 iPg    11 59.00   0.0
                  eSg    12 07.72
LIT .    0.80 357 ePg    12 06.16   0.3
                  eSg    12 20.64
PAIG     1.08  54 ePb    12 09.68  -0.1
                  eSb    12 27.44
SOH      1.65  22 ePb    12 18.24   0.3
                  eSb    12 40.80
GRG      1.66 356 ePb    12 17.96  -0.2
KNT      1.88   8 ePn    12 21.00  -0.4
                  eSn    12 47.00
    S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
* DEC  05, 1993  14h 12m 31.93± 0.58s
  19.098 N ± 6.1km  120.492 E ±13.5km
  DEPTH =  10.0km  (geophysicist)
  4.2mb (  7 obs.)
 PHILIPPINE ISLANDS REGION          (248)

PIP      0.78 171 iPc    12 47.00  -0.1
                  iS     12 58.00
SZP      1.54 181 iPc    13 01.00   1.6
                  eS     13 07.00
BAG      2.67 178 ePd    13 15.00  -1.0
                  eS     13 48.00
HKC      6.72 299 iPc    14 09.50  -3.6X
GYA     14.70 302 P      16 09.00   7.0X
     Z  16s      1.21um
KMI     17.50 293 eP     16 37.50  -0.5
       1.5s     60.00nm          4.5mb
     Z  14s      1.90um          4.2Msz
     N  11s      0.70um
     E  11s      0.90um
CD2     19.16 311 iPd    16 58.30   0.0
TIY     19.84 341 eP     17 05.50  -0.4
     Z  14s      1.43um
     N  11s      0.57um
                  S      21 03.50
CHTO    20.38 273 eP     17 16.90   5.2X
BJI     21.20 351 eP     17 19.50  -0.4
       1.4s     12.00nm          4.1mb
     Z  16s      0.58um          4.1MszX
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       E  12s      0.50um
                   epP     17 24.00   16kmX
                   eS      21 24.00
LZH     22.39 322 Pd       17 32.50     0.3
         2.0s     56.00nm            4.7mb
       Z  12s      0.79um           4.4MszX
       N  11s      0.71um
                   pP      17 43.00   40kmX
                   PP      18 10.00
HHC     22.99 342 eP       17 40.00     2.1
         1.0s     11.00nm            4.3mb
       Z  15s      0.95um           4.4MszX
       N  13s      0.58um
                   sP      17 51.00
BTO     23.24 339 eP       17 41.00     0.7
MDJ     26.56  15 eP       18 11.90     0.2
GTA     27.00 323 eP       18 15.50    -0.5
         1.5s      6.00nm            4.1mb
       Z  10s      0.64um           4.5MszX
       E  10s      0.22um
GUN     32.84 292 P        19 08.00    -0.5
GEC2    86.35 321 P        25 21.50     5.8X
         0.9s      1.34nm            4.1mb
YKA     87.89  22 eP       25 21.30    -1.4
         1.1s      1.50nm            4.2mb
       S.D. = 1.0  on  14 of  18 obs.
-----------------------------------------
% DEC  05, 1993  14h 15m 39.74± 0.52s
   38.521 N ± 4.6km     1.281 W ± 5.1km
   DEPTH =   5.0km  (geophysicist)
 SPAIN                              (377)
        mbLg 3.2 (MDD).

EALH     0.67 189 iPd     15 52.72   -0.5
                  e       16 01.70
ACU      0.68  91 iPc     15 53.22   -0.2
                  e       16 03.50
EVIA     0.96 277 iPd     15 59.75    1.1
                  e       16 12.60
ECHE     1.10  13 iPd     16 01.13    0.3
                  e       16 17.90
EHUE     1.25 236 iPc     16 04.46    0.9
                  e       16 21.20
ENIJ     1.71 206 eP      16 10.01   -0.4
                  e       16 32.00
EBAN     2.00 261 iPc     16 14.15   -0.5
                  e       16 41.80
ECOG     2.19 236 eP      16 18.73    1.2
                  e       16 46.30
ETOR     2.37 346 eP      16 21.09    1.1
                  e       16 49.20
EGUA     2.47 228 eP      16 22.49    1.1
                  e       16 51.70
ELUQ     2.55 249 eP      16 22.33   -0.1
                  e       16 54.80
PAB      2.60 294 ePn     16 22.00   -1.2
                  iPg     16 35.50
                  iSg     17 12.00
EROQ     2.64  29 eP      16 23.34   -0.4
                  e       16 55.00
GUD      3.07 315 iPc     16 29.93    0.0
                  e       17 06.90
EHOR     3.20 259 iPc     16 30.09   -1.6
                  e       17 08.50
EPLA     4.03 294 iPd     16 42.00   -1.5
                  e       17 27.80
ECRI     4.19 347 eP      16 46.25    0.5
       S.D. = 1.0  on  17 of  17 obs.
-----------------------------------------
   DEC  05, 1993  14h 22m 53.51± 0.74s
   42.282 N ± 5.7km  122.110 W ± 7.1km
   DEPTH =   5.0km  (geophysicist)
 OREGON                             ( 32)
       ML 3.4 (GS), 3.2 (BRK).

YBH      0.71 219 eP     23 07.33   -0.4
                  eS     23 17.69
LASM     0.79 150 P      23 08.82   -0.7
LMPM     0.79 183 P      23 09.36   -0.2
LGBM     0.94 184 P      23 12.14    0.1
LBFM     0.95 170 eP     23 11.76   -0.4
LBKM     1.27 199 P      23 17.43   -0.2
KOMM     1.42 225 P      23 20.90    0.8
LGPM     1.47 202 eP     23 20.11   -0.7
                  eS     23 38.69
WDC      1.73 191 eP     23 24.39    0.0
LMEM     1.79 167 eP     23 25.34   -0.1
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MIN      1.97 169 ePc     23 29.73    1.6
                  eS      23 55.18
FHC      2.04 224 (P)     23 28.87   -0.1
ORV      2.76 170 eP      23 39.78    0.5
VGB      3.37  16 eP      23 47.76   -0.2
BONR     5.21 145 (P)     24 16.19    1.9X
HVU      6.97  91 (P)     24 42.62    3.7X
MSU      8.46 113 (P)     25 02.97    3.1X
      S.D. = 0.7  on  14 of  17 obs.
-----------------------------------------
   DEC  05, 1993  15h 10m 48.32± 0.33s
   44.181 N ± 3.4km   12.189 E ± 3.5km
   DEPTH =  23.9 ±  3.8 km
 NORTHERN ITALY                     (545)
      ML 3.6 (VIE), 3.1 (LDG). MD 3.6
       (TRI), 3.3 (ROM), 3.2 (FIR).

RSM      0.32 143 P       10 55.40   -0.1
SFI      0.36 223 P       10 55.13   -1.0
PGD      0.46 228 P       10 56.68   -1.2
CRE      0.58 197 P       10 58.90   -0.9
FIR      0.78 239 ePg     11 03.00   -0.2
                  iSg     11 14.00
ARV      0.87 141 P       11 04.71    0.0
MME      1.07 271 P       11 09.80    1.7
BDI      1.15 265 P       11 10.68    1.6
ASS      1.16 163 P       11 10.22    1.0
PII      1.29 250 P       11 11.81    1.0
VVI      1.81   5 P       11 18.95    0.5
MNS      1.83 169 P       11 20.36    1.6
SAL      1.85 321 P       11 20.28    1.3
TRI      1.89  36 e(Pn)d11 19.40     -0.2
                  e       11 23.20
                  e(PgPg11 29.00
                  e       11 42.50
                  e       11 50.50
                  i(Sg) 11 52.40
CTI      1.91 349 P       11 20.12    0.2
RIY      1.95  53 iPnd    11 20.30   -0.1
                  iSn     11 45.40
VOY      2.21  33 iPnc    11 24.10   -0.2
                  e       11 29.50
                  eSn     11 51.80
                  e       12 02.00
CEY      2.22  45 ePn     11 25.50    1.1
                  e       11 30.20
                  eSn     11 54.00
                  eSg     12 05.10
FVI      2.45  10 P       11 28.31    0.8
LJU      2.49  41 ePn     11 28.80    0.5
                  eSn     11 59.20
VBY      2.55  58 ePn     11 29.30    0.2
                  iPg     11 36.50
                  i       11 56.20
                  i       11 59.70
                  iSn     12 01.80
                  i(Sg) 12 15.00
OGA      2.81 343 ePn     11 34.50    1.6
PGF      2.84 236 Pn      11 34.90    1.7
                  Sn      12 07.50
OSS      2.89 331 eP      11 36.30    2.3
VAI      2.95 306 P       11 35.77    1.1
VDL      3.00 321 eP      11 36.70    1.2
KBA      3.01  15 iPnc    11 36.60    0.9
                  iPg     11 45.80
                  iSn     12 12.40
                  iSg     12 29.30
TMA      3.03 311 eP      11 36.60    0.5
WTTA     3.11 353 iPnc    11 38.60    1.5
                  iPg     11 50.40
                  iSn     12 16.80
                  i       12 32.10
SBF      3.44 266 Pn      11 43.20    1.4
                  Sn      12 21.50
FRF      4.06 263 Pn      11 51.00    0.6
LPG      4.09 291 Pn      11 51.00   -0.1
LPL      4.10 291 Pn      11 51.60    0.3
                  Sn      12 37.20
LMR      4.20 260 Pn      11 52.30   -0.1
LRG      4.28 262 Pn      11 53.90    0.4
KHC      5.04  10 Pn      12 04.20   -0.2
                  e       12 24.00
                  eSn     13 00.00
                  e       13 29.50
BSF      5.24 316 Pn      12 07.20   -0.1
                  Sn      13 03.60
CDF      5.43 323 Pn      12 09.00   -0.9
```

05d 15h

Sn 13 07.40
HAU 5.58 315 Pn 12 10.80 -1.2
Sn 13 11.60
PRU 6.03 15 ePn 12 41.30 23.1X
e 13 24.00
e 13 42.20
e 13 55.90
e 14 11.20
SMF 6.37 296 Pn 12 22.90 -0.2
LBF 6.41 299 Pn 12 22.10 -1.6
Sn 13 32.00
SSF 6.74 298 Pn 12 26.20 -2.0
AVF 6.74 296 Pn 12 27.10 -1.2
BGF 7.00 293 Pn 12 31.00 -0.9
S.D. = 1.1 on 44 of 45 obs.

DEC 05, 1993 15h 22m 03.77± 0.85s
42.301 N ± 6.4km 121.952 W ±10.0km
DEPTH = 5.0km (geophysicist)
OREGON (32)
MD 3.0 (GS).

LMPM 0.83 191 P 22 20.39 0.0
LBFM 0.95 177 eP 22 22.76 0.2
eS 22 34.95
LGBM 0.97 191 P 22 23.10 0.2
LBKM 1.33 204 P 22 27.23 -1.6
KSXM 1.51 252 P 22 32.68 1.1
KOMM 1.52 228 P 22 31.30 -0.4
LGPM 1.54 206 eP 22 31.17 -0.8
eS 22 50.34
LMEM 1.78 171 eP 22 36.07 0.4
KMPM 2.49 222 (P) 22 46.34 0.6
ORV 2.76 173 eP 22 50.27 0.7
VGB 3.32 14 (P) 22 57.11 -0.4
S.D. = 0.9 on 11 of 11 obs.

DEC 05, 1993 15h 24m 39.19± 0.63s
38.957 N ± 4.6km 23.948 E ± 7.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.5 (ATH).

PAIG 0.99 348 iPg 24 58.66 0.7
eSg 25 13.64
ATH 1.00 191 ePb 24 58.00 -0.1
eSb 25 11.50
AGG 1.26 273 ePb 25 01.98 -0.7
eSb 25 19.20
OUR 1.38 1 iPb 25 04.62 0.3
LIT 1.60 316 ePb 25 07.00 -0.7
eSb 25 28.48
THE 1.84 336 ePb 25 10.04 -0.9
SOH 1.92 346 iPn 25 12.33 0.1
KZN 2.15 309 ePn 25 18.00 2.3
SRS 2.17 353 iPn 25 15.53 -0.4
GRG 2.32 330 ePn 25 17.33 -0.8
KNT 2.34 340 ePn 25 18.37 0.0
eSn 25 47.84
VLI 2.37 200 ePn 25 19.00 0.2
eSn 25 50.50
RDO 2.50 29 ePn 25 20.00 -0.6
ALN 2.52 39 iPn 25 21.33 0.5
eSn 25 52.89
VAY 2.59 336 ePn 25 21.40 -0.4
OHR 3.24 313 ePn 25 31.50 0.4
KEK 3.30 285 ePb 25 37.00 5.0X
SKO 3.57 328 ePn 25 40.00 4.3X
S.D. = 0.8 on 16 of 18 obs.

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* DEC 05, 1993 15h 25m 11.44± 1.30s
38.911 N ±12.0km 23.938 E ± 8.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)

PAIG 1.03 349 ePg 25 30.84 -0.1
iSg 25 46.28
AGG 1.26 276 ePb 25 34.04 -0.8
eSb 25 50.88
OUR 1.42 1 ePb 25 36.56 -0.7
LIT 1.63 317 ePb 25 40.92 0.6
eSb 26 00.00
THE 1.88 337 ePb 25 42.88 -0.9
SOH 1.96 347 ePb 25 44.56 -0.5
SRS 2.22 353 ePn 25 47.88 -1.0
GRG 2.36 330 ePn 25 49.64 -1.2
KNT 2.39 341 iPn 25 52.56 1.4
ALN 2.56 39 iPn 25 54.92 1.3
VAY 2.63 337 iPn 25 57.00 2.4
IZM 2.65 100 ePn 25 55.00 -0.1
OHR 3.26 313 iPn 26 04.80 1.1
EDC 3.35 63 ePn 26 17.00 12.1X
BNT 3.40 64 ePn 26 16.00 10.4X
SKO 3.60 329 ePn 26 12.00 3.5X
e 26 20.00
DST 3.71 78 ePn 26 18.00 8.0X
MLR 6.74 12 ePc 26 51.50 -1.5
WRA 117.90 94 PKP 44 20.60 20.5X
1.0s 0.30nm
S.D. = 1.3 on 14 of 19 obs.

DEC 05, 1993 15h 32m 27.81± 0.43s
38.967 N ± 4.4km 23.881 E ± 4.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.8 (ATH).

ATH 1.00 187 ePb 32 46.00 -0.8
eSb 33 00.00
AGG 1.21 273 ePb 32 49.60 -0.8
iSb 33 08.00
LIT 1.56 317 ePb 32 55.80 0.1
THE 1.81 337 ePb 32 58.90 -0.3
iSb 33 22.00
PRK 1.88 81 ePb 33 02.00 1.7
KZN 2.11 310 ePn 33 04.00 0.3
SRS 2.16 354 ePn 33 03.30 -1.0
KNT 2.32 341 ePn 33 06.30 -0.3
VLI 2.37 199 ePn 33 05.50 -1.8
eSn 33 35.00
RDO 2.52 30 ePn 33 09.00 -0.4
ALN 2.55 40 ePn 33 09.70 -0.1
VAY 2.56 337 iPn 33 10.60 0.7
FNA 2.65 314 ePn 33 12.30 1.0
VLS 2.70 254 ePn 33 13.00 1.0
IZM 2.71 101 ePn 33 12.00 -0.2
OHR 3.19 313 ePn 33 19.10 0.1
i 33 31.50
KEK 3.25 285 ePn 33 22.00 2.1
EDC 3.37 65 ePn 33 22.00 0.5
BNT 3.41 65 ePn 33 22.00 -0.1
SKO 3.53 329 ePn 33 22.00 -1.8
VAM 3.56 176 ePn 33 25.00 0.7
DST 3.74 79 ePn 33 39.00 12.1X
MLR 6.70 13 ePc 34 08.00 -0.7
S.D. = 1.0 on 22 of 23 obs.

& DEC 05, 1993 16h 49m 55.93s
42.294 N 122.020 W
DEPTH = 2.5km
OREGON (32)
<SEA-P>. MD 2.9 (SEA). ML 3.0
(GS).

LAB 0.04 231 P 49 57.35 0.3
VRC 0.15 286 P 49 59.46 0.5
S 50 02.43
HAMO 0.23 171 P 50 00.78 0.2
S 50 04.86
BBOR 0.77 321 P 50 10.59 -0.7
LBFM 0.95 174 eP 50 13.37 -1.5
eS 50 27.57
DBO 1.22 313 P 50 18.55 -0.9
HSO 1.46 328 P 50 22.89 -0.5
LGPM 1.51 204 eP 50 21.75 -2.3
eS 50 41.34
NCOR 1.55 24 P 50 24.88 0.1
HBO 1.57 352 P 50 24.67 -0.2
WDC 1.76 193 iPd 50 26.76 -0.8
LMEM 1.79 169 (P) 50 26.60 -1.6
FHC 2.10 225 (P) 50 31.51 -1.0
KMPM 2.45 221 (P) 50 37.38 -0.3
SSOR 2.58 353 P 50 39.48 0.0
ORV 2.76 172 (P) 50 44.68 2.6
16 obs. associated

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* DEC 05, 1993 17h 10m 09.80± 1.11s
31.386 N ±12.1km 138.143 E ±13.3km
DEPTH = 403.1 ± 15.0 km
3.7mb (5 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT 5.14 1 eP 11 34.00 0.0
1.2s 18.75nm 3.9mb
iS 12 39.60
GUN 45.21 280 P 17 51.30 0.4
PKI 45.71 279 P 17 54.60 -0.2
KKN 45.75 280 P 17 55.20 0.3
GKN 46.23 280 P 17 58.20 -0.3
WB2 51.16 185 eP 18 35.00 -0.6
0.3s 2.50nm 4.0mb
WRA 51.16 185 P 18 35.80 0.2
0.5s 0.70nm 3.2mb
ASPA 54.89 185 eP 19 02.90 0.4
0.6s 3.00nm 3.8mb
GBA 58.13 267 P 19 25.00 -0.2
YKA 70.05 28 eP 20 40.70 0.0
0.5s 0.30nm 3.2mb
S.D. = 0.4 on 10 of 10 obs.

& DEC 05, 1993 17h 15m 04.62s
37.988 N 121.868 W
DEPTH = 16.7km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.3 (GM). ML 3.2
(GS), 3.0 (BRK).

CSVM 0.16 221 P 15 09.14 0.1
HMR 0.17 18 ePd 15 10.40 1.2
CPIM 0.27 270 P 15 11.39 0.6
CDAL 0.28 157 P 15 11.72 0.9
ZSP 0.31 262 iP 15 11.91 0.6
BKS 0.31 249 ePd 15 11.80 0.4
eS 15 16.60
CMCM 0.32 230 P 15 11.93 0.4
CPLM 0.36 192 P 15 13.38 1.2
CDVM 0.45 160 P 15 14.42 0.8
JSBM 0.52 234 P 15 15.11 0.2
CVR 0.54 174 P 15 15.72 0.5
MGA 0.59 234 P 15 16.45 0.3
SFT 0.63 203 P 15 17.52 0.7
STAN 0.63 203 ePd 15 17.51 0.7
JEGM 0.67 225 eP 15 17.56 0.1
MHC 0.67 164 ePd 15 17.82 0.3
ARN 0.69 157 eP 15 18.10 0.2
JBMM 0.71 199 P 15 18.77 0.6
NBPM 0.73 339 P 15 19.00 0.6
NTYM 0.74 303 ePc 15 18.39 -0.3
COE 0.75 168 ePd 15 19.20 0.4
LXR 0.79 187 P 15 20.05 0.5
NCFM 0.80 295 P 15 19.62 -0.1
JSMM 0.81 197 P 15 20.55 0.7
ADR 0.84 167 P 15 20.97 0.5
CBO 0.89 171 P 15 21.35 0.2
JBLM 0.89 196 P 15 21.44 0.1
NMHM 0.91 319 P 15 20.94 -0.7
EUC 0.94 177 P 15 22.68 0.6
JRRM 0.94 173 P 15 22.10 0.0
NFIM 0.94 252 P 15 22.25 0.2
HGWM 0.98 170 P 15 22.78 0.0
PEV 1.01 178 P 15 24.53 1.3
GARM 1.01 343 P 15 23.42 0.1
CSR 1.05 168 P 15 23.73 -0.3
AHRM 1.07 36 P 15 23.36 -0.9
GSGM 1.10 323 P 15 25.04 0.2
ANZ 1.12 169 P 15 29.23 4.0
AVRM 1.14 24 P 15 24.28 -1.1
DIL 1.16 171 P 15 24.86 -1.1
CMB 1.17 87 ePc 15 25.56 -0.6
eS 15 40.37
LTR 1.19 158 P 15 25.89 -0.4
GHCM 1.21 301 P 15 25.31 -1.5
SAO 1.27 164 eP 15 26.48 -1.0
BHRM 1.35 159 P 15 31.54 2.9
BSRM 1.35 168 P 15 27.34 -1.3
GHGM 1.36 327 P 15 28.04 -0.9
BLRM 1.40 160 P 15 33.91 4.5
GSNM 1.41 313 P 15 30.61 1.0
ORV 1.59 10 eP 15 31.35 -0.8
OGOM 1.68 7 P 15 33.15 -0.2
FRI 1.98 119 iP 15 37.30 -0.5
PRI 2.08 152 iP 15 38.94 -0.4
MMPM 2.28 99 (P) 15 42.48 0.0
MEMM 2.34 97 (P) 15 42.21 -0.7
LMEM 2.56 5 eP 15 46.02 -0.2
MTUM 2.70 103 eP 15 48.65 0.4
BONR 2.82 90 (P) 15 49.51 -0.5
LGPM 3.01 346 (P) 15 52.82 0.2
KVN 3.14 69 (P) 15 54.42 -0.1
BCH 3.14 152 eP 15 53.53 -0.9
LBFM 3.35 360 (P) 15 57.23 -0.3

ISA 3.58 129 eP 16 00.52 -0.1
TNP 3.67 87 (Pn) 16 01.84 -0.3
TPNV 4.59 101 (Pn) 16 14.67 -0.4
65 obs. associated

% DEC 05, 1993 17h 41m 31.32± 0.90s
39.408 N ± 8.9km 27.929 E ±11.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.0 (ISK).

DST 0.58 70 iPg 41 42.60 -0.4
eSg 41 50.60
EDC 0.94 357 iPg 41 49.00 -0.2
eSg 42 02.00
IZM 1.14 207 ePn 41 52.60 0.0
IZI 1.51 52 iPn 41 58.90 0.4
YLV 1.60 43 ePn 42 00.00 0.2
S.D. = 0.5 on 5 of 5 obs.

& DEC 05, 1993 18h 55m 00.66s
38.797 N 120.031 W
DEPTH = 13.6km
NORTHERN CALIFORNIA (36)
<GM-P>. MD 3.2 (GM). ML 3.0
(BRK), 2.8 (GS).

ASMM 0.51 273 P 55 09.97 -1.0
ARJM 0.73 262 P 55 13.88 -0.8
ADWM 0.73 241 P 55 13.81 -0.9
ALAM 0.76 253 P 55 14.25 -0.9
CMB 0.81 200 ePc 55 14.80 -1.3
eS 55 25.40
ARRM 0.89 268 P 55 16.50 -0.9
APRM 0.93 275 P 55 17.12 -0.9
MSTM 0.94 198 P 55 17.18 -1.1
ABJM 0.98 292 P 55 17.90 -1.0
MOYM 0.99 205 P 55 18.19 -0.9
AFRM 1.03 270 P 55 19.22 -0.5
OHCM 1.25 296 P 55 22.44 -1.1
ORV 1.37 304 ePc 55 24.30 -1.0
eS 55 41.78
OBHM 1.40 308 P 55 25.37 -0.5
MEMM 1.42 142 eP 55 26.61 0.6
MMPM 1.42 146 eP 55 26.22 -0.2
MCSM 1.44 142 P 55 27.18 0.5
OGOM 1.50 305 P 55 26.75 -0.3
KVN 1.53 80 eP 55 27.80 0.0
eS 55 49.17
HMR 1.53 246 eP 55 28.67 1.1
MGL 1.56 311 P 55 28.15 0.1
ORC 1.59 137 P 55 29.80 1.1
BONR 1.60 121 eP 55 28.87 0.0
eS 55 51.79
HTCR 1.61 141 P 55 30.07 1.0
CSTL 1.63 225 P 55 29.75 0.6
MTC 1.71 235 P 55 30.92 0.7
CDAL 1.71 232 P 55 30.72 0.5
CDVM 1.79 227 P 55 31.86 0.5
CVAL 1.80 230 P 55 32.25 0.8
FRI 1.82 172 iP 55 32.49 0.7
MTUM 1.85 141 eP 55 32.39 0.0
ARN 1.87 220 eP 55 33.31 0.7
eS 55 59.57
NMTM 1.89 271 P 55 33.15 0.4
CPIM 1.90 245 P 55 33.80 0.9
CPLM 1.91 233 P 55 33.79 0.7
MSJ 1.93 229 P 55 34.56 1.1
MHC 1.93 222 eP 55 34.49 1.0
eS 55 59.42
CVR 1.94 227 P 55 34.12 0.6
BKS 1.96 243 eP 55 33.69 -0.2
COE 2.01 221 (P) 55 35.66 1.1
GHS 2.03 214 P 55 35.72 0.7
NMHM 2.04 267 P 55 35.79 0.7
HSPM 2.05 215 P 55 36.93 1.7
BRMM 2.06 198 P 55 36.18 0.9
GBGM 2.07 271 P 55 36.04 0.5
NTYM 2.10 260 eP 55 35.81 0.0
GAXM 2.13 269 P 55 36.18 -0.2
JRRM 2.20 218 P 55 37.68 0.4
GHGM 2.20 280 P 55 37.86 0.4
JBMM 2.23 229 P 55 37.72 -0.1
EUC 2.24 219 P 55 38.84 0.9
SAO 2.32 209 iP 55 39.00 0.0
TNP 2.32 107 eP 55 41.76 2.5
BLRM 2.34 205 P 55 43.91 4.5
LBFM 2.92 331 (P) 55 49.91 2.2
LGPM 3.02 315 (P) 55 48.99 0.0
ISA 3.37 158 eP 55 55.73 1.8
TPNV 3.52 120 (Pg) 56 04.46 8.3
58 obs. associated

DEC 05, 1993 19h 05m 02.27± 0.79s
49.181 N ± 5.1km 153.380 E ± 3.5km
DEPTH = 36.7 ± 7.0 km
4.9mb (49 obs.) 4.1Msz (2 obs.)
KURIL ISLANDS (221)

SKR 2.30 49 iPnc 05 37.50 -1.1
eS 06 12.40
PET 5.08 39 ePn 06 20.00 2.1
Z 14s 4.00um
N 12s 5.46um
E 13s 5.40um
KUR 5.45 226 ePn 06 28.00 4.9X
YSS 7.46 257 ePn 06 51.00 -0.4
Z 11s 1.90um
N 11s 1.00um
KUSJ 8.55 228 eP 07 04.80 -1.8
eS 07 38.90
ASAJ 8.95 240 eP 07 17.50 5.4X
HOOJ 9.79 230 eP 07 19.10 -4.5X
OFUJ 13.13 224 P 08 04.20 -4.4X
YAMJ 14.61 226 P 08 24.30 -3.9X
VLA 16.05 256 iPc 08 49.00 2.3
MAT 16.79 227 eP 08 55.00 -1.1
1.0s 48.00nm 4.6mb
eS 12 28.00
YAK 18.40 323 iPc 09 17.30 1.4
1.0s 226.00nm 5.3mb
Z 13s 0.90um 4.4MszX
E 12s 0.60um
ePP 09 30.00
ePPP 09 40.00
e(S) 12 50.00
e 15 45.00
ILT 23.38 27 iPc 10 08.60 0.6
Z 16s 1.50um 4.5MszX
KUMJ 23.68 234 eP 10 12.60 1.3
BOD 24.55 306 eP 10 20.30 0.8
1.3s 48.00nm 4.9mb
TIK 25.18 342 iPc 10 25.00 -0.3
1.5s 204.00nm 5.5mb
Z 16s 0.60um 4.2MszX
i 10 31.00
e 11 00.00
CIT 25.19 292 eP 10 27.00 1.3
BJI 27.78 265 eP 10 50.00 0.5
1.0s 6.00nm 4.2mb
Z 20s 0.36um 4.0Msz
eS 15 50.00
SVW 30.66 48 eP 11 14.23 -0.9
0.8s 35.34nm 5.2mb
BRW 31.72 28 eP 11 23.40 -0.8
IMA 31.76 38 eP 11 23.41 -1.4
0.8s 7.78nm 4.6mb
ZAK 31.88 292 eP 11 27.00 1.2
1.4s 23.00nm 4.9mb
CRP 32.33 47 eP 11 29.71 -0.2
SLKM 33.34 49 (P) 11 37.63 -0.9
PMR 33.76 47 eP 11 40.40 -1.7
1.2s 54.83nm 5.3mb
FBA 34.17 41 ePc 11 44.77 -0.9
0.8s 23.47nm 5.2mb
pP 11 53.10 28kmX
TOA 35.10 45 eP 11 53.90 0.2
KLU 35.30 46 eP 11 54.73 -0.7
LZH 38.05 269 eP 12 18.50 -0.5
1.5s 32.00nm 5.0mb
Z 16s 0.59um 4.5MszX
N 10s 0.44um
INK 39.52 34 eP 12 30.50 -0.1
1.0s 4.00nm 4.1mb
MBC 42.25 21 eP 12 54.00 1.0
1.0s 2.00nm 3.8mb X
RES 48.48 19 eP 13 42.50 -0.1
0.8s 3.00nm 4.4mb
YKA 48.88 38 eP 13 45.70 -0.1
0.8s 11.80nm 5.0mb
SVE 52.20 316 ePc 14 10.90 -0.3
1.5s 70.00nm 5.4mb
Z 11s 0.50um 4.8MszX
N 12s 0.40um
E 12s 0.30um
FRU 52.76 295 iP 14 16.80 1.2
e 14 25.00
ARU 53.36 316 ePc 14 20.00 0.2
1.2s 100.00nm 5.7mb
DAG 54.23 358 iPc 14 23.80 -2.1
0.8s 4.48nm 4.5mb
GUN 55.00 273 P 14 32.00 -0.7
KKN 55.47 274 P 14 35.80 -0.1
PKI 55.54 274 P 14 36.60 0.1
NEW 55.58 54 eP 14 35.58 -0.7
1.2s 16.19nm 4.9mb
GKN 55.75 274 P 14 37.40 -0.4
LAT 55.89 188 eP 14 38.50 -0.1
ORV 58.55 65 eP 14 56.73 -0.6
KVN 60.88 63 eP 15 14.35 0.8
BONR 61.49 64 eP 15 18.14 0.3
PTI 61.59 56 eP 15 19.59 1.2
HVU 62.10 58 eP 15 22.19 0.4
FRB 62.70 20 eP 15 23.00 -2.1
1.0s 13.00nm 5.0mb
DUG 63.15 59 ePc 15 29.02 0.4
0.9s 13.33nm 5.1mb
TPNV 63.37 64 eP 15 30.18 0.0
0.7s 6.37nm 4.8mb
OBN 63.41 325 ePd 15 29.00 -1.0
1.0s 17.00nm 5.1mb
e 15 36.00
i 16 05.00
DAU 63.87 58 eP 15 34.17 0.5
GSC 64.16 65 (P) 15 35.44 0.1
ARUT 64.43 61 eP 15 37.30 0.1
EMUT 64.52 58 eP 15 38.23 0.4
ULM 64.57 42 eP 15 40.00 2.3
MSU 64.66 60 ePc 15 39.26 0.6
RSSD 65.13 51 eP 15 41.40 -0.2
1.1s 42.66nm 5.4mb
SRU 65.17 58 ePc 15 42.26 0.3
QUE 65.61 288 eP 15 44.50 -0.3
NC3 65.74 341 P 15 44.40 -0.6
1.0s 14.80nm 5.0mb
HFS 66.24 339 eP 15 46.30 -1.9
0.4s 1.60nm 4.4mb
PV09 66.38 58 eP 15 49.98 0.2
PV10 66.52 58 ePc 15 51.19 0.6
PV08 66.59 58 ePc 15 51.37 0.1
GLA 66.90 66 eP 15 53.21 0.4
KIV 69.24 314 eP 16 07.90 0.6
JAQ 69.35 29 eP 16 06.50 -1.2
TUC 69.83 64 eP 16 12.44 1.4
0.9s 5.55nm 4.6mb
ALQ 70.42 59 ePc 16 15.26 0.5
0.7s 6.73nm 4.8mb
e 16 33.06
WB2 70.87 199 iPd 16 16.40 -0.9
1.0s 22.10nm 5.2mb
WRA 70.87 199 P 16 16.50 -0.8
0.9s 10.30nm 4.9mb
CLL 74.33 335 e(P) 16 35.00 -2.3
e 16 58.00
ASPA 74.57 198 iPc 16 39.30 0.3
0.8s 11.30nm 4.9mb
WMOK 74.78 54 ePc 16 40.34 0.0
0.8s 15.77nm 5.0mb
OCO 74.87 53 iPc 16 42.40 1.6
PRU 75.08 334 eP 16 40.50 -1.2
TUL 75.45 52 iPc 16 44.40 0.3
KHC 76.13 334 eP 16 47.40 -0.3
1.0s 5.40nm 4.5mb
e 17 11.00
LTX 76.15 61 ePc 16 47.56 -0.7
GEC2 76.35 334 PKP 16 48.10 -1.0
0.7s 0.83nm 3.8mb X
e 17 11.10
GAC 76.36 33 eP 16 48.50 -0.5
DOU 77.54 340 P 16 57.10 1.6
WLF 77.58 339 iPc 16 55.66 0.0
ELC 77.62 46 ePd 16 56.35 0.2
KBA 78.05 333 i(P) 16 58.60 0.0
1.2s 15.00nm 4.9mb
WTTA 78.37 334 iPc 17 00.20 -0.2
CDF 78.47 338 eP 17 00.50 -0.3
1.1s 8.80nm 4.7mb
HAU 79.08 338 eP 17 03.50 -0.5
1.0s 5.00nm 4.5mb
Z 24s 0.15um 4.2MszX
LMN 79.68 26 eP 17 07.50 0.3

05d 19h

OXF 79.76 48 eP 17 08.08 0.2
1.1s 44.94nm 5.4mb
LDF 79.96 342 eP 17 08.10 -0.6
1.3s 35.00nm 5.2mb
GRR 80.30 343 eP 17 10.30 -0.2
1.2s 45.20nm 5.3mb
LOR 80.36 339 eP 17 10.50 -0.4
1.0s 11.00nm 4.8mb
Z 23s 0.17um 4.3MszX
SSF 80.64 340 eP 17 12.00 -0.3
1.0s 6.60nm 4.6mb
LPF 80.67 343 eP 17 12.50 0.0
1.1s 29.05nm 5.2mb
AVF 80.93 340 eP 17 13.80 -0.1
1.1s 12.70nm 4.8mb
SMF 80.95 339 eP 17 14.00 0.0
LPL 81.30 337 eP 17 16.70 0.5
1.0s 8.40nm 4.7mb
LPG 81.32 337 eP 17 16.90 0.6
1.2s 13.40nm 4.8mb
MAF 81.64 340 eP 17 18.10 0.5
1.1s 22.95nm 5.1mb
TCF 81.66 340 eP 17 17.90 0.2
1.2s 15.75nm 4.9mb
LSF 81.85 341 eP 17 18.90 0.2
1.1s 19.80nm 5.0mb
MFF 81.86 342 eP 17 19.00 0.3
1.3s 19.15nm 5.0mb
RJF 82.75 340 eP 17 23.70 0.3
Z 22s 0.13um 4.2Msz
LFF 83.26 341 eP 17 26.70 0.7
1.0s 12.20nm 5.0mb
LKO 118.67 336 PKP 23 47.59 -0.6
0.6s 3.00nm
KIC 121.48 334 PKP 23 53.32 -0.2
0.7s 11.00nm
LPAZ 133.02 61 PKP 24 17.20 0.9
LPB 133.23 61 ePKP 24 18.00 1.6
CNCB 133.52 61 ePKP 24 19.00 1.8
SIV 136.64 52 PKP 24 22.50 0.1
SYO 143.09 213 ePKPd 24 31.10 -1.3
VAO 149.33 39 (PKP) 24 48.00 3.8X
S.D. = 0.9 on 109 of 115 obs.

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* DEC 05, 1993 19h 15m 23.78± 0.72s
51.097 N ±14.9km 179.323 E ± 7.2km
DEPTH = 33.0km (normal)
3.9mb (3 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

ADK 2.62 71 eP 16 06.10 1.5
SMY 3.62 299 eP 16 19.36 0.5
IMA 20.31 32 eP 19 58.57 -0.8
0.5s 3.04nm 3.9mb
TOA 21.67 46 eP 20 12.60 -0.6
FBA 21.90 38 eP 20 16.20 0.9
BRW 22.99 20 eP 20 26.30 0.2
INK 28.37 35 eP 21 21.00 4.6X
YKA 36.28 46 eP 22 23.80 -1.6
0.5s 1.90nm 4.3mb
PV09 50.37 75 eP 24 19.72 -0.2
GUN 70.86 291 P 26 39.90 0.2
KKN 71.30 291 P 26 42.20 0.0
0.6s 15.00nm 5.2mb X
PKI 71.39 291 P 26 42.70 -0.1
GKN 71.52 292 P 26 43.50 0.1
WRA 81.00 222 P 27 36.20 -0.2
0.7s 0.40nm 3.5mb
S.D. = 0.8 on 13 of 14 obs.

DEC 05, 1993 19h 37m 01.45± 0.17s
6.467 S ± 3.2km 130.426 E ± 4.1km
DEPTH = 136.9km (4 depth phases)
5.3mb (51 obs.)
BANDA SEA (280)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 37S, 61C
Centroid Location:
Origin Time 19:36:58.0 0.4
Lat 6.50S 0.04 Lon 130.88E 0.04
Dep 96.3 2.8 Half-duration 1.2
Moment Tensor; Scale 10**17 Nm
Mrr= 0.42 0.04 Mtt= 0.06 0.05
Mff=-0.48 0.08 Mrt=-1.19 0.04
Mrf= 0.60 0.04 Mtf= 0.82 0.05
Principal Axes:
T Val= 1.45 Plg=48 Azm=175
N 0.31 26 299
P -1.76 30 46
Best Double Couple:Mo=1.6*10**17
NP1:Strike=185 Dip=29 Slip= 159
NP2: 294 80 63

KUG 7.68 241 ePc 38 49.30 -2.6
iS 40 16.00
WSI 10.53 252 ePc 39 26.60 -3.2X
eS 41 20.00
JAY 10.97 69 ePc 39 29.40 -6.3X
1.0s 39.00nm 5.0mb
eS 41 23.30
MNDI 13.16 89 eP 39 58.00 -6.5X
WWKK 13.45 79 eP 40 02.80 -5.2X
WB2 13.93 164 iPd 40 04.90 -9.3X
iS 42 31.00
DAV 14.31 340 ePc 40 17.00 -2.0
eS 43 10.00
KHKI 14.81 262 ePd 40 22.70 -2.6
eS 43 07.60
e 47 40.50
CTB 14.93 335 ePd 40 30.00 3.2X
BIP 15.18 344 ePd 40 31.90 2.0
LAT 16.47 92 eP 40 44.00 -2.0
TSM 16.47 310 eP 40 48.00 2.0
QIS 16.60 148 eP 40 40.10 -7.4X
eS 43 32.30
PMG 16.83 101 eP 40 47.50 -2.9
ASPA 17.43 169 iPc 40 52.20 -5.5X
0.7s 777.90nm 6.1mb
eS 43 51.90
iScS 52 34.30
TRT 17.70 265 iPc 40 54.00 -6.9X
0.6s 12.00nm 4.4mb
eS 43 56.50
MBL 17.85 214 iPd 40 58.80 -3.9X
0.3s 80.00nm 5.5mb
MAP 17.87 339 ePc 41 02.00 -1.0
PLP 18.33 343 ePc 41 09.00 0.9
SJI 18.56 265 ePc 41 07.90 -2.6
0.5s 6.00nm 4.2mb X
eS 44 29.60
e 46 49.00
KKM 18.86 311 ePd 41 17.00 3.2X
0.8s 79.20nm 5.1mb
e 41 46.00
WARB 19.94 190 iPc 41 23.40 -1.5
eS 45 00.00
CTA 20.48 133 iPc 41 29.80 -0.6
1.1s 335.44nm 5.7mb
e 41 33.50 14kmX
eS 45 12.00
e 50 26.00
iScS 52 49.00
KVG 20.68 80 ePd 41 32.00 -0.4
NANU 21.51 220 eP 41 40.10 -0.4
0.3s 42.00nm 5.3mb
eS 45 38.50
PGP 21.96 335 eP 41 41.00 -4.0X
TPI 22.99 278 ePc 41 56.50 1.4
e 45 00.00
MEEK 23.00 208 iPc 41 54.80 -0.3
eS 46 05.00
FORT 24.29 185 eP 42 06.90 -0.5
0.5s 189.00nm 5.9mb
GUA 24.54 36 eP 42 09.40 -0.5
0.7s 383.56nm 6.0mb
pP 42 38.60 143km
GUMO 24.55 36 eP 42 09.20 -0.8
0.9s 634.60nm 6.1mb
pP 42 38.50 143km
PJG 24.55 36 eP 42 09.30 -0.7
BAG 24.73 337 eP 42 11.00 -0.9
1.0s 56.00nm 5.0mb
eS 46 20.00
KLI 25.49 272 eP 42 18.00 -0.8
e 42 47.00 140km
COOL 25.80 199 iPc 42 20.20 -1.4
iS 47 12.00
MRWA 26.41 209 iPd 42 26.20 -0.9
0.6s 163.00nm 5.8mb
iS 47 22.00
BAL 27.25 207 iPc 42 33.20 -1.5
0.3s 36.00nm 5.5mb

iS 47 43.50
STK 27.35 159 iPd 42 20.70 -14.9X
0.7s 98.80nm
eS 47 07.30
KLB 27.66 204 iPc 42 37.80 -0.6
0.6s 112.00nm 5.7mb
iS 47 51.00
KGM 28.34 286 ePd 42 44.30 -0.4
MUN 28.64 206 iPc 42 46.00 -1.2
1.0s 240.00nm 5.9mb
iS 48 16.50
NWAO 29.05 203 iPc 42 50.10 -0.7
eS 48 19.50
ADE 29.37 166 iPd 42 52.40 -1.4
RKG 30.59 202 iPc 43 05.00 0.6
ARMA 31.06 143 eP 43 07.90 -0.8
1.0s 31.00nm 5.0mb
ePP 44 02.40
eS 48 07.30
eScP 49 37.00
IPM 31.33 290 ePd 43 09.90 -1.3
0.8s 35.40nm 5.2mb
e 49 36.30
BWA 32.41 152 iP 43 30.00 9.6X
e 44 46.70 413kmX
SNG 32.68 294 eP 43 22.90 0.0
RIV 33.32 148 eP 43 28.50 0.3
CAN 33.42 152 iPc 43 28.80 -0.3
i 43 31.70 10kmX
e 44 45.10
eScP 49 44.50
e 50 36.00
LOE 36.97 310 eP 43 58.50 -0.8
NST 37.20 307 eP 44 01.50 0.3
KAGJ 37.44 1 eP 44 02.60 -0.5
KHT 37.97 304 iPc 44 07.30 -0.5
DZM 38.06 118 iPc 44 08.00 -0.6
SSE 38.38 347 Pc 44 10.80 -0.1
1.2s 83.00nm 5.4mb
eS 49 55.00
BKM 38.54 110 iPc 44 10.00 -2.5
KUMJ 38.79 1 eP 44 13.60 -0.7
BDT 38.98 308 iPd 44 16.00 -0.1
1.0s 207.00nm 5.8mb
NJ2 39.86 345 Pd 44 22.60 -0.5
1.2s 58.00nm 5.2mb
WHN 39.89 338 Pd 44 24.00 0.6
CHTO 39.93 310 ePc 44 24.10 0.2
0.9s 26.64nm 5.0mb
GYA 40.03 326 P 44 25.20 0.4
TKSJ 40.37 5 iPd 44 27.30 0.0
WKYJ 40.76 7 P 44 30.20 -0.4
KMI 41.37 320 Pd 44 37.00 1.1
1.0s 40.00nm 5.1mb
YONJ 41.53 4 P 44 36.70 -0.1
TSRJ 42.10 7 iPd 44 40.90 -0.6
IIDJ 42.31 9 P 44 41.90 -1.4
CHJJ 43.05 10 P 44 47.20 -2.0
MTMJ 43.38 9 iPd 44 50.70 -1.3
MAT 43.40 9 iPd 44 50.20 -1.8
1.0s 115.00nm 5.5mb
eS 51 05.00
KAKJ 43.42 11 P 44 50.40 -1.8
NIIJ 44.21 10 iPd 44 57.00 -1.5
TIA 44.25 345 P 44 58.70 -0.2
CD2 45.08 327 eP 45 05.60 0.0
XAN 45.14 335 Pd 45 05.20 -0.8
0.7s 16.00nm 4.8mb
S 51 28.00
YAMJ 45.30 11 P 45 07.10 -0.1
OFUJ 46.50 12 P 45 16.40 -0.2
TIY 47.05 340 Pd 45 20.90 -0.2
Z 30s 0.62um 4.4MszX
BJI 48.11 345 eP 45 28.00 -1.1
1.5s 99.00nm 5.3mb
Z 20s 0.30um 4.3Msz
eS 52 12.00
SNY 48.47 353 Pd 45 31.20 -0.6
1.0s 71.00nm 5.4mb
Z 36s 1.11um 4.6MszX
LZH 49.14 331 Pd 45 37.00 -0.4
2.0s 93.00nm 5.2mb
Z 20s 0.65um 4.6Msz
S 52 31.50
VLA 49.37 1 iPc 45 39.00 0.3
1.0s 50.00nm 5.3mb
MRRJ 49.62 10 eP 45 38.40 -2.2

HOOJ 50.01 12 eP 45 44.00 0.4
HHC 50.17 341 eP 45 45.10 0.0
1.2s 45.00nm 5.2mb
CN2 50.23 355 Pc 45 44.40 -0.9
0.8s 52.00nm 5.4mb
epP 46 13.00 122km
BTO 50.46 340 eP 45 46.00 -1.3
QRZ 50.78 139 P 45 49.60 0.0
MDJ 50.85 359 Pd 45 49.50 -0.5
0.9s 52.00nm 5.3mb
KUSJ 51.01 13 eP 45 50.70 -0.5
THZ 51.50 140 P 45 55.00 -0.1
ASAJ 51.54 11 eP 45 54.90 -0.4
LSA 52.11 316 iPd 46 01.40 1.0
1.0s 27.00nm 5.0mb
MCQ 53.12 160 eP 46 07.70 0.9
GTA 53.71 331 eP 46 12.00 0.4
1.4s 35.00nm 5.1mb
YSS 54.35 10 iPc 46 14.60 -1.4
0.4s 47.00nm 5.7mb
Z 24s 1.40um 4.9MszX
GUN 54.92 311 P 46 20.70 -0.2
PKI 55.10 310 P 46 21.30 -0.9
0.7s 40.00nm 5.4mb
KKN 55.32 310 P 46 23.20 -0.3
DMN 55.35 310 P 46 23.80 -0.1
0.8s 21.00nm 5.1mb
GKN 55.91 310 P 46 27.40 -0.4
GBA 56.26 291 Pc 46 29.00 -1.2
HYB 56.46 296 ePc 46 30.60 -1.1
1.2s 157.10nm 5.8mb
CIT 59.99 348 eP 46 56.00 0.4
POO 61.05 295 iPc 46 57.50 -5.9X
1.0s 40.00nm 5.3mb
CSY 61.30 189 iPc 46 54.10 -10.2X
0.9s 50.20nm
ZAK 61.30 341 eP 47 04.80 0.3
1.6s 34.00nm 5.1mb
NDI 62.00 307 iPc 47 08.20 -1.3
WMQ 63.18 327 iPd 47 17.40 0.3
1.0s 28.00nm 5.1mb
Z 32s 0.68um 4.6MszX
pP 47 43.50 105kmX
PP 49 36.00
PcS 51 57.00
S 55 39.00
ScS 56 57.20
SS 59 48.50
PET 63.91 19 eP 47 21.50 -0.1
BOD 65.44 351 iPd 47 30.10 -1.3
1.0s 45.00nm 5.4mb
YAK 68.28 360 iPd 47 49.80 0.7
0.9s 301.00nm 6.1mb
ipP 48 15.00 99kmX
iS 56 43.00
esS 57 19.00
iScS 57 57.00
FRU 70.43 320 eP 48 02.00 -0.8
2.0s 40.00nm 4.9mb
QUE 70.84 305 eP 48 06.50 0.8
MAW 75.60 201 iP+ 48 33.90 1.4
0.8s 123.53nm 5.7mb
TIK 77.95 359 iPc 48 45.00 -0.3
0.9s 47.00nm 5.2mb
Z 18s 0.50um 4.9Msz
i 48 58.00 44kmX
e 51 42.00
iS 58 25.00
e 58 48.00
MAIO 78.68 309 iPd 48 51.20 1.0
ASH 80.02 310 eP 48 59.00 1.7
SHI 82.74 301 eP 49 13.00 1.1
SPA 83.57 180 iPc 49 15.70 0.4
0.9s 181.82nm 5.9mb
SDN 83.63 32 eP 49 15.35 -0.2
0.9s 111.61nm 5.7mb
SYO 84.34 201 ePc 49 22.30 3.4X
eSKS 59 33.00
eS 00 11.00
SVE 84.53 329 iPd 49 21.10 1.1
1.8s 50.00nm 5.1mb
ARU 85.45 328 eP 49 25.00 0.4
SVW 87.96 28 eP 49 38.60 1.8
TTA 88.33 26 eP 49 40.20 1.6
TAB 89.32 308 eP 49 45.00 1.1
IMA 90.19 23 eP 49 48.00 0.7
NVL 92.98 197 iPc 50 02.00 2.0

1.4s 69.00nm 5.7mb
Z 17s 0.50um 5.0MszX
E 17s 0.50um
NAI 93.46 268 iPc 50 05.50 2.0
MTD 96.56 252 iP 50 03.40 -14.0X
OBN 97.45 325 eP 50 20.00 -0.5
e 50 45.00 92kmX
INK 98.21 22 eP 50 24.00 0.3
1.0s 2.00nm 4.6mb
BUL 98.79 249 iP 50 25.00 -2.5
MBC 101.00 13 ePdiff50 38.00 1.9
YKA 107.09 26 ePdiff51 03.70 0.3
0.9s 0.90nm 4.9mb
YKA 107.09 26 ePKP 55 12.80 0.5
1.0s 1.20nm
PRU 111.44 321 ePKP 55 22.00 1.1
BRG 111.55 322 e(PKP)55 22.20 1.1
CLL 111.98 323 ePKP 55 22.00 0.1
GEC2 112.28 320 PKP 55 23.50 0.8
0.6s 2.08nm
e 55 24.80
e 58 49.40
WTTA 114.07 319 iPKPc 55 26.70 0.3
0.6s 14.10nm
WATA 114.09 319 iPKPc 55 26.60 0.2
MOTA 114.39 319 iPKPc 55 27.20 0.2
0.9s 8.90nm
SRU 116.47 49 ePKP 55 32.29 1.1
BSF 116.97 321 ePKP 55 32.00 0.2
1.0s 13.80nm
HAU 117.18 321 ePKP 55 32.60 0.6
1.0s 7.60nm
PV09 117.67 50 ePKP 55 35.27 1.6
PV10 117.77 50 ePKP 55 35.36 1.6
eSKP 59 01.56
LPG 117.84 319 ePKP 55 34.40 0.7
0.7s 5.75nm
LPL 117.85 319 ePKP 55 34.30 0.6
0.6s 6.20nm
PV08 118.02 50 (PKP) 55 36.33 1.9
eSKP 59 02.36
FRF 118.59 317 ePKP 55 35.40 0.6
0.8s 8.35nm
LOR 119.02 321 ePKP 55 36.20 0.6
0.9s 4.10nm
LBF 119.06 321 iPKPc 55 36.40 0.7
0.8s 5.10nm
SSF 119.32 321 iPKPc 55 37.00 0.9
0.9s 11.30nm
AVF 119.53 321 ePKP 55 37.00 0.5
1.0s 7.20nm
BGF 119.95 321 ePKP 55 38.40 1.1
0.9s 21.45nm
GOL 120.14 48 ePKP 55 39.65 1.4
TCF 120.46 321 ePKP 55 39.40 1.1
0.7s 4.95nm
ALQ 120.65 53 ePKP 55 40.74 1.4
LSF 120.90 321 ePKP 55 39.80 0.7
0.9s 6.70nm
CAF 121.12 319 ePKP 55 40.90 1.3
1.0s 9.00nm
LPF 121.64 324 ePKP 55 41.50 1.1
1.0s 15.60nm
MFF 121.78 322 iPKPc 55 41.60 0.8
0.8s 17.35nm
LPO 121.79 319 ePKP 55 42.20 1.3
EPF 123.04 318 ePKP 55 44.20 0.8
LTX 124.29 59 ePKP 55 45.67 -0.7
UYO 130.27 50 iPKPd 55 58.90 1.4
KIC 135.46 272 PKP 56 08.77 0.8
0.9s 19.50nm
LIC 135.74 272 PKP 56 09.27 0.8
0.6s 6.50nm
TIC 135.75 273 PKP 56 09.37 0.9
0.9s 14.50nm
LKO 136.36 277 PKP 55 56.61 -13.1X
1.0s 24.00nm
TCA 139.76 160 ePKP 56 08.00 -7.6X
FSA 143.92 154 ePKPc 56 22.20 -0.6
SLA 145.33 154 iPKPc 56 17.00 -8.5X
MBO 147.00 286 iPKPd 56 32.70 4.5X
NNA 147.27 124 ePKP 56 31.00 2.2X
0.8s 29.85nm
ARE 148.55 137 ePKP 56 37.00 5.9X
CNCB 150.57 142 PKP 56 37.00 2.5X
VAO 150.60 185 ePKP 56 35.40 1.6
LPB 150.71 141 PKP 56 35.00 0.5

1.0s 180.00nm
i 56 43.00
LPAZ 150.87 141 PKP 56 37.40 2.4X
i 56 42.80
CCH 151.20 146 PKP 56 37.50 2.4X
i 56 43.60
PPD 151.63 177 ePKP 56 37.40 2.1
e 56 43.00
SIV 154.95 153 PKP 56 41.60 1.6
SDV 158.99 82 ePKP 56 47.20 1.9
TOV 159.72 79 ePKP 56 48.10 2.2
SOB1 162.19 209 ePKP 56 50.70 2.3X
e 57 37.40
S.D. = 1.1 on 163 of 191 obs.

DEC 05, 1993 20h 33m 31.82± 0.83s
11.816 N ± 5.1km 86.813 W ± 4.6km
DEPTH = 73.8 ± 7.1 km
5.0mb (41 obs.)
NEAR COAST OF NICARAGUA (74)
MD 4.6 (APY). Felt (IV) at
Managua.

PYN 0.60 340 iPd 33 44.20 -1.9
SDV 16.18 99 eP 37 18.70 2.4
TOV 16.84 95 ePn 37 25.60 1.2
CAR 19.55 92 eP 37 56.00 -0.6
OXF 22.72 354 ePc 38 29.23 1.0
0.6s 129.87nm 5.5mb
Z 21s 0.71um 4.1Msz
MYNC 23.28 6 ePc 38 36.47 2.7
0.8s 74.72nm 5.2mb
UYO 23.32 344 iPc 38 35.00 0.9
MIAR 23.45 346 ePc 38 36.00 0.7
0.7s 133.34nm 5.5mb
LTX 23.46 321 ePc 38 34.51 -1.1
ePcP 42 21.36
CEH 24.97 15 eP 38 51.45 1.5
0.7s 115.07nm 5.4mb
FNO 25.24 339 iPc 38 52.20 -0.3
MEO 25.25 337 iPd 38 51.90 -0.7
WMOK 25.28 336 ePc 38 52.19 -0.8
0.9s 516.07nm 6.0mb X
ePcP 42 25.61
TUL 25.33 343 iPd 38 52.80 -0.5
ELC 25.45 356 eP 38 54.12 -0.3
OCO 25.50 339 iPc 38 55.40 0.4
ACO 27.15 338 iPd 39 09.60 -0.5
MCWV 28.41 11 eP 39 22.27 0.9
0.6s 22.58nm 5.0mb
Z 19s 1.07um 4.5Msz
ALQ 29.13 325 eP 39 28.37 0.2
0.7s 22.65nm 4.9mb
TUC 30.03 317 eP 39 37.27 1.2
1.0s 30.40nm 5.0mb
Z 20s 1.32um 4.6Msz
DLA 31.26 7 P 39 47.00 0.3
YSNY 31.38 12 eP 39 48.26 0.4
0.8s 23.33nm 5.0mb
Z 21s 0.92um 4.4Msz
LDN 31.49 8 P 39 48.75 0.1
ELF 31.62 8 P 39 49.55 -0.3
BINY 31.71 15 eP 39 51.33 0.7
0.8s 59.08nm 5.4mb
Z 20s 1.95um 4.8Msz
TYNO 31.74 10 P 39 51.45 0.6
ARE 31.92 151 eP 39 49.00 -4.0X
LSCT 32.04 19 eP 39 54.03 0.5
0.6s 30.09nm 5.3mb
Z 21s 2.74um 4.9Msz
ACTO 32.21 9 P 39 54.75 -0.2
GLD 32.24 333 eP 39 55.91 0.4
1.2s 30.07nm 5.0mb
GOL 32.27 333 eP 39 55.38 -0.5
0.8s 36.31nm 5.3mb
Z 21s 1.02um 4.5Msz
iPcP 42 44.17
WLVO 32.81 11 P 39 59.85 -0.3
PV08 33.00 328 eP 40 02.09 -0.2
ePcP 42 46.15
PV10 33.05 327 ePc 40 01.91 -0.8
iPcP 42 46.06
PV09 33.19 327 eP 40 03.85 -0.1
ePcP 42 46.47
GLA 33.24 314 eP 40 04.34 0.2
ePcP 42 46.49
HRV 33.34 21 P 40 10.00 5.2X

05d 20h

Z 19s 1.74um 4.8Msz
LPAZ 33.48 146 P 40 06.50 -0.5
LPB 33.70 146 P 40 09.30 0.6
Z 19s 2.43um 4.9Msz
LR 50 36.00
CNCB 34.00 146 P 40 11.80 0.4
i 42 49.50
RSNY 34.28 16 eP 40 13.31 0.4
0.9s 47.34nm 5.4mb
SRU 34.39 326 ePc 40 13.95 -0.2
ePcP 42 49.20
LBNH 34.76 19 P 40 30.00 13.0X
Z 21s 2.13um 4.9Msz
PLM 34.85 313 (P) 40 18.75 0.6
ePcP 42 51.16
MSU 34.89 324 eP 40 18.64 0.1
iPcP 42 51.35
EMUT 35.05 327 eP 40 20.07 0.2
ePcP 42 51.26
GAC 35.13 14 eP 40 20.50 0.4
ARUT 35.16 322 eP 40 21.49 0.8
PEC 35.34 313 eP 40 22.94 0.8
0.7s 11.88nm 4.9mb
iPcP 42 52.11
RSSD 35.44 338 eP 40 23.30 0.2
0.3s 11.29nm 5.3mb
ePcP 42 51.69
CCH 35.48 144 P 40 24.20 0.4
DAU 35.71 327 ePc 40 25.91 0.4
iPcP 42 53.59
SSK 35.88 313 (P) 40 30.70 3.8X
TPNV 36.40 318 eP 40 32.41 1.2
0.7s 16.55nm 5.1mb
ePcP 42 55.64
DUG 36.40 326 eP 40 31.34 0.2
1.0s 30.07nm 5.2mb
Z 19s 0.95um 4.6Msz
iPcP 42 55.42
TBO 36.78 357 eP 40 43.00 9.0X
ISA 37.18 315 P 40 50.00 12.4X
Z 20s 1.27um 4.7Msz
HVU 37.49 327 eP 40 40.43 0.2
ePcP 42 58.24
SIV 37.58 137 P 40 41.30 0.2
TNP 37.69 319 eP 40 42.75 0.7
0.8s 15.20nm 5.0mb
PTI 38.07 329 eP 40 44.98 -0.1
BCH 38.07 313 (P) 40 45.40 0.2
ePcP 43 01.36
BONR 38.32 318 eP 40 48.45 1.0
ePcP 43 01.88
CBM 38.39 21 P 41 00.00 12.4X
Z 19s 1.70um 4.9Msz
MMPM 38.60 317 eP 40 51.20 1.3
PHAM 38.62 314 (P) 40 51.27 1.6
LMN 38.74 25 ePc 40 51.50 1.0
pP 41 07.00 61kmX
KVN 38.82 320 eP 40 52.11 0.6
ePcP 43 03.05
ULM 39.04 351 ePc 40 53.70 0.8
CMB 39.74 317 eP 40 58.94 0.0
1.1s 12.52nm 4.8mb
Z 19s 0.74um 4.5Msz
SAO 39.81 315 P 41 10.00 10.5X
Z 19s 1.15um 4.7Msz
ARN 40.16 315 eP 41 02.32 -0.1
ORV 41.28 318 eP 41 12.00 0.5
ePcP 43 09.96
WDC 42.50 319 P 41 30.00 8.5X
Z 19s 0.55um 4.5Msz
LBFM 42.51 320 eP 41 23.02 1.2
ePcP 43 14.99
JAQ 42.80 10 eP 41 22.00 -1.8
LGPM 42.87 319 eP 41 24.73 0.1
iPcP 43 15.98
KMPM 43.45 318 (P) 41 29.79 0.5
ePcP 43 18.77
NEW 44.26 331 eP 41 34.65 -1.1
0.9s 13.78nm 4.8mb
Z 21s 0.55um 4.4Msz
ePcP 43 19.07
VGB 44.31 326 eP 41 37.25 1.1
ePcP 43 20.52
CRF 44.40 328 P 41 36.31 -0.5
OD2 44.43 329 P 41 36.76 -0.3
WAH2 44.45 328 P 41 36.74 -0.4
MDW 44.46 328 P 41 37.07 -0.2
MXC 44.71 327 P 41 39.75 0.4
SAW 44.99 329 P 41 41.52 0.0
EBG 45.07 327 P 41 42.59 0.4
WTV 45.27 329 P 41 43.59 -0.2
ETW 45.40 328 P 41 44.60 -0.3
WPW 45.46 327 P 41 45.33 0.0
SHW 45.53 326 (P) 41 46.51 0.6
LON 45.63 327 eP 41 46.25 -0.4
iPcP 43 24.61
FMW 45.67 327 P 41 47.06 -0.1
GMW 46.65 327 eP 41 53.53 -1.1
ePcP 43 28.31
MCW 47.37 328 eP 41 59.43 -0.9
ePcP 43 30.95
PPD 48.42 134 eP 42 07.40 -1.3
VAO 52.15 132 eP 42 35.30 -2.0
FRB 53.44 10 eP 42 44.00 -2.0
0.5s 6.00nm 4.9mb
YKA 54.38 345 eP 42 51.70 -1.4
0.8s 35.00nm 5.4mb
RES 63.02 358 eP 43 51.50 -1.3
1.0s 6.00nm 4.6mb
INK 63.99 342 eP 43 58.50 -0.8
1.0s 19.00nm 5.0mb
TOA 65.53 334 e(P) 44 09.40 0.0
PMR 66.66 333 eP 44 15.70 -0.8
PMR 66.66 333 P 44 30.00 13.5X
Z 19s 0.82um 5.0Msz
MBC 66.73 352 ePd 44 16.70 -0.1
0.8s 12.00nm 4.9mb
PMS 66.74 332 eP 44 15.80 -1.3
0.9s 42.50nm 5.4mb
SLKM 66.82 331 eP 44 16.82 -0.8
FBA 67.26 336 eP 44 17.93 -2.4
0.8s 12.17nm 4.9mb
HON 68.41 288 P 44 40.00 11.8X
Z 20s 0.36um 4.6Msz
SVW 69.53 331 eP 44 32.50 -2.0
IMA 69.96 336 eP 44 35.88 -1.3
0.9s 3.74nm 4.3mb
TTA 70.12 333 eP 44 36.30 -1.8
SDN 71.09 325 eP 44 44.40 0.5
DAG 73.60 13 iPd 44 56.10 -2.3
0.3s 3.90nm 4.8mb
EKA 76.77 36 P 45 18.27 1.4
LPF 78.51 43 eP 45 26.40 -0.1
1.1s 13.65nm 4.8mb
GRR 78.60 43 eP 45 27.60 0.6
1.0s 17.80nm 5.0mb
FLN 78.81 42 eP 45 27.80 -0.4
1.3s 24.90nm 5.0mb
Z 22s 0.93um 5.1Msz
LDF 79.07 42 eP 45 29.30 -0.3
1.0s 9.60nm 4.7mb
LKO 79.58 82 P 45 31.49 -1.6
0.7s 4.00nm 4.5mb
LPO 80.39 46 eP 45 36.60 -0.2
0.8s 4.55nm 4.5mb
ADK 80.73 321 eP 45 39.30 0.9
0.6s 84.20nm 5.8mb
MAF 81.15 45 eP 45 40.40 -0.4
1.2s 13.10nm 4.7mb
BGF 81.30 44 eP 45 40.90 -0.6
0.9s 8.20nm 4.7mb
AVF 81.61 44 eP 45 42.10 -1.0
1.2s 9.20nm 4.6mb
SSF 81.68 44 eP 45 42.50 -1.0
0.9s 1.95nm 4.0mb
LOR 81.88 43 eP 45 43.90 -0.7
0.8s 2.95nm 4.3mb
Z 21s 0.82um 5.1Msz
KHC 87.86 40 eP 46 15.00 0.6
Z 20s 1.00um 5.2Msz
N 20s 0.10um
E 20s 0.60um
e 46 31.00
GEC2 88.01 41 P 46 15.80 0.6
0.6s 0.69nm 3.9mb X
e 46 27.30
e 46 30.90
PRU 88.23 39 eP 46 19.00 2.9X
Z 18s 0.50um 5.0Msz
BUL 117.69 107 iPKP 52 09.00 -3.1X
BJI 124.17 339 ePKP 52 24.00 0.2
1.0s 11.00nm
CTA 128.49 254 iPKP 52 33.00 0.3
SSE 129.57 329 PKPc 52 35.00 0.6
1.0s 23.00nm
STK 131.29 238 ePKP 52 25.00 -12.7X
0.7s 4.90nm
LZH 131.31 348 PKPd 52 38.50 0.7
Z 20s 0.55um 5.3Msz
GKN 139.56 12 PKP 52 46.20 -7.4X
0.6s 11.00nm
ASPA 139.61 247 ePKP 52 47.40 -6.2X
0.5s 5.10nm
WB2 139.68 253 iPKP 52 54.80 1.0
WRA 139.69 253 PKP 52 45.50 -8.3X
0.8s 0.90nm
GUN 139.88 10 PKP 52 46.40 -8.0X
KKN 139.89 11 PKP 52 47.00 -7.3X
0.6s 13.00nm
PKI 140.13 11 PKP 52 48.20 -6.6X
KMI 142.12 346 PKPc 52 59.00 0.7
1.4s 40.00nm
pP 53 06.50
WARB 145.41 241 ePKP 53 04.30 0.7
0.5s 12.00nm
HYB 147.55 27 ePKP 53 10.00 2.7X
1.0s 30.00nm
COOL 147.93 229 ePKP 53 10.50 2.9X
NWAO 149.55 223 ePKP 53 15.40 5.4X
LOE 149.76 344 ePKP 53 16.80 6.1X
KLB 149.99 225 ePKP 53 16.00 5.3X
GBA 150.30 32 PKP 53 14.00 2.5X
BDT 150.56 349 ePKP 53 10.00 -1.9
1.0s 193.20nm
MUN 150.81 223 ePKP 53 18.50 6.6X
1.0s 120.00nm
KKM 151.03 307 ePKPc 53 23.00 10.1X
BAL 151.29 226 ePKP 53 19.00 6.3X
NST 151.84 346 ePKP 53 15.50 1.7
MRWA 152.59 227 iPKPd 53 22.20 7.6X
0.9s 31.00nm
MBL 152.85 247 ePKP 53 23.00 7.8X
KHT 153.03 348 ePKP 53 16.20 0.7
IPM 161.94 334 ePKPd 53 28.50 2.2X
S.D. = 0.9 on 128 of 160 obs.

% DEC 05, 1993 20h 45m 05.20± 0.67s
31.368 S ±17.0km 68.549 W ±16.1km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.08 61 iPd 45 19.50 -0.1
S 45 29.80
RTCB 0.24 241 iPd 45 19.70 -0.4
CFA 0.36 132 iPd 45 21.00 0.7
S 45 33.00
RTCV 0.49 179 iPd 45 21.30 0.1
S 45 33.50
RTRS 1.43 326 eP 45 31.00 0.1
S 45 51.00
MRA 2.63 114 ePc 45 46.40 -0.3
S.D. = 0.5 on 6 of 6 obs.

? DEC 05, 1993 21h 04m 11.14± 5.74s
33.962 S ±22.9km 72.041 W ±35.9km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)
MD 3.7 (SAN).

LNV 0.52 90 iP+ 04 22.53 0.8
iS 04 30.61
LCCH 0.62 39 iPd 04 23.68 0.0
TACH 0.97 72 eP 04 28.83 -0.7
CACH 1.21 98 iP+ 04 33.55 -0.2
ROCH 1.31 41 iP 04 35.39 -0.1
iS 04 53.91
PCH 1.32 75 eP 04 35.28 -0.2
iS 04 53.13
PEL 1.40 55 iP 04 37.28 0.6
iS 04 56.16
FCH 1.59 67 iP 04 39.22 -0.5
iS 05 01.53
JACH 1.76 44 eP 04 42.28 0.3
iS 05 07.01
S.D. = 0.6 on 9 of 9 obs.

? DEC 05, 1993 21h 14m 03.70± 5.28s
47.765 N ± 9.0km 1.308 W ±52.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (LDG).

LPF 0.32 34 Pg 14 10.40 0.0
Sg 14 16.20
GRR 0.69 26 Pg 14 17.40 0.0
Sg 14 28.10
FLN 1.14 29 Pg 14 25.20 0.2
Sg 14 41.70
LDF 1.15 43 Pg 14 24.90 -0.3
Sg 14 40.70
MFF 1.41 145 Pg 14 24.40 -4.9X
Sg 14 40.40
LSF 2.46 127 Pg 14 43.90 -0.6
TCF 2.82 120 Pg 14 50.40 0.7
Sg 15 25.40
MAF 3.07 119 Pg 14 55.70 2.6X
Sg 15 33.50
BGF 3.08 112 Pg 14 55.80 2.5X
Sg 15 34.80
S.D. = 0.6 on 6 of 9 obs.

? DEC 05, 1993 21h 37m 03.22± 5.61s
39.181 N ±35.4km 23.802 E ±37.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.75 353 iPg 37 17.65 -0.2
eSg 37 27.52
AGG 1.16 263 ePg 37 24.80 -0.1
eSg 37 40.76
OUR 1.16 7 ePg 37 25.20 0.3
LIT 1.37 313 ePb 37 28.56 0.2
iSb 37 46.24
SOH 1.67 348 ePb 37 32.24 -0.5
KNT 2.10 341 ePn 37 39.00 0.2
S.D. = 0.4 on 6 of 6 obs.

% DEC 05, 1993 21h 59m 21.44± 3.93s
33.984 S ±14.8km 70.057 W ±25.3km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.3 (SAN).

CACH 0.47 253 iP+ 59 31.20 0.2
iS 59 37.91
PCH 0.53 313 iPd 59 32.07 0.0
iS 59 39.92
FCH 0.68 343 iP 59 35.01 -0.2
TACH 0.80 294 iPd 59 37.02 0.0
iS 59 47.60
PEL 0.99 328 iP 59 40.42 0.2
iS 59 54.20
LNV 1.13 271 eP 59 42.21 -0.3
iS 59 57.50
ROCH 1.29 321 iP+ 59 45.65 0.2
iS 00 02.56
LCCH 1.36 291 iP+ 59 46.47 0.1
iS 00 04.27
S.D. = 0.2 on 8 of 8 obs.

? DEC 05, 1993 22h 29m 38.20± 2.26s
41.459 N ±16.1km 142.137 E ±13.3km
DEPTH = 97.3 ± 23.9 km
3.8mb (4 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT 5.78 213 (P) 31 03.00 -0.1
eS 32 20.00
FBA 45.10 34 eP 37 47.00 1.2
0.8s 1.60nm 3.9mb
GUN 47.42 272 P 38 05.50 0.4
0.6s 23.00nm 5.2mb X
KKN 47.94 272 P 38 09.10 0.2
PKI 47.95 272 P 38 09.00 -0.2
GKN 48.31 273 P 38 11.60 0.0
INK 50.22 29 eP 38 25.50 0.0
YKA 59.73 32 eP 39 33.40 -1.0
0.9s 0.60nm 3.7mb
WRA 61.51 188 P 39 47.00 0.0
0.8s 0.60nm 3.7mb
APO 69.91 336 eP 40 39.70 -0.4
0.4s 1.00nm 4.0mb
S.D. = 0.7 on 10 of 10 obs.

DEC 05, 1993 22h 54m 38.74± 1.11s
41.916 N ± 8.8km 19.202 E ± 7.4km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.3 (TTG).

ULC 0.06 37 iPgd 54 40.14 -0.9
iSg 54 41.03
BDV 0.46 323 iPgc 54 48.05 -0.1
iSg 54 55.23
TTG 0.52 5 iPgc 54 48.71 -0.5
iSg 54 56.44
HCY 0.75 316 iPgd 54 53.35 0.0
iSg 55 04.62
PVY 0.89 40 iPgc 54 55.38 -0.5
iSg 55 08.48
NKY 0.91 351 iPgd 54 56.21 0.0
iSg 55 09.77
IVA 1.09 28 iPgd 54 59.15 0.0
iSg 55 15.27
BRY 1.10 334 iPgc 54 59.77 0.3
iSg 55 16.36
PLE 1.42 6 iPgc 55 05.45 0.8
iSg 55 26.67
OHR 1.44 123 ePn 55 03.80 -1.2
SKO 1.67 87 ePn 55 10.00 1.8
S.D. = 0.9 on 11 of 11 obs.

& DEC 05, 1993 22h 59m 18.39s
42.261 N 121.990 W
DEPTH = 6.2km
OREGON (32)
<SEA-P>. MD 2.7 (SEA). ML 2.7
(GS).

LAB 0.06 277 Pc 59 20.25 0.0
VRC 0.18 294 Pc 59 22.54 0.3
S 59 25.73
HAMO 0.19 176 P 59 22.56 0.1
S 59 26.04
LASM 0.73 155 P 59 32.06 -0.9
LMPM 0.78 189 P 59 33.13 -1.0
BBOR 0.81 321 P 59 33.34 -1.2
LBFM 0.92 175 eP 59 35.19 -1.2
LGBM 0.93 190 P 59 35.72 -0.9
DBO 1.26 313 P 59 41.53 -0.7
LBKM 1.28 204 P 59 41.04 -1.5
KOMM 1.47 229 P 59 44.45 -1.1
LGPM 1.49 205 eP 59 43.68 -2.1
eS 00 03.19
LMEM 1.75 169 eP 59 49.26 -0.4
FHC 2.09 226 (P) 59 56.42 2.0
KMPM 2.44 222 (P) 59 59.14 -0.4
ORV 2.73 172 eP 00 03.68 0.2
16 obs. associated

? DEC 05, 1993 23h 09m 40.78± 3.79s
31.371 S ±21.1km 68.735 W ±27.2km
DEPTH = 80.2 ± 39.4 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.13 206 ePd 09 53.00 0.1
S 10 04.00
RTLL 0.23 80 ePd 09 52.80 -0.1
S 10 04.00
CFA 0.48 119 ePd 09 54.80 0.2
S 10 06.50
RTCV 0.52 161 iPd 09 54.80 -0.1
S 10 06.90
RTRS 1.35 332 eP 10 04.50 0.0
S.D. = 0.3 on 5 of 5 obs.

DEC 05, 1993 23h 16m 25.70± 0.63s
11.900 N ± 4.5km 124.967 E ± 5.4km
DEPTH = 108.7 ± 5.7 km
4.9mb (21 obs.)
LEYTE, PHILIPPINE ISLANDS (256)
Felt (II RF) at Palo.

PLP 0.73 179 iPd 16 43.00 -1.4
MAP 1.84 212 iPd 16 57.00 -0.1
iS 17 18.00
CGP 3.43 185 ePc 17 34.00 15.7X
eS 18 19.00
TGY 4.50 300 iPc 17 33.50 0.6
QVP 4.71 305 eP 17 38.00 2.2
DAV 4.82 173 eP 17 38.00 0.8
PPR 6.48 252 iPc 18 01.00 0.9
CVP 6.52 333 eP 17 58.00 -2.7
eS 19 08.00
TSM 10.31 223 ePd 18 55.00 2.9
SSE 19.42 350 P 20 45.50 -0.4
1.0s 28.00nm 4.6mb
PP 21 04.00
S 24 18.00
GUMO 19.48 83 eP 20 47.20 0.5
PJG 19.48 83 eP 20 47.00 0.3
JAY 21.21 131 ePc 20 43.80 -20.5X
eS 22 36.80
TPI 22.54 231 ePd 21 18.00 0.6
e 23 00.00
TRT 23.01 213 ePd 21 24.40 2.4
0.7s 8.00nm 4.2mb
LOE 23.13 286 eP 21 22.00 -1.1
KGM 23.60 247 iPc 21 29.40 1.7
0.8s 135.50nm 5.4mb
NST 24.40 282 eP 21 35.50 0.1
IPM 24.77 255 ePc 21 38.00 -0.9
0.6s 25.80nm 4.9mb
KMI 24.79 305 Pd 21 39.50 0.2
1.0s 100.00nm 5.2mb
pP 21 54.00 61kmX
sP 22 04.00
LEM 25.37 224 iPd 21 48.50 3.8X
KHT 25.82 279 eP 21 47.60 -1.0
CHTO 26.00 289 eP 21 49.20 -1.1
e 28 44.50
BJI 29.09 346 eP 22 17.00 -1.0
1.0s 6.00nm 4.2mb
Z 10s 1.92um 5.0MszX
LZH 30.72 325 Pd 22 32.50 -0.2
1.2s 28.00nm 4.9mb
Z 11s 1.00um 4.7MszX
N 10s 0.80um
pP 22 36.00 12kmX
PP 22 54.00
WB2 32.96 164 eP 22 49.70 -2.5
0.3s 9.90nm 5.1mb
iPcP 25 33.00
eS 27 57.00
iScP 29 05.60
QIS 35.32 156 eP 23 11.00 -1.4
ASPA 36.41 166 iPd 23 21.40 -0.2
0.3s 35.10nm 5.7mb
iPcP 25 42.90
iS 28 52.40
CTA 38.07 146 iPd 23 36.50 1.0
i 24 30.00
GUN 39.85 299 P 23 51.00 0.3
PKI 40.16 299 P 23 52.90 -0.3
KKN 40.33 299 P 23 54.30 -0.2
DMN 40.43 299 P 23 55.60 0.3
GKN 40.93 299 P 23 59.00 -0.3
MRWA 41.78 192 eP 24 04.80 -1.2
0.3s 6.00nm 4.9mb
FORT 42.54 176 eP 24 12.00 -0.1
BAL 43.00 190 eP 24 14.50 -1.4
KLB 43.79 189 eP 24 20.80 -1.5
HYB 45.15 283 ePd 24 33.40 -0.1
1.0s 50.00nm 5.3mb
e 24 57.00
NWAO 45.18 189 eP 24 32.50 -0.9
GBA 46.33 277 Pd 24 42.00 -0.8
STK 46.35 160 iPd 24 29.20 -13.5X
0.8s 7.80nm
i 24 49.60
KOD 46.60 273 eP 24 44.20 -1.1
RKG 46.83 189 eP 24 46.20 -0.2
NDI 47.46 298 iPc 24 50.00 -1.6
0.5s 28.17nm 5.3mb
ADE 48.40 165 eP 24 58.50 -0.1
ARMA 49.28 149 eP 25 09.30 3.7X
0.7s 14.00nm 5.0mb
e 25 28.00
POO 49.63 284 eP 25 03.50 -4.9X
YAK 50.15 3 eP 25 16.00 4.4X
1.3s 25.00nm 5.0mb
epP 25 29.00 48kmX
ePP 26 55.00
eS 31 18.00
ePS 31 33.00
esS 31 58.00
CNB 52.33 155 iPc 25 29.00 0.4
e 25 50.20
DZM 52.87 130 iPc 25 33.00 0.3
QUE 56.54 298 eP 25 59.40 -0.1
TIK 59.74 1 iPd 26 06.50 -14.4X
i 26 42.00
esS 34 34.00
MAIO 63.32 305 iPd 26 45.00 -0.6

05d 23h

```
              e    27 21.00
ASH    64.37 306 eP    26 52.50   0.2
TAB    73.86 306 eP    27 51.00   0.3
IMA    75.70  25 eP    28 01.38   0.7
       0.7s      1.98nm         4.0mb
              epP  28 23.62  84kmX
PYA    76.04 313 iPc   28 03.00   0.1
KIV    76.31 313 eP    28 04.40  -0.1
OBN    79.42 324 iPc   28 21.00  -0.1
       1.0s     32.00nm         5.1mb
INK    83.25  22 eP    28 42.50   1.6
KAF    83.60 332 eP    28 43.20   0.4
MBC    84.41  13 eP    28 49.00   2.3
       1.0s      4.00nm         4.3mb
              pP   29 11.50  84kmX
NUR    84.76 331 eP    28 48.90   0.3
MLR    87.84 316 ePc   29 05.00   0.7
DAG    88.99 352 iPc   29 08.20  -0.8
       0.7s      5.48nm         4.8mb
UZH    89.37 320 eP    29 11.00  -0.3
       1.1s     52.00nm         5.6mb
              e    29 37.70
OJC    90.43 322 eP    29 16.20   0.0
SPC    90.49 321 eP    29 16.60  -0.1
NC3    90.55 334 P     29 03.80 -12.7X
       1.0s      7.80nm
SKO    91.96 313 eP    29 23.00  -0.4
SRO    92.16 320 eP    29 25.00   0.8
KSP    92.31 323 eP    29 25.00   0.2
ZST    92.79 320 eP    29 47.10  20.1X
YKA    92.79  24 eP    29 27.60   0.8
       0.9s      1.30nm         4.2mb
PRU    93.67 323 eP    29 26.00  -5.1X
              e    29 32.40
KHC    94.59 322 eP    29 37.00   1.6
GEC2   94.63 322 P     29 35.80   0.1
       0.6s      1.42nm         4.5mb
              e    29 37.20
              e    29 46.90
KIC   126.80 287 PKP   35 18.47  -0.7
LIC   127.11 287 PKP   35 18.91  -0.8
       1.0s      9.00nm
LPB   166.52 111 ePKP  36 23.00   2.6X
CNCB  166.54 113 PKP   36 23.00   2.4X
LPAZ  166.57 110 PKP   36 22.40   1.7
SIV   172.87 125 PKP   36 24.10   0.7
     S.D. = 1.1  on  71 of  84 obs.
--------------------------------------
? DEC 05, 1993 23h 57m 22.70± 0.69s
  30.006 N ± 8.6km  108.058 E ± 9.0km
  DEPTH =   5.0km  (geophysicist)
  4.3mb (  7 obs.)
 SICHUAN, CHINA                  (307)
     ML 4.2 (BJI).

GYA     3.74 200 Pgd   58 28.40   5.9X
              Sg   59 16.00
CD2     3.82 285 iPnc  58 25.00   1.5
XAN     4.09  10 Pn    58 26.00  -1.3
              Pg   58 36.00
              Sn   59 13.00
KMI     6.78 225 ePn   59 02.50  -3.0
LZH     7.02 331 Pnc   59 08.00  -0.8
              Sn   00 28.00
              Sg   01 07.50
GZH     8.36 144 P     59 29.60   2.2
TIY     8.50  24 eP    59 34.70   5.2X
HHC    11.19  14 eP    00 11.20   4.7X
GTA    11.57 326 eP    00 14.20   2.5
CN2    19.52  40 eP    01 53.00  -0.7
       1.0s      7.00nm         3.9mb
              epP  02 05.00  57kmX
GUN    19.52 269 P     01 53.80  -0.5
       0.5s     22.00nm         4.7mb
PKI    19.99 269 P     02 00.20   0.8
KKN    20.06 269 P     01 59.80  -0.2
       0.8s     28.00nm         4.6mb
GKN    20.58 270 P     02 05.30   0.0
       0.6s     28.00nm         4.8mb
WMQ    21.26 316 eP    02 12.60   0.5
WRA    55.74 150 P     07 03.20   0.4
       0.7s      0.80nm         3.9mb
WB2    55.74 150 iPc   07 02.60  -0.2
       0.9s      3.50nm         4.4mb
YKA    81.69  19 eP    09 41.90  -1.2
       0.8s      0.50nm         3.7mb
     S.D. = 1.5  on  15 of  18 obs.
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  DEC 06, 1993  00h 06m 44.55± 0.55s
  40.687 N ± 6.0km    29.204 E ± 4.5km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
     ML 3.2 (ISK).

GBZT    0.21  61 ePg   06 49.40   0.3
              iSg  06 52.50
HRT     0.38  69 iPg   06 52.70   0.4
ISK     0.39 344 iPg   06 52.70   0.1
              iSg  06 57.70
EYL     0.74  99 iPg   06 58.20  -0.9
BNT     1.03 252 iPn   07 03.50  -0.6
EDC     1.08 252 iPn   07 05.00   0.2
DST     1.17 202 iPn   07 07.00   0.6
DMK     1.57 317 iPn   07 12.40  -0.2
     S.D. = 0.6  on   8 of   8 obs.
--------------------------------------
  DEC 06, 1993  00h 20m 26.67± 1.14s
  43.033 N ± 8.2km    18.725 E ± 6.9km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
     ML 2.0 (TTG).

BRY     0.19 225 iPgd  20 31.15   0.2
              iSg  20 34.00
NKY     0.30 137 iPgc  20 32.83  -0.1
              iSg  20 37.56
PLE     0.57  59 iPgd  20 38.16  -0.2
              iSg  20 45.89
HCY     0.61 196 iPgc  20 38.63  -0.3
              iSg  20 49.00
TTG     0.72 147 iPgd  20 39.87  -1.0
              iSg  20 50.92
BDV     0.75 174 iPgd  20 41.31  -0.1
              iSg  20 53.24
IVA     0.88 100 iPgc  20 43.54   0.0
              iSg  20 55.93
PVY     1.02 115 iPgc  20 46.71   0.7
              iSg  21 01.46
ULC     1.14 160 iPgc  20 48.69   0.7
              iSg  21 06.07
HVAR    1.67 276 iPg   21 23.70  27.6X
              iSg  21 26.40
     S.D. = 0.6  on   9 of  10 obs.
--------------------------------------
* DEC 06, 1993  02h 25m 03.28± 1.76s
  28.492 S ±17.8km  176.909 W ±11.9km
  DEPTH =  78.6 ± 16.0 km
  5.1mb (  7 obs.)
 KERMADEC ISLANDS REGION         (177)

RAO     1.16 229 P     25 24.90   0.4
              S    25 46.50
MRW    14.44 206 P     28 24.80  -0.2
              S    30 50.00
AFI    15.27  19 eP    28 22.00 -13.9X
DZM    16.35 289 iPd   28 54.60   5.2X
STK    35.88 254 iPd   31 45.30 -12.2X
       1.1s      9.20nm
ASPA   44.20 264 iPd   33 06.60   0.2
       0.6s     13.90nm         5.0mb
     Z 20s       1.20um         4.8Msz
WB2    45.01 270 iPd   33 12.10  -0.8
       0.4s     23.80nm         5.4mb
              e    34 54.00
WRA    45.02 270 P     33 12.60  -0.4
       0.9s      6.60nm         4.5mb
FORT   47.48 253 eP    33 31.00  -1.3
WARB   49.80 259 eP    33 49.00  -1.2
CSY    57.27 207 eP    34 34.60 -10.0X
       0.6s     37.70nm         5.7mb
NANU   60.55 259 iPd   35 07.10  -0.8
       0.3s      4.00nm         5.0mb
SPA    61.67 180 ePd   35 15.90   0.8
       0.9s     18.18nm         5.2mb
SSE    83.59 310 eP    37 24.50   0.4
ORV    85.10  40 eP    37 31.01  -0.6
LGPM   85.31  38 eP    37 32.69  -0.1
BONR   85.88  43 eP    37 35.57  -0.3
MSU    89.97  45 eP    37 55.70   0.3
LTX    90.55  57 (P)   37 59.39   1.3
NST    91.34 287 eP    38 04.20   2.4
SRU    91.36  45 eP    38 01.42  -0.3
HVU    91.59  42 eP    38 03.29   0.6
PV09   91.89  47 eP    38 03.33  -1.0
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CHTO   93.85 289 eP    38 15.90   2.6
RSSD   98.19  44 eP    38 30.75  -2.0
       0.8s      4.13nm         5.0mb
KAF   143.05 342 iPKP  44 23.80  -5.1X
NUR   144.83 342 iPKP  44 30.20  -1.8
       0.6s     19.10nm
NC3   146.76 353 PKP   44 35.40   0.2
       0.7s     11.80nm
UPP   147.11 347 iPKP  44 36.60   0.9
HFS   147.55 350 ePKP  44 37.10   0.6
       0.6s      5.80nm
BHL   151.70 289 PKP   44 50.00   6.2X
KSP   155.55 340 ePKP  44 57.50   9.0X
              e    45 15.00
CLL   156.02 345 ePKP  45 15.00  25.9X
BRG   156.19 343 iPKP  45 17.40  28.1X
PRU   156.83 341 ePKP  45 19.50  29.3X
     S.D. = 1.2  on  25 of  35 obs.
--------------------------------------
? DEC 06, 1993  02h 58m 21.83± 0.58s
  35.748 N ±16.1km    71.027 E ±10.8km
  DEPTH = 130.0km  (geophysicist)
  4.1mb (  5 obs.)
 PAKISTAN                        (710)

MAIO    9.36 277 eP    00 35.00   0.1
              eS   02 15.00
GKN    13.90 120 P     01 34.40   0.0
       0.5s     15.00nm         4.6mb
GUN    14.84 118 P     01 46.50   0.0
KAF    38.27 328 iP    05 30.40  -0.2
NUR    38.45 325 iP    05 32.10   0.0
HFS    43.67 322 eP    06 14.50  -0.3
       0.4s      2.60nm         4.3mb
NC3    44.92 324 P     06 25.00   0.2
       0.7s      1.60nm         3.8mb
WB2    81.58 122 eP    10 30.60   4.1X
       0.4s      1.40nm         4.1mb
YKA    82.00   3 eP    10 28.20   0.3
       0.6s      0.30nm         3.2mb
     S.D. = 0.2  on   8 of   9 obs.
--------------------------------------
* DEC 06, 1993  04h 59m 12.08± 0.67s
  4.542 S ± 9.9km  138.192 E ± 8.6km
  DEPTH =  33.0km  (normal)
  5.2mb (  7 obs.)
 IRIAN JAYA, INDONESIA           (201)

JAY     3.22  51 iPc   00 01.40  -0.1
       0.5s     60.00nm
              iS   00 17.80
WWKK    5.49  81 eP    00 36.00   2.2
MNDI    5.67 107 e(P)  00 37.00   0.5
PMG    10.13 119 eP    01 37.00  -1.3
MTN    10.80 220 eP    01 47.20  -0.4
       0.3s    272.00nm         6.9mb X
KNA    14.49 219 eP    02 36.20  -0.5
       0.3s     60.00nm         5.7mb X
WB2    15.76 193 eP    02 50.90  -2.4
       0.5s     37.50nm         4.8mb
              i    02 59.50
              eS   05 42.00
QIS    15.98 175 eP    02 54.20  -1.9
              eS   05 52.70
ASPA   19.46 192 iPc   03 39.10  -0.1
       0.5s    201.00nm         5.7mb
              eS   07 19.10
WARB   24.19 206 eP    04 39.00  12.2X
MBL    24.30 226 iPd   04 30.20   2.3
       1.0s     74.00nm         5.2mb
NANU   28.31 229 eP    05 06.00   1.0
MEEK   28.86 218 eP    05 10.80   0.9
       0.5s     14.00nm         4.9mb
MRWA   32.32 218 iPd   05 41.40   0.9
       0.4s     38.00nm         5.6mb
BAL    32.90 216 eP    05 46.20   0.7
KLB    33.05 213 iPd   05 47.10   0.3
       1.0s     61.00nm         5.5mb
MUN    34.20 214 eP    05 57.00   0.2
NWAO   34.36 212 eP    05 59.30   1.2
SSE    38.98 336 eP    06 34.50  -2.6
     Z 20s       0.40um         4.2Msz
BJI    48.77 337 eP    07 55.00  -0.8
       1.3s     10.00nm         4.7mb
     Z 16s       0.29um         4.4MszX
LKO   143.73 280 PKP   18 43.66  -2.9X
       0.6s      2.00nm
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CNCB 146.54 130 PKP 18 55.50 3.6X
LPB 146.62 129 ePKP 19 03.00 11.2X
LPAZ 146.74 129 PKP 18 55.40 3.1X
CCH 147.57 133 ePKP 19 01.00 7.8X
SIV 152.08 137 PKP 19 04.40 4.6X
S.D. = 1.5 on 19 of 26 obs.

& DEC 06, 1993 05h 15m 47.10s
59.890 N 152.605 W
DEPTH = 80.7km
3.3mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.26 317 iPd 15 58.80 -0.7
INE 0.29 307 iPd 15 59.05 -0.7
eS 16 09.38
INW 0.32 304 ePd 15 59.30 -0.6
OPT 0.40 233 iPd 15 59.78 -0.5
eS 16 09.85
RED 0.54 351 iPd 16 00.78 -0.8
eS 16 11.89
HOM 0.54 115 ePc 16 01.04 -0.4
RS2 0.58 353 ePd 16 01.45 -0.6
RDW 0.60 350 iPd 16 01.59 -0.7
REF 0.60 355 iPd 16 01.65 -0.6
XLV 0.63 134 ePc 16 01.31 -1.0
eS 16 13.36
AUE 0.66 217 eP 16 01.90 -0.7
AUL 0.66 220 eP 16 02.08 -0.5
AGU 0.68 219 eP 16 02.31 -0.6
AUH 0.68 219 ePd 16 02.23 -0.7
AUW 0.68 221 ePd 16 02.28 -0.5
NCT 0.69 347 iPd 16 02.27 -0.8
AUI 0.70 217 eP 16 02.25 -0.7
eS 16 14.09
DFR 0.71 357 iPd 16 02.51 -0.7
CNPM 0.78 117 iPc 16 03.11 -0.9
eS 16 16.42
PDB 0.81 263 iPd 16 03.40 -0.8
BRLK 0.88 98 eP 16 04.08 -1.0
eS 16 18.15
NKA 1.09 38 eP 16 08.55 1.0
CDD 1.10 209 ePd 16 06.56 -1.2
MCNL 1.13 232 ePd 16 06.87 -1.2
eS 16 22.51
BKG 1.20 8 iPd 16 08.12 -0.9
SYI 1.29 175 eP 16 09.12 -0.9
CKL 1.32 6 iPd 16 09.79 -0.8
SPU 1.32 12 iPd 16 09.80 -0.8
eS 16 27.54
CKT 1.33 8 iPd 16 09.85 -0.9
SLKM 1.34 61 eP 16 09.24 -1.6
CKN 1.35 9 ePd 16 10.38 -0.6
BGL 1.38 4 iPd 16 10.70 -0.7
CP2 1.39 7 iPd 16 10.71 -0.9
CRP 1.40 9 iPd 16 10.34 -1.3
BGM 1.42 251 eP 16 10.67 -1.2
CGLM 1.45 11 ePd 16 11.54 -0.8
NCG 1.53 8 iPd 16 12.67 -0.7
SEW 1.60 81 eP 16 12.51 -1.6
MPA 1.73 68 eP 16 14.20 -1.7
SUA 1.83 29 ePd 16 16.51 -0.8
SVW 1.93 311 iPd 16 16.89 -1.8
PMS 2.03 47 P 16 19.00 -1.0
KDC 2.15 178 eP 16 18.74 -2.8
SKT 2.16 14 ePd 16 20.47 -1.3
PWA 2.22 36 P 16 21.70 -0.8
PWL 2.33 64 ePc 16 21.65 -2.5
PLRM 2.41 43 eP 16 23.26 -1.9
PMR 2.41 43 eP 16 22.81 -2.4
KNK 2.55 51 ePc 16 24.86 -2.3
GHO 2.61 42 eP 16 26.00 -2.0
CFI 2.72 59 eP 16 26.48 -2.9
CUT 2.77 23 eP 16 28.99 -1.1
SML 2.84 46 eP 16 29.00 -2.2
HIN 3.09 78 eP 16 31.47 -3.2
VZW 3.22 66 eP 16 32.88 -3.5
SCM 3.23 51 eP 16 34.42 -2.2
VLZ 3.34 65 eP 16 35.00 -3.0
HUR 3.41 23 eP 16 38.77 -0.3
TTA 3.46 333 eP 16 37.25 -2.6
CVA 3.48 76 eP 16 36.29 -3.7
KLU 3.66 61 ePc 16 39.39 -3.2
TRF 3.74 16 eP 16 42.80 -1.0
KTH 3.76 12 eP 16 41.27 -2.7
TOA 3.84 52 P 16 42.70 -2.4
RND 3.96 25 eP 16 45.50 -1.2
RAGM 4.00 79 P 16 45.00 -2.2
DHY 4.06 36 eP 16 46.49 -1.8
TZL 4.11 55 eP 16 46.42 -2.4
MCK 4.23 23 P 16 50.50 0.0
SDG 4.32 49 eP 16 49.55 -2.2
BWN 4.54 18 P 16 53.90 -1.0
PAX 4.61 45 eP 16 53.73 -2.2
WAX 4.90 79 eP 16 56.73 -3.2
TGL 4.94 76 eP 16 57.80 -2.6
DDM 5.05 36 P 17 01.20 -0.7
WRH 5.06 23 eP 16 59.99 -2.0
CYK 5.09 83 eP 17 00.13 -2.2
BALM 5.21 73 eP 17 00.05 -4.2
MLY 5.23 9 P 17 03.00 -1.5
HDA 5.25 28 eP 17 02.35 -2.3
CCB 5.27 23 eP 17 02.50 -2.5
MDM 5.48 20 eP 17 05.41 -2.5
FBA 5.50 22 eP 17 05.41 -2.8
IL1 5.58 26 eP 17 06.34 -2.9
ILB 5.58 26 eP 17 06.33 -2.9
CTGM 5.69 74 eP 17 07.81 -3.1
BC3 6.08 54 eP 17 12.67 -3.6
IM3 6.14 356 eP 17 14.49 -2.5
IMA 6.22 356 ePd 17 15.78 -2.5
BM3 8.34 22 eP 17 44.59 -2.8
YKA 18.32 65 eP 19 53.00 -3.8
0.5s 1.00nm 3.3mb
91 obs. associated

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* DEC 06, 1993 05h 30m 41.84± 0.94s
24.250 S ± 8.1km 66.770 W ±16.0km
DEPTH = 189.3 ± 15.6 km
4.0mb (1 obs.)
SALTA PROVINCE, ARGENTINA (129)

RTPR 6.03 178 eP 32 10.00 -0.1
S 33 16.00
CCH 6.86 5 P 32 22.50 1.2
CNCB 7.49 351 iPd 32 30.00 0.1
S 33 51.80
LPB 7.78 351 P 32 34.00 0.3
LPAZ 8.02 351 P 32 36.10 -1.0
S 34 01.90
SIV 9.80 34 P 32 58.80 -0.9
VAO 18.19 90 eP 34 43.40 0.3
YKA 94.43 340 eP 43 40.70 0.0
0.6s 0.70nm 4.0mb
S.D. = 0.9 on 8 of 8 obs.

& DEC 06, 1993 05h 36m 04.45s
42.290 N 121.954 W
DEPTH = 7.2km
OREGON (32)
<SEA-P>. MD 2.7 (SEA). ML 2.9
(GS).

LAB 0.08 255 Pc 36 06.76 0.0
VRC 0.20 284 Pc 36 09.01 0.3
S 36 12.47
HAMO 0.22 183 P 36 09.26 0.1
S 36 13.17
BBOR 0.80 318 Pc 36 19.41 -1.0
LBFM 0.94 177 eP 36 21.05 -1.8
DBO 1.26 312 P 36 27.73 -0.5
HSO 1.49 326 P 36 31.72 0.0
LGPM 1.52 206 eP 36 30.25 -2.0
HBO 1.58 350 Pd 36 33.24 0.2
WDC 1.76 195 eP 36 34.83 -0.8
LMEM 1.77 171 eP 36 36.66 0.8
TCO 1.84 8 P 36 37.09 0.3
RNO 2.08 322 P 36 42.02 1.8
FHC 2.13 226 eP 36 42.78 1.9
BPO 2.37 5 P 36 46.55 2.0
VIPM 2.42 23 P 36 46.89 1.7
KMPM 2.48 222 (P) 36 45.06 -0.9
MPOR 2.50 333 P 36 47.30 1.0
SSOR 2.59 352 P 36 47.94 0.4
ORV 2.75 173 eP 36 50.40 0.6
VGB 3.33 14 (P) 36 57.65 -0.4
21 obs. associated

? DEC 06, 1993 06h 43m 47.36± 5.36s
10.929 N ±22.2km 62.234 W ±56.5km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)
MD 3.6 (TRN).

TCE 0.53 116 ePc 43 59.09 0.7
eS 44 08.99
TRN 0.86 109 iPc 44 03.18 0.1
eS 44 17.51
TPP 0.98 128 eP 44 04.68 -0.1
eS 44 19.75
TBH 1.23 111 eP 44 07.50 -0.8
SVB 2.52 22 eP 44 26.65 -0.2
eS 45 01.20
SVV 2.57 23 eP 44 27.29 -0.4
eS 45 02.57
SLB 3.11 22 eP 44 35.80 0.5
eS 45 13.97
S.D. = 0.7 on 7 of 7 obs.

& DEC 06, 1993 07h 03m 35.14s
35.287 N 116.854 W
DEPTH = 6.0km (geophysicist)
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 2.9 (PAS).

SSK 1.28 213 eP 03 58.41 -0.9
ISA 1.37 286 eP 03 59.69 -1.2
PEC 1.41 190 eP 04 00.76 -0.7
TPNV 1.73 16 eP 04 06.26 0.2
PLM 1.93 180 eP 04 08.16 -0.8
ABL 1.99 258 eP 04 10.17 0.3
GLA 2.79 142 eP 04 22.57 1.3
BONR 2.91 337 eP 04 23.10 0.0
MEMM 2.91 325 eP 04 23.45 0.7
9 obs. associated

? DEC 06, 1993 07h 43m 07.08± 6.51s
39.440 N ±40.9km 30.072 E ±35.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

IZI 1.01 333 iPn 43 26.00 -0.2
EYL 1.13 3 ePn 43 28.00 -0.3
DST 1.13 279 ePn 43 27.50 -0.8
HRT 1.41 347 ePn 43 33.00 0.1
BNT 1.89 300 ePn 43 40.00 0.3
EDC 1.93 299 ePn 43 41.00 0.8
S.D. = 0.7 on 6 of 6 obs.

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* DEC 06, 1993 07h 54m 23.02± 2.30s
42.345 N ±14.7km 15.780 E ±16.6km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)
ML 3.3 (TTG). MD 3.3 (TRI).

HVAR 0.97 30 iPgd 54 41.50 0.1
i 54 45.80
iSg 54 56.30
i 55 01.00
HCY 2.02 86 iPgc 54 57.57 0.1
iSg 55 20.29
BRY 2.11 74 iPnd 54 59.36 0.4
iSn 55 23.07
BDV 2.26 91 iPnd 55 01.00 0.0
iSn 55 26.98
NKY 2.42 78 iPnd 55 03.41 0.0
iSn 55 30.51
TTG 2.58 87 iPnc 55 05.68 0.2
iSn 55 34.27
ULC 2.61 97 iPnc 55 06.00 0.1
iSn 55 35.79
PLE 2.83 68 iPnc 55 09.04 -0.2
iSn 55 40.23
LACI 3.01 102 eP 55 15.40 3.8X
IVA 3.09 79 iPnc 55 12.15 -0.6
iSn 55 46.33
PVY 3.11 84 iPnc 55 13.20 0.0
iSn 55 47.04
RIY 3.16 342 e(Pn) 55 22.50 8.8X
BCI 3.18 88 eP 55 17.40 3.4X
VBY 3.18 353 ePn 55 14.00 0.0
TIR 3.21 107 eP 55 06.60 -7.9X
CEY 3.53 344 e(Pn) 55 32.40 13.4X
eSg 56 30.10
PTJ 3.56 2 eP 55 24.00 4.6X
TRI 3.66 337 e(Pn) 55 33.00 12.1X
e(Sn) 56 06.90
e(Sg) 56 19.40
LJU 3.81 347 e(Pn) 55 27.50 4.6X
eSn 56 31.70

06d 07h

```
VOY       3.93 340 ePn    55 19.40   -5.3X
                   ePg    55 30.80
                   eSn    56 10.20
                   eSg    56 44.00
OHR       3.95 106 ePn    55 15.70   -9.4X
SKO       4.22  93 ePn    55 32.00    3.1X
KBA       5.04 341 iPnc   55 43.90    3.3X
     0.6s       5.70nm            4.3mb X
                   i      55 49.00
                   i      56 49.90
                   i      57 00.20
     S.D. = 0.3  on  11 of  23 obs.
-------------------------------------------
% DEC  06, 1993  08h 01m 59.51± 1.57s
   39.186 N ±15.3km    21.399 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
  GREECE                            (364)

AGG       0.74 102 iPg    02 14.33    0.2
                   eSg    02 25.52
IGT       0.90 293 ePg    02 16.28   -0.4
LIT       1.24  42 ePb    02 21.16   -1.5
                   iSb    02 39.28
FNA       1.60 359 iPb    02 28.36    0.5
GRG       1.93  23 ePb    02 33.85    1.2
     S.D. = 1.4  on   5 of   5 obs.
-------------------------------------------
   DEC  06, 1993  08h 36m 22.87± 0.68s
    5.982 S ± 6.5km  130.680 E ± 8.8km
   DEPTH = 123.0 ±  6.6 km
   5.1mb (  6 obs.)
  BANDA SEA                         (280)

MTN       6.84 176 eP     38 02.50    0.5
     0.3s     402.00nm            6.3mb X
KNA       9.89 191 eP     38 42.20   -1.0
     0.3s      63.00nm            5.9mb X
                   eS     40 27.80
WB2      14.33 166 eP     39 36.90   -4.4X
                   i      39 41.40
                   eS     42 09.10
PMG      16.68 103 eP     40 12.00    1.3
QIS      16.88 150 eP     40 11.40   -1.8
                   eS     43 07.00
ASPA     17.85 170 iPc    40 24.30   -0.8
     0.7s      46.20nm            4.9mb
                   eS     43 33.90
TRT      18.00 264 ePd    40 38.60   11.8X
KM       18.74 309 ePc    40 37.00    1.9
RB       20.46 190 eP     40 54.50    1.8
                   eS     44 35.00
JANU     22.04 220 eP     41 09.80    1.4
LEM      22.93 267 iPd    41 21.20    3.9X
BDT      38.89 307 eP     43 39.00    0.9
CHTO     39.82 309 ePc    43 46.10    0.3
     0.9s      10.23nm            4.6mb
LZH      48.84 331 eP     44 57.00   -0.9
     1.8s      59.00nm            5.1mb
GUN      54.80 310 P      45 42.50   -0.4
PKI      54.99 310 P      45 43.40   -0.8
     0.6s      20.00nm            5.2mb
KKN      55.20 310 P      45 45.00   -0.6
     0.6s      30.00nm            5.4mb
DMN      55.24 310 P      45 45.50   -0.5
GKN      55.80 310 P      45 49.50   -0.3
GBA      56.32 291 Pc     45 52.00   -1.5
HYB      56.48 295 eP     45 53.50   -1.2
MAIO     78.57 309 iPc    48 13.80    1.1
SDN      83.09  32 (P)    48 35.75   -0.1
     0.5s      17.22nm            5.2mb
SYO      84.88 201 ePc    48 48.10    3.4X
INK      97.67  22 eP     49 44.00   -0.3
YKA     106.55  26 ePKP   54 34.20   -0.2
     0.6s       0.30nm
GEC2    112.07 321 PKP    54 45.50    0.1
LPG     117.65 319 ePKP   54 56.50    0.0
     0.5s       2.60nm
LPL     117.65 319 ePKP   54 56.50    0.1
     0.5s       3.05nm
LBF     118.85 321 ePKP   54 58.40    0.0
     0.5s       1.60nm
SSF     119.11 321 ePKP   54 59.10    0.3
     0.5s       2.50nm
BGF     119.73 321 ePKP   55 00.50    0.5
     0.6s       4.80nm
LDF     120.59 324 ePKP   55 02.00    0.4
     0.3s       0.80nm
```

```
LPF     121.40 324 ePKP   55 03.40    0.3
     0.8s       5.25nm
MFF     121.56 322 ePKP   55 03.80    0.3
     0.4s       3.30nm
KIC     135.69 273 PKP    55 32.00    0.5
     0.7s       9.50nm
LKO     136.55 278 PKP    55 31.66   -1.5
     0.6s       3.00nm
LPB     150.92 141 PKP    56 09.00   11.0X
LPAZ    151.08 140 PKP    56 06.30    7.8X
CCH     151.45 145 PKP    56 08.30    9.7X
     S.D. = 1.0  on  33 of  40 obs.
-------------------------------------------
? DEC  06, 1993  09h 02m 16.67± 1.03s
   39.150 N ± 8.7km    27.560 E ±16.6km
   DEPTH =  10.0km  (geophysicist)
  TURKEY                            (366)
       ML 2.7 (ISK).

IZM       0.79 197 ePg    02 32.00    0.0
                   eSg    02 45.90
DST       0.94  61 iPn    02 34.70    0.0
EDC       1.22  11 ePn    02 39.00   -0.3
BNT       1.24  13 ePn    02 40.00    0.3
     S.D. = 0.5  on   4 of   4 obs.
-------------------------------------------
* DEC  06, 1993  10h 33m 40.16± 2.74s
   12.461 S ±14.2km  166.546 E ±14.7km
   DEPTH =  82.1 ± 27.2 km
   5.2mb ( 15 obs.)
  SANTA CRUZ ISLANDS                (184)

BKM       5.43 163 iP     35 02.10    1.8
                   iS     36 14.00
DZM       9.56 181 iPd    35 55.20   -2.0
                   iS     37 56.00
ARMA     22.59 215 eP     38 35.70    1.0
     1.0s      25.00nm            4.6mb
RIV      25.48 211 eP     39 02.60    0.3
CNB      27.56 211 eP     39 21.30   -0.1
STK      30.00 226 iPc    39 29.40  -13.8X
     0.4s       5.50nm
WB2      31.76 252 iPc    39 57.20   -1.6
     0.4s       4.00nm            4.6mb
ASPA     32.89 246 eP     40 06.90   -1.8
     0.7s      10.30nm            4.8mb
WARB     39.88 244 iPd    41 08.00    0.3
     0.4s       5.00nm            4.8mb
MEEK     47.05 245 iPc    42 06.90    1.3
     1.0s     143.00nm            5.8mb
NWAO     49.34 237 eP     42 23.20    0.0
NANU     49.48 251 eP     42 24.80    0.5
MRWA     49.71 242 eP     42 26.00   -0.1
MUN      50.00 239 eP     42 27.50   -0.8
     1.0s      50.00nm            5.5mb
SSE      61.41 316 Pd     43 49.00   -1.1
     0.8s      27.00nm            5.4mb
IPM      67.27 280 ePc    44 28.90    0.3
BJI      70.07 321 eP     44 44.50   -0.8
KMI      72.52 301 Pc     45 01.50    0.8
     1.2s      50.00nm            5.3mb
                   pP     45 14.00  43kmX
                   sP     45 17.40
CHTO     73.51 294 ePc    45 06.80    0.5
     1.1s      12.37nm            4.7mb
LZH      76.28 312 eP     45 22.50    0.4
     1.5s      56.00nm            5.2mb
                   pP     45 44.50  83kmX
GUN      87.69 299 PKP    46 22.30    0.6
     0.8s      32.00nm            5.5mb
PKI      88.00 299 PKP    46 23.50    0.3
     0.7s      32.00nm            5.5mb
KKN      88.17 299 PKP    46 24.40    0.6
     0.8s      43.00nm            5.6mb
DMN      88.27 299 PKP    46 25.00    0.6
     0.8s      19.00nm            5.3mb
GKN      88.77 299 PKP    46 26.60    0.0
HYB      91.78 287 eP     46 41.00    0.4
GBA      92.03 283 Pd     46 42.50    0.9
     0.6s       3.00nm            4.9mb
YKA      95.86  27 eP     46 57.10   -1.3
     0.5s       0.30nm            4.1mb X
SOB1    145.26 127 ePKP   53 10.10   -0.9
     S.D. = 1.0  on  28 of  29 obs.
-------------------------------------------
? DEC  06, 1993  10h 40m 28.38± 2.96s
   40.169 N ±24.4km    28.764 E ±32.8km
```

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   DEPTH =  10.0km  (geophysicist)
  TURKEY                            (366)
       ML 2.6 (ISK).

IZI       0.57  73 iPg    40 40.10    0.1
                   eSg    40 50.60
DST       0.57 191 ePg    40 40.00    0.0
                   eSg    40 51.40
YLV       0.61  49 ePn    40 40.80    0.0
EYL       1.14  69 ePn    40 49.40   -0.3
     S.D. = 0.4  on   4 of   4 obs.
-------------------------------------------
   DEC  06, 1993  10h 42m 03.74± 0.10s
    6.360 S ± 2.4km  154.916 E ± 2.4km
   DEPTH =  48.4km  ( 56 depth phases)
   5.6mb ( 87 obs.)  5.7Msz ( 46 obs.)
  SOLOMON ISLANDS                   (193)
       Mw 5.9 (HRV). Ms 5.8 (BRK).
       CENTROID, MOMENT TENSOR      (HRV)
       Data Used: GDSN
       L.P.B.: 49S, **C
       Centroid Location:
       Origin Time         10:42: 9.5 0.2
       Lat  6.54S 0.02 Lon 154.94E 0.01
       Dep  52.0 BDY Half-duration  2.1
       Moment Tensor;    Scale 10**17 Nm
         Mrr= 7.30 0.08  Mtt=-3.18 0.15
         Mff=-4.13 0.15  Mrt= 1.92 0.14
         Mrf=-1.21 0.14  Mtf= 4.08 0.10
        Principal Axes:
         T  Val=  7.67  Plg=81  Azm= 17
         N        0.40      5       137
         P       -8.07      8       228
       Best Double Couple:Mo=7.9*10**17
       NP1:Strike=323 Dip=37 Slip=  98
       NP2:         133      53       84

KVG       5.55 312 eP     43 28.00    2.1
LAT       7.87 267 ePd    44 00.40    2.0
PMG       8.26 248 ePd    44 05.30    1.6
YYYY      8.89 270 eP     44 15.80    3.1X
MNDI     11.19 270 eP     44 45.00    0.8
BKM      17.20 132 iPd    46 05.00    2.8
PVC      17.29 132 iPd    46 06.10    2.7
DZM      19.18 146 iPc    46 25.70   -0.9
QIS      20.49 225 iPc    46 40.60    0.3
                   iScP   51 04.00
GUA      22.12 333 eP     47 01.80    5.0X
GUMO     22.19 333 eP     47 01.30    3.9X
     0.9s     582.60nm            6.0mb
PJG      22.19 333 eP     47 01.50    4.1X
WB5      24.06 234 iPc    47 17.20    1.5
                   iPcP   51 11.80
                   iS     51 36.50
WB2      24.11 234 iPd    47 17.70    1.5
     0.7s      82.00nm            5.4mb
                   ipP    47 29.40   46km
                   iPcP   50 57.40
                   ipPcP  51 10.50
WRA      24.12 234 P      47 17.89    1.6
     1.0s      87.80nm            5.2mb
ARMA     24.13 187 iPc    47 17.20    0.8
     1.1s     329.00nm            5.8mb
                   ipP    47 28.50   44km
                   isP    47 35.40
                   e      51 11.70
MTN      24.31 253 eP     47 20.00    1.9
VUN      25.72 119 eP     47 33.10    1.6
SVA      25.76 119 eP     47 44.70   12.8X
ASPA     26.54 227 iPc    47 38.80   -0.3
     0.7s      43.50nm            5.2mb
  Z  22s       14.00um            5.5Msz
                   ipP    47 49.30   39km
                   iPcP   51 17.50
                   eS     52 17.20
                   iScS   58 52.80
KNA      27.28 248 eP     47 46.20    0.4
RIV      27.55 187 iPc    47 48.20    0.1
     1.0s    8320.00nm            7.3mb X
                   eS     52 20.00
STK      28.28 204 iPc    47 40.10  -14.6X
     0.7s       9.30nm
                   ipP    47 48.50  29kmX
                   ePcP   51 06.60
BWA      28.57 191 eP     48 00.60    3.3X
                   e      48 09.70  32kmX
                   i      48 11.40
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CNB     29.27 189 iPd   48 03.80   0.1
        0.5s   14.00nm          4.9mb
                  ipP   48 14.90  41km
CAN     29.33 190 eP    48 03.60  -0.6
                  ipP   48 19.70  67kmX
                  e     48 56.40
BIP     32.05 297 ePd   48 28.00  -0.3
ADE     32.15 206 iPc   48 28.50  -0.6
DAV     32.18 294 eP    48 30.50   1.0
WARB    33.40 231 iPc   48 40.00   0.0
CTB     33.47 293 ePc   48 44.00   3.3X
AFI     33.60 106 eP    48 57.00  15.1X
                  e(S)  54 00.00
WSI     34.43 262 ePd   48 49.20   0.2
PLP     34.51 300 ePd   48 48.80  -0.9
MAP     34.98 298 eP    48 54.00   0.3
FORT    35.00 223 eP    48 53.20  -0.5
        0.8s    93.00nm         5.8mb
MOZ     36.72 153 P     49 09.20   1.1
        0.9s   163.00nm         6.0mb
MBL     37.00 243 iPc   49 10.10  -0.6
URZ     37.60 151 P     49 15.40   0.0
NGZ     37.63 153 P     49 16.90   1.0
QRZ     37.76 158 eP    49 16.10  -0.8
PUZ     38.02 149 P     49 18.80  -0.3
        0.7s   335.00nm         6.4mb
NOZ     38.33 150 P     49 21.80   0.2
        0.9s   336.00nm         6.2mb
TSM     38.47 285 ePd   49 24.00   0.9
THZ     38.72 158 P     49 24.20  -0.7
        0.7s    33.00nm         5.3mb
KIW     38.73 156 P     49 24.40  -0.6
MNG     38.76 155 P     49 24.70  -0.6
TCW     38.77 156 P     49 25.10  -0.2
MRW     38.95 156 eP    49 26.00  -0.9
CAW     39.00 156 P     49 26.30  -0.9
SNZO    39.02 156 P     49 28.00   0.6
                  e     50 09.00 192kmX
                  e     51 22.00
                  S     55 15.00
                  e     58 33.00
PGZ     39.10 154 P     49 27.20  -0.9
MTW     39.22 155 P     49 28.10  -1.0
LTZ     39.38 160 P     49 30.10  -0.4
        0.6s    95.00nm         5.8mb
MSZ     39.82 165 eP    49 33.80  -0.2
        0.6s   131.00nm         5.9mb
MEEK    40.00 236 iPc   49 35.90   0.1
        1.0s   214.00nm         5.9mb
BWZ     40.21 163 P     49 36.30  -0.9
MQZ     40.33 160 eP    49 38.60   0.4
KKM     40.54 287 ePc   49 45.00   4.6X
        0.8s   204.20nm         5.9mb
BAG     40.82 304 ePc   49 43.50   0.8
        0.5s   154.93nm         6.0mb
NANU    41.23 243 iPc   49 46.00   0.2
        0.9s   196.00nm         5.8mb
TUZ     41.45 164 P     49 46.50  -0.8
        0.7s    65.00nm         5.5mb
KLB     42.83 229 iPc   49 57.80  -1.1
        0.9s   116.00nm         5.6mb
SJI     42.83 266 ePd   49 59.30   0.2
MRWA    43.16 233 iPc   50 01.20  -0.4
        0.8s    67.00nm         5.4mb
BAL     43.19 231 eP    50 01.50  -0.3
KAGJ    43.84 330 P     50 07.10   0.1
NWAO    43.85 228 eP    50 06.90  -0.3
MUN     44.18 230 eP    50 09.80   0.0
        1.0s   120.00nm         5.6mb
CHJJ    44.76 342 eP    50 13.50  -0.9
RKG     44.82 226 iPd   50 16.00   1.0
        0.8s    53.00nm         5.4mb
KUMJ    44.96 331 P     50 16.10   0.1
MAT     45.46 341 eP    50 19.00  -0.9
        0.8s    11.19nm         4.8mb
    Z  22s      3.33um          5.2Msz
                  eS    56 59.00
MTMJ    45.63 341 P     50 21.10  -0.3
NIIJ    45.85 342 eP    50 22.40  -0.6
SHNJ    46.14 332 P     50 24.60  -0.7
YAMJ    46.42 344 P     50 27.60   0.1
OFUJ    46.85 346 P     50 31.00   0.2
LEM     46.97 267 iPc   50 33.00   0.5
        1.0s   160.00nm         5.9mb
                  eLR   00 50.00
TPI     47.23 272 ePc   50 35.00   0.7
                  e     54 00.00
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AOMJ    48.57 345 P     50 49.90   5.7X
HKC     49.02 307 iP    50 49.80   1.8
                  S     58 16.00
SSE     49.27 321 P     50 50.00   0.2
        0.8s    10.00nm         4.9mb
    Z  21s      3.30um          5.3Msz
    N  16s      0.90um
    E  16s      1.00um
                  sP    51 05.70
                  S     57 52.00
                  sS    58 14.00
HOOJ    49.66 349 eP    50 53.00   0.4
GZH     50.07 307 P     50 57.60   1.5
    Z  24s      3.51um          5.3MszX
KUSJ    50.09 350 eP    50 56.10   0.2
MRRJ    50.16 347 eP    50 57.00   0.5
QIZ     51.07 301 iPd   51 05.00   1.2
NJ2     51.38 320 Pc    51 05.90   0.0
        1.0s    21.00nm         5.1mb
    Z  24s      2.01um          5.1MszX
ASAJ    51.45 349 eP    51 07.20   1.0
KGM     52.18 277 ePc   51 12.20  -0.1
        0.8s   231.30nm         6.3mb
                  e     51 27.00  56km
WHN     53.43 316 iPc   51 21.50   0.3
        1.0s    60.00nm         5.6mb
    Z  22s      3.22um          5.3Msz
                  pP    51 35.50  52km
VLA     53.50 339 iPc   51 19.00  -2.5
        1.0s    30.00nm         5.3mb
                  i     51 35.00  61kmX
HON     53.76  58 P     51 30.00   6.3X
    Z  21s      3.93um          5.4Msz
OPA     53.90  57 (P)   51 24.87   0.0
YSS     54.23 350 ePc   51 26.00  -0.8
        0.8s    40.00nm         5.5mb
    Z  18s      3.10um          5.4Msz
    N  18s      2.20um
                  e     51 40.00  51km
                  e     52 28.00
                  (S)   59 07.00
                  e     01 13.00
DL2     54.59 328 P     51 29.50  -0.1
        1.8s   500.00nm         6.2mb
    Z  28s      2.69um          5.2MszX
IPM     54.89 280 ePc   51 31.60  -0.6
        0.9s   182.30nm         6.1mb
                  e     52 47.60 361kmX
AFR     55.06 107 iPd   51 32.80  -0.6
        0.7s    41.00nm         5.6mb
PPT     55.25 107 iPd   51 34.20  -0.6
        0.8s    48.60nm         5.6mb
    Z  30s   3475.00um          8.3MszX
PAE     55.26 107 iPd   51 34.20  -0.6
        0.9s    31.80nm         5.3mb
PPN     55.39 107 iPd   51 35.20  -0.6
        0.9s    49.10nm         5.5mb
TVO     55.58 107 iPd   51 36.60  -0.6
        0.8s    72.50nm         5.8mb
MDJ     55.62 338 Pd    51 36.80  -0.2
        1.0s    27.00nm         5.2mb
    Z  20s      2.09um          5.2Msz
                  eS    59 20.00
SNG     55.82 283 eP    51 39.00   0.1
        1.0s    98.00nm         5.8mb
SNY     55.85 332 Pd    51 38.00  -0.7
    Z  26s      2.55um          5.2MszX
                  S     59 22.00
                  sS    59 42.00
CN2     56.59 335 Pc    51 43.00  -1.0
        0.8s    28.00nm         5.3mb
    Z  20s      1.05um          4.9Msz
    N  15s      1.12um
    E  15s      0.38um
                  epP   51 55.00  42km
                  eS    59 30.00
PMO     56.72 104 iPd   51 44.50  -0.8
        0.9s   159.20nm         6.0mb
VAH     56.98 104 iPd   51 46.40  -0.8
        0.7s    37.90nm         5.5mb
TPT     56.98 104 iPd   51 46.40  -0.8
        0.8s    87.80nm         5.8mb
GYA     57.01 307 P     51 47.60   0.2
        0.8s    24.00nm         5.3mb
    Z  22s      3.38um          5.4Msz
                  pP    52 02.00  53km
                  S     59 36.00
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RUV     57.22 104 iPd   51 48.00  -0.9
        0.8s   116.60nm         6.0mb
NNT     57.98 289 iPd   51 53.60  -0.6
BJI     58.35 326 eP    51 55.50  -0.9
        1.0s    11.00nm         4.9mb
    Z  24s      1.93um          5.1MszX
    N  18s      1.56um
                  epP   52 08.00  44km
                  esP   52 14.00
                  ePcP  52 44.00
                  ePP   54 04.00
                  eS    59 52.00
                  esS   00 14.00
                  eSS   03 46.00
NST     58.49 293 iPc   51 58.00   0.2
TIY     59.05 321 Pc    52 00.60  -0.8
    Z  25s      2.70um          5.3MszX
    E  20s      2.42um
                  S     00 06.50
XAN     59.20 316 iPc   52 01.70  -0.8
        1.0s    76.00nm         5.8mb
    Z  35s      3.57um          5.3MszX
                  pP    52 16.00  52km
                  sP    52 26.00
                  S     00 05.00
                  sS    00 30.00
PET     59.23   3 eP    52 03.00   0.7
                  e     00 00.00
KMI     59.60 304 Pc    52 06.00   0.4
        1.0s    60.00nm         5.7mb
                  pP    52 20.00  51km
                  sP    52 29.00
                  eS    00 15.00
KHT     59.65 291 iPc   52 05.70  -0.1
BDT     60.01 294 iPc   52 08.50   0.3
        1.0s   131.10nm         6.0mb
CHTO    60.56 296 iPc   52 12.80   0.8
        0.9s   109.33nm         6.0mb
                  eS    00 28.00
SMY     61.08  13 eP    52 15.28   0.3
        0.6s    65.89nm         5.9mb
    Z  20s      8.85um          5.9Msz
CD2     61.35 310 iPc   52 16.70  -0.5
    Z  21s      3.35um          5.5Msz
                  pP    52 34.00  65kmX
                  esP   52 40.00
                  S     00 25.00
HHC     61.54 324 Pc    52 17.80  -0.6
        0.8s    29.00nm         5.5mb
    Z  30s      2.96um          5.3MszX
    E  16s      0.61um
                  PcP   53 00.00
                  PP    54 34.00
                  S     00 33.00
BTO     62.30 323 eP    52 23.00  -0.6
        0.8s    31.00nm         5.5mb
                  pP    52 37.00  50km
ADK     62.90  19 eP    52 25.02  -2.1
        0.9s    63.02nm         5.7mb
                  e     52 42.09  64kmX
LZH     63.81 315 eP    52 33.50  -0.2
        1.2s    87.00nm         5.7mb
    Z  28s      3.07um          5.3MszX
    E  18s      1.46um
                  pP    52 48.00  52km
                  sP    52 58.50
                  PcP   53 03.00
CIT     67.97 334 eP    53 00.10   0.2
GTA     68.23 317 Pc    53 01.80   0.0
        1.0s    16.00nm         5.0mb
    Z  26s      3.72um          5.5MszX
    E  20s      1.27um
                  pP    53 15.00  46km
                  sP    53 23.50
                  eS    01 58.00
LSA     70.85 304 eP    53 19.40   0.9
        0.8s    36.00nm         5.4mb
                  pP    53 34.00  52km
                  sP    53 42.00
YAK     70.90 348 iPc   53 19.20   1.7
        0.7s    81.00nm         5.8mb
    Z  22s      2.50um          5.4Msz
    N  24s      2.00um
    E  20s      1.70um
                  e(S)  03 12.00
SDN     71.70  25 P     53 30.00   7.6X
    Z  20s      4.76um          5.8Msz
```

06d 10h

SBA 71.72 177 eP 53 23.80 1.6
ZAK 71.92 328 iPc 53 23.00 -0.8
0.9s 103.00nm 5.8mb
Z 16s 0.50um 4.9MszX
E 16s 0.97um
eS 02 40.00
BOD 71.96 338 iPc 53 22.80 -1.2
0.9s 23.00nm 5.1mb
IRK 72.49 330 eP 53 21.00 -6.2X
1.1s 44.00nm 5.3mb
Z 20s 1.32um 5.2Msz
N 19s 1.12um
E 22s 0.73um
e 53 40.00 71kmX
e 53 43.80
e 54 13.50
e 55 10.30
e 03 16.00
e 03 40.00
GUN 74.72 301 P 53 40.80 -0.4
PKI 75.03 301 P 53 42.60 -0.3
KKN 75.20 301 P 53 43.60 -0.2
DMN 75.30 301 P 53 44.60 0.2
0.8s 44.00nm 5.4mb
GKN 75.81 301 P 53 46.80 -0.3
ANM 76.65 16 eP 53 51.34 0.4
epP 54 05.94 51km
KDC 76.65 26 eP 53 50.59 -0.4
0.8s 34.94nm 5.4mb
e 54 05.34 52km
SVW 77.44 22 ePc 53 56.26 0.9
0.7s 72.36nm 5.8mb
e 54 11.48 54km
UER 77.50 326 iPc 53 55.20 -0.6
0.9s 40.00nm 5.4mb
WMQ 78.31 317 iPc 53 59.90 -0.7
1.5s 24.00nm 5.0mb
Z 28s 2.85um 5.5MszX
PcP 54 10.00
pP 54 12.00 40km
sP 54 18.00
PP 57 00.00
S 03 48.00
SKS 04 05.00
sS 04 10.00
ScS 04 12.50
SS 08 52.50
TTA 78.46 21 eP 54 00.78 -0.2
0.8s 15.37nm 5.0mb
e 54 15.83 53km
CP2 78.83 23 eP 54 02.50 -0.7
KOD 78.86 282 iPc 54 05.50 1.1
1.0s 160.00nm 5.9mb
HYB 78.99 289 iPc 54 04.20 -0.5
1.0s 80.00nm 5.6mb
e 54 17.00 43km
SLKM 79.20 24 ePc 54 04.98 0.0
epP 54 19.17 49km
GBA 79.41 285 Pc 54 07.00 0.1
TIK 79.71 352 eP 54 07.00 -0.5
0.8s 10.00nm 4.8mb
e 59 01.00
e 04 50.00
PMR 80.24 24 eP 54 10.29 -0.2
0.8s 89.99nm 5.8mb
Z 20s 3.78um 5.7Msz
epP 54 24.54 49km
IMA 81.23 19 eP 54 15.98 0.1
1.0s 22.08nm 5.1mb
epP 54 30.77 52km
KLU 81.50 25 eP 54 17.88 0.6
TOA 81.71 24 eP 54 19.20 0.9
PAF 81.76 221 eP 54 25.00 6.2X
eS 04 37.00
eSS 09 44.00
NDI 82.33 300 eP 54 22.00 -0.2
0.7s 19.18nm 5.2mb
eS 04 55.00
FBA 82.56 21 ePc 54 21.72 -0.9
0.6s 20.49nm 5.3mb
epP 54 36.19 50km
BALM 82.79 26 eP 54 24.68 0.6
epP 54 39.51 51km
SPA 83.68 180 iPc 54 28.70 0.1
0.6s 284.55nm 6.5mb
BRW 83.75 14 eP 54 28.76 0.2
SIT 84.51 31 P 54 40.00 7.4X

Z 19s 1.80um 5.5Msz
KSH 85.52 310 P 54 39.50 1.2
0.8s 110.00nm 6.1mb
Z 24s 20.50um 6.4MszX
E 16s 0.67um
pP 54 53.00 46km
sP 55 00.00
SKS 05 00.00
S 05 05.00
sS 05 27.00
NIL 86.59 304 iPd 54 46.60 3.1X
0.4s 0.01nm 2.6mb X
(S) 05 40.60
FRU 87.21 313 eP 54 46.00 -0.4
Z 22s 1.40um 5.3Msz
E 22s 1.40um
i 55 00.00 47km
e 05 30.00
LGPM 88.30 49 eP 54 52.70 1.0
epP 55 08.07 53km
WDC 88.46 49 eP 54 54.80 2.5
1.9s 70.00nm 5.6mb
Z 19s 2.10um 5.6Msz
e 55 05.55 34kmX
eS 05 40.21
eLQ 18 24.21
YBH 88.52 48 eP 55 00.52 7.8X
Z 20s 7.00um 6.1Msz
eS 05 44.52
eLQ 18 35.52
eLR 22 24.52
COE 88.59 52 eP 54 55.15 2.1
MHC 88.62 52 eP 54 58.69 5.3X
1.2s 30.00nm 5.5mb
e 55 08.34 30kmX
SAO 88.69 53 P 55 00.00 6.4X
Z 21s 2.85um 5.7Msz
ORV 89.08 50 eP 54 55.52 0.2
epP 55 10.04 49km
MIN 89.12 49 eP 54 56.10 0.4
1.2s 20.00nm 5.3mb
e 55 09.50 45km
INK 89.16 21 eP 54 55.00 -0.1
1.0s 8.00nm 5.0mb
HDW 89.31 42 P 54 57.33 1.0
PHAM 89.39 54 (P) 54 56.81 -0.1
GMW 89.47 42 eP 54 57.34 0.3
epP 55 11.81 49km
BCH 89.55 55 eP 55 00.79 3.0X
epP 55 13.89 43km
SHW 89.61 44 (P) 54 57.84 0.0
MCW 89.63 41 P 54 58.71 0.9
CMB 89.71 52 eP 54 59.24 0.8
1.9s 65.45nm 5.6mb
Z 20s 2.98um 5.7Msz
epP 55 13.57 49km
LON 89.99 43 eP 54 59.27 -0.3
epP 55 13.47 48km
GSM 90.07 43 P 55 00.57 0.6
RMW 90.11 42 eP 55 00.11 0.0
epP 55 14.81 50km
JCW 90.14 42 P 55 01.90 1.7
ABL 90.21 55 eP 55 02.34 1.3
epP 55 16.72 49km
MBW 90.26 41 P 55 01.31 0.5
VIPM 90.47 45 P 55 01.67 -0.3
MMPM 90.72 52 (P) 55 04.71 1.3
MEMM 90.80 52 eP 55 04.05 0.8
epP 55 19.55 53km
EBG 90.86 43 P 55 04.25 0.8
ISA 90.92 54 P 55 10.00 6.0X
Z 20s 2.86um 5.7Msz
MTUM 91.06 53 eP 55 05.86 1.1
epP 55 20.42 49km
BONR 91.34 52 eP 55 07.37 1.2
epP 55 21.66 48km
SSK 91.38 56 eP 55 07.20 0.8
epP 55 21.73 49km
WTV 91.38 42 P 55 06.01 0.1
QUE 91.40 300 eP 55 06.20 -0.4
KVN 91.62 51 eP 55 08.75 1.4
epP 55 22.64 47km
SAW 91.75 42 P 55 07.75 0.2
PEC 91.78 56 eP 55 09.20 1.2
1.5s 122.88nm 6.1mb
epP 55 23.45 48km
PLM 91.97 57 eP 55 10.33 1.2

epP 55 24.38 47km
TNP 92.20 52 eP 55 11.17 1.1
1.1s 43.68nm 5.8mb
epP 55 24.97 46km
DPW 92.58 42 eP 55 11.57 0.2
epP 55 26.04 49km
TPNV 92.85 53 eP 55 14.37 1.3
0.9s 22.18nm 5.6mb
Z 21s 5.42um 6.0Msz
epP 55 29.06 50km
SYO 92.93 199 ePc 55 14.20 1.6
NEW 93.34 42 eP 55 14.98 0.1
0.8s 9.84nm 5.3mb
Z 21s 7.59um 6.1Msz
epP 55 28.82 46km
GLA 93.64 57 eP 55 18.61 2.0
epP 55 32.77 48km
MBC 95.11 14 iPc 55 23.10 0.7
ARUT 95.15 53 eP 55 25.06 1.5
epP 55 39.17 47km
DUG 95.79 50 P 55 40.00 13.5X
Z 21s 1.87um 5.5Msz
YKA 95.82 28 P 55 26.30 0.4
0.7s 18.00nm 5.7mb
MSU 96.19 52 eP 55 29.66 1.2
epP 55 43.46 46km
EMUT 97.31 51 eP 55 34.72 1.3
epP 55 49.01 48km
SRU 97.51 51 eP 55 34.90 0.6
epP 55 49.28 49km
MAIO 98.09 306 eP 55 36.00 -0.8
e 55 50.00 47km
PV10 98.64 52 eP 55 40.02 0.5
epP 55 54.63 50km
ALQ 100.67 56 Pdiff 56 00.00 11.2X
Z 21s 2.12um 5.6Msz
RES 101.38 15 ePdiff55 51.00 0.3
GOL 101.50 51 Pdiff 56 00.00 7.6X
Z 20s 2.98um 5.8Msz
GLD 101.62 51 Pdiff 56 00.00 7.2X
Z 21s 2.38um 5.7Msz
RSSD 102.33 46 ePdiff55 55.56 -0.4
0.5s 3.61nm 5.3mb
LTX 103.03 61 (Pdiff56 01.07 1.8
WMOK 106.99 56 PKP 00 40.00 13.6X
Z 19s 3.15um 5.9Msz
ULM 107.12 39 ePKP 00 27.50 1.4
TUL 109.32 54 iPKPd 00 21.60 -9.1X
MIAR 111.28 56 PKP 00 50.00 15.5X
Z 20s 2.62um 5.8Msz
FVM 113.27 51 PKP 00 50.00 11.8X
Z 19s 5.52um 6.2Msz
ELC 114.34 52 ePKP 00 38.73 -1.6
epP'df00 52.31
OXF 114.69 55 PKP 00 50.00 9.0X
Z 21s 2.62um 5.8Msz
FRB 114.80 20 ePKP 00 39.00 -1.3
JAQ 117.55 31 ePKP 00 44.50 -1.4
NAI 117.76 265 iPKPd 01 03.50 15.7X
Z 24s 0.47um 5.0MszX
MYNC 118.84 53 ePKPc 00 48.11 -0.9
Z 21s 2.49um 5.8Msz
epP'df01 01.77
HFS 118.89 339 ePKP 00 46.20 -2.0
0.4s 1.50nm
NB2 119.08 341 PKP 00 47.20 -1.4
0.9s 5.30nm
SLR 119.17 236 iPKPc 00 49.00 -1.0
0.7s 10.27nm
Z 18s 3.44um 6.0Msz
NRAO 119.20 340 PKP 00 47.70 -1.1
BLF 119.40 232 ePKP 00 49.00 -1.4
0.6s 10.71nm
e 01 03.50
MTD 119.45 247 iPKP 00 34.90 -15.8X
i 00 48.40
FRS 119.77 231 ePKP 00 50.00 -0.8
0.7s 44.52nm
e 01 04.10
YSNY 120.79 44 PKP 01 00.00 7.5X
Z 20s 3.47um 6.0Msz
MCWV 120.84 47 PKP 01 00.00 7.4X
Z 21s 3.67um 6.0Msz
BUL 121.01 242 iPKP 01 04.00 10.4X
0.9s 118.07nm
BUL 121.01 242 iPKPd 00 49.50 -4.1X
i 01 04.00

MLR 121.19 320 ePKP 00 50.00 -3.2X
e 10 55.00
GAC 121.50 39 ePKP 00 52.50 -1.1
CEH 122.58 51 ePKP 00 54.93 -1.1
Z 20s 2.77um 5.9Msz
epP'df01 08.81
BINY 122.64 43 PKP 01 10.00 14.0X
Z 20s 4.63um 6.1Msz
SPC 122.79 326 e(PKP)00 56.20 0.0
e 01 10.40
e 14 53.60
LSZ 123.01 247 iPKPd 00 56.50 -1.0
1.0s 1.40nm
i 01 11.00
LBNH 124.41 39 PKP 01 10.00 10.7X
Z 20s 5.17um 6.2Msz
LSCT 124.73 43 PKP 01 10.00 10.0X
Z 21s 5.35um 6.2Msz
BRG 125.05 331 iPKP 01 00.00 -0.3
1.4s 29.00nm
Z 22s 2.00um 5.7Msz
N 22s 0.82um
E 22s 0.60um
i 01 14.20
i 01 30.50
ZST 125.07 327 ePKB 01 11.70 11.3X
e 14 50.00
VAY 125.22 317 ePKP 00 57.70 -3.2X
CLL 125.22 332 iPKP 01 00.10 -0.5
0.7s 15.00nm
i 01 30.20
CBM 125.31 35 ePKP 00 59.16 -1.8X
Z 19s 2.33um 5.9Msz
PRU 125.32 330 ePKP 01 14.50 13.6X
Z 18s 0.80um 5.4Msz
HRV 125.47 41 PKP 01 10.00 8.6X
Z 21s 5.50um 6.2Msz
SKO 125.68 318 iPKP 01 01.00 -0.9
Z 23s 1.01um 5.4MszX
i 01 15.50
i 01 30.30
LR 58 54.00
KHC 126.35 329 PKPd 01 03.00 0.0
1.0s 7.00nm
Z 22s 1.90um 5.7Msz
N 22s 1.00um
E 22s 0.70um
e 01 17.50
i 01 33.40
e 01 56.50
e 02 16.50
GEC2 126.47 329 e(PKP)01 02.90 -0.4
0.7s 6.20nm
OHR 126.51 318 iPKP 01 02.80 -0.8
TCA 126.81 137 ePKPd 01 03.00 -1.5
GRF 127.15 331 ePKP 01 05.30 0.8
LJU 127.75 326 ePKP 01 19.00 13.3X
e(PP) 03 12.00
KBA 127.77 327 i(PKP)01 05.20 -0.8
LMN 127.81 34 ePKP 01 05.50 -0.3
EKA 128.11 344 PKP 01 08.70 2.6X
1.0s 18.40nm
WTTA 128.55 329 iPKPd 01 06.90 -0.5
0.9s 17.00nm
i 01 21.40
MOTA 128.77 329 iPKPd 01 07.10 -0.7
0.9s 12.60nm
i 01 20.00
SQTA 128.80 329 iPKPd 01 07.20 -0.6
0.9s 11.80nm
DOU 129.82 335 PKP 01 08.80 -0.7
CDF 129.90 332 ePKP 01 08.80 -1.0
0.9s 4.40nm
BSF 130.54 332 ePKP 01 09.70 -1.4
0.8s 8.20nm
HAU 130.62 333 ePKP 01 10.60 -0.5
0.8s 9.65nm
CNCB 131.74 119 PKP 00 58.20 -16.6X
LPB 131.76 119 ePKP 01 02.00 -12.7X
Z 20s 0.71um 5.4Msz
i 01 29.00
LR 54 28.00
LPAZ 131.83 118 PKP 01 05.80 -9.3X
LR 53 37.00
LPL 132.23 330 ePKP 01 12.90 -1.6
0.8s 4.45nm
LPG 132.23 330 ePKP 01 13.70 -0.9
0.8s 4.55nm
LOR 132.29 334 ePKP 01 13.40 -0.9
0.9s 6.20nm
LBF 132.46 333 ePKP 01 14.30 -0.4
0.9s 6.40nm
SSF 132.61 334 ePKP 01 14.00 -0.9
0.8s 11.15nm
SMF 132.77 333 ePKP 01 15.10 -0.2
0.9s 10.15nm
FLN 132.88 338 ePKP 01 14.30 -1.0
1.0s 11.60nm
AVF 132.88 333 ePKP 01 13.30 -2.1X
1.0s 7.20nm
PGF 133.04 325 ePKP 01 14.90 -1.1
1.2s 30.95nm
CCH 133.08 121 ePKP 01 15.00 -2.1X
BGF 133.28 334 ePKP 01 15.40 -0.8
0.6s 6.05nm
GRR 133.33 338 ePKP 01 15.50 -0.7
1.0s 11.80nm
FRF 133.64 328 ePKP 01 15.80 -1.2
0.9s 13.25nm
MAF 133.67 334 ePKP 01 16.30 -0.7
LPF 133.70 338 ePKP 01 16.30 -0.6
0.7s 9.70nm
TCF 133.77 334 ePKP 01 17.10 -0.1
0.9s 9.65nm
LRG 133.86 328 ePKP 01 15.40 -2.0X
0.8s 10.05nm
LMR 133.87 328 ePKP 01 17.00 -0.4
0.8s 7.40nm
LSF 134.10 334 ePKP 01 17.70 -0.1
0.7s 4.65nm
MFF 134.52 336 ePKP 01 17.80 -0.7
0.8s 7.80nm
SDV 134.80 84 ePKP 01 19.70 -0.6
RJF 134.84 334 ePKP 01 18.70 -0.5
0.8s 4.55nm
Z 23s 1.80um 5.7MszX
TOV 135.63 83 ePKP 01 10.20 -11.5X
SIV 138.02 122 PKP 01 13.60 -12.5X
CAR 138.43 81 ePKP 01 24.00 -3.0X
ETOR 139.99 332 ePKP 01 25.20 -3.8X
ECHE 140.43 330 ePKP 01 26.40 -3.4X
GUD 141.06 334 ePKP 01 25.00 -6.0X
PPD 141.83 138 ePKP 01 27.40 -5.4X
EVIA 141.92 331 ePKP 01 32.60 0.0
PAB 142.05 334 ePKP 01 31.30 -1.5
ePP 05 00.00
EBAN 142.91 332 ePKP 01 29.70 -4.5X
SVB 143.74 76 ePKP 01 31.24 -5.0X
SVV 143.77 76 ePKP 01 29.24 -7.0X
VAO 143.81 144 ePKP 01 33.40 -2.8X
epPKP 01 47.40
EHOR 143.86 333 ePKP 01 36.80 1.0
ELOJ 143.90 331 ePKP 01 32.50 -3.5X
EPRU 144.55 332 ePKP 01 35.10 -2.0X
EVAL 144.72 334 ePKP 01 36.00 -1.3
TAF 144.80 327 iPKP 01 56.00 18.4X
i 02 06.00
EJIF 145.08 332 ePKP 01 35.20 -2.7X
RIFB 145.70 140 iPKPc 01 39.40 -0.1
i 01 53.40
BIT 145.85 331 ePKP 01 41.50 2.3X
TSY 146.19 331 ePKP 01 44.00 4.2X
IFR 147.24 328 iPKP 01 58.00 16.2X
BAO 148.50 134 ePKP 01 44.20 0.0
e 01 46.60
i 02 01.80
i 02 04.20
i 02 12.90
BDF 148.54 134 PKPd 01 44.50 0.2
i 01 46.80
i 01 58.70
i 02 01.00
i 02 04.60
i 02 06.70
i 02 38.00
i 02 45.50
AVE 148.57 331 ePKP 01 54.00 10.3X
i 02 20.00
OUK 150.49 329 iPKP 01 53.50 6.9X
CIA 150.65 331 ePKP 01 53.50 6.6X
SOB1 157.92 134 ePKP 01 57.30 0.0
KIC 159.78 271 PKP 01 59.98 0.6
0.8s 15.00nm
TIC 160.06 272 PKP 01 59.32 -0.3
0.8s 3.50nm
LIC 160.06 271 PKP 01 59.36 -0.3
0.7s 4.00nm
Z 20s 1.70um
LKO 160.44 281 PKP 01 59.07 -1.0
1.0s 8.00nm
CAI 162.43 137 ePKP 01 53.00 -9.0X
S.D. = 0.9 on 262 of 338 obs.

DEC 06, 1993 11h 27m 17.48± 0.57s
33.467 S ± 4.9km 70.175 W ± 4.4km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 4.0 (SAN).

FCH 0.17 325 iP+ 27 21.52 0.0
iS 27 25.47
PCH 0.32 242 iP+ 27 24.76 0.6
iS 27 31.93
SAN 0.41 272 iP+ 27 26.63 0.8
PEL 0.54 307 iP+ 27 28.40 0.1
iS 27 38.12
TACH 0.66 254 iP+ 27 30.77 0.1
iS 27 42.91
CACH 0.74 209 iP+ 27 31.22 -0.8
iS 27 43.28
JACH 0.86 336 iPd 27 32.75 -1.3
iS 27 45.52
ROCH 0.86 305 iPd 27 34.08 -0.1
iS 27 48.35
LNV 1.14 244 iP+ 27 38.46 -0.3
iS 27 55.86
LCCH 1.17 269 iP+ 27 39.39 0.1
iS 27 56.96
RTCV 2.12 41 eP 27 53.00 -0.4
S 28 23.00
RTCB 2.29 31 ePd 27 56.30 0.3
CFA 2.47 42 ePd 27 59.00 0.5
RTLL 2.57 35 ePd 28 00.50 0.6
RTRS 3.34 11 eP 28 16.00 5.2X
S.D. = 0.6 on 14 of 15 obs.

DEC 06, 1993 12h 05m 29.78± 0.70s
40.928 N ± 5.5km 22.394 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.7 (SKO).

GRG 0.03 11 iPg 05 32.78 1.0
eSg 05 34.26
VAY 0.41 19 iPg 05 37.40 -0.8
0.2s 50.00nm
iSg 05 43.00
KNT 0.45 58 ePg 05 38.82 -0.1
eSg 05 45.14
THE 0.52 124 iPg 05 40.30 -0.1
eSg 05 48.14
SOH 0.74 98 ePg 05 44.54 0.3
eSg 05 55.02
FNA 0.79 260 ePg 05 44.94 -0.2
eSg 05 56.10
LIT 0.83 175 ePg 05 45.78 -0.1
S.D. = 0.7 on 7 of 7 obs.

? DEC 06, 1993 12h 25m 16.01± 0.97s
45.734 N ± 8.8km 13.807 E ± 7.6km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
MD 2.2 (LJU).

TRI 0.04 230 ePgc 25 17.30 0.0
VOY 0.30 11 ePgd 25 22.20 0.0
eSg 25 27.00
CEY 0.43 89 ePg 25 24.50 -0.2
eSg 25 31.40
VBY 1.04 102 e(Pg) 25 36.40 0.2
eSg 25 51.20
S.D. = 0.3 on 4 of 4 obs.

? DEC 06, 1993 12h 50m 19.29± 0.97s
37.737 N ±22.1km 72.332 E ±22.9km
DEPTH = 33.0km (normal)
4.9mb (3 obs.)
TAJIKISTAN (715)

NDI 9.91 154 eP 52 42.50 0.0
eS 54 19.50

06d 12h

GKN 14.17 130 P 53 40.00 0.2
0.4s 18.00nm 5.1mb
KKN 14.72 129 P 53 46.80 -0.3
DMN 14.74 130 P 53 47.80 0.4
PKI 14.95 129 P 53 49.80 -0.5
1.0s 74.00nm 5.0mb
GUN 15.01 127 P 53 51.20 0.2
HFS 42.76 321 eP 58 14.90 0.0
0.4s 2.70nm 4.3mb
S.D. = 0.4 on 7 of 7 obs.

% DEC 06, 1993 13h 08m 56.65± 3.98s
41.821 N ±27.1km 19.241 E ± 7.7km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
ML 1.8 (TTG).

ULC 0.14 2 iPgc 09 00.07 0.5
iSg 09 01.22
BDV 0.56 326 iPgd 09 07.90 0.1
iSg 09 15.10
TTG 0.61 1 iPgd 09 08.53 -0.3
iSg 09 16.49
HCY 0.84 319 iPgd 09 13.23 0.0
iSg 09 24.72
PVY 0.95 35 iPgd 09 15.05 -0.2
iSg 09 28.14
NKY 1.01 350 iPgc 09 15.90 -0.4
iSg 09 29.72
IVA 1.16 25 iPgc 09 19.02 0.2
iSg 09 35.05
BRY 1.20 335 iPgd 09 19.55 0.0
iSg 09 36.17
S.D. = 0.3 on 8 of 8 obs.

& DEC 06, 1993 13h 34m 55.74s
42.253 N 121.958 W
DEPTH = 9.6km
OREGON (32)
<SEA-P>. MD 2.7 (SEA). ML 2.9
(GS).

LAB 0.08 281 Pc 34 58.25 -0.1
HAMO 0.18 183 P 34 59.95 0.0
VRC 0.21 294 Pd 35 00.39 0.1
S 35 04.07
LASM 0.71 156 P 35 09.18 -0.8
LMPM 0.78 191 P 35 10.52 -0.6
BBOR 0.83 320 Pd 35 10.96 -1.0
LBFM 0.91 177 eP 35 12.56 -0.7
LGBM 0.92 191 P 35 13.05 -0.6
LBKM 1.28 205 P 35 18.48 -1.2
DBO 1.28 313 P 35 19.19 -0.4
KOMM 1.48 229 P 35 21.48 -1.1
KSXM 1.49 254 P 35 22.20 -0.5
LGPM 1.49 206 eP 35 21.29 -1.4
eS 35 40.49
LMEM 1.74 170 eP 35 26.56 0.2
FHC 2.10 227 (P) 35 30.31 -1.2
KMPM 2.45 222 (P) 35 36.23 -0.3
ORV 2.72 173 eP 35 40.75 0.5
VGB 3.37 14 (P) 35 50.10 0.5
18 obs. associated

DEC 06, 1993 13h 58m 51.33± 0.48s
38.843 N ± 4.6km 21.255 E ± 4.0km
DEPTH = 8.0 ± 2.8 km
GREECE (364)
ML 3.9 (TIR). MD 3.7 (ATH).

VLS 0.84 218 ePg 59 06.10 -1.7
AGG 0.86 78 ePg 59 07.86 -0.2
eSg 59 19.86
IGT 0.99 314 ePg 59 10.02 -0.3
eSg 59 25.86
LSK 1.40 339 ePn 59 17.20 0.0
iSn 59 39.40
KEK 1.43 308 ePb 59 18.70 1.2
LIT 1.58 37 ePb 59 19.70 0.0
eSb 59 41.74
FNA 1.94 3 ePn 59 25.36 0.4
VLO 2.12 321 ePn 59 27.60 0.2
ATH 2.12 113 ePn 59 28.70 1.2
PAIG 2.17 59 ePn 59 27.24 -1.0
THE 2.22 36 iPn 59 28.90 0.0
GRG 2.29 22 iPn 59 29.66 -0.3
OHR 2.29 351 iPn 59 31.00 0.9
i 59 33.70
i 59 49.90
i 59 59.00
i 00 05.00
VLI 2.50 147 ePb 59 34.10 1.1
SOH 2.55 39 iPn 59 33.78 0.1
iSn 00 05.82
OUR 2.58 54 iPn 59 33.21 -0.8
KNT 2.64 28 ePn 59 34.85 -0.1
VAY 2.67 22 iPn 59 35.40 0.0
TIR 2.72 337 ePn 59 35.60 -0.5
iSn 00 04.60
SRS 2.90 38 ePn 59 38.17 -0.4
SKO 3.13 3 iPn 59 42.40 0.6
SDA 3.47 338 ePn 59 38.50 -8.2X
BCI 3.63 346 ePn 59 47.30 -1.8
PRK 3.93 83 ePn 59 53.10 -0.1
HVAR 5.65 322 e(Pn) 00 18.80 1.1
MLR 7.50 26 eP 00 44.00 0.3
e 02 50.00
S.D. = 0.9 on 25 of 26 obs.

% DEC 06, 1993 14h 13m 18.27± 3.72s
33.476 S ± 7.3km 69.981 W ±26.2km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.4 (SAN).

FCH 0.30 300 iP+ 13 24.73 0.1
iS 13 29.66
PCH 0.47 252 iP+ 13 28.01 0.2
iS 13 34.49
PEL 0.68 299 iPd 13 31.59 -0.1
iS 13 41.30
TACH 0.82 257 iP 13 34.13 0.0
iS 13 44.95
CACH 0.82 219 iP 13 34.41 0.1
iS 13 45.92
ROCH 1.00 300 iP+ 13 37.45 0.1
iS 13 51.49
LNV 1.28 248 iP+ 13 41.66 -0.4
iS 13 59.10
LCCH 1.33 270 iP 13 42.80 0.0
S.D. = 0.2 on 8 of 8 obs.

DEC 06, 1993 14h 25m 35.11± 0.47s
39.201 N ± 4.0km 30.189 E ± 3.7km
DEPTH = 32.8 ± 3.5 km
4.1mb (15 obs.)
TURKEY (366)
MD 4.3 (ATH).

IZI 1.26 334 iPn 25 57.20 0.6
DST 1.28 289 iPn 25 57.60 0.8
EYL 1.36 359 iPn 25 58.50 0.4
YLV 1.50 336 iPn 26 00.40 0.3
HRT 1.67 346 iPn 26 03.00 0.5
BCK 1.77 170 iPn 26 04.00 0.1
ISK 2.05 335 iPn 26 08.00 0.0
BNT 2.10 304 iPn 26 08.30 -0.3
ITU 2.11 335 iPnd 26 09.00 0.3
iSg 26 40.00
EDC 2.13 303 iPn 26 09.00 0.0
CIN 2.30 227 ePn 26 12.00 0.5
IZM 2.42 252 iPn 26 11.50 -1.8
ELL 2.46 185 iPn 26 15.50 1.6
PRK 3.04 272 ePn 26 22.60 0.6
KSL 3.11 189 ePn 26 24.00 1.0
DMK 3.21 325 iPn 26 23.60 -0.7
KAS 3.49 50 ePn 26 30.00 1.5
iSg 27 35.00
ALN 3.60 299 ePn 26 30.14 0.2
eSn 27 29.02
BZK 4.01 45 ePn 26 36.90 1.2
RDO 4.06 300 ePn 26 36.50 0.0
BNN 4.44 93 eP 26 58.00 16.0X
PPCY 4.64 158 eP 26 50.00 5.3X
OUR 4.92 285 ePn 26 47.86 -0.7
CSS 4.92 148 eP 26 47.00 -1.7
PAIG 5.08 280 iPn 26 50.33 -0.7
NPS 5.36 224 ePn 26 55.20 0.2
SRS 5.40 293 ePn 26 54.74 -0.8
eSn 28 29.10
SOH 5.49 289 iPn 26 56.33 -0.5
KNT 5.92 292 ePn 27 02.50 -0.3
eSn 28 41.34
BUC1 6.01 330 eP 27 58.00 54.0X
AGG 6.12 271 ePn 27 05.26 -0.3
CFR 6.17 346 eP 27 04.50 -1.7
VAY 6.20 292 iPn 27 06.20 -0.6
GRG 6.23 289 ePn 27 07.30 0.1
SIM 6.44 26 ePc 27 09.00 -1.1
eS 28 18.00
ISR 6.52 337 eP 27 11.00 -0.2
KZN 6.58 282 ePn 27 12.00 -0.2
FNA 6.95 286 iPn 27 17.21 -0.1
MLR 7.03 335 ePd 27 18.50 0.1
VRI 7.14 340 iPd 27 19.00 -0.8
CMP 7.17 329 ePc 28 19.00 58.7X
SKO 7.21 295 ePn 27 26.00 5.1X
LR 30 14.00
OHR 7.44 288 ePn 27 24.30 0.1
IGT 7.64 276 ePn 27 30.18 3.2X
CLI 7.65 345 eP 27 27.00 0.0
KIS 7.87 353 eP 27 27.50 -2.6
Z 13s 0.20um
eS 28 53.00
LPG 18.40 298 eP 29 53.50 4.0X
1.0s 11.20nm 4.0mb
LPL 18.42 298 eP 29 55.70 6.1X
0.9s 9.65nm 4.0mb
CDF 18.87 307 eP 29 55.40 0.4
0.8s 6.30nm 3.9mb
HAU 19.32 305 eP 29 59.90 -0.4
1.0s 12.20nm 4.1mb
LBF 20.60 301 eP 30 16.30 2.4
1.1s 9.30nm 4.1mb
SMF 20.62 300 eP 30 14.80 0.8
LOR 20.74 301 eP 30 17.30 2.0
0.8s 8.35nm 4.2mb
AVF 20.97 300 eP 30 17.30 -0.4
1.5s 36.55nm 4.6mb
MAF 21.41 298 eP 30 21.40 -0.7
1.1s 8.80nm 4.1mb
NUR 21.61 353 eP 30 25.90 1.9
0.4s 4.60nm 4.2mb
TCF 21.66 298 eP 30 27.30 2.6
ASH 22.02 84 eP 30 24.00 -4.3X
LPO 22.19 294 eP 30 35.10 5.2X
1.0s 11.00nm 4.3mb
KAF 23.06 355 eP 30 41.00 2.7
MAIO 23.31 88 eP 30 42.00 0.9
HFS 23.39 339 eP 30 43.90 2.5
0.5s 1.40nm 3.7mb
LDF 23.64 303 eP 30 42.10 -1.9
1.2s 22.30nm 4.6mb
GRR 24.08 303 eP 30 46.70 -1.6
0.6s 8.55nm 4.5mb
NB2 24.83 338 P 30 57.10 1.6
0.8s 3.80nm 4.0mb
ARU 25.42 38 eP 31 01.00 0.0
FRU 33.43 69 eP 32 13.00 0.2
GKN 46.09 87 P 33 57.60 -0.5
KKN 46.69 87 P 34 01.30 -1.6
PKI 46.90 87 P 34 04.00 -0.7
GUN 47.10 86 P 34 05.60 -0.7
BOD 54.87 41 eP 35 02.10 -2.2
YKA 74.77 344 eP 37 12.10 -1.1
1.1s 1.00nm 3.7mb
S.D. = 1.2 on 63 of 73 obs.

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* DEC 06, 1993 15h 34m 51.06± 0.60s
31.963 S ±15.3km 68.983 W ±16.5km
DEPTH = 170.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.1 (SAN).

RTCV 0.39 75 eP 35 12.90 -1.9
ZON 0.49 32 iPd 35 12.80 -2.4
eS 35 25.80
RTCB 0.50 18 iPd 35 13.00 -2.1
CFA 0.73 61 iPd 35 15.00 -1.2
RTLL 0.77 35 iPd 35 14.80 -1.7
JACH 1.54 242 eP+ 35 22.05 -1.0
iS 35 43.85
FCH 1.75 219 iP+ 35 25.90 0.4
iS 35 49.93
RTRS 1.83 347 eP 35 26.50 0.6
S 35 48.90
PEL 1.86 230 iPd 35 25.95 -0.4
iS 35 49.67
ROCH 1.99 239 iP+ 35 27.00 -0.9
iS 35 51.51
PCH 2.10 218 iPd 35 29.70 0.7

iS 35 57.15
TACH 2.36 224 iPd 35 31.63 -0.3
iS 36 00.57
CACH 2.54 212 iPd 35 35.61 1.4
iS 36 07.14
LCCH 2.65 235 iPd 35 34.30 -1.1
eS 36 03.29
RTPR 2.69 53 iPc 35 37.80 1.9
LNV 2.85 225 iP 35 36.56 -1.3
iS 36 08.77
S.D. = 1.4 on 16 of 16 obs.

DEC 06, 1993 15h 37m 54.32± 0.13s
41.495 N ± 2.5km 141.973 E ± 2.8km
DEPTH = 67.9km (24 depth phases)
5.3mb (96 obs.)
HOKKAIDO, JAPAN REGION (224)
Mw 5.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 26S, 41C
Centroid Location:
Origin Time 15:37:54.0 0.4
Lat 41.12N 0.04 Lon 142.45E 0.04
Dep 62.7 3.2 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 6.59 0.23 Mtt=-0.60 0.40
Mff=-5.99 0.37 Mrt= 1.44 0.44
Mrf= 3.85 0.43 Mtf=-3.48 0.36
Principal Axes:
T Val= 7.70 Plg=75 Azm=283
N 1.09 3 25
P -8.79 15 115
Best Double Couple:Mo=8.2*10**16
NP1:Strike=210 Dip=30 Slip= 96
NP2: 23 60 86

MRRJ 1.15 324 iPd 38 14.20 -0.6
eS 38 29.90
HOOJ 1.32 47 iP+ 38 17.60 0.4
eS 38 34.70
AOMJ 1.53 233 iPd 38 20.10 0.1
S 38 40.50
SAP 1.63 343 iP 38 21.80 0.4
eS 38 41.00
OFUJ 2.42 186 P 38 31.80 -0.6
S 39 01.20
KUSJ 2.59 51 P 38 33.30 -1.3
S 39 02.50
ASAJ 2.67 10 P 38 36.10 0.3
eS 39 05.70
YAMJ 3.64 205 P 38 50.40 1.0
eS 39 36.40
NIIJ 4.83 209 P 39 07.10 0.9
KAKJ 5.47 195 P 39 12.40 -2.7
YSS 5.55 5 iPc 39 15.40 -0.7
1.2s 220.00nm 5.3mb
Z 19s 3.60um 4.4MszX
N 19s 3.90um
eS 40 16.40
KUR 5.69 47 iPc 39 17.00 -1.2
1.0s 320.00nm 5.6mb
Z 14s 5.40um 4.4MszX
N 14s 5.40um
E 14s 5.40um
S 40 19.00
MAT 5.75 212 eP 39 20.00 1.0
0.5s 133.80nm 5.5mb
eS 40 27.00
MTMJ 5.88 215 P 39 22.50 1.6
CHJJ 5.92 204 P 39 20.60 -0.7
IIDJ 6.80 209 P 39 34.40 0.8
TSRJ 7.58 220 P 39 47.70 3.3X
VLA 7.65 286 iPc 39 45.00 -0.3
0.8s 125.00nm 5.7mb
Z 13s 1.50um 4.5Msz
N 14s 1.80um
E 14s 2.10um
iS 41 20.00
WKYJ 8.84 217 eP 40 01.70 -0.1
YONJ 9.18 229 P 40 08.30 1.9
TKSJ 9.77 222 P 40 14.70 0.2
SHK 10.10 230 eP 40 20.20 1.2
SHNJ 11.31 233 P 40 36.70 1.5
KUMJ 12.61 228 P 40 54.20 1.7
SKR 13.41 42 eP 41 02.20 -0.7
0.9s 100.00nm 5.5mb

eS 43 22.00
KAGJ 13.61 224 P 41 06.20 0.5
BJI 19.58 274 eP 42 16.50 -2.9
1.0s 78.00nm 4.9mb
Z 16s 1.46um 4.5MszX
E 14s 1.68um
epP 42 34.00 93kmX
eS 45 44.00
eSS 46 12.00
SSE 19.66 245 P 42 17.60 -2.7
1.0s 23.00nm 4.4mb
Z 20s 1.40um 4.9Msz
N 14s 0.70um
E 14s 0.70um
S 46 09.00
sS 46 26.00
YAK 21.83 344 iPc 42 38.10 -4.1X
1.0s 151.00nm 5.4mb
Z 16s 0.80um 4.2MszX
N 14s 0.60um
iPP 43 07.00
iPPP 43 18.00
eS 46 31.00
ePcP 46 43.00
iSS 47 10.00
CIT 21.96 308 eP 42 41.00 -2.6
BOD 24.06 322 eP 43 03.10 -0.8
0.8s 55.00nm 5.1mb
IRK 27.61 306 eP 43 36.00 -0.9
1.3s 58.00nm 5.0mb
Z 14s 0.91um 4.5MszX
N 17s 0.76um
E 17s 0.86um
e 43 39.00 11kmX
e 43 57.80
e 44 16.00
eS 48 14.00
e 48 34.00
eSS 49 05.00
e 51 00.00
e 52 27.00
ZAK 28.06 302 iPc 43 40.50 -0.5
1.2s 52.00nm 5.0mb
Z 15s 0.86um 4.5MszX
E 16s 0.87um
LZH 30.03 272 Pd 43 57.50 -1.6
1.8s 74.00nm 5.1mb
Z 25s 1.12um 4.4MszX
E 10s 0.44um
pP 44 16.50 82kmX
TIK 30.91 352 eP 44 02.50 -3.7X
1.0s 10.00nm 4.5mb
i 44 25.00 100kmX
i 45 30.00
KMI 36.28 256 Pd 44 52.50 -0.7
1.0s 30.00nm 5.2mb
Z 25s 1.40um 4.6MszX
pP 45 01.00 29kmX
sP 45 04.00
TTA 41.57 38 eP 45 36.71 0.2
0.9s 15.31nm 4.8mb
epP 45 52.03 60km
SVW 41.76 40 eP 45 39.40 1.3
LOE 41.95 247 eP 45 39.50 -0.5
BRW 42.17 25 eP 45 40.50 -0.7
IMA 42.67 33 eP 45 45.16 -0.4
0.8s 22.66nm 5.0mb
CHTO 42.97 252 ePc 45 48.60 0.3
1.0s 30.00nm 5.0mb
CRP 43.43 40 eP 45 52.43 0.6
KDC 43.62 45 eP 45 52.98 -0.2
0.9s 31.20nm 5.1mb
BDT 43.97 250 eP 45 56.20 -0.2
NST 44.25 247 eP 45 59.00 0.3
SLKM 44.44 41 eP 45 59.38 -0.5
PMR 44.84 39 eP 46 02.24 -0.7
0.9s 36.55nm 5.2mb
FBA 45.14 34 eP 46 05.63 0.3
0.8s 71.69nm 5.6mb
epP 46 24.09 75km
KHT 45.93 248 eP 46 11.80 -0.3
KLU 46.38 39 eP 46 15.23 0.0
NNT 46.69 244 iPd 46 17.40 -0.7
GUN 47.30 272 P 46 22.80 -0.5
KKN 47.81 272 P 46 27.00 -0.1
PKI 47.83 272 P 46 26.90 -0.5
DMN 48.04 272 P 46 29.50 0.6

GKN 48.18 273 P 46 29.70 -0.2
FRU 48.71 295 iPc 46 33.80 0.2
2.2s 150.00nm 5.6mb
e 46 49.00 58km
INK 50.25 29 eP 46 44.50 -0.5
0.8s 36.00nm 5.5mb
IPM 51.83 236 ePc 46 57.60 -0.1
0.9s 30.40nm 5.3mb
MBC 52.14 17 eP 46 59.50 0.2
1.0s 24.00nm 5.2mb
SVE 52.16 316 eP 47 00.00 0.3
2.0s 60.00nm 5.3mb
Z 14s 1.50um 5.2MszX
N 14s 0.60um
E 14s 1.10um
e 48 08.00 321kmX
KGM 52.46 232 eP 47 03.00 0.7
ARU 53.36 317 iPc 47 08.00 -0.5
1.8s 150.00nm 5.7mb
Z 16s 1.50um 5.1MszX
e 47 23.00 56kmX
TPI 53.97 224 ePd 47 13.50 0.1
e 48 00.00 207kmX
KHKI 55.21 212 eP 47 20.50 -1.9
e 49 06.00 542kmX
LEM 57.46 222 iPd 47 38.40 -0.3
RES 58.18 15 eP 47 41.50 -1.5
0.9s 44.00nm 5.6mb
HYB 58.85 266 ePc 47 46.50 -1.9
e 48 34.00 208kmX
YKA 59.76 32 eP 47 52.40 -1.6
0.9s 9.20nm 4.9mb
QUE 60.11 285 eP 47 57.80 0.7
SDF 61.08 337 iP 48 01.90 -1.1
DAG 61.38 355 iPd 48 03.60 -1.3
0.9s 30.25nm 5.4mb
ipP 48 23.20 76km
WB2 61.53 188 eP 48 03.90 -2.5
1.1s 17.00nm 5.1mb
WRA 61.53 188 P 48 04.80 -1.7
1.1s 8.00nm 4.8mb
POO 61.70 270 iPc 48 01.00 -6.9X
1.0s 30.00nm 5.4mb
QIS 61.77 183 eP 48 06.40 -1.6
ASH 61.95 297 eP 48 09.00 -0.3
GBA 62.08 263 Pc 48 10.00 -0.3
MOS 63.96 322 eP 48 22.00 -0.2
e 48 38.00 59km
GMW 63.96 49 (P) 48 22.51 0.1
epP 48 40.62 68km
KOD 64.23 261 iPc 48 24.00 -0.9
1.0s 30.00nm 5.2mb
RMW 64.56 48 (P) 48 26.38 0.0
epP 48 44.73 69km
KAF 64.56 332 iP 48 24.70 -1.3
0.8s 28.70nm 5.3mb
OBN 64.81 322 iPc 48 26.00 -1.7
1.0s 60.00nm 5.5mb
e 48 49.00 90kmX
LON 64.96 49 (P) 48 28.26 -0.6
epP 48 46.75 70km
SHW 65.03 50 eP 48 30.41 0.9
epP 48 48.90 70km
ASPA 65.26 188 iPc 48 29.80 -1.1
1.1s 19.10nm 5.0mb
ASR 65.42 49 P 48 51.74 19.8X
SAW 65.76 47 P 48 53.16 19.2X
WAH2 66.22 48 P 48 56.74 19.9X
NUR 66.24 331 iP 48 35.00 -1.7
0.6s 32.90nm 5.5mb
VGB 66.25 50 (P) 48 37.24 0.0
e 48 55.97 71km
DPW 66.31 46 eP 48 37.20 -0.4
e 48 56.40 73km
JBO 66.82 49 P 49 00.74 19.9X
VIPM 66.93 50 P 49 01.58 19.9X
GRO 66.96 308 eP 48 41.00 -0.6
1.0s 110.00nm 5.8mb
Z 14s 1.00um 5.2MszX
LGPM 67.73 55 eP 48 45.79 -0.9
KIV 68.35 310 iPc 48 50.80 0.3
1.2s 299.00nm 6.1mb
Z 14s 0.40um 4.8MszX
e 49 08.40 65km
(S) 57 46.20
MTA 68.46 307 iPc 48 51.40 0.4
0.8s 80.00nm 5.7mb

06d 15h

WARB 68.82 195 iPd 48 53.50 0.2
0.8s 17.00nm 5.0mb
UPP 69.15 334 iP 48 53.90 -1.0
ORV 69.35 55 eP 48 55.87 -0.7
e 49 14.70 70km
ERE 69.55 306 iP+ 48 57.00 -0.9
HFS 70.21 335 eP 49 00.30 -1.1
0.8s 37.40nm 5.4mb
Z 18s 0.21um 4.4Msz
LR 14 37.00
NB2 70.25 337 P 49 00.60 -1.1
0.9s 31.90nm 5.2mb
ANN 70.80 313 eP 49 04.00 -1.2
1.6s 130.00nm 5.6mb
CMB 70.97 56 eP 49 06.60 0.1
0.7s 13.61nm 5.0mb
epP 49 26.02 73km
KER 71.46 300 eP 49 09.00 -0.6
KVN 71.74 54 eP 49 11.53 0.2
ARMA 72.11 171 eP 49 14.30 1.1
FRB 72.34 14 eP 49 13.00 -1.1
0.9s 40.00nm 5.3mb
PTI 72.64 48 (P) 49 15.92 -0.6
STK 73.01 180 eP 49 04.60 -13.7X
1.0s 6.30nm
HVU 73.12 49 eP 49 19.65 0.3
DUG 74.14 50 eP 49 24.94 -0.3
1.2s 16.74nm 4.8mb
TPNV 74.20 55 eP 49 25.74 0.0
0.7s 14.21nm 5.0mb
CLI 74.87 319 ePd 49 29.50 0.4
KAS 75.05 312 iPc 49 32.20 1.8
ARUT 75.35 52 eP 49 33.11 0.8
e 49 50.96 65km
CFR 75.40 318 eP 49 31.00 -1.1
EMUT 75.54 49 eP 49 33.34 -0.1
ULM 75.56 34 eP 49 35.00 2.0
OJC 75.59 326 eP 49 32.70 -0.5
1.0s 102.00nm 5.7mb
i 49 33.40 2kmX
i 49 52.50
MSU 75.62 51 eP 49 34.33 0.4
VRI 75.62 319 eP 49 31.50 -1.9
UZH 75.69 323 eP 49 36.00 2.3
e 49 44.50 27kmX
SRU 76.18 50 eP 49 36.87 -0.1
ISR 76.23 319 eP 49 37.00 0.0
MLR 76.28 319 ePd 49 38.00 0.7
KSP 76.55 328 iPc 49 38.70 0.2
1.1s 43.00nm 5.3mb
i 49 58.10 72km
PV09 77.39 50 eP 49 43.99 0.2
BRG 77.44 329 iP 49 43.80 0.3
1.2s 32.00nm 5.2mb
CLL 77.45 330 iPc 49 43.40 -0.1
1.3s 47.00nm 5.3mb
e 49 58.00 51kmX
PV10 77.53 50 eP 49 45.14 0.6
PV08 77.61 49 (P) 49 45.02 -0.1
GLA 77.63 57 eP 49 45.41 0.5
PRU 77.91 328 iPc 49 46.40 0.3
1.1s 44.80nm 5.3mb
i 49 50.20 12kmX
i 50 05.00
e 52 39.00
SRO 78.06 325 eP 49 47.20 0.3
ZST 78.28 326 iP 49 48.90 0.8
e 50 17.40 111kmX
WIT 78.44 334 eP 49 50.50 1.6
MOX 78.50 330 ePc 49 49.60 0.3
1.5s 36.00nm 5.1mb
e 50 06.40 60km
HOF 78.68 330 eP 49 50.70 0.4
GLD 78.70 46 eP 49 52.21 1.4
KHC 78.98 328 Pc 49 53.00 1.0
1.0s 25.00nm 5.1mb
i 50 09.60 60km
e 50 18.00
e 52 50.00
BHL 78.99 306 P 49 52.00 -0.4
EKA 79.08 341 P 49 53.27 0.9
WTS 79.08 334 eP 49 52.50 0.1
0.8s 30.30nm 5.3mb
GEC2 79.16 328 P 49 52.70 -0.3
0.8s 6.27nm 4.6mb
e 49 56.50 12kmX
e 50 12.00

WET 79.24 329 iPc 49 54.00 0.6
1.0s 39.00nm 5.3mb
GRF 79.43 330 iPc 49 55.40 1.0
1.2s 94.00nm 5.6mb
Z 21s 0.30um 4.6Msz
e(pP) 50 14.60 71km
ALN 79.54 316 iP 49 55.42 0.3
RDO 79.63 317 eP 49 56.30 0.8
JAQ 79.70 22 eP 49 54.50 -1.2
BHG 80.39 328 iPc 50 00.40 0.9
ELL 80.41 311 iP 49 59.50 -0.5
ENN 80.42 333 eP 49 59.50 -0.1
0.8s 14.90nm 5.0mb
SRS 80.64 318 eP 50 01.38 0.4
TUC 80.65 55 eP 50 02.67 1.4
0.7s 7.14nm 4.7mb
epP 50 21.68 70km
FUR 80.66 329 iPc 50 01.80 0.9
0.8s 60.00nm 5.6mb
KBA 80.72 327 iPc 50 01.90 0.4
1.0s 31.60nm 5.2mb
KNT 80.96 318 eP 50 03.34 0.7
SOH 80.98 318 iP 50 03.34 0.5
VAY 81.00 318 iP 50 03.80 1.0
1.2s 90.00nm 5.6mb
OUR 81.02 317 eP 50 03.66 0.7
SKO 81.07 319 iPc 50 04.20 1.0
1.2s 85.00nm 5.6mb
SNF 81.18 334 P 50 04.20 0.6
WATA 81.22 328 iPc 50 04.50 0.4
i 50 21.70 62km
WTTA 81.25 328 iPc 50 04.70 0.4
1.0s 27.40nm 5.1mb
i 50 24.20 72km
WLF 81.28 333 P 50 05.00 0.9
GRG 81.36 318 eP 50 05.34 0.6
MOTA 81.39 329 iPc 50 05.40 0.4
1.0s 60.30nm 5.5mb
ALQ 81.41 51 eP 50 06.03 0.7
1.3s 15.83nm 4.8mb
DOU 81.44 334 P 50 05.70 0.8
SQTA 81.45 329 iPc 50 05.90 0.6
PAIG 81.48 317 eP 50 05.94 0.6
DLF 81.76 342 eP 50 07.30 0.8
1.0s 104.00nm 5.7mb
OGA 81.82 328 iPc 50 07.90 0.6
1.0s 17.00nm 5.0mb
DCN 81.89 342 eP 50 08.00 0.8
WLS 81.91 331 P 50 07.76 0.2
CDF 81.94 331 iPc 50 07.80 0.1
1.3s 44.05nm 5.3mb
LIT 81.96 318 eP 50 08.10 0.2
OHR 82.04 319 iP 50 08.30 0.0
0.9s 50.00nm 5.5mb
LIBD 82.05 331 P 50 08.68 0.5
FEL 82.13 331 P 50 08.82 0.1
KZN 82.17 318 eP 50 09.30 0.3
OSS 82.31 329 iPc 50 10.30 0.5
ZLA 82.32 330 eP 50 09.90 0.2
MOF 82.47 331 P 50 10.39 -0.1
VITF 82.57 332 P 50 10.68 -0.2
LLS 82.60 330 iPc 50 11.60 0.3
BSF 82.61 331 eP 50 10.90 -0.3
HAU 82.62 332 iPc 50 11.00 -0.2
1.0s 15.60nm 4.9mb
Z 22s 0.20um 4.4Msz
BBS 82.66 331 P 50 11.59 0.2
LOMF 83.00 331 P 50 13.40 0.2
TMA 83.28 329 iPc 50 14.80 0.0
IGT 83.47 318 eP 50 15.86 0.2
KEK 83.60 319 eP 50 16.60 0.3
MMK 83.67 330 iPc 50 17.20 0.3
NPS 83.89 312 eP 50 16.50 -1.4
EMS 84.05 330 iPc 50 19.00 0.3
LOR 84.12 333 iPc 50 18.80 -0.1
1.1s 50.05nm 5.5mb
Z 23s 0.40um 4.7MszX
FLN 84.22 336 iPc 50 19.20 -0.1
1.2s 33.05nm 5.2mb
Z 23s 0.35um 4.7MszX
FIR 84.26 327 eP 50 20.00 0.5
LDF 84.26 336 eP 50 19.30 -0.2
LBF 84.32 333 iPc 50 19.80 -0.1
1.2s 41.05nm 5.3mb
VLS 84.38 317 eP 50 20.70 0.4
SSF 84.42 333 iPc 50 20.40 0.1
1.0s 21.60nm 5.1mb

RSL 84.48 330 P 50 20.98 0.1
LPL 84.59 330 iPc 50 22.10 0.6
1.0s 50.60nm 5.5mb
LPG 84.60 330 iPc 50 22.20 0.6
1.0s 55.60nm 5.6mb
GRR 84.66 336 iPc 50 21.70 0.2
0.9s 25.05nm 5.3mb
SMF 84.66 332 iPc 50 21.80 0.2
1.2s 64.25nm 5.5mb
AVF 84.71 333 iPc 50 22.10 0.4
1.2s 87.75nm 5.7mb
LPF 85.04 336 iPc 50 23.80 0.4
1.5s 94.00nm 5.6mb
BGF 85.08 333 eP 50 24.00 0.3
1.4s 48.80nm 5.4mb
MAF 85.47 333 iPc 50 26.40 0.8
1.0s 88.40nm 5.8mb
TCF 85.53 333 iPc 50 26.50 0.5
1.1s 38.85nm 5.4mb
SAOF 85.57 329 P 50 25.93 -0.2
SSB 85.60 331 P 50 26.84 0.5
SBF 85.72 329 iPc 50 26.40 -0.6
0.9s 36.85nm 5.5mb
AURF 85.74 329 P 50 26.62 -0.5
LSF 85.79 334 iPc 50 27.70 0.5
0.9s 66.50nm 5.7mb
MVIF 85.80 329 P 50 26.45 -1.0
REVF 85.85 329 P 50 27.20 -0.4
CALN 86.02 329 P 50 27.94 -0.6
MFF 86.03 335 iPc 50 29.10 0.7
1.0s 68.00nm 5.7mb
FRF 86.28 329 iPc 50 29.40 -0.2
1.2s 28.25nm 5.2mb
LRG 86.48 329 iPc 50 30.60 0.0
1.1s 54.20nm 5.6mb
LMR 86.52 329 iPc 50 30.70 -0.1
1.1s 48.35nm 5.5mb
RJF 86.63 333 iPc 50 32.10 0.8
0.8s 29.15nm 5.5mb
Z 22s 0.40um 4.8Msz
CAF 86.77 333 iPc 50 33.20 1.1
1.0s 81.20nm 5.8mb
GAC 86.97 25 eP 50 32.50 -0.4
pP 50 52.50 73km
LTX 87.07 53 eP 50 33.26 -0.6
LFF 87.21 334 iPc 50 35.10 1.0
1.2s 111.55nm 5.9mb
LPO 87.29 333 iPc 50 35.60 1.1
1.0s 52.20nm 5.6mb
ELC 88.70 38 eP 50 41.26 -0.1
LESF 88.71 332 P 50 42.42 1.0
EPF 89.03 333 eP 50 43.20 0.2
ENSF 89.23 333 P 50 45.27 1.2
LMN 89.81 18 eP 50 47.00 0.5
pP 51 06.50 70km
PAB 93.72 335 ePc 51 04.90 0.2
SLR 123.87 264 iPKPd 56 46.10 -0.2
0.7s 13.70nm
BLF 127.26 262 e(PKP) 56 52.60 -0.2
LPAZ 143.91 55 PKP 57 22.60 -1.9
LPB 144.12 55 PKP 57 26.00 1.4
CNCB 144.40 55 PKP 57 24.70 -0.6
CCH 145.97 54 PKP 57 28.80 1.2
SIV 147.73 45 PKP 57 30.40 0.3
SOB1 147.74 5 ePKP 57 29.90 -0.3
e 57 33.10
BAO 152.83 21 ePKP 57 45.80 7.9X
e 57 57.20
e 58 16.70

S.D. = 0.9 on 240 of 251 obs.

& DEC 06, 1993 15h 44m 20.35s
42.276 N 121.937 W
DEPTH = 5.8km
OREGON (32)
<SEA-P>. MD 2.8 (SEA). ML 2.8 (GS).

HAMO 0.21 187 P 44 24.92 0.2
S 44 28.52
VRC 0.22 286 Pc 44 25.05 0.3
S 44 29.04
LASM 0.73 158 P 44 33.91 -1.0
LMPM 0.80 192 P 44 35.63 -0.9
BBOR 0.82 318 P 44 35.58 -1.2
LBFM 0.93 178 eP 44 37.48 -1.2
LGBM 0.95 192 P 44 38.18 -0.8

DBO 1.28 312 P 44 43.93 -0.6
LBKM 1.31 205 P 44 44.10 -1.0
HSO 1.51 326 P 44 47.91 -0.1
KOMM 1.51 229 P 44 48.08 0.0
LGPM 1.52 206 eP 44 46.37 -1.8
NCOR 1.54 22 P 44 48.92 0.3
HBO 1.59 350 P 44 49.51 0.2
LMEM 1.76 171 (P) 44 51.27 -0.5
TCO 1.85 8 P 44 53.00 0.0
FBO 2.09 347 P 44 56.43 0.0
RNO 2.10 322 P 44 58.07 1.5
FHC 2.13 227 eP 44 57.08 0.1
KMPM 2.48 222 (P) 45 01.73 -0.3
ORV 2.74 173 eP 45 05.05 -0.6
VGB 3.35 14 eP 45 14.53 0.2
22 obs. associated

& DEC 06, 1993 15h 55m 38.74s
60.247 N 153.126 W
DEPTH = 142.6km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.18 181 eP 55 57.65 0.8
eS 56 12.23
ILIM 0.19 153 eP 55 57.52 0.7
eS 56 12.33
INE 0.19 170 eP 55 57.92 1.0
eS 56 12.83
RDW 0.28 33 eP 55 57.89 0.7
eS 56 13.00
RS2 0.28 40 eP 55 57.92 0.7
REF 0.32 41 eP 55 58.04 0.7
eS 56 13.84
NCT 0.33 17 eP 55 58.00 0.7
eS 56 12.88
DFR 0.41 32 iP 55 58.03 -1.1
eS 56 13.35
OPT 0.60 185 eP 55 59.35 -0.7
eS 56 15.46
PDB 0.71 230 iP 55 59.73 -1.0
AUL 0.88 190 eP 56 01.44 -0.6
AUW 0.90 191 eP 56 01.45 -0.7
AUE 0.90 188 eP 56 01.39 -0.8
AUH 0.90 190 eP 56 01.65 -0.7
BKG 0.93 27 iP 56 01.58 -1.0
HOM 0.95 128 eP 56 02.40 -0.2
eS 56 20.21
CKL 1.03 22 eP 56 02.65 -0.8
CKT 1.06 25 eP 56 02.71 -1.0
NKA 1.06 61 eP 56 03.97 0.4
SPU 1.08 29 eP 56 02.74 -1.1
BGL 1.08 19 eP 56 03.36 -0.6
CKN 1.08 25 eP 56 03.15 -0.8
CP2 1.11 23 eP 56 03.08 -1.3
CRP 1.13 25 eP 56 03.61 -0.9
CNPM 1.20 126 eP 56 04.16 -0.8
eS 56 23.18
CGLM 1.20 27 eP 56 03.97 -1.1
BRLK 1.23 112 eP 56 05.00 -0.3
eS 56 23.31
NCG 1.25 22 eP 56 04.80 -0.8
CDD 1.35 191 eP 56 05.17 -1.3
SLKM 1.47 78 eP 56 05.94 -1.8
SUA 1.69 43 eP 56 09.01 -1.3
SEW 1.84 93 eP 56 10.28 -1.6
MPA 1.89 81 eP 56 10.72 -1.7
SKT 1.90 23 eP 56 11.54 -1.2
PMS 2.02 59 P 56 12.10 -2.0
PWA 2.12 47 P 56 13.10 -2.1
PLRM 2.37 54 eP 56 15.57 -2.8
PWL 2.45 73 eP 56 16.48 -2.8
GHO 2.56 51 eP 56 18.13 -2.6
CUT 2.57 31 eP 56 19.28 -1.5
KNK 2.57 61 eP 56 18.17 -2.7
CFI 2.80 68 eP 56 20.95 -2.7
SML 2.81 54 eP 56 21.19 -2.8
HIN 3.30 85 eP 56 28.42 -1.9
VLZ 3.46 72 eP 56 30.86 -1.4
TRF 3.49 21 eP 56 31.51 -1.4
CVA 3.67 82 eP 56 33.37 -1.8
KLU 3.74 67 eP 56 33.42 -2.7
RND 3.76 31 eP 56 34.77 -1.7
BALM 5.37 77 eP 56 55.62 -2.3
50 obs. associated

? DEC 06, 1993 16h 25m 34.65± 2.97s
39.211 N ±18.4km 29.950 E ±24.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 4.1 (ISK). Felt at Kutahya.

IZI 1.18 342 iPn 25 57.00 0.2
EYL 1.36 7 iPn 25 59.00 -0.8
HRT 1.62 352 iPn 26 04.00 0.6
BNT 1.94 307 iPn 26 08.50 0.6
ISK 1.97 340 iPn 26 09.00 0.6
eSn 26 33.00
IZM 2.25 250 iPn 26 13.00 0.4
TRI 13.59 304 eP 28 48.00 -1.8
S.D. = 1.1 on 7 of 7 obs.

? DEC 06, 1993 17h 49m 51.81± 3.01s
10.701 N ±19.0km 59.842 W ±26.1km
DEPTH = 33.0km (normal)
3.4mb (1 obs.)
NORTH ATLANTIC OCEAN (402)

TRN 1.53 268 eP 50 16.45 -0.7
TPP 1.63 257 eP 50 19.30 0.8
TCE 1.88 270 eP 50 22.09 -0.1
SVB 2.90 332 eP 50 36.65 -0.1
SVV 2.93 333 eP 50 37.53 0.4
YKA 64.74 335 eP 00 28.70 -0.2
0.6s 0.20nm 3.4mb
S.D. = 0.7 on 6 of 6 obs.

& DEC 06, 1993 18h 04m 35.49s
63.439 N 147.253 W
DEPTH = 72.5km
CENTRAL ALASKA (1)
<AEIC>.

DHY 0.37 189 iP 04 47.45 -0.3
eS 04 56.71
THY 0.68 91 iP 04 50.51 -0.1
eS 05 02.08
DDM 0.71 60 iP 04 51.16 0.2
eS 05 02.91
RND 0.72 268 iP 04 51.13 0.0
eS 05 02.97
MCK 0.81 292 iP 04 51.96 -0.1
DJE 0.92 49 eP 04 52.87 -0.5
eS 05 05.56
PAX 0.94 119 iP 04 53.18 -0.5
eS 05 07.19
HDA 0.98 8 eP 04 53.96 -0.2
eS 05 07.30
WRH 1.10 341 iP 04 55.31 -0.3
eS 05 09.73
HUR 1.18 248 eP 04 56.57 -0.1
eS 05 12.53
SDG 1.20 139 eP 04 57.01 0.0
eS 05 13.15
BWN 1.23 308 iP 04 56.31 -1.0
eS 05 11.80
CCB 1.24 349 iP 04 57.01 -0.4
iS 05 12.59
IL1 1.35 7 eP 04 58.41 -0.5
ILB 1.35 7 eP 04 58.40 -0.5
eS 05 14.79
TRF 1.36 272 iP 04 59.55 0.3
eS 05 18.22
NEA 1.40 326 iP 04 58.92 -0.6
eS 05 16.77
TOA 1.43 159 P 05 00.50 0.5
S 05 20.50
DOT 1.44 80 eP 04 59.27 -1.0
FBA 1.49 351 eP 05 00.15 -0.6
GLM 1.56 358 eP 05 01.31 -0.4
MDM 1.58 345 eP 05 01.77 -0.3
eS 05 20.43
SCM 1.61 181 eP 05 02.79 0.2
eS 05 24.35
TZL 1.63 148 eP 05 02.82 0.1
KTH 1.65 276 eP 05 02.69 -0.4
SML 1.71 197 eP 05 04.03 0.2
CUT 1.73 234 eP 05 03.56 -0.4
eS 05 26.56
GHO 1.84 206 eP 05 06.04 0.4
TMW 1.92 92 eP 05 05.43 -1.2
PLRM 2.05 206 eP 05 08.84 0.4
PMR 2.05 206 eP 05 08.60 0.2
KLU 2.05 162 eP 05 08.09 -0.4
KNK 2.11 196 eP 05 09.73 0.4
PWA 2.17 215 P 05 10.80 0.7
MLY 2.21 318 iP 05 10.04 -0.6
CFI 2.28 186 eP 05 12.15 0.6
VLZ 2.36 169 eP 05 11.43 -1.2
PMS 2.45 207 P 05 15.50 1.4
SKT 2.45 235 eP 05 13.82 -0.3
eS 05 43.27
BC3 2.50 96 eP 05 13.16 -1.6
SUA 2.56 221 eP 05 16.56 0.9
GLB 2.57 140 eP 05 15.25 -0.4
PWL 2.64 192 eP 05 16.97 0.3
CVA 2.99 166 eP 05 20.52 -0.9
NCG 3.06 230 eP 05 22.95 0.3
HIN 3.07 173 P 05 25.70 3.0
CGLM 3.08 228 eP 05 23.68 0.8
CRP 3.16 229 eP 05 24.65 0.6
eS 06 06.62
SPU 3.19 227 eP 05 25.50 1.2
CP2 3.19 229 eP 05 25.80 1.3
CKN 3.20 228 eP 05 26.41 2.0
CKT 3.22 228 eP 05 26.46 1.6
BGL 3.24 230 eP 05 26.74 1.6
FYU 3.26 14 eP 05 24.67 -0.5
SLKM 3.26 207 eP 05 26.13 0.8
CKL 3.27 229 eP 05 26.55 1.0
RAGM 3.30 157 eP 05 24.88 -1.0
BALM 3.33 134 eP 05 25.84 -0.5
BKG 3.34 227 eP 05 26.98 0.5
WAX 3.65 143 eP 05 30.48 -0.3
CTGM 3.72 129 eP 05 31.97 0.1
KAIM 3.77 158 eP 05 33.18 0.7
IM3 3.78 315 eP 05 31.51 -1.0
IMA 3.81 317 eP 05 31.82 -1.3
DFR 3.84 224 eP 05 33.93 0.5
TTA 4.00 267 P 05 36.00 0.3
BM3 4.15 14 eP 05 36.43 -1.3
CNPM 4.37 208 eP 05 40.30 -0.5
SVW 4.56 243 P 05 43.40 -0.1
69 obs. associated

DEC 06, 1993 20h 10m 03.77± 0.61s
39.150 N ± 5.9km 21.529 E ± 4.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.1 (ATH).

AGG 0.64 101 ePg 10 16.78 0.2
eSg 10 28.16
IGT 1.00 293 iPg 10 21.60 -1.2
eSg 10 35.04
KZN 1.17 9 ePb 10 24.50 -1.2
LIT 1.21 38 ePb 10 26.57 0.3
eSb 10 44.68
VLS 1.22 217 ePb 10 26.10 -0.3
KEK 1.45 293 ePn 10 31.70 1.6
FNA 1.64 356 ePb 10 33.44 0.7
eSb 10 55.48
PAIG 1.84 64 ePb 10 35.16 -0.4
THE 1.85 36 ePn 10 36.08 0.4
GRG 1.93 20 ePn 10 36.16 -0.7
OHR 2.04 344 ePn 10 38.00 -0.6
SOH 2.18 39 ePn 10 40.88 0.2
eSn 11 08.25
OUR 2.23 57 ePn 10 41.36 0.1
KNT 2.27 27 ePn 10 41.28 -0.6
VAY 2.31 20 ePn 10 45.40 3.0X
SRS 2.52 38 ePn 10 45.56 0.1
VLI 2.67 155 ePb 10 51.00 3.4X
SKO 2.82 359 ePn 10 51.00 1.3
S.D. = 0.9 on 16 of 18 obs.

DEC 06, 1993 20h 54m 45.43± 0.24s
6.818 N ± 5.3km 78.301 E ± 3.7km
DEPTH = 10.0km (geophysicist)
5.2mb (75 obs.) 4.7Msz (9 obs.)
LACCADIVE SEA (423)
Felt in central and southern Sri Lanka. Also felt in parts of southern India.

KOD 3.49 346 iPnd 55 42.30 1.1
iSn 56 21.80
GBA 6.80 353 Pd 56 26.10 -1.6
0.5s 999.90nm 7.1mb X
HYB 10.54 1 eP 57 15.60 -4.1X
0.6s 406.70nm 7.0mb X

06d 20h

```
                 i    57 22.50
                 eS   59 06.00
POO   12.43 340 iPc   57 45.00  -0.3
      1.0s   150.00nm        6.2mb
                 iS   59 53.00
KHT   21.43  67 eP    59 34.80  -1.2
DMN   21.66  17 P     59 39.90   1.3
PKI   21.71  17 P     59 39.50   0.3
NDI   21.77 357 iPc   59 40.00   0.7
      0.9s    48.74nm        4.9mb
                 eS   03 35.80
NNT   21.88  73 eP    59 39.00  -1.5
KKN   21.88  17 P     59 41.50   0.8
GKN   21.91  15 P     59 41.50   0.6
SNG   22.15  88 eP    59 49.00   5.8X
      1.2s   187.50nm        5.4mb
                 eS   03 48.80
GUN   22.17  18 P     59 44.80   1.0
BDT   22.72  61 eP    59 49.20   0.4
      1.2s   105.30nm        5.2mb
IPM   22.72  94 ePd   59 49.60   0.7
                 e    03 41.90
NST   23.13  66 eP    59 53.00   0.1
CHTO  23.36  57 eP    59 55.50   0.4
      1.2s    41.67nm        4.9mb
LOE   25.17  63 eP    00 14.00   1.3
KGM   25.39 100 eP    00 16.00   1.3
QUE   25.58 337 eP    00 20.50   3.9X
                 eS   05 05.00
KMI   29.62  49 Pd    00 54.50   0.9
      1.4s    60.00nm        5.2mb
    Z 20s      2.00um        4.7Msz
                 pP   01 04.50  35kmX
                 sP   01 09.80
                 PP   02 04.00
                 PPP  02 24.00
                 eS   06 12.00
                 sS   06 28.00
                 ScP  07 16.00
                 PcS  07 20.00
                 SS   07 58.00
LEM   32.24 114 ePd   01 17.50   0.9
MAIO  34.02 332 iPc   01 33.00   1.2
                 eS   07 04.00
ASH   35.89 333 eP    01 50.00   2.3
FRU   36.02 355 eP    01 51.00   2.3
      3.0s   220.00nm        5.5mb
    Z 14s      9.50um        5.7MszX
    N 14s     13.50um
LZH   37.35  35 eP    02 00.00  -0.2
      1.5s    53.00nm        5.1mb
    Z 20s      0.79um        4.5Msz
    N 11s      1.00um
                 pP   02 10.00  34kmX
                 PP   03 30.00
NAI   42.19 261 iPc   02 43.50   2.9
    Z 16s      0.40um        4.4MszX
ERE   44.93 323 eP    03 05.00   2.6
MAP   45.27  82 eP    03 06.00   0.6
MTA   45.71 325 iPc   03 10.40   1.9
                 i    03 12.40
                 i    03 16.40
                 eS   09 57.40
PLP   46.27  81 ePc   03 12.80  -0.5
GRO   46.31 327 eP    03 14.00   0.9
    Z 16s      5.00um        5.6MszX
    N 18s      4.50um
    E 18s      5.00um
                 i    03 19.00
UER   46.48  14 iPc   03 15.50   1.1
      2.2s   110.00nm        5.5mb
                 eS   10 06.00
SSE   46.78  53 eP    03 14.30  -2.8
      1.0s    16.00nm        5.0mb
    Z 19s      0.90um        4.7Msz
    N 14s      0.70um
    E 14s      0.70um
                 e    03 18.70
                 pP   03 26.70  45kmX
                 sP   03 32.00
                 S    10 08.00
                 SS   13 45.00
BJI   47.36  40 eP    03 22.50   1.0
      1.5s    71.00nm        5.5mb
    Z 16s      0.58um        4.6MszX
    E 13s      0.96um
                 epP  03 33.00  36kmX
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                 ePP  05 14.00
                 eS   10 16.00
                 esS  10 32.00
                 eSS  13 40.00
ZAK   48.18  21 eP    03 29.00   1.2
      2.0s    66.00nm        5.4mb
    Z 12s      1.47um        5.2MszX
PYA   48.19 326 iPd   03 29.30   1.3
      1.8s   110.00nm        5.6mb
KIV   48.35 326 ePc   03 30.40   1.0
                 e    03 36.80
                 (S)  10 22.50
SOC   49.83 324 eP    03 41.50   0.9
IRK   50.10  21 eP    03 27.80 -14.8X
    Z 14s      1.12um        5.0MszX
    N 15s      1.16um
    E 14s      0.54um
                 e    03 44.50
                 e    03 54.00
                 e    14 50.00
SVE   51.76 348 iPd   03 56.00   0.9
      2.1s    80.00nm        5.3mb
    Z 16s      2.50um        5.3MszX
    N 16s     16.00um
                 e    05 15.70
                 eS   11 20.00
ARU   51.84 346 eP    03 56.00   0.2
    Z 16s      1.50um        5.1MszX
    N 16s      1.00um
    E 16s      1.00um
                 i    04 02.70
ANN   52.00 324 eP    03 57.00   0.0
    Z 17s      1.00um        4.9MszX
KAS   52.38 318 eP    04 01.00   0.8
BCK   52.91 312 eP    04 03.50  -0.7
ELL   53.14 311 eP    04 05.50  -0.4
CIT   53.58  26 eP    04 09.20   0.4
KUMJ  55.01  55 eP    04 19.00  -0.6
SHNJ  55.68  53 eP    04 24.90   0.5
BUL   55.72 240 iPd   04 20.90  -4.2X
CFR   57.76 320 eP    04 37.00  -2.0
TKSJ  57.99  54 P     04 40.90   0.1
BOD   58.00  22 iPc   04 38.70  -1.8
      1.8s    57.00nm        5.3mb
KIS   58.14 322 eP    04 40.00  -1.6
SLR   58.36 234 iPc   04 43.50  -0.2
      0.7s    37.67nm        5.6mb
    Z 18s      3.44um        5.5Msz
MOS   58.45 334 ePd   04 44.00   0.3
                 e    04 52.00
OBN   58.49 333 iPd   04 44.00   0.0
      1.5s    80.00nm        5.6mb
                 e    05 36.00
                 e    07 02.00
VRI   58.96 320 ePd   04 48.00   0.5
WKYJ  59.29  54 P     04 49.60  -0.4
MLR   59.31 320 ePd   04 51.00   1.0
WRA   61.19 117 P     04 57.70  -5.4X
      0.9s    19.10nm        5.2mb
WB2   61.20 117 eP    04 57.20  -6.0X
      0.7s    25.00nm        5.5mb
                 i    05 01.60
BLF   61.54 232 iPd   05 05.50   0.0
      0.5s     8.11nm        5.1mb
MAT   61.91  52 eP    05 07.00  -0.8
      1.2s    12.50nm        5.0mb
                 eS   13 29.00
ASPA  62.14 121 iPc   05 07.70  -1.8
      1.0s    24.10nm        5.3mb
MNK   62.16 329 eP    05 09.00  -0.1
UZH   62.83 322 eP    05 13.50  -0.1
                 e    05 20.00
                 e    05 47.80
GRI   63.94 310 P     05 22.12   0.9
      0.9s    26.80nm        5.4mb
PUL   64.02 335 (P)   05 21.00  -0.2
                 e    05 28.00
                 e    14 16.00
SPC   64.30 322 eP    05 21.40  -2.1
MGR   64.89 311 P     05 27.10  -0.2
      1.1s    47.00nm        5.6mb
OJC   64.93 323 eP    05 27.30  -0.1
                 e    05 33.00
SRO   65.04 320 eP    05 27.20  -0.9
SGO   65.17 312 P     05 29.62   0.6
      1.5s    46.40nm        5.5mb
ZST   65.94 320 eP    05 32.40  -1.5
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PTJ   66.03 317 eP    05 34.10  -0.5
QIS   66.07 116 eP    05 34.00  -1.2
YAK   66.66  24 eP    05 36.80  -1.5
      1.8s   105.00nm        5.7mb
    Z 14s      1.10um        5.2MszX
                 i    05 47.00
NUR   66.81 334 eP    05 38.30  -0.9
KAF   66.95 336 iP    05 39.50  -0.6
      0.9s    72.40nm        5.9mb
AQU   66.96 313 P     05 41.18   0.6
      1.2s    76.70nm        5.8mb
LJU   67.02 317 eP    05 40.00  -0.9
                 i    05 50.70
KSP   67.25 323 eP    05 42.20   0.0
      1.1s    36.00nm        5.5mb
YSS   67.70  42 (P)   05 44.00  -1.1
      1.0s    40.00nm        5.6mb
KBA   68.08 318 iP    05 46.80  -0.9
                 i    05 55.00
GEC2  68.29 320 P     05 48.00  -0.9
      0.9s     1.88nm        4.3mb
                 e    05 53.20
                 e    05 58.90
                 e    06 10.00
FVI   68.34 318 P     05 42.54  -6.5X
      1.5s    31.80nm        5.3mb
SFI   68.39 315 P     05 50.27   0.8
      1.8s   225.20nm        6.1mb
KHC   68.44 320 Pc    05 49.40  -0.4
      1.0s    14.00nm        5.1mb
    Z 16s      0.80um        5.0MszX
                 e    05 54.50
                 e    06 03.50
PGD   68.48 314 P     05 50.84   0.6
      1.3s    46.00nm        5.5mb
BRG   68.68 322 iP    05 51.80   0.6
      0.8s    20.00nm        5.4mb
FIR   68.79 314 eP    05 54.00   2.1
WTTA  69.25 318 iPc   05 53.50  -1.5
      1.6s    44.00nm        5.4mb
                 i    06 04.80
CLL   69.37 322 iPc   05 55.40   0.0
      1.7s    65.00nm        5.5mb
SQTA  69.53 318 iPc   05 55.10  -1.5
                 i    06 05.80
OGA   69.57 318 eP    05 56.00  -1.0
SDF   69.80 341 iP    05 57.80   0.1
MOX   70.05 322 iPc   06 00.00   0.4
      2.2s    71.00nm        5.4mb
                 eS   15 18.00
GRF   70.07 320 iPc   06 00.20   0.5
      0.9s    32.00nm        5.5mb
    Z 19s      0.30um        4.6Msz
OSS   70.13 317 iPc   06 00.00  -0.3
PGF   70.19 313 P     06 00.72   0.0
BOB   70.25 315 P     06 01.58   0.6
      1.5s   102.40nm        5.7mb
VDL   70.55 317 P     06 04.13   1.2
TMA   70.88 316 iPc   06 03.90  -1.1
VAI   70.91 316 P     06 05.28   0.4
      1.4s   105.30nm        5.8mb
LLS   70.94 317 iPc   06 04.50  -0.8
SLE   71.44 318 iPc   06 07.50  -0.6
STK   71.47 127 eP    05 53.00 -15.5X
      0.8s     5.40nm
AUTN  71.55 314 P     06 09.77   0.7
HFS   71.62 332 eP    06 07.70  -1.2
      0.5s     5.20nm        4.9mb
    Z 18s      0.60um        4.9Msz
                 LR   35 37.00
MVIF  71.73 314 P     06 11.35   1.3
FEL   71.78 318 P     06 09.64  -0.6
TIK   71.83  15 iPc   06 09.00  -0.9
      2.0s   102.00nm        5.6mb
    Z 15s      2.00um        5.5MszX
                 e    15 55.00
DIX   71.88 316 iPc   06 10.70  -0.4
BBS   72.04 318 P     06 11.14  -0.6
FRF   72.05 314 eP    06 10.80  -1.0
      1.2s    17.55nm        5.0mb
LIBD  72.10 318 P     06 11.77  -0.2
LMR   72.12 313 eP    06 11.10  -1.1
      0.8s     5.65nm        4.7mb
EMS   72.21 316 iPc   06 12.40  -0.5
LPG   72.25 316 eP    06 11.70  -1.6
      0.7s     7.95nm        4.9mb
LPL   72.27 316 eP    06 11.90  -1.4
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0.7s 5.75nm 4.8mb
WLS 72.31 319 P 06 12.85 -0.4
CDF 72.36 319 eP 06 12.60 -1.0
0.9s 6.70nm 4.7mb
LOMF 72.48 317 P 06 13.30 -1.1
BSF 72.58 318 eP 06 13.40 -1.6
0.8s 3.65nm 4.5mb
MUD 72.87 327 iPc 06 16.00 -0.3
0.7s 26.00nm 5.4mb
HAU 72.90 318 eP 06 15.80 -1.0
0.9s 7.35nm 4.8mb
NB2 73.07 332 P 06 16.70 -0.8
0.7s 7.20nm 4.9mb
VITF 73.18 318 P 06 17.59 -0.8
WTS 73.29 322 eP 06 20.00 1.2
0.9s 18.90nm 5.2mb
ENN 73.62 321 eP 06 21.50 0.7
1.0s 14.00nm 5.0mb
LBF 74.36 317 eP 06 24.10 -1.2
0.8s 8.85nm 4.8mb
DOU 74.36 320 P 06 25.90 0.8
SMF 74.41 316 eP 06 24.30 -1.2
0.7s 5.50nm 4.7mb
LOR 74.47 317 eP 06 24.70 -1.2
1.0s 12.40nm 4.9mb
Z 18s 0.13um 4.2Msz
SSF 74.69 317 eP 06 26.00 -1.1
0.9s 9.15nm 4.8mb
AVF 74.76 317 eP 06 26.20 -1.3
1.1s 9.50nm 4.7mb
BGF 75.08 316 eP 06 28.70 -0.7
0.8s 11.95nm 5.0mb
HYF 75.30 317 eP 06 30.30 -0.3
CAF 75.47 315 eP 06 31.00 -0.7
1.1s 10.25nm 4.8mb
TCF 75.49 316 eP 06 30.90 -0.9
1.0s 5.60nm 4.6mb
RJF 75.89 315 eP 06 33.60 -0.5
0.7s 8.05nm 4.9mb
Z 28s 0.10um 4.0MszX
LSF 75.96 316 eP 06 33.60 -0.8
0.9s 11.45nm 5.0mb
LPO 76.08 314 eP 06 34.70 -0.4
0.7s 12.35nm 5.1mb
LFF 76.41 314 eP 06 36.70 -0.3
0.7s 9.15nm 5.0mb
EGRA 77.02 312 iPc 06 39.06 -1.3
ECHE 77.42 309 iPd 06 42.77 0.0
FLN 77.51 318 eP 06 42.30 -0.7
1.3s 35.40nm 5.3mb
Z 22s 0.15um 4.3Msz
LPF 77.84 318 eP 06 44.40 -0.4
1.2s 32.15nm 5.3mb
TAF 78.53 304 iP 06 52.00 3.0X
EVIA 78.60 308 eP 06 50.04 0.7
EHUE 78.67 307 iPd 06 50.34 0.6
CNB 78.71 128 eP 06 51.30 1.3
ARMA 79.24 123 iPd 06 53.30 0.3
0.9s 16.00nm 5.0mb
EKA 79.57 325 P 07 05.49 11.4X
1.0s 15.70nm
EBAN 79.61 307 iPd 06 55.66 0.9
GUD 79.88 310 iPc 06 57.31 1.0
PAB 80.04 309 eP 06 59.50 2.4
IFR 80.81 303 eP 07 03.00 1.6
e 07 32.00
EJIF 80.99 306 iPd 07 01.41 -0.7
KIC 82.38 276 P 07 10.99 1.2
0.8s 20.00nm 5.3mb
TIC 82.63 276 P 07 12.19 1.1
0.9s 19.50nm 5.3mb
LIC 82.68 275 P 07 12.41 1.1
1.0s 12.50nm 5.0mb
Z 20s 0.55um 4.9Msz
AVE 82.73 303 eP 07 12.00 0.8
LKO 82.90 279 Pc 07 13.47 1.0
0.9s 22.50nm 5.4mb
DAG 85.03 347 iPd 07 23.00 1.0
0.6s 7.33nm 5.1mb
MBC 96.43 4 eP 08 19.00 3.4X
YKA 110.18 6 ePKP 13 17.20 -1.6
0.9s 1.10nm
RSSD 129.26 2 ePKP 13 56.49 0.3
PTI 129.60 10 (PKP) 13 57.97 1.1
e 14 08.39
DUG 132.11 11 (PKP) 14 01.92 0.2
MSU 133.86 11 ePKP 14 06.07 0.9
PV08 134.38 8 ePKP 14 07.09 0.8
SIV 139.21 253 PKP 14 15.10 -0.4
TUC 140.14 12 ePKP 14 18.62 1.7
TOV 144.19 297 ePKP 14 22.50 -1.9
SDV 145.33 296 ePKP 14 26.50 0.0
CNCB 145.59 250 iPKPc 14 28.20 0.9
LPB 145.76 251 PKPc 14 28.80 1.4
LPAZ 145.84 251 iPKPc 14 27.90 0.1
ARE 148.94 249 ePKP 14 38.00 5.6X
S.D. = 1.1 on 168 of 181 obs.

& DEC 06, 1993 21h 02m 46.26s
61.972 N 149.831 W
DEPTH = 46.5km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.0 (AEIC).

PWA 0.32 184 P 02 55.50 0.2
GHO 0.47 115 iP 02 56.66 -0.5
eS 03 05.27
CUT 0.48 335 iP 02 56.52 -0.6
PLRM 0.51 139 eP 02 56.55 -0.9
eS 03 05.63
PMR 0.51 139 iPc 02 56.28 -1.1
eS 03 04.61
SUA 0.67 221 eP 02 59.54 -0.2
eS 03 10.53
SML 0.73 102 iP 02 59.46 -0.9
PMS 0.74 170 P 03 00.00 -0.6
SKT 0.80 271 iP 03 00.57 -0.8
eS 03 12.29
KNK 0.86 130 eP 03 01.49 -0.7
HUR 1.01 5 eP 03 03.60 -0.7
eS 03 17.37
SCM 1.19 96 iP 03 06.12 -0.8
CGLM 1.23 238 eP 03 07.10 -0.4
NCG 1.25 244 eP 03 06.89 -0.8
CFI 1.27 128 eP 03 07.38 -0.4
CRP 1.32 239 eP 03 08.11 -0.6
eS 03 26.00
SPU 1.33 234 eP 03 08.63 -0.1
PWL 1.33 147 eP 03 08.07 -0.7
eS 03 25.57
CKN 1.35 237 eP 03 09.42 0.3
CP2 1.35 239 eP 03 08.70 -0.6
eS 03 26.94
CKT 1.37 237 eP 03 09.29 -0.2
NKA 1.41 209 eP 03 11.86 2.1
BGL 1.41 241 eP 03 10.07 0.0
CKL 1.43 238 eP 03 10.12 -0.1
BKG 1.48 233 eP 03 10.67 -0.2
SLKM 1.48 187 eP 03 10.13 -0.8
TRF 1.50 352 eP 03 10.51 -0.8
MPA 1.51 171 eP 03 10.51 -0.7
RND 1.51 17 eP 03 10.79 -0.5
DHY 1.59 45 eP 03 11.32 -1.2
KTH 1.66 343 eP 03 12.90 -0.6
TOA 1.73 84 P 03 14.60 0.2
MCK 1.81 13 eP 03 15.53 -0.1
VLZ 1.88 115 eP 03 15.27 -1.1
eS 03 39.47
SEW 1.88 174 eP 03 15.84 -0.7
KLU 1.92 103 eP 03 16.07 -1.1
eS 03 39.43
DFR 1.95 226 eP 03 17.54 -0.1
REF 2.04 224 eP 03 18.78 -0.1
NCT 2.06 228 eP 03 19.20 0.0
RS2 2.07 224 eP 03 19.53 0.1
RDW 2.08 225 eP 03 19.76 0.3
TZL 2.08 86 eP 03 19.92 0.6
SDG 2.08 73 eP 03 19.34 -0.1
BWN 2.21 4 eP 03 19.99 -1.3
HIN 2.26 133 eP 03 20.56 -1.3
PAX 2.26 62 eP 03 22.00 0.0
ILIM 2.43 220 eP 03 24.38 0.0
CVA 2.44 124 eP 03 24.46 0.1
INE 2.48 221 eP 03 23.66 -1.6
INW 2.50 222 P 03 25.70 0.3
CNPM 2.55 196 eP 03 26.55 0.4
DDM 2.57 43 eP 03 27.98 1.5
WRH 2.63 17 eP 03 26.94 -0.3
NEA 2.64 7 eP 03 25.68 -1.7
HDA 2.77 27 eP 03 28.41 -0.8
DJE 2.80 41 eP 03 27.82 -1.9
CCB 2.84 18 eP 03 28.51 -1.6
OPT 2.86 217 P 03 32.00 1.4
SVW 2.91 255 eP 03 28.80 -2.4
GLB 2.92 98 eP 03 29.51 -1.8
RAGM 2.96 120 eP 03 30.26 -1.7
TTA 3.03 291 eP 03 30.46 -2.5
FBA 3.08 16 eP 03 30.82 -2.7
MDM 3.08 13 eP 03 32.22 -1.5
MLY 3.10 353 eP 03 32.20 -1.7
HMT 3.16 119 eP 03 33.25 -1.5
AUH 3.16 216 eP 03 34.06 -0.8
AUW 3.17 216 eP 03 34.59 -0.2
GLM 3.22 19 eP 03 33.98 -1.6
TGL 3.58 107 eP 03 38.73 -2.1
CDD 3.59 213 eP 03 40.42 -0.4
WAX 3.71 111 eP 03 41.82 -0.7
BALM 3.71 101 eP 03 40.07 -2.5
CTGM 4.20 100 eP 03 47.71 -1.9
YAH 4.24 109 eP 03 46.62 -3.5
IMA 4.45 339 eP 03 50.31 -2.7
76 obs. associated

DEC 06, 1993 21h 55m 57.12± 0.40s
1.013 S ± 5.3km 121.339 E ± 9.8km
DEPTH = 33.0km (normal)
4.7mb (12 obs.)
SULAWESI, INDONESIA (268)

TSM 6.31 327 iP 57 29.50 -0.8
0.5s 1183.70nm 6.9mb X
LEM 14.85 247 ePc 59 35.50 8.7X
IPM 21.04 285 ePd 00 41.20 0.4
NANU 22.15 194 eP 00 52.50 0.6
WRA 22.71 147 P 00 51.80 -5.6X
0.6s 0.20nm 2.8mb X
WB2 22.72 147 iPc 00 58.00 0.5
0.7s 17.90nm 4.7mb
eS 05 05.20
NNT 25.35 303 eP 01 23.10 0.2
WARB 25.54 169 eP 01 25.30 0.6
ASPA 25.60 153 eP 01 26.80 1.5
1.1s 11.00nm 4.4mb
MEEK 25.61 186 eP 01 24.50 -0.8
LOE 26.61 314 eP 01 34.40 -0.2
NST 26.72 309 eP 01 36.50 0.9
MRWA 28.51 190 iPd 01 51.20 -0.5
0.5s 11.00nm 4.8mb
BDT 28.53 310 eP 01 52.50 0.5
CHTO 29.54 313 ePd 02 01.20 0.1
1.1s 15.31nm 4.7mb
BAL 29.76 188 eP 02 02.00 -0.9
KLB 30.60 186 eP 02 09.50 -0.9
MUN 31.18 188 eP 02 14.50 -0.9
KMI 31.61 327 Pc 02 21.00 1.4
1.0s 10.00nm 4.6mb
pP 02 27.00 21kmX
NWAO 31.98 187 iPd 02 21.90 -0.6
RKG 33.63 186 eP 02 37.90 1.1
0.6s 19.00nm 5.2mb
LZH 40.35 338 eP 03 29.00 -4.6X
1.0s 29.00nm 5.0mb
MAT 40.52 21 eP 03 33.00 -1.9
1.0s 8.00nm 4.4mb
BJI 41.13 354 eP 03 40.00 0.3
1.0s 6.00nm 4.3mb
GUN 44.56 313 P 04 08.60 0.2
PKI 44.71 312 P 04 09.60 0.0
0.6s 17.00nm 5.1mb
KKN 44.93 312 P 04 11.40 0.2
GKN 45.52 312 P 04 15.70 -0.1
0.7s 34.00nm 5.4mb
GBA 45.87 290 P 04 18.00 -0.5
QUE 60.31 306 eP 06 04.50 -1.0
IMA 88.87 24 eP 08 49.79 0.5
0.6s 1.25nm 4.4mb
S.D. = 0.8 on 28 of 31 obs.

DEC 06, 1993 22h 27m 04.52± 0.57s
45.948 N ± 6.4km 14.330 E ± 5.2km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.9 (VIE). MD 3.4 (LJU), 2.9
(TRI). Felt in the Horjul-
Vrhnika area, Slovenia.

LJU 0.17 56 ePgc 27 07.80 -0.6
CEY 0.22 162 ePg 27 10.40 1.1
eSg 27 14.80
VOY 0.32 286 iPgc 27 09.30 -1.8
eSg 27 13.50

06d 22h

TRI 0.46 239 ePg 27 12.30 -1.6
iSg 27 19.40
RIY 0.61 176 iPgd 27 15.50 -1.2
iSg 27 27.00
VBY 0.79 124 iPgc 27 20.50 0.7
iSg 27 31.70
i 27 33.50
PTJ 1.14 92 iPg 27 26.20 0.3
iSg 27 42.20
ZAG 1.16 96 ePg 27 25.70 -0.5
iSn 27 44.00
KBA 1.32 329 iPgd 27 26.90 -2.1
iSg 27 44.20
SCE 2.11 302 iPd 27 42.00 1.5
WTTA 2.28 306 iPgd 27 44.20 1.3
iSg 28 14.30
WATA 2.35 307 iPgd 27 45.40 1.5
iSg 28 16.60
OGA 2.46 293 eP 27 47.50 1.9
SQTA 2.50 302 iP 27 46.50 0.5
iPg 27 49.10
iSg 28 21.50
MOTA 2.63 303 iPgc 27 48.10 0.3
iSg 28 21.70
ZST 2.94 39 eP 28 42.30 50.2X
KHC 3.23 351 Pn 27 55.00 -1.2
Pg 28 03.50
e 28 31.50
eSg 28 43.50
WET 3.35 343 eP 28 08.20 10.3X
PRU 4.05 2 Pn 28 18.50 10.7X
eSg 29 12.50
e 54 21.50
eSg 54 41.00
GRF 4.29 332 ePg 28 29.30 18.0X
eSg 29 21.30
S.D. = 1.4 on 16 of 20 obs.

DEC 06, 1993 23h 00m 17.47± 0.16s
21.835 N ± 2.9km 121.065 E ± 3.2km
DEPTH = 29.2km (15 depth phases)
5.2mb (72 obs.) 5.0Msz (11 obs.)
TAIWAN REGION (243)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 19C
Centroid Location:
Origin Time 23:00:19.5 0.5
Lat 21.63N 0.12 Lon 120.96E 0.10
Dep 17.2 5.7 Half-duration 1.3
Moment Tensor; Scale 10**16 Nm
Mrr= 3.64 3.20 Mtt= 0.85 1.12
Mff=-4.49 2.75 Mrt= 7.72 3.20
Mrf=-2.30 2.75 Mtf=-9.69 3.00
Principal Axes:
T Val= 13.92 Plg=37 Azm= 33
N -1.45 50 237
P -12.48 12 132
Best Double Couple:Mo=1.3*10**17
NP1:Strike=179 Dip=55 Slip= 20
NP2: 77 74 143

PIP 3.52 187 iPd 01 11.00 -0.5
QZH 3.84 324 ePn 01 14.60 -1.3
Z 18s 27.80um
N 10s 8.96um
E 10s 8.63um
Sn 01 55.00
CVP 4.17 170 iPc 01 22.00 1.3
iS 02 05.00
SZP 4.30 188 ePc 01 24.00 1.5
eS 01 36.00
BAG 5.41 185 ePc 01 38.00 -0.5
eS 02 31.00
HKC 6.41 275 iP 01 49.70 -2.7
iS 02 58.10
MCO 6.97 274 eP 01 56.90 -3.4X
QCP 7.16 180 eP 02 00.00 -2.9X
GZH 7.25 281 iPc 02 00.60 -3.6X
Z 12s 9.04um
N 13s 11.50um
SSE 9.22 1 eP 02 30.00 -1.5
Z 18s 12.00um
N 13s 6.40um
E 12s 6.80um
sP 02 41.00

NJ2 10.37 350 Pc 02 44.00 -3.2X
0.8s 38.00nm 5.7mb
Z 12s 8.07um 4.4MszX
N 13s 9.33um
E 14s 10.80um
WHN 10.56 327 P 02 46.50 -3.4X
Z 12s 9.02um
N 10s 9.09um
QIZ 10.88 257 eP 02 53.80 -0.6
N 15s 4.89um
E 16s 9.00um
eS 04 54.60
TIA 14.73 347 Pd 03 47.00 1.4
1.5s 370.00nm 5.6mb
Z 18s 6.12um 4.3Msz
N 13s 5.11um
E 15s 4.20um
pP 03 52.70
eS 06 32.00
CTB 14.86 168 ePd 03 57.00 9.6X
XAN 16.20 321 P 04 05.00 0.4
1.0s 45.00nm 4.6mb
Z 20s 15.30um 4.2MszX
N 12s 7.33um
E 12s 5.00um
pP 04 08.50
sP 04 19.20
TKSJ 16.66 41 eP 04 14.00 3.6X
DL2 17.02 2 eP 04 16.00 1.1
Z 15s 5.04um
N 13s 5.82um
E 14s 4.50um
eS 07 26.00
KMI 17.13 285 eP 04 17.50 0.9
Z 12s 8.30um
N 10s 6.90um
E 10s 4.80um
pP 04 26.00
sP 04 30.00
PP 04 36.00
TIY 17.49 337 Pd 04 23.00 2.1
0.8s 39.00nm 4.6mb
Z 14s 10.80um 5.5Msz
E 13s 10.20um
sP 04 35.00
WKYJ 17.77 43 P 04 27.40 3.0X
CD2 17.93 304 eP 04 25.50 -0.9
Z 15s 12.70um
N 10s 9.32um
S 07 45.00
BJI 18.62 348 eP 04 35.00 0.3
1.0s 110.00nm 5.0mb
Z 16s 5.56um 4.7Msz
N 12s 3.55um
esP 04 48.00
eS 08 04.00
LOE 18.74 260 eP 04 37.00 0.7
TSRJ 18.88 40 eP 04 39.90 1.9
IIDJ 20.04 44 P 04 51.90 0.8
SNY 20.05 5 iPd 04 54.00 3.0X
0.8s 57.00nm 5.0mb
Z 16s 5.98um 5.0MszX
N 14s 1.97um
E 14s 2.70um
HHC 20.59 339 Pc 04 57.20 0.3
1.2s 200.00nm 5.4mb
Z 16s 6.05um 5.1MszX
N 15s 2.88um
E 13s 4.77um
pP 05 04.00 25km
PcS 12 44.00
LZH 20.66 317 Pc 04 57.50 -0.1
1.5s 220.00nm 5.3mb
Z 17s 11.30um 5.3MszX
E 14s 3.08um
pP 05 05.00 28km
sP 05 08.00
PP 05 18.00
PcP 09 07.50
MTMJ 20.68 41 P 04 58.10 0.3
NST 20.74 256 eP 04 57.50 -0.8
MAT 20.90 42 eP 05 00.00 0.1
1.5s 236.11nm 5.4mb
Z 20s 2.48um 4.6Msz
eS 08 56.00
BTO 20.92 336 P 05 00.50 0.3
0.8s 34.00nm 4.8mb

N 11s 2.71um
E 12s 1.96um
sP 05 18.00
PP 05 28.00
CHTO 20.96 266 ePd 05 00.60 0.0
1.0s 27.50nm 4.6mb
CHJJ 21.09 44 P 05 03.20 1.4
BDT 21.28 261 eP 05 04.50 0.6
KAKJ 21.95 45 P 05 09.60 -0.9
CN2 22.21 8 eP 05 12.40 -0.6
1.0s 28.00nm 4.7mb
Z 16s 5.04um 5.0MszX
N 14s 5.67um
E 14s 2.24um
epP 05 20.00 27km
eS 09 08.00
KHT 22.44 256 eP 05 12.30 -3.2X
YAMJ 23.06 41 P 05 20.80 -0.6
VLA 23.07 21 iPd 05 23.00 1.6
N 11s 1.10um
e 05 59.00 187kmX
e 10 16.00
MDJ 23.79 15 eP 05 28.30 -0.1
1.0s 54.00nm 5.0mb
Z 18s 4.79um 5.0Msz
N 14s 3.25um
E 14s 2.51um
eS 09 42.00
GUMO 24.09 106 eP 05 33.50 1.9
1.1s 279.60nm 5.7mb
Z 21s 1.23um 4.4Msz
PJG 24.09 106 eP 05 33.70 2.1
TT 29 33.60
OFUJ 24.62 41 eP 05 35.40 -1.2
GTA 25.22 319 iPc 05 42.50 0.0
1.0s 36.00nm 4.9mb
Z 16s 14.10um 5.6MszX
E 14s 4.76um
PP 06 21.00
PcP 09 16.00
eS 09 58.00
eSS 11 04.00
PcS 12 55.00
IPM 25.91 231 ePd 05 49.10 0.1
0.9s 26.10nm 4.8mb
KGM 26.20 224 ePd 05 53.50 1.9
MRRJ 26.50 35 P 05 53.90 -0.2
HOOJ 27.67 37 P 06 07.10 2.3
LSA 28.00 292 Pd 06 09.80 1.3
1.0s 18.00nm 4.7mb
N 14s 2.07um
E 13s 2.12um
sP 06 24.00
ASAJ 28.50 34 P 06 14.30 2.0
KUSJ 28.94 37 eP 06 14.80 -1.4
YSS 30.62 30 ePd 06 30.20 -1.0
1.2s 100.00nm 5.5mb
Z 18s 1.80um 4.8Msz
N 18s 1.50um
E 18s 1.00um
e 06 36.00 20km
CIT 30.66 351 eP 06 31.00 -0.6
LEM 31.39 206 ePc 06 40.40 2.0
ZAK 31.74 338 eP 06 40.00 -0.9
1.0s 25.00nm 5.1mb
Z 12s 2.94um 5.2MszX
E 14s 2.88um
e 09 31.00
GUN 32.41 288 P 06 47.60 0.0
1.0s 56.00nm 5.4mb
PKI 32.82 287 P 06 50.30 -0.8
KKN 32.94 288 P 06 51.50 -0.5
1.0s 35.00nm 5.2mb
IRK 33.03 341 ePc 06 49.00 -3.2X
1.3s 50.00nm 5.3mb
Z 14s 3.86um 5.3MszX
N 16s 2.60um
E 16s 1.97um
e 06 56.00 24km
e 14 32.00
e 15 48.00
GKN 33.52 288 P 06 56.20 -0.7
1.0s 25.00nm 5.1mb
WMQ 35.24 316 iPd 07 11.50 0.0
0.5s 17.00nm 5.2mb
Z 16s 5.49um 5.4MszX
E 12s 1.86um

pP 07 21.50 34km
sP 07 26.00
UER 36.32 331 iPc 07 20.80 0.4
1.3s 52.00nm 5.3mb
N 13s 1.66um
E 13s 1.33um
BOD 36.32 354 eP 07 17.30 -3.0X
1.0s 12.00nm 4.8mb
YAK 40.60 6 iPd 07 54.50 -1.4
1.2s 191.00nm 5.7mb
Z 17s 4.90um 5.4MszX
N 18s 3.40um
E 18s 1.60um
i 08 20.00 111kmX
e(S) 13 44.00
KSH 42.10 305 P 08 11.00 2.2
1.0s 20.00nm 4.8mb
Z 16s 6.55um 5.6MszX
N 12s 2.47um
E 12s 6.19um
pP 08 18.50 25km
sP 08 22.00
PP 09 51.00
PcP 10 08.50
eS 14 25.00
sS 14 37.00
SS 17 27.00
ScS 18 11.00
GBA 42.24 266 Pd 08 11.00 1.0
KOD 43.32 262 eP 08 20.50 1.3
WRA 43.50 162 P 08 18.60 -1.6
0.7s 22.20nm 5.0mb
WB2 43.50 162 eP 08 18.20 -2.0
0.6s 20.20nm 5.1mb
iPcP 10 06.80
eS 14 40.70
QIS 45.86 155 eP 08 38.00 -1.1
iPcP 10 15.90
ASPA 46.92 164 iPd 08 46.60 -0.8
0.6s 14.00nm 5.1mb
WARB 48.04 173 eP 08 55.70 -0.5
MEEK 48.24 183 iPd 08 56.20 -1.6
QUE 48.96 292 eP 09 04.50 0.9
TIK 50.02 3 iPd 09 08.00 -2.9X
1.4s 77.00nm 5.5mb
Z 18s 3.50um 5.4Msz
i 09 14.00 20km
e 11 02.00
ePPP 12 06.00
eS 16 15.00
ePS 16 28.00
MAIO 54.88 300 iPc 09 48.20 0.3
SVE 55.87 325 iPc 09 54.00 -0.6
2.0s 100.00nm 5.5mb
Z 18s 2.50um 5.3Msz
N 18s 2.00um
eS 17 44.00
ARU 56.90 324 eP 10 02.00 0.1
0.8s 80.00nm 5.8mb
Z 16s 1.50um 5.2MszX
STK 56.91 159 eP 09 46.90 -15.4X
0.5s 11.90nm
ADE 58.92 163 e(P) 10 16.20 -0.2
DZM 62.15 132 iPc 10 37.50 -1.1
CAN 62.71 154 iPc 10 41.30 -0.8
CNB 62.85 154 iPd 10 43.20 0.1
TAB 65.16 303 eP 10 42.00 -16.4X
MTA 65.78 307 eP 11 03.00 1.0
N 17s 0.50um
E 17s 1.00um
ERE 66.23 305 iP 11 05.00 -0.1
KIV 66.99 310 iPc 11 09.90 0.0
Z 14s 1.00um 5.2MszX
e 11 21.90 41kmX
eS 20 03.10
TTA 67.59 29 eP 11 12.22 -1.1
0.6s 5.93nm 4.9mb
SVW 67.93 31 eP 11 14.55 -0.9
0.6s 18.75nm 5.4mb
IMA 68.35 26 eP 11 17.09 -1.0
1.4s 11.83nm 4.8mb
SOC 69.17 310 eP 11 17.00 -6.4X
Z 16s 1.00um 5.2MszX
N 16s 0.70um
E 17s 1.10um
OBN 69.26 322 eP 11 23.00 -0.7
Z 19s 1.70um 5.3Msz

N 19s 0.60um
E 19s 1.40um
e 11 34.00 36km
e 11 42.00
CP2 69.54 31 eP 11 24.70 -0.9
CRP 69.58 31 eP 11 24.75 -1.0
PWA 70.60 30 eP 11 30.80 -0.9
0.7s 40.80nm 5.6mb
ANN 70.62 311 eP 11 31.50 -0.7
e 20 33.00
TOA 72.23 30 eP 11 41.10 -0.5
KLU 72.48 30 eP 11 41.81 -1.3
KAF 73.14 331 iP 11 46.00 -0.8
NUR 74.34 329 eP 11 53.50 -0.3
MNK 74.66 322 eP 11 54.00 -1.8
INK 75.44 22 eP 11 59.00 -1.0
0.9s 10.00nm 4.8mb
MBC 75.57 12 eP 12 00.50 -0.2
1.0s 7.00nm 4.6mb
VRI 77.56 314 ePd 12 13.00 0.6
UPP 77.86 330 iP 12 13.80 0.2
MLR 78.20 314 ePd 12 17.00 0.9
DAG 78.68 351 iPd 12 16.70 -1.2
0.8s 28.36nm 5.3mb
UZH 79.47 318 eP 12 22.50 -0.2
e 12 32.00 30km
HFS 79.55 331 eP 12 22.10 -0.8
0.7s 27.20nm 5.4mb
Z 16s 1.00um 5.3MszX
LR 44 03.00
NB2 80.24 332 P 12 26.20 -0.5
0.9s 16.40nm 5.0mb
OJC 80.40 320 iPd 12 27.90 0.2
i 12 31.40 11kmX
SPC 80.52 319 eP 12 28.70 0.1
RES 80.99 9 eP 12 30.00 -0.3
0.9s 13.00nm 4.9mb
VAY 81.96 311 iP 12 36.00 0.0
KSP 82.20 322 iPc 12 37.40 0.3
0.8s 35.00nm 5.5mb
SRO 82.25 318 eP 12 37.80 0.4
SKO 82.50 312 iP 12 39.00 0.2
0.9s 50.00nm 5.6mb
UZD 82.57 317 e(P) 12 39.20 0.1
ZST 82.83 319 eP 12 40.50 0.1
OHR 83.28 312 eP 12 39.50 -3.4X
VKA 83.28 319 i(P) 12 43.70 1.0
BRG 83.52 322 iP 12 44.40 0.5
2.0s 26.00nm 5.0mb
i 12 54.80 33km
PRU 83.58 321 iPc 12 44.60 0.4
1.8s 87.30nm 5.6mb
Z 17s 0.80um 5.2MszX
e 12 55.10 33km
e 16 29.00
CLL 83.85 323 iP 12 46.00 0.4
KHC 84.52 321 P 12 50.00 0.9
1.0s 8.90nm 4.9mb
Z 16s 0.80um 5.2MszX
N 16s 0.50um
E 16s 0.70um
e 13 00.00 32km
GEC2 84.58 321 e(P) 12 49.80 0.4
0.8s 12.80nm 5.2mb
WET 84.92 321 iPd 12 52.00 1.0
MOX 84.94 323 eP 12 51.80 0.7
1.7s 35.00nm 5.3mb
Z 20s 0.90um 5.2Msz
eS 23 31.00
NAI 85.14 267 iPd 12 56.00 3.0X
Z 20s 0.18um 4.5Msz
YKA 85.17 23 eP 12 51.50 -0.5
0.8s 23.90nm 5.5mb
LJU 85.34 318 eP 12 53.00 -0.2
KBA 85.60 319 iPc 12 57.80 3.1X
GRF 85.62 322 ePd 12 55.90 1.4
1.0s 13.00nm 5.1mb
Z 18s 0.80um 5.2Msz
e(pP) 13 06.80 35km
FUR 86.32 321 iPd 12 59.40 1.4
WTTA 86.55 320 iPc 12 58.50 -0.8
0.6s 6.40nm 5.0mb
i 13 09.90 37km
MOTA 86.82 320 iPc 13 00.20 -0.5
FIR 88.46 317 eP 13 02.00 -6.4X
WLF 88.47 324 P 13 09.00 0.7
CDF 88.51 322 eP 13 09.70 1.0

0.8s 7.40nm 5.1mb
DOU 89.07 325 P 13 13.10 1.9
EKA 89.72 332 P 13 15.67 1.5
1.0s 61.00nm 5.8mb
GMW 90.31 37 eP 13 17.29 0.2
LPG 90.36 320 eP 13 17.60 -0.1
0.7s 5.30nm 4.9mb
LPL 90.36 320 eP 13 17.50 -0.1
0.7s 8.50nm 5.1mb
PGF 90.50 317 eP 13 17.80 -0.4
0.9s 27.35nm 5.6mb
SBF 90.80 318 eP 13 18.40 -1.1
0.8s 13.70nm 5.3mb
RMW 90.91 37 (P) 13 20.56 0.6
LOR 91.06 323 eP 13 19.50 -1.0
1.1s 12.95nm 5.2mb
Z 20s 0.68um 5.1Msz
LBF 91.15 322 eP 13 20.10 -0.9
1.1s 16.10nm 5.3mb
LON 91.31 38 (P) 13 21.40 -0.3
SSF 91.38 323 eP 13 21.10 -0.9
1.1s 8.30nm 5.0mb
SMF 91.42 322 eP 13 21.30 -0.9
1.0s 11.20nm 5.2mb
FRF 91.45 319 eP 13 21.60 -0.8
0.9s 9.65nm 5.2mb
AVF 91.62 323 eP 13 22.20 -0.8
0.8s 5.65nm 5.0mb
LMR 91.66 318 eP 13 22.70 -0.6
0.9s 7.20nm 5.1mb
LRG 91.68 319 eP 13 22.90 -0.5
0.9s 16.85nm 5.4mb
TCF 92.55 323 eP 13 26.90 -0.5
0.9s 7.85nm 5.1mb
DPW 92.65 35 eP 13 28.15 0.2
NEW 92.99 35 eP 13 29.63 0.2
0.9s 15.75nm 5.4mb
FRB 94.37 4 eP 13 35.00 -0.4
1.0s 8.00nm 5.1mb
CMB 97.11 44 eP 13 48.44 0.0
1.1s 11.13nm 5.3mb
KIC 119.97 291 PKP 19 06.82 -0.9
0.7s 10.00nm
LIC 120.29 292 PKP 19 07.16 -1.1
0.9s 7.00nm
SDV 147.38 22 iPKPd 19 58.20 -0.4
LPAZ 169.70 59 PKP 20 26.10 1.5
LPB 169.86 60 PKP 20 25.00 0.6
CNCB 170.11 61 PKP 20 26.00 1.3
PPD 172.92 267 (PKP) 20 26.00 0.9
SIV 173.85 20 PKP 20 26.10 0.5
S.D. = 1.0 on 151 of 171 obs.

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* DEC 06, 1993 23h 19m 24.01± 1.24s
5.996 S ±12.2km 145.950 E ±12.9km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.24 176 iPd 19 29.60 0.3
LAT 1.24 123 eP 19 46.60 -0.4
MNDI 2.28 266 eP 20 06.00 3.4X
WWKK 3.31 315 eP 20 17.00 0.1
PMG 3.59 161 ePc 20 21.20 0.3
WB2 17.87 218 eP 23 32.60 -1.9
0.6s 2.40nm 3.5mb
ASPA 21.05 212 eP 24 12.30 1.6
S.D. = 1.4 on 6 of 7 obs.

& DEC 06, 1993 23h 36m 30.13s
61.253 N 150.475 W
DEPTH = 38.2km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.9 (AEIC).

SUA 0.25 329 P 36 38.00 0.1
S 36 45.60
PMS 0.44 91 P 36 39.70 -0.4
PWA 0.49 35 P 36 40.20 -0.5
NKA 0.63 216 eP 36 43.72 1.1
PLRM 0.73 62 iPc 36 42.99 -1.0
PMR 0.73 62 iPc 36 42.74 -1.3
CGLM 0.74 275 ePc 36 43.57 -0.7
SLKM 0.76 170 ePd 36 43.34 -1.1
eS 36 54.38
SPU 0.77 265 iPc 36 43.71 -0.9
eS 36 55.30

06d 23h

CRP 0.81 272 eP 36 43.98 -1.4
eS 36 55.49
NCG 0.82 281 iPc 36 44.68 -0.8
CKN 0.83 269 ePc 36 44.78 -0.6
CKT 0.84 267 iPc 36 44.74 -0.9
CP2 0.85 272 ePc 36 44.83 -1.2
BKG 0.89 259 iPc 36 45.38 -0.9
eS 36 57.82
SKT 0.89 326 ePc 36 45.50 -0.8
eS 36 58.20
CKL 0.90 267 iPc 36 45.64 -0.9
GHO 0.91 54 iPc 36 45.71 -0.9
BGL 0.93 271 iPc 36 45.96 -0.9
MPA 0.94 144 ePc 36 46.27 -0.7
KNK 0.99 80 ePc 36 46.94 -0.8
PWL 1.11 110 ePc 36 48.49 -1.0
CUT 1.16 5 eP 36 49.28 -0.8
SML 1.17 61 ePc 36 49.21 -1.1
eS 37 04.41
SEW 1.26 156 eP 36 50.58 -0.9
DFR 1.27 239 ePc 36 50.67 -1.1
CFI 1.31 92 eP 36 51.20 -1.0
REF 1.33 236 ePc 36 51.69 -1.1
eS 37 09.16
RS2 1.37 236 ePc 36 52.23 -1.1
RDW 1.38 237 eP 36 52.34 -1.1
NCT 1.39 241 iPc 36 52.45 -1.0
RED 1.40 234 P 36 53.00 -0.7
BRLK 1.51 188 eP 36 54.40 -0.7
SCM 1.62 67 eP 36 55.51 -1.2
ILIM 1.70 227 eP 36 57.21 -0.6
INE 1.75 228 eP 36 58.23 -0.4
INW 1.77 229 eP 36 58.32 -0.6
CNPM 1.77 193 eP 36 57.75 -1.2
eS 37 20.87
HUR 1.78 12 eP 36 59.08 0.1
eS 37 21.13
MTU 1.88 131 P 37 02.20 1.7
VZW 1.91 94 eP 36 58.99 -2.0
VLZ 2.01 92 eP 37 00.71 -1.6
OPT 2.11 222 eP 37 03.40 -0.3
HIN 2.13 112 eP 37 02.12 -1.9
KLU 2.21 82 eP 37 03.06 -2.1
TRF 2.21 2 eP 37 05.38 0.1
TOA 2.22 66 P 37 04.50 -0.9
RND 2.29 19 eP 37 06.02 -0.3
KTH 2.32 355 eP 37 06.53 -0.2
DHY 2.34 37 eP 37 07.13 0.0
PDB 2.35 233 eP 37 06.16 -1.0
CVA 2.42 105 P 37 10.10 2.1
SVW 2.50 269 eP 37 07.09 -2.2
SDG 2.66 59 eP 37 11.46 -0.2
CDD 2.82 216 eP 37 12.67 -1.2
PAX 2.92 52 eP 37 14.76 -0.5
RAGM 2.97 104 eP 37 15.34 -0.7
TTA 3.10 305 eP 37 15.38 -2.5
HMT 3.18 104 eP 37 15.21 -3.7
GLB 3.22 84 eP 37 18.96 -0.5
WRH 3.41 18 P 37 22.60 0.4
CCB 3.62 19 eP 37 24.23 -0.9
MLY 3.79 358 eP 37 26.32 -1.4
FBA 3.86 17 eP 37 26.56 -2.0
BALM 3.95 90 eP 37 26.48 -3.5
65 obs. associated

& DEC 06, 1993 23h 50m 07.23s
59.970 N 141.022 W
DEPTH = 3.0km
SOUTHEASTERN ALASKA (19)
<AEIC>. ML 2.7 (AEIC).

YAH 0.54 318 eP 50 18.03 0.1
eS 50 27.11
CYK 0.74 279 eP 50 21.69 -0.4
eS 50 33.02
SNH 0.93 284 eP 50 24.86 -0.9
eS 50 38.37
CTGM 1.01 351 eP 50 26.07 -1.0
eS 50 40.83
WAX 1.03 299 iP 50 26.15 -1.3
eS 50 40.82
TGL 1.20 312 eP 50 28.58 -1.7
eS 50 45.57
BALM 1.25 329 eP 50 29.57 -1.7
HMT 1.66 284 eP 50 36.38 -1.0
RAGM 1.87 284 eP 50 39.16 -1.3
GLB 2.02 318 eP 50 40.99 -1.6
CVA 2.43 286 eP 50 46.37 -2.0
KLU 2.85 305 eP 50 52.85 -1.7
VLZ 2.87 296 eP 50 54.10 -0.6
VZW 2.95 294 eP 50 54.83 -1.0
14 obs. associated

? DEC 07, 1993 01h 22m 45.94± 4.97s
38.919 N ±33.8km 23.901 E ±32.1km
DEPTH = 31.3 ± 7.0 km
GREECE (364)

PAIG 1.02 350 ePg 23 03.94 -0.2
iSg 23 17.42
AGG 1.23 275 ePb 23 07.02 0.0
iSb 23 26.89
OUR 1.41 2 iPb 23 09.85 0.2
LIT 1.61 318 iPb 23 12.82 0.3
eSb 23 36.74
THE 1.86 337 ePn 23 15.50 -0.6
SOH 1.95 348 ePn 23 17.62 0.1
SRS 2.21 354 ePn 23 21.02 -0.1
KNT 2.37 341 ePn 23 23.78 0.3
S.D. = 0.4 on 8 of 8 obs.

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* DEC 07, 1993 01h 23m 41.79± 0.75s
46.031 N ± 8.1km 14.269 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.1 (VIE). MD 2.4 (LJU). Felt
in the Breg-Borovnica area,
Slovenia.

LJU 0.18 86 ePgc 23 45.80 -0.1
eSg 23 48.80
VOY 0.26 270 iPgd 23 47.30 -0.1
eSg 23 51.30
CEY 0.31 159 ePg 23 48.30 0.0
eSg 23 52.70
VBY 0.87 127 ePg 23 58.60 0.1
iSg 24 10.90
KBA 1.23 329 iPgc 24 04.80 0.1
iSg 24 24.80
S.D. = 0.1 on 5 of 5 obs.

& DEC 07, 1993 02h 43m 44.90s
60.218 N 152.429 W
DEPTH = 97.0km
SOUTHERN ALASKA (2)
<AEIC>.

RS2 0.30 327 eP 43 59.09 -0.5
eS 44 09.67
ILIM 0.30 243 eP 43 58.73 -0.7
REF 0.30 334 eP 43 59.00 -0.6
eS 44 09.98
RDW 0.33 325 eP 43 59.18 -0.5
INE 0.35 244 eP 43 59.15 -0.7
eS 44 10.75
INW 0.38 247 eP 43 59.26 -0.7
eS 44 10.82
DFR 0.40 341 eP 43 59.20 -0.8
eS 44 10.71
NCT 0.43 324 eP 43 58.82 -1.4
eS 44 11.07
HOM 0.69 144 eP 44 01.98 -0.2
eS 44 15.68
OPT 0.70 216 eP 44 01.47 -0.8
NKA 0.79 48 eP 44 04.08 1.0
BKG 0.86 5 iP 44 03.13 -0.8
eS 44 17.14
BRLK 0.90 120 eP 44 03.42 -0.9
eS 44 17.71
CNPM 0.92 139 eP 44 03.64 -0.9
eS 44 18.48
AUL 0.98 212 eP 44 04.36 -0.8
CKL 0.98 3 eP 44 04.41 -0.9
SPU 0.98 11 eP 44 04.36 -0.9
eS 44 19.46
AUE 0.99 209 eP 44 04.29 -0.9
PDB 0.99 245 eP 44 04.18 -1.0
eS 44 19.19
CKT 0.99 6 iP 44 04.42 -1.0
eS 44 19.60
AUH 1.00 211 eP 44 04.67 -0.8
AUW 1.00 212 eP 44 04.49 -0.9
CKN 1.02 7 eP 44 04.92 -0.7
eS 44 21.56
BGL 1.05 1 eP 44 05.26 -0.8
eS 44 20.98
CP2 1.05 5 iP 44 05.47 -0.8
eS 44 21.21
CRP 1.06 7 eP 44 05.52 -0.7
eS 44 21.42
CGLM 1.11 11 eP 44 05.91 -0.9
SLKM 1.14 74 eP 44 05.71 -1.3
NCG 1.20 6 eP 44 06.83 -1.0
CDD 1.43 206 eP 44 09.04 -1.5
eS 44 28.73
SEW 1.49 93 eP 44 09.45 -1.8
SUA 1.50 33 eP 44 10.66 -0.8
eS 44 30.87
MPA 1.55 79 eP 44 10.75 -1.2
PMS 1.75 53 eP 44 13.63 -0.9
eS 44 35.45
SKT 1.82 13 eP 44 14.33 -1.2
eS 44 38.38
PLRM 2.12 48 eP 44 17.62 -1.8
KNK 2.29 57 eP 44 19.43 -2.3
MTU 2.40 93 eP 44 21.12 -2.2
CUT 2.43 24 eP 44 22.35 -1.2
CFI 2.49 65 eP 44 22.09 -2.3
SML 2.55 50 eP 44 23.12 -2.2
KLU 3.43 65 eP 44 34.46 -2.9
42 obs. associated

% DEC 07, 1993 02h 53m 20.02± 0.82s
36.990 N ± 6.6km 4.225 W ± 7.9km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.5 (MDD).

ELOJ 0.17 20 eP 53 23.50 -0.4
eS 53 26.50
EMAL 0.28 216 eP 53 26.03 0.1
e 53 30.30
EGUA 0.55 106 eP 53 31.07 -0.2
e 53 40.20
EHOR 1.16 316 eP 53 41.47 -0.3
e 53 55.30
EBAN 1.22 16 eP 53 43.49 0.7
e 53 59.50
S.D. = 0.6 on 5 of 5 obs.

% DEC 07, 1993 03h 11m 16.05± 0.79s
41.509 N ± 7.6km 3.081 W ± 8.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.9 (MDD).

ETOR 1.04 131 eP 11 36.02 0.3
e 11 51.80
ECRI 1.18 21 eP 11 38.20 0.1
e 11 53.70
GUD 1.19 224 eP 11 39.46 1.2
e 11 56.10
ELIZ 2.02 34 eP 11 51.02 0.5
e 12 13.80
EGRA 2.18 71 eP 12 00.50 7.7X
e 12 31.30
PAB 2.19 207 ePn 11 58.00 5.0X
eSg 12 27.00
ECHE 2.50 139 eP 11 57.80 0.3
e 12 27.10
EPLA 2.70 239 ePn 11 58.86 -1.4
EPLA 2.70 239 eP 12 03.90 3.6X
e 12 36.20
EROQ 2.72 103 eP 11 59.51 -1.1
e 12 33.50
EVIA 2.90 171 eP 12 12.00 8.8X
e 12 46.00
S.D. = 1.1 on 7 of 11 obs.

? DEC 07, 1993 03h 27m 33.51± 1.59s
6.342 S ±16.9km 129.352 E ±16.6km
DEPTH = 247.7 ± 14.4 km
4.8mb (1 obs.)
BANDA SEA (280)

SLKI 2.53 130 iPc 28 22.00 0.8
iS 28 55.50
TLE 3.45 78 iPd 28 30.90 -0.4
iS 29 07.00
MTN 6.70 165 iPd 29 10.80 -0.2
KNA 9.37 183 eP 29 45.00 -0.1

```
        0.3s    76.00nm             5.3mb X
                   eS      31 29.50
WB2     14.37 161 iPc     30 46.40  -1.1
        0.6s    65.90nm             5.2mb X
                   iS      33 26.70
QIS     17.28 146 iPc     31 21.00  -0.1
                   eS      34 24.40
MBL     17.38 211 eP      31 21.20  -0.9
        0.3s    10.00nm             4.8mb
ASPA    17.77 166 iPd     31 26.80   0.5
        0.4s   121.40nm             5.8mb X
                   iS      34 36.10
WARB    19.90 187 iPd     31 49.10   1.2
NANU    20.93 218 iPd     31 58.20   0.2
      S.D. = 0.9  on  10 of  10 obs.
-------------------------------------
*  DEC  07, 1993  03h 34m 27.19± 1.28s
  51.271 N ±13.1km   15.746 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 POLAND                          (548)
      ML 3.5 (GRF), 3.5 (VIE).

KSP      0.55 141 iP      34 36.60  -1.8
        0.4s    90.00nm
                   i       34 39.80
                   iS      34 46.70
BRG      1.20 251 ePn     34 50.30   0.7
                   iPg     34 51.10
                   iSg     35 11.10
PRU      1.50 211 Pn      34 54.30   0.2
        0.2s    77.30nm
                   Pg      34 56.20
                   i       34 58.40
                   Sn      35 13.30
                   Sg      35 20.00
CLL      1.72 272 iPn     34 55.80  -1.5
                   iPg     34 58.50
                   iSg     35 24.90
KHC      2.56 214 Pn      35 09.80   0.4
                   Pg      35 15.40
                   eSn     35 43.50
                   eSg     35 54.50
HOF      2.64 250 ePn     35 09.90  -0.6
MOX      2.69 258 ePn     35 12.00   0.8
                   iPg     35 18.20
                   iSg     35 58.00
OJC      2.78 111 iPg     35 14.00   1.4
                   iS      35 38.30
                   iSg     35 50.10
WET      2.81 222 iPnc    35 13.50   0.4
VKA      3.03 173 iPgd    35 24.50   8.4X
                   iSg     36 08.70
GRF      3.29 243 ePnc    35 19.60  -0.2
                   ePg     35 30.50
                   eSg     36 15.60
SPC      3.56 124 eP      35 30.00   6.2X
KBA      4.48 201 iPnc    35 36.80   0.0
                   iSg     36 56.70
MOTA     4.97 219 iPnc    35 43.80   0.1
SQTA     5.03 218 iPnc    35 44.60   0.1
                   i       37 07.60
      S.D. = 1.0  on  13 of  15 obs.
-------------------------------------
&  DEC  07, 1993   04h 09m 19.10s
  62.175 N           147.859 W
   DEPTH =  37.3km
 CENTRAL ALASKA                   (  1)
      &lt;AEIC&gt;. ML 2.5 (AEIC).

SCM      0.42 144 iP      09 28.03  -0.8
SML      0.43 211 eP      09 28.34  -0.5
GHO      0.65 232 eP      09 30.99  -0.9
                   eS      09 41.03
TOA      0.80  94 P       09 33.20  -0.8
                   S       09 45.50
KNK      0.82 201 eP      09 33.30  -0.9
                   eS      09 45.15
PLRM     0.84 226 eP      09 33.36  -1.1
                   eS      09 45.48
PMR      0.84 226 eP      09 32.95  -1.6
DHY      0.93  14 eP      09 34.92  -1.1
                   eS      09 47.39
CFI      1.00 177 eP      09 35.75  -1.0
                   eS      09 49.98
PWA      1.09 242 P       09 37.70  -0.4
SDG      1.14  71 eP      09 37.94  -0.8
KLU      1.15 126 eP      09 37.51  -1.5

                   eS      09 52.52
CUT      1.15 283 eP      09 38.27  -0.7
                   eS      09 53.69
HUR      1.15 315 eP      09 38.44  -0.5
                   eS      09 53.29
TZL      1.15  95 eP      09 38.63  -0.4
PMS      1.24 222 P       09 39.90  -0.3
                   S       09 56.50
VLZ      1.28 144 eP      09 38.78  -1.9
                   eS      09 56.44
VZW      1.28 150 eP      09 39.08  -1.8
RND      1.32 340 eP      09 40.77  -0.6
PWL      1.34 190 eP      09 41.01  -0.7
PAX      1.36  53 eP      09 41.29  -0.8
SUA      1.54 244 eP      09 44.44  -0.2
FID      1.58 155 eP      09 44.51  -0.6
MCK      1.64 343 eP      09 45.69  -0.3
TRF      1.70 320 eP      09 46.72  -0.3
SKT      1.74 265 eP      09 47.02  -0.4
                   eS      10 09.05
MPA      1.84 204 eP      09 48.34  -0.5
DDM      1.86  29 eP      09 49.90   0.7
HIN      1.90 159 eP      09 48.83  -0.9
CVA      1.92 147 eP      09 49.23  -0.8
KTH      1.97 316 eP      09 50.90   0.1
                   eS'     10 15.58
SLKM     2.02 215 eP      09 51.08  -0.4
GLB      2.06 109 eP      09 50.76  -1.2
                   eS      10 16.74
DJE      2.11  27 eP      09 52.50  -0.1
BWN      2.13 341 eP      09 51.85  -1.1
CGLM     2.16 248 eP      09 53.31  -0.1
NCG      2.18 251 eP      09 53.51  -0.3
MTU      2.20 177 eP      09 54.64   0.7
SPU      2.23 245 eP      09 54.00  -0.5
CRP      2.24 248 eP      09 55.10   0.4
CKN      2.27 247 eP      09 55.86   0.8
HDA      2.28  10 eP      09 54.69  -0.4
CP2      2.28 248 eP      09 55.04  -0.3
WRH      2.31 358 eP      09 54.74  -0.8
BGL      2.34 249 eP      09 55.59  -0.5
CKL      2.35 247 eP      09 55.43  -0.8
BKG      2.38 244 eP      09 56.26  -0.3
CCB      2.48   1 eP      09 57.01  -1.0
                   eS      10 26.57
FBA      2.74   1 eP      10 00.26  -1.3
MDM      2.80 357 eP      10 01.45  -1.1
TGL      2.80 118 eP      10 03.03   0.4
DFR      2.81 238 eP      10 01.72  -1.1
GLM      2.83   4 eP      10 01.78  -1.2
BALM     2.87 111 eP      10 02.95  -0.7
MLY      3.14 337 eP      10 06.00  -1.4
CTGM     3.35 108 eP      10 08.40  -2.0
TTA      3.85 285 eP      10 15.25  -2.2
IMA      4.67 329 eP      10 26.57  -2.5
          58 obs. associated
-------------------------------------
&  DEC  07, 1993  04h 51m 26.98s
  60.546 N           140.667 W
   DEPTH =  10.0km  (geophysicist)
 SOUTHEASTERN ALASKA              ( 19)
      &lt;PGC-P&gt;. ML 2.9 (PGC), 3.1
      (AEIC).

PCA      0.49 155 iP      51 36.92  -0.1
                   eS      51 44.81
CTGM     0.53 322 iP      51 37.53  -0.3
                   eS      51 45.10
CHX      0.53 205 iP      51 37.90   0.1
YAH      0.56 252 eP      51 38.03  -0.6
                   eS      51 46.70
BCPM     0.79 139 iP      51 41.12  -1.2
BALM     0.96 302 eP      51 43.83  -1.5
                   eS      51 57.17
CYK      1.02 244 eP      51 45.60  -0.6
                   eS      52 00.38
PNL      1.09 144 iP      51 45.55  -1.9
TGL      1.09 282 eP      51 45.58  -1.9
                   eS      52 00.04
WAX      1.09 266 eP      51 46.65  -0.8
                   eS      52 02.13
SNH      1.14 252 eP      51 46.92  -1.4
HYT      1.58  78 Pn      51 54.90  -0.3
                   Lg      52 16.90
GLB      1.78 302 eP      51 56.75  -1.2
                   eS      52 19.94
HMT      1.79 265 eP      51 57.69  -0.5

                   eS      52 21.22
KAIM     1.97 253 eP      51 59.45  -1.3
RAGM     1.99 267 eP      51 59.90  -1.2
KLU      2.73 293 eP      52 10.42  -1.3
TZL      2.74 305 eP      52 11.16  -0.7
VLZ      2.84 284 eP      52 11.34  -1.7
TOA      3.08 303 P       52 16.10  -0.5
SCM      3.47 295 eP      52 21.10  -1.1
SML      3.92 292 eP      52 26.17  -2.4
          22 obs. associated
-------------------------------------
&  DEC  07, 1993   05h 15m 14.25s
  62.828 N           138.104 W
   DEPTH =  10.0km  (geophysicist)
   4.5mb (  1 obs.)
 SOUTHERN YUKON TERRITORY, CANADA( 18)
      &lt;PGC-P&gt;. ML 3.4 (PGC).

DAWY     1.37 336 ePn     15 39.02  -0.4
                   eSg     15 57.07
                   eSn     15 57.08
HYT      2.03 172 Pn      15 49.40   0.4
                   Pg      15 51.00
INK      5.82  17 P       16 42.50  -0.1
        0.5s     5.00nm             4.5mb
          3 obs. associated
-------------------------------------
   DEC  07, 1993  05h 54m 52.54± 0.74s
  40.105 N ± 5.1km   19.973 E ± 9.8km
   DEPTH =   5.0km  (geophysicist)
 ALBANIA                         (391)
      ML 3.0 (TIR).

TPE      0.19   9 iPgc    54 55.00  -1.5
                   iSg     54 58.60
SRN      0.23 175 iPgd    54 57.00  -0.1
                   iSg     55 02.20
VLO      0.52 315 iPg     55 02.00  -0.9
                   iSg     55 10.00
IGT      0.64 154 iPg     55 05.50   0.2
                   eSg     55 17.04
OHR      1.19  32 ePn     55 15.50   0.3
                   i       55 17.90
                   i       55 34.00
                   i       55 37.70
TIR      1.24 356 ePn     55 17.60   1.5
                   iSn     55 38.60
LACI     1.54 353 ePn     55 21.20   0.5
LIT      1.93  89 ePn     55 30.20   3.8X
                   eSn     55 59.60
GRG      2.04  65 ePn     55 31.24   3.3X
AGG      2.12 120 ePn     55 33.32   4.2X
                   eSn     56 02.68
SKO      2.17  30 ePn     55 32.50   2.7X
BCI      2.26   2 ePn     55 32.00   0.8
VAY      2.32  58 ePn     55 31.00  -1.0
KNT      2.46  64 ePn     55 37.20   3.2X
      S.D. = 1.1  on   9 of  14 obs.
-------------------------------------
   DEC  07, 1993  06h 29m 11.73± 0.81s
  33.857 S ±10.6km   70.331 W ± 8.6km
   DEPTH = 100.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION   (127)
      MD 3.9 (SAN).

PCH      0.28 327 iPd     29 26.94   0.4
                   iS      29 38.56
CACH     0.34 221 iPd     29 27.19   0.3
                   iS      29 39.00
SAN      0.49 326 iPd     29 27.77   0.1
                   iS      29 40.37
FCH      0.53   4 iP+     29 28.80   0.4
                   iS      29 42.45
TACH     0.54 292 iPd     29 28.19   0.1
                   iS      29 40.81
PEL      0.77 337 iPd     29 30.47   0.4
                   iS      29 44.88
LNV      0.90 263 iPd     29 30.74  -0.6
                   eS      29 45.24
ROCH     1.05 327 iP+     29 33.11  -0.1
LCCH     1.10 290 iPd     29 33.14  -0.4
                   iS      29 50.06
JACH     1.19 349 iPd     29 35.03   0.3
                   iS      29 53.10
RTCV     2.50  38 eP      29 51.00  -0.5
                   S       30 22.00
RTCB     2.69  29 eP      29 54.50   0.3
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07d 06h

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                    (S)       30 27.60
RTLL     2.97  32 eP          29 57.30   -0.6
                    (S)       30 33.20
       S.D. = 0.4   on   13 of  13 obs.
-------------------------------------------
*  DEC  07, 1993   08h 09m 57.76± 1.12s
    6.222 S ±14.4km  146.234 E ±16.9km
    DEPTH =  98.9 ± 12.7 km
 EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY     0.26 266 iPd     10 13.90    0.2
LAT      0.88 120 iPd     10 16.90   -0.2
MDG      1.07 335 eP      10 19.00   -0.1
PMG      3.29 164 iPc     10 48.40    0.1
QIS     15.63 204 eP      13 39.30    5.5X
WB2     17.87 219 eP      14 01.00   -0.5
                  eS      17 19.30
ASPA    21.01 213 eP      14 35.50    0.2
                  e       14 53.60
                  eS      18 26.30
WARB    27.27 221 eP      15 35.00    0.2
KIC    151.15 272 PKP     29 40.63    4.9X
    0.4s      5.50nm
LIC    151.43 272 PKP     29 41.13    5.0X
    0.4s      3.50nm
TIC    151.43 272 PKP     29 41.21    5.0X
    0.4s      2.00nm
      S.D. = 0.4   on    7 of  11 obs.
-------------------------------------------
    DEC  07, 1993   08h 20m 41.86± 1.06s
    59.707 N ± 9.7km  147.480 W ± 3.7km
    DEPTH =  10.0km  (geophysicist)
 GULF OF ALASKA                      ( 15)
     ML 2.5 (AEIC).

MTU      0.30 343 P       20 49.00    1.0
                  S       20 53.50
HIN      0.85  35 P       20 58.70    0.4
                  S       21 11.80
SEW      1.07 293 P       21 02.40    0.4
                  S       21 17.00
CVA      1.21  45 P       21 04.50    0.2
                  S       21 20.80
MPA      1.23 311 P       21 04.80    0.2
                  S       21 21.80
PWL      1.23 340 P       21 03.90   -0.9
CFI      1.49 355 P       21 07.90   -0.7
VLZ      1.54  21 P       21 09.10   -0.2
                  S       21 28.70
RAGM     1.56  63 P       21 10.10    0.3
SLKM     1.59 302 P       21 09.80   -0.3
HMT      1.74  67 P       21 13.00    0.7
KNK      1.78 345 P       21 13.00    0.1
KLU      1.95  23 eP      21 15.00   -0.4
PMR      2.06 337 eP      21 17.29    0.4
SML      2.15 349 P       21 19.10    0.8
CP2      2.83 306 eP      21 27.80   -0.3
BALM     2.88  60 eP      21 27.79   -0.9
FBA      5.22 359 (P)     22 00.99   -0.7
      S.D. = 0.6   on   18 of  18 obs.
-------------------------------------------
*  DEC  07, 1993   09h 43m 20.82± 0.96s
    6.036 S ± 8.4km  146.146 E ±10.2km
    DEPTH =  10.0km  (geophysicist)
    3.9mb (  2 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY     0.27 221 iPc     43 27.30    0.7
MDG      0.86 335 iPd     43 36.60   -0.8
LAT      1.06 126 iPd     43 41.20    0.5
MNDI     2.48 267 eP      44 07.00    4.9X
WWKK     3.47 314 eP      44 20.50    4.4X
PMG      3.50 163 iPc     44 16.10   -0.2
JAY      6.46 303 iPc     44 59.60    1.3
                  iS      46 06.00
WB2     17.96 219 eP      47 30.40   -2.0
    0.7s      4.60nm              3.7mb
                  eS      53 00.40
ASPA    21.12 213 eP      48 08.70    0.5
    0.8s      7.00nm              4.1mb
KIC    151.06 272 PKP     03 15.88    5.2X
    0.7s      9.50nm
TIC    151.34 273 PKP     03 16.32    5.2X
    0.5s      5.00nm
LIC    151.34 272 PKP     03 16.26    5.2X
    0.5s      7.50nm
LKO    151.79 279 PKPd    03 17.49    5.7X
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    0.8s      8.50nm
   S.D. = 1.3   on    7 of  13 obs.
-------------------------------------------
   DEC  07, 1993   09h 45m 19.09± 0.58s
   49.853 N ± 6.5km   18.473 E ± 5.1km
   DEPTH =  10.0km  (geophysicist)
 CZECH AND SLOVAK REPUBLICS         (547)
    ML 3.3 (CLL), 3.3 (WAR), 2.8
    (BRA).

RAC      0.29 322 iP      45 25.50    0.3
                  iS      45 30.00
OJC      0.93  66 ePg     45 37.00    0.1
                  iSg     45 50.20
SPC      1.33 119 iPnd    45 43.50   -0.3
                  i(Sn)   46 05.10
KSP      1.71 306 iPn     45 49.20    0.1
    0.8s     95.00nm
                  iPg     45 52.60
                  iSn     46 15.60
                  iSg     46 18.90
ZST      1.89 209 ePn     45 51.70    0.1
                  e(Sn)   46 15.40
                  Lg      46 21.00
SRO      2.04 183 i(Pn)   46 00.60    6.7X
VKA      2.13 223 iPnc    45 55.80    0.6
    0.9s    137.00nm
                  i       46 01.70
                  i       46 31.10
                  i       46 44.80
PRU      2.54 275 ePn     46 00.10   -1.0
    0.7s     41.90nm
                  Pg      46 05.40
                  Sg      46 37.10
BRG      3.07 291 iPg     46 15.60    7.1X
                  iSg     46 56.10
KHC      3.27 259 ePn     46 11.50    0.0
                  e       46 18.40
                  e       46 27.50
                  eSn     46 54.50
                  eSg     47 06.00
WET      3.71 261 iPc     46 08.40   -9.3X
CLL      3.78 295 ePg     46 30.00   11.4X
                  Sg      47 20.00
KBA      4.40 233 e(P)    46 47.00   19.4X
    0.9s     22.00nm
                  i(S)    47 43.20
MOX      4.47 283 ePg     46 43.00   14.6X
                  iSg     47 45.20
    S.D. = 0.6   on    8 of  14 obs.
-------------------------------------------
   DEC  07, 1993   09h 46m 08.16± 0.69s
   40.430 N ± 6.0km   21.882 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)

FNA      0.52 313 ePg     46 18.01   -0.7
                  eSg     46 27.66
LIT      0.57 125 ePg     46 19.50   -0.2
                  eSg     46 29.70
GRG      0.66  37 ePg     46 20.86   -0.4
VAY      1.03  30 ePn     46 28.00    0.4
KNT      1.06  46 ePg     46 27.90   -0.3
OHR      1.07 310 iPn     46 29.20    0.9
AGG      1.45 166 iPb     46 34.06   -0.4
PAIG     1.47 109 ePb     46 35.38    0.8
    S.D. = 0.7   on    8 of   8 obs.
-------------------------------------------
%  DEC  07, 1993   09h 48m 45.41± 1.11s
   40.646 N ± 9.5km   22.999 E ± 6.5km
   DEPTH =   5.0km  (geophysicist)
 GREECE                             (364)

THE      0.03 242 iPg     48 46.60    0.0
                  eSg     48 47.56
SOH      0.32  57 ePg     48 52.01    0.1
KNT      0.52 352 ePg     48 55.85    0.0
                  eSg     49 03.72
GRG      0.55 305 iPg     48 56.44    0.0
SRS      0.65  44 ePg     48 58.32   -0.1
    S.D. = 0.1   on    5 of   5 obs.
-------------------------------------------
?  DEC  07, 1993   09h 56m 30.60± 3.63s
   39.589 N ±26.4km   29.550 E ±20.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
    ML 2.7 (ISK).
```

```
DST      0.71 272 ePg     56 44.40   -0.3
                  eSg     56 56.90
IZI      0.75 356 iPg     56 44.80   -0.5
                  iSg     56 55.30
YLV      0.99 352 ePn     56 49.60    0.2
EYL      1.08  25 ePn     56 51.10    0.1
EDC      1.50 301 ePn     56 58.00    0.4
    S.D. = 0.5   on    5 of   5 obs.
-------------------------------------------
?  DEC  07, 1993   09h 57m 24.41± 8.11s
   44.182 N ±45.3km    7.549 E ±28.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
    ML 2.1 (LDG).

SAOF     0.20 179 Pg      57 28.19   -0.6
                  Sg      57 34.03
AUTN     0.21 205 Pg      57 29.14    0.1
TOUF     0.27 232 Pg      57 29.31   -1.0
                  Sg      57 34.56
SBF      0.33 194 Pg      57 32.00    0.7
                  Sg      57 35.60
AURF     0.34 209 Pg      57 31.13   -0.3
                  Sg      57 37.59
FRF      0.90 227 Pg      57 42.10    0.4
                  Sg      57 53.20
LRG      1.13 230 Pg      57 46.00    0.5
                  Sg      58 00.70
LMR      1.13 222 Pg      57 45.70    0.1
                  Sg      58 01.70
    S.D. = 0.7   on    8 of   8 obs.
-------------------------------------------
   DEC  07, 1993   10h 42m 13.88± 0.65s
   44.975 N ± 3.4km    6.718 E ± 6.7km
   DEPTH =  13.0 ±  3.6 km
 FRANCE                             (538)
    ML 2.4 (GEN), 2.3 (LDG).

RRL      0.07 139 P       42 16.31   -0.6
                  S       42 18.87
BHB      0.41 109 P       42 22.67    0.3
                  S       42 29.50
RSP      0.42  65 P       42 23.10    0.5
                  S       42 29.90
LPG      0.52   3 Pg      42 24.40   -0.2
                  Sg      42 31.80
LPL      0.54   1 Pg      42 24.60   -0.3
                  Sg      42 32.70
PZZ      0.54 150 P       42 24.32   -0.5
LSD      0.57  32 P       42 25.56    0.1
                  S       42 33.91
STV      0.85 149 P       42 29.95   -0.1
                  S       42 41.35
ENR      0.90 146 P       42 30.65   -0.3
                  S       42 42.67
ROB      1.07 129 P       42 33.80    0.1
                  S       42 47.99
ORX      1.11  53 P       42 34.88    0.4
SBF      1.22 155 Pg      42 38.10    1.7
                  Sg      42 54.00
FIN      1.31 125 P       42 36.83   -1.0
IMI      1.36 141 P       42 37.23   -1.3
PCP      1.37 108 P       42 39.06    0.4
LRG      1.54 190 Pg      42 41.80    0.8
                  Sg      42 59.60
LMR      1.65 185 Pg      42 42.60    0.0
                  Sg      43 04.50
    S.D. = 0.8   on   17 of  17 obs.
-------------------------------------------
?  DEC  07, 1993   10h 44m 09.34± 5.02s
   44.951 N ± 9.4km    6.513 E ±33.7km
   DEPTH =   5.0km  (geophysicist)
 FRANCE                             (538)
    ML 2.0 (GEN).

RRL      0.20  99 P       44 13.68    0.3
                  S       44 16.20
BHB      0.54 101 P       44 20.00   -0.3
                  S       44 26.77
PZZ      0.61 137 P       44 21.60    0.0
                  S       44 29.33
LSD      0.68  42 P       44 22.97    0.0
                  S       44 31.58
    S.D. = 0.4   on    4 of   4 obs.
-------------------------------------------
   DEC  07, 1993   11h 03m 59.93± 0.55s
   44.968 N ± 2.9km    6.731 E ± 5.7km
```

```
   DEPTH =  10.0km  (geophysicist)
 FRANCE                              (538)
      ML 2.7 (GEN), 2.4 (LDG).

RRL       0.06 142 P        04 02.17  -0.3
                   S        04 04.51
BHB       0.40 108 P        04 08.53   0.4
                   S        04 15.08
RSP       0.42  64 P        04 09.27   0.8
                   S        04 15.99
LPG       0.53   2 Pg       04 10.60  -0.1
                   Sg       04 18.00
PZZ       0.53 150 P        04 10.09  -0.7
                   S        04 17.92
LPL       0.55   0 Pg       04 10.50  -0.6
                   Sg       04 18.90
LSD       0.57  31 P        04 11.65  -0.1
                   S        04 20.06
STV       0.84 149 P        04 15.63  -0.6
                   S        04 27.02
ENR       0.89 146 P        04 16.82  -0.3
                   S        04 28.90
ROB       1.06 129 P        04 20.12   0.2
                   S        04 33.97
ORX       1.10  53 P        04 21.25   0.5
                   S      . 04 35.98
SBF       1.22 155 Pg       04 24.00   1.4
                   Sg       04 39.50
FIN       1.30 125 P        04 23.33  -0.7
                   S        04 39.51
IMI       1.34 141 P        04 23.46  -1.3
PCP       1.36 108 P        04 25.09   0.1
FRF       1.41 182 Pg       04 26.10   0.5
                   Sg       04 43.80
LRG       1.54 190 Pg       04 27.60   0.2
                   Sg       04 46.20
LMR       1.64 186 Pg       04 29.40   0.5
                   Sg       04 49.50
     S.D. = 0.7  on  18 of  18 obs.
-----------------------------------------
* DEC 07, 1993  11h 15m 27.63± 0.98s
   3.881 S ±16.9km  139.663 E ±17.7km
   DEPTH =  10.0km  (geophysicist)
  4.5mb (  1 obs.)
 IRIAN JAYA, INDONESIA               (201)

JAY       1.71  38 iPd    15 56.60  -1.1
       0.4s      60.00nm
                   iS     16 14.50
WWKK      3.96  86 eP     16 30.00   0.2
MNDI      4.58 120 eP     16 42.00   3.3X
MTN      12.27 223 eP     18 25.50   0.1
                   eS     20 36.80
QIS      16.58 180 eP     19 18.00  -3.8X
WB2      16.78 198 eP     19 22.80  -1.7
                   i      19 28.50
                   i      19 37.70
                   eS     22 23.70
ASPA     20.44 195 iPc    20 08.60   0.5
       0.6s      15.40nm          4.5mb
                   eS     23 51.90
CNCB    145.81 128 PKP    35 11.00   1.1
LPAZ    145.99 127 PKP    35 11.10   0.8
                   i      35 23.30
    S.D. = 1.2  on    7 of    9 obs.
-----------------------------------------
   DEC 07, 1993  11h 39m 32.81± 0.76s
   42.023 N ± 6.4km   19.198 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION          (383)
      ML 2.8 (TTG).

ULC       0.07 147 iPgd  39 33.16  -2.1
                   iSg   39 34.05
BDV       0.38 314 iPgd  39 40.78   0.2
                   iSg   39 47.76
TTG       0.41   7 iPgd  39 41.04  -0.1
                   iSg   39 48.22
HCY       0.67 309 iPgc  39 45.98  -0.2
                   iSg   39 57.49
NKY       0.80 349 iPgd  39 48.51   0.0
                   iSg   40 01.75
PVY       0.81  45 iPgd  39 47.46  -1.2
                   iSg   39 59.92
IVA       0.99  31 iPgc  39 51.26  -0.4
                   iSg   40 06.57
BRY       1.00 331 iPgc  39 52.05   0.2
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```
                     iSg   40 08.60
PLE      1.31    6 iPgd  39 57.61    0.4
                     iSg   40 18.26
OHR      1.51 127 ePn    40 01.20    1.3
SKO      1.67   91 iPn   40 03.50    1.2
VAY      2.62 104 ePn    40 16.40    0.5
   S.D. = 1.0  on  12 of  12 obs.
-----------------------------------------
  DEC 07, 1993  11h 50m 15.17± 0.65s
   2.445 S ± 5.1km  139.900 E ± 5.2km
  DEPTH =  16.6 ±  5.2 km
  5.1mb ( 26 obs.)  4.5Msz (  4 obs.)
 NEAR NORTH COAST OF IRIAN JAYA  (197)

JAY      0.81   95 iP     50 29.40  -1.0
       0.4s    121.00nm
                    iS     51 15.60
WWKK     3.90 108 eP      51 16.50   0.8
MNDI     5.26 135 eP      51 42.00   6.9X
MDG      6.49 116 eP      51 50.00  -2.4
LAT      8.23 121 ePd     52 19.40   2.7
PMG      9.99 134 eP      52 41.00  -0.1
MTN     13.50 220 iPc     53 37.40   8.9X
       0.3s    118.00nm         6.3mb X
GUMO    16.67   17 eP     54 03.60  -6.2X
       1.3s    284.70nm           5.2mb
DAV     17.15 304 eP+     54 16.00   0.3
KNA     17.18 219 eP      54 16.80   0.7
       0.8s    149.00nm           5.2mb
                    eS     57 25.00
QIS     18.00 181 eP      54 25.70  -0.7
                    eS     57 41.00
WB2     18.22 197 iPd     54 28.70  -0.4
       0.8s     85.70nm           5.0mb
                    eS     57 47.70
ASPA    21.88 195 iPc     55 09.60   0.3
                    ePcP   58 25.30
                    eS     59 09.50
TSM     23.01 287 ePc     55 22.30   1.9
KHKI    24.88 255 ePd     55 38.00  -0.6
                    e      58 20.00
WARB    26.82 207 iPd     55 58.00   1.3
MBL     26.98 225 eP      55 58.00  -0.2
       1.0s     81.00nm           5.3mb
NANU    30.97 228 iPd     56 39.20   5.2X
       0.9s     88.00nm           5.6mb
MEEK    31.55 218 eP      56 39.20   0.1
DZM     32.34 129 iPc     56 48.90   2.8X
ADE     32.38 182 eP      56 48.40   2.2
CAN     33.78 167 eP      57 01.60   3.1X
                    ipP    57 04.20   9kmX
CNB     33.87 166 iPc     57 02.10   2.9X
       0.9s     27.00nm           5.2mb
SSE     37.82 333 Pc      57 33.00   0.4
       1.0s     28.00nm           5.0mb
    Z  20s      0.50um           4.3Msz
                    eS     03 12.00
IPM     39.47 280 ePc     57 46.60  -0.1
YAMJ    40.41    0 eP     57 54.30   0.1
OFUJ    41.35    2 eP     58 19.10  17.3X
LOE     42.49 299 eP      58 11.00  -0.6
NNT     42.59 291 iPd     58 10.80  -1.6
NST     43.25 296 iPc     58 18.50   0.8
BDT     44.83 297 eP      58 31.00   0.5
       1.0s     34.50nm           5.2mb
KMI     45.26 310 Pc      58 35.50   1.3
       1.0s    100.00nm           5.7mb
    Z  25s      1.40um          4.8MszX
                    pP     58 49.00  51kmX
CHTO    45.48 299 iPc     58 35.80   0.1
       1.2s     55.90nm           5.4mb
BJI     47.54 335 eP      58 51.50  -0.1
       1.5s     17.00nm           4.9mb
    Z  18s      0.59um           4.6Msz
                    epP    59 07.00  60kmX
                    eS     05 44.00
                    esS    06 12.00
                    eSS    08 52.00
YSS     49.31    3 eP     59 03.60  -1.6
    Z  18s      0.40um           4.5Msz
                    e      59 11.00
LZH     50.99 322 Pc      59 19.50   1.0
       1.2s     87.00nm           5.6mb
    Z  20s      0.50um           4.5Msz
                    pP     59 34.50  57kmX
                    sP     59 43.00
CIT     58.64 341 eP      00 14.50   0.7
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GUN      60.02 304 P        00 24.40    0.3
PKI      60.29 304 P        00 25.70   -0.3
       0.8s      24.00nm             5.4mb
KKN      60.47 304 P        00 27.40    0.3
DMN      60.55 304 P        00 28.00    0.3
GKN      61.08 304 P        00 31.30    0.2
ZAK      61.26 334 iPc      00 31.60   -0.1
       1.2s      46.00nm             5.5mb
KOD      63.41 283 eP       00 47.00    0.0
BOD      63.54 345 eP       00 45.30   -1.5
       1.4s      14.00nm             4.9mb
HYB      63.59 291 ePc      00 46.50   -1.4
GBA      63.95 286 P        00 49.10   -1.1
       0.9s       6.50nm             4.8mb
YAK      64.76 355 eP       00 53.80   -0.8
       1.3s      25.00nm             5.2mb
                     i      01 07.00
CSY      66.99 192 eP       01 06.00   -2.9
       1.1s      14.30nm             5.0mb
NDI      67.50 302 iPc      01 11.90   -1.0
POO      68.20 291 eP       01 16.50   -0.9
QUE      76.56 302 eP       02 07.80    0.8
SVW      80.09  26 eP       02 26.55    1.0
       0.8s      11.11nm             4.9mb
TTA      80.67  25 eP       02 28.86    0.2
       1.1s       7.91nm             4.6mb
SLKM     82.34  28 eP       02 36.92   -0.4
IMA      82.86  22 eP       02 40.47    0.4
       1.2s       9.25nm             4.8mb
PMR      83.19  27 eP       02 41.45   -0.1
       0.8s      21.93nm             5.4mb
MAIO     83.71 307 iPc      02 46.20    1.2
       0.9s      12.79nm             5.1mb
FBA      84.77  24 eP       02 49.43   -0.1
       0.8s       4.23nm             4.7mb
ARU      87.20 327 eP       03 02.00    0.3
INK      90.98  22 eP       03 21.00    1.7
       1.0s       3.00nm             4.6mb
MBC      94.92  14 eP       03 39.00    1.7
YKA      99.29  27 eP       03 57.20   -0.2
       1.0s       1.10nm             4.4mb
MLR     108.39 317 ePKP     08 44.00   -0.8
DIM     109.59 314 iPKP     09 00.00   13.0X
ARE     143.75 122 e(PKP)   09 54.00    1.5
KIC     144.54 277 PKPc     09 52.12   -1.4
       0.9s      68.50nm
TIC     144.79 278 PKP      09 52.88   -1.1
       1.0s      77.50nm
LIC     144.84 277 PKP      09 52.96   -1.1
       0.9s      49.50nm
LKO     144.99 283 PKPc     09 53.25   -1.1
       0.9s      35.00nm
CNCB    146.48 126 PKP      10 01.70    4.3X
LPAZ    146.63 125 PKP      10 00.50    2.8X
SDV     148.97  77 ePKP     10 05.70    4.7X
     S.D. = 1.1  on  61 of  73 obs.
-----------------------------------------
? DEC 07, 1993  12h 00m 32.50±15.02s
    7.849 N ±81.0km   82.669 W ±92.1km
    DEPTH =  10.0km  (geophysicist)
 SOUTH OF PANAMA                     ( 83)
       MD 3.9 (UPA).

DVD       0.62  20 iP       00 45.23    0.2
                   eS       00 53.95
BRU       0.96   6 iP       00 50.96   -0.1
                   eS       01 07.26
UPA       3.30  70 eP       01 26.13    0.9
                   eS       02 05.64
ECO       3.31  63 eP       01 24.35   -1.0
                   eS       02 04.88
      S.D. = 1.4  on    4 of    4 obs.
-----------------------------------------
   DEC 07, 1993  12h 07m 22.79± 0.30s
   40.197 N ± 4.2km   27.076 E ± 2.6km
    DEPTH =  12.3 ±  2.4 km
 TURKEY                              (366)
       ML 3.2 (ISK).

EDC       0.62  76 iPg      07 34.00   -1.0
                   iSg      07 44.00
BNT       0.66  76 iPg      07 34.50   -1.3
                   eSg      07 45.50
ALN       1.05 312 ePg      07 42.38    0.0
                   eSg      07 57.74
DST       1.33 116 iPn      07 48.20    1.0
DMK       1.70  17 iPn      07 52.60    0.2
```

07d 12h

ISK 1.74 59 ePn 07 52.50 -0.4
IZM 1.80 175 ePn 07 53.40 -0.5
IZI 1.84 85 iPn 07 55.20 0.8
RZN 2.33 311 iP 08 02.00 0.4
OUR 2.37 274 ePn 08 01.90 -0.1
PAIG 2.62 265 ePn 08 05.02 -0.6
CIN 2.71 163 eP 08 07.00 0.1
SRS 2.81 290 ePn 08 07.62 -0.6
SOH 2.91 284 iPn 08 09.74 0.1
THE 3.17 279 ePn 08 13.60 0.3
PGB 3.21 318 iP 08 14.00 0.0
PVL 3.29 337 iP 08 15.00 0.0
KNT 3.32 288 ePn 08 15.62 0.1
KKB 3.45 300 eP 08 22.00 4.6X
LIT 3.52 270 ePn 08 18.02 -0.3
GRG 3.64 284 ePn 08 20.46 0.3
VTS 3.77 311 eP 08 22.00 0.0
AGG 3.85 254 ePn 08 22.46 -0.6
S.D. = 0.6 on 22 of 23 obs.

? DEC 07, 1993 12h 13m 30.36± 4.54s
39.577 N ±36.2km 29.469 E ±25.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

DST 0.65 273 ePg 13 43.20 -0.2
eSg 13 54.70
IZI 0.76 0 iPg 13 44.50 -0.7
iSg 13 54.50
EYL 1.12 28 ePn 13 51.40 0.0
ISK 1.52 348 ePn 13 58.50 0.9
S.D. = 1.2 on 4 of 4 obs.

DEC 07, 1993 12h 27m 33.53± 0.76s
56.225 N ± 6.7km 12.289 E ± 9.3km
DEPTH = 10.0km (geophysicist)
SWEDEN (536)
ML 2.7 (NAO).

COP 0.55 171 iPd 27 44.70 0.1
i 27 50.00
i 28 06.70
MUD 1.75 279 iP 28 04.00 -0.1
i 28 28.00
HFS 3.99 10 eP 28 36.70 0.7
0.2s 5.20nm
NRA0 4.54 355 ePn 28 43.58 -0.2
ePg 29 00.60
eSn 29 39.65
eLg 30 01.40
NUR 7.79 51 iP 29 30.00 0.5
0.2s 2.40nm 5.1mb X
KAF 9.29 45 iP 29 49.50 -0.9
ARA0 14.60 19 ePn 30 57.24 -4.4X
S.D. = 0.7 on 6 of 7 obs.

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* DEC 07, 1993 12h 28m 05.28± 3.58s
41.890 N ±26.0km 19.202 E ± 6.9km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (TTG).

ULC 0.08 26 iPgc 28 07.39 -0.4
iSg 28 08.51
BDV 0.48 325 iPgd 28 14.89 -0.2
iSg 28 22.04
TTG 0.54 5 iPgd 28 15.92 -0.3
iSg 28 23.78
HCY 0.76 317 iPgc 28 19.89 -0.3
iSg 28 31.43
PVY 0.91 39 iPgc 28 22.55 -0.2
iSg 28 35.90
NKY 0.93 351 iPgc 28 23.25 0.1
iSg 28 36.84
IVA 1.11 27 iPgc 28 26.25 0.1
iSg 28 42.63
BRY 1.12 334 iPgd 28 26.67 0.3
iSg 28 43.17
OHR 1.43 122 ePn 28 37.70 6.4X
PLE 1.45 6 iPgd 28 32.49 0.9
iSg 28 53.79
SKO 1.67 86 iPn 28 38.50 3.8X
S.D. = 0.5 on 9 of 11 obs.

DEC 07, 1993 13h 03m 48.18± 0.84s
33.303 S ± 6.9km 71.352 W ± 8.2km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.4 (SAN).

LCCH 0.25 227 iP+ 03 55.80 0.5
iS 04 02.60
ROCH 0.44 41 iP+ 03 58.38 0.3
iS 04 06.68
TACH 0.49 135 iPd 03 59.13 0.4
iS 04 07.97
PEL 0.58 74 eP 04 00.27 0.3
iS 04 09.88
LNV 0.65 184 iP+ 04 00.10 -0.8
iS 04 10.63
PCH 0.77 115 iP 04 02.34 -0.3
iS 04 14.28
FCH 0.89 92 iP 04 04.69 0.1
iS 04 17.34
JACH 0.89 46 iP+ 04 03.75 -0.7
iS 04 16.29
CACH 1.03 143 iP+ 04 06.68 0.3
iS 04 21.84
S.D. = 0.6 on 9 of 9 obs.

DEC 07, 1993 13h 17m 23.56± 0.93s
30.733 N ± 5.9km 51.331 E ± 4.4km
DEPTH = 38.3 ± 10.0 km
4.8mb (21 obs.)
NORTHERN IRAN (348)
MD 4.8 (RYD). Felt in the Yasuj area.

DHR 4.54 194 ePc 18 34.20 2.6
eS 19 25.00
KER 5.07 316 eP 18 39.00 -0.3
MJMA 7.21 229 ePc 19 09.30 0.1
eS 20 31.00
RYD 7.31 216 eP 19 11.50 0.9
eS 20 34.00
QASM 8.28 238 ePc 19 23.30 -0.8
eS 20 55.30
MAIO 8.79 49 eP 19 31.00 -0.2
UQSK 9.32 240 eP 19 36.00 -2.5
eS 21 08.00
AFIF 9.80 230 eP 20 14.60 29.4X
eS 21 38.00
KMSA 12.02 212 eP 20 14.60 -0.7
AYN 13.44 266 eP 20 34.60 0.5
QUE 13.49 88 eP 20 39.60 4.7X
MLR 24.68 314 ePc 22 46.50 4.2X
VAY 25.44 302 eP 22 50.40 1.1
OBN 26.52 341 eP 23 01.00 1.8
1.5s 28.00nm 4.6mb
OHR 26.68 301 iP 23 02.30 1.4
1.2s 80.00nm 5.2mb
HYB 28.08 112 eP 23 14.50 0.7
GKN 29.09 87 P 23 21.00 -2.0
KKN 29.70 87 P 23 28.20 -0.3
0.8s 24.00nm 5.0mb
PKI 29.86 87 P 23 29.50 -0.6
GUN 30.18 87 P 23 32.60 -0.4
0.8s 24.00nm 5.0mb
LJU 32.32 309 iP 23 52.00 0.9
KBA 33.38 310 iPc 24 00.90 0.3
0.8s 25.40nm 5.2mb
GEC2 33.67 313 P 24 02.70 -0.2
1.0s 1.73nm 3.9mb
BHG 33.86 311 iPc 24 04.60 0.1
WET 34.28 314 iPd 24 08.00 -0.1
WTTA 34.56 310 iPc 24 10.50 -0.2
0.9s 32.40nm 5.3mb
WATA 34.61 310 iPc 24 10.60 -0.5
SQTA 34.83 310 iPc 24 12.60 -0.4
0.5s 26.80nm 5.4mb
MOTA 34.93 310 iPc 24 13.10 -0.7
OSS 35.42 309 eP 24 18.70 0.6
LLS 36.23 309 iPc 24 24.70 -0.2
SLE 36.74 310 P 24 29.29 0.3
ZLA 36.76 309 P 24 30.02 0.9
DIX 37.17 307 P 24 33.20 0.2
LPG 37.55 306 eP 24 36.00 -0.1
0.6s 6.05nm 4.7mb
LPL 37.56 306 eP 24 36.10 -0.1
1.1s 27.35nm 5.0mb
CDF 37.68 311 eP 24 36.50 -0.4
0.9s 9.50nm 4.7mb
HFS 38.60 331 eP 24 43.70 -0.7
0.4s 1.80nm 4.2mb
LBF 39.65 308 eP 24 52.00 -1.4
1.0s 9.00nm 4.5mb
SMF 39.70 307 eP 24 53.50 -0.3
0.8s 14.65nm 4.8mb
LOR 39.76 308 eP 24 53.70 -0.6
SSF 39.97 308 eP 24 55.80 -0.2
1.1s 19.80nm 4.8mb
FLN 42.82 310 eP 25 18.80 -0.5
CHTO 44.53 94 eP 25 33.00 -0.6
KMI 45.45 84 Pd 25 41.00 0.0
1.5s 50.00nm 5.2mb
pP 25 51.00 34kmX
sP 25 53.50
JNE 51.46 339 eP 26 32.19 5.5X
JNW 51.51 339 eP 26 32.58 5.4X
KIC 57.75 257 P 27 13.91 0.6
1.1s 26.00nm 5.2mb
LIC 58.06 257 P 27 13.87 -1.6
0.9s 9.00nm 4.9mb
INK 81.20 2 eP 29 37.00 0.8
IMA 81.61 10 P 29 40.70 2.0
0.9s 2.71nm 4.3mb
YKA 86.41 354 eP 30 03.00 0.1
1.1s 2.60nm 4.4mb
WRA 94.23 111 P 30 40.80 0.7
0.8s 0.40nm 3.9mb
S.D. = 1.0 on 48 of 53 obs.

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* DEC 07, 1993 13h 25m 45.09± 1.66s
40.900 N ±10.3km 23.853 E ±13.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SRS 0.29 318 ePg 25 51.10 -0.1
eSg 25 56.34
SOH 0.39 258 iPg 25 52.82 -0.2
eSg 25 59.62
OUR 0.57 170 iPg 25 56.70 0.0
KNT 0.77 290 ePg 26 00.22 0.1
eSg 26 12.66
VAY 1.06 294 ePn 26 06.70 1.7X
GRG 1.10 273 ePg 26 06.02 0.2
S.D. = 0.3 on 5 of 6 obs.

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* DEC 07, 1993 13h 36m 16.95± 0.90s
42.524 N ± 9.2km 24.117 E ±10.4km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS 1.46 196 iPb 36 42.60 -0.7
eSb 37 04.12
KNT 1.64 214 ePb 36 45.24 -0.7
eSb 37 08.24
VAY 1.67 224 iPn 36 45.70 -0.6
SOH 1.79 199 ePb 36 48.32 0.1
iSb 37 14.82
SKO 2.06 255 iPn 36 53.50 1.4
ALN 2.17 138 iPn 36 54.64 1.0
eSn 37 25.48
MLR 3.25 23 ePd 37 08.50 -0.5
S.D. = 1.1 on 7 of 7 obs.

DEC 07, 1993 13h 59m 58.36± 0.93s
12.756 N ± 4.9km 143.050 E ±10.1km
DEPTH = 117.5 ± 10.8 km
5.1mb (12 obs.)
SOUTH OF MARIANA ISLANDS (210)

GUMO 1.95 65 Pn 00 31.40 -0.2
Pg 00 32.30
eS 00 55.50
PJG 1.95 65 Pn 00 31.50 -0.1
Pg 00 32.20
GUA 1.98 67 Pn 00 31.70 -0.2
Pg 00 32.50
CGP 18.54 258 ePd 04 25.80 17.1X
KAGJ 21.50 330 eP 04 39.90 0.9
WKYJ 22.42 344 P 04 49.10 1.1
KUMJ 22.65 332 eP 04 51.10 0.9
TKSJ 22.66 340 P 04 51.70 1.3
IIDJ 23.10 349 eP 04 54.40 -0.2
CHJJ 23.48 352 P 04 58.00 -0.2
KAKJ 23.49 354 eP 04 58.60 0.3
SHNJ 23.89 335 eP 05 01.50 -0.7
YONJ 23.96 340 P 05 03.20 0.3
NIIJ 24.65 352 P 05 07.90 -1.5

YAMJ 25.45 354 eP 05 16.00 -0.9
OFUJ 26.25 358 eP 05 26.50 2.3
MTN 28.05 205 eP 05 39.50 -1.2
QIS 33.28 186 iPd 06 26.50 -0.2
WB2 33.60 195 iPc 06 29.30 -0.2
0.4s 46.50nm 5.6mb X
BJI 36.03 324 eP 06 49.50 -0.4
1.5s 25.00nm 4.9mb
ASPA 37.29 194 iPd 07 00.90 0.2
0.4s 48.50nm 5.7mb X
KMI 39.91 294 Pd 07 24.50 1.7
1.6s 50.00nm 5.1mb
pP 07 32.00 25kmX
sP 07 38.00
MBL 40.70 214 iPd 07 29.10 0.2
0.3s 5.00nm 4.8mb
DZM 41.53 146 iPc 07 37.30 1.4
LZH 42.18 310 Pd 07 42.40 1.2
1.3s 66.00nm 5.2mb
pP 08 00.00 71kmX
NANU 44.27 218 iPd 07 58.80 0.8
0.8s 106.00nm 5.7mb
STK 44.40 182 iPd 07 58.20 -0.8
0.4s 14.90nm 5.1mb
MEEK 45.80 211 iPd 08 10.00 -0.1
YAK 50.12 352 eP 08 41.80 -1.3
1.0s 75.00nm 5.6mb
RKG 53.17 207 eP 09 07.00 0.6
0.4s 6.00nm 4.9mb
GUN 55.23 295 P 09 22.00 -0.1
PKI 55.63 295 P 09 24.00 -0.9
0.7s 36.00nm 5.5mb
KKN 55.76 295 P 09 25.20 -0.5
0.8s 49.00nm 5.5mb
GKN 56.34 295 P 09 29.10 -0.7
GBA 63.71 279 P 10 19.20 -0.8
0.5s 5.50nm 4.7mb
POO 66.55 285 eP 10 37.50 -0.8
PMR 68.36 28 eP 10 55.17 6.4X
0.6s 7.02nm 4.7mb
QUE 71.78 298 eP 11 10.50 0.1
INK 75.81 22 eP 11 40.00 7.3X
YKA 84.41 27 eP 12 16.70 -1.8
0.4s 0.70nm 3.9mb X
RES 85.76 13 eP 12 25.00 -0.1
pP 12 52.50 105kmX
KAF 90.73 335 iP 12 46.80 -2.1
MTD 113.89 257 iPKPd 18 11.20 -14.8X
BUL 117.02 254 iPKP 18 28.30 -3.6X
LKO 141.77 304 PKP 19 10.78 -8.0X
0.6s 1.50nm
KIC 142.78 299 PKP 19 15.91 -4.6X
0.7s 12.00nm
TIC 142.87 299 PKP 19 16.07 -4.6X
0.9s 10.00nm
LIC 143.10 299 PKP 19 16.53 -4.5X
0.5s 11.50nm
LPAZ 149.63 100 PKP 19 33.40 1.0
LPB 149.65 101 ePKP 19 40.00 7.9X
CNCB 149.74 101 PKP 19 34.20 1.7
MOCB 151.33 111 PKP 19 41.50 6.9X
S.D. = 1.0 on 41 of 52 obs.

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* DEC 07, 1993 14h 05m 44.98± 2.78s
46.568 N ±14.9km 15.046 E ±22.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.1 (VIE).

CEY 0.93 208 ePg 06 03.50 0.7
e(Sg) 06 19.60
VOY 0.96 237 ePg 06 02.80 -0.6
e(Sg) 06 18.50
VBY 1.07 172 ePg 06 04.80 -0.4
e 06 07.90
e(Sg) 06 17.20
i 06 21.30
KBA 1.28 294 iPgc 06 07.80 -1.0
iSg 06 25.80
WTTA 2.44 288 iPnc 06 26.90 1.2
e 07 17.00
KHC 2.75 339 ePn 06 45.00 15.0X
e 06 55.00
e 07 18.00
eSg 07 28.60
e 07 36.70
S.D. = 1.3 on 5 of 6 obs.

% DEC 07, 1993 14h 21m 58.19± 2.10s
45.231 N ± 7.0km 6.933 E ±18.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.6 (GEN).

RSP 0.24 109 P 22 03.31 -0.1
S 22 07.20
LSD 0.28 35 P 22 03.88 -0.2
S 22 08.34
BHB 0.45 149 P 22 07.39 -0.1
PZZ 0.74 171 P 22 12.80 0.1
S 22 22.20
ORX 0.84 61 P 22 14.80 0.3
S 22 25.14
S.D. = 0.3 on 5 of 5 obs.

DEC 07, 1993 14h 39m 31.92± 1.49s
5.249 N ± 7.3km 82.451 W ± 9.6km
DEPTH = 40.8 ± 13.4 km
4.5mb (10 obs.)
SOUTH OF PANAMA (83)
MD 4.5 (UPA).

DVD 3.17 0 iPd 40 19.20 -1.3
eS 41 00.99
BRU 3.54 358 iP 40 25.00 -1.2
eS 41 09.47
UPA 4.70 38 eP 40 42.76 0.4
eS 41 39.40
e 41 39.69
ECO 4.92 34 eP 40 45.74 0.3
eS 41 40.20
SDV 12.27 72 iPc 42 28.00 0.8
TOV 13.33 69 ePd 42 42.10 1.0
CANV 14.66 66 iP 42 59.20 0.7
NNA 18.01 162 eP 43 39.80 -1.2
0.8s 18.66nm 4.3mb
ARE 24.14 154 eP 44 47.00 1.3
LPAZ 25.66 147 eP 44 59.19 -1.4
0.6s 7.46nm 4.4mb
LPB 25.88 147 P 45 06.80 4.4X
CNCB 26.17 147 P 45 07.00 1.8
SIV 29.88 135 P 45 30.50 -7.8X
CEH 30.65 5 (P) 45 44.27 -0.5
MOCB 31.07 148 P 45 48.20 -1.0
ELC 32.48 350 eP 45 59.39 -1.4
ACO 34.84 336 iPc 46 20.70 -0.6
ALQ 36.95 326 eP 46 40.30 1.0
1.1s 11.31nm 4.7mb
TUC 37.76 319 eP 46 47.79 1.8
1.0s 6.26nm 4.5mb
GAC 40.75 7 eP 47 14.00 3.5X
PV08 40.81 328 (P) 47 11.31 -0.3
PV10 40.88 327 eP 47 11.31 -0.7
GLA 40.91 317 eP 47 12.00 -0.2
SRU 42.21 327 eP 47 22.53 -0.3
PLM 42.49 316 eP 47 26.05 0.8
MSU 42.71 325 eP 47 27.60 0.6
EMUT 42.87 327 eP 47 29.15 0.8
ARUT 42.96 323 eP 47 29.69 0.7
RSSD 43.11 337 eP 47 31.58 1.3
1.3s 14.31nm 4.5mb
GSC 43.55 318 eP 47 34.30 0.5
BONR 46.07 320 eP 47 54.83 0.7
ULM 46.25 348 eP 47 56.50 1.5
JAQ 48.71 5 eP 48 13.00 -1.2
ORV 49.04 320 eP 48 17.55 0.6
FRB 59.25 7 eP 49 29.50 -1.8
1.0s 7.00nm 4.7mb
YKA 61.84 344 eP 49 46.40 -2.6
1.0s 4.20nm 4.5mb
RES 69.75 356 eP 50 39.00 -0.4
1.0s 3.00nm 4.3mb
INK 71.52 342 eP 50 51.50 1.3
1.0s 3.00nm 4.2mb
MBC 73.81 351 eP 51 05.00 1.4
1.0s 6.00nm 4.5mb
GKN 144.67 20 PKP 59 05.50 -1.3
KKN 145.08 19 PKP 59 06.60 -1.0
0.7s 15.00nm
GUN 145.16 18 PKP 59 07.90 0.0
PKI 145.33 19 PKP 59 07.50 -0.7
S.D. = 1.2 on 40 of 43 obs.

DEC 07, 1993 15h 18m 52.96± 0.67s
45.979 N ± 6.2km 14.238 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.7 (LJU), 2.2 (TRI).

LJU 0.22 73 ePg 18 56.70 -0.9
VOY 0.25 282 iPgc 18 58.30 0.0
eSg 19 02.70
CEY 0.27 151 ePg 18 59.40 0.7
eSg 19 03.80
TRI 0.43 231 e(Pg) 19 01.10 -0.6
iSg 19 09.00
RIY 0.64 171 iPg 19 05.50 -0.3
iSg 19 16.50
VBY 0.86 123 e(Pg) 19 10.00 0.5
eSg 19 22.10
KBA 1.26 331 iPgc 19 17.10 0.6
iSg 19 35.00
S.D. = 0.8 on 7 of 7 obs.

& DEC 07, 1993 16h 12m 41.72s
60.210 N 140.948 W
DEPTH = 10.0km (geophysicist)
SOUTHEASTERN ALASKA (19)
<PGC-P>. ML 2.6 (PGC), 2.6
(AEIC).

CHX 0.17 210 iP 12 45.36 -0.3
eS 12 49.31
PCA 0.36 108 eP 12 49.18 -0.1
eS 12 55.32
YAH 0.43 292 eP 12 50.23 -0.3
eS 12 57.50
BCPM 0.71 111 eP 12 54.52 -1.1
eS 13 04.74
CYK 0.78 261 eP 12 57.06 0.2
eS 13 08.54
CTGM 0.78 346 eP 12 55.50 -1.5
eS 13 07.13
SNH 0.94 269 eP 12 59.15 -0.6
PNL 0.95 124 eP 12 58.04 -1.8
WAX 0.98 285 iP 12 59.45 -0.9
eS 13 14.25
BALM 1.08 321 eP 13 00.31 -1.8
eS 13 15.72
TGL 1.08 301 eP 13 00.55 -1.6
HMT 1.66 276 eP 13 10.06 -0.9
KAIM 1.76 262 eP 13 11.71 -0.7
HYT 1.81 69 Pn 13 13.10 -0.2
RAGM 1.86 277 eP 13 12.94 -1.1
GLB 1.87 313 eP 13 12.69 -1.4
CVA 2.41 280 eP 13 20.93 -0.8
KLU 2.75 300 eP 13 25.49 -1.3
VLZ 2.81 292 eP 13 27.13 -0.3
SLKM 4.62 278 (P) 13 54.48 1.3
20 obs. associated

DEC 07, 1993 16h 27m 25.57± 0.15s
0.730 N ± 3.0km 122.702 E ± 3.5km
DEPTH = 77.9km (33 depth phases)
5.6mb (67 obs.)
MINAHASSA PENINSULA, SULAWESI (265)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 45S, 87C
Centroid Location:
Origin Time 16:27:29.6 0.2
Lat 0.92N 0.02 Lon 122.72E 0.02
Dep 74.4 2.0 Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr=-1.53 0.05 Mtt= 1.40 0.07
Mff= 0.13 0.11 Mrt=-1.24 0.06
Mrf= 2.13 0.06 Mtf=-1.10 0.06
Principal Axes:
T Val= 3.12 Plg=27 Azm=220
N -0.09 18 319
P -3.03 57 79
Best Double Couple:Mo=3.1*10**17
NP1:Strike=274 Dip=24 Slip=-138
NP2: 144 74 -71

TSM 5.98 306 iPc 28 52.30 -1.2
iS 29 44.00
CTB 6.60 13 iPc 28 58.00 -4.0X
eS 30 12.00
DAV 6.93 24 iPc 29 08.90 2.3

07d 16h

1.3s 2923.08nm 6.7mb X
CGP 7.93 14 ePd 29 37.50 17.2X
eS 30 15.00
KKM 8.35 309 iPc 29 31.00 4.8X
iS 30 51.00
MAP 9.61 8 ePc 29 44.00 0.6
PLP 10.61 12 ePd 29 57.50 0.6
KHKI 11.47 218 ePc 30 08.60 0.2
e 36 54.40
PGP 12.81 352 ePc 30 30.00 3.9X
TGY 13.40 353 ePd 30 29.50 -4.5X
TPI 15.44 257 ePc 31 03.50 3.3X
e 38 00.00
BAG 15.72 352 ePc 31 07.00 3.0X
eS 34 04.00
MTN 15.87 148 eP 31 05.00 -0.7
0.3s 142.00nm 5.6mb
LEM 16.82 243 ePc 31 19.00 1.2
1.0s 320.00nm 5.5mb
eS 34 28.00
eLR 37 11.00
CVP 16.89 357 ePd 31 24.00 5.5X
KNA 17.44 160 eP 31 26.20 0.9
KGM 19.42 274 ePc 31 48.10 -0.4
0.9s 506.90nm 5.8mb
i . 32 04.50 79km
KLM 21.18 277 ePc 32 07.40 0.9
WWKK 21.35 102 eP 32 10.40 2.0
MBL 21.94 187 iPc 32 12.90 -1.2
0.9s 217.00nm 5.6mb
IPM 21.98 280 ePc 32 15.10 0.5
0.7s 213.90nm 5.7mb
e 32 28.50 57kmX
MNDI 22.01 108 eP 32 18.00 2.9X
QIZ 22.13 326 eP 32 14.30 -1.7
E 13s 2.87um
SNG 22.93 287 eP 32 26.00 2.1
1.0s 660.00nm 6.0mb
eS 36 13.60
HKC 22.99 339 iP 32 27.80 3.4X
S 36 34.00
WB5 23.46 151 iPd 32 29.00 0.0
iS 36 33.10
eSKKP 03 11.40
WRA 23.50 152 P 32 29.79 0.4
0.8s 31.90nm 4.8mb
MDG 23.80 105 eP 32 34.00 1.7
GZH 24.01 338 Pd 32 36.00 1.7
1.4s 210.00nm 5.4mb
E 10s 1.01um
sP 32 58.20
NANU 24.18 196 iPc 32 35.00 -0.9
0.3s 35.00nm 5.3mb
LAT 25.34 107 ePd 32 48.50 1.5
GUMO 25.39 59 eP 32 47.00 -0.5
PJG 25.39 59 eP 32 47.40 -0.1
GUA 25.41 59 eP 32 46.50 -1.2
NNT 25.64 298 eP 32 49.70 -0.1
PMG 26.35 113 iPd 32 56.80 0.4
LOE 26.46 310 iPd 32 57.00 -0.3
i 39 53.00
ASPA 26.58 157 iPd 32 57.90 -0.5
0.8s 35.10nm 4.9mb
ipP 33 22.10 112kmX
iS 37 25.20
NST 26.77 305 eP 33 01.50 1.4
QIS 26.86 143 iPd 33 00.90 0.0
epP 33 28.00 127kmX
WARB 27.03 172 eP 33 01.50 -0.9
MEEK 27.49 188 iPc 33 04.40 -2.3
KHT 27.62 302 eP 33 08.30 0.4
BDT 28.52 306 iPc 33 17.00 1.1
1.2s 173.80nm 5.6mb
CHTO 29.43 309 iPd 33 24.50 0.3
1.0s 147.00nm 5.6mb
eS 38 15.90
RAB 29.84 100 iPd 33 29.00 1.1
GYA 29.88 330 iPc 33 29.60 1.4
1.0s 60.00nm 5.3mb
Z 20s 1.03um 4.5Msz
sP 33 53.00
S 38 22.00
SSE 30.23 357 Pd 33 32.00 0.9
1.5s 180.00nm 5.6mb
Z 20s 0.55um 4.2Msz
N 12s 0.48um
E 14s 1.04um
sP 33 58.00
S 38 20.00
WHN 30.69 346 P 33 36.00 0.9
Z 22s 1.93um 4.7Msz
S 38 38.00
KMI 30.98 323 Pc 33 40.00 1.9
2.0s 130.00nm 5.3mb
Z 20s 1.90um 4.8Msz
pP 33 55.50 64kmX
sP 34 03.50
KAGJ 31.27 14 eP 33 39.20 -1.0
FORT 31.75 171 eP 33 42.80 -1.6
KUMJ 32.55 13 P 33 50.60 -0.8
TKSJ 34.75 17 P 34 10.20 -0.1
CD2 34.98 331 P 34 12.40 0.0
1.0s 100.00nm 5.7mb
pP 34 35.50 101kmX
sP 34 42.50
iS 39 39.00
ScS 44 20.10
WKYJ 35.43 19 P 34 16.20 -0.1
XAN 35.56 340 iPd 34 18.00 0.7
1.4s 120.00nm 5.6mb
Z 20s 1.21um 4.7Msz
N 10s 0.86um
E 10s 1.08um
sP 34 44.00
S 39 42.00
sS 40 21.00
TIA 35.68 352 Pd 34 18.90 0.7
1.7s 400.00nm 6.1mb
Z 26s 0.86um 4.4MszX
sP 34 47.50
eS 39 50.00
sS 40 21.00
YONJ 35.72 15 P 34 18.40 -0.2
TSRJ 36.77 18 P 34 27.10 -0.3
STK 37.04 153 iPd 34 29.30 -0.4
0.9s 26.70nm 5.2mb
epP 34 48.10 77km
ePP 36 14.70
iS 40 06.80
IIDJ 37.36 21 P 34 32.00 -0.4
TIY 38.00 347 iPd 34 39.00 1.2
1.2s 160.00nm 5.8mb
Z 14s 1.31um 4.9MszX
sP 35 12.00
S 40 19.00
sS 40 58.00
ScS 44 40.00
DL2 38.00 359 P 34 38.00 0.3
1.0s 100.00nm 5.7mb
Z 30s 0.78um 4.3MszX
sP 35 04.00
S 40 22.00
sS 40 54.00
CHJJ 38.26 22 P 34 39.00 -0.9
MTMJ 38.32 20 P 34 40.30 -0.3
ADE 38.54 159 eP 34 43.00 0.6
KAKJ 38.84 23 P 34 43.00 -1.8
LZH 39.29 336 Pd 34 50.00 1.2
1.5s 170.00nm 5.7mb
Z 20s 0.99um 4.6Msz
pP 35 12.50 96kmX
PP 36 24.50
ScP 40 34.00
eS 40 44.00
PcS 40 45.00
sS 41 20.00
ScS 44 46.00
NIIJ 39.33 21 P 34 47.40 -1.4
BJI 39.57 352 Pd 34 51.50 0.7
1.2s 120.00nm 5.7mb
Z 20s 0.60um 4.4Msz
E 18s 0.78um
esP 35 16.00
ePP 36 28.00
eS 40 48.00
eSS 43 38.00
eScS 44 49.00
YAMJ 40.53 21 P 34 59.30 0.6
SNY 40.92 1 Pd 35 01.00 -0.7
1.8s 200.00nm 5.7mb
Z 32s 1.54um 4.7MszX
sP 35 26.00
eS 41 03.00
HHC 41.19 347 Pd 35 05.60 1.4
1.4s 170.00nm 5.7mb
Z 31s 1.60um 4.7MszX
N 12s 0.23um
E 11s 0.25um
pP 35 21.00 60kmX
S 41 17.00
sS 41 42.00
BTO 41.32 345 iPc 35 06.00 0.7
E 11s 0.29um
sP 35 32.00
ePP 36 52.00
S 41 15.00
eSS 44 20.00
ARMA 41.44 141 eP 35 07.50 1.1
0.6s 24.00nm 5.2mb
LSA 41.62 317 iPd 35 10.60 2.3
1.2s 57.00nm 5.3mb
sP 35 32.00
S 41 16.00
OFUJ 41.93 22 P 35 11.00 0.9
AOMJ 42.77 20 P 35 18.40 1.4
CN2 42.95 3 Pc 35 17.60 -0.8
1.0s 14.00nm 4.7mb
Z 16s 0.59um 4.6MszX
N 10s 0.40um
E 10s 0.20um
epP 35 36.00 75km
esP 35 47.00
ePcP 37 07.00
eScP 40 48.00
eS 41 40.00
eSS 44 48.00
ScS 45 09.00
VLA 43.00 10 iPc 35 14.00 -4.8X
1.8s 103.00nm 5.4mb
i 35 41.00 118kmX
i 37 31.00
CAN 43.47 148 iPd 35 23.90 1.1
ipP 35 48.40 105kmX
i 35 52.60
RIV 43.55 145 eP 35 30.00 6.6X
CNB 43.65 148 iPd 35 26.40 2.1
0.5s 15.00nm 5.1mb
ipP 35 53.00 115kmX
GTA 43.81 334 iPd 35 27.00 1.4
1.5s 150.00nm 5.6mb
Z 16s 0.86um 4.8MszX
E 10s 0.30um
pP 35 45.00 73km
sP 35 54.00
ScP 40 57.00
eS 41 50.00
sS 42 22.00
ScS 45 13.00
MDJ 44.12 7 eP 35 27.90 0.0
1.5s 150.00nm 5.6mb
sP 35 54.00
eS 42 00.00
GUN 44.42 311 P 35 31.70 0.7
PKI 44.60 310 P 35 32.80 0.3
MRRJ 44.67 19 P 35 32.90 0.6
KKN 44.81 310 P 35 34.80 0.8
DMN 44.85 310 P 35 35.40 1.0
HOOJ 45.41 21 P 35 39.50 1.4
GKN 45.41 310 P 35 38.80 0.2
KOD 45.95 283 iPc 35 43.80 0.6
0.8s 208.96nm 6.1mb
HYB 46.47 293 eP 35 47.50 0.5
1.0s 185.00nm 6.0mb
e 36 07.00 79km
eS 42 28.00
KUSJ 46.55 22 iPd 35 47.70 0.5
GBA 46.59 288 Pc 35 48.20 0.3
0.7s 999.90nm 6.8mb X
ASAJ 46.70 20 iPd 35 48.90 0.5
DZM 48.29 121 iPc 36 01.30 0.0
BKM 48.40 114 iPd 36 03.20 1.1
YSS 49.30 18 iPd- 36 07.80 -0.7
1.2s 90.00nm 5.7mb
Z 16s 0.20um 4.2MszX
E 16s 0.30um
epP 36 27.00 77km
e 36 34.00
e 45 55.00
POO 51.08 293 iP 36 23.00 0.4
1.0s 90.00nm 5.8mb
NDI 51.54 307 iPd 36 24.50 -1.4

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        0.5s    28.17nm          5.6mb
BOM     52.12 293 iPc   36 29.40  -0.9
                  iS    43 46.40
WMQ     53.02 329 iPd   36 36.50  -0.3
        1.2s    36.00nm          5.3mb
      Z  28s    0.62um         4.5MszX
                  pP    36 59.00  92kmX
                  S     44 02.00
                  ScS   46 11.50
IRK     53.63 346 ePd-  36 40.00  -1.0
        1.6s   108.00nm          5.6mb
      Z  16s    0.51um         4.7MszX
      N  16s    0.29um
      E  18s    0.18um
                  e     37 00.00  80km
                  e     37 07.00
                  e     37 32.00
                  eS    44 10.00
                  e     44 40.00
                  e     46 20.00
                  e     49 00.00
UER     56.10 339 iP    36 58.00  -0.9
                  eS    44 43.00
                  e     44 58.00
NIL     56.69 311 iPd   37 05.80   2.3
        0.5s    0.05nm         2.9mb X
                  iPP   37 25.90
                  iS    44 52.10
BOD     57.35 355 iPd   37 06.90  -0.8
KSH     57.40 318 P     37 10.00   1.4
        1.0s    58.00nm          5.7mb
      Z  20s    0.74um          4.8Msz
                  pP    37 30.00  79km
                  sP    37 40.00
                  PcP   38 01.00
                  PP    39 21.00
                  ScP   41 53.00
                  PcS   42 00.00
                  S     45 03.00
                  sS    45 36.00
                  ScS   46 49.00
                  SS    48 57.00
VUN     57.89 112 eP    37 12.60   0.4
PET     60.06  24 eP    37 26.50   0.0
        1.5s   360.00nm          6.3mb
                  e     37 55.00 117kmX
                  e     45 40.00
                  e     46 04.00
QUE     60.42 305 eP    37 29.50  -0.2
                  e     37 34.00  15kmX
                  e     37 50.50
                  eS    45 39.50
YAK     61.36   4 iPd-  37 33.40  -1.9
        1.5s   210.00nm          6.0mb
      Z  20s    0.60um          4.7Msz
                  epP   38 03.00 122kmX
                  ePcP  38 14.00
                  ePP   39 42.00
                  eS    45 48.00
                  esS   46 23.00
                  eScS  47 16.00
AFI     66.46 105 eP    38 11.00   1.5
CSY     67.44 185 eP    38 03.80 -10.8X
        0.7s    28.90nm
                  e     38 20.60  62kmX
MAIO    68.19 309 iPd   38 19.40  -0.7
        0.9s    19.18nm          5.0mb
                  i     38 41.00  83km
                  eS    47 16.00
TIK     70.90   2 iPc   38 34.00  -1.8
        1.4s   147.00nm          5.7mb
      Z  16s    0.40um         4.8MszX
                  i     38 52.00
                  ipP   39 02.00 111kmX
                  e     41 10.00
                  iS    47 41.00
                  eSP   48 14.00
SHI     72.46 301 eP    38 45.00  -1.2
SVE     74.44 330 iPd   38 56.50  -0.4
        1.1s    80.00nm          5.6mb
                  e     39 17.00  77km
ARU     75.32 329 ePd   39 01.00  -1.0
        1.5s   130.00nm          5.6mb
                  e     39 20.00  70km
                  e     41 50.00
                  eS    49 00.00
KER     77.71 305 eP    39 14.00  -1.9
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TAB     78.83 309 eP    39 22.00  -0.1
                  e     39 42.00  74km
MAW     79.58 200 iPd   39 24.10  -1.2
        1.2s    38.55nm          5.2mb
                  ipP   39 49.20  96kmX
                  iS    49 17.60
MTA     80.48 312 eP    39 31.00   0.4
        1.0s    30.00nm          5.2mb
                  i     39 52.00  78km
                  eS    49 32.40
                  ePS   50 07.00
ANM     81.64  25 (P)   39 35.07  -1.1
                  e     39 58.27  87km
SDN     81.90  34 eP    39 36.65  -1.0
        1.2s   320.17nm          6.1mb
                  epP   39 57.63  78km
SBA     81.96 171 eP    39 39.00   1.4
PYA     82.04 314 iPc   39 38.00  -0.8
                  i     39 59.50  80km
KIV     82.30 314 (P)   39 41.60   1.4
                  e     40 00.90  70km
SOC     84.41 314 eP    39 46.00  -4.8X
                  e     40 10.00  90kmX
SVW     85.33  29 eP    39 55.32   0.2
        0.8s    16.16nm          5.1mb
                  e     40 16.71  79km
TTA     85.38  27 eP    39 54.60  -0.8
        1.8s   101.80nm          5.5mb
                  e     40 16.12  79km
NAI     85.92 269 ePd   39 57.00  -2.2
GAZ     85.96 307 eP    39 59.60   0.9
ANN     86.22 315 eP    39 59.00  -0.8
        0.9s    38.00nm          5.4mb
                  i     40 20.00  77km
BRW     86.28  19 (P)   40 00.44   0.9
                  epP   40 21.02  75km
KDC     86.60  32 (P)   39 59.20  -2.1
        1.1s    35.79nm          5.4mb
                  epP   40 22.10  85km
MOS     86.62 326 eP    40 02.00   0.5
                  e     40 20.00  64kmX
IMA     86.74  24 eP    40 00.49  -1.6
        1.3s    18.63nm          5.0mb
                  e     40 22.61  81km
CP2     86.98  29 eP    40 02.45  -1.0
                  epP   40 22.99  75km
CRP     87.02  29 eP    40 01.52  -2.0
                  epP   40 23.27  80km
BHL     87.14 304 P     40 08.00   3.4X
OBN     87.17 325 iPd   40 03.60  -0.5
        1.2s    66.00nm          5.6mb
                  i     40 25.00  78km
                  i     40 35.70
SLKM    87.92  30 eP    40 05.95  -1.8
                  epP   40 26.92  76km
PAE     88.04 108 iPd   40 12.20   3.2X
        1.2s   121.40nm          5.9mb
PWA     88.13  28 eP    40 07.20  -1.4
SYO     88.23 201 ePc   40 09.90   0.9
                  eSKS  50 28.00
                  eS    50 44.00
TVO     88.36 108 iPd   40 14.00   3.3X
        1.4s   470.50nm          6.5mb
PMR     88.49  29 eP    40 08.92  -1.4
                  epP   40 31.86  84km
FBA     89.13  25 eP    40 11.57  -1.8
        0.9s     8.82nm          5.0mb
PMO     89.61 105 iPd   40 19.70   3.2X
        1.4s   697.00nm        6.7mb X
VAH     89.87 105 iPd   40 21.00   3.3X
        1.3s   339.40nm          6.4mb
TPT     89.88 105 iPd   40 20.90   3.2X
        1.4s   585.50nm        6.6mb X
KLU     90.02  29 eP    40 17.31  -0.4
                  epP   40 38.03  75km
RUV     90.11 105 iPd   40 22.10   3.3X
        1.3s   322.00nm          6.4mb
SPA     90.72 180 iPc   40 20.50  -0.4
        1.3s    58.33nm          5.7mb
MTD     91.28 253 iP    40 07.20 -17.1X
BALM    91.77  29 eP    40 24.89  -0.9
                  epP   40 45.97  76km
KAF     92.36 332 iP    40 26.70  -1.6
        0.9s    14.80nm          5.4mb
MNK     92.45 324 eP    40 27.00  -1.9
NUR     93.34 331 eP    40 42.50   9.7X
VRI     93.65 316 ePc   40 34.50  -0.1
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                  e     43 42.00
BUL     94.09 250 iP    40 28.70  -8.6X
MLR     94.23 316 eP    40 34.00  -3.5X
                  e     44 06.00
SLR     94.30 244 iPd   40 36.40  -1.8
        1.2s    31.25nm          5.6mb
INK     94.40  21 eP    40 37.50  -0.1
        1.3s    17.00nm          5.3mb
                  pP    41 06.00 107kmX
LSZ     94.55 255 iPd   40 37.00  -2.4
        1.0s     1.80nm        4.5mb X
                  i     41 05.00 105kmX
                  i     44 23.00
                  i     44 41.00
MBC     95.73  12 Pc    40 42.50  -1.1
                  PcP   40 44.30
                  PP    44 39.70
BLF     96.05 241 eP    40 37.50  -8.7X
UZH     96.33 319 ePc   40 47.50   0.7
                  i     41 08.80  77km
FRS     96.77 240 eP    40 43.50  -5.7X
VAY     97.13 312 eP    41 09.30  18.7X
OJC     97.69 321 eP    40 52.20  -0.7
                  e     41 14.00  79km
OHR     98.48 312 eP    41 15.00  18.2X
HFS     98.74 331 eP    40 55.60  -1.9
        0.4s     0.80nm          4.6mb
NB2     99.63 333 P     41 20.60  19.0X
        0.9s     6.80nm
DAG     99.66 352 iPd   41 00.20  -1.2
        0.8s    19.40nm          5.8mb
                  ipP   41 21.90  79km
ZST     99.82 319 eP    41 22.10  19.5X
                  e     45 23.90
YKA    103.86  24 ePdiff41 20.20  -0.1
        1.5s     2.90nm          5.0mb
PEC    114.24  52 ePKP  45 58.22  -0.2
HVU    114.55  43 ePKP  45 58.42  -0.5
                  epP'df46 19.40
DUG    115.18  44 ePKP  46 00.40   0.2
                  epP'df46 21.44
ARUT   115.70  47 ePKP  46 01.53   0.3
MSU    116.33  46 ePKP  46 02.83   0.3
                  epP'df46 23.91
EMUT   116.73  44 ePKP  46 03.06  -0.2
                  epP'df46 24.63
PV09   118.49  45 ePKP  46 07.07   0.4
                  epP'df46 28.21
PV10   118.61  45 ePKP  46 06.94   0.1
                  epP'df46 28.52
PV08   118.79  44 ePKP  46 07.57   0.2
                  epP'df46 28.61
RSSD   119.00  37 ePKP  46 06.06  -1.3
                  epP'df46 27.45
ULM    119.48  27 ePKP  46 09.50   1.7
TUC    119.81  52 ePKP  46 10.75   1.7
                  epP'df46 31.02
GOL    120.49  42 ePKP  46 10.45   0.0
                  epP'df46 29.91
ALQ    122.00  47 ePKP  46 13.87   0.5
                  epP'df46 34.90
JAQ    123.54  13 ePKP  46 14.00  -1.4
                  pP    46 35.50
ACO    126.24  42 iPKPd 46 21.30   0.0
LTX    126.60  52 ePKP  46 20.86  -1.5
                  epP'df46 42.75
KIC    127.07 278 PKP   46 22.95  -0.5
        1.0s    27.00nm
TIC    127.32 279 PKP   46 23.21  -0.8
        0.9s    13.00nm
LIC    127.37 278 PKP   46 24.23   0.2
        0.8s    11.50nm
      Z  22s    0.55um          5.2Msz
LKO    127.52 283 PKP   46 23.86  -0.5
        0.5s     2.50nm
MEO    127.68  43 iPKPd 46 24.10   0.0
TUL    128.90  40 iPKPc 46 26.80   0.5
UYO    130.82  41 iPKPc 46 29.50  -0.5
MIAR   131.17  40 ePKP  46 30.03  -0.6
                  epP'df46 52.25
                  iSKP  49 47.34
                  i     50 24.67
CBM    131.59  10 ePKP  46 28.91  -2.2X
ELC    132.01  35 ePKP  46 32.66   0.5
LMN    133.14   7 ePKP  46 34.50   0.4
MYNC   136.44  32 ePKP  46 40.60  -0.1
                  epP'df47 01.64
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RFA 144.56 164 iPKPd 46 54.40 -0.9
PEL 145.39 160 iPKPd 46 57.50 0.8
TCA 148.78 168 e(PKP)47 04.00 1.7
CYA 151.27 164 ePKPd 47 09.40 3.3X
SLA 154.86 162 e(PKP)47 15.00 3.7X
VAO 155.69 204 ePKP 47 18.20 5.8X
YJA 157.24 160 iPKPc 47 16.50 1.6
MOCB 158.04 159 PKP 47 16.70 0.8
CNCB 160.87 147 PKP 47 21.70 2.5X
LPB 161.03 146 PKPc 47 21.40 2.3X
1.1s 220.25nm
i 47 43.00
PP 47 59.50
SKS 54 48.80
SS 12 03.60
LR 45 41.00
LPAZ 161.21 146 PKP 47 21.40 1.8
BDF 162.50 212 ePKPd 47 22.00 1.7
i 48 08.70
i 48 33.00
i 48 36.10
i 48 45.50
BAO 162.57 211 ePKP 47 21.00 0.7
i 47 41.70
i 48 08.50
i 48 14.[illegible]
i 48 46.[illegible]
SDV 163.64 54 iPKPc 47 21.90 0.3
SIV 164.39 166 PKP 47 21.90 -0.1
S.D. = 1.1 on 187 of 224 obs.

DEC 07, 1993 16h 43m 52.94± 0.82s
39.296 N ±10.1km 26.108 E ± 6.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.2 (ISK).

IZM 1.27 134 ePn 44 16.30 -0.3
eSg 44 36.30
ALN 1.60 358 eP 44 22.18 0.9
eS 44 43.02
EDC 1.71 52 ePn 44 22.00 -1.0
BNT 1.75 52 ePn 44 23.00 -0.5
OUR 1.94 303 eP 44 26.10 -0.1
DST 1.98 80 ePn 44 28.10 1.3
PAIG 1.98 289 eP 44 27.46 0.6
SRS 2.65 314 eP 44 28.06 -8.4X
KNT 3.08 308 eP 44 41.66 -0.9
S.D. = 1.0 on 8 of 9 obs.

? DEC 07, 1993 17h 13m 04.47± 5.39s
34.039 S ±20.2km 72.281 W ±37.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.5 (SAN).

LNV 0.73 84 iP+ 13 19.11 0.4
iS 13 27.71
LCCH 0.82 47 iP+ 13 20.67 0.4
iS 13 30.07
TACH 1.18 71 eP 13 25.91 -0.6
iS 13 40.42
CACH 1.40 94 iPd 13 30.19 0.1
iS 13 48.95
ROCH 1.50 45 eP 13 31.24 -0.4
eS 13 51.88
PCH 1.53 75 eP 13 31.70 -0.2
iS 13 50.93
PEL 1.60 57 eP 13 33.38 0.4
iS 13 53.42
FCH 1.80 67 iP+ 13 36.26 0.1
S.D. = 0.5 on 8 of 8 obs.

? DEC 07, 1993 17h 15m 18.54± 7.26s
34.018 S ±31.1km 72.182 W ±46.6km
DEPTH = 11.0 ± 5.2 km
NEAR COAST OF CENTRAL CHILE (135)
MD 3.7 (SAN).

LNV 0.64 85 iP+ 15 31.89 0.6
iS 15 40.47
LCCH 0.74 43 iP+ 15 33.46 0.4
iS 15 42.86
TACH 1.10 71 eP 15 38.52 -0.6
CACH 1.32 95 iP+ 15 42.78 -0.1
iS 16 01.75
ROCH 1.43 43 iP+ 15 44.24 -0.4
iS 16 04.75
PCH 1.44 75 iP+ 15 44.72 0.0
iS 16 02.73
PEL 1.52 55 iP 15 45.77 0.0
iS 16 06.37
FCH 1.72 67 iP+ 15 49.01 0.1
JACH 1.88 45 eP 15 51.31 0.3
S.D. = 0.5 on 9 of 9 obs.

DEC 07, 1993 17h 29m 12.45± 1.26s
7.201 N ± 6.0km 126.678 E ± 9.0km
DEPTH = 84.0 ± 12.4 km
4.6mb (8 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV 1.10 264 iP+ 29 32.80 -0.4
TSM 9.22 252 eP 31 27.00 2.2
MTN 20.40 167 eP 33 44.00 -1.0
KNA 22.90 175 eP 34 10.80 1.0
LOE 26.37 295 eP 34 42.00 -0.7
TKSJ 27.51 13 P 34 52.30 -0.7
WKYJ 28.12 16 P 34 58.00 -0.5
YONJ 28.54 12 P 35 01.30 -1.0
KMI 29.00 311 Pd 35 07.00 0.2
1.0s 40.00nm 5.0mb
pP 35 15.00 28kmX
sP 35 20.00
QIS 30.37 156 iPd 35 18.10 -0.6
ASPA 31.48 167 iPd 35 27.60 -0.9
0.3s 9.10nm 5.0mb
Z 21s 0.80um 4.4Msz
YAMJ 33.12 19 P 35 41.80 -0.8
WARB 33.18 180 eP 35 43.80 0.6
BJI 34.03 346 eP 35 48.00 -2.3
OFUJ 34.49 21 P 35 53.80 -0.6
LZH 35.54 327 eP 36 02.50 -1.0
MRRJ 37.32 18 P 36 18.90 0.8
HOOJ 37.99 20 P 36 25.40 1.6
KUSJ 39.12 21 P 36 34.10 0.9
ASAJ 39.33 18 P 36 35.80 0.8
STK 41.39 161 eP 36 50.80 -1.2
0.4s 5.00nm 4.7mb
GUN 43.72 303 P 37 12.00 0.4
KKN 44.18 303 P 37 14.50 -0.6
GBA 48.78 282 P 37 51.50 0.3
0.6s 3.00nm 4.4mb
QUE 60.30 301 eP 39 14.50 -0.6
IMA 79.25 24 eP 41 11.69 1.8
0.8s 6.55nm 4.6mb
CRP 79.48 29 (P) 41 12.24 1.0
FBA 81.63 25 (P) 41 22.70 0.4
0.7s 5.23nm 4.5mb
INK 86.97 22 eP 41 49.50 0.4
KAF 88.52 332 iP 41 55.60 -1.0
MBC 88.60 13 eP 41 59.00 2.2
NUR 89.66 331 eP 42 13.20 11.2X
YKA 96.38 24 eP 42 32.60 -0.3
0.8s 1.40nm 4.5mb
GEC2 99.34 322 P 42 46.80 0.0
0.6s 0.58nm 4.4mb
S.D. = 1.1 on 33 of 34 obs.

DEC 07, 1993 17h 53m 35.39± 0.25s
20.835 S ± 7.5km 178.943 W ± 6.1km
DEPTH = 617.8km (2 depth phases)
4.8mb (26 obs.)
FIJI ISLANDS REGION (181)

SVA 3.65 317 eP 55 00.10 -0.1
MBU 4.43 330 iPd 55 07.10 1.5
AFI 9.70 46 eP 55 51.00 -1.0
DZM 13.66 262 iPc 56 32.10 1.8
MRW 21.04 193 P 57 37.00 -2.2
S 00 51.00
ARMA 28.13 244 iPc 58 42.30 0.3
0.7s 24.00nm 4.9mb
CNB 31.31 236 iPd 59 09.80 0.9
0.8s 69.00nm 5.3mb
CAN 31.59 236 eP 59 11.80 0.6
STK 36.85 244 iPc 59 55.10 0.3
1.2s 22.40nm 4.6mb
eS 04 56.30
QIS 38.70 263 eP 00 10.00 0.1
ASPA 43.59 257 iPd 00 48.50 -0.1
0.8s 84.80nm 5.3mb
iS 06 33.50
iScS 09 41.00
WRA 43.68 263 P 00 49.20 -0.2
0.6s 18.80nm 4.8mb
MHA 46.59 30 eP 01 10.52 -0.9
MTN 48.29 271 eP 01 23.00 -1.4
FORT 48.35 247 eP 01 23.60 -1.1
WARB 49.89 253 iPc 01 35.40 -0.7
0.3s 16.00nm 5.0mb
MBL 56.83 258 eP 02 24.00 -1.1
0.3s 12.00nm 4.6mb
MEEK 56.97 251 eP 02 24.60 -1.5
SBA 57.48 184 iPc 02 29.80 1.0
NANU 60.46 255 iPc 02 48.90 -0.4
0.3s 6.00nm 4.3mb
CSY 63.29 205 iPd 02 55.60 -11.2X
1.2s 42.90nm
SPA 69.29 180 iPc 03 43.00 -0.8
0.7s 117.19nm 5.5mb
WKYJ 69.78 321 P 03 47.60 0.7
OFUJ 70.08 328 eP 03 48.00 -0.4
YAMJ 70.21 327 eP 03 49.30 0.1
TKSJ 70.53 320 P 03 51.60 0.4
YONJ 71.71 320 P 03 58.50 0.5
KUSJ 71.87 333 P 03 58.50 -0.2
ADK 72.43 1 eP 04 00.15 -1.6
0.6s 34.48nm 5.1mb
ASAJ 73.59 332 eP 04 09.20 0.7
SDN 77.48 11 eP 04 27.93 -1.6
0.8s 94.42nm 5.3mb
PLM 80.03 49 eP 04 44.29 0.7
ISA 80.20 46 eP 04 44.68 0.4
1.0s 19.18nm 4.5mb
CMB 80.31 43 eP 04 44.92 0.2
1.1s 20.75nm 4.5mb
ORV 80.51 41 eP 04 46.61 0.9
MEMM 81.03 44 eP 04 49.67 1.4
GLA 81.31 50 eP 04 50.95 1.0
BONR 81.61 44 eP 04 52.01 0.3
TNP 82.39 45 eP 04 55.59 0.1
0.8s 15.66nm 4.6mb
TUC 83.88 52 eP 05 04.26 1.4
1.0s 13.28nm 4.5mb
VIPM 84.01 38 P 05 04.01 0.7
SLKM 84.34 14 eP 05 03.24 -1.2
CP2 84.59 13 eP 05 04.10 -1.7
FMW 84.89 35 P 05 08.18 0.6
GSM 84.99 35 P 05 07.80 -0.1
RMW 85.14 35 eP 05 08.78 0.2
EBG 85.48 36 P 05 11.07 0.9
BJI 85.51 316 eP 05 11.00 0.6
1.5s 17.00nm 4.5mb
PMR 85.55 14 eP 05 09.08 -1.0
1.2s 59.81nm 5.2mb
MSU 85.98 46 eP 05 13.95 0.9
(pP) 07 28.50 635kmX
ETW 86.02 35 P 05 12.57 -0.3
SYO 86.23 193 ePc 05 14.10 0.7
EPH 86.27 36 P 05 13.65 -0.3
WTV 86.28 35 P 05 13.31 -0.7
DUG 86.41 45 (P) 05 15.14 0.2
1.0s 3.12nm 4.0mb
SAW 86.59 36 P 05 14.74 -0.7
BALM 86.75 17 eP 05 15.40 -0.7
OD2 86.78 36 P 05 16.42 0.1
DPW 87.34 36 P 05 19.37 0.3
SRU 87.39 46 eP 05 20.25 0.6
EMUT 87.54 46 eP 05 20.75 0.4
DAU 87.54 45 (P) 05 21.28 0.8
PV09 88.04 47 eP 05 22.69 -0.1
PV10 88.05 48 eP 05 22.33 -0.5
PTI 88.07 42 eP 05 23.12 0.5
PV08 88.42 48 eP 05 24.59 0.0
KMI 88.72 297 Pc 05 28.50 2.4
1.4s 40.00nm 5.1mb
pP 05 35.00 20kmX
IMA 88.72 10 eP 05 24.02 -1.1
0.8s 7.63nm 4.6mb
epP 07 36.74 618km
FBA 88.76 13 eP 05 23.43 -1.7
0.9s 24.30nm 5.1mb
epP 07 36.11 618km
YAK 92.07 338 eP 05 39.00 -1.4
1.2s 45.00nm 5.4mb
LZH 92.27 308 eP 05 43.50 1.4
1.0s 24.00nm 5.2mb
RSSD 94.01 44 eP 05 49.48 -0.5
0.6s 3.31nm 4.7mb
INK 94.83 15 eP 05 52.50 -0.3

1.0s 2.00nm 4.3mb
YKA 97.19 25 eP 06 01.90 -1.7
0.8s 1.40nm 4.3mb
KAF 135.22 343 iPKP 11 46.50 -0.4
NUR 137.01 343 ePKP 11 41.00 -9.3X
NB2 139.20 352 PKP 11 45.40 -9.0X
0.8s 5.40nm
HFS 139.72 350 ePKP 11 46.80 -8.4X
0.3s 3.70nm
EKA 145.41 4 PKP 12 06.00 0.8
DCN 146.92 9 ePKP 12 09.50 1.9
DLF 147.07 8 ePKP 12 10.40 2.5X
OJC 147.14 338 ePKPd 12 11.00 2.9X
e 12 15.30
VRI 147.36 326 ePKPc 12 12.00 3.4X
KSP 147.74 342 iPKP 12 12.60 3.5X
i 12 18.10
e 14 33.60
MLR 148.02 326 ePKPc 12 14.00 4.1X
CLL 148.18 346 iPKP 12 13.70 4.0X
1.1s 41.00nm
i 12 19.30
BRG 148.35 344 iPKP 12 14.20 4.2X
1.0s 30.00nm
i 12 19.40
PRU 149.00 343 iPKPd 12 15.50 4.5X
0.9s 20.10nm
i 12 22.50
MOX 149.11 347 ePKP 12 15.90 4.7X
1.5s 35.00nm
HOF 149.36 346 iPKPc 12 17.00 5.4X
i 12 24.50
SRO 149.69 337 iPKP 12 17.80 5.7X
i 12 26.10
ZST 149.80 338 ePKP 12 17.10 4.8X
e 12 26.40
KHC 150.05 343 PKP 12 18.00 5.3X
1.0s 14.60nm
i 12 27.80
e 14 43.00
GRF 150.09 347 ePKPd 12 18.50 5.8X
ic 12 27.80
GEC2 150.27 343 PKP 12 18.50 5.4X
1.1s 11.61nm
e 12 21.70
e 12 24.80
e 12 27.70
e 14 41.90
DOU 150.67 355 PKPc 12 19.80 6.3X
WLF 150.95 353 PKP 12 21.00 7.1X
FUR 151.52 346 iPKPc 12 33.90 19.0X
0.8s 55.00nm
CDF 152.04 351 ePKP 12 22.60 6.9X
0.8s 9.25nm
FLN 152.11 2 ePKP 12 21.70 6.1X
0.3s 4.60nm
LDF 152.29 2 ePKP 12 22.60 6.7X
GRR 152.47 3 ePKP 12 22.70 6.5X
0.5s 5.70nm
LJU 152.54 339 ePKP 12 23.50 7.1X
BSF 152.67 352 ePKP 12 23.20 6.6X
0.8s 4.85nm
VOY 152.75 340 ePKP 12 23.50 6.7X
OGA 152.79 345 iPKPc 12 24.90 7.9X
LPF 152.81 3 ePKP 12 24.30 7.7X
0.4s 5.45nm
LOR 153.53 356 ePKP 12 26.00 8.3X
SSF 153.76 356 ePKP 12 26.40 8.4X
S.D. = 1.0 on 76 of 109 obs.

DEC 07, 1993 17h 56m 16.36± 0.59s
40.495 N ± 5.1km 23.663 E ± 5.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)

OUR 0.29 123 iPg 56 22.88 0.4
eSg 56 27.80
SOH 0.40 324 iPg 56 24.66 0.0
eSg 56 30.16
THE 0.55 285 ePg 56 27.40 -0.1
eSg 56 33.36
PAIG 0.57 179 iPg 56 27.16 -0.7
eSg 56 34.68
SRS 0.62 355 ePg 56 28.68 -0.2
eSg 56 38.68
KNT 0.88 319 iPg 56 33.12 -0.2
eSg 56 44.80
LIT 0.98 247 ePg 56 35.53 0.5
eSg 56 48.52
GRG 1.06 296 iPg 56 36.37 -0.1
iSg 56 51.21
VAY 1.17 315 iPn 56 38.50 0.3
S.D. = 0.4 on 9 of 9 obs.

DEC 07, 1993 19h 16m 19.37± 0.55s
37.711 N ± 4.4km 137.409 E ± 4.3km
DEPTH = 22.8 ± 4.8 km
4.7mb (24 obs.)
NEAR WEST COAST OF HONSHU, JAPAN(226)

MTMJ 1.17 164 iPd 16 39.20 -1.2
NIIJ 1.35 110 iP+ 16 41.60 -1.3
S 16 59.50
CHJJ 2.09 142 P 16 53.40 -0.2
S 17 21.30
YAMJ 2.13 77 P 16 53.10 -1.1
eS 17 19.60
IIDJ 2.26 170 P 16 56.00 -0.1
S 17 27.90
TSRJ 2.45 208 P 16 58.20 -0.6
KAKJ 2.68 123 eP 17 03.50 1.6
OFUJ 3.61 66 P 17 15.20 -0.1
AOMJ 3.66 38 eP 17 16.20 0.3
WKYJ 3.78 203 eP 17 17.60 -0.1
YONJ 4.06 233 P 17 21.30 -0.3
TKSJ 4.61 217 eP 17 29.80 0.3
SHK 4.97 232 eP 17 34.50 0.0
MRRJ 5.48 30 P 17 42.00 0.3
SHNJ 6.24 237 P 17 53.80 1.4
S 19 06.90
HOOJ 6.49 42 P 17 57.00 1.1
KUMJ 7.46 228 P 18 09.80 0.2
ASAJ 7.53 30 P 18 12.00 1.6
KUSJ 7.74 44 P 18 11.60 -1.9
KAGJ 8.44 222 P 18 26.00 2.7
YSS 10.09 21 iPc+ 18 46.00 0.1
1.2s 130.00nm 6.1mb X
Z 13s 0.50um 4.7Msz
N 13s 0.50um
SSE 14.92 249 eP 19 55.00 4.5X
Z 14s 0.90um
N 14s 1.30um
E 13s 1.10um
pP 20 02.00
eS 22 30.00
BJI 16.70 285 eP 20 12.00 -1.3
Z 14s 0.59um
N 13s 0.41um
epP 20 17.00
eS 23 34.00
esS 23 38.50
CIT 21.98 318 eP 21 13.50 0.2
YAK 24.80 351 eP 21 38.70 -1.9
1.6s 59.00nm 5.0mb
Z 16s 1.20um 4.5MszX
N 17s 0.50um
BOD 25.26 330 eP 21 44.10 -0.9
1.1s 12.00nm 4.4mb
LZH 26.81 277 eP 22 01.50 1.6
1.5s 72.00nm 5.1mb
Z 16s 0.98um 4.5MszX
E 14s 0.69um
pP 22 09.00 26kmX
sP 22 54.00
ZAK 27.35 309 eP 22 08.80 4.4X
1.3s 11.00nm 4.4mb
Z 11s 1.18um 4.7MszX
GUN 43.92 273 P 24 27.60 1.0
KKN 44.45 273 P 24 30.70 -0.1
GKN 44.87 274 P 24 33.80 -0.2
TTA 46.70 35 eP 24 48.30 0.3
SVW 46.91 38 eP 24 50.60 1.0
BRW 47.06 24 ePc 24 51.00 0.4
IMA 47.74 31 iP 24 56.13 -0.1
0.8s 8.79nm 4.8mb
CP2 48.54 37 eP 25 03.38 0.8
CRP 48.58 37 iP 25 02.63 -0.2
PMS 49.83 37 eP 25 11.70 -0.6
PMR 49.99 37 eP 25 12.53 -0.9
0.8s 12.10nm 5.0mb
epP 25 26.71 53kmX
FBA 50.24 32 eP 25 15.01 -0.3
1.6s 22.59nm 4.9mb
epP 25 27.91 47kmX
BALM 53.31 37 eP 25 38.52 -0.1
ARU 53.71 317 eP 25 40.00 -1.4
INK 55.24 27 eP 25 52.00 -0.5
1.0s 3.00nm 4.3mb
MBC 56.77 16 eP 26 04.00 0.5
1.0s 3.00nm 4.3mb
WRA 57.42 183 P 26 06.59 -1.9
ASPA 61.14 184 eP 26 32.40 -1.8
0.7s 7.90nm 5.0mb
RES 62.72 14 eP 26 43.00 -1.3
1.0s 3.00nm 4.4mb
WARB 64.35 191 eP 26 54.80 -0.7
0.8s 8.00nm 4.9mb
YKA 64.80 29 eP 26 56.40 -1.7
0.8s 1.50nm 4.2mb
KAF 66.22 331 iP 27 05.60 -1.5
NUR 67.82 330 eP 27 16.50 -0.8
HFS 72.12 334 eP 27 42.90 -0.7
0.3s 0.80nm 4.2mb
NB2 72.29 336 P 27 43.40 -1.2
0.9s 8.40nm 4.8mb
CMB 76.04 53 eP 28 06.94 0.2
1.0s 12.77nm 4.9mb
FRB 76.80 12 eP 28 10.00 -0.4
1.0s 7.00nm 4.7mb
BONR 77.39 52 eP 28 15.72 1.2
TNP 77.98 51 eP 28 18.48 0.8
0.9s 13.92nm 5.0mb
BRG 78.80 327 iP 28 21.60 -0.1
CLL 78.88 328 iPd 28 22.10 0.0
PRU 79.20 326 eP 28 24.20 0.4
KHC 80.26 326 eP 28 30.00 0.4
1.0s 7.00nm 4.6mb
e 28 47.50
GEC2 80.42 326 P 28 30.30 -0.2
0.9s 3.07nm 4.3mb
MSU 80.75 48 eP 28 34.02 1.3
GRF 80.85 328 ePc 28 33.50 0.8
1.2s 23.00nm 5.1mb
SRU 81.32 47 eP 28 36.02 0.4
RSSD 81.40 40 eP 28 36.11 0.1
1.4s 16.24nm 4.9mb
PV09 82.54 47 eP 28 43.37 1.3
PV10 82.68 47 eP 28 43.91 1.2
PV08 82.76 46 eP 28 44.29 1.0
GLD 83.87 44 (P) 28 49.82 1.1
1.4s 19.26nm 5.1mb
TUC 85.73 52 eP 28 59.72 1.7
1.0s 4.83nm 4.7mb
LPAZ 148.98 53 ePKP 36 02.95 -1.1
iPKPbc36 08.29
LPB 149.19 54 PKP 36 09.00 4.9X
CNCB 149.47 54 PKP 36 06.00 1.3
S.D. = 1.0 on 71 of 74 obs.

? DEC 07, 1993 19h 30m 54.19± 1.95s
33.797 S ± 7.5km 71.597 W ±14.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.8 (SAN).

LNV 0.22 136 iP+ 30 59.47 0.5
iS 31 08.09
LCCH 0.32 4 iP+ 31 01.03 0.2
iS 31 10.48
TACH 0.57 76 eP 31 05.92 0.2
CACH 0.89 111 iP+ 31 10.40 -0.9
iS 31 29.35
PCH 0.92 79 iP 31 12.04 0.2
iS 31 30.29
ROCH 0.96 31 iP+ 31 11.87 -0.7
iS 31 30.29
PEL 1.00 50 iPd 31 13.83 0.6
iS 31 33.46
FCH 1.19 67 iP 31 16.58 0.0
JACH 1.39 37 eP 31 19.74 0.0
iS 31 43.97
S.D. = 0.6 on 9 of 9 obs.

& DEC 07, 1993 20h 07m 27.73s
34.140 N 116.971 W
DEPTH = 11.6km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS).

PEC 0.29 213 iPd 07 33.47 -0.5
SSK 0.60 277 iPc 07 39.00 -0.9

07d 20h

```
              eS      07 47.20
PLM    0.79 173 iPd   07 42.38  -0.7
GSC    1.17   7 ePd   07 49.07  -0.4
GLA    2.09 121 eP    08 01.73  -1.4
TPNV   2.86  12 ePn   08 12.99  -1.2
       6 obs. associated
-------------------------------------
 DEC  07, 1993  20h 29m 38.05± 0.70s
 46.591 S ±14.0km    95.283 E ±15.4km
 DEPTH =  10.0km  (geophysicist)
SOUTHEAST INDIAN RIDGE          (435)

CSY   21.35 163 eP    34 28.00   0.9
      0.8s     9.10nm         4.2mb
STK   38.20  84 eP    36 59.20  -0.2
      3.7s     2.30nm         3.3mb X
WRA   41.47  64 P     37 25.20  -1.4
      0.8s     1.90nm         3.9mb X
BUL   59.70 272 iP    39 43.70  -1.6
KMI   71.69   7 Pc    41 03.00   0.9
      2.0s    60.00nm         5.3mb
              pP      41 08.50  18kmX
PKI   74.35 351 P     41 19.00   1.2
KKN   74.58 351 P     41 19.20   0.2
GUN   74.64 351 P     41 19.80   0.3
      1.0s    54.00nm         5.5mb
GKN   74.86 350 P     41 20.60   0.1
QUE   80.60 335 eP    41 46.60  -5.6X
LZH   82.66   7 eP    42 02.50  -0.3
      1.5s    27.00nm         5.2mb
MBC  147.02  14 ePKP  49 25.00   6.1X
INK  147.26  31 ePKP  49 24.50   5.1X
      1.0s     2.00nm
RES  151.46   6 ePKP  49 35.50   9.8X
YKA  156.78  36 ePKP  49 40.80   7.4X
      0.7s     0.50nm
    S.D. = 1.1  on  10 of  15 obs.
-------------------------------------
* DEC  07, 1993  22h 14m 18.88± 0.75s
  17.430 S ±12.9km  167.873 E ± 8.0km
  DEPTH =  33.0km  (normal)
  4.3mb (  6 obs.)
 VANUATU ISLANDS                (186)

BKM    0.43 124 iPd   14 28.50   0.1
PVC    0.52 126 iPd   14 30.00   0.2
              iS      14 37.50
DZM    4.81 196 iPd   15 30.10  -0.8
              iS      16 25.00
CNB   24.26 219 eP    19 37.70   3.5X
      0.6s    10.00nm         4.5mb
STK   27.79 234 eP    20 07.80   0.8
      1.6s     2.50nm         3.6mb
WB2   31.82 260 eP    20 43.90   0.9
      0.8s     2.50nm         4.1mb
WRA   31.84 260 P     20 43.00  -0.1
      0.9s     0.80nm         3.6mb
ASPA  32.36 253 eP    20 47.10  -0.6
      0.6s     6.10nm         4.7mb
SPA   72.68 180 iPc   25 45.70   0.5
      0.8s    12.50nm         5.0mb
CDF  145.28 337 ePKP  33 55.10   0.1
      1.0s    15.60nm
HAU  145.96 338 ePKP  33 54.90  -1.1
      0.8s     8.60nm
SSF  147.76 340 ePKP  34 01.70   2.8X
      1.7s    42.65nm
LPL  147.87 335 ePKP  34 03.40   3.9X
BGF  148.42 340 ePKP  34 05.00   5.0X
      0.5s     2.85nm
    S.D. = 0.8  on  10 of  14 obs.
-------------------------------------
? DEC  07, 1993  23h 55m 54.34± 1.24s
   0.842 S ±16.0km  136.809 E ±45.2km
  DEPTH =  33.0km  (normal)
  4.4mb (  3 obs.)
 IRIAN JAYA REGION, INDONESIA   (196)

WB2   19.13 187 iPd   00 17.20  -0.5
      0.5s    14.80nm         4.5mb
QIS   19.78 172 eP    00 25.00   0.1
ASPA  22.86 187 iPd   00 56.90   0.8
      0.5s   100.00nm         5.6mb X
              eS      05 06.70
WARB  27.03 200 eP    01 35.50  -0.1
STK   31.20 172 iPc   02 12.70  -0.2
      0.6s     6.30nm         4.6mb

YKA   99.26  26 P     09 33.90  -0.1
      0.6s     0.40nm         4.1mb
MOCB 148.96 136 PKP   15 40.60   2.8X
CNCB 149.91 127 PKP   15 45.00   5.5X
LPB  149.97 126 ePKP  15 48.00   8.6X
LPAZ 150.07 126 PKP   15 42.20   2.4X
    S.D. = 0.5  on   6 of  10 obs.
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 DEC  08, 1993  00h 22m 14.70± 1.69s
 21.449 S ±10.8km  174.647 W ± 5.8km
 DEPTH =  78.0 ± 15.5 km
 5.1mb ( 21 obs.)
 TONGA ISLANDS                  (173)

SVA    7.29 296 eP    24 01.00   0.4
AFI    7.98  20 eP    23 56.00 -14.2X
BKM   16.56 280 iPc   26 06.20   2.8X
DZM   17.58 264 iPc   26 18.60   2.4
MRW   21.68 202 P     27 02.00   1.5
              eS      30 57.00
AFR   23.76  85 eP    27 19.30  -1.6
      1.1s   164.10nm         5.4mb
PAE   23.91  85 eP    27 21.80  -0.6
      1.0s   118.40nm         5.3mb
PPT   23.94  85 eP    27 22.20  -0.5
      1.3s   398.60nm         5.7mb
    Z 28s  2000.00um          7.4MszX
PPN   24.08  85 eP    27 23.20  -0.8
      1.3s   258.50nm         5.5mb
TVO   24.19  86 eP    27 25.20   0.0
      1.2s   371.30nm         5.7mb
PMO   26.18  80 eP    27 41.00  -2.8
      1.2s   205.30nm         5.5mb
ARMA  31.52 247 eP    28 32.20   0.5
      0.5s     8.00nm         4.7mb
CAN   34.64 239 eP    28 59.60   1.0
              i       29 10.20
STK   40.23 246 iPd   29 45.40   0.0
      0.7s     6.20nm         4.6mb
ASPA  47.36 257 eP    30 41.60  -1.4
      0.7s    18.20nm         5.1mb
              iS      37 27.20
              iScS    40 37.60
WB2   47.56 262 iPd   30 42.90  -1.7
      0.5s    14.20nm         5.1mb
              i       32 15.10
WRA   47.57 262 P     30 43.20  -1.5
FORT  51.81 247 eP    31 16.50  -0.4
WARB  53.54 253 eP    31 28.40  -1.4
SBA   57.16 185 eP    32 04.00   8.8X
MBL   60.61 257 eP    32 18.50  -1.4
NANU  64.17 255 eP    32 43.50  -0.1
CSY   64.46 206 iPd   32 39.00  -5.7X
      0.7s    13.80nm         5.0mb
CGP   66.52 290 eP    32 58.00  -0.7
SPA   68.68 180 iPc   33 17.10   5.4X
      0.9s    36.36nm         5.3mb
BCH   76.47  43 eP    33 58.18   0.2
              epP     34 11.08  44kmX
ABL   76.82  44 eP    33 59.93  -0.1
              epP     34 13.59  47kmX
PEC   77.60  46 eP    34 03.92  -0.2
      1.1s    25.56nm         5.1mb
ISA   77.80  44 eP    34 05.48   0.3
      1.4s    43.56nm         5.2mb
              ipP     34 18.73  45kmX
BONR  79.31  42 eP    34 13.81   0.1
TPNV  80.01  44 eP    34 17.49   0.2
      0.6s     6.20nm         4.7mb
TNP   80.07  42 eP    34 17.65   0.0
      1.0s    17.82nm         4.9mb
              pP      34 32.60  52kmX
TUC   81.13  50 ePc   34 25.23   2.0
      1.4s    31.42nm         5.0mb
ARUT  82.32  44 ePc   34 30.15   0.8
RMW   83.41  33 ePc   34 34.78   0.1
MSU   83.55  44 iPc   34 37.00   1.2
CP2   84.38  11 eP    34 37.51  -1.9
CRP   84.40  11 eP    34 37.13  -2.3
LTX   84.96  56 ePc   34 43.54   0.7
SRU   84.96  45 iPc   34 43.43   0.7
              epP     34 56.42  44kmX
HVU   85.00  41 ePc   34 43.25   0.4
EMUT  85.15  44 eP    34 44.47   0.7
TTA   85.38   8 eP    34 43.68  -0.5
      1.4s    12.32nm         4.7mb
DPW   85.53  34 eP    34 45.37   0.1

              epP     34 58.32  43kmX
PV10  85.55  46 ePc   34 45.89   0.1
PV09  85.55  46 eP    34 46.70   0.8
              pP      35 01.10  49kmX
ALQ   85.58  50 eP    34 47.00   1.0
      1.1s    32.49nm         5.3mb
              pP      35 01.10  48kmX
PV08  85.91  46 eP    34 48.27   0.5
BALM  86.23  15 eP    34 47.66  -0.9
GLD   88.80  46 eP    35 02.15   0.7
MEO   91.25  53 iPc   35 13.50   0.8
ACO   91.65  51 iPc   35 15.40   0.9
RSSD  91.69  43 eP    35 14.93   0.2
      1.1s    13.50nm         5.2mb
              pP      35 29.00  47kmX
OCO   92.38  53 iPc   35 19.90   2.0
TUL   93.79  53 iPc   35 25.10   0.8
UYO   94.11  55 iPc   35 26.20   0.4
INK   94.39  14 eP    35 26.00  -0.4
YKA   96.08  24 P     35 33.20  -1.0
      0.7s     3.00nm         4.9mb
QUE  124.44 293 ePKP  41 01.10  -6.0X
KIV  141.85 315 (PKP) 41 38.90  -0.4
      1.3s    12.00nm
EKA  145.57   9 PKP   41 46.00   0.9
      1.0s     8.90nm
OJC  149.11 342 ePKP  41 55.50   4.5X
KSP  149.43 346 iPKPc 41 57.00   5.6X
CLL  149.60 350 iPKPc 41 57.20   5.6X
      1.3s    23.00nm
              e       42 12.00
UZH  149.68 337 iPKPc 41 59.00   7.2X
      1.0s    62.00nm
BRG  149.87 349 iPKP  41 57.60   5.5X
      2.0s    44.00nm
              i       42 12.80
SPC  149.89 340 ePKP  41 58.80   6.4X
PRU  150.61 348 ePKP  42 00.00   6.8X
              e       42 11.50
              e       42 21.00
MLR  150.67 330 ePKPd 42 00.50   6.9X
GRF  151.43 352 ePKP  42 02.10   7.6X
KHC  151.61 349 PKP   42 02.50   7.7X
      1.1s    12.50nm
              e       42 09.50
ZST  151.69 343 ePKP  42 02.60   7.7X
SRO  151.70 341 e(PKP)42 13.30  18.4X
GEC2 151.86 348 PKP   42 02.50   7.2X
      1.3s    10.66nm
              e       42 06.60
              e       42 14.20
              e       42 30.10
FLN  152.35   8 ePKP  42 03.50   7.7X
      0.6s    15.05nm
LDF  152.56   8 ePKP  42 04.00   7.9X
      0.8s    12.65nm
GRR  152.66   9 ePKP  42 04.50   8.2X
      0.5s    18.00nm
LPF  152.98   9 ePKP  42 05.20   8.5X
      0.5s    23.05nm
CDF  153.05 357 ePKP  42 05.60   8.7X
      0.6s     5.25nm
HAU  153.49 359 ePKP  42 06.40   8.9X
      0.6s     6.60nm
BSF  153.65 358 ePKP  42 06.60   8.8X
      0.6s     3.95nm
LOR  154.21   2 ePKP  42 07.90   9.4X
      0.7s     4.85nm
SSF  154.41   3 ePKP  42 08.60   9.9X
      0.9s     5.10nm
LBF  154.50   2 ePKP  42 08.60   9.7X
      0.7s     3.30nm
MFF  154.51   9 ePKP  42 08.40   9.6X
      0.8s     6.05nm
BGF  154.87   4 ePKP  42 09.30  10.0X
      0.6s     5.30nm
TCF  155.09   5 ePKP  42 09.60   9.9X
      0.7s     4.95nm
MAF  155.18   5 ePKP  42 10.20  10.4X
      0.8s     7.95nm
    S.D. = 1.1  on  55 of  88 obs.
-------------------------------------
& DEC  08, 1993  00h 23m 36.73s
  58.869 N           152.108 W
  DEPTH =  60.3km
 KODIAK ISLAND REGION           ( 13)
    <AEIC>. ML 2.9 (AEIC).
```

XLV 0.62 19 eP 23 49.54 -0.6
CNPM 0.80 34 iP 23 51.64 -0.7
eS 24 03.18
CDD 0.80 275 eP 23 51.30 -1.1
AUE 0.82 308 eP 23 51.97 -0.5
eS 24 03.79
HOM 0.83 17 eP 23 52.00 -0.7
AUP 0.84 307 eP 23 51.54 -1.4
AGU 0.84 306 eP 23 52.29 -0.7
AUH 0.85 306 eP 23 52.68 -0.3
AUL 0.86 308 eP 23 52.43 -0.6
AUW 0.86 306 eP 23 52.52 -0.6
OPT 0.97 324 eP 23 53.82 -0.8
eS 24 07.20
BRLK 1.10 34 eP 23 55.25 -1.0
eS 24 10.22
KDC 1.14 190 eP 23 55.63 -1.2
ILIM 1.29 341 eP 23 57.80 -1.1
eS 24 14.45
INE 1.29 338 eP 23 58.37 -0.7
INW 1.31 337 eP 23 58.20 -1.1
PDB 1.41 312 eP 23 59.44 -1.1
RED 1.59 348 eP 24 03.29 0.2
RS2 1.63 349 eP 24 03.11 -0.7
REF 1.65 350 eP 24 03.07 -1.0
RDW 1.66 348 eP 24 02.89 -1.2
NCT 1.75 347 eP 24 04.40 -0.9
DFR 1.75 351 eP 24 04.44 -0.9
SEW 1.84 46 eP 24 04.78 -1.6
SLKM 1.90 29 eP 24 06.18 -1.2
MPA 2.14 39 eP 24 09.46 -1.2
BKG 2.21 358 eP 24 10.90 -0.8
SPU 2.32 1 eP 24 12.25 -1.0
CKL 2.34 357 eP 24 12.91 -0.6
CKT 2.34 359 eP 24 13.50 -0.1
CP2 2.40 358 eP 24 13.72 -0.9
CRP 2.41 359 eP 24 12.70 -1.9
BGL 2.41 357 eP 24 14.37 -0.1
CGLM 2.45 1 eP 24 14.99 -0.1
MTU 2.54 62 eP 24 15.21 -1.1
NCG 2.54 359 eP 24 15.45 -1.0
SUA 2.69 14 eP 24 18.14 -0.4
PMS 2.70 27 P 24 17.50 -1.2
PWL 2.76 42 eP 24 17.65 -1.8
KNK 3.14 34 eP 24 23.07 -1.7
CFI 3.18 41 eP 24 23.07 -2.3
KLU 4.06 47 eP 24 34.90 -2.9
BALM 5.37 62 eP 24 52.85 -3.3
43 obs. associated

DEC 08, 1993 00h 24m 18.26± 0.59s
39.840 N ± 5.4km 25.392 E ± 4.7km
DEPTH = 25.3 ± 3.7 km
AEGEAN SEA (365)
MD 3.4 (ATH).

PRK 0.90 131 ePn 24 34.90 -0.2
eSn 24 58.70
ALN 1.17 25 ePb 24 40.04 1.0
eSb 24 56.16
OUR 1.19 295 ePg 24 39.28 0.0
iSg 24 55.52
RDO 1.31 5 ePn 24 41.40 0.4
PAIG 1.32 274 ePb 24 40.93 -0.2
eSb 24 58.32
KDZ 1.81 1 iP 24 48.00 -0.2
SOH 1.84 303 ePb 24 48.80 0.0
SRS 1.87 313 iPb 24 49.20 0.0
eSb 25 11.04
RZN 1.92 345 iP 24 50.00 0.0
THE 2.02 294 ePn 24 51.63 0.4
MMB 2.16 325 iP 24 53.00 -0.3
LIT 2.25 278 ePn 24 55.28 0.8
KNT 2.32 306 iPn 24 55.66 0.2
eSn 25 21.88
PLD 2.32 347 iP 24 56.00 0.5
VAY 2.61 305 iPn 25 07.00 7.3X
KKB 2.68 320 iP 25 00.00 -0.7
PGB 2.86 342 iP 25 03.00 -0.3
VTS 3.20 330 iP 25 09.00 0.7
PVL 3.37 359 iP 25 09.00 -1.5
SKO 3.68 307 e(Pn) 25 28.00 13.2X
MLR 5.66 4 ePc 25 43.50 0.4
S.D. = 0.6 on 19 of 21 obs.

DEC 08, 1993 00h 58m 29.80± 0.85s
40.318 N ± 6.4km 24.051 E ± 6.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

OUR 0.05 287 iPg 58 32.44 0.4
eSg 58 34.36
PAIG 0.48 216 iPg 58 39.24 -0.4
eSg 58 46.48
SOH 0.73 314 ePg 58 43.76 -0.4
eSg 58 54.12
SRS 0.87 337 iPg 58 46.40 -0.1
eSg 58 57.80
KNT 1.22 314 ePb 58 52.06 -0.4
eSb 59 08.36
LIT 1.21 260 ePb 58 52.68 0.2
VAY 1.51 312 ePn 59 02.00 5.2X
ALN 1.63 69 ePb 58 58.48 -0.1
eSb 59 18.84
S.D. = 0.4 on 7 of 8 obs.

DEC 08, 1993 01h 05m 44.12± 0.44s
42.636 N ± 3.7km 18.850 E ± 3.8km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.1 (TIR), 2.6 (TTG).

NKY 0.21 32 iPgc 05 49.43 0.7
iSg 05 52.72
HCY 0.32 234 iPgd 05 50.87 0.1
iSg 05 56.25
BRY 0.35 320 iPgc 05 51.43 0.1
iSg 05 57.19
BDV 0.35 183 iPgc 05 51.52 0.1
iSg 05 57.08
TTG 0.37 124 iPgd 05 51.56 -0.1
iSg 05 57.28
ULC 0.73 156 iPgd 05 57.75 -0.8
iSg 06 09.23
PLE 0.80 30 iPgd 05 59.35 -0.4
iSg 06 11.53
IVA 0.81 73 iPgc 05 59.64 -0.2
iSg 06 11.81
PVY 0.83 92 iPgd 05 59.61 -0.6
iSg 06 12.61
BCI 0.94 106 ePg 06 01.50 -0.6
iSg 06 18.00
LACI 1.19 147 ePn 06 06.00 -0.2
iSn 06 23.50
TIR 1.49 149 ePn 06 12.10 1.1
iSn 06 33.60
HVAR 1.85 288 iPnc 06 15.60 -0.5
iSn 06 42.10
SKO 2.03 108 iPn 06 20.00 1.2
OHR 2.11 136 ePn 06 22.50 2.6X
VAY 3.07 114 ePn 06 41.30 7.8X
S.D. = 0.7 on 14 of 16 obs.

DEC 08, 1993 01h 42m 18.45± 0.33s
17.074 N ± 7.1km 73.634 E ± 5.8km
DEPTH = 25.0km (geophysicist)
5.0mb (33 obs.) 4.6Msz (3 obs.)
SOUTHERN INDIA (314)
Mw 5.1 (HRV). About 500 houses
damaged in southern Maharashtra.
Felt in Goa, southern
Maharashtra and northern
Karnataka.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 17C
Centroid Location:
Origin Time 01:42:20.7 1.2
Lat 17.41N 0.13 Lon 73.72E 0.13
Dep 15.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-4.54 0.29 Mtt= 0.70 0.69
Mff= 3.84 0.66 Mrt=-3.04 1.95
Mrf= 2.05 1.83 Mtf= 1.47 0.41
Principal Axes:
T Val= 4.52 Plg= 7 Azm=286
N 2.00 27 192
P -6.52 61 29
Best Double Couple:Mo=5.5*10**16
NP1:Strike= 44 Dip=45 Slip= -49
NP2: 173 58 -123

POO 1.47 8 iPc 42 43.80 0.3
iSg 48 02.00
BOM 1.97 337 iPd 42 49.50 -1.3
eS 43 14.50
HYB 4.71 85 ePn 43 26.00 -3.8X
eSn 44 18.00
GBA 5.03 133 P 43 32.60 -1.7
0.3s 999.90nm 6.8mb X
KOD 7.75 151 ePn 44 12.20 -0.7
eSn 45 35.70
NDI 12.02 15 iPd 45 06.00 -5.1X
0.5s 109.15nm 6.3mb X
QUE 14.41 336 eP 45 44.60 1.5
eS 50 11.60
GKN 14.88 41 P 45 42.00 -7.1X
PKI 15.08 44 P 45 44.20 -7.8X
KKN 15.14 43 P 45 45.00 -7.7X
GUN 15.62 44 P 45 51.40 -7.6X
MAIO 22.89 330 eP 47 25.00 3.6X
eS 51 40.00
SHI 23.02 307 eP 47 25.00 2.1
CHTO 24.14 82 ePd 47 34.70 1.1
1.0s 18.75nm 4.6mb
BDT 24.24 86 eP 47 33.00 -1.5
NST 25.46 89 eP 47 47.00 0.8
KMI 28.27 69 Pd 48 14.00 1.8
2.0s 90.00nm 5.2mb
Z 20s 1.50um 4.6Msz
N 10s 0.60um
E 10s 0.30um
pP 48 19.50 19kmX
LZH 32.79 49 eP 48 51.50 -0.6
2.0s 53.00nm 5.1mb
Z 12s 0.76um 4.6MszX
E 10s 1.32um
BJI 43.28 49 eP 50 21.00 1.2
1.5s 17.00nm 4.6mb
PP 52 07.00
SSE 45.27 63 P 50 38.00 2.0
1.4s 49.00nm 5.2mb
Z 20s 0.60um 4.5Msz
N 12s 0.50um
OBN 47.34 332 eP 50 53.00 1.0
Z 20s 0.60um 4.6Msz
i 50 54.60
VAY 49.86 310 eP 51 11.50 -0.2
SPC 53.53 319 eP 51 39.30 -0.1
OJC 54.11 320 eP 51 44.60 1.1
ZST 55.26 317 eP 51 51.40 -0.6
NUR 55.66 333 eP 51 54.10 -0.4
KAF 55.78 335 eP 51 54.90 -0.5
TKSJ 56.31 60 P 51 59.10 -0.6
KSP 56.43 320 eP 52 00.00 -0.4
WKYJ 57.59 60 P 52 08.20 -0.7
GEC2 57.61 317 P 52 07.70 -1.2
0.7s 1.90nm 4.2mb
e 52 10.70
e 53 02.20
e 53 05.20
BUL 57.63 232 iP 52 05.60 -3.8X
BRG 57.89 320 iP 52 10.60 0.0
0.8s 14.00nm 5.0mb
CLL 58.56 320 eP 52 15.00 -0.3
MOX 59.29 319 e(P) 52 20.70 0.3
HFS 60.50 330 eP 52 27.40 -1.1
0.5s 2.00nm 4.5mb
Z 17s 0.15um 4.2MszX
LR 17 36.00
LPG 61.87 313 eP 52 37.30 -1.1
0.8s 7.80nm 4.9mb
LPL 61.88 313 eP 52 37.20 -1.3
0.8s 9.80nm 5.0mb
NB2 61.94 331 P 52 36.60 -1.7
0.8s 5.80nm 4.8mb
BSF 62.03 315 eP 52 38.00 -1.3
0.7s 3.30nm 4.6mb
OFUJ 62.51 54 eP 52 42.30 -0.1
LBF 63.87 314 eP 52 50.60 -0.8
1.0s 10.00nm 4.9mb
SMF 63.95 314 eP 52 51.00 -0.9
1.1s 10.75nm 4.9mb
SSF 64.20 314 eP 52 52.10 -1.4
1.1s 12.95nm 5.0mb
BGF 64.63 314 eP 52 55.70 -0.6
0.7s 7.60nm 4.9mb
MAF 64.82 313 eP 52 57.10 -0.4
0.9s 11.30nm 5.0mb
BLF 64.86 225 eP 52 45.00 -13.1X
BOSA 65.08 226 eP 53 00.92 1.6

08d 01h

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       0.8s    11.92nm          5.1mb
RJF    65.54 312 eP     53 01.60  -0.6
       0.9s    12.60nm          5.0mb
LPO    65.78 312 eP     53 03.80   0.1
       0.9s    12.80nm          5.1mb
FLN    66.92 316 eP     53 10.50  -0.4
       1.1s    20.25nm          5.2mb
WRA    70.04 119 P      53 26.00  -4.7X
       0.7s     2.80nm          4.5mb
WB2    70.05 119 iPd    53 30.60  -0.1
       0.5s    21.80nm          5.5mb
ASPA   71.43 123 iPc    53 39.00  -0.1
       0.9s    13.10nm          5.0mb
DAG    74.06 346 iPc    53 53.20  -0.4
       0.7s     8.22nm          4.9mb
LKO    77.03 276 P      54 13.14   1.5
       0.9s    12.00nm          4.9mb
KIC    77.07 273 P      54 14.12   2.2
       0.9s    23.00nm          5.2mb
TIC    77.26 273 P      54 15.06   2.1
       0.9s    20.50nm          5.2mb
LIC    77.39 273 P      54 14.68   1.1
       1.3s    25.00nm          5.1mb
RES    88.16 357 eP     55 10.00   2.0
IMA    89.89  17 eP     55 16.20  -0.4
       1.2s    12.20nm          5.0mb
FBA    92.41  16 eP     55 28.39   0.4
       1.1s     6.72nm          5.0mb
INK    92.61  10 eP     55 29.50   0.6
       1.0s     4.00nm          4.8mb
YKA   100.43   4 Pdiff  56 04.50   0.1
       1.0s     0.60nm          4.1mb
PV10  124.79   3 ePKP   01 18.72   0.4
MOCB  141.38 257 PKP    01 46.70  -3.6X
CNCB  143.32 265 PKP    01 52.00  -1.9
LPB   143.40 265 ePKP   01 43.00 -10.9X
LPAZ  143.40 266 PKP    01 46.60  -7.6X
ARE   146.63 266 ePKP   02 03.00   3.9X
NNA   151.00 276 ePKP   02 13.50   7.8X
     S.D. = 1.1   on  56 of  71 obs.
-------------------------------------------
   DEC 08, 1993  02h 21m 02.78± 0.20s
   12.544 S ± 3.6km  166.634 E ± 5.3km
   DEPTH =  39.8km  ( 10 depth phases)
   5.6mb ( 37 obs.)
  SANTA CRUZ ISLANDS               (184)
      Mw 5.4 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 27S, 39C
      Centroid Location:
      Origin Time         02:21: 9.8 0.6
      Lat 12.27S 0.06 Lon 166.35E 0.03
      Dep  46.9 1.9 Half-duration  1.5
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 1.34 0.03  Mtt= 0.14 0.08
        Mff=-1.49 0.07  Mrt= 0.45 0.07
        Mrf= 0.32 0.07  Mtf= 0.29 0.04
       Principal Axes:
        T  Val=  1.54  Plg=69  Azm=338
        N        0.02      20      173
        P       -1.56       5       81
      Best Double Couple:Mo=1.5*10**17
        NP1:Strike=151 Dip=44 Slip=  60
        NP2:         9     53       115

BKM     5.33 163 iP     22 31.50   9.5X
                 iS     23 38.50
DZM     9.48 181 iPc    23 21.10   1.2
                 iS     25 23.20
KVG    18.53 301 ePc    25 19.00   0.7
LAT    20.21 285 e(P)   25 42.00   4.8X
AFI    21.06  96 eP     25 50.00   4.0X
MDG    21.83 288 eP     25 54.00   0.3
ARMA   22.57 216 iPc    26 02.20   1.1
       0.9s   115.00nm          5.3mb
WWKK   24.42 289 eP     26 20.80   1.7
RIV    25.45 211 iPd    26 30.40   1.7
       1.0s  *******nm          7.4mb X
QIS    27.08 249 eP     26 43.00  -0.8
CAN    27.73 212 iPc    26 50.10   0.5
                 e      27 02.20  47km
MNG    29.03 166 eP     26 58.90  -2.4
THZ    29.62 170 eP     27 07.00   0.4
STK    30.00 226 iPc    27 10.10   0.0
       2.0s    12.40nm          4.3mb X
LTZ    30.52 172 P      27 13.80  -0.8
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EWZ    31.07 174 P      27 19.50   0.2
MQZ    31.48 172 P      27 22.20  -0.7
WRA    31.82 252 P      27 25.00  -1.3
       0.8s     9.50nm          4.7mb
MMCZ   32.42 177 P      27 31.10  -0.2
MHZ    32.48 177 P      27 31.80   0.0
LRCZ   32.49 176 P      27 31.60  -0.4
SBCZ   32.52 176 P      27 31.60  -0.5
MSCZ   32.52 176 P      27 31.90  -0.2
LSCZ   32.54 176 P      27 32.00  -0.3
CMCZ   32.57 177 P      27 32.20  -0.4
TLC    32.60 177 P      27 32.40  -0.5
ASPA   32.94 246 iPc    27 34.50  -1.5
       0.6s    35.60nm          5.4mb
     Z  22s     3.20um          5.0Msz
TUZ    33.40 176 P      27 38.90  -0.7
       0.7s   124.00nm          5.9mb
ADE    33.73 224 iPd    27 43.80   1.1
KNA    36.82 260 eP     28 09.50   0.3
WARB   39.92 244 iPc    28 35.20   0.1
       0.4s    10.00nm          5.0mb
FORT   39.92 237 eP     28 35.00   0.0
AFR    42.32 102 eP     29 08.80  14.0X
       1.1s   210.00nm
PAE    42.51 102 eP     29 10.30  14.0X
       1.3s   207.90nm
PPT    42.51 102 eP     29 10.40  14.0X
       1.3s   310.50nm
     Z  31s  3050.00um          8.0MszX
PPN    42.65 102 eP     29 11.60  14.1X
       1.3s   239.70nm
TVO    42.82 103 eP     29 13.00  14.0X
       1.1s   224.70nm
PMO    44.17  99 eP     29 26.90  17.1X
       1.5s   514.00nm
VAH    44.42  99 eP     29 28.70  16.9X
       1.1s   162.10nm
TPT    44.44  99 eP     29 29.00  17.0X
       1.5s   536.90nm
RUV    44.66  99 eP     29 30.70  16.9X
       1.2s   336.80nm
MBL    45.47 253 iPc    29 20.40   0.2
       0.7s    66.00nm          5.6mb
MEEK   47.09 245 iPc    29 33.20   0.2
       0.5s    57.00nm          5.8mb
MKS    47.10 275 iPc    29 33.10  -0.1
NANU   49.53 251 iPc    29 52.40   0.5
       0.8s   253.00nm          6.3mb
RKG    49.92 235 eP     29 55.00   0.2
TSM    51.26 286 ePd    30 05.60   0.4
KKM    53.40 287 ePc    30 25.80   4.4X
BAG    53.86 301 ePc    30 24.10  -0.6
       0.9s   238.66nm          6.2mb
IIDJ   54.96 331 eP     30 30.90  -1.5
WKYJ   55.08 329 P      30 33.10  -0.2
KAGJ   55.39 323 P      30 35.60   0.1
MAT    55.69 332 eP     30 36.00  -1.6
       0.7s     9.59nm          4.9mb
     Z  20s     0.35um          4.4Msz
                 eS     38 16.00
TKSJ   55.70 327 P      30 37.40  -0.2
MTMJ   55.91 332 P      30 38.40  -0.9
NIIJ   55.92 333 eP     30 38.10  -1.1
TSRJ   55.93 330 eP     30 36.40  -2.9X
KUMJ   56.40 324 P      30 42.50  -0.2
YONJ   56.93 328 P      30 46.10  -0.4
SHNJ   57.40 325 P      30 48.80  -1.0
LEM    58.36 270 iPc    30 57.50   0.4
ASAJ   60.47 340 eP     31 11.00   0.1
SSE    61.53 316 Pd     31 17.50  -0.8
       0.9s   200.00nm          6.2mb
     Z  20s     0.50um          4.7Msz
                 pP     31 29.50  41km
                 sP     31 32.70
YSS    63.04 342 eP     31 42.10  14.0X
       1.0s    40.00nm
                 e      31 53.00  36km
NJ2    63.69 315 Pd     31 31.80  -0.9
       0.8s   170.00nm          6.2mb
VLA    63.86 332 iP     31 46.00  12.4X
       1.5s    64.00nm
                 e      31 54.00  26kmX
                 e      32 03.00
SBA    65.31 180 eP     31 43.30   0.8
CSY    65.32 202 iPc    31 31.60 -11.1X
       0.6s    18.80nm
PET    65.65 355 eP     32 00.00  15.1X
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                 e      41 00.00
WHN    66.03 312 Pc     31 48.50   0.7
       0.8s    36.00nm          5.5mb
MDJ    66.07 332 eP     31 47.60  -0.2
       1.0s    19.00nm          5.1mb
DL2    66.19 323 P      31 48.80   0.1
       1.0s   210.00nm          6.2mb
SNY    67.05 326 Pc     31 53.40  -0.7
     Z  24s     0.65um          4.8MszX
TIA    67.30 318 Pc     31 55.00  -0.9
       1.6s   120.00nm          5.7mb
     Z  12s     0.55um          5.0MszX
IPM    67.37 280 ePc    31 56.00  -0.7
       1.2s   252.60nm          6.2mb
CN2    67.47 329 Pc     31 56.60  -0.1
       0.5s    51.00nm          5.8mb
     Z  20s     0.43um          4.7Msz
                 epP    32 08.00  38km
GYA    69.98 304 iPc    32 13.00   0.3
       1.0s   120.00nm          5.9mb
BJI    70.19 321 eP     32 13.50  -0.1
       1.0s    33.00nm          5.3mb
     Z  24s     0.97um          5.0MszX
                 epP    32 25.00  38km
TIY    71.24 317 Pc     32 20.90   0.7
       1.1s   120.00nm          5.8mb
     Z  22s     0.91um          5.0Msz
                 pP     32 32.50  39km
NST    71.51 291 eP     32 22.00   0.0
XAN    71.77 312 iPc    32 23.50   0.1
       1.0s   140.00nm          5.9mb
     Z  20s     0.36um          4.6Msz
                 pP     32 35.00  38km
KMI    72.64 301 iPc+   32 23.00  -5.9X
       1.4s   320.00nm          6.1mb
                 pP     32 42.50  73kmX
BDT    73.05 293 eP     32 31.00  -0.1
HHC    73.53 320 Pc     32 34.00   0.3
       1.0s    59.00nm          5.5mb
     Z  26s     1.41um          5.1MszX
CHTO   73.62 294 iPc    32 35.10   0.6
       1.1s    58.30nm          5.5mb
BTO    74.38 319 P      32 39.00   0.4
LZH    76.40 312 iPc    32 51.80   1.5
       1.2s   220.00nm          6.0mb
     Z  20s     0.50um          4.8Msz
                 pP     33 04.00  41km
SPA    77.53 180 iPd    32 55.80  -0.2
       0.9s   204.55nm          6.2mb
CIT    78.85 330 eP     33 04.00   0.7
YAK    79.75 343 eP     33 06.50  -1.4
       1.0s    76.00nm          5.6mb
     Z  20s     0.80um          5.1Msz
     N  20s     0.60um
                 e      33 22.00  55kmX
                 e      42 49.00
GTA    80.72 314 iPc    33 14.60   0.9
       1.0s    51.00nm          5.4mb
                 sP     33 24.00
BOD    82.19 335 eP     33 20.60  -0.2
       0.9s    11.00nm          4.9mb
ZAK    83.42 325 iPc    33 27.50   0.3
MAW    83.67 202 P      33 29.29   1.0
IMA    83.71  15 eP     33 30.39   1.7
       1.0s     4.50nm          4.5mb X
LSA    83.88 302 P      33 32.40   1.7
       1.0s    54.00nm          5.6mb
ORV    84.37  48 eP     33 32.77   0.4
FBA    84.47  18 eP     33 30.84  -1.5
       0.9s     9.24nm          4.9mb
BONR   86.17  50 eP     33 44.54   2.8
RMW    87.07  40 (P)    33 47.47   1.8
TIK    87.71 349 eP     33 48.00  -0.1
       1.0s    10.00nm          5.0mb
GUN    87.80 299 P      33 50.40   0.5
PKI    88.12 299 P      33 51.50   0.1
KKN    88.28 299 P      33 52.20   0.1
DMN    88.39 299 P      33 53.20   0.6
GKN    88.89 299 P      33 54.70  -0.2
ARUT   89.79  51 eP     34 01.06   2.1
TUC    90.46  57 eP     34 03.80   1.7
       0.9s     3.38nm          4.7mb
SYO    90.64 197 ePd    34 03.40   1.3
WMQ    90.76 315 iPc    34 03.20   0.0
       1.0s    28.00nm          5.6mb
     Z  22s     0.55um          4.9Msz
                 pP     34 15.10  38km
```

PP 37 38.00
MSU 90.95 51 eP 34 06.74 2.4
KOD 91.38 280 eP 34 08.50 1.6
HYB 91.89 287 eP 34 08.50 -0.3
1.0s 60.00nm 6.0mb
e 34 21.00 41km
GBA 92.13 283 Pc 34 10.30 0.5
1.0s 7.00nm 5.0mb
PV09 93.26 51 eP 34 17.35 2.3
LTX 95.78 61 (P) 34 27.88 1.3
YKA 95.90 27 P 34 23.70 -2.6
0.6s 0.80nm 4.4mb X
POO 96.50 287 eP 34 33.50 3.6X
CNCB 118.65 117 PKP 39 47.00 -2.8X
LPB 118.67 117 PKP 39 47.00 -2.7X
LPAZ 118.74 117 PKP 39 48.60 -1.5
OBN 122.52 329 ePKP 39 55.00 -0.3
e 40 10.50
KAF 122.95 339 ePKP 39 53.10 -2.8X
NUR 124.62 338 ePKP 39 58.60 -0.6
SIV 124.95 120 PKP 39 59.30 -1.9
BUL 127.45 232 ePKP 40 00.60 -5.6X
NB2 128.37 345 PKP 40 05.80 -0.7
0.8s 3.30nm
PPD 129.34 132 ePKP 40 08.20 -1.3
KSP 134.82 334 ePKP 40 35.00 16.0X
BAO 135.75 128 ePKP 40 20.90 -1.1
BRG 135.78 335 ePKP 40 22.50 1.6
e 40 31.60
CLL 135.82 336 e(PKP)40 37.00 16.1X
PRU 136.20 334 ePKP 40 21.00 -0.7
e 40 37.00
KHC 137.26 334 ePKP 40 23.00 -0.8
1.0s 7.00nm
e 40 39.00
GEC2 137.43 334 PKP 40 22.80 -1.4
1.1s 1.60nm
LBF 142.69 340 iPKPc 40 29.00 -4.7X
1.1s 10.75nm
GRR 142.78 346 iPKPc 40 29.40 -4.3X
0.7s 5.20nm
SSF 142.78 341 iPKPc 40 30.30 -3.4X
0.7s 4.50nm
SMF 143.04 340 iPKPc 40 31.40 -2.8X
0.9s 11.80nm
MAF 143.82 341 iPKPc 40 32.80 -2.8X
1.2s 14.00nm
TCF 143.88 342 iPKPc 40 33.70 -2.0X
SBF 144.02 334 iPKPc 40 33.10 -3.0X
0.8s 34.80nm
LSF 144.12 342 iPKPc 40 33.50 -2.6X
0.9s 16.70nm
MFF 144.26 344 iPKPc 40 34.80 -1.5
0.8s 12.75nm
FRF 144.60 335 iPKPc 40 35.10 -1.9
0.9s 41.75nm
LRG 144.81 335 iPKPc 40 36.10 -1.2
1.0s 52.20nm
LMR 144.85 334 iPKPc 40 36.00 -1.4
1.0s 48.20nm
RJF 144.97 342 iPKPc 40 36.70 -0.8
1.0s 21.80nm
CAF 145.14 341 iPKPc 40 37.50 -0.4
1.0s 20.00nm
SOB1 145.14 127 ePKP 40 36.50 -2.2X
LFF 145.54 342 iPKPc 40 38.50 0.0
1.0s 33.80nm
LPO 145.63 341 iPKPc 40 38.80 0.1
1.0s 17.20nm
LESF 147.08 340 PKP 40 43.09 2.0
PAND 147.44 339 PKP 40 44.19 2.2X
ETOR 150.13 343 ePKP 40 50.95 4.9X
GUD 150.86 346 ePKP 40 52.86 5.7X
PAB 151.95 345 ePKP 40 55.80 7.0X
EVIA 152.27 342 ePKP 40 57.27 7.9X
EHUE 153.06 341 ePKP 40 57.63 7.2X
EGUA 154.26 342 ePKP 40 59.43 7.4X
S.D. = 1.0 on 118 of 160 obs.

& DEC 08, 1993 02h 49m 38.98s
32.357 N 115.354 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.9 (PAS).

ERPC 0.47 326 P 49 48.18 -0.1
COA 0.54 21 P 49 49.36 -0.5
RUN 0.69 27 P 49 51.25 -1.6
FRK 1.07 347 P 49 58.34 -1.1
LTC 1.15 12 P 49 58.59 -2.3
MIRC 1.22 330 P 49 59.06 -3.0
MECC 1.40 336 P 50 01.80 -3.2
CO2 1.49 0 P 50 03.44 -2.8
PLM 1.61 308 iPnd 50 05.71 -2.5
iPg 50 09.46
eS 50 30.56
INDC 1.63 333 P 50 05.40 -2.9
PSP 1.75 325 P 50 07.25 -2.8
SHH 1.84 352 P 50 08.92 -2.6
POB 1.87 316 P 50 09.14 -2.7
RAY 2.07 324 P 50 12.98 -2.0
MDA 2.08 319 P 50 16.80 1.9
SNS 2.14 301 P 50 14.27 -1.4
PEC 2.15 316 ePn 50 13.15 -2.8
iPg 50 19.09
ELS 2.17 307 P 50 18.32 2.2
BTL 2.34 324 P 50 21.77 2.8
VPD 2.49 306 P 50 23.87 3.2
SSK 2.69 314 ePnc 50 21.52 -2.3
ePg 50 28.56
CIS 2.77 293 P 50 28.20 3.4
GSC 3.18 338 ePn 50 29.94 -0.6
ePg 50 41.94
TUC 3.87 89 (P) 50 43.20 2.8
ABL 4.07 309 (Pn) 50 41.78 -1.6
ISA 4.19 323 ePn 50 42.61 -2.3
TPNV 4.64 351 (Pn) 50 49.68 -1.7
BCH 4.84 307 ePn 50 52.66 -1.6
ARUT 5.64 16 ePn 51 04.00 -1.6
TNP 5.91 346 ePg 51 35.00 25.6
MSU 6.67 22 (Pn) 51 21.48 1.4
SRU 7.80 29 (Pn) 51 34.90 -1.0
PV10 7.91 39 ePn 51 37.33 -0.3
ePg 52 06.13
PV09 7.96 38 (Pn) 51 38.16 -0.1
34 obs. associated

DEC 08, 1993 02h 52m 23.43± 0.22s
4.583 S ± 4.0km 77.275 W ± 4.8km
DEPTH = 135.4km (2 depth phases)
4.9mb (53 obs.)
NORTHERN PERU (111)
Felt (II) at Moyobamba.

VC1 4.08 344 P 53 25.26 -0.4
CAYA 4.69 351 P 53 33.25 -0.6
COTA 5.00 348 P 53 38.51 0.4
PT08 7.36 174 eP 53 48.70 -21.3X
NNA 7.37 177 iPc 54 08.00 -1.8
0.8s 108.21nm 5.4mb
eS 55 14.00
PT10 7.45 178 eP 53 49.20 -21.6X
ARE 13.10 155 eP 55 25.00 -0.8
LPAZ 14.69 143 P 55 41.10 -5.4X
i 58 37.50
LPB 14.90 144 Pc 55 45.40 -3.5X
i 58 45.00
SDV 14.93 26 eP 55 47.30 -1.8
CNCB 15.19 144 P 55 48.10 -4.6X
i 58 47.00
TOV 16.10 28 eP 56 01.50 -2.1
CCH 16.76 140 P 56 13.40 1.5
CANV 17.65 28 iP 56 22.60 0.1
MORO 17.76 30 eP 56 23.90 0.1
CAR 18.19 34 eP 56 20.00 -8.8X
SIV 19.54 127 P 56 40.80 -2.1
MOCB 20.05 147 P 56 48.10 -0.6
PPD 30.55 127 eP 58 22.80 -3.6X
BDFB 30.78 113 eP 58 26.49 -2.1
BAO 30.80 113 Pc 58 27.00 -1.8
i 59 01.70 165kmX
e 08 50.30
PRM 38.76 353 iPd 59 36.11 -0.1
JSC 38.83 355 iPd 59 36.75 0.0
MYNC 39.97 351 eP 59 44.95 -1.2
0.8s 17.56nm 4.9mb
CEH 40.30 358 eP 59 48.75 0.0
0.7s 16.06nm 4.9mb
OXF 40.53 345 eP 59 49.40 -1.4
0.6s 206.19nm 6.0mb X
NAV 41.81 356 iPd 00 01.32 0.0
LTX 42.18 325 eP 00 04.58 0.1
LST 42.52 345 eP 00 05.79 -1.2
ELC 43.12 346 eP 00 09.85 -2.0
TUL 43.86 338 iPd 00 18.10 0.2
MEO 44.00 334 iPc 00 19.50 0.4
WMOK 44.05 334 eP 00 19.59 0.1
0.6s 26.61nm 5.1mb
FVM 44.08 345 eP 00 18.17 -1.5
0.7s 8.43nm 4.5mb
OCO 44.17 336 iPc 00 21.20 0.7
ACO 45.87 335 iPc 00 34.30 0.4
BINY 46.57 1 eP 00 39.64 0.3
0.8s 68.12nm 5.4mb
epP 01 10.81 137km
YSNY 46.85 359 eP 00 41.14 -0.4
0.8s 38.65nm 5.1mb
epP 01 11.77 134km
ePcP 02 10.83
ALQ 47.95 327 ePd 00 51.21 0.8
0.8s 37.67nm 5.2mb
TUC 48.58 321 eP 00 55.70 0.5
0.7s 6.24nm 4.5mb
RSNY 48.97 3 eP 00 57.13 -0.7
0.8s 11.83nm 4.7mb
GAC 50.09 2 eP 01 06.00 -0.3
GOL 51.10 332 eP 01 14.38 -0.1
0.8s 21.65nm 5.0mb
LMN 51.43 11 ePd 01 16.30 -0.2
PV10 51.90 328 eP 01 19.40 -1.1
pP 01 47.09 117kmX
CBM 51.93 8 eP 01 20.25 0.0
0.7s 27.74nm 5.2mb
SRU 53.22 328 eP 01 29.77 -0.4
MSU 53.69 326 eP 01 33.97 0.3
EMUT 53.89 328 eP 01 35.15 0.0
ARUT 53.90 325 eP 01 35.58 0.4
RSSD 54.13 336 eP 01 36.63 -0.2
0.7s 14.21nm 5.0mb
GSC 54.32 320 eP 01 38.37 0.1
DAU 54.56 328 eP 01 40.04 -0.1
DUG 55.23 327 ePd 01 45.00 0.2
0.8s 9.00nm 4.7mb
BONR 56.92 322 eP 01 56.74 -0.3
ULM 56.93 346 ePd 01 57.30 0.8
ARN 58.60 319 eP 02 06.67 -1.8
ORV 59.87 321 eP 02 17.85 0.7
LBFM 61.18 323 eP 02 26.06 -0.2
VGB 63.13 327 eP 02 39.11 0.2
GMW 65.49 328 eP 02 53.42 -0.7
FRB 68.46 4 eP 03 11.50 -0.9
0.9s 9.00nm 4.6mb
YKA 72.68 343 P 03 36.00 -1.9
0.8s 5.30nm 4.4mb
LKO 72.79 79 Pd 03 38.78 -0.7
0.8s 311.50nm 6.1mb X
LIC 72.92 82 Pd 03 39.66 -0.6
1.0s 18.50nm 4.8mb
TIC 72.98 82 Pd 03 40.22 -0.4
0.8s 23.00nm 5.0mb
KIC 73.22 82 Pd 03 41.70 -0.3
0.7s 24.50nm 5.0mb
EJIF 78.23 51 eP 04 11.94 2.1
PAB 79.87 49 ePd 04 19.00 0.3
RES 79.87 355 eP 04 18.00 0.2
1.0s 4.00nm 4.1mb
ECOG 79.91 51 eP 04 19.98 1.0
EHUE 80.79 51 eP 04 23.60 0.0
ENIJ 80.90 52 eP 04 24.26 0.2
EVIA 81.04 50 eP 04 27.50 2.6
ETOR 81.88 48 eP 04 30.98 1.8
DCN 81.90 35 eP 04 29.40 0.5
BALM 82.23 334 eP 04 30.64 0.0
DLF 82.31 35 eP 04 31.40 0.4
INK 82.40 342 eP 04 32.00 0.8
0.9s 14.00nm 4.8mb
EGRA 83.45 47 eP 04 41.25 4.2X
KLU 84.00 333 eP 04 39.68 0.1
EPF 84.10 46 iPd 04 41.00 0.6
1.1s 37.60nm 5.2mb
LPF 84.24 41 iPd 04 41.00 0.1
0.8s 25.80nm 5.1mb
MBC 84.26 351 eP 04 42.50 2.0
0.9s 8.00nm 4.6mb
TOA 84.33 334 eP 04 42.10 0.9
GRR 84.44 41 iPd 04 42.10 0.2
0.6s 16.75nm 5.1mb
MFF 84.51 42 iPd 04 42.60 0.3
0.8s 28.35nm 5.2mb
SALF 84.66 46 P 04 44.37 1.1
FLN 84.77 40 iPd 04 43.90 0.3

08d 03h

0.9s 57.00nm 5.4mb
LFF 84.77 44 iPd 04 44.00 0.3
0.6s 25.35nm 5.3mb
EKA 84.79 33 P 04 44.00 0.5
1.0s 18.60nm 4.9mb
PAND 84.87 47 P 04 45.64 1.1
LDF 84.96 41 iPd 04 44.70 0.1
0.8s 31.95nm 5.2mb
LPO 85.03 45 iPd 04 45.20 0.2
0.8s 20.70nm 5.0mb
TRGS 85.17 47 P 04 46.77 0.8
RJF 85.38 44 iPd 04 46.80 0.1
1.2s 32.15nm 5.1mb
NVL 85.41 161 iPd 04 47.00 0.6
1.0s 39.00nm 5.2mb
e 05 34.00 190kmX
SPA 85.45 180 iPc 04 47.70 0.8
1.0s 35.00nm 5.2mb
PMS 85.57 332 eP 04 47.90 0.5
LSF 85.57 43 eP 04 47.80 0.1
0.8s 7.40nm 4.6mb
CAF 85.69 44 eP 04 48.10 -0.2
0.7s 3.40nm 4.3mb
FBA 85.99 336 eP 04 49.12 -0.2
1.1s 10.40nm 4.6mb
TCF 86.05 43 iPd 04 50.70 0.7
1.0s 7.80nm 4.6mb
MAF 86.28 43 eP 04 51.30 0.2
0.7s 7.05nm 4.7mb
BGF 86.53 43 iPd 04 52.80 0.5
0.8s 13.95nm 4.9mb
CRP 86.78 332 (P) 04 53.02 -0.4
CP2 86.82 332 eP 04 53.54 -0.2
AVF 86.91 43 eP 04 53.50 -0.7
0.8s 6.05nm 4.6mb
SSF 87.06 43 iPd 04 54.80 -0.1
0.9s 9.50nm 4.8mb
SMF 87.22 43 eP 04 55.30 -0.4
1.0s 18.20nm 5.0mb
LOR 87.33 42 eP 04 55.50 -0.7
0.8s 9.40nm 4.8mb
DAG 87.55 11 iPc 04 57.00 0.3
0.9s 13.45nm 4.9mb
ipP 05 28.20 120kmX
DOU 88.28 40 P 05 01.60 1.0
SVW 88.37 332 eP 05 01.00 0.1
IMA 88.68 337 ePd 05 02.09 -0.3
0.8s 7.68nm 4.8mb
LPL 89.04 44 iPd 05 05.00 0.3
1.0s 11.20nm 4.9mb
LPG 89.05 44 iPd 05 05.20 0.4
0.9s 6.90nm 4.7mb
WLF 89.21 40 Pc 05 05.00 0.0
ENN 89.22 39 eP 05 06.00 0.9
0.8s 25.00nm 5.3mb
BSF 89.38 42 iPd 05 05.30 -0.8
0.7s 4.85nm 4.7mb
CDF 89.78 42 iPd 05 07.50 -0.4
0.8s 10.50nm 4.9mb
WTS 89.93 38 eP 05 09.00 0.7
0.8s 25.80nm 5.3mb
GRF 92.49 41 ePd 05 21.10 0.9
Z 19s 0.30um 4.8Msz
GEC2 94.06 41 P 05 27.60 0.0
0.8s 1.37nm 4.3mb
e 05 32.70 16kmX
e 05 35.10
ZST 96.31 42 e(P) 05 38.00 0.3
ASPA 138.62 226 ePKP 11 26.30 -9.5X
0.7s 3.40nm
WB2 140.50 231 ePKP 11 34.00 -5.3X
0.7s 6.40nm
i 11 38.90
epP 12 07.30
WRA 140.51 231 PKP 11 32.70 -6.6X
0.9s 0.80nm
SSE 148.42 329 PKPc 11 55.70 3.4X
0.9s 12.00nm
LZH 148.63 358 ePKP 11 55.50 2.8X
1.6s 68.00nm
sP 12 27.50
GKN 151.04 35 PKP 11 57.40 0.8
0.9s 29.00nm
KKN 151.56 34 PKP 11 58.20 0.7
GUN 151.80 33 PKP 11 58.80 0.8
0.8s 48.00nm
PKI 151.81 34 PKP 12 01.20 3.2X

0.7s 24.00nm
GBA 153.50 69 PKP 12 00.20 0.1
0.8s 2.00nm
S.D. = 0.9 on 121 of 135 obs.

& DEC 08, 1993 03h 02m 50.10s
32.359 N 115.356 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.2 (PAS), 3.2 (GS).

SGL 0.43 313 P 02 58.25 -0.4
COA 0.54 21 P 03 00.41 -0.5
YMD 0.71 74 P 03 03.17 -1.2
NW2 0.78 339 P 03 04.15 -1.5
CLIC 0.79 350 P 03 04.11 -1.7
GLA 0.82 33 eP 03 04.38 -2.1
FRK 1.07 347 P 03 07.52 -3.0
LTC 1.15 12 P 03 09.52 -2.5
MIRC 1.22 330 P 03 11.35 -1.8
CTW 1.39 342 P 03 13.28 -2.7
CO2 1.48 0 P 03 13.86 -3.5
FRGC 1.51 337 P 03 16.27 -1.6
CPE 1.56 290 P 03 18.56 0.1
PLM 1.61 308 eP 03 16.71 -2.6
INDC 1.63 333 P 03 16.07 -3.3
INS 1.72 336 P 03 20.11 -0.8
PSP 1.75 325 P 03 18.23 -2.9
TPC 1.84 342 P 03 24.54 2.1
PEC 2.15 316 ePn 03 23.95 -3.1
iPg 03 29.95
eS 03 56.49
VPD 2.49 306 P 03 35.00 3.2
SSK 2.69 314 ePn 03 32.32 -2.6
ePg 03 39.45
eS 04 14.17
CIS 2.77 293 P 03 39.80 3.9
CIW 2.91 293 P 03 39.02 1.3
TUC 3.87 90 ePn 03 51.72 0.2
ISA 4.19 323 (Pn) 03 53.44 -2.6
TPNV 4.64 351 (P) 04 09.54 7.0
ePg 04 21.15
BCH 4.84 307 (Pn) 04 04.00 -1.4
PV10 7.91 39 ePg 05 15.93 27.2
28 obs. associated

& DEC 08, 1993 03h 06m 17.38s
32.304 N 115.359 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.2 (PAS), 2.9 (GS).

GLA 0.87 31 eP 06 32.21 -2.3
PLM 1.64 310 ePn 06 44.73 -2.3
iPg 06 47.96
eS 07 08.96
PEC 2.19 317 eP 06 51.83 -3.0
eS 07 24.36
SSK 2.73 315 ePn 07 00.67 -2.0
iPg 07 07.23
eS 07 40.49
TUC 3.87 89 (P) 07 26.28 7.4
5 obs. associated

& DEC 08, 1993 03h 10m 14.35s
32.341 N 115.348 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.0 (PAS).

GLA 0.83 32 eP 10 28.76 -2.1
PLM 1.63 309 ePn 10 45.00 1.2
PEC 2.17 316 ePn 10 53.00 1.5
GSC 3.19 338 (Pn) 11 07.25 1.1
4 obs. associated

DEC 08, 1993 03h 13m 31.27± 0.76s
24.155 S ± 6.7km 66.662 W ± 9.0km
DEPTH = 194.7 ± 9.7 km
4.3mb (2 obs.)
SALTA PROVINCE, ARGENTINA (129)

CCH 6.76 4 P 15 09.90 0.5
CNCB 7.41 350 iPc 15 19.90 1.6
CFA 7.55 190 ePd 15 19.80 0.1
S 16 41.00
LPB 7.70 350 P 15 23.00 0.9
RTCV 7.85 192 eP 15 23.50 -0.2
S 16 48.00
LPAZ 7.95 350 Pc 15 25.30 -0.3
ARE 8.89 328 eP 15 35.00 -2.4
iS 17 05.80
SIV 9.67 34 P 15 46.50 -0.8
PPD 14.28 85 eP 16 47.00 0.9
e 16 50.00
NNA 15.48 320 eP 17 01.20 0.2
0.7s 10.27nm 4.4mb
VAO 18.09 90 eP 17 30.40 -0.7
BDFB 19.46 68 eP 17 45.11 -0.2
BAO 19.48 68 eP 17 45.30 -0.2
LKO 68.36 68 P 24 12.87 -1.1
SYO 73.27 159 ePd 24 46.30 3.9X
YKA 94.38 340 P 26 29.00 -0.3
0.6s 1.20nm 4.2mb
WB2 131.62 207 iPKPd 32 23.50 0.5
0.3s 4.20nm
WRA 131.63 207 PKP 32 19.50 -3.5X
0.5s 1.40nm
GBA 144.54 101 PKP 32 45.00 -1.6
HYB 146.86 95 ePKP 32 51.50 1.0
GKN 153.97 75 PKP 33 03.10 2.1
GUN 155.07 75 PKP 32 58.00 -4.8X
S.D. = 1.2 on 19 of 22 obs.

& DEC 08, 1993 03h 17m 09.93s
32.328 N 115.361 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.9 (PAS).

SGL 0.44 316 P 17 18.29 -0.6
EMSC 0.52 37 P 17 19.96 -0.4
COA 0.57 21 P 17 20.57 -0.8
YUH 0.57 304 P 17 20.77 -0.6
PLT 0.67 53 P 17 21.84 -1.5
SUP 0.74 328 P 17 22.82 -1.8
GLA 0.85 32 eP 17 24.55 -2.2
PLM 1.63 309 eP 17 39.65 0.3
eS 18 01.78
PEC 2.17 316 eP 17 47.45 0.3
eS 18 16.47
SSK 2.71 314 (P) 17 59.63 4.6
10 obs. associated

& DEC 08, 1993 03h 25m 56.21s
32.352 N 115.346 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.0 (PAS).

BON 0.35 11 P 26 03.12 -0.1
ERPC 0.47 326 P 26 05.21 -0.5
EMSC 0.49 38 P 26 05.82 -0.3
SNR 0.51 351 P 26 06.05 -0.5
COA 0.54 20 P 26 06.44 -0.7
YUH 0.57 301 P 26 06.88 -0.8
COK 0.59 327 P 26 07.09 -1.0
YMD 0.71 73 P 26 09.34 -1.0
SUP 0.72 326 P 26 09.06 -1.6
GLA 0.82 32 eP 26 10.36 -2.2
LTC 1.16 11 P 26 15.73 -2.5
BAR 1.17 287 P 26 17.92 -0.5
PLM 1.62 308 ePn 26 23.95 -1.6
PEC 2.16 316 ePn 26 33.29 0.0
eS 27 02.68
SSK 2.70 314 ePn 26 42.31 1.2
15 obs. associated

& DEC 08, 1993 04h 31m 30.17s
32.326 N 115.348 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.0 (PAS), 3.0 (GS).
Double event.

GLA 0.85 31 eP 31 44.82 -2.1
PLM 1.64 309 ePn 31 57.03 -2.7
ePg 32 00.66
PEC 2.18 316 ePn 32 05.03 -2.5
SSK 2.72 314 (P) 32 13.78 -1.6
PV10 7.94 39 ePg 33 52.74 23.7
5 obs. associated

& DEC 08, 1993 05h 00m 30.24s

32.342 N 115.360 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.0 (PAS).

GLA 0.84 32 eP 00 43.31 -3.6
PLM 1.62 309 ePn 00 57.09 -2.5
iPg 01 00.49
eS 01 21.39
PEC 2.16 316 ePn 01 04.09 -3.2
eS 01 36.75
SSK 2.70 314 (Pn) 01 12.52 -2.6
ePg 01 19.84
eS 01 54.47
4 obs. associated

? DEC 08, 1993 07h 46m 09.68± 3.23s
18.261 S ±15.3km 69.491 W ±36.9km
DEPTH = 157.8 ± 12.4 km
NORTHERN CHILE (123)

CNCB 2.04 45 iPd 46 46.80 0.1
LPB 2.17 38 iPd 46 48.20 0.1
1.0s 598.00nm
i 47 19.20
LPAZ 2.35 34 iPd 46 50.30 -0.2
CCH 3.31 75 P 47 02.30 0.1
MOCB 4.69 130 P 47 20.40 0.0
PPD 17.47 105 eP 50 05.20 -0.1
LKO 68.84 72 P 56 59.45 0.1
YKA 87.96 341 P 59 14.10 31.7X
0.8s 0.40nm
S.D. = 0.2 on 7 of 8 obs.

? DEC 08, 1993 08h 05m 59.43± 2.53s
6.363 S ±21.2km 146.956 E ±32.5km
DEPTH = 108.3 ± 14.3 km
4.1mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 0.30 171 iPc 06 15.10 -0.1
YYYY 0.99 277 eP 06 21.00 0.2
MDG 1.61 313 iPd 06 07.10 -20.7X
PMG 3.03 176 iPc 06 46.80 0.3
WWKK 4.29 309 eP 07 03.80 0.0
QIS 15.81 206 eP 09 41.30 4.1X
WB2 18.22 221 iPd 10 06.20 -0.7
0.8s 6.50nm 3.9mb
iS 13 27.10
ASPA 21.30 215 eP 10 39.50 0.5
0.5s 7.10nm 4.3mb
iS 14 31.50
S.D. = 0.7 on 6 of 8 obs.

% DEC 08, 1993 08h 10m 49.77± 3.49s
41.923 N ±25.6km 19.227 E ± 6.7km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.9 (TTG).

ULC 0.04 23 iPgc 10 51.32 -0.6
iSg 10 51.88
BDV 0.47 321 iPgc 10 59.09 -0.2
iSg 11 05.55
TTG 0.51 3 ePg 10 59.65 -0.4
iSg 11 06.70
HCY 0.75 314 iPgc 11 04.35 -0.2
iSg 11 15.24
PVY 0.87 39 iPgc 11 06.65 0.1
iSg 11 19.14
NKY 0.90 349 iPgd 11 07.06 -0.1
iSg 11 19.96
IVA 1.07 27 iPgc 11 10.21 0.2
iSg 11 25.62
BRY 1.10 333 iPgd 11 10.77 0.3
iSg 11 26.59
PLE 1.41 5 iPgd 11 16.46 0.9
S.D. = 0.5 on 9 of 9 obs.

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* DEC 08, 1993 08h 12m 27.09± 1.85s
14.998 N ± 6.4km 60.094 W ±15.3km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
ML 2.7 (FDF). MD 3.1 (TRN).

CRM 0.83 253 iPc 12 43.29 0.1
S 12 52.43
MVM 0.89 240 iPc 12 44.54 0.3
S 12 54.28
FDF 1.06 256 iPc 12 46.43 -0.6
S 12 57.50
BIM 1.06 243 eP 12 47.10 0.0
DSVT 1.25 281 eP 12 51.25 0.9
eS 13 05.89
SLW 1.27 220 eP 12 50.51 -0.2
eS 13 05.17
MDN 1.30 284 eP 12 50.86 -0.3
eS 13 05.81
SLB 1.48 218 eP 12 53.75 -0.1
eS 13 10.55
DEG 1.61 325 eP 12 56.90 1.3
S 13 17.04
SEG 1.95 316 eP 12 58.90 -1.6
S 13 19.30
SVB 2.05 213 eP 13 02.23 0.2
eS 13 25.87
S.D. = 0.8 on 11 of 11 obs.

& DEC 08, 1993 08h 47m 30.10s
32.336 N 115.357 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.3 (PAS), 3.1 (GS).

GLA 0.84 32 iPd 47 44.64 -2.2
PLM 1.62 309 eP 47 57.05 -2.4
eS 48 21.42
PEC 2.17 316 ePn 48 04.29 -3.0
eS 48 36.77
SSK 2.71 314 ePn 48 11.91 -3.2
ePg 48 19.70
eS 48 54.17
GSC 3.19 338 (Pn) 48 18.43 -3.5
TUC 3.87 89 (Pn) 48 30.43 -1.1
TPNV 4.66 351 ePg 48 59.50 16.7
ARUT 5.66 16 (Pn) 48 55.54 -1.5
PV10 7.93 39 ePg 49 56.13 27.2
9 obs. associated

& DEC 08, 1993 09h 06m 28.81s
35.009 N 116.966 W
DEPTH = 2.3km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 3.7 (PAS), 3.8 (GS).

WSHM 0.76 326 P 06 42.40 -1.5
SSK 1.00 217 eP 06 47.26 -1.3
eS 06 57.84
RCWM 1.09 330 P 06 49.08 -1.0
WBSM 1.10 299 P 06 49.40 -0.9
SNDC 1.10 277 P 06 49.63 -0.7
PEC 1.13 188 iPd 06 49.61 -1.0
eS 07 02.90
VPEM 1.17 324 P 06 50.77 -0.7
WORM 1.25 304 P 06 51.91 -0.9
WJPM 1.30 288 P 06 52.77 -1.0
ISA 1.39 298 ePc 06 53.95 -1.3
eS 07 11.76
ARVC 1.53 275 P 06 56.86 -0.4
WLHM 1.58 317 P 06 57.34 -0.9
FTC 1.59 266 P 06 58.40 0.3
PLM 1.65 177 ePd 06 58.23 -0.9
eS 07 19.95
ABL 1.86 266 eP 06 59.76 -2.4
MARC 1.95 270 P 07 02.55 -0.7
RYS 2.00 260 P 07 05.61 1.5
TPNV 2.02 17 eP 07 02.81 -1.6
TMB 2.11 273 P 07 08.72 3.1
CRGC 2.27 277 P 07 11.05 3.0
YEG 2.49 281 P 07 09.39 -1.7
BCH 2.56 275 eP 07 10.04 -2.1
GLA 2.64 137 ePn 07 10.73 -2.4
MTUM 2.67 332 eP 07 12.99 -0.8
PKEM 2.77 293 (Pn) 07 14.02 -1.0
PHBM 2.82 297 P 07 15.51 -0.3
PHAM 2.92 287 ePn 07 15.65 -1.5
FRI 2.98 312 iP 07 17.18 -0.7
TNP 3.07 356 ePn 07 18.24 -1.2
MMPM 3.08 328 (Pn) 07 19.50 -0.2
MEMM 3.09 330 ePn 07 17.30 -2.2
BONR 3.13 340 ePn 07 20.26 -0.1
PRI 3.22 292 iP 07 19.41 -2.1
BMSM 3.52 299 P 07 24.21 -1.5
LRC 3.54 292 P 07 24.25 -1.7
ARUT 3.97 45 ePn 07 31.07 -1.2
ePg 07 41.35
BAPM 3.98 288 P 07 29.56 -2.8
LTR 3.99 299 P 07 30.54 -1.7
SAO 4.04 297 iP 07 31.00 -2.0
CMB 4.09 319 eP 07 33.29 -0.4
KVN 4.14 348 (Pn) 07 32.66 -1.9
ARN 4.37 304 ePn 07 35.99 -1.8
MSU 5.20 46 ePn 07 48.27 -1.4
NTYM 5.68 308 ePn 07 54.39 -1.9
DUG 6.14 31 ePn 08 01.79 -1.0
ePg 08 22.89
SRU 6.58 50 (Pn) 08 08.18 -1.0
PV10 7.20 60 (Pn) 08 15.90 -2.0
HVU 7.52 25 (Pn) 08 21.10 -1.1
ePg 08 47.32
48 obs. associated

DEC 08, 1993 09h 07m 04.07± 0.46s
42.618 N ± 4.1km 18.874 E ± 4.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.6 (TTG).

NKY 0.22 25 iPgc 07 09.58 0.8
iSg 07 13.34
HCY 0.33 239 iPgd 07 10.95 0.1
iSg 07 16.46
BDV 0.34 186 iPgc 07 11.43 0.4
iSg 07 17.10
TTG 0.34 123 iPgc 07 11.60 0.5
iSg 07 17.42
BRY 0.37 319 iPgc 07 11.60 -0.2
iSg 07 17.25
ULC 0.71 157 iPgd 07 18.05 -0.1
iSg 07 29.07
IVA 0.80 71 iPgc 07 19.77 0.2
iSg 07 31.80
PLE 0.81 28 iPgd 07 19.60 -0.2
iSg 07 31.77
PVY 0.81 91 iPgd 07 20.02 0.1
iSg 07 32.63
HVAR 1.87 288 iPnc 07 36.10 -0.3
iSn 08 00.30
SKO 2.01 108 ePn 07 37.00 -1.4
i 07 40.50
OHR 2.08 136 ePn 07 45.00 5.5X
S.D. = 0.6 on 11 of 12 obs.

? DEC 08, 1993 09h 43m 32.13± 1.10s
40.041 N ±14.2km 21.406 E ±11.6km
DEPTH = 33.0km (normal)
GREECE (364)

FNA 0.74 358 ePg 43 46.84 0.6
iSg 43 57.12
LIT 0.83 86 ePg 43 48.10 0.6
eSg 43 59.16
IGT 0.97 239 iPg 43 49.26 -0.2
OHR 1.17 337 ePn 44 12.00 19.8X
GRG 1.19 39 ePb 43 50.32 -2.2X
eSb 44 07.72
VAY 1.56 34 ePn 43 59.80 2.0X
KNT 1.60 45 ePb 43 57.32 -1.1
eSb 44 18.50
S.D. = 1.4 on 4 of 7 obs.

DEC 08, 1993 09h 46m 14.53± 0.39s
52.015 N ± 7.4km 158.851 E ± 7.9km
DEPTH = 33.0km (normal)
4.9mb (32 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

YAK 18.59 314 eP 50 29.00 -1.6
NIIJ 20.34 231 P 50 49.80 -0.7
MAT 21.28 231 (P) 51 00.00 -0.2
1.2s 53.13nm 4.8mb
CHJJ 21.30 229 P 51 00.00 -0.4
MTMJ 21.44 232 P 51 02.40 0.5
IIDJ 22.28 230 P 51 10.90 0.7
TSRJ 23.17 234 eP 51 19.70 0.8
WKYJ 24.41 232 P 51 31.70 0.7
YONJ 24.72 237 P 51 35.60 1.6
TKSJ 25.37 234 P 51 41.70 1.6
FBA 29.73 44 eP 52 18.74 -0.7
0.7s 2.64nm 4.1mb
INK 35.19 37 eP 53 07.50 0.6

08d 09h

0.6s 2.00nm 4.2mb
MBC 38.33 22 eP 53 35.00 1.7
YKA 44.47 41 P 54 23.30 -0.5
0.8s 1.70nm 3.9mb
RES 44.61 21 eP 54 26.00 1.3
DAG 51.48 359 iPc 55 17.90 -0.2
0.6s 8.00nm 4.9mb
CHTO 56.94 258 ePd 55 58.80 -0.1
0.9s 10.87nm 4.9mb
GUN 58.25 276 P 56 07.30 -1.1
0.6s 18.00nm 5.3mb
KKN 58.70 276 P 56 10.80 -0.6
0.5s 23.00nm 5.5mb
PKI 58.78 276 P 56 10.50 -1.6
0.5s 13.00nm 5.3mb
GKN 58.95 277 P 56 11.80 -1.2
0.4s 7.00nm 5.1mb
KAF 60.18 336 eP 56 19.90 -1.0
RSSD 60.64 55 eP 56 23.95 -0.6
0.8s 8.36nm 4.9mb
e 56 33.44
SRU 60.75 63 eP 56 24.82 -0.5
PV10 62.09 63 eP 56 34.39 -0.1
NB2 64.36 343 P 56 48.10 -0.7
0.5s 7.20nm 5.0mb
HFS 64.74 342 eP 56 49.80 -1.4
0.4s 10.90nm 5.3mb
HYB 70.53 273 eP 57 27.00 -1.1
LTX 71.77 66 eP 57 32.76 -2.7
CLL 73.08 338 iP 57 42.20 -0.6
0.9s 11.00nm 4.9mb
GBA 74.13 272 P 57 48.30 -1.0
0.5s 7.50nm 4.9mb
WRA 74.78 204 P 57 51.80 -1.1
0.7s 1.00nm 3.9mb
GEC2 75.22 337 P 57 55.30 0.0
0.5s 2.67nm 4.5mb
KBA 76.95 337 iPc 58 06.10 0.9
0.8s 21.00nm 5.2mb
i 58 10.90
CDF 77.05 341 eP 58 05.80 0.2
0.6s 4.35nm 4.7mb
WTTA 77.19 338 iPc 58 07.20 0.7
0.9s 9.30nm 4.8mb
MOTA 77.24 338 iPc 58 07.00 0.3
0.9s 8.90nm 4.8mb
SQTA 77.33 338 iPc 58 07.80 0.6
0.8s 6.30nm 4.7mb
HAU 77.62 341 eP 58 08.30 -0.4
BSF 77.70 341 eP 58 09.20 0.0
LOR 78.80 343 eP 58 15.30 0.1
0.5s 3.00nm 4.6mb
LBF 79.05 343 eP 58 16.50 -0.1
0.7s 3.95nm 4.5mb
SSF 79.06 343 eP 58 17.00 0.4
0.8s 6.30nm 4.7mb
AVF 79.35 343 eP 58 18.60 0.5
1.1s 19.80nm 5.0mb
BGF 79.67 343 eP 58 21.20 1.4
1.1s 26.35nm 5.1mb
LPL 79.93 340 eP 58 22.60 1.1
0.9s 9.65nm 4.8mb
TCF 80.04 344 eP 58 22.60 0.7
0.7s 6.85nm 4.8mb
MAF 80.04 344 eP 58 23.00 1.1
0.7s 9.25nm 4.9mb
CAF 81.39 344 eP 58 30.40 1.4
1.0s 15.60nm 5.0mb
LPO 81.77 344 eP 58 32.20 1.2
0.9s 14.10nm 5.0mb
S.D. = 1.0 on 50 of 50 obs.

& DEC 08, 1993 09h 47m 52.74s
32.340 N 115.351 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.8 (PAS).

BON 0.36 11 P 47 59.82 -0.2
SGL 0.44 314 P 48 01.08 -0.5
ERPC 0.48 327 P 48 02.03 -0.4
EMSC 0.50 37 P 48 02.48 -0.4
SNR 0.53 352 P 48 02.78 -0.5
COA 0.56 20 P 48 03.15 -0.7
YUH 0.57 303 P 48 03.54 -0.7
COK 0.60 328 P 48 03.75 -1.0
PLT 0.65 53 P 48 04.57 -1.3
RUN 0.70 26 P 48 05.17 -1.7
YMD 0.71 72 P 48 06.01 -1.0
SUP 0.73 327 P 48 05.55 -1.8
CLIC 0.81 350 P 48 06.95 -1.9
GLA 0.84 32 eP 48 07.05 -2.3
CBKC 0.94 307 P 48 10.56 -0.5
BRGC 1.08 320 P 48 11.40 -2.0
LTC 1.17 12 P 48 12.35 -2.6
COY 1.30 322 P 48 14.06 -3.1
CO2 1.50 0 P 48 17.37 -2.9
PLM 1.62 309 eP 48 21.13 -1.0
PEC 2.17 316 (P) 48 28.43 -1.5
SSK 2.71 314 (P) 48 38.11 0.3
22 obs. associated

DEC 08, 1993 09h 49m 03.02± 0.43s
42.611 N ± 3.8km 18.860 E ± 3.8km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.4 (TTG).

NKY 0.23 27 iPgd 49 08.50 0.6
iSg 49 12.20
HCY 0.31 239 iPgc 49 09.74 0.2
iSg 49 14.63
BDV 0.33 184 iPgc 49 10.12 0.3
iSg 49 15.35
TTG 0.35 121 iPgc 49 10.59 0.4
iSg 49 16.10
BRY 0.37 321 iPgd 49 10.63 -0.1
iSg 49 16.38
ULC 0.71 156 iPgd 49 16.98 0.0
iSg 49 27.66
IVA 0.81 71 iPgd 49 18.80 0.0
iSg 49 30.91
PLE 0.82 28 iPgc 49 18.94 0.0
iSg 49 31.21
PVY 0.82 91 iPgd 49 19.00 0.0
iSg 49 31.56
HVAR 1.86 289 iPnc 49 34.80 -0.4
iSn 50 00.00
SKO 2.02 108 ePn 49 36.50 -1.0
i 49 39.30
OHR 2.08 135 ePn 49 41.00 2.5X
S.D. = 0.5 on 11 of 12 obs.

& DEC 08, 1993 10h 30m 42.38s
32.330 N 115.249 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.8 (PAS).

BON 0.36 357 P 30 49.82 0.1
EMSC 0.47 28 P 30 51.47 -0.3
SGL 0.51 308 P 30 51.93 -0.7
ERPC 0.54 320 P 30 53.04 -0.2
COA 0.54 11 P 30 52.84 -0.4
PLT 0.59 48 P 30 53.15 -1.1
YMD 0.64 69 P 30 54.45 -0.7
YUH 0.65 299 P 30 54.41 -1.0
COK 0.66 322 P 30 54.43 -1.1
RUN 0.68 20 P 30 54.41 -1.6
SUP 0.79 322 P 30 56.22 -1.9
GLA 0.80 26 eP 30 55.97 -2.4
CBKC 1.02 304 P 31 01.70 -0.3
BRGC 1.15 317 P 31 02.87 -1.3
LTC 1.17 7 P 31 03.23 -1.3
COY 1.36 319 P 31 04.40 -3.5
PLM 1.70 307 eP 31 09.96 -2.9
GSC 3.23 337 (Pn) 31 32.46 -2.3
18 obs. associated

? DEC 08, 1993 11h 12m 30.78± 8.74s
45.614 N ±14.6km 4.900 E ±61.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

SSB 0.42 217 Pg 12 39.16 -0.2
Sg 12 43.88
COLF 0.85 264 Pg 12 46.70 -0.5
PLDF 0.96 292 Pg 12 49.11 0.0
Sg 13 00.91
LBL 1.22 252 Pg 12 53.81 0.2
Sg 13 08.82
AGO 1.31 290 Pg 12 54.91 -0.1
PYM 1.33 277 Pg 12 55.98 0.6
S.D. = 0.5 on 6 of 6 obs.

% DEC 08, 1993 11h 20m 58.04± 0.75s
40.366 N ± 5.8km 23.835 E ± 7.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)

OUR 0.12 106 ePg 21 00.84 -0.1
iSg 21 03.10
PAIG 0.45 195 ePg 21 07.26 0.0
eSg 21 14.44
SOH 0.58 321 ePg 21 09.00 -0.9
eSg 21 16.44
THE 0.71 292 ePg 21 12.16 0.1
SRS 0.77 346 iPg 21 13.92 0.8
LIT 1.06 256 ePg 21 18.40 0.3
KNT 1.07 318 ePg 21 18.01 -0.1
eSg 21 33.08
S.D. = 0.6 on 7 of 7 obs.

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* DEC 08, 1993 12h 03m 05.56± 0.92s
45.984 N ± 9.2km 14.311 E ± 5.7km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.3 (LJU).

LJU 0.17 69 ePg 03 09.10 -0.3
eSg 03 13.40
CEY 0.26 162 ePg 03 11.50 0.4
eSg 03 15.00
e(Rg) 03 17.20
VOY 0.29 279 ePg 03 12.30 0.5
eSg 03 17.60
TRI 0.47 234 e(Pg) 03 14.40 -0.7
e(Sg) 03 21.70
VBY 0.82 126 iPg 03 21.40 0.0
S.D. = 0.7 on 5 of 5 obs.

---

* DEC 08, 1993 12h 57m 07.95± 3.49s
45.279 N ±26.7km 14.160 E ±12.8km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.6 (VIE). MD 2.2 (TRI).

RIY 0.17 68 iPg 57 11.00 -0.8
iSg 57 15.40
CEY 0.50 22 e(Pg) 57 18.00 0.0
eSg 57 26.70
TRI 0.51 327 ePg 57 17.00 -1.3
eSg 57 26.60
VOY 0.78 346 ePg 57 23.40 0.3
e(Sg) 57 35.00
e 57 36.40
VBY 0.80 73 ePg 57 24.00 0.4
iSg 57 37.20
KBA 1.89 343 iPgd 57 42.10 1.4
iSg 58 09.50
WTTA 2.65 319 iPgc 57 58.20 6.6X
i 58 34.50
i 58 34.90
S.D. = 1.3 on 6 of 7 obs.

& DEC 08, 1993 13h 09m 47.84s
34.987 N 116.948 W
DEPTH = 5.5km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.7 (PAS).

GSC 0.34 20 iPd 09 54.16 -0.5
eS 09 59.32
SSK 0.99 219 eP 10 05.86 -1.3
S 10 18.64
PEC 1.11 189 eP 10 07.65 -1.4
ISA 1.42 299 ePnc 10 12.44 -1.9
eS 10 31.11
PLM 1.63 177 eP 10 17.26 -0.2
eS 10 37.84
ABL 1.87 266 ePn 10 20.35 -0.6
iPg 10 21.89
eS 10 46.65
TPNV 2.04 16 (Pn) 10 22.23 -1.1
ePg 10 25.68
eS 10 55.22
GLA 2.61 137 ePn 10 31.92 0.5
iPg 10 35.90
eS 11 11.26
8 obs. associated

```
? DEC 08, 1993  13h 10m 37.43± 9.15s
  38.613 N ±65.4km   23.735 E ±38.4km
  DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)

AGG      1.17 291 iPg   10 58.94  -0.4
                  eSg   11 13.52
PAIG     1.31 358 iPg   11 01.24  -0.4
                  eSg   11 16.56
OUR      1.73   6 iPb   11 07.72   0.0
LIT      1.77 327 ePb   11 08.76   0.4
                  eSb   11 28.72
     S.D. = 0.7  on   4 of   4 obs.
--------------------------------------
  DEC 08, 1993  13h 39m 48.95± 0.44s
  43.996 N ± 7.0km   16.937 E ± 7.3km
  DEPTH =   9.8 ±  3.5 km
 NORTHWESTERN BALKAN REGION      (383)
     ML 3.2 (TTG), 2.6 (LJU).  MD 3.3
     (TRI).

HVAR     0.89 204 iPgd  40 04.40  -1.7
                  iSg   40 19.40
BRY      1.60 133 iPnd  40 17.76   0.2
                  iSn   40 42.03
PLE      1.90 110 iPnd  40 21.25  -0.6
                  iSn   40 48.82
NKY      1.91 128 iPnc  40 22.08   0.1
                  iSn   40 49.56
HCY      1.92 143 iPnd  40 22.53   0.5
                  iSn   40 50.23
VBY      1.93 322 ePn   40 21.20  -0.9
                  iSn   40 47.50
PTJ      2.03 340 iPn   40 22.60  -1.0
                  iSn   40 49.00
BDV      2.20 140 iPnd  40 26.67   0.6
                  iSn   40 56.82
RIY      2.26 307 ePn   40 28.20   1.2
TTG      2.31 132 iPnc  40 28.02   0.4
                  iSn   40 59.43
IVA      2.43 117 iPnd  40 29.28  -0.2
                  iSn   41 01.76
CEY      2.49 315 e(Pg) 40 34.20   3.9X
                  eSg   41 06.40
PVY      2.62 121 iPnd  40 32.05  -0.2
                  iSn   41 06.58
ULC      2.65 139 iPnd  40 32.69   0.2
                  iSn   41 07.91
LJU      2.66 321 eP    40 32.20  -0.5
                  eSg   41 19.90
TRI      2.83 308 e(Pn) 40 36.30   1.2
                  e     40 40.50
                  e     41 13.70
                  i(Sg) 41 19.30
VOY      2.97 314 ePn   40 38.50   1.5
                  ePg   40 46.00
                  eSn   41 11.50
                  e     41 17.30
                  eSg   41 23.50
KBA      3.98 322 i(P)  41 02.80  11.3X
KHC      5.63 337 ePn   41 13.50  -1.3
                  e     41 38.50
                  eSg   42 14.00
     S.D. = 1.0  on  17 of  19 obs.
--------------------------------------
% DEC 08, 1993  14h 45m 28.63± 3.37s
  31.160 S ±18.3km   68.685 W ±15.9km
  DEPTH =  91.1 ± 38.7 km
 SAN JUAN PROVINCE, ARGENTINA    (137)

RTLL     0.25 132 eP    45 42.30   0.1
RTCB     0.34 197 eP    45 42.50  -0.2
CFA      0.59 140 eP    45 44.80   0.3
                  S     45 54.60
RTCV     0.71 170 eP    45 45.50  -0.1
RTRS     1.19 326 eP    45 51.00   0.1
RTPR     2.06  66 iPc   46 02.00  -0.1
                  S     46 28.00
     S.D. = 0.3  on   6 of   6 obs.
--------------------------------------
* DEC 08, 1993  15h 12m 36.49± 1.11s
  40.148 N ±13.8km  119.722 W ±10.8km
  DEPTH =   5.0km  (geophysicist)
 NEVADA                          ( 37)
     ML 2.9 (GS). MD 2.8 (GM).

LMEM     1.47 286 (P)   13 03.10  -0.7
ORV      1.49 247 eP    13 03.85  -0.1
                  eS    13 23.54
KVN      1.66 131 eP    13 04.97  -1.7
LBFM     2.04 307 eP    13 12.75   0.7
CMB      2.17 194 (P)   13 13.88   0.0
BONR     2.45 153 eP    13 18.70   0.6
TNP      2.84 136 eP    13 24.68   1.2
     S.D. = 1.2  on   7 of   7 obs.
--------------------------------------
? DEC 08, 1993  16h 16m 39.93± 0.88s
  28.902 S ±21.1km  178.693 W ±14.0km
  DEPTH = 199.4 ±  8.7 km
  4.6mb (  6 obs.)
 KERMADEC ISLANDS REGION         (177)

RAO      0.76 117 iP    17 08.40   0.0
                  S     17 30.40
DZM     15.04 294 iPc   20 09.80   5.9X
ASPA    42.61 266 iPd   24 19.00   0.9
         0.4s     9.70nm          4.7mb
WB2     43.44 271 iPc   24 25.00   0.1
         0.4s     8.90nm          4.6mb
                  i     26 08.60
WRA     43.45 271 P     24 25.40   0.4
         0.6s     3.20nm          4.0mb
FORT    45.86 254 eP    24 43.50  -0.5
WARB    48.19 260 iPd   25 01.80  -0.4
         0.4s     4.00nm          4.2mb
SBA     49.48 184 iPd   25 15.00   3.7X
CSY     56.19 207 iPd   25 49.50 -11.3X
         0.4s    46.70nm
NANU    58.94 260 eP    26 19.80  -0.8
         0.3s     4.00nm          4.6mb
SPA     61.26 180 iPc   26 35.60  -0.4
         0.8s    20.83nm          4.9mb
SYO     78.45 193 ePd   28 20.40   0.9
NB2    147.18 351 PKP   35 57.20  -0.5
         0.5s     1.80nm
HFS    147.66 348 ePKP  35 58.80   0.4
         0.5s     2.80nm
     S.D. = 0.7  on  11 of  14 obs.
--------------------------------------
* DEC 08, 1993  17h 38m 53.30± 1.00s
  20.721 S ±11.8km  178.760 W ±11.0km
  DEPTH = 593.7 ± 11.6 km
  4.7mb (  8 obs.)
 FIJI ISLANDS REGION             (181)

MBU      4.43 327 iPc   40 21.20  -0.7
AFI      9.50  46 eP    41 00.00  -7.6X
BKM     12.65 282 iPd   41 40.00   1.5
DZM     13.85 262 iPc   41 50.90   0.6
ARMA    28.33 244 iPc   44 03.00   0.2
         0.5s    16.00nm          4.9mb
CNB     31.51 236 iPc   44 29.70   0.0
         0.4s    15.00nm          5.0mb
CAN     31.80 236 eP    44 31.90  -0.2
ASPA    43.78 257 iPc   46 09.10  -0.3
         0.5s     9.70nm          4.6mb
                  iPcP  47 42.70
                  iS    51 57.70
WB2     43.85 262 iPd   46 09.50  -0.5
         0.6s     7.70nm          4.4mb
                  i     47 43.30
WRA     43.86 262 P     46 10.10   0.0
         1.0s     1.50nm          3.5mb X
WARB    50.08 253 eP    46 56.20  -0.8
MBL     57.02 258 eP    47 45.20  -0.8
SBA     57.61 184 iPc   47 50.10   0.9
SPA     69.41 180 iPd   49 03.10  -1.1
         0.8s    41.67nm          5.0mb
ISA     80.00  46 eP    50 03.55   0.4
         1.0s     4.63nm          3.9mb
GLA     81.11  50 eP    50 09.83   1.0
SYO     86.38 193 ePd   50 34.80   0.7
SRU     87.19  46 eP    50 39.07   0.4
LTX     87.77  58 eP    50 40.79  -0.7
FBA     88.61  13 eP    50 43.29  -1.1
         0.8s     8.89nm          4.7mb
YKA     97.01  25 P     51 22.00  -0.8
         0.8s     0.60nm          4.0mb
GBA    107.42 278 Pdiff 51 54.00 -16.3X
KAF    135.16 344 iPKP  57 07.40   0.4
         0.5s     4.90nm
NB2    139.11 353 PKP   57 05.60  -8.8X
         0.7s     3.20nm
HFS    139.64 350 ePKP  57 06.80  -8.5X
         0.4s     4.00nm
EKA    145.28   4 PKP   57 27.00   1.8
         1.0s    10.20nm
OJC    147.10 338 ePKP  57 31.60   3.3X
KSP    147.69 342 iPKP  57 33.60   4.4X
CLL    148.11 346 iPKP  57 34.50   4.7X
         0.8s    25.00nm
                  i     57 39.60
BRG    148.29 345 iPKP  57 34.10   3.9X
         0.9s    20.00nm
PRU    148.94 343 PKP   57 36.00   4.8X
MOX    149.03 347 ePKP  57 36.90   5.6X
         1.5s    23.00nm
KHC    149.98 344 ePKPd 57 39.10   6.3X
         0.6s     6.30nm
GRF    150.02 347 iPKPd 57 39.40   6.6X
GEC2   150.21 343 PKP   57 33.30   0.0
                  e     57 39.30
                  e     57 48.60
                  e     59 55.60
DOU    150.57 356 PKP   57 40.20   6.6X
LIC    164.36 156 PKP   57 50.69  -0.3
KIC    164.59 157 PKP   57 50.95  -0.3
         0.7s    13.00nm
TIC    164.75 156 PKP   57 51.09  -0.3
         0.7s     4.00nm
     S.D. = 0.8  on  26 of  39 obs.
--------------------------------------
* DEC 08, 1993  18h 05m 46.63± 0.65s
  17.474 N ± 9.1km  145.492 E ±10.5km
  DEPTH = 460.2 ±  7.8 km
  4.5mb ( 10 obs.)
 MARIANA ISLANDS                 (216)

GUMO     3.91 189 eP    07 02.50   0.2
         0.4s    73.10nm
                  eS    07 59.60
PJG      3.91 189 eP    07 02.80   0.4
GUA      3.95 188 eP    07 02.30  -0.4
MTN     33.30 206 eP    11 45.70  -0.3
         0.4s    48.00nm          5.3mb
WB2     38.76 197 iPd   12 31.30   0.0
         0.4s    10.80nm          4.7mb
LZH     41.17 305 eP    12 52.00   0.9
         1.0s    24.00nm          4.6mb
ASPA    42.43 196 iPc   13 00.50  -0.5
         0.5s     8.20nm          4.4mb
WARB    47.11 203 iPc   13 37.40   0.0
         0.3s     3.00nm          4.3mb
GUN     55.51 292 P     14 39.70   0.2
         0.7s    20.00nm          4.6mb
PKI     55.95 292 P     14 41.90  -0.6
         0.5s    14.00nm          4.5mb
KKN     56.05 292 P     14 43.00  -0.1
GKN     56.61 292 P     14 46.80  -0.1
         0.5s    14.00nm          4.6mb
BALM    66.23  30 eP    15 48.45  -1.0
GMW     78.46  44 eP    16 59.91  -0.1
YKA     79.16  28 P     17 02.50  -0.8
         0.6s     1.60nm          3.8mb
DUG     87.50  49 eP    17 46.48   0.8
         0.5s     3.65nm          4.4mb
LPAZ   147.83  93 PKP   24 42.40   4.3X
LPB    147.89  93 ePKP  24 43.00   5.1X
CNCB   148.03  94 PKP   24 39.70   1.4
MOCB   150.42 102 PKP   24 47.90   6.2X
     S.D. = 0.7  on  17 of  20 obs.
--------------------------------------
  DEC 08, 1993  18h 25m 40.80± 0.36s
  40.166 N ± 3.9km  119.569 W ± 2.7km
  DEPTH =   5.0km  (geophysicist)
 NEVADA                          ( 37)
     ML 3.4 (GS). MD 3.1 (GM).

AFHM     1.47 220 P     26 07.15  -0.9
LSLM     1.53 281 P     26 08.85   0.0
OBHM     1.54 251 P     26 08.68  -0.4
LMEM     1.57 284 eP    26 08.90  -0.7
ORAM     1.58 244 P     26 09.13  -0.5
KVN      1.59 134 eP    26 09.52  -0.3
ASMM     1.59 213 P     26 09.42  -0.4
ORV      1.61 248 eP    26 08.45  -1.5
AFDM     1.63 222 P     26 09.56  -0.7
OGOM     1.65 253 P     26 10.78   0.2
AVRM     1.74 230 P     26 11.22  -0.6
AHRM     1.75 222 P     26 12.18   0.2
AODM     1.79 210 P     26 12.69   0.1
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08d  18h

APRM     1.81 225 P       26 12.72   -0.1
ARJM     1.83 216 P       26 13.59    0.5
ALAM     1.92 214 P       26 15.06    0.5
ADWM     1.99 210 P       26 16.25    0.8
LASM     2.09 314 P       26 17.86    0.7
AASM     2.10 215 P       26 18.54    1.4
LBFM     2.12 305 eP      26 17.76    0.2
CMB      2.22 197 eP      26 19.54    0.7
GARM     2.40 241 P       26 24.14    2.7X
BONR     2.42 156 eP      26 22.63    0.7
LBKM     2.53 292 P       26 25.61    2.3X
MMPM     2.59 170 (P)     26 24.05   -0.3
HMR      2.65 222 (P)     26 24.64   -0.3
TNP      2.77 138 (P)     26 26.67   -0.2
MTUM     2.92 164 (P)     26 29.76    0.8
KCPM     3.12 262 P       26 33.08    1.4
COE      3.34 210 (P)     26 34.30   -0.4
TPNV     4.13 140 eP      26 45.70   -0.4
ISA      4.58 169 (P)     27 16.98   24.6X
DUG      5.17  88 ePn     26 59.91   -1.0
GSC      5.33 155 ePn     27 00.58   -2.5X
ARUT     5.33 114 ePn     27 02.53   -0.7
HVU      5.39  70 (Pn)    27 04.73    0.7
MSU      5.97 104 eP      27 12.60    0.5
      S.D. = 0.7  on  33 of  37 obs.
-------------------------------------
? DEC  08, 1993  19h 42m 24.84± 3.67s
   31.299 S ±21.3km   68.554 W ±14.9km
   DEPTH = 100.7 ± 37.9 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTLL      0.08 113 iPc    42 39.30   -0.1
                   S      42 49.00
ZON       0.27 203 iPd    42 39.40   -0.5
                   eS     42 50.40
RTCB      0.28 228 iPc    42 39.80    0.1
                   S      42 50.00
CFA       0.41 139 iPc    42 40.90    0.5
                   S      42 52.50
RTCV      0.56 179 iPd    42 41.40    0.0
RTRS      1.37 325 iPd    42 50.00    0.1
RTPR      2.02  61 iPc    42 58.00   -0.2
      S.D. = 0.4  on    7 of   7 obs.
-------------------------------------
? DEC  08, 1993  19h 43m 45.42± 1.32s
   1.825 S ±10.6km  133.061 E ±47.0km
   DEPTH =  33.0km  (normal)
   4.4mb (  3 obs.)
 IRIAN JAYA REGION, INDONESIA     (196)

MTN      11.12 190 eP     46 25.00   -0.2
                   eS     48 29.00
KNA      14.47 197 eP     47 10.00    0.1
WB2      18.05 176 eP     47 55.30   -0.2
    0.8s     20.30nm           4.3mb
                   iS     51 07.20
ASPA     21.73 178 iPc    48 36.30    0.3
    1.0s     14.90nm           4.4mb
     Z  19s     0.30um         3.7Msz
                   eS     52 34.80
BJI      44.44 341 eP     51 55.00   -0.1
    1.5s     14.00nm           4.6mb
      S.D. = 0.3  on    5 of   5 obs.
-------------------------------------
& DEC  08, 1993  20h 02m 58.73s
   32.344 N            115.350 W
   DEPTH =   6.0km  (geophysicist)
 CALIF.-BAJA CALIF. BORDER REGION( 45)
       <PAS-P>. ML 2.8 (PAS).

GLA       0.83  32 eP     03 13.12   -2.1
PLM       1.62 309 eP     03 25.48   -2.6
                   eS     03 48.07
PEC       2.17 316 eP     03 34.00   -1.9
SSK       2.71 314 (P)    03 41.97   -1.8
      4 obs. associated
-------------------------------------
* DEC [illegible]8, 1993  20h 52m 54.40± 1.41s
   8 [illegible] S ±11.9km  110.373 E ± 9.5km
   DE[illegible]  = 96.9 ± 13.6 km
   4.8mb ( 10 obs.)
 JAWA, INDONESIA                  (277)

LEM       3.36 305 iPc    53 46.00    0.1
                   iS     54 27.00
MKS       9.70  69 ePc    55 14.60    1.7
NANU     14.56 161 eP     56 08.80   -8.1X
    0.3s     16.00nm           4.7mb
                   eS     58 40.00
MBL      15.31 144 eP     56 20.00   -6.5X
    0.3s     10.00nm           4.6mb
                   eS     58 59.00
KNA      19.25 113 eP     57 13.50   -0.4
MEEK     19.39 157 eP     57 13.50   -1.9
                   eS     00 31.00
SLKI     20.72  89 iPc    57 27.00   -2.1
MTN      20.78 103 eP     57 30.00    0.3
WARB     23.19 140 eP     57 54.00    0.6
                   e      58 09.20
                   eS     02 05.80
ASPA     26.94 126 iPd    58 29.10    0.4
    0.8s      9.20nm           4.4mb
                   eS     03 35.00
STK      36.97 133 iPd    59 56.70    0.6
    0.5s      5.10nm           4.7mb
                   iPcP   02 17.40
KOD      37.81 299 eP     00 06.00    2.3
GBA      39.55 304 P      00 18.00    0.3
    0.6s      5.00nm           4.5mb
PKI      43.49 327 P      00 50.00   -0.2
GUN      43.51 328 P      00 49.30   -1.1
    0.6s     32.00nm           5.3mb
KKN      43.73 327 P      00 51.20   -0.8
GKN      44.24 327 P      00 54.80   -1.4
NDI      49.11 321 eP     01 33.00   -1.2
MAT      52.13  28 iPc    01 55.90   -1.1
    0.7s      6.85nm           4.8mb
MAIO     65.52 316 eP     03 29.00   -0.8
YAK      72.18   9 iPc    04 10.20    0.0
    1.0s     50.00nm           5.3mb
OBN      88.02 326 eP     05 36.00    1.3
    1.3s     36.00nm           5.3mb
NSD      98.57 335 eP     06 23.50    0.5
    0.6s      1.30nm           4.7mb
YKA     117.33  22 PKP    11 30.70    1.0
    0.7s      0.70nm
RSNY    144.12   6 ePKP   12 20.72    0.2
YSNY    145.55  12 ePKP   12 24.78    1.7
                   e      12 39.70
MIAR    146.24  37 ePKP   12 27.44    3.0X
                   e      12 42.74
SOB1    146.26 239 ePKP   12 29.10    4.0X
BINY    146.26   9 ePKP   12 27.21    2.9X
ELC     146.54  29 ePKP   12 27.85    3.0X
      S.D. = 1.2  on  24 of  30 obs.
-------------------------------------
  DEC  08, 1993  23h 37m 13.33± 1.00s
   6.530 S ± 3.9km  129.979 E ± 7.1km
   DEPTH =  98.6 ± 10.9 km
   5.2mb ( 20 obs.)
 BANDA SEA                        (280)

SWI       5.77  13 iPc    38 40.00    1.9
                   iS     39 42.90
MTN       6.38 170 eP     38 46.10   -0.3
KNA       9.24 187 eP     39 24.50   -1.0
    0.3s    143.00nm           6.3mb X
MKS      10.54 277 iPd    39 48.70    5.7X
JAY      11.41  70 iPd    39 55.30    0.7
                   eS     42 03.50
WWKK     13.89  79 eP     40 30.00    2.8X
WB2      13.99 163 iPc    40 24.10   -4.4X
    0.4s    280.70nm           5.9mb
                   iS     42 51.50
ASPA     17.45 168 iPc    41 10.30   -1.7
    0.5s    231.00nm           5.7mb
     Z  20s     0.60um         7.4MszX
                   iS     44 14.60
                   iScS   52 45.70
MBL      17.55 213 eP     41 12.80   -0.4
    0.3s     22.00nm           4.9mb
                   eS     44 17.00
WARB     19.80 189 eP     41 38.50    0.0
    0.4s     45.00nm           5.2mb
                   eS     45 08.00
NANU     21.17 220 iPc    41 53.10    0.7
    0.3s     40.00nm           5.2mb
                   iS     46 44.20
LEM      22.21 268 iPd    42 02.70   -0.2
MEEK     22.74 207 eP     42 08.60    0.7
                   eS     46 10.50
FORT     24.19 184 eP     42 22.10    0.3
    0.6s     96.00nm           5.4mb
STK      27.46 158 iPc    42 51.50   -0.5
    0.8s     15.80nm           4.6mb
                   ipP    43 18.40 126kmX
ADE      29.42 165 iPc    43 10.00    0.3
RKG      30.36 201 eP     43 19.00    1.0
ARMA     31.28 142 eP     43 26.00   -0.2
CAN      33.57 151 iPKPc  43 46.30    0.3
CNB      33.74 151 eP     43 48.00    0.5
    0.5s      9.00nm           4.9mb
KAGJ     37.51   1 eP     44 18.70   -0.6
SSE      38.35 348 P      44 26.70    0.4
    1.4s     25.00nm           4.9mb
BDT      38.67 308 eP     44 30.00    0.8
    0.5s     20.90nm           5.3mb
KUMJ     38.85   1 P      44 30.60    0.1
CHTO     39.63 310 ePc    44 37.60    0.5
    1.0s     20.00nm           4.9mb
TKSJ     40.47   5 P      44 44.50    0.6
WKYJ     40.87   7 P      44 47.70    0.5
TSRJ     42.22   7 P      44 57.40   -0.8
IIDJ     42.45  10 P      44 59.70   -0.4
MTMJ     43.51   9 P      45 08.10   -0.7
MAT      43.53  10 iPd    45 07.80   -1.0
    0.7s     41.10nm           5.4mb
KAKJ     43.57  12 P      45 07.60   -1.5
BJI      48.06 346 eP     45 44.50   -0.1
    1.2s     16.00nm           4.7mb
LZH      48.98 332 eP     45 52.00    0.0
    1.2s     37.00nm           5.2mb
                   pP     46 12.50  84kmX
                   sP     46 21.00
GUN      54.63 311 P      46 34.20   -0.5
    0.7s     35.00nm           5.5mb
PKI      54.81 310 P      46 35.00   -1.0
    0.6s     14.00nm           5.2mb
KOD      54.88 287 eP     46 40.00    3.4X
KKN      55.02 310 P      46 36.70   -0.7
    0.6s     16.00nm           5.2mb
GKN      55.61 310 P      46 41.00   -0.6
    0.6s     22.00nm           5.4mb
GBA      55.87 291 P      46 41.80   -1.5
    0.7s      3.50nm           4.5mb
HYB      56.09 296 eP     46 43.70   -1.3
                   e      47 13.00
POO      60.68 295 eP     47 19.00    2.1
YAK      68.34 360 iPd    48 04.70   -1.0
    1.1s     75.00nm           5.5mb
MAIO     78.37 309 eP     49 06.00    1.2
                   e      49 41.00
SYO      84.12 201 ePc    49 36.40    2.2
LKO     135.92 277 PKP    56 26.58    1.1
    0.7s      5.50nm
ARE     148.81 137 ePKP   56 53.00    4.9X
VAO     150.50 186 (PKP)  56 56.00    5.7X
CNCB    150.79 143 PKP    56 54.20    2.8X
LPB     150.93 142 ePKP   56 58.00    6.5X
LPAZ    151.10 142 PKP    56 58.70    6.7X
      S.D. = 1.0  on  42 of  51 obs.
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& DEC  08, 1993  23h 48m 13.25s
   61.692 N            151.233 W
   DEPTH =  73.9km
 SOUTHERN ALASKA                  (  2)
          <AEIC>.

SKT       0.32 334 eP     48 24.59   -0.6
                   eS     48 33.83
SUA       0.33 134 iP     48 25.40    0.0
                   eS     48 35.23
NCG       0.53 237 eP     48 26.35   -0.7
                   eS     48 36.95
CGLM      0.54 224 eP     48 26.39   -0.7
CRP       0.61 226 iPd    48 26.71   -1.2
                   eS     48 37.71
CP2       0.65 229 eP     48 27.32   -1.0
PWA       0.65  93 P      48 27.70   -0.3
                   S      48 40.00
SPU       0.65 218 iP     48 27.39   -0.7
                   eS     48 38.91
CKN       0.65 225 eP     48 27.67   -0.5
CKT       0.68 224 eP     48 27.67   -0.9
BGL       0.70 233 eP     48 28.09   -0.7
BKG       0.80 219 eP     48 29.11   -0.7
CUT       0.85  32 eP     48 30.03   -0.3
PMS       0.92 118 P      48 30.60   -0.7
NKA       0.95 180 eP     48 33.25    1.7
PLRM      1.01  95 eP     48 31.10   -1.2
                   eS     48 45.86
```

PMR 1.01 95 eP 48 30.66 -1.6
eS 48 42.86
GHO 1.10 85 eP 48 32.78 -0.8
SLKM 1.29 157 eP 48 35.04 -0.9
DFR 1.31 213 eP 48 35.77 -0.5
KNK 1.36 101 eP 48 35.66 -1.2
SML 1.38 84 eP 48 35.97 -1.3
NCT 1.40 217 eP 48 36.53 -1.0
REF 1.40 211 eP 48 37.12 -0.5
RDW 1.44 213 eP 48 37.87 -0.2
RS2 1.44 212 eP 48 38.17 0.0
HUR 1.49 29 eP 48 38.06 -0.6
MPA 1.51 142 eP 48 38.10 -0.8
PWL 1.63 120 eP 48 38.80 -1.7
CFI 1.74 106 eP 48 40.16 -1.8
SEW 1.82 151 eP 48 44.24 1.2
TRF 1.82 14 eP 48 42.15 -1.1
ILIM 1.82 208 eP 48 42.61 -0.6
SCM 1.86 84 eP 48 42.38 -1.4
INE 1.87 209 eP 48 43.20 -0.7
KTH 1.87 4 eP 48 43.27 -0.6
eS 49 07.10
RND 2.04 32 eP 48 45.24 -1.0
CNPM 2.17 180 eP 48 46.93 -1.0
SVW 2.19 256 eP 48 46.08 -2.2
MCK 2.31 26 eP 48 49.76 0.0
VLZ 2.42 101 eP 48 49.76 -1.6
TOA 2.43 78 P 48 50.50 -1.1
MTU 2.45 133 eP 48 49.98 -1.8
KLU 2.55 92 eP 48 50.59 -2.6
TTA 2.55 301 eP 48 50.55 -2.7
HIN 2.64 117 eP 48 51.92 -2.6
TZL 2.78 80 eP 48 55.25 -1.0
SDG 2.80 70 eP 48 55.53 -1.2
CVA 2.90 111 eP 48 55.95 -2.0
PAX 2.98 62 eP 48 58.00 -1.2
WRH 3.13 26 eP 49 00.18 -1.1
DDM 3.24 47 eP 49 02.80 -0.1
CCB 3.35 26 eP 49 03.29 -1.0
MLY 3.36 4 eP 49 02.05 -2.4
GLB 3.56 91 eP 49 05.60 -1.7
CRQM 4.02 100 eP 49 12.79 -1.1
TGL 4.17 99 eP 49 15.01 -0.9
IMA 4.53 347 eP 49 17.71 -3.2
58 obs. associated

% DEC 09, 1993 00h 04m 39.48± 1.02s
30.342 S ± 9.9km 68.586 W ± 8.9km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTRS 0.78 283 iPc 04 54.00 0.1
RTLL 0.99 174 iPc 04 57.50 0.4
S 05 13.50
RTCB 1.16 189 iPc 04 59.30 -0.2
S 05 15.70
CFA 1.30 167 iPc 05 01.90 0.5
S 05 21.00
RTCV 1.52 178 eP 05 04.00 -0.6
S 05 25.00
RTPR 1.79 89 iPd 05 08.50 -0.1
S 05 32.00
S.D. = 0.5 on 6 of 6 obs.

& DEC 09, 1993 00h 07m 00.63s
32.360 N 115.348 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.6 (PAS), 3.2 (GS).
Double event.

ERPC 0.47 325 P 07 09.80 -0.2
COK 0.58 327 P 07 11.46 -0.9
RUN 0.69 27 P 07 12.82 -1.5
YMD 0.71 74 P 07 16.21 1.4
CLIC 0.79 349 P 07 14.64 -1.7
CBKC 0.93 305 P 07 17.61 -1.2
BRGC 1.07 320 P 07 18.68 -2.4
LTC 1.15 12 P 07 20.03 -2.5
MIRC 1.22 330 P 07 20.98 -2.7
COY 1.29 321 P 07 23.34 -1.5
CO2 1.48 0 P 07 24.96 -2.9
FRGC 1.52 337 P 07 28.10 -0.3
PLM 1.61 308 eP 07 26.59 -3.3
INDC 1.63 333 P 07 30.27 0.3
OLYC 1.83 306 P 07 33.00 0.1
PEC 2.16 316 eP 07 33.36 -4.3
SME 2.23 311 P 07 40.81 2.1
VPD 2.49 306 P 07 45.25 2.9
CSP 2.56 320 P 07 42.20 -1.3
SS2 2.58 316 P 07 47.63 3.9
SSK 2.70 314 (P) 07 42.98 -2.5
CIS 2.77 293 P 07 50.25 3.8
GSC 3.17 338 (P) 07 51.30 -0.8
TUC 3.86 90 ePn 07 59.22 -2.8
ABL 4.08 309 (P) 08 03.97 -1.1
ISA 4.19 323 P 08 16.11 9.5
TPNV 4.64 351 (Pn) 08 09.56 -3.5
BCH 4.85 307 (P) 08 14.72 -1.3
ARUT 5.64 16 (P) 08 24.39 -2.8
MSU 6.66 22 (Pn) 08 40.66 -1.1
30 obs. associated

? DEC 09, 1993 00h 11m 08.36± 1.51s
8.099 S ±29.8km 148.585 E ±46.5km
DEPTH = 143.9 ± 19.0 km
4.4mb (3 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

PMG 1.92 227 iPd 11 42.00 -0.5
eS 12 34.00
KVG 5.91 22 ePc 12 34.90 0.2
QIS 15.13 214 eP 14 37.50 1.6
WB2 18.13 228 iPc 15 11.50 -0.8
0.9s 76.90nm 5.0mb
eS 18 53.30
ASPA 20.92 221 iPc 15 41.50 0.4
1.2s 13.40nm 4.2mb
Z 22s 0.30um 3.6Msz
epP 15 58.80 81kmX
iS 19 52.70
ARMA 22.39 173 iPd 15 51.00 -4.6X
0.6s 7.00nm 4.3mb
STK 24.54 194 iPd 16 15.30 -0.8
LKO 154.44 275 PKP 30 36.61 -8.8X
0.9s 7.00nm
S.D. = 1.5 on 6 of 8 obs.

% DEC 09, 1993 00h 25m 03.52± 3.59s
41.885 N ±25.3km 19.239 E ± 7.3km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
ML 1.8 (TTG).

ULC 0.08 6 iPgc 25 05.14 -0.3
iSg 25 06.15
BDV 0.50 323 iPgc 25 13.09 -0.5
iSg 25 20.50
TTG 0.54 2 iPgd 25 13.73 -0.7
iSg 25 21.62
HCY 0.79 316 iPgc 25 18.29 -1.0
iSg 25 29.92
PVY 0.89 37 iPgc 25 20.38 -0.8
iSg 25 33.33
IVA 1.10 26 iPgd 25 24.09 -0.6
iSg 25 40.24
BRY 1.14 333 ePg 25 24.61 -0.8
iSg 25 41.47
PLE 1.45 4 iPgc 25 30.58 0.1
iSg 25 51.94
S.D. = 0.4 on 8 of 8 obs.

? DEC 09, 1993 01h 19m 05.90± 3.15s
5.515 S ±30.0km 146.997 E ±30.3km
DEPTH = 215.9 ± 10.9 km
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 1.14 180 iPc 19 39.10 0.6
MDG 1.24 282 iPc 19 38.80 -0.4
YYYY 1.25 235 iPc 19 39.30 -0.2
MNDI 3.38 259 eP 20 02.00 0.5
PMG 3.87 178 iPd 20 06.80 -0.4
QIS 16.59 205 iPc 22 47.90 -0.2
WB2 18.89 219 iPc 23 11.80 -0.7
0.3s 86.20nm 5.8mb X
eS 26 34.00
ASPA 22.02 214 iPd 23 44.80 1.3
0.4s 37.40nm 5.3mb X
eS 27 31.90
STK 26.71 190 eP 24 39.90 12.7X
WARB 28.30 221 eP 24 41.20 -0.4
S.D. = 0.8 on 9 of 10 obs.

DEC 09, 1993 04h 17m 40.91± 0.97s
56.966 N ± 8.5km 145.902 W ± 2.7km
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
ML 3.6 (AEIC).

KAIM 3.07 14 eP 18 30.51 0.2
eS 19 06.64
MTU 3.17 344 eP 18 32.26 0.5
eS 19 07.62
HIN 3.46 355 eP 18 36.20 0.4
eS 19 15.01
HMT 3.49 14 eP 18 36.94 0.6
eS 19 15.28
RAGM 3.49 10 eP 18 36.81 0.5
eS 19 15.60
CVA 3.59 1 eP 18 37.92 0.2
SNH 3.60 25 eP 18 38.65 0.7
eS 19 17.31
CYK 3.60 28 eP 18 38.17 0.3
KDC 3.66 285 P 18 40.00 1.4
SEW 3.66 331 eP 18 38.50 -0.1
eS 19 18.64
FID 3.81 356 eP 18 40.72 -0.1
CNPM 3.81 315 eP 18 41.12 0.2
BRLK 3.84 319 eP 18 40.61 -0.8
eS 19 22.79
XLV 3.96 311 eP 18 43.34 0.3
MPA 3.97 334 eP 18 43.07 0.0
CHX 3.99 37 eP 18 43.54 0.0
YAH 4.04 31 eP 18 44.51 0.2
eS 19 27.88
HOM 4.06 314 eP 18 44.96 0.7
CRQM 4.06 20 eP 18 44.62 0.0
eS 19 28.88
PWL 4.10 343 eP 18 44.86 -0.2
eS 19 29.75
TGL 4.12 21 eP 18 45.25 -0.1
eS 19 30.15
VLZ 4.18 357 eP 18 46.11 0.0
eS 19 31.16
SLKM 4.20 329 eP 18 46.36 -0.1
PCA 4.31 41 eP 18 47.79 -0.3
CFI 4.34 348 eP 18 48.61 0.3
PNL 4.37 49 eP 18 48.03 -0.8
BCPM 4.45 45 eP 18 49.68 -0.3
BALM 4.48 23 eP 18 50.08 -0.3
KLU 4.54 360 eP 18 51.42 0.1
GLB 4.62 13 eP 18 51.98 -0.4
AUE 4.63 304 eP 18 53.47 1.0
KNK 4.65 345 eP 18 53.37 0.6
CTGM 4.66 29 eP 18 52.62 -0.4
AUL 4.67 304 eP 18 53.45 0.4
PMS 4.69 338 P 18 53.70 0.3
NKA 4.69 326 eP 18 55.17 1.8
OPT 4.71 308 eP 18 54.14 0.4
ILIM 4.84 313 eP 18 55.16 -0.4
INE 4.87 313 eP 18 55.28 -0.8
PLRM 4.93 342 eP 18 55.22 -1.4
PMR 4.93 342 eP 18 55.86 -0.8
SCM 4.94 352 eP 18 57.49 0.6
RED 4.98 317 eP 18 56.84 -0.7
REF 5.00 318 eP 18 57.63 -0.3
RSO 5.00 317 eP 18 57.82 -0.2
RS2 5.01 317 eP 18 57.80 -0.2
SML 5.01 347 eP 18 59.10 1.1
RDW 5.04 317 eP 18 57.64 -0.8
GHO 5.06 343 eP 18 59.12 0.4
DFR 5.07 319 eP 18 58.28 -0.5
TZL 5.10 3 eP 19 00.02 0.9
NCT 5.14 318 eP 18 59.49 -0.3
SUA 5.15 333 eP 19 00.38 0.4
TOA 5.16 359 P 19 01.80 1.8X
PDB 5.20 306 eP 19 00.33 -0.2
BKG 5.27 324 eP 19 01.11 -0.5
SPU 5.29 326 eP 19 01.05 -0.8
CKT 5.35 325 eP 19 02.29 -0.5
CKN 5.36 325 eP 19 03.31 0.5
CGLM 5.37 327 eP 19 02.48 -0.6
CRP 5.38 326 eP 19 02.14 -1.2
CP2 5.41 326 eP 19 03.60 -0.1
BGL 5.45 325 eP 19 04.01 -0.2
NCG 5.49 327 eP 19 04.25 -0.5
SDG 5.58 2 eP 19 05.83 -0.2
SKT 5.79 333 eP 19 09.62 0.8
CUT 5.89 340 eP 19 09.95 -0.2
SVW 6.51 314 eP 19 17.30 -1.8X
TRF 6.86 343 eP 19 24.49 0.3

09d 04h

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KTH      7.06 341 eP     19 27.39    0.5
IMA      9.85 341 (P)    20 04.69   -0.9
YKA     16.60  58 P      21 43.10    8.2X
         0.4s     0.20nm          2.6mb
YKA     16.60  58 P      21 46.30   11.4X
         1.0s     0.50nm
     S.D. = 0.6  on  69 of  73 obs.
-------------------------------------
& DEC 09, 1993  04h 18m 10.10s
   32.368 N          115.356 W
   DEPTH =   6.0km  (geophysicist)
 CALIF.-BAJA CALIF. BORDER REGION( 45)
       <PAS-P>. ML 3.1 (PAS).

ERPC     0.46 325 P      18 19.04   -0.2
YUH      0.55 300 P      18 20.53   -0.7
PLT      0.64  55 P      18 21.61   -1.3
RUN      0.68  28 P      18 22.18   -1.6
IKP      0.69 294 P      18 23.35   -0.7
NW2      0.77 339 P      18 24.20   -1.3
CLIC     0.78 349 P      18 24.02   -1.7
FRK      1.06 347 P      18 27.44   -2.9
LTC      1.14  12 P      18 29.42   -2.5
BAR      1.15 286 P      18 31.60   -0.5
CTW      1.38 342 P      18 33.86   -2.0
CO2      1.48   0 P      18 34.41   -2.8
CPE      1.56 290 P      18 38.75    0.4
PLM      1.60 308 eP     18 36.59   -2.6
                  eS     19 01.70
PSP      1.74 325 P      18 38.25   -2.7
POB      1.86 315 P      18 40.02   -2.8
SNS      2.13 300 P      18 48.36    1.7
PEC      2.15 316 eP     18 43.94   -3.0
                  eS     19 16.54
ELS      2.16 307 P      18 49.56    2.4
VPD      2.48 306 P      18 54.97    3.3
SSK      2.68 314 ePn    18 52.25   -2.5
                  ePg    18 58.79
CIS      2.77 293 P      19 00.31    4.5
GSC      3.16 338 eP     19 01.17   -0.3
TUC      3.87  90 ePn    19 09.02   -2.5
TPNV     4.63 351 (P)    19 20.76   -1.6
       25 obs. associated
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  DEC 09, 1993  04h 32m 19.52± 0.09s
   0.486 N ± 2.3km  125.995 E ± 2.5km
   DEPTH =  14.5km  (geophysicist)
   6.5mb (129 obs.)  6.7Msz ( 64 obs.)
 NORTHERN MOLUCCA SEA             (266)
      Mw 6.8 (GS), 6.9 (HRV). Ms 6.7
      (BRK). Mo=4.5*10**19 Nm (PPT).
      Felt (IV) at Manado and Ternate,
      Indonesia. Depth from broadband
      displacement seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=168 Dip=83 Slip=  90
       NP2:       348      7        90
       Principal Axes:
        T                Plg=52  Azm= 78
        P                   38       258
      Comment: The focal mechanism is
        poorly controlled and
        corresponds to reverse
        faulting. The preferred fault
        plane is NP2.
      RADIATED ENERGY
       No. of sta:  10  Focal mech.  F
       Energy       8.0±2.2*10**14 Nm
      MOMENT TENSOR SOLUTION
      Dep  23           No. of sta:  5
      Moment Tensor;   Scale 10**19 Nm
        Mrr= 0.57        Mtt= 0.45
        Mff=-1.02        Mrt= 0.55
        Mrf=-1.33        Mtf=-0.59
       Principal axes:
        T  Val=  1.77  Plg=47  Azm= 42
        N        0.02     30       170
        P       -1.80     28       278
      Best Double Couple:Mo=1.8*10**19
       NP1:Strike= 56 Dip=32 Slip= 159
       NP2:       164     79        60
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 49S, **C  M.W.: 39S, 78C
      Centroid Location:
      Origin Time          04:32:28.2 0.1
      Lat  0.53N 0.01 Lon 125.81E 0.01
      Dep  18.4 0.5 Half-duration  6.5
      Moment Tensor;    Scale 10**19 Nm
        Mrr= 0.93 0.01  Mtt= 0.15 0.01
        Mff=-1.08 0.01  Mrt= 0.38 0.03
        Mrf=-2.61 0.09  Mtf=-0.39 0.01
       Principal Axes:
        T  Val=  2.83   Plg=54  Azm= 71
        N        0.05      10       175
        P       -2.88      34       272
      Best Double Couple:Mo=2.9*10**19
       NP1:Strike= 41 Dip=15 Slip= 137
       NP2:        173      80       79
TNE      1.37  77 iP     32 45.20    1.1
AAI      4.69 152 Pn     33 34.09    2.6
SWI      5.43 104 ePd    33 43.50    1.5
DAV      6.57 356 ePd-   34 00.00    2.0
         1.4s  2251.16nm          6.9mb
CTB      6.91 345 ePd    34 05.00    2.3
                  eS     34 56.00
BUNI     7.01 234 P      34 04.00   -0.1
TANI     7.67 239 P      34 14.39    0.9
BIP      7.69   2 ePc    34 14.00    0.3
NINI     7.91 232 P      34 18.00    1.0
CGP      8.02 351 iPd    34 21.50    3.2X
                  iS     36 06.50
MKS      8.64 229 iPd    34 28.40    1.5
TSM      8.95 295 ePd    34 31.00   -0.3
         1.5s  8063.90nm        7.8mb X
TLE      9.08 132 P      34 34.00    0.9
SLKI     9.94 148 ePc    34 45.40    0.6
MAP      9.98 348 iPd    34 50.00    4.6X
KKM     11.21 300 ePd    35 09.50    7.0X
KEDI    13.00 229 P      35 31.50    4.9X
THRI    13.63 230 P      35 37.40    2.4
JEHI    13.71 231 P      35 36.79    0.9
RATI    13.87 228 P      35 40.79    2.8
RANI    14.14 231 P      35 43.40    1.8
MTN     14.19 159 iPc    35 41.50   -0.7
INGI    14.22 229 P      35 45.59    3.0X
KELI    14.36 233 P      35 46.00    1.5
TGY     14.43 340 ePd    35 45.00   -0.3
SRDI    14.79 233 P      35 51.79    1.7
QVP     14.89 341 eP     35 55.00    3.7X
KNA     16.36 170 eP     36 11.00    0.6
         0.8s  1500.00nm          6.2mb
BCP     16.70 342 eP     36 20.20    5.4X
CVP     17.60 347 ePd    36 25.90    0.0
                  eS     36 46.00
WWKK    18.08 103 eP     36 33.00    1.0
TPI     18.62 260 ePd    36 38.00   -0.5
                  e      51 00.00
MNDI    18.83 111 iP     36 43.00    1.6
LEM     19.72 248 eP     36 50.00   -1.9
         2.0s  1470.59nm          5.9mb
                  eS     40 08.00
SINI    19.90 248 P      36 47.50   -6.2X
PACI    20.30 249 P      36 51.40   -6.5X
MDG     20.56 106 eP     37 00.60    0.1
KALI    20.71 248 P      36 55.20   -7.0X
YYYY    21.03 109 eP     37 05.30   -0.2
WRA     21.89 159 P      37 12.19   -1.8
WB2     21.89 158 eP     37 11.20   -2.8
         1.0s   630.90nm          6.0mb
                  i      37 13.40
                  iS     41 13.30
LAT     22.13 109 eP     37 16.70    0.3
MBL     22.34 195 iPc    37 18.20   -0.3
         0.6s   235.00nm          5.8mb
KGM     22.72 274 ePd    37 20.00   -2.3
                  e      37 32.00
GUMO    22.78  54 ePc    37 20.99   -1.8
         1.0s  5129.40nm          7.0mb
PJG     22.78  54 eP     37 20.90   -1.9
GUA     22.79  55 eP+    37 20.50   -2.4
         1.2s  7525.00nm          7.1mb
      Z  20s   246.15um           6.6Msz
                  e      37 23.40
                  eS     41 21.00
PMG     23.25 116 iPc    37 26.51   -0.9
         1.0s  3800.19nm          6.9mb
QIZ     24.30 320 ePd    37 37.97    0.3
      N  12s    56.30um
      E  13s    43.70um
                  S      41 48.00
KLM     24.47 276 eP     37 43.00    3.7X
HKC     24.55 333 iP     37 40.60    0.6
                  S      41 56.00
TATO    24.73 350 ePc    37 39.62   -2.1
         0.9s   970.03nm          6.4mb
QIS     24.80 148 iPd    37 42.10   -0.3
                  i      40 14.60
                  iPcP   41 21.10
                  eS     42 10.80
KVG     25.00  97 eP     37 44.00   -0.4
ASPA    25.21 163 iPc    37 45.10   -1.3
         0.8s  3115.20nm          7.0mb
      Z  22s   124.10um           6.4Msz
                  i      38 03.90
                  iPcP   41 20.80
                  iS     42 08.10
                  iPcS   44 58.60
                  iScS   48 43.50
IPM     25.27 280 ePd    37 45.00   -2.0
         1.6s  1960.50nm          6.5mb
QZH     25.35 344 iPc    37 47.50   -0.1
         1.6s  2280.00nm          6.6mb
      Z  26s   310.00um           6.7MszX
      N  23s   210.00um
                  S      42 01.00
GZH     25.61 332 Pd     37 49.60   -0.5
         1.1s  1130.00nm          6.5mb
      Z  20s   119.00um           6.4Msz
      N  18s   142.00um
      E  16s    80.40um
                  PP     38 25.00
WARB    26.52 179 eP     37 58.50    0.0
RAB     26.56 100 iPc+   38 00.00    1.0
         1.0s  2862.90nm          6.9mb
                  iS     41 56.00
SIMI    27.12 275 P      38 02.90   -1.5
AEKI    27.58 274 P      38 05.90   -2.5
SIBI    27.61 276 P      38 08.50   -0.4
SEMI    27.66 274 P      38 07.00   -2.3
MEEK    27.89 194 eP     38 10.20   -0.8
         0.8s   429.00nm          6.3mb
LARI    27.93 275 P      38 09.00   -2.6
PCT     28.10 301 ePc    38 13.70    0.7
         1.0s    10.00nm        4.5mb X
CTA     28.50 137 P      38 16.10   -0.5
CTAO    28.50 137 ePc    38 15.59   -1.0
         1.0s  1060.09nm          6.6mb
                  ec     38 16.83
NNT     28.68 296 iPc    38 18.00   -0.3
LOE     29.20 306 eP     38 17.00   -5.9X
KHT     30.58 299 iPd    38 34.00   -1.3
SSE     30.78 352 ePc    38 36.48   -0.3
      N  16s    61.00um
      E  14s    18.30um
                  ec     38 43.60
                  ec     38 49.56
                  sP     38 53.40
                  PP     39 43.00
                  iS     43 36.00
                  ScP    45 12.00
                  PcS    45 18.00
MRWA    31.05 197 eP     38 36.80   -2.4
         0.6s   190.00nm          6.1mb
FORT    31.15 177 iPc    38 39.80   -0.3
         0.8s  1349.00nm          6.9mb
BDT     31.35 304 eP     38 40.00   -2.0
         1.0s   345.00nm          6.2mb
COOL    31.54 188 eP     38 42.20   -1.3
         1.0s   486.00nm          6.4mb
GYA     31.83 326 iPd    38 45.00   -1.3
         1.2s   720.00nm          6.5mb
      Z  20s    74.70um           6.4Msz
      N  16s    95.30um
      E  16s    82.70um
                  pP     38 55.00  36kmX
                  sP     39 00.00
                  PP     39 52.00
                  S      43 51.00
                  sS     44 10.00
                  ScS    49 17.00
WHN     31.87 341 P      38 48.00    1.6
         1.0s   560.00nm          6.4mb
      Z  20s   146.00um           6.7Msz
      N  20s   288.00um
      E  18s    33.30um
                  iS     43 54.00
NJ2     32.11 349 Pd     38 49.00    0.5
         1.2s    83.00nm          5.5mb
      N  16s    62.00um
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     E  12s     17.90um
                   PcP    41 38.00
                   S      43 57.00
                   ScP    45 19.60
BAL      32.16 195 eP     38 47.50  -1.4
         1.0s   958.00nm          6.7mb
CHTO     32.19 306 ePd    38 48.73  -0.7
                   epP    38 52.70  14kmX
                   eS     43 57.20
KLB      32.84 193 eP     38 53.80  -1.1
         1.0s   514.00nm          6.4mb
KMI      33.24 319 ePd    38 58.33  -0.4
         2.0s  3080.00nm          6.9mb
     N  16s     62.80um
     E  16s     48.60um
                   PP     40 13.00
                   PcP    41 41.00
                   S      44 13.00
                   PcS    45 24.00
ENH      33.52 334 ePd    38 59.84  -0.9
                   epPd   39 04.14  15kmX
MUN      33.59 195 eP     39 00.50  -0.9
         1.0s   380.00nm          6.3mb
     Z  22s    124.20um           6.6Msz
     N  22s     39.10um
     E  22s     80.50um
NWAO     34.25 193 eP     39 06.52  -0.5
         0.8s   468.84nm          6.5mb
SHK      34.44  10 ePc    39 07.00  -1.7
STK      35.42 157 eP     39 15.80  -1.3
                   ePP    40 35.80
                   iPcP   41 47.10
                   iS     44 48.40
RKG      35.87 193 eP     39 22.70   1.8
TIA      36.49 348 Pc     39 24.50  -1.6
         0.8s   290.00nm          6.2mb
     N  12s     14.40um
     E  14s     27.00um
                   S      45 03.00
                   ScS    49 32.00
CD2      36.88 327 iPc    39 27.70  -1.8
         1.0s   570.00nm          6.3mb
     Z  20s    147.00um           6.8Msz
     E  17s    207.00um
                   ipP    39 42.30  56kmX
                   sS     45 20.00
XAN      37.02 336 eP     39 30.02  -0.6
         1.0s   410.00nm          6.2mb
     Z  25s    109.00um           6.5MszX
     N  16s     58.20um
     E  16s     92.30um
                   ed     39 34.08
                   S      45 05.00
                   sS     45 26.00
ADE      37.22 163 iPc+   39 31.80  -0.5
MAJO     37.62  16 iPc    39 34.58  -1.0
         0.7s   509.90nm          6.4mb
                   epPd   39 38.23  12kmX
MAT      37.62  16 eP     39 33.00  -2.6
         1.4s   581.40nm          6.2mb
                   eS     45 21.00
DL2      38.44 355 iPc    39 42.00  -0.4
         1.5s  3200.00nm          6.8mb
     Z  14s     19.90um           6.1MszX
     E  14s     63.40um
TIY      39.10 343 Pc     39 48.00  -0.1
         0.8s   390.00nm          6.1mb
     Z  13s    132.00um           6.9MszX
     N  15s     30.30um
                   S      45 39.00
                   ScS    49 50.00
ARMA     39.24 144 iPd    39 48.70  -0.7
BJI      40.37 348 ePc    39 58.35  -0.1
         1.2s   390.00nm          6.0mb
     Z  24s     61.20um           6.4MszX
     E  18s     79.10um
                   ec     39 59.82
                   epPd   40 02.55  14kmX
                   eScP   45 51.00
                   eS     45 59.00
                   eScS   50 04.50
LZH      40.96 332 ePd    40 03.67   0.1
         1.4s  1420.00nm          6.5mb
     N  17s     75.70um
     E  17s     85.20um
                   pP     40 07.50  13kmX
                   sP     40 12.00
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                   PP     41 38.00
                   ScP    45 54.00
                   PcS    45 56.00
                   S      46 04.00
                   ScS    50 02.80
SNY      41.21 357 iPd    40 04.70  -0.6
         1.4s  2440.00nm          6.7mb
     N  15s     22.60um
     E  18s     39.70um
                   PP     41 42.00
                   PcP    42 06.00
                   iS     46 15.00
                   ScS    50 07.00
RIV      41.52 148 iPc+   40 09.70   1.8
                   ePP    41 46.00
                   i      43 52.00
                   iS     46 25.00
                   i      49 36.00
CAN      41.60 151 eP     40 08.80   0.2
                   i      41 44.00
                   iScP   00 56.30
CNB      41.77 151 iPc+   40 10.80   0.7
         0.8s   420.00nm          6.2mb
                   ipP    40 23.80  49kmX
                   iPcP   42 24.90
HHC      42.26 344 P      40 13.00  -1.1
         1.6s   500.00nm          6.0mb
     Z  24s    154.00um           6.8MszX
     N  20s     73.20um
     E  23s     82.10um
                   PP     41 54.00
                   ScS    50 10.00
BTO      42.48 342 iPd    40 16.00   0.1
         0.6s    39.00nm          5.3mb X
     N  15s     11.10um
     E  15s      9.51um
                   PP     41 52.00
                   S      46 28.00
VLA      42.77   6 iPd    40 19.00   0.9
         2.0s   426.00nm          5.8mb
     E  14s     18.50um
                   i      40 36.00
                   i      42 36.00
                   i      50 26.00
CN2      43.13 359 eP     40 19.80  -1.2
         1.2s   300.00nm          5.9mb
     Z  18s     41.10um           6.4Msz
     N  16s     27.30um
     E  16s     21.40um
                   epP    40 28.00  27kmX
                   esP    40 30.00
                   PcP    42 12.00
                   eScP   46 00.50
                   eS     46 40.00
                   eSS    49 52.00
MDJ      44.06   4 iPc    40 28.82   0.3
         1.0s   770.00nm          6.5mb
                   esPd   40 34.86
                   S      46 59.00
LSA      44.09 314 ePd    40 29.83   0.2
         2.0s   890.00nm          6.3mb
     Z  17s     18.40um           6.1MszX
     N  20s     22.00um
     E  20s     33.80um
                   sP     40 42.50
                   iS     46 52.50
ERM      44.14  18 iPc    40 30.07   0.9
                   esPd   40 37.28
SAP      44.56  16 iP     40 33.80   1.2
                   eS     47 05.00
BKM      45.32 116 iPc    40 38.50  -0.6
                   i      46 14.50
                   i      47 19.50
DZM      45.36 122 iPd    40 38.90  -0.5
                   i      46 14.90
                   i      47 18.70
PVC      45.40 116 iPc    40 40.50   0.8
GTA      45.53 331 eP     40 38.50  -2.1
         1.0s   210.00nm          6.0mb
     Z  20s    104.00um           6.8Msz
     E  20s     95.00um
                   pP     40 46.20  26kmX
                   sP     40 49.20
                   PcP    42 20.60
                   PP     42 24.00
                   ScP    46 10.50
                   eS     47 15.00
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                   sS     47 28.00
                   SS     50 29.00
                   ScS    50 31.00
GUN      47.10 309 P      40 51.30  -2.2
TAU      47.26 159 iPc    40 54.79   0.8
PKI      47.31 308 P      40 54.00  -1.1
KKN      47.51 308 P      40 55.00  -1.6
DMN      47.57 308 P      40 57.20   0.1
GKN      48.12 308 P      40 58.80  -2.5
KUR      48.57  21 iPc+   41 04.00  -0.2
         1.0s  1130.00nm          6.9mb
     Z  20s     34.70um           6.3Msz
     N  20s     37.80um
     E  20s     37.80um
                   epP    41 20.00  62kmX
                   e      43 00.50
                   iS     48 05.00
YSS      48.59  15 iPc    41 03.69  -0.7
         1.0s   420.00nm          6.4mb
     Z  20s     38.00um           6.4Msz
     N  20s     36.00um
     E  20s      9.00um
                   esP    41 11.80
                   ed     41 17.84
                   e      42 54.00
                   iS     48 03.00
                   e      50 48.00
HIA      48.89 355 iPc    41 07.02   0.3
KOD      49.21 283 iPd    41 07.80  -2.2
         1.1s   354.43nm          6.3mb
                   eSn    48 06.00
HYB      49.59 293 ePd    41 09.50  -3.1X
         1.0s   820.00nm          6.7mb
                   eS     48 06.00
                   eP'P'  11 51.00
GBA      49.80 287 Pd     41 10.90  -3.2X
         0.8s   999.90nm          6.9mb
CIT      52.38 350 eP     41 35.00   1.7
                   e      48 56.00
ZAK      53.34 342 iPc    41 40.40   0.1
         1.6s   655.00nm          6.3mb
     Z  23s     36.45um           6.4MszX
     N  23s     55.44um
     E  24s     29.61um
                   eS     49 06.00
                   e      51 27.00
POO      54.21 293 iPc    41 38.20  -9.0X
         1.5s   583.33nm          6.4mb
NDI      54.34 306 iPd    41 45.40  -2.6
                   eS     49 10.00
IRK      54.72 344 iP+    41 50.00  -0.5
         3.7s  6864.00nm          7.1mb X
     Z  18s     25.96um           6.3Msz
     N  24s     34.20um
     E  24s     17.40um
                   e      42 02.00
                   iS     49 24.00
                   e      51 32.00
                   e      53 08.00
MBU      54.75 111 eP     41 51.20  -0.1
SVA      54.77 113 eP     41 50.20  -1.2
WMQ      54.98 327 ePd    41 51.63  -1.0
         2.0s   130.00nm          5.6mb
     Z  24s     70.00um           6.7MszX
     N  18s     40.90um
                   pP     42 06.00  53kmX
                   PcP    42 54.00
                   PP     43 54.00
                   ScP    46 43.50
                   iS     49 28.00
                   ScS    51 32.00
                   SS     53 12.00
BOM      55.24 293 iPc    41 52.00  -2.8
                   iS     49 27.00
OUZ      56.82 134 P      42 06.10   0.2
WCZ      57.70 134 eP     42 12.10   0.0
                   e      43 05.50
BOD      57.96 353 eP     42 11.20  -2.3
         1.7s  1851.00nm          6.8mb
MSZ      58.34 146 P      42 16.30  -0.1
         0.7s   196.00nm          6.3mb
                   e      43 08.00
QRZ      58.90 140 P      42 20.20  -0.2
         0.8s   213.00nm          6.3mb
PET      58.98  22 eP+    42 20.00  -0.7
         1.5s  7700.00nm          7.6mb X
     Z  22s     44.60um           6.5Msz
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09d 04h

N 24s 27.00um
E 20s 23.00um
iS 50 26.00
KUZ 59.06 134 P 42 21.10 -0.4
0.8s 569.00nm 6.8mb
MMCZ 59.22 146 P 42 21.40 -1.3
MOZ 59.24 137 P 42 22.20 -0.6
0.8s 338.00nm 6.5mb
MHZ 59.34 146 eP 42 22.20 -1.3
EWZ 59.34 143 P 42 23.10 -0.3
0.8s 364.00nm 6.6mb
e 43 11.10
e 44 34.30
NIL 59.36 309 iPd 42 26.20 2.4
0.4s 0.14nm 3.4mb X
iS 50 28.90
BWZ 59.37 145 eP 42 21.90 -1.6
e 44 34.40
SBCZ 59.38 146 P 42 22.20 -1.5
e 44 35.10
LRCZ 59.38 146 P 42 22.40 -1.5
e 44 35.20
CMCZ 59.39 146 eP 42 22.40 -1.4
MSCZ 59.43 146 P 42 22.80 -1.3
WLZ 59.49 136 P 42 23.80 -0.7
0.9s 158.00nm 6.1mb
THZ 59.64 141 P 42 24.20 -1.4
0.8s 116.00nm 6.1mb
LTZ 59.79 142 P 42 25.50 -1.1
1.0s 212.00nm 6.2mb
KSH 59.81 317 P 42 27.00 0.1
1.5s 1710.00nm 7.0mb
Z 20s 61.70um 6.7Msz
N 17s 33.20um
E 17s 67.10um
PcP 43 16.00
PP 44 39.00
ScP 47 06.00
PcS 47 16.00
ScS 52 07.00
SIZ 59.83 148 eP 42 26.00 -0.7
MGZ 59.98 137 P 42 27.80 -0.2
TUZ 60.08 146 P 42 27.30 -1.1
CNZ 60.08 137 P 42 27.90 -0.8
NGZ 60.11 137 P 42 28.20 -0.7
ODZ 60.11 145 P 42 27.60 -1.0
PATZ 60.19 136 P 42 29.30 -0.1
TCW 60.23 140 P 42 27.50 -2.0
e 43 14.10
TAZ 60.29 136 eP 42 30.10 0.1
WIZ 60.46 135 eP 42 31.00 -0.1
KIW 60.47 139 P 42 29.20 -2.0
e 43 14.90
MRW 60.52 139 P 42 29.20 -2.3
MQZ 60.53 143 P 42 30.80 -0.7
SNZO 60.56 139 ePc 42 29.60 -2.1
esPd 42 35.56
S 50 52.00
CAW 60.69 139 P 42 30.90 -1.8
MNG 60.72 138 P 42 30.90 -2.1
URZ 60.73 135 P 42 31.30 -1.7
TLG 60.74 321 eP 42 32.00 -1.1
3.8s 930.00nm 6.3mb X
Z 22s 32.00um 6.4Msz
N 24s 37.00um
E 22s 33.00um
i 43 14.00
eS 50 38.00
WAHZ 60.87 137 P 42 32.00 -2.0
PAHZ 60.96 136 P 42 33.50 -1.1
MTW 61.00 139 P 42 32.60 -2.2
BLW 61.09 139 P 42 33.20 -2.2
TTH 61.12 137 P 42 34.90 -0.7
MCQ 61.15 159 eP 42 36.50 1.0
HBZ 61.28 134 eP 42 35.40 -1.3
YAK 61.44 2 iPc+ 42 35.30 -2.1
1.0s 2894.00nm 7.4mb
Z 18s 38.40um 6.6Msz
N 18s 29.70um
E 18s 5.90um
epP 42 56.00 81kmX
ePcP 43 23.00
iPP 44 53.00
ePPP 46 35.00
iS 50 48.00
ePS 51 13.00
isS 51 25.00
iScS 52 24.00
eSS 54 50.00
eSSS 58 00.00
PUZ 61.45 135 P 42 36.30 -1.7
NOZ 61.54 135 P 42 37.20 -1.3
0.7s 939.00nm 7.1mb
MAHZ 61.68 136 P 42 38.80 -0.7
FRU 62.30 320 iP 42 43.00 -0.6
3.0s 5740.00nm 7.2mb
iS 51 03.00
i 52 30.00
AFI 63.23 106 ePc 42 49.67 -0.5
epPd 42 53.23 12kmX
eS 51 16.00
QUE 63.28 304 Pd- 42 48.50 -2.1
1.7s 3942.31nm 7.3mb
eS 51 18.30
SMY 65.62 30 eP 43 04.62 -0.4
1.2s 1597.18nm 7.1mb
Z 20s 41.15um 6.6Msz
ePcP 43 44.17
S 51 50.49
CSY 67.54 187 eP 43 06.80 -10.2X
0.8s 403.00nm
PAF 68.82 215 iP 43 40.00 14.7X
ePP 46 08.00
iS 52 37.00
eSS 56 07.00
ADK 70.05 34 eP 43 31.66 -1.1
1.1s 544.53nm 6.6mb
MAIO 70.91 308 iPd- 43 37.40 -1.1
TIK 71.06 1 iPd+ 43 36.00 -2.5
2.0s 2120.00nm 6.9mb
i 44 04.00
i 46 15.00
i 53 30.00
ASH 72.19 310 Pd 43 45.50 -0.5
N 24s 74.70um
E 24s 37.08um
i 43 58.00
ePPP 48 11.00
S 52 59.50
isS 53 48.00
SS 57 37.00
SHI 75.41 300 eP 44 04.00 -1.2
RAR 75.49 112 ePc 44 05.92 0.4
1.2s 874.19nm 6.7mb
epPd 44 10.96 16kmX
SVE 76.33 329 iPc+ 44 08.00 -1.6
2.1s 480.00nm 6.2mb
Z 22s 27.00um 6.5Msz
N 20s 26.00um
E 20s 17.00um
iS 53 43.00
eSS 58 40.00
HON 76.79 68 P+ 44 18.97 6.2X
Z 21s 69.11um 6.9Msz
S 54 25.20
OPA 76.81 68 iPd 44 14.03 1.1
DHH 76.97 68 eP 44 13.81 0.0
ePcP 44 21.20
ILT 77.10 19 iPc 44 15.00 1.3
iS 54 00.00
DHR 77.11 297 iPd 44 13.50 -1.0
iS 53 50.00
ARU 77.25 328 ePd 44 13.30 -1.4
2.0s 4000.00nm 7.1mb
Z 20s 29.50um 6.6Msz
N 21s 10.00um
E 20s 28.00um
e 44 24.00
ePPP 48 52.00
iS 53 56.00
KKH 78.52 70 ePc 44 22.33 -0.1
MHA 78.66 70 ePd 44 23.99 0.8
e 44 54.21
e 45 05.69
ePP 47 26.23
HPO 78.93 71 eP 44 25.36 0.8
BAK 79.11 311 iPd 44 28.00 2.8X
Z 20s 58.50um 6.9Msz
N 20s 85.10um
E 18s 56.60um
iS 54 28.00
CRZF 79.46 223 eP 44 42.00 15.0X
ePP 47 00.00
iS 54 18.00
RYD 80.15 295 iPd 44 30.20 -1.1
iS 54 32.00
SDN 80.26 34 eP 44 30.37 -0.7
Z 21s 8.53um 6.1Msz
MAW 80.48 200 iPd 44 32.50 0.5
1.5s 312.98nm 6.1mb
Z 21s 27.66um 6.6Msz
iS 54 35.20
ANM 80.51 24 eP 44 32.87 0.6
ePP 47 32.35
SBA 81.25 172 iPc 44 37.00 1.1
1.6s 2350.00nm 7.0mb
eS 54 48.00
MAK 81.31 313 eP 44 34.00 -2.9
Z 25s 21.00um 6.4MszX
N 25s 14.00um
E 25s 33.00um
e 47 44.00
ePS 55 30.00
MJMA 81.42 296 ePd 44 36.60 -1.3
TAB 81.56 308 iPd- 44 40.00 1.4
KMSA 81.86 290 ePd 44 39.60 -0.7
GRO 82.62 314 iPd- 44 44.80 1.1
2.0s 4320.00nm 7.2mb
i 47 50.00
iPPP 49 45.00
iS 54 50.00
iPS 55 58.00
DHJN 82.71 288 iPc 44 45.46 0.4
QASM 83.01 296 iPd 44 48.00 1.8
MTA 83.10 312 iPc+ 45 04.00 17.8X
1.0s 510.00nm
ePPP 49 46.00
iS 54 55.40
i 55 03.40
ePPS 55 53.00
ERE 83.18 310 iP- 44 47.00 0.2
2.2s 200.00nm 5.9mb
iPPP 49 48.00
iS 55 01.00
iSS 00 26.00
ARO 83.19 281 iPd 44 50.00 2.7
AFIF 83.24 294 iPd 44 49.30 1.9
SVW 83.96 29 eP 44 50.36 0.0
1.0s 923.86nm 7.0mb
UQSK 84.05 296 iPd 44 53.30 1.7
TTA 84.11 27 eP 44 51.28 0.2
1.2s 356.43nm 6.5mb
ePP 48 03.47
PYA 84.58 314 iPd- 44 53.50 -0.2
1.5s 2600.00nm 7.2mb
iS 55 10.00
ePPS 56 40.00
AFR 84.64 108 iPc 44 56.10 1.7
1.0s 972.80nm 7.0mb
PAE 84.83 108 iPc 44 57.10 1.7
1.4s 1589.30nm 7.1mb
PPT 84.83 108 iPc 44 57.10 1.7
1.5s 2139.40nm 7.2mb
Z 27s 6075.00um 8.9MszX
KIV 84.84 314 iPd 44 54.30 -0.8
2.8s *******nm 7.6mb X
e 55 12.10
PPN 84.97 108 iPc 44 57.90 1.8
1.5s 1880.30nm 7.1mb
KDC 85.05 32 eP 44 56.30 0.6
1.3s 908.07nm 6.8mb
e 45 07.79
ePP 48 09.59
e 48 22.36
TVO 85.15 108 iPc 44 59.00 1.9
1.2s 2465.90nm 7.3mb
BRW 85.46 18 ePc 44 58.23 0.7
CP2 85.61 29 iPc 44 58.44 -0.3
ePP 48 15.32
IMA 85.63 24 ePc 44 58.02 -0.7
0.7s 76.72nm 6.0mb
CRP 85.65 29 ePc 44 58.44 -0.4
e 47 42.73
ePP 48 14.89
TAIF 85.76 291 ePd 45 02.00 1.7
PMO 86.36 105 iPc 45 04.90 1.9
1.6s 3273.60nm 7.3mb
SLKM 86.51 30 ePc 45 02.38 -0.6
VAH 86.63 105 iPc 45 06.00 1.7
1.5s 1763.30nm 7.1mb
TPT 86.63 105 iPc 45 06.20 1.8

1.4s 2153.90nm 7.2mb
PWA 86.78 28 P 45 03.59 -0.6
RUV 86.86 105 iPc 45 07.30 1.8
1.4s 2174.80nm 7.2mb
PMS 86.89 29 P 45 04.30 -0.6
SOC 86.96 313 eP 45 06.00 0.5
2.5s 4000.00nm 7.2mb
e 45 18.00
ePS 56 43.00
PMR 87.13 28 eP 45 03.87 -2.0
0.9s 243.06nm 6.4mb
Z 21s 24.86um 6.6Msz
ePP 48 26.62
S 55 39.69
AAE 87.19 279 P 45 10.20 2.6
COL 87.95 25 eP 45 08.40 -1.4
0.8s 46.55nm 5.9mb
FBA 87.95 25 ePc 45 07.24 -2.6
0.6s 26.53nm 5.7mb
e 48 09.40
iPP 48 33.33
TOA 88.55 28 eP 45 12.90 0.0
KLU 88.66 29 ePc 45 13.14 -0.2
ePP 48 40.67
MOS 88.68 326 iPc 45 13.00 -0.5
3.0s 6200.00nm 7.4mb
Z 24s 51.10um 6.9MszX
e 48 40.00
ePPP 50 38.00
e 55 40.00
iS 55 52.00
ePS 56 56.00
ANN 88.73 315 iPc 45 14.00 0.1
3.0s 6500.00nm 7.4mb
e 55 31.00
i 55 54.00
SYO 89.19 201 ePd- 45 17.00 1.4
NAI 89.20 269 iPd 45 19.00 1.8
1.0s 9762.00nm 8.0mb X
SKS 55 12.00
SKKS 55 46.00
iS 56 12.00
iLQ 15 56.00
OBN 89.26 325 ePc 45 16.02 -0.2
1.1s 690.00nm 6.8mb
ec 45 18.09
epPd 45 19.75 12kmX
WAJH 89.28 296 ePd 45 18.20 1.3
AYN 89.76 299 ePd 45 20.60 1.4
BHL 90.02 304 P 45 20.00 -0.4
PP 48 54.00
SKS 55 46.00
LVZ 90.06 338 ePc 45 18.77 -1.1
esP 45 26.47
ADAT 90.22 307 eP 45 24.30 3.1X
BALM 90.39 29 eP 45 21.02 -0.5
ePP 48 54.70
SPA 90.48 180 ePc 45 21.20 -0.7
0.8s 83.33nm 6.1mb
Z 20s 49.55um 6.9Msz
i 45 22.70
CTK 90.58 311 eP 45 25.20 2.3
SIM 90.99 315 iP+ 45 26.00 1.5
Z 24s 50.00um 6.9MszX
N 24s 35.00um
E 24s 47.60um
e 49 02.00
ePPP 51 00.00
e 55 52.00
eS 56 16.00
ePS 57 30.00
FAM 91.36 305 eP 45 27.00 0.6
MRFT 91.62 310 eP 45 29.10 1.3
CSS 91.91 305 eP 45 29.00 0.0
PUL 92.45 330 ePd 45 31.00 0.1
1.8s 250.00nm 6.3mb
e 45 43.00
e 49 16.00
e 56 00.00
eS 56 24.00
e 58 23.00
eSS 02 38.00
KEV 92.66 340 iPc 45 30.41 -1.3
0.8s 90.80nm 6.2mb
SGKT 92.69 310 eP 45 33.80 1.1
PPCY 92.72 305 eP 45 33.50 0.8
SDF 93.25 338 iP 45 33.60 -0.9

NAL 93.28 310 eP 45 35.30 -0.1
HLW 93.80 300 eP 45 40.00 2.2
eS 56 09.00
KBS 94.05 350 eP 45 37.00 -1.0
i 56 34.00
e 58 00.00
KAF 94.11 332 iP 45 37.80 -0.7
0.8s 117.20nm 6.3mb
CIR 94.30 249 eP 45 22.10 -18.1X
iPP 49 05.90
SIT 94.32 33 eP 45 39.02 -0.5
1.2s 101.68nm 6.1mb
Z 21s 8.95um 6.2Msz
MTD 94.36 253 iPc 45 26.30 -14.4X
KIS 94.52 317 iP+ 45 42.00 1.3
Z 25s 40.70um 6.8MszX
i 49 30.00
iPPP 51 32.00
i 56 11.00
iS 56 42.00
iPS 58 03.00
iSS 03 10.00
MNK 94.59 324 eP 45 40.00 -0.8
Z 26s 51.70um 6.9MszX
N 28s 36.99um
E 26s 43.20um
e 56 12.00
eS 56 40.00
ePS 58 00.00
KSL 94.90 306 eP 45 39.80 -2.9
ITU 94.95 311 iPc 45 44.00 1.2
NUR 95.16 331 eP 45 43.00 -0.4
CFR 95.19 315 eP 45 45.50 1.7
MBC 95.26 13 P 45 43.80 0.2
2.0s 1644.00nm 7.1mb
PcP 45 44.60
PP 49 36.70
PPP 51 36.20
SKS 56 14.10
ScS 56 57.10
SP 58 14.70
PS 58 18.40
PKKP 02 38.80
SS 03 33.70
PSN 95.32 314 iP 45 45.00 0.5
TRO 95.44 340 eP 45 43.50 -1.0
CIN 95.98 308 iPc 45 48.00 0.4
VRI 96.11 316 eP 45 52.00 3.9X
PTT 96.21 317 eP 45 50.00 1.5
MLR 96.71 316 ePc 45 51.50 0.6
BUC 96.74 315 iPc 45 42.00 -8.9X
BUC1 96.79 315 iPc 45 54.00 2.9
ALE 96.98 1 (P) 45 51.59 0.3
BUL 97.10 250 iPc 45 49.00 -4.2X
iPP 49 43.00
iS 56 26.00
iPKKP 02 31.30
SLR 97.16 244 iPd 45 52.80 -0.6
0.8s 48.51nm 6.1mb
Z 22s 45.19um 6.9Msz
ALN 97.21 311 eP 45 54.08 1.0
PRK 97.23 310 iPc 45 53.00 -0.2
LVV 97.34 320 iP+ 45 55.00 1.5
i 46 11.00
i 56 27.00
iS 57 09.00
iPS 58 33.00
eSS 03 51.00
PVL 97.44 314 iP 45 56.00 1.9
DIM 97.45 312 eP 45 55.00 0.9
RDO 97.56 311 eP 45 54.00 -0.7
KDZ 97.59 312 eP 45 54.00 -0.8
PLD 98.05 313 iP 45 56.00 -0.9
RZN 98.10 312 iPc 45 57.00 -0.4
NPS 98.20 306 eP 45 58.50 0.8
NVL 98.26 198 iPd 46 01.00 3.8X
2.5s 572.00nm 6.7mb
Z 20s 12.50um 6.4Msz
N 20s 8.50um
E 20s 7.50um
e 48 10.00
e 49 17.00
ePP 50 05.00
ePPP 52 08.00
iSKS 56 32.00
eS 57 18.00
ePS 58 48.00

eSS 04 05.00
eSSS 07 42.00
PGB 98.38 313 iPc 45 58.00 -0.4
UZH 98.67 319 ePc+ 46 00.00 0.5
1.5s 360.00nm 6.8mb
Z 22s 25.00um 6.7Msz
E 22s 27.00um
i 46 06.50
i 46 14.30
i 56 30.00
i 57 27.00
UPP 98.73 331 iP 45 59.10 -0.4
0.8s 100.00nm 6.5mb
iS 56 34.00
i 57 16.00
BLF 98.81 241 iPd 46 02.40 1.6
1.0s 50.00nm 6.1mb
OUR 98.84 311 eP 46 00.04 -0.4
MMB 98.85 312 iPc 46 00.00 -0.5
GZR 98.92 316 ePd 46 20.00 19.2X
SRS 99.02 312 eP 46 00.32 -1.0
VTS 99.08 313 iPc 46 01.00 -0.7
PAIG 99.13 310 eP 46 01.12 -0.6
SOH 99.24 311 eP 46 01.44 -0.9
KKB 99.28 312 iPc 46 01.00 -1.5
ATH 99.38 308 eP 46 00.00 -2.9X
i 56 34.00
e 14 00.00
BOSA 99.52 241 ePc 46 05.26 1.5
1.2s 86.98nm 6.2mb
i 50 09.86
KNT 99.53 312 eP 46 03.04 -0.6
THE 99.56 311 eP 46 04.08 0.3
BZS 99.69 316 eP 45 57.00 -7.2X
VAY 99.75 312 iP 46 03.80 -0.8
0.9s 90.00nm 6.3mb
iPP 50 12.40
SPC 99.89 320 ePDIF 46 06.20 0.9
i 50 18.40
GRG 99.93 312 eP 46 04.44 -1.1
OJC 99.95 321 iPc 46 05.70 0.4
1.0s 117.00nm 6.4mb
Z 21s 52.20um 7.0Msz
i 46 11.10
iS 56 34.10
i 57 32.90
LIT 100.00 311 ePdiff46 04.88 -1.0
AGG 100.30 310 ePdiff46 05.64 -1.6
DAG 100.37 352 iPdiff46 03.90 -2.7X
0.8s 88.81nm 6.4mb
SKO 100.47 313 iPdiff46 07.00 -0.9
i 46 09.80
iPP 50 18.00
iSKS 56 42.00
iPS 59 01.50
LR 37 10.00
KZN 100.51 311 ePdiff46 08.00 -0.2
HFS 100.52 332 ePdiff46 05.70 -1.9
0.9s 49.10nm 6.0mb
Z 20s 30.52um 6.8Msz
LR 25 14.00
FNA 100.73 312 ePdiff46 09.04 -0.1
BUD 101.06 319 e(Pdif46 10.00 -0.3
OHR 101.10 312 iPdiff46 04.80 -6.0X
0.9s 60.00nm 6.2mb
iSKS 56 36.00
NRA0 101.31 333 Pdiff 46 10.00 -1.1
PP 49 30.90
NRE0 101.31 333 Pdiff 46 15.30 4.2X
PP 50 34.80
SKS 56 51.20
S 57 46.70
PS 59 55.30
SS 04 56.90
NB2 101.34 333 Pdiff 46 10.30 -1.0
0.9s 42.80nm 6.0mb
IVA 101.43 314 iPdiff46 13.89 1.7
PVY 101.43 314 iPdiff46 14.44 2.2X
SRO 101.45 319 ePdiff46 12.60 0.6
UZD 101.55 318 iPdiff46 12.80 0.3
NAO 101.59 333 Pdiff 46 09.92 -2.5X
PLE 101.70 314 iPdiff46 14.48 1.0
TIR 101.75 312 ePdiff46 11.80 -1.8
LACI 101.81 313 ePdiff46 14.00 0.2
TPE 101.84 311 ePdiff46 14.20 0.2
SDA 101.88 313 ePdiff46 00.00 -14.1X
KSP 101.96 322 ePdiff46 14.80 0.5

09d 04h

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          1.0s    49.00nm          6.1mb
                   e       49 39.30
                   e       50 27.60
                   e       56 50.00
TTG    101.98 314 iPdiff46 15.53    1.0
DPC    102.02 322 ePdiff46 14.41   -0.2
          1.0s    34.12nm          5.9mb
ULC    102.08 313 iPdiff46 16.88    1.8
NKY    102.09 314 iPdiff46 15.41    0.2
ZST    102.14 320 ePdiff46 14.90   -0.2
                   ePP     50 32.30
MOL    102.31 335 ePdiff46 14.96   -0.5
BDV    102.32 313 iPdiff46 16.88    0.8
BRY    102.39 314 iPdiff46 16.39   -0.2
HCY    102.52 314 iPdiff46 16.89   -0.1
KONO   102.62 332 ePdiff46 05.27  -11.7X
                   ePP     50 25.27
                   eP'P'   10 25.56
SOP    102.63 319 ePdiff46 18.00    0.7
VKA    102.63 320 iPdiff46 17.90    0.6
          3.3s   887.00nm          6.9mb X
        Z 20s     14.90um          6.5Msz
                   i       49 37.80
                   i       50 34.30
                   LR      36 00.00
COP    102.68 328 iPdiff46 35.00   17.7X
        Z 22s     33.33um          6.8Msz
                   iSKS    56 57.00
                   i       58 00.00
YKA    102.74  25 Pdiff 46 17.60    0.2
          0.8s    19.00nm          5.8mb
PRU    103.28 322 iPdiff46 21.10    1.0
          3.0s   479.00nm          6.7mb
                   pP      46 27.50
                   PP      50 39.30
                   SKS     56 56.00
                   SDIF    58 04.10
                   PKKP    02 36.50
                   eSS     05 22.00
BRG    103.37 323 iPdiff46 21.00    0.4
          2.0s   140.00nm          6.4mb
                   iS      58 02.00
                   iPKKP   02 35.20
PTJ    103.49 318 ePdiff46 22.60    1.3
ZAG    103.49 317 iPdiff46 24.20    3.0X
CLL    103.80 323 ePdiff46 23.00    0.6
          1.9s    68.00nm          6.1mb
        Z 22s     24.50um          6.7Msz
                   eSKS    56 56.00
                   eS      58 04.00
MUD    104.09 329 ePdiff46 25.00    1.4
          1.0s    44.00nm          6.3mb
KMR    104.10 320 iPdiff46 26.30    2.4X
KHC    104.13 321 Pdiff 46 25.50    1.5
          1.0s    21.00nm          5.9mb
        Z 24s     28.50um          6.7MszX
        N 24s     25.00um
        E 22s     12.60um
                   e       46 30.50
                   e       46 59.00
                   e       49 21.50
                   ePP     50 44.50
                   e       51 19.50
                   eSKS    57 00.00
                   eSDIF   58 14.00
                   eSP     59 45.50
                   PKKP    02 13.00
                   e       02 34.00
GEC2   104.14 321 e(Pdif46 24.40    0.2
          1.7s    20.10nm          5.7mb
CER    104.19 236 ePdiff46 18.00   -6.7X
          0.9s    30.77nm          6.2mb
LJU    104.41 318 iPdiff46 26.90    1.6
                   e       49 34.20
                   e       50 46.00
                   e       50 49.20
                   e       57 01.00
                   i       57 01.90
                   i       57 03.00
                   i       57 04.20
                   i       57 06.90
                   e       58 10.00
                   e       58 13.30
                   i(S)    58 13.50
SHW    104.57  42 ePdiff46 28.86    2.7X
LON    104.69  41 Pdiffc46 30.08    3.5X
                   PP      50 51.12

RIY    104.70 317 e(Pdif46 35.00    8.4X
VOY    104.84 318 ePdiff46 28.00    0.7X
                   e       49 37.00
                   ePP     50 38.50
                   eSKS    57 04.50
MOX    104.85 323 iPdiff46 29.40    2.2X
          1.9s   105.00nm          6.4mb
        Z 18s     19.00um          6.7Msz
                   eSKS    57 09.00
                   eS      58 19.00
                   ePKKP   02 29.80
KBA    104.89 319 iPdiff46 26.60   -1.1
                   i       49 30.00
                   i       49 53.20
                   i       50 14.00
                   i       50 49.50
                   i       50 55.30
TRI    105.02 318 ePdiff46 25.50   -2.5X
                   ePP     50 43.00
                   e       50 56.00
                   ePPP    53 03.00
                   eSKS    57 05.00
                   eS      58 16.00
                   eSP     59 56.00
                   eSSS    10 00.00
                   eLR     23 08.00
GRF    105.41 322 ePdiff46 30.90    1.2
                   ePP     50 55.00
                   eSKS    57 08.00
                   eSKKS   57 59.00
                   iSDIF   58 27.00
                   ePS     00 02.00
                   e       01 25.00
                   eSS     05 46.00
                   e       09 33.00
                   eP'P'   10 35.00
LGPM   105.56  47 ePdiff46 31.28    0.6
WDC    105.86  47 ePdiff46 29.21   -2.7X
        Z 21s     41.00um          7.0Msz
                   ePPd    50 47.21
                   eSKS    57 10.21
                   eSP     59 54.21
                   iPS     00 09.21
                   ePKKS   05 51.21
                   eLQ     15 45.21
                   eLR     20 08.21
FUR    105.88 321 ePdiff46 32.70    0.9
        Z 19s     26.00um          6.8Msz
                   e       46 57.90
                   iPP     51 00.80
                   eSKS    57 10.90
                   eSDIF   58 27.80
                   eSS     06 02.80
WTTA   105.95 320 i(Pdif46 32.10   -0.3
          1.5s    57.30nm          6.4mb
                   i       49 41.60
                   i       50 01.20
                   i       50 45.40
                   i       51 00.20
SQTA   106.24 320 i(Pdif46 34.80    1.2
NTYM   106.31  50 PKP   50 41.60   -3.9X
DPW    106.67  39 ePdiff46 35.88    0.5
DPW    106.67  39 ePKP  50 56.89   10.8X
ORV    106.89  48 ePdiff46 19.39  -17.1X
        Z 20s     17.00um          6.6Msz
                   ePP     50 43.39
                   iSKS    57 14.39
                   eSP     00 04.39
                   ePS     00 07.39
                   ePKKS   06 27.39
                   iLQ     16 11.39
                   eLR     20 15.39
ORV    106.89  48 ePKP  51 01.49   14.8X
TNS    106.89 323 ePKPc 50 46.00   -0.4
                   ePPd    51 04.80
                   eSDIF   58 37.00
NEW    107.21  39 Pdiff+46 39.32    1.5
NEW    107.21  39 PKP   50 57.56   10.5X
        Z 20s     21.34um          6.7Msz
                   SP      00 20.76
FIR    107.30 316 ePdiff46 44.50    6.4X
ARN    107.43  51 ePdiff46 39.00    0.0
ARN    107.43  51 ePKP  50 49.08    1.3
SAO    107.64  51 PKP   51 00.00   11.8X
        Z 21s     19.16um          6.6Msz
SAO    107.64  51 Pdiff+46 43.38    3.5X
        Z 21s     19.16um          6.6Msz

                   PP      51 07.57
                   SP      00 30.48
                   SS      06 41.77
CMB    108.13  50 ePdiff46 38.30   -3.8X
        Z 22s     18.00um          6.6Msz
                   ePPd    51 10.00
                   eSKS    57 18.30
                   eSPd    00 25.30
                   iPS     00 32.30
                   ePKKS   06 55.30
                   eSKKS   09 43.30
                   eLQ     16 33.30
                   eLR     21 03.30
CMB    108.13  50 ePKP  50 45.04   -4.1X
                   iPP     51 11.98
                   SP      00 34.89
CDF    108.29 322 ePdiff46 51.90    9.3X
          1.3s    39.35nm          6.4mb
WLF    108.48 324 PKPc  50 46.00   -3.2X
                   i       52 06.00
PHAM   108.69  52 ePdiff46 46.99    2.4X
PKEM   108.86  52 (PKP) 51 06.85   16.4X
BCH    109.10  52 ePdiff46 47.64    1.0
AKU    109.13 345 ePKP  51 07.00   17.0X
          1.6s   493.33nm
MEMM   109.33  50 (Pdiff46 50.83    3.5X
KVN    109.56  48 ePdiff46 50.30    1.6
KVN    109.56  48 ePKP  50 46.24   -5.7X
LPG    109.73 319 ePdiff46 53.00    3.6X
          1.2s    28.85nm
BONR   109.73  49 ePdiff46 50.48    0.9
LPL    109.74 319 ePdiff46 52.90    3.6X
          0.9s    10.80nm
ABL    109.87  53 ePdiff46 51.81    1.6
ISA    110.25  52 ePdiff46 52.61    1.0
        Z 20s     21.65um          6.7Msz
                   PP      51 23.83
                   SP      00 54.83
TNP    110.51  49 ePdiff46 54.11    1.2
TNP    110.51  49 ePKP  50 54.32    0.5
ESK    110.75 332 ePKP  50 53.37    0.0
TPNV   111.59  50 ePdiff47 00.09    2.4X
TPNV   111.59  50 ePKP  50 57.58    1.7
        Z 22s     26.77um          6.8Msz
                   ePP     51 41.16
                   SP      01 03.29
GSC    111.66  52 ePdiff46 59.47    1.5
GSC    111.66  52 iPKP  50 57.50    1.6
                   e       51 15.14
PEC    111.77  53 ePdiff46 59.35    0.9
                   ePP     51 37.24
PLM    112.16  54 ePdiff47 00.76    0.4
PLM    112.16  54 iPKP  50 58.27    1.2
                   ePP     51 35.99
PTI    112.33  43 ePKP  50 59.48    2.4X
FFC    112.43  28 ePKP  50 56.88    0.3
HVU    112.47  44 ePdiff47 02.85    1.4
HVU    112.47  44 iPKP  50 58.21    0.9
                   ePP     51 39.64
DUG    113.03  45 ePdiff47 03.77   -0.3
                   e       50 26.07
DUG    113.03  45 ePKP  50 58.03   -0.4
        Z 21s     15.88um          6.6Msz
                   SP      01 15.52
ARUT   113.44  48 ePKP  51 00.14    0.8
                   e       51 32.87
                   ePP     51 49.96
ARUT   113.44  48 ePdiff47 05.83   -0.1
GLA    113.88  53 ePdiff47 09.27    1.4
                   e       47 16.30
GLA    113.88  53 iPKP  51 01.70    1.5
                   e       51 59.20
DAU    114.05  45 ePdiff47 09.48    0.7
DAU    114.05  45 ePKP  50 55.09   -5.6X
                   ePP     51 45.08
MSU    114.11  47 iPKP  51 02.31    1.5
                   iPP     51 54.01
EMUT   114.60  45 ePdiff47 12.97    1.8
SRU    115.08  46 ePKP  51 02.03   -0.5
EBR    115.80 317 ePKP  51 00.00   -3.5X
PV09   116.32  46 ePKP  51 06.99    1.9
PV10   116.44  46 iPdiff47 20.73    1.4
PV10   116.44  46 iPKPd 51 06.35    1.1
PV08   116.64  46 ePKP  51 05.76    0.1
ECRI   117.00 320 iPKPd 51 06.27    0.4
RSSD   117.18  38 Pdiff 47 33.80   11.3X
RSSD   117.18  38 ePKP  51 04.96   -1.4
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                   ePP  52 13.79
ECHE  117.34 316 iPKPd 51 06.99   0.4
TUC   117.35  53 iPKP  51 09.19   2.3X
   Z  19s    24.29um         6.8Msz
                   ePP  52 19.47
                   SP   02 08.95
ETOR  117.53 318 iPKPd 51 07.71   0.7
EALH  118.41 314 iPKPd 51 08.96   0.3
GOL   118.44  43 PKP   51 20.00  11.0X
   Z  21s    33.58um         6.9Msz
GLD   118.52  43 ePdiff47 29.61   1.1
GLD   118.52  43 ePKP  51 09.23   0.2
   Z  21s    39.34um         7.0Msz
                   PP   52 28.56
                   SP   02 12.14
EVIA  118.83 316 iPKPc 51 09.32  -0.2
GUD   119.02 318 iPKPc 51 10.22   0.3
EHUE  119.26 315 iPKPc 51 09.50  -0.9
ENIJ  119.36 314 iPKPd 51 10.90   0.4
EMON  119.61 322 iPKPd 51 11.30   0.5
PAB   119.68 317 ePdiff47 45.00  11.5X
                   e    51 11.90
                   ePP  52 41.00
PAB   119.68 317 PKP   51 11.29   0.2
ALQ   119.72  49 ePdiff47 33.89  -0.1
ALQ   119.72  49 ePKP  51 11.90   0.4
   Z  21s     4.84um         6.1Msz
                   e    51 27.17
                   PP   52 34.75
                   SP   02 35.65
EBAN  119.94 316 iPKPc 51 12.09   0.5
ERUA  120.06 321 iPKPd 51 11.48  -0.2
ECOG  120.20 315 iPKPd 51 11.70  -0.5
EGUA  120.39 314 iPKPc 51 12.20  -0.2
TAF   120.42 312 iPKPc 51 15.00   2.4X
EPLA  120.59 319 iPKPc 51 12.02  -0.7
STS   120.65 322 iPKPc 51 10.94  -1.8
ELOJ  120.67 315 iPKPc 51 11.66  -1.4
EHOR  121.12 316 iPKPd 51 14.52   0.8
EZAM  121.15 322 iPKPc 51 08.25  -5.5X
EPRU  121.52 315 iPKPd 51 15.29   0.7
ALJ   121.92 315 ePKP  51 17.50   2.0
EJIF  121.93 315 iPKPd 51 16.04   0.7
TZK   122.05 312 ePKP  51 17.00   1.4
GIBL  122.09 315 ePKP  51 18.00   2.3X
MOMI  122.17 315 ePKP  51 17.50   1.7
EVAL  122.28 316 iPKPd 51 17.40   1.4
PLAT  122.29 314 ePKP  51 17.50   1.4
CPS   122.31 314 iPKP  51 18.50   2.4X
BIT   122.49 314 iPKPd 51 18.00   1.6
TGT   122.71 312 ePKP  51 19.50   2.6X
ZER   122.73 312 ePKP  51 19.50   2.6X
TSY   122.79 314 iPKPd 51 19.00   2.0X
IFR   123.01 311 iPKP  51 20.00   2.3X
RTC   124.08 313 iPKP  51 21.00   1.4
LTX   124.13  54 ePKP  51 18.57  -1.4
ACO   124.19  44 iPKPd 51 19.50  -0.3
AVE   124.81 312 iPKP  51 22.00   1.0
WMOK  125.44  45 ePKP  51 21.97  -0.3
   Z  21s    35.80um         7.0Msz
                   ePP  53 08.03
                   SP   03 03.55
MEO   125.55  45 iPKPc 51 22.10  -0.4
OUK   126.12 310 iPKPd 51 26.00   2.4X
CIA   126.64 311 iPKPd 51 26.00   1.4
TUL   126.90  43 iPKPd 51 09.30 -15.7X
JHA   127.06 311 ePKP  51 27.00   1.6
CCM   128.56  38 ePKP  51 28.10   0.0
UYO   128.77  44 iPKPd 51 21.40  -7.2X
SLM   128.79  36 PKP   51 40.00  11.5X
   Z  20s    17.41um         6.7Msz
FVM   129.10  37 ePKP  51 27.96  -1.2
   Z  20s    46.46um         7.2Msz
                   e    53 23.83
MIAR  129.16  43 ePKP  51 29.61   0.3
   Z  21s    33.70um         7.0Msz
                   ePP  53 35.50
                   eSKP 54 49.14
                   SP   03 46.24
ELF   130.09  26 PKP   51 24.40  -6.5X
DLA   130.25  26 PKP   51 24.75  -6.4X
ELC   130.28  37 ePKP  51 31.36   0.0
                   ePP  53 29.93
LDN   130.28  26 PKP   51 24.65  -6.5X
ACTO  130.30  25 PKP   51 30.95  -0.3
KIC   130.37 279 ePKP  51 32.80   0.6
LST   130.46  38 ePKP  51 31.17  -0.6
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                   i    53 42.92
                   eSKP 54 49.47
WLVO  130.71  23 PKP   51 31.60  -0.4
LKO   130.79 283 PKP   51 21.84 -11.2X
      1.1s    37.00nm
TYNO  130.80  25 PKP   51 31.47  -0.7
STCO  130.99  24 PKP   51 31.91  -0.6
CBM   131.18  13 ePKPd 51 33.07   0.3
   Z  21s    22.80um         6.8Msz
                   ePP  53 46.70
                   eSKP 54 53.07
RSNY  131.58  20 ePKP  51 33.93   0.3
                   ePP  53 47.90
                   eSKP 54 55.75
YSNY  131.86  24 ePKP  51 33.52  -0.8
   Z  21s    25.76um         6.9Msz
                   ePP  53 45.64
                   eSKP 54 55.37
OXF   131.94  40 ePKP  51 27.83  -6.8X
   Z  20s     6.76um         6.3Msz
                   ePP  53 33.50
                   iSKP 54 57.95
LBNH  132.69  18 ePKP  51 36.09   0.3
   Z  21s    13.95um         6.6Msz
                   ePP  53 52.46
BINY  133.11  22 ePKP  51 36.28  -0.4
   Z  20s    25.09um         6.9Msz
                   PP   54 03.13
MCWV  133.58  28 ePKP  51 38.94   1.3
   Z  21s    25.50um         6.9Msz
                   PP   53 59.80
                   eSKP 55 03.53
                   SP   03 31.10
HRV   134.37  18 ePKP  51 39.94   1.0
   Z  21s    15.52um         6.7Msz
                   PP   54 08.54
LSCT  134.57  20 ePKP  51 40.30   0.9
   Z  21s    18.36um         6.8Msz
                   ePP  54 04.52
                   iSKP 55 06.11
TBR   134.68  22 (PKP) 51 40.21   0.6
GPD   134.70  22 PKP   51 32.50  -7.2X
MYNC  134.80  35 ePKP  51 40.94   0.8
   Z  21s    19.04um         6.8Msz
                   iPP  54 08.44
                   eSKP 55 07.04
MYNC  134.80  35 ePKP  51 27.59 -12.5X
TBT   134.91 313 (PKP) 51 39.99  -0.5
PNJ   134.91  22 PKP   51 40.45   0.4
                   PP   54 11.57
                   SKPdf 55 06.98
PAL   134.92  21 ePKP  51 40.08   0.0
GMTN  134.92  22 ePKP  51 29.60 -10.5X
NAV   134.96  31 (PKP) 51 40.46   0.1
BLA   135.23  30 (PKP) 51 41.04   0.2
CVL   135.57  28 (PKP) 51 40.28  -1.1
CBN   135.89  27 ePKP  51 30.00 -12.0X
                   e    51 44.00
                   e    54 18.00
                   e    54 43.00
CEH   136.92  30 ePKP  51 45.14   1.1
   Z  20s    13.36um         6.7Msz
                   e    54 15.65
                   eSKP 55 13.31
JSC   137.00  34 PKP   51 32.50 -11.7X
HBF   138.49  34 PKP   51 32.50 -14.6X
MBO   140.47 293 iPKPc 51 52.80   1.8
RFA   143.31 160 ePKPc 51 35.50 -20.2X
IHA   143.63 155 ePKP  51 54.00  -2.1X
PEL   143.92 156 iPKP  51 54.50  -2.2X
MDZ   144.87 158 iPKPd 51 57.70  -0.7
LPA   145.56 174 PKPd+ 51 58.80  -0.6
      1.0s  *******nm
   Z  20s    15.60um         6.8Msz
                   ePP  55 20.00
ZON   146.13 157 ePKP  52 01.20   0.7
CFA   146.24 158 ePKPd 52 01.40   0.7
RTRS  147.02 155 ePKP  52 03.50   1.6
RTPR  148.05 159 ePKP  52 04.50   1.0
CYA   150.00 159 ePKPc 52 06.50  -0.2
FSA   152.04 156 ePKPd 52 11.20   1.5
SLA   153.46 156 iPKPc 52 13.20   1.2
                   i    52 21.20
NNA   154.62 118 ePKP  52 14.90   1.3
      1.2s   117.19nm
HJA   154.84 155 ePKPd 52 16.60   3.0X
YJA   155.71 153 ePKP  52 17.00   1.5
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MOCB  156.44 152 PKP   52 17.10   0.6
ARE   156.57 134 iPKPc 52 18.50   2.0
VAO   156.60 197 ePKP  52 18.10   1.9
PSO   156.62  86 ePKP  52 19.00   2.1X
CLLP  157.79  33 PKP   52 16.00  -1.6
SJG   157.99  32 PKP   52 17.61  -0.3
CPD   158.18  32 PKP   52 18.00  -0.1
CNCB  158.72 140 PKP   52 20.00   0.6
LPB   158.85 140 PKPd  52 20.90   1.5
      1.0s  3340.00nm
                   i    52 58.80
                   PP   56 36.00
                   SS   16 54.20
                   LR   49 47.90
LPAZ  159.01 139 ePKPd 52 21.43   1.6
                   ePP  56 38.18
BOG   159.33  76 iPKP  52 22.00   2.1X
CCH   159.40 145 PKPc  52 19.90   0.1
                   i    52 57.90
RIFB  159.52 198 iPKPc 52 21.00   1.4
                   i    52 42.30
                   e    53 06.80
                   e    56 33.50
                   e    03 27.90
                   e    16 44.80
BMG   159.55  68 ePKP  52 18.60  -1.3
ANG   160.85  23 ePKP  52 22.00   1.1
BPA   160.94  24 ePKP  52 20.00  -1.1
SDV   161.00  60 ePKP  52 21.50   0.1
DEG   161.91  22 ePKP  52 21.00  -1.1
PAG   161.92  24 ePKP  52 21.50  -0.6
SIV   163.09 156 PKP   52 23.50   0.3
CAR   163.13  49 iPKPd 52 24.00   0.5
FDF   163.31  25 ePKP  52 23.68   0.2
CRM   163.39  24 ePKP  52 24.29   0.8
MVM   163.57  24 ePKP  52 24.92   1.2
BDF   163.76 201 ePKP  52 22.90  -1.2
      1.7s     8.00nm
                   e    52 44.70
                   i    53 16.10
                   i    57 04.50
BDFB  163.82 201 ePKPc 52 24.89   0.8
                   ePKPab53 18.83
                   ePP  57 00.85
SLB   164.16  26 ePKP  52 23.70  -0.7
SOB1  164.33 236 ePKP  52 23.90  -0.6
SVB   164.56  27 ePKP  52 23.50  -1.2
TCE   166.48  35 ePKP  52 25.46  -0.8
TRN   166.72  33 ePKP  52 27.58   1.2
TPP   166.96  34 ePKP  52 28.28   1.7
    S.D. = 1.2  on 493 of 598 obs.
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  DEC  09, 1993  04h 56m 35.59± 0.58s
  53.059 N ± 7.4km  158.299 E ± 9.3km
  DEPTH =  58.3 ±  7.5 km
  5.2mb ( 42 obs.)
 NEAR EAST COAST OF KAMCHATKA     (218)

PET     0.22 101 iPnd- 56 46.00   1.0
                   eS   56 56.00
SKR     2.76 211 ePn   57 15.80  -2.4
YAK    17.63 312 eP    00 42.70   4.4X
       1.0s    232.00nm         5.3mb
NIIJ   20.76 228 P     01 12.90  -0.7
KAKJ   21.12 224 eP    01 16.40  -0.8
MAT    21.70 228 eP    01 22.00  -1.1
       0.8s     50.75nm         5.0mb
CHJJ   21.76 226 P     01 24.50   0.8
MTMJ   21.84 229 P     01 24.80   0.2
IIDJ   22.71 227 eP    01 34.00   0.9
TSRJ   23.54 231 eP    01 41.90   0.8
WKYJ   24.81 230 P     01 56.80   3.4X
BOD    25.12 299 eP    02 00.50   4.5X
       1.0s     18.00nm         4.5mb
TKSJ   25.73 232 P     02 05.20   3.2X
IMA    26.79  42 e(P)  02 12.80   1.2
       1.0s      2.00nm       3.7mb X
SHNJ   27.05 236 eP    02 14.80   0.7
FBA    29.21  45 e(P)  02 31.90  -1.4
       1.3s      2.00nm       3.6mb X
KAGJ   29.54 233 eP    02 38.00   1.5
BALM   32.20  52 e(P)  03 00.50   0.7
NVS    42.24 304 iPd   04 25.20   1.1
YKA    43.92  42 P     04 43.50   5.9X
       0.5s      1.10nm       3.9mb X
TNP    57.62  68 e(P)  06 18.00  -3.9X
GUN    57.82 275 P     06 23.70   0.1
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09d 05h

TNE 58.09 217 eP 06 39.00 13.9X
KKN 58.27 275 P 06 27.00 0.4
0.4s 7.00nm 5.1mb
PKI 58.35 275 P 06 27.40 0.1
GKN 58.50 276 P 06 28.40 0.3
KAF 59.08 336 eP 06 30.90 -0.6
RSSD 60.32 55 iPd 06 34.14 -6.4X
0.7s 10.73nm 5.1mb
NUR 60.87 336 eP 06 43.80 0.0
AKU 61.55 358 iP 06 47.70 -0.6
1.0s 32.00nm 5.4mb
UPP 63.08 339 iP 06 57.90 -0.6
1.0s 100.00nm 5.9mb
NB2 63.26 343 P 06 58.70 -1.1
0.7s 8.60nm 4.9mb
HFS 63.64 341 eP 07 00.70 -1.5
0.4s 5.70nm 5.0mb
EKA 70.89 349 P 07 47.00 -0.8
OJC 71.30 333 iP 07 50.50 0.2
KSP 71.64 336 iPc 07 52.00 -0.3
0.9s 31.00nm 5.2mb
CLL 71.99 338 iPc 07 54.10 -0.3
1.0s 60.00nm 5.5mb
SPC 72.11 333 e(P) 07 55.60 0.2
BRG 72.18 337 iP 07 55.20 -0.3
1.1s 31.00nm 5.1mb
MOX 72.92 339 iPc 07 59.90 0.0
1.1s 30.00nm 5.1mb
MLR 73.70 327 ePc 08 05.50 0.8
GBA 73.77 271 Pd 08 05.10 -0.2
0.8s 11.00nm 4.8mb
ZST 73.87 334 iP 08 06.20 0.8
KHC 73.89 337 P 08 06.20 0.6
1.0s 32.00nm 5.2mb
SRO 73.90 333 eP 08 06.10 0.5
GRF 73.90 338 iPc 08 06.30 0.7
1.0s 58.00nm 5.5mb
ENN 73.96 342 eP 08 06.00 0.1
1.0s 80.00nm 5.6mb
GEC2 74.12 337 e(P) 08 07.00 0.0
0.7s 9.70nm 4.8mb
DOU 74.85 343 Pc 08 11.40 0.4
WLF 74.97 342 P 08 13.00 1.3
QIS 75.08 198 eP 07 56.30 -16.4X
KBA 75.86 336 iPc 08 17.80 0.7
0.8s 65.30nm 5.6mb
i 08 27.40
CDF 75.95 341 eP 08 17.40 -0.1
0.9s 37.65nm 5.3mb
WATA 76.04 337 iPc 08 18.50 0.4
WTTA 76.09 337 iPc 08 18.90 0.5
1.1s 42.40nm 5.3mb
i 08 28.50
MOTA 76.14 338 iPc 08 18.80 0.1
0.9s 27.20nm 5.2mb
i 08 32.20
SQTA 76.23 338 iPc 08 19.60 0.5
0.8s 26.00nm 5.2mb
i 08 27.30
KOD 76.39 269 iPd 08 21.50 0.8
1.0s 30.00nm 5.2mb
HAU 76.52 341 eP 08 20.30 -0.3
1.0s 41.20nm 5.3mb
BSF 76.60 341 eP 08 20.60 -0.6
1.0s 24.00nm 5.1mb
DIM 76.89 326 eP 08 23.00 0.3
FLN 76.97 346 eP 08 23.10 0.1
1.1s 36.65nm 5.3mb
LDF 77.08 345 eP 08 22.60 -1.1
1.2s 37.20nm 5.3mb
PLD 77.12 326 iP 08 24.00 0.0
VTS 77.18 328 iPc 08 24.00 -0.5
RIY 77.22 335 eP 08 23.20 -1.2
GRR 77.39 346 eP 08 24.90 -0.4
1.2s 48.20nm 5.4mb
RZN 77.49 326 iP 08 26.00 -0.3
PLE 77.69 331 iPc 08 27.77 0.6
LOR 77.70 342 eP 08 26.90 -0.2
0.9s 24.25nm 5.2mb
ALN 77.74 325 eP 08 27.84 0.5
KKB 77.87 327 iPc 08 29.00 0.9
MMB 77.91 327 iPc 08 29.00 0.6
LBF 77.95 342 eP 08 28.40 -0.2
1.4s 36.60nm 5.2mb
IVA 77.96 330 iPc 08 28.72 0.1
SSF 77.97 343 eP 08 28.40 -0.2
0.7s 12.35nm 5.0mb
PVY 78.19 330 iPc 08 29.63 -0.3
AVF 78.25 343 eP 08 30.10 0.0
1.0s 26.60nm 5.2mb
NKY 78.28 331 iPc 08 29.69 -0.8
SMF 78.31 342 eP 08 30.30 -0.2
0.9s 20.00nm 5.1mb
BRY 78.33 331 iPc 08 29.80 -1.0
SRS 78.38 327 eP 08 30.60 -0.3
VAY 78.53 328 iP 08 32.50 0.8
0.8s 50.00nm 5.5mb
TTG 78.55 330 iPc 08 31.24 -0.5
KNT 78.56 327 iP 08 20.88 -11.1X
SOH 78.72 327 eP 08 32.84 0.0
HCY 78.76 331 iPc 08 31.92 -1.0
BDV 78.81 331 iPc 08 32.46 -0.8
LPL 78.83 340 eP 08 34.20 0.6
0.9s 23.60nm 5.1mb
LPG 78.84 340 eP 08 34.70 0.9
1.0s 28.20nm 5.2mb
GRG 78.91 328 iP 08 34.30 0.4
TCF 78.94 343 eP 08 33.90 -0.1
1.1s 30.50nm 5.1mb
MAF 78.94 343 eP 08 34.40 0.4
0.9s 29.95nm 5.2mb
OUR 78.95 326 eP 08 33.69 -0.3
ULC 78.98 330 iPc 08 33.74 -0.5
FNA 79.40 328 eP 08 36.36 -0.2
PAIG 79.42 326 eP 08 36.01 -0.5
LIT 79.65 327 eP 08 37.36 -0.5
CAF 80.29 343 eP 08 42.00 0.8
0.9s 18.35nm 5.0mb
LPO 80.67 344 eP 08 43.40 0.2
0.9s 22.30nm 5.1mb
EPF 82.42 344 eP 08 52.20 -0.2
1.0s 16.20nm 5.0mb
STK 85.83 194 eP 09 29.80 20.4X
S.D. = 0.7 on 91 of 102 obs.

? DEC 09, 1993 05h 13m 53.68± 5.55s
0.447 N ±51.7km 125.649 E ±46.5km
DEPTH = 33.0km (normal)
4.7mb (1 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.72 78 eP 14 21.50 -0.2
SWI 5.76 103 iPd 15 19.50 0.4
WB2 21.99 158 eP 18 45.20 -1.6
0.5s 14.50nm 4.7mb
i 18 47.10
ASPA 25.27 162 iPd 19 20.00 1.2
0.4s 26.40nm 5.2mb X
STK 35.52 156 eP 20 49.90 0.3
S.D. = 1.5 on 5 of 5 obs.

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* DEC 09, 1993 05h 33m 11.82± 0.73s
0.390 N ±10.0km 125.914 E ±11.0km
DEPTH = 33.0km (normal)
5.0mb (4 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.48 74 eP 33 35.50 -0.8
SWI 5.49 103 ePc 34 34.50 1.1
MKS 8.51 229 iPd 35 21.50 5.7X
WB2 21.83 158 eP 38 01.90 -1.5
0.8s 34.90nm 4.8mb
i 38 06.90
e 39 55.40
QIS 24.76 148 eP 38 32.70 0.7
ASPA 25.14 163 iPd 38 35.90 0.3
0.3s 17.20nm 5.1mb
i 38 42.70
iS 43 05.70
STK 35.36 157 eP 40 06.10 -0.3
MAT 37.73 16 (P) 40 22.00 -4.4X
ARMA 39.21 144 eP 40 39.40 0.5
CAN 41.55 151 eP 41 04.00 5.9X
GUN 47.10 309 P 41 43.60 0.4
HYB 49.56 293 eP 42 07.00 4.9X
SDN 80.39 34 eP 45 20.65 -0.7
0.6s 24.92nm 5.4mb
IMA 85.75 24 (P) 45 49.40 0.5
0.5s 1.14nm 4.3mb
S.D. = 0.9 on 10 of 14 obs.

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* DEC 09, 1993 05h 41m 23.36± 0.89s
0.288 N ±12.5km 125.545 E ±14.7km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
NORTHERN MOLUCCA SEA (266)

MKS 8.17 228 iPc 43 22.50 -0.1
WB2 21.88 157 iPd 46 14.30 -1.1
0.7s 82.00nm 5.3mb
QIS 24.87 147 eP 46 45.00 0.4
ASPA 25.16 162 iPd 46 49.00 1.7
0.5s 28.80nm 5.1mb
eS 51 13.20
STK 35.42 156 eP 48 18.00 -0.4
ARMA 39.35 143 eP 48 51.20 -0.4
1.0s 15.00nm 4.7mb
HYB 49.25 293 eP 50 16.20 4.9X
IMA 85.99 24 (P) 54 01.60 0.0
0.7s 0.83nm 4.1mb
YKA 103.10 24 Pdiff 55 20.20 0.1
0.5s 0.10nm 3.8mb
S.D. = 1.0 on 8 of 9 obs.

DEC 09, 1993 08h 27m 16.57± 1.12s
0.480 N ± 7.6km 125.841 E ± 6.9km
DEPTH = 39.2 ± 11.5 km
5.1mb (8 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.53 78 eP 27 41.00 -0.7
SWI 5.58 104 ePc 28 40.00 0.7
MKS 8.52 228 iPc 29 22.40 2.0
TSM 8.82 296 eP 29 24.00 -0.6
LEM 19.58 248 ePc 31 44.20 -0.4
WB2 21.94 158 iPd 32 06.90 -1.8
0.4s 39.80nm 5.2mb
eS 36 08.00
QIS 24.87 148 eP 32 37.40 0.2
ASPA 25.25 162 iPc 32 40.10 -0.7
0.8s 57.50nm 5.2mb
i 33 12.50
iS 37 04.10
i 37 11.70
KMI 33.15 319 eP 33 52.00 0.2
1.6s 70.00nm 5.3mb
pP 33 59.50 26kmX
sP 34 05.00
STK 35.47 157 iPc 34 10.60 -0.9
eS 39 42.80
ADE 37.26 162 e(P) 34 27.20 0.6
BJI 40.35 349 eP 34 52.50 0.4
1.0s 6.00nm 4.3mb
LZH 40.90 332 eP 34 58.50 1.6
1.4s 31.00nm 4.9mb
PP 37 01.00
CAN 41.66 151 eP 35 03.30 0.2
GUN 46.99 309 P 35 46.10 -0.3
PKI 47.19 308 P 35 47.20 -0.9
GKN 48.00 308 P 35 53.70 -0.5
HYB 49.45 293 eP 36 03.00 -2.4
1.0s 25.00nm 5.2mb
POO 54.07 293 eP 36 31.50 -8.5X
MAIO 70.79 308 eP 38 32.00 0.5
SDN 80.36 34 eP 39 25.00 -0.2
0.8s 36.95nm 5.4mb
IMA 85.70 24 eP 39 53.24 0.6
0.7s 1.15nm 4.2mb
MOCB 156.51 152 PKP 47 22.10 12.1X
CNCB 158.81 141 PKP 47 13.00 0.1
LPB 158.95 140 ePKP 47 15.00 2.1
LPAZ 159.11 139 PKP 47 15.70 2.4X
S.D. = 1.1 on 23 of 26 obs.

DEC 09, 1993 09h 05m 49.38± 0.89s
40.495 N ± 7.2km 21.859 E ± 7.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA 0.47 308 ePg 05 58.68 -0.2
eSg 06 07.20
GRG 0.62 42 ePg 06 01.96 0.1
LIT 0.62 129 ePg 06 00.36 -1.6
eSg 06 09.52
VAY 0.99 33 ePn 06 07.70 -0.4
SOH 1.18 74 ePb 06 12.36 0.9
PAIG 1.51 112 iPb 06 16.53 0.1
AGG 1.52 166 ePb 06 17.60 1.0
S.D. = 1.1 on 7 of 7 obs.

& DEC 09, 1993 09h 11m 33.71s

32.356 N 115.350 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.9 (PAS).

GLA 0.82 32 eP 11 47.68 -2.4
PLM 1.62 308 eP 12 00.26 -2.7
PEC 2.16 316 ePn 12 07.41 -3.3
SSK 2.70 314 (Pn) 12 13.82 -4.8
GSC 3.18 338 (Pn) 12 21.69 -3.6
5 obs. associated

& DEC 09, 1993 09h 23m 05.07s
61.969 N 146.945 W
DEPTH = 42.1km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.0 (AEIC), 3.1 (PMR).

SCM 0.23 233 iP 23 12.36 -0.6
eS 23 17.98
TOA 0.39 69 P 23 14.10 -0.5
SML 0.68 257 iP 23 17.36 -1.0
eS 23 27.55
KLU 0.68 134 iP 23 17.72 -0.8
eS 23 27.81
TZL 0.72 83 iP 23 18.62 -0.3
SDG 0.86 49 eP 23 19.90 -1.0
eS 23 31.39
CFI 0.88 207 eP 23 20.41 -0.7
VLZ 0.89 160 eP 23 19.96 -1.3
eS 23 32.77
KNK 0.91 233 eP 23 21.32 -0.3
eS 23 32.34
VZW 0.93 168 eP 23 20.81 -1.1
GHO 0.96 259 eP 23 21.45 -0.9
eS 23 35.22
PLRM 1.11 251 eP 23 22.78 -1.5
eS 23 38.77
PMR 1.11 251 eP 23 23.51 -0.8
DHY 1.13 350 iP 23 23.57 -1.2
eS 23 37.89
PAX 1.22 34 eP 23 24.78 -1.2
FID 1.24 169 eP 23 26.44 0.1
PWL 1.30 212 eP 23 27.12 0.0
eS 23 44.73
PMS 1.45 241 P 23 29.70 0.5
S 23 49.30
CVA 1.54 157 eP 23 30.46 0.0
THY 1.55 20 eP 23 30.96 0.2
eS 23 50.07
GLB 1.58 108 eP 23 30.69 -0.5
eS 23 50.04
HIN 1.59 172 eP 23 31.51 0.3
HUR 1.61 310 eP 23 31.18 -0.3
eS 23 52.07
CUT 1.62 287 eP 23 31.44 -0.1
RND 1.69 329 eP 23 32.42 -0.3
SUA 1.88 256 eP 23 35.68 0.3
MPA 1.89 219 eP 23 35.81 0.4
DDM 1.89 15 eP 23 35.97 0.4
MCK 1.99 334 eP 23 36.88 0.0
HMT 2.09 140 eP 23 38.41 0.0
TRF 2.14 315 eP 23 39.12 -0.1
DOT 2.14 37 eP 23 38.95 -0.2
SLKM 2.16 229 eP 23 39.73 0.4
SKT 2.17 272 eP 23 39.16 -0.2
eS 24 06.65
CRQM 2.20 122 eP 23 39.75 -0.3
SEW 2.23 214 eP 23 40.15 -0.2
TGL 2.33 120 eP 23 40.97 -0.8
BALM 2.40 111 eP 23 41.96 -0.8
eS 24 12.33
KTH 2.42 313 eP 23 42.95 -0.2
HDA 2.45 360 eP 23 42.80 -0.6
BWN 2.49 334 eP 23 43.27 -0.7
CGLM 2.51 257 eP 23 44.19 -0.1
NCG 2.55 259 eP 23 44.83 -0.1
MID 2.57 173 P 23 46.70 1.6
CRP 2.59 256 eP 23 45.33 -0.2
CKN 2.61 256 eP 23 45.12 -0.7
CP2 2.63 257 eP 23 46.22 0.1
CKT 2.63 255 eP 23 45.54 -0.6
CKL 2.69 256 eP 23 46.47 -0.5
BKG 2.70 253 eP 23 46.48 -0.6
CCB 2.72 352 eP 23 45.98 -1.2
CTGM 2.88 108 eP 23 49.10 -0.6
FBA 2.97 353 eP 23 49.26 -1.6
YAH 2.99 120 eP 23 50.32 -1.1
GLM 3.04 356 eP 23 50.29 -1.6
MDM 3.06 350 eP 23 51.04 -1.1
RDW 3.20 245 eP 23 54.10 -0.2
CNPM 3.23 223 eP 23 53.47 -1.1
MLY 3.51 333 eP 23 57.30 -1.3
SVW 4.24 262 e(P) 24 07.80 -1.1
TTA 4.32 287 P 24 08.00 -2.1
IMA 5.07 327 eP 24 18.62 -2.0
62 obs. associated

DEC 09, 1993 09h 33m 49.61± 0.65s
45.586 N ± 6.5km 14.414 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.4 (VIE). MD 3.7 (LJU), 3.1 (TRI). Felt (IV) at Zabice, Slovenia.

CEY 0.15 3 ePgd 33 53.50 0.3
eSg 33 56.70
RIY 0.24 185 iPgd 33 53.00 -1.8
i(Sg) 33 56.40
LJU 0.46 10 iPgd 33 58.60 -0.5
eSg 34 05.60
TRI 0.47 285 iPgc 33 57.30 -1.9
iSg 34 04.50
VOY 0.58 321 iPgc 33 59.60 -1.7
eSg 34 08.30
VBY 0.60 98 iPgc 34 00.20 -1.5
i 34 01.00
iSg 34 08.40
i 34 09.50
ZAG 1.12 78 i(Pg) 34 11.00 0.3
iSg 34 28.20
PTJ 1.13 73 iPgd 34 10.90 0.1
iSg 34 27.70
KBA 1.67 334 iP 34 19.20 0.1
iPg 34 20.50
iSg 34 42.70
i 34 43.90
SCE 2.37 309 iPnd 34 29.90 0.6
WTTA 2.55 312 iPnd 34 33.30 1.4
iPg 34 36.60
iSn 35 05.80
iSg 35 11.80
WATA 2.63 313 iPnd 34 34.20 1.3
iSn 35 07.50
OGA 2.68 300 iPnd 34 33.60 -0.1
SQTA 2.75 308 iPnd 34 35.90 1.2
0.3s 29.30nm
iPg 34 40.60
i 35 12.80
i 35 16.50
HVAR 2.82 148 iPn 34 38.00 2.5
i(Sn) 35 09.50
MOTA 2.89 309 iPnc 34 37.80 1.2
0.5s 44.70nm
iPg 34 42.70
i 35 14.50
ZST 3.20 34 eP 35 30.90 50.1X
KHC 3.59 351 ePn 34 45.00 -1.5
e 35 13.60
Sn 35 26.60
eSg 35 43.00
e 35 52.40
PRU 4.41 1 ePn 35 12.20 14.2X
ePg 35 24.80
Sn 35 52.80
Sg 36 11.00
S.D. = 1.4 on 17 of 19 obs.

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* DEC 09, 1993 09h 35m 44.19± 0.64s
0.215 N ± 8.4km 125.743 E ±13.2km
DEPTH = 33.0km (normal)
4.8mb (2 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.69 70 eP 36 10.60 -1.2
CTB 7.11 348 eP 37 30.00 1.4
CGP 8.25 353 eP 37 45.00 0.4
WB2 21.74 158 iPc 40 34.40 -0.4
0.8s 36.30nm 4.8mb
QIS 24.70 148 eP 41 05.00 1.2
ASPA 25.03 162 iPc 41 07.40 0.5
0.9s 19.80nm 4.7mb
STK 35.27 156 iPc 42 38.20 0.2
BJI 40.59 349 eP 43 23.00 0.6
GUN 47.08 309 P 44 13.80 -1.6
PKI 47.28 309 P 44 16.00 -1.0
S.D. = 1.2 on 10 of 10 obs.

DEC 09, 1993 09h 47m 51.60± 0.87s
45.535 N ± 6.7km 14.335 E ± 7.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.5 (LJU), 2.3 (TRI).

RIY 0.19 169 iPgd 47 56.10 0.2
iSg 47 59.90
CEY 0.21 17 iPgd 47 56.90 0.6
eSg 48 00.10
TRI 0.44 294 ePg 48 00.40 -0.1
iSg 48 07.70
LJU 0.53 15 ePg 48 01.60 -0.7
eSg 48 08.90
VBY 0.65 92 ePg 48 03.50 -1.1
iSg 48 12.50
PTJ 1.19 72 iPgd 48 14.90 1.0
iSg 48 31.40
S.D. = 1.0 on 6 of 6 obs.

DEC 09, 1993 09h 54m 58.47± 0.37s
40.132 N ± 4.0km 119.613 W ± 3.2km
DEPTH = 5.0km (geophysicist)
NEVADA (37)
ML 3.3 (GS), 3.1 (BRK). MD 3.3 (GM).

AARM 1.38 232 P 55 23.62 -0.9
LCMM 1.46 271 P 55 25.18 -0.6
OBHM 1.50 252 P 55 25.62 -0.5
LSLM 1.50 282 P 55 25.42 -0.8
MIN 1.54 279 ePc 55 25.25 -1.5
iS 55 47.16
ABJM 1.55 232 P 55 26.92 0.1
ORV 1.56 249 ePc 55 26.16 -0.8
iS 55 47.30
AFDM 1.58 222 P 55 26.88 -0.4
KVN 1.59 132 eP 55 26.79 -0.8
LHCM 1.60 295 P 55 27.38 -0.2
OGOM 1.61 253 P 55 27.84 0.2
OHCM 1.65 242 P 55 27.86 -0.3
LDBM 1.69 281 P 55 29.29 0.4
AVRM 1.69 230 P 55 28.71 -0.1
AHRM 1.70 222 P 55 29.06 0.1
APRM 1.76 225 P 55 30.12 0.3
ARJM 1.78 216 P 55 30.56 0.4
OSUM 1.93 244 P 55 33.66 1.4
AASM 2.06 215 P 55 36.10 2.0X
LASM 2.09 315 P 55 35.30 0.5
LBFM 2.11 306 eP 55 35.10 0.0
CMB 2.18 196 eP 55 37.60 1.7
eS 56 06.80
WDC 2.28 282 eP 55 38.55 1.2
LMPM 2.36 306 P 55 40.20 1.5
BONR 2.40 154 ePn 55 39.24 -0.1
ePg 55 41.43
eS 56 05.84
NBPM 2.48 235 P 55 42.93 2.8X
MEMM 2.52 168 (Pn) 55 41.20 0.5
LGPM 2.57 289 ePn 55 41.21 -0.4
TNP 2.77 137 ePn 55 44.16 -0.4
MTUM 2.89 163 (Pn) 55 47.35 1.1
ARN 3.16 209 ePn 55 48.37 -1.5
MHC 3.21 210 eP 55 54.61 4.0X
COE 3.29 210 (Pn) 55 52.08 0.4
DUG 5.21 87 ePn 56 20.26 1.2
ePg 56 36.04
HVU 5.43 70 (Pn) 56 21.80 -0.5
MSU 5.99 103 ePn 56 29.05 -1.1
S.D. = 0.9 on 33 of 36 obs.

? DEC 09, 1993 10h 22m 57.21± 3.17s
0.709 S ±29.3km 133.119 E ±22.8km
DEPTH = 10.0km (geophysicist)
4.6mb (2 obs.)
IRIAN JAYA REGION, INDONESIA (196)

SWI 1.87 265 ePc 23 29.50 0.1
iS 23 54.00
TLE 4.91 184 iP 24 07.30 -5.5X
eS 25 04.00

09d 10h

```
MTN     12.22 189 eP     25 54.00   -0.3
                  eS     28 04.00
KNA     15.55 196 eP     26 38.20    0.0
WB2     19.15 176 eP     27 24.00    0.5
        0.4s     10.00nm          4.4mb
                  i      27 26.00
                  eS     30 50.00
ASPA    22.83 178 iPc    28 04.40    2.6X
        0.3s     11.80nm          4.9mb
                  eS     32 16.70
STK     32.02 166 eP     29 25.90   -0.2
     S.D. = 0.5  on   5 of   7 obs.
--------------------------------------
   DEC  09, 1993  10h 24m 14.31± 1.16s
   40.428 N ± 9.0km   21.765 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)

FNA      0.46 320 iPg    24 23.74    0.0
                  iSg    24 31.78
LIT      0.64 120 ePg    24 27.22    0.0
                  eSg    24 37.26
GRG      0.72  42 ePg    24 28.21   -0.2
                  iSg    24 39.22
THE      0.94  77 ePg    24 32.31    0.1
VAY      1.08  34 ePn    24 41.60    7.0X
KNT      1.13  49 iPg    24 35.82    0.3
SOH      1.27  71 iPb    24 37.70   -0.3
PAIG     1.55 108 iPb    24 41.98    0.0
     S.D. = 0.2  on   7 of   8 obs.
--------------------------------------
   DEC  09, 1993  10h 35m 55.29± 0.67s
   50.258 N ± 8.1km   18.909 E ± 5.0km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  2 obs.)
 POLAND                          (548)
      ML 4.4 (WAR), 3.8 (CLL).

RAC      0.49 249 iPd    36 06.30    1.0
                  iS     36 14.40
OJC      0.57  94 iPgc   36 07.60    0.7
                  iSg    36 15.90
SPC      1.38 140 iPnd   36 21.10    0.4
KSP      1.77 290 iPn    36 26.40    0.3
        0.7s    370.00nm
                  iPg    36 29.20
                  iSn    36 49.60
                  iSg    36 53.00
ZST      2.38 211 ePn    36 34.80   -0.1
                  i      36 45.30
                  Lg     37 00.00
                  i(Sn)  37 12.30
                  i      37 18.60
SRO      2.48 189 iPn    36 40.00    3.7X
                  i      36 45.20
                  i(Sn)  37 25.20
VKA      2.62 221 iPnd   36 36.10   -2.2
        1.0s    383.00nm
                  iPg    36 44.10
                  i      36 46.60
                  i      37 19.70
                  i      37 25.50
                  i      37 44.00
BUD      2.78 178 ePn    36 49.30    8.7X
PRU      2.82 266 Pn     36 40.60   -0.7
        0.6s    109.00nm
                  Pg     36 48.10
                  eSn    37 12.60
                  eSg    37 22.70
SOP      3.01 212 eP     36 44.20    0.4
BRG      3.22 283 ePg    36 55.10    8.2X
                  iSg    37 38.00
KHC      3.64 254 Pn     36 52.50   -0.4
                  e      37 01.40
CLL      3.89 288 iPg    37 08.30   11.9X
                  iSg    38 01.60
MOX      4.68 278 ePn    37 07.20   -0.4
                  iPg    37 24.20
                  iSg    38 25.90
PTJ      4.79 206 eP     37 08.70   -0.5
KBA      4.87 231 iPnc   37 26.50   16.0X
        0.8s     80.60nm
                  i      38 31.20
                  i      38 34.90
                  i      38 39.20
BZS      4.99 158 eP     37 04.00   -7.9X
GRF      4.99 266 ePn    37 12.40    0.4

                  ePg    37 26.40
                  e(Sn)  38 08.00
                  eSg    38 34.00
BSD      5.43 335 iP     37 48.00   29.8X
        0.6s     37.00nm
                  e      39 11.00
WTTA     5.67 241 iP     37 47.70   26.0X
        0.8s     54.50nm
                  i      38 59.90
OGA      6.23 240 iPc    37 31.80    2.1
COP      6.69 327 iPc    38 10.20   34.2X
        0.8s     98.51nm
MLR      6.72 133 eP     37 36.00   -0.5
UPP      9.65 356 eP     38 13.00   -4.1X
NB2     11.64 341 P      38 38.00   -6.3X
        0.9s      5.30nm          4.9mb X
OBN     11.77  59 (P)    38 43.00   -3.1X
                  e      38 52.00
                  e      39 40.00
                  i      42 08.00
                  i      42 32.00
                  e      43 15.00
LKO     45.38 215 P      44 15.91    0.3
        1.0s      8.00nm          4.6mb
POO     53.70 105 eP     45 30.00   10.5X
YKA     61.71 338 P      46 14.60   -0.8
        0.9s      1.60nm          4.2mb
     S.D. = 1.0  on  16 of  29 obs.
--------------------------------------
   DEC  09, 1993  10h 45m 42.30± 0.79s
   45.541 N ± 6.4km   14.308 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
      MD 2.7 (LJU), 2.4 (TRI).

RIY      0.20 164 iPgd   45 46.80    0.0
                  iSg    45 50.80
CEY      0.21  23 ePg    45 47.40    0.4
                  eSg    45 50.50
TRI      0.42 294 ePg    45 51.00    0.2
                  iSg    45 58.40
LJU      0.53  17 ePg    45 52.20   -0.8
                  eSg    45 58.90
VOY      0.57 330 iPgd   45 53.80   -0.1
                  eSg    46 02.70
VBY      0.67  93 iPgc   45 54.20   -1.4
                  eSg    46 02.10
ZAG      1.21  76 i(Pg)  46 06.00    1.2
                  iSg    46 21.80
PTJ      1.21  72 iPgd   46 05.30    0.4
                  iSg    46 21.50
     S.D. = 0.9  on   8 of   8 obs.
--------------------------------------
   DEC  09, 1993  11h 15m 03.07± 0.54s
   40.731 N ± 9.1km   29.801 E ± 4.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
      MG 3.6 (DDA).

GBZT     0.28 282 ePg    15 10.30    1.4
                  iSg    15 15.40
ITU      0.70 302 iPgd   15 18.00    1.1
                  iSg    15 29.00
NAL      1.26 114 iP     15 25.60   -1.0
                  eS     15 42.30
SGKT     1.72  94 eP     15 33.70    0.2
                  eS     15 58.70
ALN      2.86 275 eP     15 51.02    1.5
                  iS     16 35.02
JMB      2.97 307 iP     15 52.00    0.9
KAS      3.07  77 ePn    15 54.00    1.5
                  iSg    16 40.00
PSN      3.18 338 iP     15 54.00   -0.1
CIN      3.40 204 eP     16 02.00    4.8X
KDZ      3.43 287 iP     15 58.00    0.3
DIM      3.47 294 iP     15 58.00   -0.2
RZN      3.95 286 iP     16 05.00   -0.3
PLD      4.07 291 iP     16 06.00   -0.7
PGB      4.60 295 eP     16 13.00   -1.3
CFR      4.61 345 eP     16 50.50   36.1X
MMB      4.66 283 iP     16 15.00   -0.2
SRS      4.72 277 eP     16 15.74   -0.3
SOH      4.90 273 iP     16 22.58    4.1X
ISR      5.01 333 eP     16 37.00   16.9X
KKB      5.19 285 iP     16 22.00   -0.6
KNT      5.25 277 eP     16 23.30   -0.1
VTS      5.28 293 iP     16 23.00   -1.0

MLR      5.53 331 ePd    16 27.00   -0.6
VRI      5.61 337 ePc    16 28.00   -0.5
CLI      6.10 343 eP     16 52.00   16.6X
SKO      6.41 284 ePn    17 08.00   28.1X
     S.D. = 0.9  on  20 of  26 obs.
--------------------------------------
   DEC  09, 1993  11h 34m 37.19± 0.45s
   0.279 N ± 7.4km  125.740 E ± 7.6km
   DEPTH =  33.0km  (normal)
   5.0mb (  5 obs.)
 NORTHERN MOLUCCA SEA            (266)
TNE      1.68  72 eP     35 04.00   -0.6
SWI      5.64 102 ePd    36 02.50    1.6
CTB      7.04 347 ePc    36 22.00    1.3
BIP      7.91   4 eP     36 32.00   -0.8
CGP      8.19 353 eP     36 37.00    0.3
TSM      8.81 297 eP     36 45.50    0.2
TLE      9.14 130 ePd    36 47.60   -2.2
WB2     21.80 158 iPc    39 27.40   -1.0
        0.5s     32.50nm          5.0mb
                  i      39 31.90
                  eS     42 48.90
QIS     24.76 148 eP     39 58.00    0.6
IPM     25.05 280 eP     40 01.70    1.5
        0.7s     25.00nm          4.9mb
ASPA    25.09 162 iPd    40 02.00    1.5
        0.9s     42.50nm          5.0mb
KMI     33.23 320 eP     41 13.00   -0.8
        2.0s     50.00nm          5.1mb
                  pP     41 19.50   22kmX
                  PP     41 35.00
STK     35.33 156 eP     41 30.00   -1.5
MAT     37.89  16 eP     41 49.00   -4.1X
CAN     41.54 151 eP     42 25.30    2.0
GUN     47.03 309 P      43 06.40   -1.7
PKI     47.24 309 P      43 09.60   -0.1
KKN     47.44 309 P      43 10.60   -0.6
GKN     48.05 309 P      43 15.80    0.0
HYB     49.44 293 eP     43 26.00   -0.5
GBA     49.62 288 P      43 28.00    0.1
YKA    103.03  24 Pdiff  48 34.50    0.9
        0.5s      0.20nm          4.1mb
     S.D. = 1.2  on  21 of  22 obs.
--------------------------------------
   DEC  09, 1993  11h 38m 27.96± 0.11s
   0.425 N ± 2.7km  125.891 E ± 3.1km
   DEPTH =  15.9km  (geophysicist)
   6.3mb (112 obs.)  6.4Msz ( 65 obs.)
 NORTHERN MOLUCCA SEA            (266)
      Mw 6.6 (GS), 6.8 (HRV). Ms 6.3
      (BRK). Mo=2.2*10**19 Nm (PPT).
      Felt (III) at Manado and (II) at
      Ternate, Indonesia. Depth from
      broadband displacement
      seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=187 Dip=83 Slip=  90
       NP2:          7      7       90
       Principal Axes:
        T               Plg=52  Azm= 97
        P                   38      277
      Comment: The focal mechanism is
        poorly controlled and
        corresponds to reverse
        faulting. The preferred fault
        plane is NP2.
      RADIATED ENERGY
       No. of sta:  11  Focal mech.  F
       Energy        1.4±0.3*10**14 Nm
      MOMENT TENSOR SOLUTION
      Dep  40            No. of sta: 10
      Moment Tensor;     Scale 10**18 Nm
        Mrr= 1.56        Mtt= 2.09
        Mff=-3.65        Mrt=-0.37
        Mrf=-7.14        Mtf= 3.61
       Principal axes:
        T  Val=  7.66  Plg=44  Azm=126
        N        1.67      29        3
        P       -9.33      32      254
      Best Double Couple:Mo=8.5*10**18
       NP1:Strike=290 Dip=30 Slip=  14
       NP2:       187     83       119
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 42S, **C  M.W.: 35S, 64C
      Centroid Location:
```

```
     Origin Time       11:38:37.9 0.1
     Lat  0.63N 0.01 Lon 125.71E 0.01
     Dep  16.6 0.6 Half-duration  4.3
     Moment Tensor;   Scale 10**19 Nm
       Mrr= 0.44 0.01  Mtt= 0.05 0.00
       Mff=-0.49 0.00  Mrt=-0.06 0.02
       Mrf=-1.43 0.06  Mtf=-0.18 0.00
      Principal Axes:
       T  Val=  1.48   Plg=54  Azm= 86
       N        0.07      6       184
       P       -1.55     36       278
     Best Double Couple:Mo=1.5*10**19
      NP1:Strike= 35 Dip=11 Slip= 122
      NP2:        183      81       84
MNI      1.46 314 ePd    38 23.00 -30.6X
TNE      1.49  75 iP     38 55.00   1.0
SWI      5.52 103 ePc    39 54.00   2.5
DAV      6.63 357 eP+    40 10.00   2.9
CTB      6.94 346 ePd    40 01.60  -9.9X
BIP      7.76   3 iP     40 24.00   1.0
                  iS     41 50.50
CGP      8.07 352 ePd    40 30.50   3.2X
                  eS     42 14.50
TSM      8.88 296 ePd    40 40.00   1.4
TLE      9.12 131 ePc•   40 43.50   1.6
SLKI     9.94 147 iPd    40 54.00   0.8
MAP     10.02 349 iPd    40 58.00   3.7X
PLP     10.71 355 ePd    41 04.50   0.7
KKM     11.15 300 ePd    41 17.00   7.0X
        1.5s  1486.70nm        7.1mb
PPR     11.71 323 ePd    41 18.00   0.6
                  eS     42 27.00
PGP     13.88 340 ePc    41 51.00   4.6X
MTN     14.17 159 iPd    41 50.00  -0.2
TGY     14.45 340 ePd    41 55.00   1.1
QCP     14.90 342 eP     42 20.00  20.2X
QVP     14.91 341 eP     42 06.00   6.1X
KNA     16.32 170 eP     42 19.00   0.9
        0.8s  1081.00nm        6.0mb
BCP     16.72 342 eP     42 27.00   3.6X
BAG     16.73 342 iP-    42 24.20   0.7
        1.4s  1493.02nm        5.9mb
                  e      47 58.50
                  eS     54 23.20
CVP     17.63 347 ePd    42 35.20   0.5
SZP     17.84 343 ePc    42 39.50   2.3
                  eS     42 49.00
WWKK    18.17 103 ePc    42 42.70   1.3
TPI     18.50 260 ePc    42 46.00   0.6
                  e      52 00.00
MNDI    18.90 111 iP     42 52.00   1.4
LEM     19.60 248 ePd    42 58.20  -0.7
        1.5s  2027.78nm        6.2mb
                  eS     45 13.00
MDG     20.65 106 eP     43 09.00  -0.6
YYYY    21.11 109 eP     43 13.00  -1.5
WRA     21.87 158 P      43 33.00  10.9X
WB2     21.87 158 iPd    43 21.00  -1.1
        0.7s   498.80nm        6.0mb
                  iS     47 20.80
LAT     22.21 109 ePc    43 25.90   0.4
MBL     22.25 195 eP     43 26.00   0.1
        0.4s   105.00nm        5.6mb
KGM     22.62 274 ePd    43 29.00  -0.5
        1.8s  1672.50nm        6.2mb
                  e      44 05.50
GUMO    22.90  54 ePc    43 30.12  -2.1
        1.2s  1915.50nm        6.5mb
      Z  22s    64.90um        6.0Msz
GUA     22.91  55 eP     43 28.90  -3.4X
        0.8s  1235.82nm        6.5mb
      Z  22s   104.91um        6.2Msz
PMG     23.32 115 iPc    43 35.27  -1.1
QIZ     24.28 321 ePd    43 45.35  -0.4
      N  15s    41.40um
                  iS     47 59.00
KLM     24.38 277 eP     43 49.00   2.3
HKC     24.56 333 iP     43 49.40   1.1
                  S      48 04.00
MCO     24.69 332 eP     43 51.60   2.0
QIS     24.80 148 iPc    43 50.30  -0.4
KVG     25.09  97 eP     43 52.50  -1.0
IPM     25.18 280 ePd    43 53.70  -0.7
        1.5s  1420.40nm        6.4mb
ASPA    25.18 163 iPc    43 54.50   0.2
        0.6s   967.70nm        6.6mb
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                  e      44 20.70
                  i      46 19.60
                  eS     48 17.40
                  iScS   54 53.10
QZH     25.38 344 Pd     43 54.00  -2.1
        2.0s  2700.00nm        6.6mb
      Z  24s   129.00um        6.4MszX
      N  23s   111.00um
                  sP     44 12.00
GZH     25.62 332 Pd     43 58.00  -0.4
        1.2s   950.00nm        6.3mb
      Z  24s    77.00um        6.1MszX
      N  19s    84.30um
      E  14s    34.40um
WARB    26.46 178 eP     44 07.50   1.3
RAB     26.65 100 iPc+   44 08.00  -0.1
        1.0s  *******nm        7.5mb X
                  iS     48 16.00
MEEK    27.80 194 eP     44 18.20  -0.3
        0.9s   362.00nm        6.1mb
CTAO    28.52 137 ePc    44 24.83  -0.2
        1.2s   366.02nm        6.0mb
NNT     28.62 296 iPc    44 25.30  -0.6
LOE     29.16 307 iPd    44 29.00  -1.8
                  i      56 50.10
KHT     30.52 299 iPd    44 41.30  -1.7
SSE     30.83 352 ePd    44 45.11  -0.3
        1.0s    35.00nm        5.2mb X
      Z  24s    52.20um        6.1MszX
      N  16s    10.40um
      E  14s    21.80um
                  sP     45 02.00
                  PcP    47 43.00
                  iS     49 44.00
                  ScP    51 24.80
MRWA    30.96 197 eP     44 46.00  -0.6
        0.8s   200.00nm        6.0mb
FORT    31.10 176 eP     44 47.40  -0.4
        0.9s   500.00nm        6.4mb
BDT     31.30 304 eP     44 49.00  -0.8
        1.0s   276.00nm        6.1mb
COOL    31.46 188 eP     44 50.50  -0.6
GYA     31.82 326 iPd    44 54.00  -0.4
        1.6s  1320.00nm        6.6mb
      Z  22s    51.30um        6.2Msz
      N  17s    44.30um
      E  17s    20.00um
                  PP     46 04.00
                  S      49 58.00
WHN     31.90 341 Pc     44 55.50   0.6
        1.0s   130.00nm        5.8mb
      Z  24s    87.40um        6.4MszX
      N  16s    34.00um
      E  14s    12.00um
                  S      50 02.00
BAL     32.07 195 iPc    44 56.20  -0.2
        0.8s   390.00nm        6.4mb
CHTO    32.14 306 iPd    44 55.90  -1.3
                  epPd   45 00.37  16kmX
                  eS     50 03.70
NJ2     32.15 349 Pd     44 56.90  -0.2
        1.0s    78.00nm        5.6mb
      N  21s    54.30um
      E  14s    12.20um
                  S      50 03.00
                  ScP    51 27.60
KLB     32.76 193 eP     45 02.00  -0.4
KMI     33.22 319 iPd    45 06.60  -0.2
        2.0s  2560.00nm        6.8mb
      N  18s    30.80um
      E  18s    30.30um
                  epPd   45 11.07  15kmX
                  PP     46 21.00
                  PcP    47 49.00
                  S      50 20.00
                  ScP    51 30.00
                  PcS    51 35.00
                  ScS    55 34.00
MUN     33.50 195 eP     45 08.50  -0.4
        1.2s   203.00nm        5.9mb
      Z  22s    54.70um        6.2Msz
      N  22s    70.30um
      E  22s    31.20um
ENH     33.53 334 ePd    45 07.14  -2.0
                  epPd   45 11.86  16kmX
NWAO    34.16 193 eP     45 14.56   0.0
        1.0s   217.33nm        6.0mb
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SHK     34.52  10 ePc    45 16.70  -0.9
STK     35.40 157 iPc    45 24.90  -0.3
                  iPP    46 47.60
                  iPcP   47 54.50
                  eS     50 45.30
RKG     35.79 193 eP     45 30.50   2.0
TIA     36.53 348 P      45 35.20   0.6
        1.0s   320.00nm        6.1mb
      Z  25s    38.10um        6.1MszX
      E  15s    17.00um
                  PcP    48 00.00
                  S      51 10.00
CD2     36.88 327 Pd     45 36.00  -1.7
        1.4s   930.00nm        6.4mb
      Z  24s    52.70um        6.2MszX
      E  15s    46.40um
                  iPP    46 59.80
                  iS     51 12.00
XAN     37.03 336 ePd    45 36.86  -2.1
        1.0s   240.00nm        5.9mb
      Z  20s    56.40um        6.4Msz
      N  16s    23.80um
      E  16s    37.00um
                  epPd   45 41.50  16kmX
                  PcP    48 02.00
                  sS     51 32.00
ADE     37.19 162 iPc+   45 41.00   0.7
MAJO    37.71  16 ePc    45 42.77  -1.8
        1.4s   621.75nm        6.2mb
                  epPd   45 47.49  16kmX
MAT     37.71  16 iPc+   45 42.40  -2.2
        1.2s   207.81nm        5.8mb
      Z  20s    33.69um        6.1Msz
                  eS     51 27.00
DL2     38.49 355 iPc    45 52.00   0.9
        1.0s   150.00nm        5.7mb
      Z  18s    23.80um        6.1Msz
      N  16s    10.20um
      E  18s    23.00um
                  iS     51 40.00
TIY     39.13 343 Pd     45 55.50  -1.0
        0.8s   130.00nm        5.7mb
      Z  26s    62.20um        6.3MszX
      N  15s    18.90um
                  PP     47 32.50
                  S      51 50.50
                  SS     54 42.00
ARMA    39.25 144 iPc    45 57.50  -0.2
        0.8s   167.00nm        5.8mb
                  e      51 28.20
                  iScP   51 57.00
BJI     40.41 348 ePd    46 06.00  -1.0
        1.0s    78.00nm        5.4mb
      Z  24s    38.60um        6.2MszX
      N  19s    24.70um
                  epPd   46 11.63  19kmX
                  ePcP   48 13.00
                  eScP   51 59.50
                  ePcS   52 01.00
                  eS     52 08.00
LZH     40.97 332 ePd    46 11.22  -0.6
        1.6s  1540.00nm        6.5mb
      Z  20s    51.10um        6.4Msz
      E  17s    13.90um
                  epPd   46 16.02  16kmX
                  PcP    48 15.00
                  ScP    52 02.50
                  PcS    52 06.00
                  S      56 16.00
SNY     41.27 357 Pc     46 14.90   0.9
        1.3s  1380.00nm        6.5mb
      Z  25s    61.90um        6.4MszX
      N  10s     3.93um
      E  16s    16.80um
                  PcP    48 14.00
                  iS     52 24.00
RIV     41.52 148 eP+    46 19.00   2.8
                  ePP    47 55.00
                  iS     52 34.00
CAN     41.59 151 iPc    46 17.60   0.8
                  i      46 21.00
                  i      48 16.00
CNB     41.76 151 iPc    46 18.80   0.5
        0.8s   171.00nm        5.8mb
                  iScP   51 48.40
HHC     42.29 344 P      46 21.40  -1.2
        1.2s    84.00nm        5.3mb
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09d 11h

Z 26s 73.50um 6.5MszX
N 19s 30.70um
E 15s 9.12um
PP 48 00.00
SS 55 40.00
ScS 56 22.00
BTO 42.51 342 iPc 46 24.00 -0.4
1.0s 24.00nm 4.9mb X
N 12s 5.58um
E 12s 5.66um
PP 48 03.00
S 52 38.00
VLA 42.84 6 iPd- 46 27.00 0.1
Z 16s 4.10um 5.4MszX
N 21s 16.00um
E 11s 4.10um
i 48 23.00
iPPP 48 41.00
iS 52 45.00
i 56 20.00
CN2 43.19 360 P 46 29.00 -0.7
1.0s 210.00nm 5.8mb
Z 20s 21.90um 6.1Msz
N 18s 13.80um
E 18s 13.70um
epP 46 36.00 23kmX
eScP 52 09.40
ScS 56 29.00
LSA 44.06 315 iPd 46 37.21 -0.4
1.3s 650.00nm 6.3mb
N 18s 12.80um
sP 46 54.50
S 53 03.50
MDJ 44.12 4 iPc 46 37.44 0.1
epPd 46 42.49 17kmX
S 53 07.00
SS 56 19.00
ERM 44.23 18 iPc 46 38.61 0.4
epPd 46 43.41 16kmX
SAP 44.64 16 eP 46 41.00 -0.5
eS 53 17.00
BKM 45.38 116 iPc 46 47.90 0.1
DZM 45.41 122 iPc 46 47.40 -0.7
PVC 45.47 116 iPc 46 48.50 0.0
GTA 45.53 331 eP 46 47.50 -1.4
1.4s 320.00nm 6.1mb
Z 18s 36.50um 6.4Msz
E 16s 25.50um
pP 46 55.00 25kmX
sP 46 59.00
PcP 48 29.50
PP 48 34.00
ScP 52 19.50
PcS 52 21.50
eS 53 22.00
ScS 56 41.00
GUN 47.06 309 P 47 01.00 -0.4
PKI 47.27 308 P 47 02.00 -1.0
KKN 47.47 309 P 47 03.60 -0.9
GKN 48.07 308 P 47 07.60 -1.6
KUR 48.66 21 iPc+ 47 13.00 -0.2
1.0s 360.00nm 6.4mb
eS 54 12.00
YSS 48.68 15 ePc 47 11.94 -1.3
1.0s 170.00nm 6.0mb
Z 20s 17.80um 6.1Msz
N 20s 18.40um
E 20s 3.00um
epPd 47 15.99 14kmX
e 49 08.00
iS 54 12.00
HIA 48.94 355 ePc 47 14.90 -0.4
KOD 49.12 283 ePd 47 16.00 -1.5
eS 54 16.00
HYB 49.52 293 ePd 47 18.00 -2.3
1.0s 670.00nm 6.6mb
eS 54 20.00
GBA 49.72 287 P 47 18.80 -2.9X
0.8s 999.90nm 6.9mb
CIT 52.42 350 eP 47 42.00 0.2
e 55 04.00
ZAK 53.37 342 ePd 47 47.50 -1.2
3.0s 1863.00nm 6.5mb
Z 24s 15.73um 6.0MszX
N 23s 24.42um
E 23s 21.78um
e 48 58.00

eS 55 15.00
e 57 32.00
POO 54.13 293 iP 47 46.00 -8.9X
NDI 54.29 306 iPd 47 52.50 -3.4X
eS 55 18.00
IRK 54.75 344 ePd 47 56.50 -2.4
2.2s 747.00nm 6.3mb
Z 20s 13.68um 6.0Msz
N 19s 12.61um
E 20s 10.80um
e 48 18.50
e 48 35.50
e 48 43.00
e 49 03.00
e 51 28.00
e 53 13.00
eS 55 30.00
WMQ 54.98 327 iPd 47 59.26 -1.6
1.5s 570.00nm 6.4mb
Z 22s 56.00um 6.6Msz
E 21s 33.50um
ec 48 02.49
epPd 48 04.64 18kmX
sP 48 16.00
PcP 49 04.00
PP 50 04.00
iS 55 36.00
ScS 57 40.00
SS 59 20.00
BOM 55.17 293 iPd 48 00.50 -2.0
iS 55 31.50
SKR 56.25 23 iP+ 48 08.00 -1.7
iS 55 57.00
BOD 58.01 353 eP 48 20.80 -1.3
0.9s 762.00nm 6.7mb
MSZ 58.35 146 eP 48 24.00 -0.7
QRZ 58.92 140 eP 48 28.10 -0.7
PET 59.07 22 eP+ 48 29.00 -0.6
1.0s 120.00nm 6.0mb
Z 21s 17.00um 6.1Msz
N 21s 15.60um
E 20s 10.00um
iS 56 35.00
eSSS 03 00.00
KUZ 59.09 134 eP 48 28.20 -1.8
TLC 59.31 146 eP 48 30.90 -0.7
EWZ 59.35 143 P 48 32.30 0.6
BWZ 59.38 145 eP 48 31.80 0.0
CMCZ 59.40 146 eP 48 31.40 -0.7
WLZ 59.52 136 eP 48 31.90 -1.0
THZ 59.66 141 P 48 32.80 -1.1
KSH 59.79 317 Pd 48 35.00 0.0
1.2s 730.00nm 6.7mb
Z 24s 29.70um 6.3MszX
N 18s 22.10um
E 18s 23.50um
pP 48 44.00 29kmX
PcP 49 24.00
PP 50 47.00
ScP 53 15.00
PcS 53 24.00
S 56 37.00
ScS 58 15.00
LTZ 59.81 142 eP 48 33.40 -1.5
1.0s 133.00nm 6.0mb
TUZ 60.08 146 eP 48 35.30 -1.4
ODZ 60.12 145 eP 48 34.80 -2.1
NGZ 60.13 137 eP 48 36.70 -0.7
TCW 60.25 139 eP 48 35.90 -2.0
KIW 60.49 139 eP 48 37.30 -2.3
MRW 60.54 139 eP 48 37.10 -2.8
MQZ 60.55 143 eP 48 37.80 -2.1
SNZO 60.58 139 ePc 48 37.68 -2.4
e 48 41.08
epPd 48 42.82 17kmX
eS 57 07.00
CAW 60.71 139 P 48 38.60 -2.5
TLG 60.73 321 eP 48 40.20 -1.0
2.5s 470.00nm 6.2mb
Z 22s 17.00um 6.1Msz
E 22s 17.00um
i 49 25.00
i 51 00.00
eS 56 51.00
MNG 60.75 138 eP 48 39.00 -2.3
1.0s 239.00nm 6.3mb
URZ 60.76 135 eP 48 39.10 -2.3

WAHZ 60.89 137 eP 48 40.60 -1.8
PAHZ 60.99 136 eP 48 41.60 -1.4
BLW 61.11 139 P 48 41.80 -2.0
MCQ 61.13 159 eP 48 44.20 0.6
HBZ 61.31 134 eP 48 42.80 -2.4
PUZ 61.49 135 eP 48 44.40 -2.0
YAK 61.50 2 iPc+ 48 44.70 -1.3
1.5s 1203.00nm 6.8mb
Z 19s 19.70um 6.3Msz
N 19s 17.20um
E 18s 5.00um
epP 49 18.00 139kmX
ePcP 49 34.00
ePP 51 00.00
ePPP 52 24.00
eS 56 57.00
ePS 57 20.00
esS 57 40.00
eScS 58 30.00
NOZ 61.57 135 eP 48 45.30 -1.6
FRU 62.28 320 iP 48 52.40 0.7
3.0s 2630.00nm 6.9mb
Z 22s 27.50um 6.4Msz
E 22s 26.50um
e 49 36.00
eS 57 08.00
eSS 01 14.00
QUE 63.23 304 iPd- 48 58.00 -0.4
1.0s 1125.00nm 7.0mb
eS 57 20.00
AFI 63.31 106 ePc 48 58.07 -0.9
epP 49 03.37 17kmX
eS 57 32.00
SMY 65.73 30 eP 49 13.50 -0.4
1.3s 1025.90nm 6.8mb
Z 20s 15.00um 6.2Msz
CSY 67.47 187 eP 49 14.50 -10.3X
0.8s 124.70nm
ipP 49 38.30 93kmX
PAF 68.71 215 eP 49 47.00 14.2X
ePP 52 17.00
eS 58 46.00
eSS 03 04.00
ADK 70.15 34 eP 49 41.18 -0.5
1.8s 509.26nm 6.4mb
MAIO 70.87 308 iPd 49 45.00 -1.5
eS 58 56.00
TIK 71.12 1 iPd+ 49 45.50 -1.6
1.0s 570.00nm 6.6mb
i 50 04.00
eS 58 53.00
i 59 47.00
ASH 72.15 310 P 49 53.00 -1.0
E 18s 5.00um
e 50 04.00
e 52 37.00
eS 59 10.00
PS 59 44.00
i 59 54.00
SS 03 56.00
SHI 75.36 300 eP 50 11.00 -2.1
RAR 75.57 112 (P) 50 13.51 -0.6
SVE 76.33 329 iPd 50 17.00 -0.8
2.2s 2060.00nm 6.8mb
iS 59 52.00
e 08 16.00
HON 76.91 68 P 50 30.00 8.3X
Z 21s 42.84um 6.7Msz
OPA 76.93 68 ePc 50 21.79 0.0
DHR 77.05 297 iPd 50 21.60 -0.8
iS 00 00.00
DHH 77.09 68 ePd 50 22.88 0.2
ARU 77.25 328 eP 50 22.16 -0.7
1.0s 605.47nm 6.6mb
HKL 78.49 69 eP 50 31.29 0.4
KKH 78.64 70 eP 50 30.35 -0.9
MHA 78.78 70 eP 50 32.50 0.5
BAK 79.07 311 iPd 50 36.00 2.8
Z 20s 29.20um 6.6Msz
N 22s 47.58um
E 18s 16.48um
iS 00 32.00
CRZF 79.34 223 eP 50 45.00 10.4X
ePP 53 09.00
iS 00 39.00
eSS 06 00.00
RYD 80.08 295 iPd 50 43.40 4.3X

iS 00 32.00
SDN 80.37 34 ePc 50 39.65 -0.3
0.6s 365.06nm 6.6mb
Z 21s 6.61um 6.0Msz
MAW 80.38 200 P 50 42.29 2.5
ANM 80.60 24 ePc 50 41.47 0.4
SBA 81.20 172 iPc 50 46.00 2.1
0.8s 134.33nm 6.0mb
S 01 57.00
MJMA 81.35 296 ePd 50 45.30 -0.5
TAB 81.52 308 iP- 50 46.00 -0.6
KMSA 81.78 290 iPd 50 46.70 -1.4
GRO 82.58 314 iP- 50 52.00 0.3
2.0s 2400.00nm 7.0mb
iS 01 00.00
iPS 01 50.00
QASM 82.95 296 iPd 50 53.70 -0.4
MTA 83.06 312 iPd 50 56.00 1.8
0.8s 50.00nm 5.7mb
e 01 05.00
e 01 15.00
ARO 83.10 281 ePd 50 57.00 1.9
ERE 83.14 310 iP- 50 54.00 -0.9
iPPP 55 55.00
iS 01 08.00
iPS 01 56.00
AFIF 83.17 294 iPd 50 56.30 1.0
UQSK 83.99 296 iPd 51 00.30 0.9
SVW 84.07 29 eP 50 59.90 0.8
1.1s 395.32nm 6.6mb
TTA 84.21 27 eP 51 00.21 0.4
1.2s 183.46nm 6.2mb
PYA 84.54 314 iPd 51 01.00 -0.8
1.0s 1000.00nm 7.0mb
Z 20s 8.50um 6.1Msz
N 20s 7.50um
E 20s 7.50um
i 54 22.00
iPPP 56 18.00
iS 01 18.00
eSS 02 12.00
ePS 02 22.00
ePPS 02 52.00
AFR 84.72 108 iPc 51 04.10 1.0
1.4s 442.60nm 6.5mb
KIV 84.80 314 iPd 51 02.80 -0.4
3.7s 7455.00nm 7.3mb X
e 01 20.40
ePS 02 46.90
PAE 84.91 108 iPc 51 05.10 1.1
1.3s 249.10nm 6.3mb
PPT 84.91 108 iPc 51 05.20 1.1
1.6s 709.00nm 6.6mb
Z 27s *******um 9.5MszX
PPN 85.05 108 iPc 51 05.90 1.2
1.8s 994.40nm 6.7mb
KDC 85.16 32 eP 51 04.51 0.1
1.1s 166.57nm 6.2mb
TVO 85.23 108 iPc 51 07.00 1.3
1.2s 704.50nm 6.8mb
BRW 85.55 18 eP 51 07.40 1.2
TAIF 85.69 291 iPd 51 09.60 1.5
CP2 85.71 29 ePc 51 06.86 -0.6
IMA 85.73 24 eP 51 07.37 0.0
0.6s 27.76nm 5.6mb
CRP 85.75 29 eP 51 06.61 -1.0
PMO 86.45 105 iPc 51 12.90 1.2
1.9s 1763.50nm 6.9mb
SLKM 86.61 30 eP 51 10.84 -0.9
VAH 86.71 105 iPc 51 14.10 1.1
1.8s 1046.10nm 6.8mb
TPT 86.72 105 iPc 51 14.40 1.4
1.7s 1429.30nm 6.9mb
SOC 86.93 313 iPd- 51 13.00 -0.6
2.8s 270.00nm 6.0mb
Z 24s 4.50um 5.8MszX
N 22s 5.50um
E 24s 3.50um
e 54 34.00
eS 01 30.00
RUV 86.95 105 iPc 51 15.30 1.2
1.6s 1079.60nm 6.8mb
PMR 87.23 28 eP 51 13.83 -0.8
0.9s 85.53nm 6.0mb
Z 21s 15.58um 6.4Msz
COL 88.05 25 ePc 51 17.01 -1.5
0.8s 18.48nm 5.5mb

esPd 51 25.12
FBA 88.05 25 eP 51 16.74 -1.8
0.8s 11.59nm 5.3mb
TOA 88.66 28 eP 51 21.80 0.2
MOS 88.67 326 iPc 51 22.00 0.4
2.8s 3300.00nm 7.1mb
Z 28s 29.00um 6.5MszX
E 24s 19.20um
i 01 45.00
iS 02 00.00
iPS 03 05.00
ANN 88.70 315 iP- 51 20.00 -2.0
1.0s 200.00nm 6.4mb
e 01 42.00
i 02 01.00
ePS 03 05.00
KLU 88.76 29 ePc 51 21.47 -0.6
SYO 89.09 201 ePd- 51 26.60 3.2X
eSKS 01 51.00
eS 02 08.00
NAI 89.10 269 iPd 51 27.00 2.1
iSKS 01 45.00
iSKKS 01 54.00
iS 02 12.00
WAJH 89.21 296 ePd 51 25.46 0.6
OBN 89.25 325 ePd 51 23.19 -1.2
1.2s 448.79nm 6.6mb
ec 51 26.34
AYN 89.70 299 ePd 51 26.60 -0.5
BHL 89.96 304 Pd 51 26.00 -2.4
PP 54 32.00
SKS 01 48.00
SPA 90.42 180 iPc 51 30.60 0.7
1.0s 250.00nm 6.4mb
Z 22s 23.28um 6.6Msz
i 51 33.50
BALM 90.49 29 eP 51 30.02 -0.2
CTK 90.54 311 eP 51 33.00 2.1
BADA 90.58 298 ePd 51 31.33 0.1
SIM 90.96 315 eP- 51 32.00 -0.6
e 02 00.00
eS 02 22.00
KAS 91.32 311 eP 51 35.00 0.6
CSS 91.86 305 eP 51 38.00 1.0
PUL 92.45 330 ePd 51 21.00 -18.1X
2.2s 440.00nm
e 51 29.00
e 02 06.00
eS 02 32.00
SGKT 92.65 310 eP 51 41.00 0.2
PPCY 92.67 305 eP 51 42.00 1.3
KEV 92.69 340 eP 51 40.11 0.1
1.4s 94.24nm 6.0mb
NAL 93.24 310 eP 51 44.10 0.7
SDF 93.26 338 iP 51 43.90 1.1
KBS 94.09 350 eP 51 46.00 -0.4
e 04 00.00
KAF 94.12 332 eP 51 46.50 -0.3
CIR 94.18 249 iP 51 30.20 -17.7X
iPP 55 14.00
MTD 94.25 253 iP 51 34.40 -14.0X
SIT 94.43 33 eP 51 49.00 0.7
1.2s 182.50nm 6.4mb
Z 20s 10.00um 6.3Msz
KIS 94.49 317 iP+ 51 49.00 0.2
Z 25s 18.00um 6.4MszX
N 22s 14.40um
i 52 06.00
i 55 38.00
i 02 18.00
iS 02 49.00
iPS 04 09.00
iSS 09 17.00
MNK 94.57 324 eP 51 49.00 0.0
Z 24s 23.30um 6.6MszX
N 28s 25.70um
E 24s 23.60um
e 02 20.00
eS 02 52.00
ePS 04 10.00
CFR 95.16 315 eP 51 52.50 0.6
NUR 95.17 331 eP 51 53.40 1.8
CLI 95.62 317 ePc 51 54.50 0.4
VRI 96.09 316 iPc 51 56.50 0.3
PTT 96.19 317 eP 51 55.00 -1.6
ISR 96.30 315 ePc 51 58.50 1.3
JMB 96.59 313 eP 51 57.00 -1.5

MLR 96.68 316 iPc 51 59.00 0.0
BUC 96.71 315 iPd 52 00.00 1.0
BUL 96.98 250 iP 51 56.40 -4.5X
iPP 55 50.10
iS 02 08.50
SLR 97.04 244 iPc 52 02.00 0.9
0.9s 25.21nm 5.8mb
Z 22s 20.37um 6.6Msz
ALE 97.05 1 (P) 52 02.13 2.3
ALN 97.17 311 eP 52 00.56 -0.6
PRK 97.19 309 eP 52 01.20 0.0
LVV 97.32 320 iP+ 52 02.00 0.3
e 56 03.00
ePPP 58 09.00
i 02 36.00
iS 03 21.00
iPS 04 43.00
eSS 10 09.00
eSSS 13 51.00
PVL 97.41 314 iP 52 02.00 -0.1
DIM 97.41 312 eP 52 03.00 0.8
RDO 97.52 311 eP 52 01.00 -1.7
KDZ 97.55 312 iP 52 03.00 0.1
PLD 98.02 313 iP 52 05.00 0.1
NPS 98.15 306 eP 52 10.00 4.3X
NVL 98.17 198 (P) 52 10.00 5.0X
2.0s 124.00nm 6.2mb
Z 22s 6.00um 6.0Msz
N 22s 3.50um
E 22s 6.00um
e 56 22.00
e 02 43.00
eS 03 25.00
ePS 05 03.00
e 10 20.00
e 13 25.00
e 14 20.00
UZH 98.65 319 iPc 52 12.00 4.4X
UZH 98.65 319 iPc+ 52 08.00 0.4
1.0s 120.00nm 6.5mb
i 52 15.50
e 56 09.00
i 03 30.00
ePS 05 00.00
ePPS 05 50.00
BLF 98.69 241 iPd 52 09.50 1.1
1.0s 20.00nm 5.7mb
e 56 09.50
UPP 98.73 331 iP 52 09.20 1.5
OUR 98.80 311 eP 52 08.76 0.3
MMB 98.81 312 eP 52 08.00 -0.6
SRS 98.98 312 eP 52 09.08 -0.3
VTS 99.04 313 iP 52 09.00 -0.8
PAIG 99.09 310 eP 52 08.72 -1.1
SOH 99.20 311 eP 52 10.00 -0.4
VAM 99.28 306 eP 52 14.00 3.2X
ATH 99.33 308 eP 52 10.00 -1.0
BOSA 99.40 241 eP 52 12.87 1.4
1.3s 50.55nm 5.9mb
KNT 99.49 312 eP 52 10.08 -1.6
BZS 99.66 316 iPd 52 04.00 -8.3X
VAY 99.71 312 iP 52 11.00 -1.7
1.3s 140.00nm 6.4mb
SPC 99.87 320 ePDIF 52 12.40 -1.1
GRG 99.90 312 eP 52 12.80 -0.8
OJC 99.93 321 iPc 52 16.20 2.7
1.7s 120.00nm 6.2mb
Z 20s 23.20um 6.7Msz
iS 02 47.50
i 03 43.00
LIT 99.97 311 eP 52 12.44 -1.5
VLI 100.12 307 ePdiff52 13.00 -1.7
DAG 100.41 352 iPdiff52 14.20 -0.8
0.8s 74.63nm 6.3mb
SKO 100.44 313 iPdiff52 15.70 -0.3
Z 24s 10.35um 6.3MszX
i 52 34.00
iPP 56 25.00
iPS 05 09.00
LR 42 55.00
KZN 100.48 311 ePdiff52 06.90 -9.4X
KZN 100.48 311 ePdiff52 15.10 -1.2
HFS 100.53 332 ePdiff52 16.30 0.4
1.3s 92.70nm 6.2mb
OHR 101.06 312 iPdiff52 18.30 -0.5
1.0s 60.00nm 6.1mb
NB2 101.35 333 Pdiff 52 19.40 -0.2

09d 11h

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     1.3s   44.80nm          5.9mb
SRO  101.43 319 ePdiff52 20.90   0.7
                iPP   56 23.50
BSD  101.52 327 iPdiff52 26.50   6.1X
     1.0s   90.00nm          6.3mb
KSP  101.94 322 ePdiff52 23.20   0.8
     1.0s   37.00nm          6.0mb
                e     54 54.20
DPC  102.00 322 ePdiff52 23.80   1.0
     0.9s   22.41nm          5.8mb
ZST  102.12 320 ePdiff52 25.20   1.9
                e     55 14.10
                e     55 34.80
                ePP   56 37.50
YKA  102.83  24 Pdiff 52 25.00  -1.1
     1.2s   13.20nm          5.5mb
PRU  103.26 322 Pdiffd52 31.30   3.0X
     1.4s   70.30nm          6.2mb
   Z 26s    18.30um          6.5MszX
   N 18s     5.20um
   E 19s     9.60um
                e     55 20.60
                e     56 57.40
                SKS   03 04.60
                S     04 11.70
BRG  103.36 323 ePdiff52 30.10   1.4
     1.2s   90.00nm          6.4mb
                i     52 37.90
                i     52 48.00
                i     03 02.00
                i     04 13.00
PTJ  103.46 318 ePdiff52 30.60   1.2
                i     56 48.30
ZAG  103.47 317 iPdiff52 31.00   1.7
CLL  103.79 323 ePdiff52 33.00   2.4X
   Z 20s     7.50um          6.2Msz
                eSKS  03 05.00
                eS    04 13.00
GMW  103.94  41 ePdiff52 32.67   1.2
CER  104.07 236 ePdiff52 29.00  -3.3X
     1.0s   70.00nm          6.5mb
KHC  104.11 321 ePdiff52 33.50   1.3
     1.0s   16.10nm          5.8mb
   Z 22s    15.50um          6.5Msz
   N 20s     4.10um
   E 20s     6.30um
                e     52 48.30
                e     53 04.00
                e     55 43.50
                e     56 06.50
                e     56 54.00
                e     58 37.00
                eSKS  03 10.00
                ePKKP 08 21.50
GEC2 104.12 321 e(Pdif52 33.80   1.5
     1.2s   10.00nm          5.5mb
GEC2 104.12 321 e(Pdif52 40.90   8.6X
     1.1s   13.40nm          5.7mb
LJU  104.38 318 ePdiff52 33.50   0.1
                ePP   56 38.50
                i     57 05.50
MOX  104.84 323 iPdiff52 39.10   3.8X
     2.8s  350.00nm          6.8mb
   Z 20s    10.00um          6.4Msz
                eSKS  03 15.00
                eS    04 28.00
KBA  104.87 319 iPdiff52 37.70   1.9
                i     55 41.40
                i     55 53.90
                i     55 59.10
                i     56 07.70
                i     56 57.10
GRF  105.39 322 ePdiff52 39.90   2.1X
   Z 20s    14.00um          6.5Msz
                e(PP) 55 59.00
YBH  105.56  46 ePdiff52 44.52   5.7X
   Z 20s    12.00um          6.4Msz
                iPPc  57 05.52
                iSKS  03 23.52
                iS    04 40.52
                eSP   06 12.52
                iPS   06 15.52
                ePKKS 12 16.52
                eSKKS 16 21.52
                iLQ   22 05.52
                eLR   27 34.52
WTTA 105.93 320 iPdiff52 41.10   0.6

                i     55 47.80
                i     56 14.50
                i     56 56.40
                i     57 07.50
WDC  105.98  47 PKP   57 00.00   6.9X
   Z 21s    10.33um          6.4Msz
WDC  105.98  47 ePdiff52 44.21   3.6X
   Z 22s    15.00um          6.5Msz
                ePP   57 00.21
                iSKS  03 26.21
                eS    04 33.21
                eSP   06 14.21
                iPS   06 21.21
                ePKKS 12 18.21
                eSKKS 16 25.21
                eLQ   21 51.21
                eLR   26 21.21
MIN  106.73  48 ePdiff52 46.70   2.5X
   Z 22s     9.00um          6.3Msz
                ePPc  57 03.70
                eSKS  03 28.70
                eS    04 49.70
                ePS   06 25.70
                eSS   12 25.70
                ePKKS 12 50.70
                eLQ   22 49.70
                eLR   26 30.70
BKS  106.88  50 ePdiff52 52.69   8.0X
   Z 20s     0.20um          4.7MszX
                iPPc  57 10.69
                iSKS  03 27.69
                eS    04 19.69
                eSPd  06 29.69
                ePS   06 35.69
                ePKKS 11 36.69
                eLQ   22 39.69
                eLR   26 58.69
ORV  107.01  48 ePdiff52 48.39   3.1X
   Z 20s     8.00um          6.3Msz
                iPPc  57 08.39
                eSKS  03 29.39
                eS    04 53.39
                eSP   06 27.39
                iPS   06 34.39
                eSS   12 29.39
                ePKKS 12 41.39
                eSKKS 16 35.39
                eLQ   23 00.39
                eLR   27 42.39
ORV  107.01  48 (PKP) 56 57.75   2.7X
STAN 107.04  51 ePdiff52 51.85   6.4X
   Z 21s    10.00um          6.3Msz
                iPPc  57 15.85
                eSKS  03 32.85
                eSP   06 28.85
                iPS   06 32.85
                eSS   12 27.85
                ePKKS 12 38.85
                eLQ   22 33.85
                eLR   27 00.85
FIR  107.27 316 ePKP  56 54.00  -1.4
NEW  107.32  39 PKP   57 10.00  14.5X
   Z 21s     7.97um          6.3Msz
MHC  107.47  51 ePdiff52 48.19   0.7
   Z 20s    12.00um          6.5Msz
                ePP   57 02.19
                eSKS  03 32.19
                eS    05 04.19
                eSP   06 35.19
                iPS   06 38.19
                ePKKS 12 47.19
                eLQ   22 37.19
                eLR   27 47.19
SAO  107.76  51 PKP   57 10.00  13.4X
   Z 21s    11.39um          6.4Msz
SAO  107.76  51 ePdiff52 54.01   5.3X
   Z 20s     9.00um          6.3Msz
                iPPc  57 20.01
                eSKS  03 25.01
                eS    04 40.01
                eSP   06 32.01
                iPS   06 41.01
                eSS   12 24.01
                ePKKS 12 33.01
                iLQ   23 06.01
                eLR   25 34.01
CMB  108.25  50 PKP   57 10.00  12.4X

   Z 20s    11.48um          6.4Msz
BSF  108.80 322 ePKP  56 58.30   0.0
     0.9s   13.25nm
PHAM 108.81  52 PKP   57 14.20  15.6X
HAU  109.01 322 ePKP  56 58.20  -0.4
     1.1s   25.90nm
   Z 25s    23.92um          6.7MszX
BCH  109.22  52 ePdiff52 56.06   0.7
LPL  109.71 319 ePKP  57 09.10   8.8X
     1.2s   36.60nm
BONR 109.85  49 (Pdiff53 00.64   2.3X
ISA  110.37  52 PKP   57 10.00   8.4X
   Z 21s    10.26um          6.4Msz
TNP  110.63  49 ePdiff53 02.89   1.2
LOR  110.84 322 ePKP  57 04.60   2.5X
     1.0s   14.40nm
   Z 24s    22.85um          6.7MszX
LBF  110.89 322 ePKP  57 03.30   1.1
     1.0s   15.00nm
SSF  111.15 322 ePKP  57 05.20   2.5X
     1.1s   30.05nm
AVF  111.36 322 ePKP  57 05.30   2.3X
     1.1s   20.50nm
TPNV 111.71  50 PKP   57 10.00   5.7X
   Z 22s    14.87um          6.5Msz
GSC  111.78  52 ePdiff53 08.34   1.7
GSC  111.78  52 ePKP  57 05.57   1.2
PEC  111.89  53 ePdiff53 09.06   1.9
PEC  111.89  53 ePKP  57 05.30   0.7
PLM  112.28  54 (PKP) 57 04.95  -0.5
TCF  112.29 321 ePKP  57 07.60   2.7X
     1.2s   37.20nm
FFC  112.53  28 ePKP  57 04.16  -0.8
HVU  112.58  44 (Pdiff53 28.85  18.6X
HVU  112.58  44 ePKP  57 06.25   0.5
CAF  112.97 320 ePKP  57 09.10   2.9X
     1.1s   29.30nm
DUG  113.15  45 ePKP  57 07.56   0.7
   Z 20s     9.83um          6.4Msz
ARUT 113.55  48 (Pdiff53 14.98   0.3
ARUT 113.55  48 ePKP  57 09.13   1.3
LPO  113.64 320 ePKP  57 10.70   3.2X
     1.4s  111.55nm
LFF  113.81 321 ePKP  57 10.80   3.0X
     1.3s   74.00nm
DAU  114.17  45 ePKP  57 10.22   1.1
MSU  114.23  47 ePKP  57 09.90   0.7
EPF  114.92 319 ePKP  57 12.40   2.3X
     1.1s   22.45nm
SRU  115.20  46 ePKP  57 10.85  -0.1
EBR  115.77 317 ePKP  57 16.00   4.3X
                e     07 48.00
PV09 116.44  46 ePKPd 57 14.26   0.8
PV10 116.55  46 ePdiff53 30.69   2.6X
PV10 116.55  46 iPKP  57 14.17   0.5
PV08 116.75  46 ePKP  57 15.20   1.0
ECRI 116.98 320 ePKP  57 16.62   2.6X
RSSD 117.29  38 ePKP  57 14.10  -0.7
TUC  117.47  53 ePKP  57 16.58   1.2
                ePP   58 22.64
                SP    08 12.60
ETOR 117.51 318 ePKP  57 17.40   2.2X
GOL  118.56  43 iPKP  57 17.63   0.2
   Z 21s     8.81um          6.4Msz
GLD  118.64  43 ePKP  57 17.18  -0.3
   Z 20s    15.65um          6.6Msz
                PKKP  07 28.18
EVIA 118.80 316 iPKPc 57 18.70   1.0
GUD  119.00 318 iPKPc 57 19.43   1.4
EHUE 119.23 315 iPKPc 57 19.40   0.9
PAB  119.66 317 iPKPc 57 22.50   3.2X
     1.1s   37.97nm
                iPP   58 48.00
ALQ  119.84  49 ePKP  57 20.45   0.5
   Z 20s     2.36um          5.8Msz
                PP    58 43.76
                SP    08 14.83
EBAN 119.92 316 iPKPc 57 22.47   2.7X
ECOG 120.16 315 iPKPc 57 20.81   0.5
EGUA 120.36 314 iPKPc 57 20.86   0.3
TAF  120.39 312 iPKPc 57 25.50   4.7X
                i     57 26.00
EPLA 120.56 318 iPKPc 57 23.80   2.9X
EHOR 121.10 316 iPKPc 57 23.10   1.2
EPRU 121.49 315 iPKPd 57 24.70   1.9
EJIF 121.90 315 iPKPd 57 26.75   3.2X
GIBL 122.06 315 ePKP  57 26.00   2.2X
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MOMI  122.14 315 ePKP  57 27.00   3.0X
EVAL  122.25 316 ePKP  57 27.13   3.0X
PLAT  122.26 314 iPKP  57 26.00   1.8
CPS   122.28 314 ePKP  57 28.00   3.8X
NKM   122.32 313 iPKP  57 27.50   3.2X
                 i     57 30.00
BIT   122.46 314 iPKP  57 28.50   3.9X
TSY   122.76 314 iPKP  57 29.00   3.9X
IFR   122.97 311 iPKPc 57 29.50   3.6X
LTX   124.25  54 ePKPc 57 27.79  -0.7
ACO   124.30  44 iPKPc 57 28.30   0.1
AVE   124.78 312 ePKP  57 30.00   0.8
                 i     59 18.00
WMOK  125.55  45 ePKP  57 30.00  -0.7
   Z  21s     21.09um         6.8Msz
                 PP    59 08.97
                 iPP   59 16.26
                 SP    08 43.24
MEO   125.67  45 iPKPc 57 30.30  -0.7
TUL   127.01  43 iPKPc 57 29.10  -4.3X
CCM   128.67  38 ePKP  57 36.77   0.3
UYO   128.89  44 iPKPc 57 37.30   0.2
SLM   128.90  36 PKP   57 50.00  13.1X
   Z  21s      7.79um         6.4Msz
FVM   129.21  37 ePKP  57 37.72   0.2
   Z  20s     32.47um         7.0Msz
                 ePP   59 43.41
MIAR  129.28  43 ePKPd 57 37.99   0.2
   Z  21s     12.15um         6.6Msz
                 iPP   59 42.72
                 iSKP  00 58.89
ELF   130.20  26 PKP   57 39.50   0.2
KIC   130.27 279 PKP   57 21.17 -19.1X
DLA   130.35  26 PKP   57 39.90   0.3
LDN   130.38  26 PKP   57 39.80   0.2
ELC   130.39  37 ePKP  57 40.34   0.5
TIC   130.52 279 PKP   57 21.65 -19.1X
LIC   130.57 279 PKP   57 21.71 -19.1X
   Z  20s     10.00um         6.5Msz
LKO   130.70 283 PKP   57 41.65   0.6
      1.4s   287.00nm
CBM   131.27  13 PKP   57 50.00   8.8X
   Z  21s      9.02um         6.4Msz
RSNY  131.68  20 ePKPd 57 43.00   0.9
                 ePP   59 57.60
                 iSKP  01 06.75
YSNY  131.96  24 ePKP  57 43.91   1.2
   Z  21s     13.35um         6.6Msz
                 eSKP  01 07.48
OXF   132.05  40 ePKP  57 44.39   1.4
   Z  20s      4.22um         6.1Msz
LBNH  132.78  17 ePKP  57 43.93  -0.2
   Z  21s      9.36um         6.5Msz
                 ePP   00 10.53
BINY  133.20  22 ePKP  57 44.41  -0.6
   Z  20s      6.09um         6.3Msz
                 eSKP  01 09.19
MCWV  133.69  28 ePKP  57 45.56  -0.5
   Z  21s     15.31um         6.7Msz
                 PP    00 04.30
                 iSKP  01 13.68
HRV   134.46  18 ePKP  57 46.34  -1.0
   Z  21s     10.17um         6.5Msz
                 PP    00 19.15
LSCT  134.66  20 PKP   58 00.00  12.2X
   Z  21s      9.27um         6.5Msz
MYNC  134.91  35 ePKPc 57 48.86   0.3
   Z  21s     12.06um         6.6Msz
                 ePP   00 16.32
PNJ   135.01  22 PKP   57 48.78   0.3
                 PP    00 22.41
CBN   135.99  27 e(PKP)57 38.00 -12.4X
                 e     57 52.00
                 e     00 30.00
CEH   137.03  30 ePKP  57 53.60   1.1
   Z  20s      7.15um         6.4Msz
                 iSKP  01 23.34
MBO   140.40 293 ePKP  58 03.80   4.7X
RFA   143.29 160 ePKPc 57 43.50 -20.4X
PEL   143.91 156 iPKP+ 58 03.00  -1.9
MDZ   144.86 158 ePKP  58 07.20   0.6
LPA   145.51 174 PKPc+ 58 08.50   1.0
      1.0s  2496.00nm
   Z  20s     12.77um         6.7Msz
RTCV  145.89 158 ePKP  58 09.00   0.7
ZON   146.11 157 ePKP  58 09.30   0.6
RTCB  146.12 157 iPKPc 58 09.50   0.7
CFA   146.23 158 iPKPc 58 10.00   1.1
RTLL  146.39 157 iPKPc 58 09.50   0.3
RTRS  147.01 155 e(PKP)58 12.00   1.9
RTPR  148.03 159 ePKP  58 14.00   2.3X
CYA   149.98 159 ePKPc 58 15.00   0.1
SLA   153.45 156 ePKP  58 21.90   1.7
                 i     58 29.20
NNA   154.68 118 ePKP  58 24.20   2.3X
      1.2s   117.19nm
MOCB  156.44 152 PKP   58 26.70   2.0X
ARE   156.60 134 ePKP  58 28.00   3.2X
PSO   156.73  86 ePKP  58 27.00   1.8
CNCB  158.74 141 iPKPc 58 29.70   2.0X
LPB   158.87 140 PKPc  58 33.60   6.0X
      1.0s   100.00nm
                 LR    56 32.00
LPAZ  159.03 139 iPKPd 58 29.90   1.8
                 LR    56 03.00
CCH   159.41 146 PKP   58 29.20   1.1
RIFB  159.43 198 (PKP) 58 29.90   2.2X
                 e     22 53.00
BMG   159.67  68 iPKPc 58 28.60   0.4
ANG   160.95  23 ePKP  58 31.00   1.8
SDV   161.12  60 ePKPd 58 30.00   0.2
TOV   161.38  57 ePKP  58 30.00   0.1
SIV   163.08 156 PKP   58 32.90   1.4
CAR   163.25  49 iPKPd 58 32.00   0.2
FDF   163.41  25 ePKP  58 33.00   1.2
BAO   163.72 201 ePKP  58 30.90  -1.3
                 i     59 26.90
                 i     03 12.20
                 e     03 34.80
BDFB  163.73 201 ePKPc 58 32.92   0.7
                 ePKPab59 27.94
SOB1  164.21 236 ePKP  58 34.40   1.7
                 e     59 28.10
TRN   166.82  33 ePKP  58 36.00   1.3
    S.D. = 1.2  on 362 of 459 obs.
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*  DEC  09, 1993  11h 44m 01.03± 0.60s
    0.130 N ±13.5km  125.638 E ±12.9km
   DEPTH =  33.0km  (normal)
   4.8mb (  1 obs.)
 NORTHERN MOLUCCA SEA              (266)
       Felt (III) at Manado, Indonesia.

MNI     1.53 329 ePd    44 27.00   0.7
                 eS     44 47.00
SWI     5.71 100 ePc    45 27.00   1.3
TLE     9.12 129 ePc    46 13.50   0.0
WB2    21.70 157 iPc    48 51.00  -0.3
       0.9s  242.70nm         5.6mb X
                 i      48 55.40
                 eS     52 51.10
PMG    23.43 114 eP     49 07.00  -1.3
QIS    24.69 147 iPc    49 21.30   0.8
ASPA   24.98 162 eP     49 25.80   2.5X
       1.1s  201.10nm         5.6mb X
CAN    41.46 151 iPc    51 47.70   1.2
DZM    45.47 122 iPd    52 19.20  -0.1
BKM    45.49 115 iPc    52 18.00  -1.4
HYB    49.40 293 eP     52 49.00  -1.1
       1.0s   60.00nm         5.6mb X
SNZO   60.52 139 e(P)   54 07.00  -3.4X
MAIO   70.85 309 eP     55 18.00   1.0
IMA    86.10  24 (P)    56 39.00  -0.8
       0.8s     5.00nm        4.8mb
    S.D. = 1.1  on  12 of  14 obs.
-------------------------------------
   DEC  09, 1993  11h 50m 54.64± 0.83s
    0.314 N ± 4.8km  125.821 E ± 6.3km
   DEPTH =  48.7 ±  8.8 km
   5.0mb ( 12 obs.)
 NORTHERN MOLUCCA SEA              (266)

MNI     1.49 319 ePd    51 19.50   0.1
TNE     1.59  72 eP     51 20.00  -0.8
SWI     5.56 102 ePc    52 18.00   1.0
BIP     7.87   3 ePd    52 50.50   1.2
CGP     8.16 352 iPd    52 53.00  -0.3
TLE     9.10 131 ePd    53 05.00  -1.3
MTN    14.10 158 eP     54 12.50  -0.9
CVP    17.72 347 eP     55 01.00   1.3
WWKK   18.22 103 eP     55 05.80   0.0
MDG    20.69 106 eP     55 33.00  -0.2
WB2    21.80 158 iPd    55 43.00  -1.5
       0.8s    79.80nm        5.2mb
                 ipP    55 46.50  13kmX
                 iS     59 43.10
MBL    22.13 195 eP     55 49.00   1.3
LAT    22.24 109 e(P)   55 42.00  -6.9X
PMG    23.34 115 ePd    56 00.00   0.4
QIS    24.74 148 eP     56 13.70   0.5
ASPA   25.10 162 iPd    56 17.20   0.7
       0.3s   100.00nm        5.8mb
                 i      56 38.60
IPM    25.13 280 ePc    56 16.50  -0.4
       0.8s    46.90nm        5.1mb
WARB   26.36 178 eP     56 30.00   1.8
MRWA   30.83 197 eP     57 07.00  -1.4
BAL    31.95 195 eP     57 17.50  -0.7
KLB    32.64 193 eP     57 24.00  -0.2
MUN    33.38 195 eP     57 30.20  -0.4
NWAO   34.04 193 eP     57 36.70   0.4
STK    35.33 156 iPc    57 47.20  -0.2
MAT    37.83  16 eP     58 06.00  -2.4
       0.8s     8.21nm        4.7mb
ARMA   39.20 143 iPd    58 20.30   0.2
       0.7s    10.00nm        4.7mb
BJI    40.50 349 eP     58 30.50   0.0
       0.8s     5.00nm        4.3mb
                 PcP    00 34.50
CAN    41.53 151 eP     58 40.20   1.1
                 e      00 24.70
CNB    41.70 151 eP     58 41.60   1.1
       0.8s    20.00nm        4.9mb
HYB    49.50 293 eP     59 41.80  -0.9
GBA    49.68 288 P      59 42.00  -2.1
POO    54.11 293 eP     00 08.50  -8.9X
NDI    54.30 306 eP     00 21.00   2.4
CSY    67.35 187 eP     01 36.70  -9.8X
       0.7s    12.00nm        5.0mb
MAIO   70.88 308 eP     02 09.00   0.0
SDN    80.50  34 eP     03 02.55  -0.4
       0.7s   109.01nm        5.9mb
TTA    84.34  27 eP     03 22.40  -0.3
       1.2s    16.43nm        5.0mb
IMA    85.85  24 eP     03 29.62  -0.7
       0.7s     4.28nm        4.8mb
SLKM   86.74  30 eP     03 34.90   0.3
DAG   100.51 352 iPdiff04 37.60   -0.1
       0.7s     5.48nm        5.2mb
MYNC  135.04  35 ePKP   10 11.73   0.9
    S.D. = 1.1  on  38 of  41 obs.
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   DEC  09, 1993  11h 59m 28.79± 1.25s
    0.344 N ± 8.3km  125.835 E ± 9.5km
   DEPTH =  42.1 ± 12.5 km
   4.9mb (  9 obs.)
 NORTHERN MOLUCCA SEA              (266)

MNI     1.48 318 ePd    59 53.00  -0.3
TNE     1.57  73 eP     59 54.00  -0.5
SWI     5.56 102 ePd    00 52.50   1.3
BIP     7.84   3 eP     01 23.00  -0.2
CGP     8.14 352 eP     01 31.00   3.7X
WB2    21.82 158 iPd    04 17.60  -1.8
       0.7s    42.40nm        5.0mb
                 i      04 20.00
                 eS     08 16.60
QIS    24.76 148 eP     04 48.10   0.0
ASPA   25.12 162 iPc    04 52.00   0.5
       0.4s    40.20nm        5.3mb
IPM    25.14 280 eP     04 51.60  -0.1
STK    35.35 156 iPc    06 21.70  -0.7
       0.9s    10.60nm        4.8mb
MAT    37.80  16 eP     06 41.00  -2.0
ARMA   39.22 144 iPd    06 54.80  -0.2
       0.6s     6.00nm        4.6mb
BJI    40.48 349 eP     07 07.00   1.9
       0.8s     4.00nm        4.2mb
LZH    41.01 332 eP     07 12.50   2.7
CAN    41.55 151 eP     07 14.60   0.6
CNB    41.72 151 iPc    07 17.00   1.5
       1.0s    20.00nm        4.8mb
HYB    49.50 293 eP     08 16.70  -0.9
GBA    49.69 288 P      08 19.00   0.0
POO    54.11 293 eP     08 40.50 -11.7X
YAK    61.59   2 eP     09 42.80  -1.2
       0.8s    57.00nm        5.8mb
SDN    80.47  34 eP     11 37.17  -0.5
       0.5s    17.83nm        5.3mb
IMA    85.82  24 (P)    12 05.28   0.2
       0.7s     1.25nm        4.2mb
```

PV10 116.65 46 ePKP 18 10.91 0.0
S.D. = 1.2 on 21 of 23 obs.

DEC 09, 1993 12h 05m 24.78± 0.27s
0.315 N ± 4.9km 125.739 E ± 5.8km
DEPTH = 33.0km (normal)
5.0mb (11 obs.)
NORTHERN MOLUCCA SEA (266)

SWI 5.64 102 ePd 06 50.00 1.4
eS 19 02.50
MTN 14.13 158 eP 08 44.00 -0.7
e 10 56.00
LEM 19.42 248 iPd 09 45.50 -6.1X
WB2 21.83 158 eP 10 15.00 -1.4
0.6s 64.70nm 5.2mb
MBL 22.11 195 eP 10 20.50 1.4
eS 12 31.50
LAT 22.32 108 eP 10 21.00 -0.2
GUA 23.09 55 eP 10 11.70 -17.1X
PMG 23.41 115 eP 10 32.00 0.1
QIS 24.79 148 eP 10 45.10 -0.1
IPM 25.05 280 ePc 10 48.40 0.6
0.6s 17.60nm 4.8mb
ASPA 25.12 162 iPd 10 48.70 0.3
0.8s 46.50nm 5.1mb
MRWA 30.81 197 eP 11 39.50 -0.4
BAL 31.93 195 eP 11 49.50 -0.2
KMI 33.20 320 Pc 12 01.50 0.3
1.4s 40.00nm 5.1mb
pP 12 07.50 21kmX
sP 12 10.50
MUN 33.36 195 eP 12 02.20 0.0
NWAO 34.02 193 eP 12 08.60 0.7
STK 35.36 156 iPc 12 19.20 -0.2
0.6s 17.00nm 5.2mb
ARMA 39.25 143 eP 12 51.50 -0.8
0.6s 8.00nm 4.7mb
BJI 40.49 349 eP 13 01.00 -1.1
0.8s 4.00nm 4.2mb
LZH 40.99 333 eP 13 07.50 0.9
1.0s 27.00nm 4.9mb
CAN 41.57 151 eP 13 11.40 0.2
GUN 47.01 309 P 13 55.20 -0.3
0.4s 16.00nm 5.4mb
PKI 47.22 308 P 13 56.00 -1.1
KKN 47.42 309 P 13 58.50 -0.1
GKN 48.02 309 P 14 03.50 0.3
HYB 49.42 293 eP 14 14.10 0.1
GBA 49.61 288 P 14 19.00 3.6X
YAK 61.62 2 eP 15 40.50 -0.7
0.9s 59.00nm 5.7mb
IMA 85.89 24 eP 18 02.77 0.3
0.7s 2.09nm 4.5mb
SLKM 86.78 30 (P) 18 07.08 0.2
LKO 130.57 283 PKP 24 35.71 0.7
0.8s 4.00nm
CNCB 158.75 141 PKP 25 12.10 -9.8X
LPAZ 159.05 140 PKP 25 19.30 -3.0X
S.D. = 0.7 on 28 of 33 obs.

DEC 09, 1993 12h 07m 36.62± 1.53s
0.380 N ± 7.3km 125.896 E ± 8.7km
DEPTH = 33.7 ± 15.4 km
5.2mb (9 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.50 74 eP 08 01.50 0.0
TSM 8.91 296 eP 09 47.00 0.9
WB2 21.83 158 iPc 12 26.50 -1.6
0.4s 82.20nm 5.5mb
eS 16 26.80
GUMO 22.92 54 eP 12 34.10 -4.8X
e 12 39.30
QIS 24.76 148 eP 12 56.30 -0.4
ASPA 25.14 163 iPc 13 01.00 0.7
0.4s 74.10nm 5.6mb X
eS 17 22.90
IPM 25.19 280 eP 13 00.00 -0.9
0.7s 34.50nm 5.1mb
WARB 26.42 178 eP 13 13.50 1.3
LOE 29.19 307 eP 13 37.00 -0.4
MRWA 30.92 197 eP 13 52.00 -0.6
BAL 32.03 195 eP 14 02.00 -0.4
KMI 33.26 319 Pc 14 15.00 1.6
1.8s 80.00nm 5.3mb
sP 14 24.00
MUN 33.46 195 eP 14 13.50 -1.3
NWAO 34.12 193 eP 14 20.50 0.0
STK 35.36 157 iPc 14 30.30 -0.8
0.6s 27.20nm 5.4mb
eS 20 03.20
ADE 37.15 162 e(P) 14 47.00 0.8
MAT 37.75 16 eP 14 51.00 -0.2
ARMA 39.21 144 eP 15 03.20 -0.5
0.6s 14.00nm 4.9mb
LZH 41.01 332 eP 15 06.50 -12.0X
CAN 41.55 151 eP 15 23.40 0.6
CNB 41.72 151 eP 15 25.00 0.8
0.7s 13.00nm 4.8mb
HYB 49.54 293 eP 16 25.20 -1.5
1.0s 30.00nm 5.3mb
POO 54.15 293 eP 16 52.00 -9.3X
YAK 61.55 2 eP 17 51.90 -0.6
1.0s 55.00nm 5.6mb
i 18 09.00
QUE 63.26 304 eP 17 53.20 -11.6X
IMA 85.76 24 eP 20 13.98 0.3
0.7s 3.24nm 4.7mb
SYO 89.05 201 ePd 20 32.10 2.8
OBN 89.29 325 eP 20 29.00 -1.6
YKA 102.87 24 Pdiff 21 47.50 15.2X
0.9s 0.50nm
LKO 130.71 283 PKP 26 48.39 1.3
0.6s 2.50nm
S.D. = 1.2 on 25 of 30 obs.

DEC 09, 1993 12h 40m 30.33± 0.25s
0.354 N ± 4.9km 125.764 E ± 5.2km
DEPTH = 33.0km (normal)
5.0mb (17 obs.)
NORTHERN MOLUCCA SEA (266)

SWI 5.63 102 eP 41 55.00 1.1
TSM 8.80 297 eP 42 39.00 0.7
SLKI 9.95 146 ePc 42 52.50 -1.7
MTN 14.15 158 eP 43 50.40 -0.3
WWKK 18.28 103 eP 44 43.50 0.2
LEM 19.46 248 ePc 44 58.00 0.4
MDG 20.75 106 eP 45 10.00 -1.0
WB2 21.86 158 iPd 45 20.90 -1.3
0.5s 56.10nm 5.2mb
i 45 26.70
eS 49 19.70
LAT 22.31 109 eP 45 26.00 -0.7
PMG 23.41 115 eP 45 36.00 -1.4
QIS 24.81 148 iPc 45 51.30 0.3
IPM 25.06 280 ePd 45 52.90 -0.6
0.9s 30.40nm 4.9mb
ASPA 25.15 162 iPd 45 54.90 0.6
0.4s 55.50nm 5.5mb
eS 50 18.00
KHT 30.45 299 eP 46 41.00 -1.4
MRWA 30.85 197 eP 46 46.00 0.2
BAL 31.97 195 eP 46 55.50 -0.2
CHTO 32.08 306 eP 46 55.10 -1.7
KMI 33.19 320 Pd 47 08.00 1.4
2.0s 80.00nm 5.3mb
pP 47 15.00 24kmX
MUN 33.40 195 eP 47 08.00 -0.1
STK 35.39 156 iPc 47 24.70 -0.5
0.7s 15.60nm 5.0mb
eS 52 56.30
IIDJ 36.73 17 eP 47 37.60 1.1
ADE 37.16 162 eP 47 41.20 1.0
CHJJ 37.58 18 eP 47 41.40 -2.2
MTMJ 37.74 16 eP 47 44.30 -0.7
MAT 37.81 16 (P) 47 40.00 -5.5X
NIIJ 38.69 17 eP 47 54.30 1.4
ARMA 39.27 143 eP 47 58.30 0.3
0.5s 6.00nm 4.6mb
BJI 40.45 349 eP 48 07.00 -0.4
0.8s 4.00nm 4.2mb
LZH 40.97 333 eP 48 13.00 1.0
1.4s 39.00nm 4.9mb
CAN 41.59 151 eP 48 17.60 0.7
CNB 41.77 151 eP 48 19.90 1.5
0.7s 12.00nm 4.7mb
GUN 47.01 309 P 49 01.00 0.0
PKI 47.21 308 P 49 02.20 -0.4
KKN 47.41 309 P 49 03.60 -0.5
GKN 48.02 309 P 49 08.40 -0.3
HYB 49.43 293 eP 49 18.50 -1.1
1.0s 50.00nm 5.5mb
GBA 49.62 288 P 49 22.00 1.0
POO 54.04 293 eP 49 46.00 -8.3X
NDI 54.23 306 eP 49 54.00 -1.4
YAK 61.58 2 iPd 50 44.60 -1.9
1.2s 75.00nm 5.7mb
QUE 63.17 304 ePd 50 59.50 1.6
MAIO 70.81 308 eP 51 46.00 -0.1
SDN 80.50 34 eP 52 41.52 1.1
0.4s 57.19nm 5.9mb
TTA 84.33 27 eP 53 01.07 0.8
0.5s 3.36nm 4.8mb
IMA 85.84 24 eP 53 07.62 -0.2
0.6s 2.74nm 4.7mb
FBA 88.17 25 eP 53 19.96 1.0
0.8s 2.14nm 4.5mb
OBN 89.23 325 eP 53 25.00 0.8
1.0s 17.00nm 5.3mb
i 53 51.00
YKA 102.95 24 Pdiff 54 26.10 -0.3
0.8s 0.50nm 4.3mb
LKO 130.59 283 PKP 59 41.74 1.1
0.6s 4.00nm
MOCB 156.44 153 PKP 00 27.50 3.1X
CNCB 158.77 141 PKP 00 31.00 3.6X
LPB 158.90 140 ePKP 00 28.00 0.6
LPAZ 159.06 140 PKP 00 30.00 2.2X
S.D. = 1.0 on 48 of 53 obs.

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* DEC 09, 1993 12h 52m 24.19± 0.81s
45.515 N ±10.1km 14.430 E ± 8.6km
DEPTH = 32.8 ± 7.9 km
NORTHWESTERN BALKAN REGION (383)
MD 2.4 (LJU), 2.0 (TRI).

RIY 0.17 190 iPgd 52 30.50 0.0
iSg 52 34.40
CEY 0.22 359 ePgd 52 31.10 0.0
eSg 52 34.20
TRI 0.51 293 e(Pg) 52 34.70 -0.2
e(Sg) 52 41.90
LJU 0.53 8 e(Pg) 52 35.10 -0.2
eSg 52 43.30
VBY 0.58 91 ePg 52 36.00 0.0
eSg 52 44.00
VOY 0.64 324 iPgd 52 37.20 0.3
eSg 52 46.30
S.D. = 0.3 on 6 of 6 obs.

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* DEC 09, 1993 13h 31m 08.76± 1.46s
0.423 N ± 8.8km 126.128 E ±10.3km
DEPTH = 84.8 ± 15.9 km
5.0mb (5 obs.)
NORTHERN MOLUCCA SEA (266)

SWI 5.29 104 ePc 32 27.50 0.6
CTB 7.00 344 eP 32 50.00 -0.6
CGP 8.11 350 eP 33 06.00 0.2
LEM 19.82 248 ePd 35 37.50 2.0
WB2 21.78 159 iPc 35 53.60 -1.6
0.7s 65.30nm 5.1mb
i 35 58.50
iS 39 50.20
LAT 21.99 109 eP 35 57.00 -0.2
QIS 24.67 148 eP 36 24.00 0.8
ASPA 25.11 163 iPc 36 27.10 -0.2
0.3s 19.50nm 5.0mb
iS 40 58.90
STK 35.31 157 eP 37 57.10 -0.5
0.7s 7.20nm 4.7mb
MAT 37.64 16 eP 38 16.00 -1.2
BJI 40.46 348 eP 38 36.50 -4.0X
GUN 47.25 309 P 39 34.80 -1.1
PKI 47.45 308 P 39 37.20 -0.3
GKN 48.26 308 P 39 43.90 0.4
HYB 49.74 293 eP 39 55.00 0.1
GBA 49.94 287 P 39 55.00 -1.4
YAK 61.50 2 eP 41 19.80 1.2
0.8s 26.00nm 5.4mb
IMA 85.63 24 (P) 43 40.90 1.9
0.6s 0.99nm 4.0mb
YKA 102.74 25 Pdiff 45 09.80 12.2X
0.8s 0.40nm
CNCB 158.59 140 ePKP 51 18.00 18.9X
LPAZ 158.88 139 PKP 51 20.30 20.8X
S.D. = 1.2 on 17 of 21 obs.

& DEC 09, 1993 13h 59m 24.60s

36.234 N 120.426 W
DEPTH = 10.1km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.3 (GM). ML 2.5
(PAS).

PKEM 0.31 124 eP 59 31.19 0.2
PHAM 0.40 177 eP 59 33.59 0.8
BCH 1.08 165 eP 59 44.55 -0.5
ISA 1.68 109 eP 59 53.50 -0.8
eS 00 14.69
ABL 1.69 144 eP 59 53.18 -1.4
MMPM 1.77 39 eP 59 55.95 0.1
CMB 1.80 1 eP 59 56.00 0.1
eS 00 19.02
MEMM 1.86 39 eP 59 57.46 0.7
MTUM 1.87 53 eP 59 57.44 0.4
BONR 2.42 44 eP 00 06.24 1.2
10 obs. associated

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* DEC 09, 1993 14h 06m 58.44± 1.83s
0.260 N ±11.0km 125.776 E ±15.0km
DEPTH = 53.9 ± 20.0 km
4.7mb (5 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.65 71 eP 07 24.50 -0.9
SWI 5.60 102 ePc 08 21.00 -0.2
CTB 7.07 347 eP 08 44.00 2.2
MTN 14.06 158 eP 10 15.50 -1.0
LEM 19.44 248 iPc 11 27.00 3.3X
WB2 21.76 158 iPc 11 46.40 -1.0
0.5s 26.90nm 4.9mb
QIS 24.72 148 eP 12 17.00 0.7
ASPA 25.06 162 iPc 12 20.10 0.6
0.5s 16.00nm 4.8mb
IPM 25.09 280 ePd 12 20.10 0.3
STK 35.30 156 eP 13 50.20 -0.1
0.6s 6.10nm 4.7mb
ADE 37.07 162 e(P) 14 06.80 1.5
ARMA 39.19 143 eP 14 23.80 0.6
0.6s 7.00nm 4.7mb
CAN 41.50 151 eP 14 43.00 0.9
HYB 49.48 293 eP 15 43.50 -2.3
YAK 61.67 2 iPc 17 10.90 -2.0
YKA 103.03 24 Pdiff 20 53.30 1.0
1.0s 0.40nm 4.1mb
S.D. = 1.4 on 15 of 16 obs.

? DEC 09, 1993 14h 08m 17.89± 2.78s
41.909 N ±26.6km 24.734 E ±10.4km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

SRS 1.17 228 iPb 08 39.21 -0.5
eSb 08 59.30
ALN 1.41 135 ePb 08 43.42 -0.2
iSb 09 06.05
SOH 1.50 224 iPb 08 45.17 0.2
iSb 09 06.86
KNT 1.57 242 ePb 08 45.17 -0.7
eSb 09 09.42
OUR 1.67 200 ePb 08 48.70 1.4
iSb 09 13.62
VAY 1.73 251 ePn 08 48.70 0.6
PAIG 2.14 202 iPn 08 53.10 -0.9
S.D. = 1.0 on 7 of 7 obs.

DEC 09, 1993 14h 11m 53.16± 0.33s
0.273 N ± 6.3km 125.718 E ± 6.6km
DEPTH = 34.7km (2 depth phases)
5.1mb (12 obs.)
NORTHERN MOLUCCA SEA (266)

TNE 1.70 72 eP 12 19.50 -1.4
SWI 5.66 102 ePd 13 19.00 1.9
TSM 8.80 297 eP 14 03.00 2.0
MTN 14.10 158 eP 15 11.50 -1.1
WWKK 18.31 102 eP 16 12.00 5.6X
WB2 21.80 158 iPc 16 42.80 -1.5
0.6s 20.10nm 4.7mb
QIS 24.76 148 iPd 17 13.40 0.2
IPM 25.03 280 ePc 17 15.10 -0.8
0.6s 17.90nm 4.8mb
ASPA 25.09 162 eP 17 16.70 0.4
0.4s 37.50nm 5.3mb
iS 21 40.70

MRWA 30.76 197 eP 18 07.80 0.1
BAL 31.88 195 eP 18 18.00 0.5
CHTO 32.09 307 eP 18 19.00 -0.5
KMI 33.22 320 Pc 18 29.50 0.0
2.0s 60.00nm 5.1mb
pP 18 37.00 26km
sP 18 42.00
MUN 33.32 195 eP 18 30.50 0.5
STK 35.33 156 eP 18 46.50 -0.9
0.5s 9.00nm 5.0mb
eS 24 17.10
ADE 37.10 162 e(P) 19 03.90 1.6
MAT 37.90 16 eP 19 14.00 5.1X
ARMA 39.23 143 eP 19 20.00 -0.3
BJI 40.52 349 eP 19 19.00 -11.6X
LZH 41.02 333 eP 19 36.00 1.0
1.0s 24.00nm 4.9mb
pP 19 48.00 44km
CAN 41.54 151 eP 19 39.50 0.3
GUN 47.02 309 P 20 22.70 -1.1
0.5s 21.00nm 5.4mb
PKI 47.23 309 P 20 24.70 -0.7
KKN 47.43 309 P 20 26.50 -0.4
GKN 48.03 309 P 20 31.10 -0.4
HYB 49.42 293 eP 20 41.50 -0.7
1.0s 25.00nm 5.2mb
YAK 61.66 2 iPc 22 08.40 -1.3
1.4s 84.00nm 5.7mb
MAIO 70.82 308 eP 23 09.00 0.2
IMA 85.93 24 eP 24 32.50 1.6
0.8s 2.76nm 4.5mb
OBN 89.27 325 ePc 24 48.00 1.0
1.2s 22.00nm 5.3mb
e 25 08.00 72kmX
e 25 44.00
YKA 103.04 24 Pdiff 25 49.60 0.1
0.9s 0.40nm 4.2mb
LKO 130.56 283 PKP 31 02.78 -0.4
0.5s 1.50nm
CNCB 158.73 141 PKP 31 54.00 4.0X
LPAZ 159.03 140 PKP 31 53.20 2.8X
S.D. = 1.0 on 29 of 34 obs.

DEC 09, 1993 14h 46m 59.74± 0.23s
28.128 S ± 3.7km 71.066 W ± 5.4km
DEPTH = 60.2km (8 depth phases)
5.0mb (21 obs.)
NEAR COAST OF CENTRAL CHILE (135)
Felt (IV) at Copiapo; (III) at
Tierra Amarilla and Vallenar.

RTCB 3.88 150 eP 48 00.50 2.1
RTLL 3.91 145 eP 48 01.00 2.3
ZON 3.99 149 eP 48 00.60 0.8
CFA 4.25 145 eP 48 05.00 1.5
S 48 57.50
RTPR 4.53 120 iPc 48 07.50 0.2
JACH 4.56 175 eP 48 07.43 -0.4
CYA 4.66 95 iPd 48 09.00 -0.2
S 49 03.00
ROCH 4.83 179 iPd 48 10.32 -1.5
eS 49 17.27
IHA 4.91 186 e(P) 48 10.00 -2.7X
e(S) 49 15.50
FSA 4.94 67 e(P)c 48 14.90 1.7
PEL 5.01 176 iPd 48 13.20 -1.0
iS 49 19.40
MDZ 5.11 159 eP 47 50.00 -25.6X
e 48 45.00
e 48 52.90
iS 49 34.20
FCH 5.23 173 eP 48 17.54 0.0
eS 49 23.99
LCCH 5.35 185 iPd 48 16.11 -2.8X
(S) 49 29.92
PCH 5.50 175 iP 48 19.65 -1.4
TACH 5.51 179 iP+ 48 19.34 -1.8
LNV 5.82 183 iPd 48 21.97 -3.4X
CACH 5.98 176 eP 48 26.48 -1.4
SLA 6.03 57 iPc 48 28.00 -0.6
HJA 7.07 47 ePc 48 41.70 -1.2
YJA 7.78 42 eP 48 49.40 -3.8X
CNCB 11.62 15 P 49 41.00 -4.6X
ARE 11.62 358 eP 49 50.00 4.6X
CCH 11.62 24 eP 49 48.00 2.5
LPB 11.86 14 eP 49 41.00 -7.8X
LPAZ 12.09 14 eP 49 45.64 -6.4X

SIV 15.21 40 P 50 23.10 -9.3X
RIFB 22.93 75 iPd 51 58.00 -1.5
i 52 17.90 91kmX
BAO 24.71 65 eP 52 13.30 -3.5X
i 52 31.80 83kmX
i 52 38.80
SOB1 34.06 62 eP 53 39.00 -1.5
SPA 62.04 180 iPc 57 16.00 -0.1
0.9s 31.82nm 5.4mb
JSC 62.81 351 eP 57 19.09 -2.1
MYNC 64.06 348 ePc 57 27.66 -1.8
0.7s 15.54nm 5.1mb
CEH 64.12 353 eP 57 28.29 -1.5
0.8s 13.23nm 5.0mb
UYO 65.80 339 iPc 57 39.60 -1.0
MIAR 65.87 340 ePc 57 39.89 -1.2
0.9s 15.26nm 5.0mb
epP 57 56.69 62km
CVL 66.13 354 ePd 57 41.97 -0.6
ELC 67.26 344 ePd 57 48.17 -1.7
epP 58 04.42 59km
MEO 67.76 336 iPd 57 51.80 -1.4
TUL 67.83 338 iPc 57 52.80 -0.7
FVM 68.22 344 eP 57 54.44 -1.5
0.8s 19.62nm 5.1mb
LSCT 69.48 358 ePc 58 03.11 -0.4
0.6s 19.45nm 5.2mb
TUC 70.98 325 ePc 58 14.19 1.2
0.9s 8.07nm 4.7mb
SYO 71.00 159 ePc 58 14.50 2.0
LIC 72.18 73 P 58 19.39 -1.0
0.7s 4.50nm 4.5mb
RSNY 72.39 357 eP 58 20.42 -0.6
0.8s 21.51nm 5.1mb
TIC 72.40 72 P 58 20.85 -0.9
0.8s 6.50nm 4.6mb
KIC 72.49 73 P 58 21.51 -0.8
0.7s 13.50nm 5.0mb
LKO 73.48 69 P 58 27.61 -0.5
0.8s 13.00nm 4.9mb
GLA 73.67 323 ePc 58 29.29 0.5
PV08 75.08 330 ePc 58 37.67 0.4
PV10 75.09 330 ePc 58 36.96 -0.2
ePcP 58 53.67
PV09 75.23 330 eP 58 38.52 0.4
CER 75.40 120 eP 58 45.50 6.5X
0.6s 14.29nm 5.1mb
PEC 75.57 322 ePc 58 40.02 0.3
0.8s 20.91nm 5.1mb
SRU 76.35 329 ePc 58 44.56 0.3
GSC 76.44 323 ePc 58 45.29 0.6
MSU 76.63 328 ePc 58 46.60 0.7
epP 59 03.75 62km
ARUT 76.66 327 ePc 58 46.99 1.0
e 58 52.01 16kmX
e 59 03.50
EMUT 77.06 330 ePc 58 48.68 0.5
epP 59 03.37 52km
TPNV 77.41 324 eP 58 51.19 1.1
0.7s 8.27nm 4.8mb
ePcP 59 00.09
ABL 77.42 321 ePc 58 51.05 0.8
ISA 77.61 322 ePc 58 52.11 1.0
0.7s 11.65nm 5.0mb
DAU 77.74 330 ePc 58 52.72 0.7
epP 59 10.04 63km
RSSD 77.98 336 ePc 58 53.23 0.1
0.9s 19.60nm 5.1mb
epP 59 10.26 62km
DUG 78.27 329 iPc 58 55.44 0.7
0.8s 16.45nm 5.1mb
TNP 78.77 325 eP 58 58.53 0.9
0.7s 7.18nm 4.7mb
BONR 79.23 324 ePd 59 01.53 1.3
HVU 79.52 330 ePc 59 01.65 0.1
epP 59 18.50 61km
KVN 79.95 325 eP 59 04.64 0.7
ORV 82.10 323 ePc 59 15.89 0.9
epP 59 33.07 62km
BOSA 82.20 118 eP 59 28.28 12.5X
0.7s 16.04nm
BLF 82.57 119 eP 59 12.50 -5.5X
LBFM 83.60 324 ePc 59 23.47 0.5
LGPM 83.78 323 iPd 59 24.80 1.1
SLR 85.81 117 e(P) 59 34.50 0.1
CSY 85.88 181 eP 59 24.20 -9.5X
0.7s 22.90nm 5.4mb

09d 14h

VGB 86.10 327 ePc 59 35.71 0.6
DPW 86.69 330 (P) 59 38.23 0.3
YKA 96.78 341 P 00 23.00 -1.4
0.7s 1.90nm 4.7mb
ASPA 123.16 208 iPKPc 05 51.40 -0.2
0.8s 4.80nm
WB2 126.26 210 iPKPd 05 57.30 -0.4
0.7s 7.80nm
WRA 126.27 210 PKP 05 57.80 0.0
0.7s 7.60nm
YAK 143.42 344 ePKP 06 24.10 -4.2X
LEM 145.23 178 iPKPd 06 35.00 1.9X
KOD 145.52 115 ePKP 06 34.80 1.1
GBA 147.33 110 PKP 06 37.00 0.8
HYB 150.11 104 ePKPc 06 46.00 5.4X
i 06 59.70
MAT 153.96 296 (PKP) 06 43.00 -2.6X
LSA 164.35 80 ePKP 07 01.00 2.8X
GTA 166.44 32 ePKP 07 00.00 0.8
CD2 174.71 57 ePKP 07 05.60 2.0X
S.D. = 1.1 on 71 of 92 obs.

DEC 09, 1993 16h 41m 08.64± 0.82s
44.442 N ± 6.0km 10.000 E ± 7.1km
DEPTH = 30.8 ± 3.9 km
NORTHERN ITALY (545)
ML 2.8 (LDG), 2.6 (GEN), 2.6 (STR).

BORS 0.23 212 P 41 14.09 -1.3
S 41 19.25
SARO 0.39 132 P 41 18.69 1.2
S 41 20.93
PCP 1.05 276 P 41 27.65 0.4
S 41 43.54
FIN 1.31 260 P 41 31.27 0.3
S 41 48.34
ROB 1.53 265 P 41 34.11 -0.1
S 41 54.61
IMI 1.61 251 P 41 35.30 0.0
S 41 55.00
SAOF 1.82 256 Pn 41 37.83 -0.5
ORX 1.86 310 P 41 40.26 1.2
ENR 1.86 264 P 41 39.36 0.3
S 42 02.28
AUTN 1.90 257 Pn 41 39.24 -0.5
STV 1.93 265 P 41 40.46 0.4
SBF 1.94 253 Pn 41 40.60 0.5
Sn 42 04.80
BHB 1.99 283 P 41 42.12 1.2
AURF 2.00 255 Pn 41 40.68 -0.4
TOUF 2.02 259 Pn 41 40.83 -0.7
PGF 2.03 201 Pn 41 41.50 0.0
Sn 42 05.50
PZZ 2.08 273 P 41 42.21 0.0
RSP 2.08 291 P 41 43.60 1.4
MVIF 2.12 256 Pn 41 42.22 -0.6
LSD 2.26 298 P 41 46.99 2.1
RRL 2.34 283 P 41 49.89 3.9X
CALN 2.35 254 Pn 41 45.44 -0.5
LPG 2.54 296 Pn 41 48.30 -0.6
LPL 2.56 296 Pn 41 49.30 0.2
FRF 2.58 251 Pn 41 49.20 0.1
Sn 42 19.90
LMR 2.76 248 Pn 41 51.50 -0.1
Sn 42 23.50
LRG 2.81 251 Pn 41 51.60 -0.7
HAU 4.37 326 Pn 42 13.60 -1.0
Sn 43 02.20
CDF 4.39 336 Pn 42 12.50 -2.5
S.D. = 1.0 on 28 of 29 obs.

DEC 09, 1993 18h 16m 52.23± 0.20s
45.746 N ± 2.2km 10.142 E ± 2.0km
DEPTH = 19.4 ± 2.3 km
3.7mb (1 obs.)
NORTHERN ITALY (545)
ML 4.3 (GRF), 4.0 (FUR), 4.0 (LDG), 3.8 (VIE). MD 3.9 (FIR), 3.7 (ROM), 3.7 (TRI).

MDI 0.30 276 P 16 58.75 -0.2
SAL 0.30 117 P 16 56.88 -2.0
VAI 0.97 278 P 17 11.31 1.2
BOB 1.09 207 P 17 14.61 2.2
CTI 1.10 73 P 17 10.06 -2.4
OGA 1.28 28 iPgd 17 14.40 -0.9
BORS 1.52 189 P 17 20.24 1.8
S 17 41.12
ORX 1.52 266 P 17 18.45 -0.1
S 17 38.07
ORO 1.52 266 P 17 18.65 0.1
SARO 1.57 173 P 17 20.50 1.2
S 17 42.88
MME 1.60 165 P 17 21.57 1.7
VVI 1.61 81 P 17 20.62 0.8
SQTA 1.65 26 iPgd 17 20.80 0.3
iSg 17 42.30
PCP 1.65 224 P 17 22.54 2.1
S 17 44.77
SCE 1.69 39 iPd 17 21.20 0.1
BDI 1.71 169 P 17 22.70 1.3
MOTA 1.73 22 iPgd 17 22.40 0.7
i 17 27.20
iSg 17 46.30
WTTA 1.84 34 iPgc 17 24.20 1.0
iSg 17 49.80
CKI 1.87 226 P 17 25.47 1.9
WATA 1.87 31 iPgc 17 25.00 1.2
i 17 52.20
PII 2.04 172 P 17 26.95 0.9
FIN 2.06 222 P 17 27.43 1.1
S 17 52.80
LSD 2.12 263 P 17 26.41 -1.0
RSP 2.12 255 P 17 25.50 -1.8
FIR 2.12 158 ePn 17 33.50 6.3X
iSn 18 02.00
ROB 2.17 229 P 17 29.16 1.2
SFI 2.19 146 P 17 28.76 0.6
BHB 2.22 247 P 17 27.70 -1.0
S 17 55.77
LPG 2.39 265 Pn 17 31.90 0.6
Sn 18 02.30
LPL 2.40 266 Pn 17 32.80 1.4
Sn 18 01.60
IMI 2.44 222 P 17 31.45 -0.3
RSM 2.45 137 P 17 33.15 1.3
ENR 2.46 233 P 17 32.23 0.2
CRE 2.48 148 P 17 32.77 0.4
PZZ 2.48 241 P 17 31.31 -1.2
BBS 2.50 314 P 17 33.66 1.0
STV 2.50 234 P 17 32.46 -0.2
RRL 2.51 252 P 17 32.38 -0.6
TRI 2.54 90 ePn 17 32.00 -1.1
ePg 17 35.70
ePgPg 17 41.50
e 18 01.40
iSg 18 07.30
BNI 2.54 255 P 17 33.31 0.0
FUR 2.54 17 ePn 17 34.30 1.1
SAOF 2.55 227 P 17 34.70 1.4
FEL 2.58 326 eP 17 34.70 0.8
KBA 2.59 58 iPgd 17 36.00 2.0
iSg 18 09.30
AUTN 2.61 229 P 17 35.57 1.2
VOY 2.64 82 ePn 17 33.70 -0.9
e 17 36.90
eSn 18 11.50
TOUF 2.69 231 P 17 36.00 0.5
SBF 2.69 227 Pn 17 36.30 0.9
Sn 18 09.60
BHG 2.73 43 ePn 17 37.50 1.6
AURF 2.73 228 P 17 37.48 1.5
S 18 20.14
CHAF 2.73 320 P 17 36.66 0.8
LOMF 2.79 306 P 17 38.09 1.2
S 18 23.92
REVF 2.82 226 P 17 38.95 1.8
MVIF 2.82 230 P 17 38.34 1.1
MOF 2.95 317 P 17 40.09 1.0
LIBD 2.97 325 P 17 39.93 0.8
S 18 29.63
CEY 3.00 89 ePn 17 40.10 0.4
e 17 51.50
eSn 18 23.60
ARV 3.01 137 P 17 39.25 -0.5
RIY 3.01 96 ePn 17 38.70 -1.0
CALN 3.06 230 P 17 42.09 1.5
LJU 3.08 83 e(Pn) 17 45.50 4.7X
i 17 48.90
eSn 18 25.00
BSF 3.11 313 Pn 17 42.30 1.0
Pg 17 51.20
Sn 18 16.60
Sg 18 30.80
ASS 3.23 145 P 17 41.93 -1.1
WLS 3.28 325 P 17 44.43 0.7
PGF 3.30 195 Pn 17 43.80 -0.3
Sn 18 22.70
CDF 3.31 325 Pn 17 44.60 0.4
Sn 18 21.60
Sg 18 37.30
FRF 3.32 230 Pn 17 44.80 0.6
Sn 18 22.90
HAU 3.45 312 Pn 17 46.70 0.7
Sn 18 25.10
Sg 18 41.60
HOFF 3.52 336 P 17 47.71 0.6
LRG 3.54 231 Pn 17 47.80 0.4
LMR 3.54 228 Pn 17 47.60 0.2
VBY 3.60 92 iPn 17 47.50 -0.7
ipPn 17 50.40
i(sPn)17 52.80
VBY 3.60 92 iPb 17 56.20 8.0X
i 18 44.20
LANF 3.61 335 P 17 49.03 0.7
VITF 3.77 312 P 17 51.14 0.5
MNS 3.83 151 P 17 50.09 -1.3
SSB 3.96 265 P 17 53.38 0.0
S 18 39.43
GRF 4.02 10 ePn 17 53.40 -0.7
ePg 18 07.60
e(Sn) 18 42.70
eSg 18 54.60
PTJ 4.07 86 iPn 17 57.60 2.7
i(Sn) 18 45.10
ZAG 4.09 87 eP 18 05.20 10.1X
KHC 4.11 33 ePn 17 56.70 1.2
ePg 18 13.50
eSn 18 49.50
eSg 18 58.50
e 19 08.40
LBF 4.44 288 Pn 18 00.40 0.2
Sn 18 49.50
Sg 19 14.20
SMF 4.47 284 Pn 18 00.80 0.3
Sn 18 50.70
ABH 4.49 338 eP 18 01.10 0.2
PLDF 4.56 275 P 18 01.94 0.0
S 18 54.34
LOR 4.60 292 Pn 18 02.60 0.2
Sn 18 53.30
TNS 4.62 346 ePgd 18 22.80 20.0X
WLF 4.76 327 iP 18 07.00 2.4
SSF 4.78 288 Pn 18 04.90 0.0
Sn 18 57.80
AVF 4.82 285 Pn 18 05.50 0.0
LBL 4.88 266 P 18 05.94 -0.4
AGO 4.90 276 P 18 06.47 -0.2
VKA 4.92 57 e(Pn) 18 17.00 10.1X
0.9s 137.00nm
i 19 09.10
i 19 20.10
i 19 27.40
PYM 4.99 273 P 18 07.51 -0.5
S 19 03.60
MOX 5.00 11 ePn 18 09.00 0.9
iPg 18 26.20
iSn 19 02.90
iSg 19 38.40
BGF 5.13 282 Pn 18 09.40 -0.6
Sn 19 07.60
PRU 5.17 33 ePn 18 10.80 0.3
0.8s 48.40nm 5.1mb X
ePg 18 27.50
e 19 02.50
Sg 19 35.90
HVAR 5.19 117 e(Pn) 18 09.20 -1.5
MAF 5.30 278 Pn 18 12.10 -0.3
Sn 19 10.80
HYF 5.40 289 Pn 18 13.90 0.2
Sn 19 13.10
TCF 5.55 278 Pn 18 15.50 -0.4
Sn 19 15.80
BNS 5.58 340 iPnc 18 16.80 0.5
0.9s 86.00nm 5.4mb X
Pg 18 47.80
Sn 19 19.50
Sg 19 51.80
BRG 5.72 25 e(P) 18 18.00 -0.3
e 18 39.00

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DOU      5.73 321 P       18 26.80   8.5X
CAF      5.75 265 Pn      18 18.90   0.2
                  Sn      19 22.30
ENN      5.76 332 ePn     18 20.00   1.3
    0.7s    10.50nm            4.6mb X
                  e       18 29.50
                  eSn     19 25.00
CLL      5.88  18 ePg     18 45.00  24.5X
                  eSg     20 02.00
                  e(Sg)   37 09.00
LSF      6.02 278 Pn      18 21.90  -0.6
                  Sn      19 27.90
RJF      6.08 269 Pn      18 23.40   0.2
                  Sn      19 28.90
SNF      6.17 323 P       18 36.30  11.8X
LPO      6.42 264 Pn      18 28.30   0.3
KSP      6.54  37 eP      18 28.10  -1.7
                  eS      19 52.30
LFF      6.68 266 Pn      18 31.40  -0.3
MFF      7.20 281 Pn      18 37.30  -1.7
                  Sn      19 57.10
EPF      7.53 252 Pn      18 43.20  -0.5
LDF      7.55 296 Pn      18 43.10  -0.9
                  Sn      20 03.50
                  Sg      20 51.70
FLN      7.83 296 Pn      18 46.00  -1.9
                  Sn      20 11.50
                  Sg      20 59.50
GRR      7.96 293 Pn      18 47.70  -2.0
                  Sn      20 14.90
LPF      8.00 291 Pn      18 48.00  -2.1
                  Sn      20 15.50
YKA     63.45 335 P       27 20.40  -2.1
    0.9s     0.50nm            3.7mb
   S.D. = 1.1  on 111 of 120 obs.
-----------------------------------------
  DEC 09, 1993  18h 26m 18.21± 0.34s
  25.955 N ± 5.7km   96.504 E ± 4.7km
  DEPTH =  33.0km  (normal)
  4.7mb ( 35 obs.)
 MYANMAR                          (296)

KMI      5.69  97 ePn     27 45.00   2.1
                  Pg      28 03.50
                  Sg      29 14.50
LSA      6.03 309 Pn      27 49.00   1.1
    0.6s   140.00nm            5.8mb X
                  Sn      29 00.00
CHTO     7.46 162 iPnc    28 06.00  -1.5
                  eSg     30 14.00
CD2      8.07  51 eP      28 15.80  -0.3
    0.8s    34.00nm            5.5mb
  Z  12s     2.77um            3.7Msz
  E  13s     3.77um
                  eS      29 51.50
BDT      8.97 165 eP      28 27.20  -1.3
    1.2s    48.00nm            5.5mb
GYA      9.14  85 P       28 31.00   0.1
    0.8s   100.00nm            6.0mb X
                  PP      28 39.00
GUN      9.68 284 P       28 36.60  -2.0
LOE      9.79 149 eP      28 50.00  10.1X
PKI     10.05 282 P       28 40.80  -2.9
KKN     10.19 283 P       28 42.80  -2.7
GKN     10.78 284 P       28 50.10  -3.4X
KHT     11.28 170 eP      28 59.00  -1.2
LZH     11.89  30 eP      29 05.50  -3.1X
    1.2s    62.00nm            5.7mb
  Z  12s     1.53um
                  PP      29 16.00
                  S       31 16.00
XAN     13.43  50 P       29 24.50  -4.5X
    0.6s     6.50nm            4.7mb
  Z  10s     1.27um            4.3Msz
                  pP      29 35.40
GTA     13.70  11 eP      29 30.50  -2.1
    1.5s     8.00nm            4.3mb
  Z  12s     1.44um            4.5MszX
  E  10s     1.73um
                  pP      29 39.00
                  sP      29 47.50
WHN     16.37  70 eP      30 07.20   0.1
NDI     17.35 283 iPd     30 21.00   1.5
    0.5s    28.17nm            4.7mb
                  eS      33 20.00
TIY     17.88  45 eP      30 24.00  -2.0
  Z  12s     1.08um
  E  13s     0.54um
BTO     18.43  34 eP      30 31.00  -1.8
  N  11s     0.48um
  E  10s     0.44um
HYB     18.71 247 eP      30 35.80  -0.5
    1.0s    50.00nm            4.7mb
                  e       30 41.20
                  eS      33 57.50
WMQ     19.21 340 iPd     30 42.00  -0.2
    0.8s    33.00nm            4.6mb
  Z  12s     0.69um            4.7Msz
  E  11s     0.45um
                  pP      30 48.10  23kmX
                  sP      30 55.00
                  PP      31 03.00
                  ScS     42 14.00
HHC     19.42  36 P       30 43.20  -1.5
    1.2s    36.00nm            4.5mb
  Z  14s     2.01um            4.4Msz
  N  11s     0.59um
  E  11s     0.70um
TIA     20.37  55 Pc      30 53.20  -1.5
    1.0s   110.00nm            5.2mb
  Z  12s     0.98um            4.4MszX
  E  12s     1.07um
                  eS      34 32.00
NJ2     20.45  68 Pd      30 54.60  -1.0
BJI     21.60  45 eP      31 07.00  -0.2
    0.8s     7.00nm            4.1mb
  Z  16s     0.58um            4.1MszX
  E  10s     0.71um
IPM     21.69 168 eP      31 10.10   1.8
GBA     21.71 239 P       31 08.00  -0.5
KSH     21.83 313 P       31 11.00   1.3
    0.7s    87.00nm            5.3mb
  Z  12s     1.22um            4.5MszX
  N  11s     1.13um
  E  11s     1.13um
                  pP      31 16.00  18kmX
                  sP      31 19.00
                  PP      31 36.00
                  eS      35 05.00
                  PcP     35 13.00
                  SS      35 43.00
SSE     22.26  71 P       31 13.50  -0.4
    1.0s    23.00nm            4.6mb
  Z  20s     0.40um            3.8Msz
  N  12s     0.40um
  E  10s     0.30um
                  pP      31 20.00  23kmX
                  sP      31 30.80
                  S       35 16.00
KOD     23.86 233 eP      31 31.50   1.5
ZAK     24.94  10 eP      31 40.00   0.3
    0.9s    38.00nm            5.0mb
QUE     26.38 286 eP      31 54.60   1.0
                  eS      36 56.50
IRK     26.94  11 eP      32 03.20   4.9X
    1.6s    43.00nm            4.8mb
  Z  12s     0.29um            4.1MszX
                  e       32 25.00
SNY     27.34  48 Pc      32 04.80   2.8
    1.3s    23.00nm            4.7mb
CN2     29.46  45 eP      32 25.10   3.9X
    1.0s     8.40nm            4.4mb
MAIO    33.14 297 eP      32 54.00   0.3
BOD     34.26  17 eP      33 05.10   2.1
    1.1s    10.00nm            4.7mb
MAT     36.93  63 eP      33 29.00   3.0X
SVE     40.11 330 ePd     33 54.00   1.8
    1.0s    40.00nm            5.1mb
                  e       34 11.00
ARU     40.82 328 eP      34 00.00   2.0
YAK     42.34  23 eP      34 09.70  -0.7
KIV     46.77 307 eP      34 52.00   5.6X
OBN     52.00 321 ePc     35 30.00   3.7X
    1.2s    22.00nm            5.0mb
WRA     58.58 137 P       36 15.40   1.1
    0.5s     3.20nm            4.7mb
MLR     58.66 309 eP      36 16.00   1.2
SDF     58.68 335 eP      36 14.00  -0.5
NUR     58.87 327 eP      36 15.20  -0.6
UPP     62.39 326 iP      36 39.10  -0.7
KSP     64.30 316 eP      36 54.80   2.3
HFS     64.33 327 ePKP    36 51.10  -1.5
    0.5s     5.90nm            4.9mb
NB2     65.40 328 P       36 58.40  -1.2
    0.6s     3.60nm            4.6mb
BRG     65.75 316 e(P)    37 06.80   4.9X
    1.3s    20.00nm            5.1mb
DAG     70.42 347 iPd     37 30.80   0.2
    0.7s     4.11nm            4.6mb
CDF     70.57 315 eP      37 33.20   1.1
    0.7s     4.20nm            4.6mb
BSF     71.05 315 eP      37 35.90   0.8
    0.6s     2.70nm            4.5mb
LPG     71.81 312 eP      37 40.20   0.3
    0.8s     6.05nm            4.7mb
LPL     71.82 312 eP      37 40.20   0.3
    0.5s     3.30nm            4.6mb
LBF     73.14 314 eP      37 47.10  -0.3
    0.9s     5.90nm            4.6mb
SMF     73.34 314 eP      37 48.40  -0.1
    0.9s     6.70nm            4.6mb
SSF     73.41 315 eP      37 49.00   0.1
    1.1s    14.40nm            4.9mb
IMA     74.16  24 (P)     37 55.00   1.9
    0.7s     3.34nm            4.4mb
MTD     76.07 243 iP      37 48.10 -16.6X
FBA     76.87  23 (P)     38 09.19   0.9
    1.0s     5.50nm            4.5mb
KLU     79.52  26 eP      38 22.51  -0.5
YKA     88.42  14 P       39 07.50  -0.5
    0.6s     1.00nm            4.3mb
BAO    145.36 280 (PKP)   45 55.00  -0.2
                  e       46 06.00
BDFB   145.38 280 ePKP    45 55.77   0.6
   S.D. = 1.4  on  56 of  67 obs.
-----------------------------------------
* DEC 09, 1993  18h 28m 32.26± 0.85s
   7.388 S ± 9.3km  129.324 E ±15.3km
  DEPTH =  33.0km  (normal)
 BANDA SEA                        (280)

SLKI     2.04 107 iPd     29 04.50  -0.5
                  iS      29 27.50
MTN      5.71 162 eP      29 58.00   1.0
                  iS      31 01.00
KNA      8.33 184 eP      30 33.80   0.1
                  eS      32 05.00
TNE      8.37 346 eP      30 35.40   1.1
WB2     13.40 159 eP      31 36.30  -6.4X
                  eS      33 58.20
ASPA    16.77 165 eP      32 26.00  -0.4
GUN     54.71 312 P       38 00.00  -1.3
   S.D. = 1.2  on   6 of   7 obs.
-----------------------------------------
* DEC 09, 1993  18h 30m 10.03± 0.65s
   0.534 N ±12.3km  126.082 E ±12.7km
  DEPTH =  33.0km  (normal)
  5.0mb (  5 obs.) 4.8Msz (  1 obs.)
 NORTHERN MOLUCCA SEA             (266)

LEM     19.82 248 ePc     34 41.50   0.3
WB2     21.90 159 eP      35 01.40  -0.9
    0.6s    40.00nm            5.0mb
QIS     24.79 148 eP      35 31.00   0.5
ASPA    25.23 163 eP      35 34.10  -0.6
    0.8s    52.80nm            5.2mb
                  iS      39 59.20
IPM     25.35 280 ePc     35 34.90  -1.0
STK     35.43 157 iPc     37 04.60  -0.6
    2.3s    11.10nm            4.4mb
ADE     37.24 163 eP      37 21.20   0.7
ARMA    39.22 144 eP      37 37.20  -0.1
    1.0s    13.00nm            4.6mb
CAN     41.59 151 eP      37 57.60   1.0
HYB     49.66 292 eP      39 01.00   0.0
YAK     61.39   2 iPd     40 24.20  -0.7
    0.8s    37.00nm            5.6mb
  Z  19s     0.60um            4.8Msz
  N  19s     0.60um
MAIO    70.95 308 eP      41 28.00   1.4
   S.D. = 0.9  on  12 of  12 obs.
-----------------------------------------
  DEC 09, 1993  18h 59m 17.00± 0.46s
   0.311 N ± 9.0km  125.736 E ± 8.0km
  DEPTH =  33.0km  (normal)
  4.8mb (  5 obs.)
 NORTHERN MOLUCCA SEA             (266)

TNE      1.67  73 eP      59 45.00   0.7
MDG     20.77 106 eP      03 57.00  -0.8
WB2     21.83 158 iPd     04 07.00  -1.5
```

09d 19h

1.0s 43.30nm 4.8mb
eS 08 37.30
LAT 22.32 108 e(P) 04 13.00 -0.5
QIS 24.79 148 eP 04 37.50 0.1
IPM 25.04 280 eP 04 40.10 0.1
ASPA 25.12 162 iPc 04 40.60 0.0
0.4s 30.40nm 5.2mb
WARB 26.35 178 eP 04 54.50 2.4
STK 35.36 156 iPc 06 10.90 -0.7
0.6s 8.00nm 4.8mb
epP 06 19.20 28kmX
ARMA 39.25 143 eP 06 44.20 -0.3
0.4s 5.00nm 4.6mb
CAN 41.57 151 eP 07 04.00 0.6
GUN 47.01 309 P 07 47.70 0.0
KKN 47.42 309 P 07 50.10 -0.7
GKN 48.02 309 P 07 55.10 -0.4
HYB 49.42 293 eP 08 06.00 -0.2
YAK 61.62 2 eP 09 23.60 -9.9X
IMA 85.89 24 eP 11 55.90 1.1
0.7s 1.60nm 4.4mb
S.D. = 1.0 on 16 of 17 obs.

% DEC 09, 1993 19h 03m 48.29± 1.46s
39.191 N ±14.2km 22.832 E ±11.9km
DEPTH = 5.0km (geophysicist)
GREECE (364)

AGG 0.42 247 iPg 03 56.82 0.0
eSg 04 03.82
LIT 0.95 344 iPg 04 06.17 -0.6
eSg 04 19.74
PAIG 0.99 41 ePg 04 07.58 0.1
eSg 04 21.78
OUR 1.45 37 ePb 04 14.62 -0.5
SOH 1.68 14 ePb 04 18.26 -0.2
KNT 1.97 1 iPb 04 23.85 1.2
S.D. = 0.8 on 6 of 6 obs.

* DEC 09, 1993 19h 14m 24.92± 1.11s
26.087 S ± 9.5km 178.348 E ±10.4km
DEPTH = 634.1 ± 14.5 km
5.0mb (11 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM 11.58 288 iPd 17 00.90 1.2
AFI 15.25 39 eP 17 35.00 0.1
SNZO 15.48 190 P 17 35.50 -1.4
eS 20 11.00
ARMA 23.91 253 iPc 18 54.30 0.3
0.6s 24.00nm 5.0mb
CNB 26.49 243 iPc 19 17.30 0.8
0.7s 20.00nm 4.9mb
CAN 26.78 243 eP 19 19.60 0.6
PMG 33.89 294 eP 20 19.40 0.2
ADE 35.09 246 eP 20 29.00 0.0
LAT 35.58 297 eP 20 33.50 0.4
QIS 35.91 271 iPc 20 36.00 0.2
MDG 37.39 298 ePd 20 48.80 0.9
ASPA 40.25 264 iPd 21 10.70 -0.3
0.6s 82.50nm 5.4mb
iS 26 34.00
WB2 40.81 269 eP 21 14.50 -0.9
0.9s 94.90nm 5.3mb
epP 22 14.70 295kmX
eS 26 42.20
WRA 40.82 269 P 21 14.90 -0.6
0.6s 23.90nm 4.8mb
FORT 44.18 252 iPc 21 40.70 -0.8
0.3s 10.00nm 4.8mb
WARB 46.16 258 eP 21 55.80 -1.0
0.3s 12.00nm 4.8mb
KNA 47.20 272 eP 22 05.00 0.3
GUA 51.09 316 eP 22 32.80 -0.5
0.8s 167.16nm 5.5mb
GUMO 51.15 316 eP 22 31.80 -1.9
MBL 53.46 262 eP 22 49.00 -1.2
0.3s 8.00nm 4.5mb
CSY 57.50 206 eP 23 06.20 -11.2X
0.6s 45.10nm
SPA 64.06 180 iPc 24 00.40 0.1
0.7s 136.72nm 5.4mb
LEM 69.74 272 iPd 24 35.50 0.1
MAT 72.88 327 iPc 24 52.50 -0.3
SYO 80.56 194 ePc 25 35.60 2.0
KMI 88.97 299 Pd 26 17.50 2.2
1.6s 50.00nm 5.1mb
DAG 128.58 5 iPdiff28 55.80 -15.0X
0.4s 27.12nm
KAF 139.42 340 ePKP 32 35.40 -7.1X
NUR 141.17 340 ePKP 32 41.20 -4.4X
UPP 143.70 344 iPKP 32 48.80 -1.2
NB2 143.97 349 PKP 32 51.20 0.7
0.7s 13.70nm
HFS 144.36 347 ePKP 32 50.90 -0.2
0.3s 5.40nm
CLL 152.44 340 iPKP 33 12.00 8.1X
i 33 26.10
ZST 153.48 331 ePKP 33 31.40 26.0X
S.D. = 1.0 on 28 of 34 obs.

DEC 09, 1993 19h 28m 12.36± 0.47s
34.050 N ± 4.6km 4.882 W ± 6.4km
DEPTH = 5.0km (geophysicist)
MOROCCO (395)
MD 4.1 (RBA).

IFR 0.57 201 iPgc 28 23.50 -0.3
iSg 28 34.00
BMK 1.19 318 eP 28 43.50 8.5X
iS 29 05.00
TOU 1.30 45 iP 28 38.00 1.1
iS 28 55.50
NKM 1.46 343 iPnc 28 40.50 1.1
iS 29 00.50
iSn 29 02.50
TNF 1.56 194 iP 28 43.00 2.2
iS 29 03.50
TSY 1.60 326 iP 28 40.00 -1.3
iS 29 03.00
RTC 1.62 268 iP 28 44.00 2.3
iS 29 05.00
BIT 1.74 337 eP 28 44.00 0.6
iS 29 06.00
CPS 1.83 342 iP 28 45.50 0.9
iS 29 08.50
ZAI 1.92 66 iP 28 45.00 -1.0
iS 29 10.00
EMEL 2.02 51 iPc 28 48.02 0.6
e 29 14.10
AVE 2.24 251 iPn 28 50.50 -0.2
i 28 53.20
iSn 29 21.00
i 29 23.00
EJIF 2.44 349 eP 28 53.59 0.0
e 29 24.20
EPRU 2.92 354 eP 29 00.84 0.4
EGUA 2.98 21 iPc 29 00.52 -0.6
ELOJ 3.15 11 iPnd 29 04.80 1.2
eSn 29 42.00
ECOG 3.39 18 iPd 29 07.90 0.7
ENIJ 3.64 36 iPd 29 09.52 -1.1
e 29 51.50
TIO 3.71 214 iPn 29 10.50 -1.2
iSn 30 11.00
EHOR 3.78 356 eP 29 12.00 -0.5
e 29 54.00
OUK 3.80 223 eP 29 13.50 0.7
iS 29 58.00
EVAL 3.84 337 iPd 29 11.48 -1.9
e 29 57.10
CIA 4.11 234 eP 29 17.50 0.3
iS 30 05.00
EHUE 4.19 26 iPc 29 19.64 1.2
EBAN 4.20 12 iPc 29 19.26 0.8
JHA 4.48 240 eP 29 21.00 -1.4
eS 30 11.00
EVIA 4.97 22 eP 29 29.32 -0.1
EPLA 6.08 351 iPd 29 42.49 -2.6
ECHE 6.36 28 iPc 29 48.56 -0.5
e 30 58.50
VAY 22.84 63 iP 33 36.70 19.3X
KIC 27.55 180 P 34 00.44 -1.8
LIC 27.69 180 P 33 59.68 -3.7X
S.D. = 1.3 on 29 of 32 obs.

% DEC 09, 1993 20h 46m 33.68± 0.90s
31.494 S ±14.7km 68.102 W ± 8.2km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.16 226 eP 46 45.00 5.0X
S 46 57.00
RTLL 0.35 297 eP 46 43.20 1.0
S 46 54.00
RTCV 0.52 225 iPd 46 45.20 0.5
(S) 46 57.80
RTCB 0.60 271 eP 46 44.37 -1.4
S 46 54.50
RTPR 1.81 49 eP 47 03.00 0.0
S 47 28.00
TCA 3.01 88 eP 47 20.10 -0.1
S.D. = 1.3 on 5 of 6 obs.

% DEC 09, 1993 21h 44m 51.39± 0.70s
45.672 N ± 4.7km 0.978 E ± 6.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (LDG).

RJF 0.53 134 Pg 45 01.40 -0.7
Sg 45 08.80
LSF 0.69 33 Pg 45 03.90 -1.2
Sg 45 12.40
LFF 0.75 193 Pg 45 06.10 0.0
Sg 45 18.30
LPO 1.00 171 Pg 45 10.40 0.1
Sg 45 25.00
TCF 1.06 54 Pg 45 11.00 -0.3
Sg 45 24.10
CAF 1.07 134 Pn 45 11.80 0.2
Pg 45 12.90
Sg 45 25.80
MFF 1.22 320 Pg 45 14.10 0.1
Sg 45 29.70
MAF 1.24 63 Pg 45 15.10 0.7
Sg 45 30.30
BGF 1.57 55 Pg 45 20.50 1.1
Sg 45 40.50
SSF 2.24 51 Pg 45 32.30 3.3X
Sg 45 59.50
S.D. = 0.8 on 9 of 10 obs.

& DEC 09, 1993 22h 09m 04.56s
32.365 N 115.337 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.0 (PAS).

GLA 0.81 32 eP 09 18.60 -2.1
PLM 1.62 308 eP 09 32.82 -1.1
eS 09 55.74
PEC 2.16 315 (P) 09 40.25 -1.4
eS 10 10.87
SSK 2.70 314 (P) 09 48.30 -1.2
GSC 3.17 338 (P) 09 53.15 -2.9
5 obs. associated

% DEC 09, 1993 22h 12m 38.65± 1.37s
41.203 N ±11.6km 22.458 E ± 6.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)

GRG 0.25 190 iPg 12 44.10 0.1
eSg 12 48.86
KNT 0.33 97 iPg 12 45.90 0.3
iSg 12 51.26
THE 0.69 146 ePg 12 51.78 -0.5
SOH 0.78 119 ePg 12 53.62 -0.2
eSg 13 06.06
SRS 0.86 95 ePg 12 55.22 0.0
eSg 13 07.54
FNA 0.92 243 iPg 12 56.14 -0.1
LIT 1.10 179 ePg 12 59.74 0.4
S.D. = 0.4 on 7 of 7 obs.

% DEC 10, 1993 00h 26m 09.32± 1.39s
47.419 N ±13.3km 11.841 E ± 5.8km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.8 (VIE).

WATA 0.20 245 iPgd 26 14.10 0.3
iSg 26 17.70
WTTA 0.21 222 iPgc 26 14.20 0.2
0.2s 21.90nm
i 26 15.40
SCE 0.39 193 iPgd 26 17.10 -0.3
SQTA 0.47 245 iPgc 26 19.10 0.1
iSg 26 26.10
MOTA 0.51 262 iP 26 19.20 -0.4

iPg 26 19.60
iSg 26 27.60
KBA 1.08 108 iPgd 26 29.80 0.0
iSg 26 43.10
S.D. = 0.4 on 6 of 6 obs.

DEC 10, 1993 00h 27m 17.97± 0.34s
37.072 N ± 3.0km 117.848 W ± 3.3km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 3.5 (GS), 3.8 (BRK).

CWCR 0.56 319 P 27 27.12 -2.1
MTUM 0.64 296 iPc 27 30.14 -0.6
eS 27 37.91
MRCM 0.80 319 iPd 27 33.46 -0.6
eS 27 44.59
ORC 0.85 311 P 27 34.52 -0.6
HTCR 0.87 302 P 27 34.52 -0.8
BONR 0.95 338 ePc 27 37.20 0.4
MCSM 1.02 305 P 27 37.77 -0.2
MEMM 1.05 305 iPc 27 37.99 -0.3
iS 27 51.52
MMPM 1.08 300 iPc 27 38.16 -0.9
eS 27 52.34
TNP 1.13 26 ePn 27 39.89 0.2
ePg 27 41.08
TPNV 1.29 95 iPc 27 43.44 1.1
eS 28 04.63
FRI 1.49 267 iP 27 44.58 -0.8
ISA 1.49 200 iPd 27 44.29 -1.3
eS 28 02.55
WJPM 1.74 197 P 27 48.30 -0.8
GSC 1.96 154 ePnd 27 51.41 -0.9
iPg 27 54.64
KVN 1.99 354 (Pn) 27 53.24 0.5
iPg 27 55.53
eS 28 23.25
BMTC 2.03 198 P 27 54.50 1.2
PKEM 2.08 242 eP 27 53.82 -0.1
eS 28 20.21
PARM 2.17 248 P 27 57.36 2.1X
MSTM 2.20 293 P 27 57.59 1.9X
CMB 2.23 296 ePc 27 57.86 1.6
eS 28 26.62
CTM 2.31 241 P 27 58.49 1.1
PMRM 2.32 237 P 27 59.45 2.1X
MOYM 2.32 292 P 27 59.65 2.3X
PAGM 2.35 236 P 27 58.72 0.8
YEG 2.36 227 P 27 59.45 1.3
MARC 2.39 211 P 28 00.63 2.1X
PHAM 2.40 240 eP 28 00.44 1.9X
TMB 2.41 215 P 28 00.45 1.7
ABL 2.48 207 ePn 27 59.00 -0.9
iPg 28 01.41
eS 28 33.01
WKR 2.49 240 P 28 00.35 0.5
MNHM 2.59 295 P 28 04.63 3.4X
BCH 2.61 225 ePn 28 00.93 -0.7
ePg 28 03.94
PADM 2.82 240 P 28 05.78 1.1
PJLM 2.84 251 P 28 04.38 -0.4
SCCM 2.84 222 P 28 06.71 1.8X
SSK 2.86 177 ePn 28 03.83 -1.4
ePg 28 11.25
eS 28 46.83
GHS 2.88 272 P 28 07.55 2.1X
SAO 2.90 265 ePn 28 06.20 0.5
eS 28 40.97
HSPM 2.93 272 P 28 08.39 2.2X
ARN 2.95 276 ePn 28 07.82 1.3
ePg 28 11.76
eSg 28 50.37
MHC 3.04 276 eP 28 09.24 1.5
eS 28 48.41
COE 3.06 275 (Pn) 28 10.51 2.6X
eS 28 49.18
PEC 3.22 170 eP 28 09.03 -1.2
eS 28 58.95
ARUT 3.58 77 ePn 28 15.39 -0.1
ePg 28 27.02
eS 29 12.77
ORV 3.79 312 (Pn) 28 18.09 -0.3
ePg 28 27.45
S 29 15.12
PLM 3.80 167 ePn 28 17.58 -1.0
eP* 28 25.28

ePg 28 27.66
eS 29 16.90
GLA 4.71 147 (Pn) 28 37.94 6.5X
ePg 28 47.14
MSU 4.72 71 ePn 28 31.81 0.1
Pg 28 46.79
S 29 50.22
DUG 5.03 50 (Pn) 28 40.02 4.1X
ePg 28 52.93
eS 30 00.31
SRU 6.12 68 (Pn) 28 52.45 0.9
S.D. = 1.0 on 38 of 51 obs.

? DEC 10, 1993 01h 27m 57.23± 3.09s
10.123 N ±35.6km 63.529 W ±18.9km
DEPTH = 31.9 ± 13.9 km
3.4mb (1 obs.)
NEAR COAST OF VENEZUELA (97)
MD 3.3 (TRN).

TCE 1.84 72 eP 28 28.16 1.1
eS 28 53.54
TRN 2.16 76 eP 28 31.28 -0.3
eS 29 01.51
TBH 2.45 81 eP 28 35.12 -0.7
GRW 2.73 42 eP 28 39.48 -0.4
YKA 63.78 336 P 38 28.20 0.0
0.6s 0.20nm 3.4mb
S.D. = 1.4 on 5 of 5 obs.

DEC 10, 1993 01h 52m 55.76± 1.19s
10.436 S ± 7.5km 162.169 E ± 7.1km
DEPTH = 53.2 ± 10.3 km
5.1mb (11 obs.)
SOLOMON ISLANDS (193)

HNR 2.41 294 P 53 34.00 0.6
S 54 26.00
BKM 9.29 141 iPc 55 09.00 -0.9
DZM 12.27 161 iPc 55 50.80 0.4
iS 58 04.60
ARMA 22.17 205 eP 57 50.30 1.4
1.0s 29.00nm 4.7mb
WB2 28.42 247 iPd 58 46.30 -1.4
0.6s 43.80nm 5.3mb
STK 28.59 219 eP 58 49.20 0.1
1.7s 3.20nm 3.7mb X
ASPA 29.98 240 iPd 59 00.00 -1.7
0.5s 23.20nm 5.2mb
Z 23s 0.20um 3.7MszX
ADE 32.46 218 eP 59 24.00 0.7
WARB 37.03 240 eP 00 02.50 0.0
1.0s 105.00nm 5.7mb
MBL 41.99 250 eP 00 43.00 -0.6
0.5s 13.00nm 4.9mb
COOL 43.12 236 eP 00 53.00 0.2
0.8s 54.00nm 5.3mb
MEEK 44.08 242 eP 01 01.00 0.4
BAL 46.68 238 eP 01 21.00 -0.2
0.7s 34.00nm 5.4mb
NWAO 46.92 234 eP 01 23.40 0.3
0.8s 15.00nm 5.0mb
MRWA 46.93 240 eP 01 23.00 -0.2
0.5s 11.00nm 5.0mb
LZH 71.77 313 eP 04 21.50 6.6X
1.6s 38.00nm 5.1mb
pP 04 30.00 27kmX
IMA 82.90 17 eP 05 15.50 -0.4
GUN 82.96 300 P 05 00.00 -17.3X
YKA 96.06 28 P 06 18.00 -0.3
0.9s 1.40nm 4.5mb
KAF 119.39 338 ePKP 11 40.60 0.1
NUR 121.02 337 ePKP 11 44.00 0.4
HFS 125.13 341 ePKP 11 51.10 -0.4
0.5s 1.50nm
NB2 125.15 343 PKP 11 51.70 0.1
0.8s 3.30nm
EGRA 144.84 337 ePKP 12 28.62 0.0
ECRI 145.26 340 ePKP 12 30.87 1.4
GUD 147.57 340 ePKP 12 36.77 3.4X
EVIA 148.74 336 ePKP 12 40.72 5.4X
SOB1 149.87 130 ePKP 12 41.90 4.3X
EGUA 150.73 336 ePKP 12 44.18 6.0X
EPRU 151.24 339 ePKP 12 46.68 7.7X
S.D. = 0.8 on 23 of 30 obs.

DEC 10, 1993 02h 16m 06.99± 0.97s
38.331 N ± 7.3km 25.020 E ± 7.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

ATH 1.09 251 eP 16 28.00 0.6
eS 16 44.50
PRK 1.34 47 eP 16 32.00 0.4
PAIG 1.90 327 ePn 16 39.40 -0.4
eSn 17 11.12
OUR 2.16 338 ePn 16 42.80 -0.6
AGG 2.22 289 ePn 16 44.92 0.6
VLI 2.31 226 eP 16 45.00 -0.7
LIT 2.64 313 ePn 16 50.04 -0.4
SOH 2.80 333 iPn 16 52.56 -0.1
KNT 3.27 331 ePn 16 59.48 0.2
GRG 3.31 323 iPn 17 00.33 0.4
S.D. = 0.6 on 10 of 10 obs.

? DEC 10, 1993 03h 50m 47.20± 3.60s
36.189 N ±31.7km 4.340 W ±13.0km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.5 (MDD).

EGUA 0.90 44 eP 51 04.32 -0.1
e 51 15.10
EJIF 0.95 286 eP 51 04.90 -0.4
e 51 17.40
ELOJ 0.97 9 eP 51 06.00 0.3
eS 51 18.10
EHOR 1.79 336 ePn 51 17.45 -0.8
eSn 51 36.80
EVAL 2.38 307 ePn 51 27.84 1.0
S.D. = 1.0 on 5 of 5 obs.

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* DEC 10, 1993 03h 58m 45.05± 0.53s
0.457 N ± 8.0km 125.761 E ±11.1km
DEPTH = 29.3km (3 depth phases)
4.9mb (14 obs.)
NORTHERN MOLUCCA SEA (266)

MKS 8.44 228 iPc 00 50.50 2.1
TSM 8.75 296 eP 00 54.00 1.3
LEM 19.50 248 iPd 03 14.00 0.8
WB2 21.95 158 eP 03 35.90 -2.4
0.4s 16.60nm 4.8mb
i 03 42.30 23km
eS 07 37.90
QIS 24.90 148 eP 04 07.30 0.3
ASPA 25.25 162 iPd 04 10.70 0.3
0.4s 31.50nm 5.3mb
eS 08 33.70
WARB 26.50 178 eP 04 22.50 0.6
MRWA 30.95 197 eP 05 01.00 -0.9
0.4s 3.00nm 4.5mb
CHTO 32.02 306 iPc 05 11.90 0.5
0.8s 7.69nm 4.7mb
KMI 33.11 320 Pd 05 23.00 1.9
1.4s 50.00nm 5.2mb
pP 05 32.00 31km
sP 05 37.00
MUN 33.50 195 eP 05 23.00 -1.2
STK 35.48 156 iPd 05 42.70 1.5
0.5s 6.00nm 4.8mb
BJI 40.35 349 eP 06 22.00 0.2
1.2s 8.00nm 4.3mb
Z 24s 0.37um 4.2MszX
LZH 40.88 332 eP 06 26.00 -0.4
1.2s 25.00nm 4.8mb
pP 06 36.00 34km
GUN 46.94 309 P 07 15.20 -0.5
PKI 47.15 308 P 07 16.80 -0.5
KKN 47.35 309 P 07 18.40 -0.4
GKN 47.95 308 P 07 22.00 -1.5
HYB 49.39 293 eP 07 33.30 -1.2
1.0s 30.00nm 5.3mb
GBA 49.59 287 P 07 34.00 -2.0
POO 54.00 293 eP 08 06.50 -2.7
YAK 61.48 2 eP 09 00.00 -1.1
1.0s 75.00nm 5.8mb
MAIO 70.74 308 eP 10 02.00 1.1
IMA 85.75 24 eP 11 23.62 1.0
0.5s 0.82nm 4.2mb
OBN 89.15 325 eP 11 39.00 0.0
1.0s 24.00nm 5.5mb
KAF 94.03 332 iP 12 03.20 1.7

0.5s 3.30nm 5.0mb
YKA 102.86 24 Pdiff 12 42.80 1.5
0.8s 0.50nm 4.3mb
LPAZ 159.14 140 PKP 18 59.80 16.6X
S.D. = 1.4 on 27 of 28 obs.

? DEC 10, 1993 04h 14m 21.97± 5.08s
39.494 N ±21.7km 24.171 E ±43.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.57 319 ePg 14 33.29 -0.3
eSg 14 41.98
OUR 0.85 350 iPg 14 37.74 -0.6
AGG 1.50 252 ePb 14 48.82 -0.2
KNT 1.93 330 ePn 14 56.21 1.1
eSn 15 25.78
S.D. = 1.3 on 4 of 4 obs.

? DEC 10, 1993 04h 55m 35.31± 1.19s
5.088 S ±15.3km 149.911 E ±19.3km
DEPTH = 405.4 ± 7.5 km
4.6mb (2 obs.)
NEW BRITAIN REGION, P.N.G. (192)

KVG 2.64 20 eP 56 36.50 0.0
LAT 3.29 241 eP 56 41.30 -0.5
YYYY 4.09 254 eP 56 48.60 -0.6
MDG 4.12 268 eP 56 51.00 1.7
WWKK 6.44 283 e(P) 57 13.00 -0.6
WB2 21.15 224 iPd 59 51.70 0.7
0.3s 16.70nm 5.0mb
i 59 57.70
eS 03 03.90
ASPA 24.07 218 eP 00 18.00 0.0
0.5s 5.40nm 4.2mb
iS 04 05.00
MBL 33.26 239 eP 01 37.80 -0.7
PPR 34.40 295 ePd 02 34.00 45.9X
GUN 69.82 302 P 06 05.90 0.0
GKN 70.90 302 P 06 12.20 0.1
S.D. = 0.9 on 10 of 11 obs.

DEC 10, 1993 05h 11m 48.08± 0.42s
43.078 N ± 5.9km 0.631 W ± 3.2km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.0 (STR).

ESCF 0.04 90 Pg 11 50.13 -0.1
Sg 11 51.49
ATE 0.05 278 Pg 11 50.19 -0.1
Sg 11 51.56
ISSF 0.13 247 Pg 11 51.47 0.1
Sg 11 53.92
OGE 0.15 52 Pg 11 51.60 0.1
MADF 0.15 296 Pg 11 51.73 0.0
Sg 11 54.09
LHE 0.17 177 Pg 11 51.77 -0.2
Sg 11 54.20
JAU 0.20 102 Pg 11 52.51 0.0
ELYF 0.28 289 Pg 11 54.07 0.1
Sg 11 58.06
BOH 0.28 275 Pg 11 53.92 -0.1
ELIZ 0.66 278 eP 12 00.82 -0.5
e 12 08.30
EGRA 0.91 165 eP 12 11.39 5.9X
e 12 26.10
ECRI 1.46 252 eP 12 15.06 0.5
e 12 33.20
S.D. = 0.3 on 11 of 12 obs.

DEC 10, 1993 06h 31m 54.16± 0.13s
22.180 S ± 4.7km 179.575 W ± 3.1km
DEPTH = 605.1km (17 depth phases)
5.6mb (69 obs.)
SOUTH OF FIJI ISLANDS (171)
Mw 5.7 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 32S, 51C
Centroid Location:
Origin Time 06:31:59.1 0.4
Lat 22.13S 0.05 Lon 179.17W 0.03
Dep 613.8 2.0 Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr= 0.55 0.08 Mtt= 0.97 0.11
Mff=-1.52 0.13 Mrt=-2.52 0.12
Mrf=-2.47 0.12 Mtf=-1.41 0.12
Principal Axes:
T Val= 3.41 Plg=47 Azm=165
N 1.04 22 49
P -4.45 35 303
Best Double Couple:Mo=3.9*10**17
NP1:Strike=338 Dip=23 Slip= 18
NP2: 232 83 112

SVA 4.45 335 iPc 33 22.20 -1.4
VUN 4.54 336 iPc 33 23.10 -1.2
eS 34 47.30
MBU 5.42 342 iPd 33 30.90 -0.4
RAO 7.20 168 ePd 33 44.60 -2.0
eS 35 13.30
AFI 11.07 43 eP 34 20.00 -3.9X
BKM 12.30 289 iPc 34 37.00 1.2
iS 36 52.00
DZM 12.96 268 iPc 34 42.90 0.6
iS 37 02.00
ScP 42 05.30
RAR 18.43 91 eP 35 33.81 -0.8
1.7s 603.39nm 5.8mb
MRW 19.60 193 P 35 43.00 -2.4
S 38 52.00
ARMA 27.03 246 iPd 36 52.60 0.8
ePcP 39 45.30
iScP 42 39.70
e 42 53.30
RIV 28.23 239 iPc 37 03.30 1.3
0.8s 7462.69nm 7.4mb X
AFR 28.38 86 iPd 37 02.30 -1.1
0.8s 485.70nm 6.2mb
PAE 28.53 86 iPd 37 03.60 -1.1
1.1s 281.30nm 5.8mb
PPT 28.56 86 iPd 37 03.90 -1.1
1.1s 593.90nm 6.1mb
Z 30s 1075.00um 7.3MszX
PPN 28.70 86 iPd 37 05.20 -1.0
0.9s 224.70nm 5.8mb
TVO 28.81 87 iPd 37 06.10 -1.1
0.7s 474.50nm 6.2mb
CNB 30.08 237 eP 37 19.90 2.0
iScP 42 48.20
CAN 30.37 238 iPc 37 21.20 0.9
e 38 06.80 226kmX
i 38 46.40
eScP 42 49.50
PMO 30.82 82 iPd 37 23.40 -0.8
1.0s 649.60nm 6.2mb
VAH 30.99 83 iPd 37 24.60 -1.0
1.0s 652.80nm 6.2mb
TPT 31.08 82 iPd 37 25.70 -0.7
1.0s 1014.40nm 6.4mb
RUV 31.23 83 iPd 37 26.90 -0.7
1.1s 1453.40nm 6.5mb
CTAO 31.90 267 iPd 37 33.62 0.3
0.6s 408.21nm 6.2mb
TOO 33.73 235 iPc 37 49.50 1.0
0.7s 289.00nm 6.0mb
i 39 28.90
PMG 34.34 286 iPd 37 53.51 -0.2
0.8s 751.30nm 6.4mb
KVG 34.73 300 eP 37 55.80 -1.1
LAT 35.74 290 eP 38 05.50 0.3
STK 35.75 246 iPd 38 05.80 0.6
0.6s 219.50nm 6.0mb
iS 43 02.20
eScS 47 15.30
MDG 37.49 292 eP 38 19.50 0.0
QIS 37.97 265 eP 38 22.90 -0.6
eScP 43 18.00
ADE 38.52 241 iPc 38 28.10 0.3
WWKK 40.16 292 eP 38 39.00 -2.2
ASPA 42.73 259 iPd 39 01.10 -0.4
1.2s 868.20nm 6.1mb
iScP 43 36.90
iS 44 41.70
WB2 42.93 264 iPc 39 02.00 -1.1
0.9s 562.40nm 6.1mb
epP 39 57.20 265kmX
iScP 43 35.30
eS 44 33.70
WRA 42.94 264 P 39 02.80 -0.3
0.9s 193.30nm 5.6mb
FORT 47.29 248 eP 39 35.20 -1.1
0.6s 202.00nm 5.8mb
DHH 48.13 28 ePc 39 41.08 -1.5
e 41 33.41 634kmX
HKL 48.33 30 ePc 39 43.05 -1.5
OPA 48.41 27 eP 39 43.25 -1.4
WARB 48.94 254 iPd 39 47.80 -0.9
0.3s 27.00nm 5.2mb
KNA 49.09 268 iPd 39 49.40 -0.4
0.3s 76.00nm 5.7mb
GUA 49.72 312 eP 39 53.90 -0.6
0.8s 268.66nm 5.8mb
GUMO 49.79 312 eP 39 54.35 -0.6
1.1s 393.15nm 5.8mb
PJG 49.79 312 eP 39 54.00 -0.9
COOL 53.22 247 eP 40 18.50 -1.2
0.6s 58.00nm 5.2mb
MBL 55.98 259 iPd 40 37.90 -1.1
MEEK 55.99 252 eP 40 37.50 -1.5
KLB 56.02 246 iPc 40 38.20 -0.9
0.7s 120.00nm 5.3mb
SBA 56.11 183 iPc 40 41.50 2.4
NWAO 56.31 244 iPc 40 40.50 -0.6
0.8s 74.00nm 5.0mb
RKG 56.34 242 eP 40 41.50 0.3
BAL 57.04 247 iPd 40 45.10 -1.0
0.3s 46.00nm 5.2mb
MUN 57.29 245 iPd 40 47.20 -0.5
1.0s 220.00nm 5.3mb
MRWA 57.86 249 iPd 40 50.70 -1.0
0.4s 49.00nm 5.1mb
DAV 61.08 292 ePc 41 12.50 -0.5
0.8s 358.21nm 5.7mb
MKS 61.18 276 iPc 41 14.50 0.8
CGP 62.52 293 iPc 41 22.50 0.3
KHKI 63.61 272 ePc 41 27.00 -2.3
e 46 14.00
TSM 66.54 285 ePc 41 48.90 1.4
SPA 67.95 180 iPc 41 56.00 0.5
0.6s 284.55nm 6.0mb
KKM 68.79 286 ePd 42 05.90 4.7X
0.6s 58.10nm 5.3mb
BAG 70.03 298 ePc 42 08.00 -0.6
1.0s 82.00nm 5.2mb
e 44 11.50 608km
MAJO 70.71 325 eP 42 11.22 -0.7
0.9s 42.30nm 5.0mb
MAT 70.71 325 eP 42 11.00 -0.9
0.9s 31.09nm 4.8mb
eS 50 28.00
LEM 71.56 270 ePc 42 28.00 10.4X
TPI 73.01 274 ePc 42 26.50 0.8
e 43 16.50 210kmX
ADK 73.78 2 iPd 42 27.68 -1.4
0.8s 77.59nm 5.3mb
TATO 73.95 306 eP 42 29.96 -0.7
0.8s 218.02nm 5.7mb
KLI 74.82 271 eP 42 35.20 -0.6
YSS 76.82 335 iPd 42 46.10 0.2
1.0s 40.00nm 4.8mb
e 44 51.00 597km
e 51 43.00
SDN 78.91 11 eP 42 55.80 -0.9
BCH 80.20 46 eP 43 04.72 0.6
SAO 80.25 44 eP 43 04.88 0.7
1.4s 172.03nm 5.3mb
PHAM 80.38 45 eP 43 05.67 0.8
BKS 80.42 43 eP 43 05.79 0.7
MHC 80.47 43 ePd 43 06.44 0.9
1.2s 150.00nm 5.4mb
ARN 80.55 43 eP 43 06.43 0.6
ABL 80.59 46 ePd 43 06.79 0.5
KMPM 80.86 40 eP 43 08.86 1.5
HMR 80.87 42 ePd 43 08.89 1.6
FHC 81.18 39 eP 43 10.21 1.3
1.2s 459.64nm 5.9mb
e 44 39.45 392kmX
SSK 81.26 48 ePd 43 09.88 0.2
e 43 20.18 33kmX
PLM 81.36 49 ePd 43 10.79 0.6
PEC 81.45 48 iPd 43 10.67 0.2
0.9s 91.47nm 5.3mb
esP 46 25.03
ISA 81.55 46 iPd 43 11.52 0.6
1.3s 352.71nm 5.7mb
CMB 81.69 43 ePd 43 12.00 0.4
1.1s 180.00nm 5.5mb
WDC 81.90 40 ePd 43 13.27 0.8

	1.4s	356.56nm			5.7mb
			e	43 21.79	27kmX
ORV	81.90	42	ePd	43 13.09	0.6
	1.3s	220.00nm			5.5mb
LGPM	81.93	40	ePd	43 13.91	1.1
MIN	82.32	41	ePd	43 14.99	0.2
	1.1s	150.00nm			5.4mb
LMEM	82.46	41	eP	43 16.47	1.0
GSC	82.47	47	iPd	43 16.15	0.6
YBH	82.51	39	eP	43 16.86	1.2
	1.2s	190.00nm			5.5mb
GLA	82.63	50	iPd	43 17.70	1.4
LBFM	82.76	40	ePd	43 18.04	1.0
KDC	82.78	14	eP	43 16.80	0.4
BONR	82.98	44	eP	43 19.24	0.9
			epP	45 27.70	604km
DBO	83.07	38	P	43 19.23	0.8
RNO	83.29	37	P	43 19.95	0.5
SNG	83.33	280	eP	43 33.00	12.9X
KVN	83.73	43	ePd	43 22.23	0.3
			e	43 39.75	63kmX
TNP	83.75	45	ePd	43 22.27	0.2
	1.0s	116.37nm			5.4mb
TPNV	83.76	46	eP	43 22.45	0.4
	1.2s	148.84nm			5.5mb
SYO	84.79	193	ePc	43 28.20	1.8
			eS	52 52.00	
			eScS	53 04.00	
TUC	85.16	52	iPd	43 31.18	2.3
	1.2s	213.55nm			5.7mb
BMW	85.20	35	P	43 28.55	-0.1
VBEM	85.21	37	P	43 29.19	0.3
SVW	85.22	11	iPd	43 27.34	-1.1
	0.8s	48.80nm			5.2mb
VIPM	85.42	38	P	43 30.38	0.4
CROR	85.50	37	P	43 30.34	0.1
SHW	85.56	36	eP	43 31.72	1.2
SLKM	85.78	14	eP	43 30.40	-0.7
			epP	45 40.54	608km
ASR	85.88	36	P	43 32.16	0.1
VGB	85.94	37	ePd	43 32.88	0.6
			e	43 43.68	34kmX
CP2	86.02	13	eP	43 30.98	-1.5
CRP	86.05	13	eP	43 30.33	-2.2
BJI	86.06	316	eP	43 33.50	0.7
	2.0s	147.00nm			5.4mb
			eS	53 00.00	
			eSKS	53 18.00	
			eScS	53 24.00	
			eSS	59 04.00	
ARUT	86.10	47	ePd	43 34.00	0.7
			epP	45 41.89	594kmX
GMW	86.11	35	eP	43 33.33	0.4
LON	86.13	36	ePd	43 33.20	0.1
NNT	86.27	285	iPc	43 36.80	2.5
JBO	86.44	38	P	43 34.87	0.3
LOE	86.45	290	eP	43 35.00	-0.2
RMW	86.57	35	iPd	43 35.69	0.4
			epP	45 46.31	610km
PMS	86.59	14	ePd	43 34.50	-0.5
TTA	86.85	11	ePd	43 36.10	-0.1
EBG	86.90	36	P	43 37.37	0.6
NVL	86.96	184	iPc	43 36.00	-0.7
	1.0s	104.00nm			5.5mb
			e	53 24.00	
			e	57 18.00	
JCW	86.96	34	P	43 37.44	0.4
PMR	86.99	14	eP	43 35.91	-0.9
	1.1s	216.56nm			5.8mb
NST	87.15	288	eP	43 40.00	1.6
SIT	87.23	22	eP	43 37.94	0.0
	1.1s	37.28nm			5.1mb
MSU	87.33	46	ePd	43 39.99	0.8
			epP	45 50.50	608km
WAH2	87.37	37	P	43 39.11	0.2
KLU	87.66	15	eP	43 39.04	-1.0
WTV	87.71	36	P	43 40.78	0.2
DUG	87.77	45	eP	43 41.26	0.1
	1.9s	212.55nm			5.6mb
SAW	88.02	36	P	43 42.04	0.1
TOA	88.13	15	ePd	43 42.30	0.1
BALM	88.20	17	ePd	43 42.09	-0.6
HVU	88.63	43	iPd	43 45.56	0.5
			epP	45 56.10	605km
			ePP	47 22.47	
SRU	88.74	47	iPd	43 46.10	0.4
			epP	45 56.07	602km
BDT	88.77	289	eP	43 48.00	2.1
	0.9s	63.60nm			5.5mb
DPW	88.77	36	ePd	43 45.54	0.1
			e	44 20.80	
			epP	45 57.03	611km
KMI	88.81	298	P-	43 48.00	1.7
	1.8s	190.00nm			5.7mb
			pP	43 59.00	35kmX
			sP	44 04.00	
EMUT	88.90	46	ePd	43 47.02	0.6
			epP	45 57.55	605km
			ePP	47 24.53	
DAU	88.91	45	eP	43 46.80	0.2
			ePP	47 25.17	
LTX	89.19	58	ePd	43 47.47	-0.4
			e	45 12.14	
			epP	45 58.18	605km
PV09	89.38	48	ePd	43 49.18	0.4
			e	43 58.67	30kmX
			ePP	47 30.61	
PV10	89.39	48	iPd	43 48.57	-0.2
			e	43 59.68	35kmX
			e	45 12.13	
			ePP	47 27.37	
CHTO	89.44	290	iPc	43 50.80	1.8
	0.9s	78.86nm			5.6mb
PTI	89.45	43	iPd	43 49.75	0.9
ALQ	89.59	52	iPd	43 50.07	0.4
	1.2s	104.48nm			5.6mb
			epP	46 01.15	607km
			e	46 15.53	
			ePP	47 30.45	
PV08	89.75	48	iPd	43 50.65	0.1
			epP	46 01.95	608km
IMA	90.15	10	ePd	43 50.74	-0.7
	1.0s	33.21nm			5.2mb
COL	90.19	13	ePd	43 50.38	-1.2
	1.0s	90.33nm			5.7mb
			epP	46 01.82	608km
FBA	90.19	13	iPd	43 50.05	-1.5
	1.0s	68.24nm			5.6mb
			epP	45 59.77	598km
GOL	92.53	48	ePd	44 03.47	0.3
	1.8s	261.32nm			6.0mb
			epP	46 13.13	596km
LZH	92.63	308	eP	44 04.50	0.9
	1.2s	37.00nm			5.3mb
			ScS	54 26.50	
GLD	92.66	48	ePd	44 04.40	0.7
	1.9s	146.89nm			5.7mb
YAK	93.10	339	iPc	44 04.60	-0.3
	1.0s	91.00nm			5.8mb
BRW	94.58	7	eP	44 11.10	-0.3
MEO	95.38	55	iPc	44 15.50	-0.4
RSSD	95.38	44	ePd	44 15.51	-0.4
	0.9s	29.89nm			5.5mb
			ipPc	46 27.60	609km
ACO	95.71	53	iPd	44 17.50	0.1
TUL	97.91	55	iPd	44 26.90	-0.5
YKA	98.65	25	P	44 28.20	-1.8
	1.0s	5.60nm			4.9mb
CNCB	102.64	114	ePdiff	44 56.00	6.4X
			e	49 14.00	
LPB	102.67	114	ePdiff	44 53.00	3.4X
LPAZ	102.76	114	Pdiff	44 54.00	3.8X
			i	49 03.10	
GUN	103.87	295	Pdiff	44 56.80	2.2X
PKI	104.17	294	Pdiff	44 57.20	1.3
KKN	104.34	294	Pdiff	44 57.50	1.0
GKN	104.95	294	Pdiff	45 00.80	1.7
HYB	107.08	282	ePKP	49 32.50	18.0X
POO	111.68	282	ePKP	49 32.00	8.8X
SJG	117.80	81	ePKP	49 33.60	-1.3
BAO	119.48	124	ePKP	49 36.20	-2.1X
CBM	120.38	48	ePKP	49 37.14	-1.8
			ipPKP	52 17.86	
			e	53 18.95	
QUE	120.50	293	ePKP	49 41.50	1.6
DAG	124.53	5	iPKPd	49 44.60	-1.5
	0.7s	13.01nm			
ARU	125.71	324	ePKP	49 49.00	0.1
MAIO	127.31	299	iPKPd	49 52.40	-0.4
			e	52 08.00	
SOB1	128.87	123	ePKP	49 54.70	-1.6
			e	49 56.50	
MTD	130.70	221	iPKP	49 44.90	-14.8X
			iSKP	52 15.40	
KAF	136.33	343	ePKP	49 54.30	-14.6X
OBN	137.49	330	ePKP	50 10.00	-1.3
	1.3s	50.00nm			
NUR	138.11	342	ePKP	50 04.00	-8.2X
NB2	140.45	352	PKP	50 09.50	-7.0X
	0.8s	13.00nm			
HFS	140.94	349	ePKP	50 10.10	-7.3X
	0.4s	11.90nm			
KAC	144.47	5	ePKPd	50 23.10	-0.4
KPL	144.60	6	ePKPd	50 23.30	-0.4
MUD	145.16	352	iPKPd	50 24.70	0.1
	1.0s	144.00nm			
			i	52 47.00	
			i	53 09.00	
EDR	145.24	3	ePKP	50 24.90	0.1
COP	145.37	348	iPKPc	50 26.10	1.1
	0.8s	47.76nm			
BSD	145.37	345	iPKPd	50 25.90	0.9
	1.0s	242.00nm			
EDU	145.58	3	ePKP	50 26.20	0.8
ELO	145.62	4	ePKP	50 26.30	0.8
CTK	145.62	310	ePKP	50 28.00	1.9
EBH	145.85	4	ePKP	50 27.20	1.4
EAB	145.85	5	ePKP	50 27.00	1.2
EDI	146.19	4	ePKP	50 27.80	1.5
ESY	146.23	3	ePKP	50 27.90	1.5
EAU	146.26	4	ePKP	50 28.40	1.9
EBL	146.35	4	ePKP	50 28.60	2.0
EKA	146.78	4	PKP	50 30.00	2.7X
	1.0s	82.30nm			
ESK	146.80	4	ePKP	50 29.80	2.5X
	1.0s	80.00nm			
BHL	146.94	298	PKP	50 30.00	1.6
SGKT	147.60	312	iPKP	50 32.50	3.1X
CFR	147.74	322	ePKP	50 33.00	3.8X
OJC	148.14	336	iPKPc	50 33.50	3.8X
			e	50 39.00	
NAL	148.28	312	ePKP	50 35.00	4.6X
DCN	148.34	9	iPKPd	50 33.60	3.8X
UZH	148.37	332	iPKPd	50 30.00	-0.1
DLF	148.48	8	iPKPd	50 33.90	3.8X
	1.0s	174.00nm			
CSS	148.57	301	ePKP	50 35.30	4.5X
ISR	148.67	323	ePKP	50 36.00	5.3X
MLR	148.78	324	ePKP	50 30.00	-1.0
SPC	148.80	335	iPKP	50 35.30	4.3X
KSP	148.82	340	ePKP	50 30.60	-0.1
	1.2s	197.00nm			
			id	50 35.50	
			i	50 41.90	
			e	52 51.70	
			i	52 59.20	
WIT	149.04	353	ePKP	50 36.00	5.1X
DPC	149.20	340	ePKP	50 31.17	-0.2
			iPKPbc	50 36.32	
CLL	149.32	344	iPKP	50 30.90	-0.5
	1.5s	29.00nm			
CLL	149.32	344	iPKP	50 36.70	5.3X
	1.4s	265.00nm			
			pPKP	52 53.60	
BRG	149.47	343	iPKP	50 31.00	-0.7
	1.3s	190.00nm			
			i	50 37.10	
			i	50 44.50	
			epPKP	52 55.40	
WTS	149.83	352	ePKP	50 32.50	0.4
	1.0s	282.10nm			
			e	50 37.00	
			e	52 55.00	
PRU	150.10	342	PKP	50 38.50	5.9X
	1.3s	159.00nm			
			pP	50 47.40	
			e	53 03.40	
MOX	150.27	346	ePKP	50 33.40	0.5
	1.5s	131.00nm			
HOF	150.51	345	iPKPd	50 39.40	6.1X
			i	50 48.70	
SRO	150.67	335	iPKP	50 36.40	2.9X
			ipPKP	53 01.00	
ZST	150.81	337	e(PKP)	50 33.80	0.0
			i	50 39.80	
			i	50 49.90	
			epPKP	52 51.40	
			i	53 02.70	
ENN	151.14	353	ePKP	50 41.00	6.9X
	1.0s	48.00nm			
			e	50 51.50	

10d 06h

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                 e     50 57.00
KHC   151.15 342 PKP   50 34.50   0.2
  1.2s     65.60nm
                 i     50 41.00
                 i     50 52.10
                 e     52 58.00
GRF   151.25 345 ePKP  50 34.60   0.2
 Z 17s     0.10um            4.7MszX
                 id    50 41.30
                 e     50 52.40
UCC   151.27 355 PKPc  50 42.00   7.7X
TNS   151.31 349 ePKPc 50 40.70   6.2X
WET   151.33 343 iPKPc 50 34.80   0.3
                 i     50 42.00
                 i     50 53.00
ALN   151.44 317 ePKP  50 40.86   6.0X
SNF   151.56 355 iPKPc 50 42.18   7.4X
                 ic    50 52.89
RZN   151.82 319 ePKP  50 35.00  -0.7
DOU   151.95 354 PKP   50 42.90   7.6X
                 e     53 00.50
VTS   152.15 322 ePKP  50 36.00  -0.1
WLF   152.20 352 PKPd  50 44.00   8.3X
                 ec    50 56.00
                 e     53 03.00
MMB   152.47 320 ePKP  50 36.00  -0.4
KKB   152.68 321 ePKP  50 36.00  -0.7
KBA   153.06 340 iPKPc 50 36.30  -0.9
                 i     50 44.60
                 i     51 00.70
                 ipPKP 52 59.80
CDF   153.26 350 ePKP  50 36.60  -0.8
VAY   153.32 321 ePKP  50 36.00  -1.5
  1.3s    110.00nm
                 i     50 44.60
                 i     51 01.40
WATA  153.34 343 iPKPc 50 37.00  -0.6
                 i     50 45.30
                 i     51 00.90
                 ipPKP 53 01.10
WTTA  153.39 343 iPKPc 50 37.40  -0.3
                 i     50 45.50
                 i     51 01.40
                 ipPKP 52 59.10
MOTA  153.46 344 iPKPc 50 37.20  -0.6
                 i     50 45.80
                 i     51 01.40
                 ipPKP 53 02.20
FLN   153.46   1 iPKPd 50 36.60  -0.9
  1.0s     26.80nm
SQTA  153.54 343 iPKPc 50 37.60  -0.2
                 i     50 45.80
                 i     51 01.80
                 ipPKP 53 01.40
SKO   153.55 323 ePKP  50 38.00   0.2
                 i     50 46.50
                 iPKPab51 02.80
                 iPP   51 09.50
LJU   153.57 338 ePKP  50 37.70   0.0
                 ePKPbc50 46.20
                 ePKPab51 01.50
LDF   153.64   1 iPKPd 50 36.80  -0.9
  1.1s     20.25nm
HAU   153.80 351 ePKP  50 37.60  -0.4
BSF   153.90 350 ePKP  50 37.40  -0.8
OGA   153.92 343 iPKPc 50 38.90   0.5
OHR   154.48 322 ePKP  50 30.50  -8.7X
  1.0s     80.00nm
                 i     51 05.50
LOR   154.82 354 iPKPd 50 38.90  -0.5
  1.3s     28.90nm
HYF   154.91 356 ePKP  50 39.30  -0.2
SSF   155.05 355 iPKPd 50 39.20  -0.5
  1.3s     35.00nm
LBF   155.09 354 iPKPd 50 39.30  -0.5
  1.5s     35.00nm
AVF   155.33 355 iPKPd 50 39.30  -0.8
  1.4s     27.00nm
SMF   155.44 354 iPKPd 50 39.30  -0.9
  1.2s     15.75nm
BGF   155.60 356 iPKPd 50 40.00  -0.5
  1.3s     33.20nm
MFF   155.63   1 iPKPd 50 40.00  -0.5
  1.1s     25.40nm
TCF   155.91 357 iPKPd 50 40.30  -0.6
  1.1s     17.85nm
MAF   155.95 356 iPKPd 50 40.50  -0.5
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      1.7s     28.65nm
LSF   155.97 358 iPKPd 50 40.10  -0.9
      1.4s     31.35nm
LPL   156.16 349 ePKP  50 41.40  -0.1
      1.0s      7.20nm
LPG   156.17 349 iPKPd 50 41.50  -0.1
      1.2s     14.90nm
RJF   156.92 358 iPKPd 50 41.70  -0.5
      1.3s     39.35nm
CAF   157.27 357 iPKPd 50 42.60   0.0
      1.3s     30.35nm
LPO   157.55 359 iPKPd 50 42.70  -0.2
      1.4s     47.05nm
EPF   159.21   0 iPKPd 50 44.80  -0.1
      1.0s     15.60nm
PAB   162.22  12 ePKP  50 49.50   1.4
LIC   163.29 161 PKP   50 50.05   0.3
      1.0s     37.50nm
     Z 20s      0.09um
KIC   163.50 162 PKP   50 50.17   0.2
      1.0s     36.50nm
TIC   163.69 160 PKP   50 50.27   0.1
      0.9s     28.50nm
LKO   166.17 154 PKP   50 52.53   0.3
      1.3s     41.00nm
      S.D. = 1.0  on 242 of 282 obs.
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   DEC  10, 1993  07h 33m 41.26± 0.36s
     0.222 N ± 8.7km  125.594 E ±14.3km
   DEPTH =  26.3km  (  2 depth phases)
   5.0mb ( 10 obs.)
 NORTHERN MOLUCCA SEA              (266)
CTB     7.07 349 ePd     35 26.00   0.3
WB2    21.80 157 iPc     38 32.80  -0.6
       0.6s    42.30nm          5.0mb
                 eS      42 30.70
QIS    24.79 147 eP      39 02.70   0.1
ASPA   25.08 162 eP      39 05.70   0.3
       0.6s    20.20nm          4.9mb
CHTO   32.02 307 eP      40 08.10   0.0
KMI    33.18 320 eP      40 21.50   3.2X
       1.5s    50.00nm          5.2mb
                 pP      40 28.00  22km
STK    35.34 156 iPd     40 36.40  -0.2
       0.6s     7.80nm          4.8mb
CD2    36.89 328 Pc      40 49.80   0.1
ADE    37.09 162 e(P)    40 52.30   0.9
XAN    37.10 337 P       40 50.00  -1.4
ARMA   39.27 143 iPd     41 09.20  -0.6
       0.4s     3.00nm          4.4mb
LZH    41.01 333 eP      41 25.00   0.9
       1.0s    27.00nm          4.9mb
LSA    43.99 315 eP      41 52.40   3.5X
GTA    45.57 332 eP      42 01.00   0.0
       1.0s    11.00nm          4.7mb
GUN    46.96 309 P       42 12.40  -0.1
       0.7s    28.00nm          5.4mb
GKN    47.97 309 P       42 20.40   0.2
HYB    49.33 293 eP      42 30.00  -0.6
       1.0s    25.00nm          5.2mb
POO    53.94 293 eP      43 05.50   0.2
WMQ    54.98 327 P       43 13.00   0.3
       1.0s    17.00nm          5.0mb
                 pP      43 22.30  30km
      S.D. = 0.6  on  17 of  19 obs.
--------------------------------------
   DEC  10, 1993  08h 31m 33.91± 1.04s
   19.880 N ± 7.3km   63.469 W ± 8.0km
   DEPTH =  30.4 ±  8.9 km
   4.3mb (  3 obs.)
 LEEWARD ISLANDS                   ( 92)
       MD 4.5 (TRN).
SKI     2.63 165 eP      32 16.90   1.7
                 eS      32 54.87
CPD     2.95 232 P       32 20.30   0.5
SJG     3.09 236 iP      32 21.70   0.0
ANG     3.13 150 eP      32 21.90  -0.3
                 eS      33 02.82
BPA     3.21 151 eP      32 23.00  -0.4
                 S       33 04.00
MBET    3.36 158 eP      32 25.73   0.1
                 eS      33 09.23
MGH     3.36 159 eP      32 26.62   1.0
                 eS      33 10.13
CLLP    3.44 239 P       32 26.20  -0.6
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MGP     3.90 242 P      32 32.50  -0.7
PAG     4.19 156 eP     32 37.65   0.2
DEG     4.22 147 eP     32 35.50  -2.4
MGG     4.44 152 eP     32 40.20  -0.8
TRN     9.39 167 eP     33 51.00   0.7
                 eS     35 36.00
HBF    19.92 314 eP     36 01.46  -4.6X
                 eS     39 18.91
SGS    20.17 315 eP     36 04.53  -4.1X
                 eS     39 24.85
CEH    21.05 322 eP     36 16.21  -1.5
       0.4s     8.92nm         4.5mb
                 eS     39 36.03
LHS    21.15 317 eP     36 18.03  -0.8
                 eS     39 46.44
JSC    21.32 316 eP     36 20.55   0.1
                 eS     39 50.06
PRM    21.94 314 (P)    36 26.50  -0.2
GOGA   22.33 311 eP     36 31.40   0.8
       0.5s     6.95nm         4.4mb
                 eS     40 16.75
PAL    22.86 339 eP     36 37.82   2.1
NAV    23.02 323 (P)    36 41.98   4.5X
                 eS     40 27.66
LSCT   23.26 341 (P)    36 44.71   5.1X
MYNC   23.70 314 (P)    36 38.81  -5.2X
                 eS     40 50.99
YKA    55.00 334 P      40 55.50  -9.0X
       0.8s     0.50nm         3.6mb
      S.D. = 1.2  on  19 of  25 obs.
--------------------------------------
   DEC  10, 1993  08h 59m 35.82± 0.09s
   20.912 N ± 1.8km  121.282 E ± 2.4km
   DEPTH =  12.0km  (geophysicist)
   5.8mb (130 obs.)  5.8Msz ( 51 obs.)
 PHILIPPINE ISLANDS REGION         (248)
       Mw 6.1 (GS), 6.0 (HRV). Ms 5.5
       (BRK). Mo=2.7*10**18 Nm (PPT).
       Depth from broadband
       displacement seismograms.
       FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=186 Dip=72 Slip=  90
       NP2:         6      18       90
        Principal Axes:
        T                Plg=63  Azm= 96
        P                    27      276
       Comment: The focal mechanism is
         poorly controlled and
         corresponds to reverse
         faulting. The preferred fault
         plane is NP2.
       MOMENT TENSOR SOLUTION
       Dep  22            No. of sta:  7
       Moment Tensor;   Scale 10**18 Nm
         Mrr= 0.88        Mtt=-0.01
         Mff=-0.87        Mrt= 0.15
         Mrf=-1.61        Mtf= 0.14
        Principal axes:
        T  Val=  1.84  Plg=59   Azm= 86
        N        0.01       1       354
        P       -1.85      31       263
       Best Double Couple:Mo=1.8*10**18
        NP1:Strike=348 Dip=14 Slip=  84
        NP2:       174     76        92
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 34S, 87C
       Centroid Location:
       Origin Time         08:59:41.9 0.1
       Lat 21.01N 0.02 Lon 121.14E 0.02
       Dep  24.0 BDY Half-duration  2.6
       Moment Tensor;   Scale 10**17 Nm
         Mrr= 9.78 0.16  Mtt=-0.50 0.23
         Mff=-9.28 0.24  Mrt=-2.83 0.31
         Mrf=-8.35 0.46  Mtf=-0.88 0.16
        Principal Axes:
        T  Val= 13.33  Plg=68   Azm=117
        N       -0.62       6        12
        P      -12.70      21       279
       Best Double Couple:Mo=1.3*10**18
        NP1:Strike=358 Dip=24 Slip=  75
        NP2:       194     66        97

PIP     2.65 194 iPd    00 19.50   0.4
                 iS     00 49.50
CVP     3.23 171 iP     01 03.00  35.6X
SZP     3.43 193 iPc    00 30.00  -0.2
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TATO 4.05 3 eP 00 42.43 3.6X
BAG 4.53 189 ePc+ 00 46.00 0.1
1.3s 1119.23nm
iS 01 36.00
QZH 4.72 329 Pnd 00 47.20 -1.2
Z 16s 99.60um
N 14s 115.00um
E 16s 92.00um
Sn 01 36.00
QCP 6.24 182 eP 01 14.00 4.0X
QVP 6.26 182 eP 01 12.00 1.7
HKC 6.76 283 iP 01 14.10 -3.2X
TGY 6.78 183 eP 01 20.00 2.4
MCO 7.29 281 eP 01 21.20 -3.6X
PGP 7.38 182 ePc 01 27.50 1.5
GZH 7.68 288 iPd 01 26.60 -3.5X
0.9s 290.00nm 6.5mb
Z 12s 78.30um 4.2MszX
N 12s 37.80um
E 12s 71.70um
S 03 00.00
SSE 10.14 360 P 02 05.30 1.1
Z 20s 56.70um
N 12s 17.70um
E 10s 14.00um
pP 02 08.00
S 04 05.00
PLP 10.32 159 ePc 02 07.80 1.0
MAP 10.84 166 iPc 02 16.00 2.1
QIZ 10.92 262 P 02 11.40 -3.6X
N 12s 34.00um
E 12s 12.20um
S 04 08.40
NJ2 11.30 349 Pd 02 19.00 -1.1
N 17s 30.80um
E 15s 48.00um
pP 02 27.50
WHN 11.44 328 Pc 02 19.50 -2.5X
Z 16s 59.20um
N 14s 62.10um
E 12s 8.25um
CGP 12.82 165 ePc 02 41.00 0.4
BIP 13.49 158 eP 02 49.50 -0.1
CTB 13.92 168 ePd 03 04.00 8.8X
ENH 14.14 314 ePd 02 57.38 -0.6
DAV 14.36 163 eP- 03 03.00 2.0
e 05 48.00
GYA 14.48 295 iPd 03 00.00 -2.7X
1.2s 610.00nm 6.1mb
Z 14s 72.50um 4.1MszX
N 13s 41.00um
E 13s 30.20um
PP 03 10.00
KKM 15.58 199 ePd 03 24.50 7.5X
1.5s 683.10nm 5.7mb
TIA 15.67 347 eP 03 19.40 1.4
1.0s 590.00nm 5.8mb
Z 16s 32.10um 5.0Msz
N 15s 12.80um
E 14s 26.50um
S 06 12.00
sS 06 25.00
TSM 16.85 192 ePc 03 34.40 1.2
XAN 17.05 323 ePd 03 35.36 -0.2
Z 15s 43.90um
N 13s 13.00um
E 13s 2.18um
sP 03 47.00
KMI 17.57 287 ePd 03 41.49 -1.0
2.0s 1650.00nm 5.8mb
N 13s 20.30um
E 11s 17.50um
ed 03 44.80
sP 03 55.00
PP 03 58.00
DL2 17.94 1 eP 03 50.00 3.4X
1.0s 120.00nm 5.0mb
Z 16s 27.60um 4.5Msz
N 14s 29.50um
E 12s 13.40um
S 07 04.00
TIY 18.42 337 iPd 03 54.50 1.8
1.2s 360.00nm 5.4mb
Z 14s 60.40um 4.8MszX
N 13s 31.10um
E 12s 15.70um
pP 04 02.20

CD2 18.62 306 iPc 03 53.70 -1.5
1.0s 600.00nm 5.7mb
E 10s 37.70um
S 07 10.20
LOE 18.80 263 iPd 03 56.00 -1.4
BJI 19.56 348 ePc 04 06.33 -0.1
1.8s 1650.00nm 6.0mb
Z 22s 27.10um 4.6MszX
E 17s 24.40um
esP 04 15.50
eS 07 46.00
eScS 15 40.50
NST 20.74 259 eP 04 18.50 -0.4
SNY 20.94 5 Pc 04 19.00 -1.9
1.4s 77.00nm 4.9mb
Z 14s 26.00um 5.8MszX
N 13s 10.70um
E 12s 9.90um
pP 04 28.00 33kmX
PP 04 41.50
iS 08 10.00
sS 08 19.50
SS 08 42.00
CHTO 21.11 268 iPd 04 22.40 -0.4
1.1s 154.00nm 5.3mb
ed 04 25.04 10kmX
eS 08 11.40
BDT 21.37 264 eP 04 25.30 0.0
1.1s 154.00nm 5.3mb
MAJO 21.46 40 eP 04 26.76 0.5
0.8s 156.05nm 5.5mb
MAJO 21.46 40 ePc 04 26.67 0.4
MAT 21.46 40 iPc 04 26.40 0.2
1.2s 273.44nm 5.5mb
Z 20s 15.25um 5.4Msz
eS 08 21.00
LZH 21.47 318 ePd 04 27.23 0.7
2.0s 2040.00nm 6.2mb
Z 16s 33.70um 5.8MszX
E 14s 30.30um
pP 04 36.50 34kmX
sP 04 39.00
PP 04 52.50
S 08 20.00
sS 08 32.00
ScS 15 45.00
HHC 21.52 340 Pd 04 28.50 1.6
1.8s 1030.00nm 5.9mb
Z 15s 36.90um 5.9MszX
N 13s 19.60um
E 11s 3.29um
pP 04 38.00 35kmX
PP 04 54.00
S 08 26.00
BTO 21.84 336 P 04 31.50 1.4
1.0s 130.00nm 5.3mb
N 13s 12.20um
E 14s 7.78um
sP 04 37.00
PP 04 55.00
S 08 28.00
sS 08 34.00
SS 09 07.00
NNT 22.21 252 iPd 04 35.20 1.3
KHT 22.43 258 iPd 04 35.60 -0.4
CN2 23.09 8 Pc 04 41.60 -0.7
0.6s 23.00nm 4.9mb
Z 20s 27.90um 5.7Msz
N 14s 18.60um
E 14s 10.60um
epP 04 49.00 27kmX
esP 04 53.00
ePP 05 09.00
S 08 44.00
PJG 23.65 104 eP 04 48.70 0.7
TT 27 56.80
GUMO 23.65 104 ePc 04 49.35 1.4
1.4s 3523.56nm 6.7mb
GUA 23.71 104 e(P) 04 49.40 0.8
1.4s 2604.65nm 6.6mb
Z 19s 31.86um 5.8Msz
VLA 23.86 19 iPd 04 51.00 1.3
2.0s 399.00nm 5.6mb
ipP 05 00.00 32kmX
i 05 28.00
iS 09 08.00
i 09 25.00

iSS 10 08.00
SNG 24.21 239 iPc 04 53.00 -0.4
1.9s 526.32nm 5.8mb
eS 09 11.20
MDJ 24.62 14 eP 04 57.51 0.3
1.0s 79.00nm 5.3mb
Z 18s 31.10um 5.8Msz
N 18s 14.20um
E 18s 18.00um
S 09 20.50
IPM 25.51 233 ePd 05 06.00 0.1
1.4s 415.50nm 5.9mb
KGM 25.68 225 ePc 05 08.50 1.0
GTA 26.05 320 Pd 05 10.70 -0.2
1.0s 68.00nm 5.3mb
Z 14s 33.70um 6.0MszX
E 13s 12.30um
sP 05 25.00
TPI 27.05 211 ePc 05 18.00 -2.1
e 09 00.00
SHL 27.38 285 iP 05 22.60 -0.7
iS 10 02.00
SAP 27.73 33 eP 05 26.00 0.0
ERM 27.97 36 (P) 05 28.08 -0.1
HIA 28.32 358 ePc 05 29.41 -1.9
LSA 28.55 294 iPd 05 34.71 0.6
1.2s 70.00nm 5.3mb
Z 15s 9.29um 5.5MszX
E 15s 2.76um
iS 10 22.50
KHKI 29.62 191 ePd 05 42.10 -1.2
e 10 03.20
KLI 30.26 214 eP 05 50.00 1.0
LEM 30.66 207 ePd 05 54.00 1.3
e(S) 10 57.00
YSS 31.32 29 ePc 05 57.61 -0.5
0.9s 170.00nm 5.9mb
Z 17s 18.50um 5.8MszX
N 17s 13.10um
E 17s 6.50um
epPc 06 00.92 12kmX
ed 06 05.22
ePPP 07 13.00
eS 10 52.00
eSSS 13 05.00
CIT 31.60 351 eP 06 00.50 0.0
Z 18s 21.16um 5.9Msz
N 18s 14.60um
E 16s 18.97um
eS 11 06.00
KUR 32.66 36 iPd 06 10.00 0.2
1.0s 570.00nm 6.5mb
Z 20s 18.90um 5.8Msz
N 20s 18.90um
E 20s 26.80um
ZAK 32.67 338 iPc 06 09.60 -0.1
1.0s 104.00nm 5.7mb
Z 17s 14.14um 5.7MszX
N 16s 17.11um
e 08 55.40
eS 11 18.00
WWKK 32.78 136 eP 06 08.50 -2.7
GUN 32.90 289 P 06 12.20 -0.3
PKI 33.29 289 P 06 14.90 -1.0
KKN 33.42 289 P 06 16.00 -0.9
DMN 33.56 289 P 06 17.70 -0.5
IRK 33.96 341 eP 06 20.00 -1.1
1.5s 195.00nm 5.8mb
Z 16s 22.10um 6.0MszX
N 15s 16.60um
E 15s 4.62um
e 06 29.00 31kmX
e 06 35.00
e 07 40.00
e 07 58.00
eS 11 43.00
e 11 58.00
e 14 18.00
GKN 34.00 289 P 06 20.80 -1.1
MDG 35.41 135 eP 06 34.00 0.1
WMQ 36.04 317 ePd 06 39.54 0.5
1.0s 45.00nm 5.3mb
Z 14s 19.80um 6.0MszX
E 13s 8.98um
pP 06 50.00 36kmX
sP 06 53.00
PP 08 04.00

10d 09h

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                    PcP   09 03.90
                    iS    12 19.00
                    ScP   12 45.50
                    PcS   12 48.00
                    ScS   16 52.90
KNA    37.17 168 iPc   06 47.60  -0.9
       0.8s  365.00nm          6.2mb
UER    37.23 332 iPc   06 49.00   0.3
       1.3s  160.00nm          5.6mb
   Z  13s      8.75um          5.7MszX
   N  13s      5.55um
   E  13s      8.75um
                    e     08 14.00 446kmX
                    e     08 39.20
                    iS    12 39.00
BOD    37.26 354 iPc   06 47.90  -1.0
       1.5s  102.00nm          5.4mb
LAT    37.27 135 eP    06 49.50   0.0
PMG    39.43 137 ePc   07 06.07  -1.5
       1.0s   50.00nm          5.1mb
HYB    40.43 273 iPd   07 15.50  -0.4
       1.0s   50.00nm          5.2mb
                    eS    13 23.50
NDI    40.56 290 iPd   07 16.00  -0.9
                    eS    13 20.00
YAK    41.49   6 iPc.  07 24.20   0.2
       1.5s  166.00nm          5.5mb
   Z  16s     16.90um          6.0MszX
   N  16s      5.20um
   E  20s     15.00um
                    ePP   08 47.00
                    iPPP  09 17.00
                    eS    13 11.00
                    iScP  13 33.00
                    ePcS  13 40.00
                    eScS  17 27.00
GBA    42.39 267 Pd    07 33.00   1.0
WRA    42.57 162 P     07 32.00  -1.3
       0.7s  202.30nm          6.0mb
WB2    42.57 162 iPd   07 31.80  -1.5
       0.7s  386.00nm          6.2mb
                    iScP  13 14.40
                    eS    13 47.70
KSH    42.80 306 P     07 36.00   0.7
       1.0s  160.00nm          5.7mb
   Z  14s     20.50um          6.2MszX
   N  13s     12.20um
   E  13s     13.40um
                    pP    07 46.00  34kmX
                    PP    09 19.00
                    PcP   09 24.00
                    ScP   13 12.00
                    PcS   13 16.00
                    S     14 03.00
                    ScS   17 30.00
PET    42.97  33 eP    07 37.00   0.7
       0.9s  340.00nm          6.1mb
   Z  20s      8.00um          5.6Msz
                    eS    14 00.00
                    eSSS  17 30.00
KOD    43.39 263 ePd   07 41.00   0.4
       0.9s   26.89nm          5.0mb
                    eS    14 12.00
NIL    44.17 297 iPd   07 49.10   2.7
       0.9s    0.08nm          2.6mb X
                    iPcP  17 37.00
FRU    44.57 310 eP    07 51.00   1.5
       2.2s  270.00nm          5.7mb
   Z  20s     20.00um          6.0Msz
   N  18s     15.00um
   E  20s     26.00um
                    e     08 03.00  43kmX
                    eS    14 28.00
                    eSS   17 36.00
POO    44.59 276 iPd   07 50.20   0.3
                    iS    14 08.00
QIS    44.94 155 iPc   07 51.60  -1.0
BOM    45.48 276 eP    07 56.50  -0.5
                    iS    14 36.50
ASPA   45.98 164 iPc   08 00.10  -0.7
       0.8s  236.00nm          6.2mb
                    ePP   09 36.80
                    iScP  13 28.10
                    iS    14 42.70
                    iScS  17 51.30
WARB   47.10 173 eP    08 09.50  -0.1
       0.5s  103.00nm          6.2mb
MEEK   47.34 183 iPc   08 10.20  -1.3
       1.0s  171.00nm          6.1mb
CTAO   47.51 147 P     08 13.02   0.1
       1.3s 1023.95nm          6.7mb
QUE    49.49 292 ePd   08 28.80   0.3
                    eS    15 22.00
MRWA   50.10 186 iPc   08 31.60  -1.2
       0.6s   42.00nm          5.6mb
TIK    50.93   3 iPd+  08 37.00  -1.5
       1.6s  240.00nm          5.9mb
   Z  16s     20.50um          6.2MszX
                    iS    15 46.00
                    iPS   16 00.00
                    i     18 23.00
SMY    51.30  38 P     08 50.00   8.3X
   Z  21s      4.88um          5.5Msz
BAL    51.41 185 iPc   08 41.00  -1.7
       0.6s   64.00nm          5.7mb
COOL   51.50 180 iPc   08 41.60  -1.8
       0.9s  130.00nm          5.9mb
FORT   51.80 173 eP    08 44.80  -0.9
       0.7s  159.00nm          6.1mb
KLB    52.31 184 iPc   08 48.00  -1.5
       0.6s   46.00nm          5.6mb
MUN    52.81 185 eP    08 50.00  -3.3X
       1.4s  125.00nm          5.7mb
   Z  20s      2.90um          5.3Msz
NWAO   53.67 184 iPd   08 58.70  -0.9
       0.6s   41.00nm          5.6mb
RKG    55.32 184 eP    09 11.20  -0.4
       0.6s   17.00nm          5.3mb
MAIO   55.52 300 iPd   09 14.00   0.7
       1.2s   24.31nm          5.1mb
                    eS    17 04.00
STK    55.98 159 iPc   09 15.40  -1.1
       0.8s   89.20nm          5.8mb
                    eS    16 58.30
ASH    56.38 302 eP    09 20.00   0.6
       1.5s  260.00nm          6.0mb
   N  16s     12.61um
   E  16s      7.94um
                    i     09 32.00  42kmX
                    e     10 18.00
                    e     11 26.00
                    eS    17 11.00
                    e     19 08.00
                    eSS   20 58.00
ADK    56.62  41 eP    09 19.76  -1.1
       1.2s  170.46nm          6.0mb
SVE    56.74 325 ePc   09 21.50  -0.2
       1.8s  240.00nm          5.9mb
   Z  15s     15.50um          6.2MszX
   N  15s      4.00um
   E  15s     11.50um
                    e     10 14.00 234kmX
                    e     11 24.00
                    iS    17 13.00
ARU    57.76 324 eP    09 28.43  -0.4
       0.6s   69.45nm          5.9mb
ADE    57.98 163 iPc   09 30.30  -0.4
ARMA   58.79 149 iPd   09 36.40  -0.1
       0.7s   57.00nm          5.8mb
BKM    59.91 126 iPd   09 44.50   0.2
DZM    61.38 131 iPc   09 54.00  -0.4
RIV    61.43 152 iPc   09 55.40   1.1
       1.0s 6160.00nm          7.7mb X
CAN    61.80 154 iPc   09 56.80  -0.1
                    i     10 36.00 166kmX
CNB    61.94 154 iPc   09 57.70  -0.2
       1.0s  254.00nm          6.4mb
SHI    62.00 293 eP    09 58.00  -0.7
TOO    62.48 158 iPc   10 01.50   0.1
       0.7s  121.00nm          6.2mb
                    i     10 06.80  17kmX
ANM    64.17  27 eP    10 11.73  -0.5
GRO    65.65 309 iP+   10 34.00  11.9X
       1.5s  480.00nm
                    eS    19 04.00
KER    65.78 299 eP    10 24.00   0.7
TAB    65.83 303 eP    10 25.00   1.4
                    i     10 35.00  32kmX
SDN    66.40  38 eP    10 25.16  -1.5
       0.7s  246.57nm          6.5mb
   Z  21s      3.31um          5.5Msz
MTA    66.50 307 eP    10 28.60   1.0
   E  19s      3.00um
                    i     10 40.60  41kmX
                    eS    19 19.60
                    ePS   19 54.00
                    ePPS  20 12.00
                    eSS   23 29.00
ERE    66.93 306 iP    10 31.00   0.5
                    iS    19 25.00
PYA    67.46 310 eP    10 32.00  -1.7
       1.3s  150.00nm          6.0mb
   Z  18s      6.00um          5.9Msz
   N  18s      2.50um
   E  18s      6.00um
                    i     10 44.00  40kmX
                    i     10 45.00
                    iS    19 29.00
                    eSS   23 50.00
KIV    67.73 310 iPc   10 35.80   0.3
       1.3s  173.00nm          6.1mb
   Z  14s      5.30um          5.9MszX
                    eS    19 32.50
BRW    67.79  20 ePd   10 34.99  -0.3
VUN    68.09 120 eP    10 38.20   0.3
RYD    68.14 289 ePc   10 38.00  -0.3
                    eS    19 37.00
TTA    68.29  29 iPc   10 38.56  -0.1
       0.9s  105.42nm          6.0mb
SVW    68.61  31 iPc   10 40.93   0.4
       0.9s  294.05nm          6.5mb
MJMA   69.04 291 ePc   10 43.30  -0.5
IMA    69.09  26 iPc   10 43.36  -0.2
       1.3s  142.61nm          6.0mb
MOS    69.45 323 iPd   10 46.00   0.3
       2.0s  500.00nm          6.3mb
   Z  15s      6.60um          6.0MszX
                    e     11 12.00 102kmX
                    eS    19 49.00
SOC    69.92 310 eP    10 59.00  10.2X
   Z  18s      5.00um          5.8Msz
   N  17s      3.00um
   E  16s      3.00um
                    e     13 28.00 790kmX
                    eS    19 50.00
                    ePS   20 16.00
OBN    70.11 323 eP    10 50.14   0.3
       0.9s   68.23nm          5.8mb
CP2    70.22  31 ePc   10 50.88   0.3
CRP    70.26  31 eP    10 50.35  -0.5
QASM   70.51 291 ePc   10 52.00  -0.9
KDC    70.58  35 eP    10 52.03  -0.5
       1.0s  236.78nm          6.3mb
KMSA   71.14 285 ePc   10 55.30  -1.5
SLKM   71.31  31 eP    10 55.59  -1.4
AFIF   71.32 289 ePc   10 59.00   1.1
UQSK   71.61 291 ePc   11 00.70   1.1
PMR    71.65  30 ePc   10 57.88  -1.1
       0.8s  173.93nm          6.2mb
   Z  20s      3.70um          5.6Msz
COL    71.67  27 ePc   10 58.59  -0.5
       0.8s   57.43nm          5.7mb
                    ec    11 05.21  21kmX
                    ed    11 09.85
FBA    71.67  27 eP    10 58.34  -0.7
       1.1s   70.06nm          5.7mb
KEV    72.04 339 eP    10 59.84  -1.4
       0.9s   82.10nm          5.8mb
PUL    72.66 328 (P)   11 05.00   0.0
   Z  16s     24.00um          6.6MszX
   N  16s      7.00um
   E  16s     20.00um
                    e     11 11.80  22kmX
                    e     11 23.00
                    e     13 46.00
                    eS    20 28.00
                    e     21 06.00
                    e     28 16.00
SDF    72.75 336 eP    11 05.00  -0.5
DHJN   72.81 283 ePc   11 07.30   0.3
TOA    72.93  29 ePc   11 07.10   0.5
KLU    73.18  30 iP    11 07.57  -0.6
KBS    73.25 349 eP    11 08.50   0.3
SIM    73.58 312 eP    11 11.00   0.3
   Z  22s      4.50um          5.7Msz
                    eS    20 39.00
KAF    74.04 331 iP    11 12.50  -0.5
       0.7s   34.40nm          5.5mb
CTK    74.07 308 eP    11 14.00   0.2
AFI    74.29 112 ePc   11 15.65   0.4
                    epPc  11 20.03  14kmX
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OPA 74.29 72 eP 11 16.11 0.9
HON 74.40 73 P 11 23.52 7.7X
Z 20s 6.68um 5.9Msz
DHH 74.59 73 eP 11 17.99 1.0
TAIF 74.60 287 eP 11 18.00 0.7
OUZ 74.68 138 eP 11 18.20 1.1
KAS 74.68 309 eP 11 18.50 1.2
TRO 74.79 339 eP 11 18.00 0.8
BALM 74.96 30 ePc 11 18.12 -0.4
BHL 75.15 301 P 11 28.00 7.8X
S 20 58.00
NUR 75.23 329 iP 11 19.50 -0.4
0.8s 46.90nm 5.6mb
MNK 75.51 322 eP 11 19.00 -2.6
Z 16s 7.80um 6.1MszX
eS 20 52.00
WCZ 75.61 138 eP 11 23.60 1.2
SGKT 76.14 308 eP 11 25.00 -0.8
FAM 76.17 302 eP 11 27.00 1.2
MBC 76.42 12 iPc 11 26.60 0.2
0.6s 282.00nm 6.5mb
PcP 11 36.00
S 21 06.70
ScS 21 35.80
PS 21 53.20
P'P' 38 36.90
WAJH 76.53 293 ePc 11 28.60 0.7
KIS 76.60 315 eP 11 26.00 -1.9
Z 20s 4.80um 5.8Msz
e 11 34.00 26kmX
ePPP 16 06.00
eS 21 13.00
ePS 21 46.00
MHA 76.61 73 eP 11 29.40 1.0
KKH 76.67 74 eP 11 29.67 0.9
CSS 76.71 302 eP 11 29.20 0.3
ALE 76.75 0 ePc 11 28.59 0.4
epPc 11 32.40 12kmX
ed 11 35.87
SRFA 76.90 296 ePc 11 31.10 1.1
PPCY 77.51 303 eP 11 34.00 0.8
MOZ 77.52 140 eP 11 34.40 1.3
CFR 77.60 314 eP 11 32.50 -1.0
WLZ 77.60 139 eP 11 34.50 1.0
QRZ 77.70 143 eP 11 33.90 -0.1
MSZ 77.92 148 P 11 36.00 0.9
NGZ 78.43 140 eP 11 38.70 0.4
THZ 78.53 143 P 11 37.90 -0.8
0.7s 18.00nm 5.2mb
EWZ 78.60 146 P 11 39.40 0.6
ISR 78.70 314 eP 11 41.00 1.4
UPP 78.76 330 iP 11 39.30 -0.2
i 11 42.30 10kmX
iS 21 16.00
URZ 78.78 138 eP 11 39.30 -0.7
BWZ 78.80 147 P 11 40.10 0.2
LVV 78.82 319 eP 11 40.00 -0.1
e 21 39.00
eS 22 15.00
ePS 22 33.00
LTZ 78.86 144 eP 11 37.30 -3.1X
MLR 78.99 314 eP 11 42.00 0.7
KIW 79.09 142 eP 11 40.60 -1.1
MRW 79.21 142 eP 11 41.40 -0.9
SNZO 79.26 142 ePc 11 41.35 -1.2
ec 11 47.72 20kmX
S 22 10.00
MNG 79.27 141 eP 11 42.10 -0.6
KSL 79.29 305 eP 11 42.00 -1.0
CAW 79.34 142 eP 11 41.90 -1.1
JMB 79.51 311 iP 11 46.00 1.9
ODZ 79.55 147 eP 11 43.30 -0.7
DAG 79.62 351 iPd 11 41.00 -3.0X
1.0s 85.00nm 5.7mb
ipP 11 49.80 28kmX
isP 14 42.50
CMP 79.66 314 ePc 11 51.00 6.1X
MQZ 79.69 145 eP 11 45.10 0.3
SIT 79.70 33 eP 11 45.44 0.8
1.0s 123.25nm 5.9mb
Z 20s 2.45um 5.5Msz
BLW 79.74 142 P 11 44.70 -0.5
UZH 80.29 318 eP 11 46.00 -2.1
e 11 57.40 37kmX
e 12 00.00
iS 21 50.00
ePS 22 30.00

eSS 27 10.00
HFS 80.46 331 eP 11 48.00 -0.7
0.7s 33.10nm 5.4mb
Z 16s 6.17um 6.0MszX
LR 42 11.00
RDO 80.68 310 eP 11 50.00 -0.3
PRK 80.78 308 eP 11 51.20 0.3
DEV 80.87 316 ePd 11 52.00 0.8
PLD 80.95 312 iP 11 52.00 0.3
RZN 81.08 311 iP 11 51.00 -1.7
GZR 81.12 315 ePd 11 55.50 2.9X
NB2 81.15 332 P 11 51.70 -0.7
0.9s 46.60nm 5.5mb
PGB 81.17 312 iP 11 53.00 0.0
SPC 81.35 319 eP 11 54.50 0.6
NAO 81.42 332 P 11 51.32 -2.4
MMB 81.81 311 iP 11 56.00 -0.3
VTS 81.82 312 iP 11 57.00 0.5
MOL 81.94 335 eP 11 57.95 1.5
ePP 12 06.71
eSP 12 11.38
OUR 82.07 310 eP 11 58.34 0.8
SRS 82.07 311 eP 11 57.78 0.2
KKB 82.16 312 iP 11 58.00 -0.1
SOH 82.35 311 eP 11 58.86 -0.2
PAIG 82.43 310 iP 11 59.38 -0.1
KONO 82.52 332 (P) 11 57.78 -1.7
KNT 82.55 311 iP 12 00.14 0.1
NPS 82.63 305 eP 12 01.60 1.0
VAY 82.72 311 iP 12 01.00 0.1
1.4s 160.00nm 6.0mb
i 12 08.00 22kmX
GRG 82.97 311 eP 12 02.14 -0.2
KSP 83.04 322 ePc 12 02.70 0.3
1.0s 83.00nm 5.9mb
SRO 83.07 319 iP 12 03.20 0.6
DPC 83.18 321 (P) 12 01.72 -1.5
LIT 83.22 310 eP 12 03.54 -0.1
SKO 83.27 312 ePc 12 04.20 0.4
1.7s 120.00nm 5.8mb
Z 21s 2.42um 5.5Msz
i 12 04.60 1kmX
i 12 15.00
LR 52 19.00
PAF 83.35 211 eP 12 16.00 12.2X
eS 22 42.00
eSS 27 43.00
UZD 83.38 317 eP 12 04.10 -0.2
KZN 83.66 311 eP 12 05.00 -0.9
VAM 83.66 305 eP 12 06.80 0.9
ZST 83.66 319 eP 12 05.70 0.1
AGG 83.73 309 eP 12 05.14 -1.1
FNA 83.76 311 iP 12 05.86 -0.5
SUE 83.86 334 eP 12 05.75 -0.6
IVA 83.98 314 iPc 12 09.16 1.7
PVY 84.04 313 iPc 12 08.94 1.1
OHR 84.04 312 iP 12 06.00 -1.8
1.0s 60.00nm 5.8mb
BCI 84.06 313 eP 12 10.70 2.9X
VKA 84.11 320 iPd 12 09.30 1.4
Z 16s 4.20um 5.9MszX
i 12 18.30 28kmX
LR 57 30.00
VLI 84.13 307 eP 12 07.50 -0.8
PLE 84.14 314 iPc 12 09.55 1.2
MUD 84.27 329 iPd 12 10.60 2.1
0.7s 46.00nm 5.8mb
BRG 84.38 323 iPd 12 09.60 0.4
1.7s 80.00nm 5.7mb
i 12 20.70 36kmX
PRU 84.42 322 iPc 12 09.70 0.3
1.3s 56.20nm 5.6mb
Z 14s 3.60um 5.9MszX
N 18s 5.80um
E 18s 4.80um
i 12 14.70 16kmX
e 12 19.30
e 12 30.70
SKS 22 29.00
e 22 38.00
TTG 84.59 313 iPc 12 10.52 0.1
LACI 84.59 312 eP 12 11.00 0.6
TIR 84.60 312 eP 12 10.50 0.0
NKY 84.61 314 iPc 12 10.02 -0.7
CLL 84.71 323 iPc 12 11.10 0.3
1.6s 115.00nm 5.9mb
eS 22 34.00

ULC 84.78 313 iPc 12 12.37 0.9
BRY 84.88 314 iPc 12 11.94 -0.1
TPE 84.90 311 eP 12 12.00 -0.1
BDV 84.94 313 iPc 12 11.54 -0.7
IGT 84.97 310 eP 12 12.14 -0.3
HCY 85.10 314 iPc 12 13.57 0.6
KEK 85.28 311 eP 12 14.00 0.0
NAI 85.29 267 iP 12 17.00 2.3
Z 22s 0.37um 4.7MszX
S 22 36.00
SS 28 22.00
VLS 85.31 309 eP 12 14.20 0.0
PTJ 85.33 317 eP 12 15.20 1.0
ZAG 85.35 317 iP 12 15.20 1.1
KHC 85.37 321 Pc 12 14.60 0.4
1.0s 25.00nm 5.4mb
Z 17s 6.30um 6.1MszX
N 18s 3.10um
E 18s 2.50um
e 12 25.40 34kmX
e 12 47.50
SKS 22 34.00
MOX 85.80 323 eP 12 16.80 0.5
Z 20s 6.00um 6.0Msz
eS 22 45.00
HOF 85.80 323 iPd 12 17.30 0.9
YKA 85.94 23 P 12 17.30 0.5
1.0s 78.00nm 5.8mb
VBY 85.94 317 ePc 12 18.20 1.1
LJU 86.16 318 iPc 12 18.40 0.2
i 12 25.10 21kmX
e 22 37.20
e 22 53.20
e 22 56.80
e 23 48.00
BHG 86.42 320 iPd 12 20.50 1.0
KBA 86.43 319 iPd 12 19.90 0.1
1.0s 20.50nm 5.3mb
i 12 33.60 46kmX
i 12 41.60
i 15 46.60
i 15 58.60
GRF 86.47 322 ePc 12 20.30 0.6
eS 22 59.00
ePS 23 52.00
RIY 86.56 317 eP 12 20.10 -0.1
VOY 86.57 318 eP 12 20.00 -0.3
i 12 27.10 22kmX
e 12 57.90
TRI 86.79 318 e(P) 12 20.50 -0.8
e(PP) 15 52.00
e(PPP) 17 52.00
e(S) 23 00.00
e(SP) 23 56.00
e(SS) 28 40.00
e(SSS) 32 32.00
FUR 87.17 321 eP 12 24.40 1.3
Z 16s 5.40um 6.0MszX
e 13 01.50 146kmX
eS 23 02.10
CSY 87.31 184 iPc 12 14.00 -9.1X
0.9s 38.70nm 5.7mb
WTTA 87.38 320 iPd 12 24.60 0.2
0.9s 27.40nm 5.5mb
i 12 39.40 51kmX
WATA 87.38 320 iPd 12 24.40 0.1
WIT 87.38 326 eP 12 30.00 6.0X
SQTA 87.66 320 iPd 12 25.70 0.1
1.0s 29.60nm 5.5mb
MOTA 87.66 320 iPd 12 25.70 0.0
0.9s 24.30nm 5.5mb
i 12 29.00 10kmX
WTS 87.74 326 eP 12 32.00 6.3X
0.8s 22.00nm 5.5mb
OGA 87.94 320 eP 12 27.30 0.2
DRV 88.44 173 iP 12 28.00 -0.5
PP 16 06.00
S 23 20.00
SS 29 27.00
OSS 88.55 320 P 12 30.84 0.8
ENN 88.86 325 eP 12 36.00 4.9X
1.0s 30.00nm 5.5mb
VDL 89.06 320 P 12 36.65 4.2X
LLS 89.15 321 P 12 37.95 5.1X
CDF 89.36 323 eP 12 33.60 -0.1
1.2s 55.95nm 5.7mb
TMA 89.60 320 P 12 39.84 4.8X

10d 09h

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SNF     89.88 325 P       12 37.30   1.4
                  e       12 50.80  45kmX
BSF     89.94 322 eP      12 35.80  -0.7
        1.1s     24.90nm        5.4mb
DOU     89.94 325 Pc      12 37.00   0.8
                  S       23 11.00
GDH     90.02 358 iPd     12 35.00  -1.2
        1.2s     78.13nm        5.8mb
HAU     90.10 322 eP      12 36.60  -0.5
        1.1s     28.35nm        5.4mb
      Z  20s      4.75um        5.9Msz
MMK     90.18 320 P       12 38.66   0.9
DIX     90.49 320 P       12 42.63   3.4X
EKA     90.63 332 P       12 44.00   4.7X
        3.0s     31.10nm        5.1mb
EMS     90.78 321 P       12 44.34   3.9X
GMW     90.91  38 eP      12 41.99   1.2
LPG     91.19 320 eP      12 42.90   0.4
        1.0s     42.40nm        5.7mb
LPL     91.19 320 eP      12 42.70   0.3
        1.2s     67.85nm        5.9mb
PGF     91.31 317 eP      12 43.30   0.4
        1.1s    144.10nm        6.2mb
SBF     91.63 319 eP      12 44.20  -0.1
        1.1s     56.90nm        5.8mb
CRZF    91.66 220 eP      13 00.00  16.0X
                  eS      23 33.00
                  eSS     29 48.00
LOR     91.91 323 eP      12 45.00  -0.4
        1.2s     58.00nm        5.8mb
      Z  21s      4.30um        5.9Msz
LBF     92.01 323 eP      12 45.60  -0.3
        1.0s     55.60nm        5.9mb
COR     92.20  40 (P)     12 46.42  -0.4
SSF     92.23 323 eP      12 46.70  -0.2
        1.1s     36.15nm        5.7mb
FRF     92.27 319 eP      12 47.20   0.1
        1.2s     43.75nm        5.7mb
SMF     92.27 322 eP      12 46.90  -0.2
        1.0s     60.20nm        5.9mb
AVF     92.47 323 eP      12 47.80  -0.2
        1.3s     90.60nm        6.0mb
LMR     92.48 318 eP      12 48.20   0.1
        1.2s     65.45nm        5.9mb
LRG     92.51 319 eP      12 48.50   0.3
        1.1s     47.35nm        5.8mb
      Z  23s      7.78um        6.1MszX
HYF     92.60 323 eP      12 48.90   0.3
BGF     92.89 323 eP      12 49.60  -0.3
MAF     93.24 322 eP      12 51.80   0.2
        1.1s     46.15nm        5.8mb
DPW     93.28  36 eP      12 52.87   1.1
TCF     93.40 323 eP      12 52.40   0.1
        1.2s     54.45nm        5.8mb
NEW     93.63  35 eP      12 53.75   0.4
        0.9s     21.71nm        5.5mb
      Z  21s      2.75um        5.7Msz
LPF     94.16 325 eP      12 56.30   0.6
        1.2s     41.05nm        5.7mb
CAF     94.27 322 eP      12 57.00   0.6
        1.1s     26.60nm        5.5mb
RJF     94.37 322 eP      12 57.30   0.5
        1.1s     77.40nm        6.0mb
LGPM    94.47  43 eP      12 58.01   0.5
MFF     94.54 324 eP      12 57.70   0.2
        1.1s     25.90nm        5.5mb
WDC     94.83  43 P       13 10.00  11.0X
      Z  21s      2.67um        5.7Msz
LPO     94.92 322 eP      12 59.70   0.4
        1.3s     26.35nm        5.5mb
LFF     95.03 322 eP      13 00.50   0.7
        1.3s     69.30nm        5.9mb
ORV     96.06  44 eP      13 03.65  -1.0
ARN     97.24  46 eP      13 10.33   0.3
SAO     97.62  46 P       13 20.00   8.3X
      Z  20s      2.53um        5.7Msz
CMB     97.62  45 eP      13 03.30  -8.5X
      Z  20s      1.40um        5.4Msz
                  iS      24 35.30
                  eSP     26 05.30
                  ePS     26 16.30
                  iSS     30 49.30
                  iLQ     40 54.30
                  eLR     44 38.30
MAW     98.05 199 eP      13 16.30   3.5X
        0.9s      6.10nm        5.2mb
      Z  18s      2.20um        5.7Msz
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                  iSKS    23 58.10
                  eS      24 30.30
                  eSS     31 28.80
LSZ     98.14 257 iP      13 13.00  -1.4
                  i       13 27.00  47kmX
MEMM    98.78  44 eP      13 18.11   1.3
BONR    99.02  44 eP      13 19.29   0.9
HVU    100.07  38 (Pdiff13 24.35   1.5
ISA    100.22  46 Pdiff 13 30.00   6.4X
      Z  21s      3.47um        5.8Msz
TPNV   100.94  44 Pdiff 13 40.00  13.2X
      Z  19s      4.44um        6.0Msz
DUG    101.06  39 Pdiff 13 40.00  12.7X
      Z  19s      2.32um        5.7Msz
PAB    101.31 320 ePdiff13 40.00  11.7X
                  ePP     17 59.00
GSC    101.54  45 ePdiff13 30.07   0.6
RSSD   103.14  32 ePdiff13 36.37  -0.2
GOL    105.63  36 PKP     18 10.00   8.9X
      Z  21s      2.72um        5.8Msz
GLD    105.67  36 PKP     18 10.00   8.9X
      Z  19s      3.37um        5.9Msz
TUC    107.33  44 PKP     18 10.00   5.7X
      Z  21s      2.62um        5.8Msz
ALQ    108.31  40 PKP     18 20.00  13.7X
      Z  19s      1.89um        5.7Msz
SPA    110.78 180 ePKPd  18 09.30  -0.5
        1.0s     40.00nm
CBM    111.94   7 PKP     18 20.00   7.6X
      Z  18s      2.75um        5.9Msz
WMOK   112.83  35 PKP     18 20.00   5.4X
      Z  19s      2.61um        5.8Msz
TUL    113.48  32 iPKPc  18 16.10   0.3
SLM    113.80  27 PKP     18 30.00  13.7X
      Z  22s      1.64um        5.6Msz
LBNH   114.05  10 PKP     18 30.00  13.3X
      Z  20s      3.99um        6.0Msz
FVM    114.27  27 PKP     18 30.00  12.7X
      Z  18s      4.04um        6.1Msz
YSNY   114.33  16 PKP     18 30.00  12.7X
      Z  20s      3.58um        6.0Msz
BINY   115.21  14 PKP     18 30.00  11.0X
      Z  19s      2.52um        5.8Msz
UYO    115.52  32 iPKPc  18 19.30  -0.5
MIAR   115.66  32 ePKP   18 19.22  -0.8
      Z  19s      2.21um        5.8Msz
                  ePP     19 09.34
                  SP      29 03.99
HRV    115.80  11 PKP     18 30.00  10.0X
      Z  18s      3.10um        5.9Msz
NVL    115.97 200 iPKPc  18 18.00  -1.5
        1.2s     44.00nm
      Z  18s      1.00um        5.5Msz
      E  18s      0.50um
                  e       21 55.00
                  e       29 08.00
                  e       30 28.00
                  e       35 26.00
                  e       39 18.00
LSCT   116.29  12 PKP     18 30.00   9.0X
      Z  20s      4.26um        6.1Msz
MCWV   116.59  18 PKP     18 30.00   8.4X
      Z  19s      3.15um        5.9Msz
OXF    117.63  28 ePKP   18 22.39  -1.3
      Z  19s      1.60um        5.7Msz
MYNC   119.32  24 ePKP   18 26.01  -1.0
      Z  21s      3.37um        5.9Msz
LKO    119.66 295 PKP     18 27.07  -1.1
        0.9s     12.00nm
CEH    120.30  19 ePKP   18 27.27  -1.5
      Z  20s      2.78um        5.9Msz
KIC    120.49 291 PKPc   18 28.58  -1.2
        0.9s     24.00nm
TIC    120.60 292 PKPc   18 28.78  -1.2
        0.8s      7.50nm
LIC    120.81 291 PKPc   18 29.24  -1.1
        0.8s     12.50nm
      Z  22s      0.88um        5.4Msz
PRM    120.86  23 ePKP   18 29.27  -0.6
LHS    121.04  21 ePKP   18 28.24  -2.0
                  ePP     19 55.47
GOGA   121.05  24 ePKP   18 29.73  -0.5
      Z  19s      3.20um        6.0Msz
JSC    121.07  22 ePKP   18 29.45  -0.8
SGS    122.32  22 (PKP)  18 33.04   0.4
CANV   146.73  18 iPKP   19 18.10  -0.3
TOV    147.61  21 ePKP   19 20.70   0.8
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CAR    147.75  15 iPKP   19 20.00  -0.1
SDV    148.16  23 ePKP   19 20.60  -0.3
OLLA   148.25  15 iPKP   19 21.10   0.2
TRN    148.53   5 ePKP   19 21.50   0.3
SOB1   159.25 301 ePKP   19 35.90   0.0
NNA    160.50  66 iPKP   19 37.70   0.4
        1.2s     32.81nm
BDF    168.48 295 PKPc   19 42.40  -1.9
        1.5s      2.00nm
                  i       19 54.10
                  i       20 51.30
                  i       24 51.50
BAO    168.54 295 PKPd   19 43.00  -1.3
                  e       24 55.30
VAO    168.90 257 ePKP   19 44.40   0.1
RIFB   169.45 273 iPKPc  19 45.20   0.5
                  i       19 59.90
LPAZ   169.96  64 ePKPc  19 47.03   1.2
LPB    170.10  65 PKPc   19 46.50   0.9
        1.4s    976.74nm
      Z  22s      0.06um        6.6Msz
                  PP      24 49.80
                  PPP     28 37.00
                  SS      45 46.10
                  LQ      11 18.70
                  LR      19 24.70
CNCB   170.33  67 iPKPc  19 48.00   2.1X
                  i       21 03.00
FSA    171.56 129 ePKPc  19 48.00   2.5X
CCH    172.16  65 PKP     19 48.00   1.6
SLA    172.69 123 ePKP   19 47.60   1.4
       S.D. = 0.9  on 355 of 414 obs.
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  DEC 10, 1993  09h 22m 32.08± 1.17s
  40.410 N ±10.8km   21.793 E ± 6.6km
  DEPTH =   10.0km  (geophysicist)
 GREECE                          (364)

FNA      0.49 320 ePg    22 42.32   0.3
                  iSg    22 50.56
LIT      0.62 120 ePg    22 44.12  -0.4
                  eSg    22 52.20
GRG      0.72  40 ePg    22 45.56  -0.6
THE      0.92  76 ePg    22 50.12   0.5
OHR      1.03 313 ePn    22 51.50  -0.1
VAY      1.08  33 ePn    23 03.00  10.6X
KNT      1.13  48 ePg    22 52.80  -0.4
                  eSg    23 10.72
SOH      1.26  70 iPb    22 56.28   0.8
                  eSb    23 13.12
       S.D. = 0.6  on    7 of   8 obs.
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* DEC 10, 1993  10h 04m 36.49± 2.42s
  51.182 N ±21.7km   15.877 E ±12.9km
  DEPTH =   10.0km  (geophysicist)
 POLAND                          (548)
     ML 2.6 (CLL).

KSP      0.43 142 iPd    04 45.20   0.0
         0.2s    69.00nm
                  iS     04 54.60
BRG      1.26 257 iPg    04 59.70  -0.2
                  iSg    05 19.80
PRU      1.47 216 ePn    05 03.40   0.4
         0.4s    47.50nm
                  Pg     05 06.20
                  i      05 09.10
                  Sn     05 22.00
                  eSg    05 29.70
CLL      1.81 275 e(Pg)  05 08.00   0.1
                  eSg    05 34.00
KHC      2.53 217 ePn    05 18.00  -0.3
                  Pg     05 24.00
                  eSn    05 53.00
                  eSg    06 04.00
OJC      2.67 110 eP     05 23.90   3.6X
                  eS     05 57.00
MOX      2.75 260 ePg    05 27.20   5.8X
                  iSg    06 07.60
       S.D. = 0.4  on    5 of   7 obs.
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& DEC 10, 1993  10h 06m 08.93s
  35.648 N          117.637 W
  DEPTH =    5.1km
 CENTRAL CALIFORNIA               ( 39)
     <PAS-P>. ML 2.9 (PAS).
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ISA 0.68 272 iPc 06 21.67 -0.9
eS 06 30.58
GSC 0.76 117 eP 06 22.57 -1.7
SSK 1.43 182 eP 06 35.27 -0.5
ABL 1.52 239 (P) 06 36.48 -0.5
TPNV 1.72 40 eP 06 37.53 -2.2
PEC 1.80 167 eP 06 39.82 -1.0
MTUM 1.86 337 eP 06 43.14 1.3
eS 07 08.21
BCH 2.05 258 eP 06 43.79 -0.8
MEMM 2.27 333 (P) 06 49.34 1.7
eS 07 20.37
BONR 2.36 347 ePn 06 49.08 -0.2
PLM 2.38 164 eP 06 47.82 -1.5
TNP 2.45 8 (Pn) 06 49.87 -0.6
12 obs. associated

& DEC 10, 1993 10h 10m 10.50s
34.018 N 117.108 W
DEPTH = 8.2km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.2 (PAS), 3.3 (GS).

PEC 0.13 199 iPd 10 13.43 -0.1
CSP 0.35 324 P 10 17.20 -0.4
ELS 0.45 216 P 10 19.02 -0.7
SSK 0.52 292 iPc 10 20.30 -0.8
EWC 0.61 97 P 10 21.80 -1.0
PLM 0.69 163 ePd 10 23.31 -1.2
eS 10 31.76
INDC 0.76 105 P 10 24.53 -1.0
JNH 0.82 302 P 10 25.53 -1.1
HYS 0.93 336 P 10 27.47 -0.9
MIRC 1.05 125 P 10 29.48 -0.9
BRGC 1.15 137 P 10 31.54 -0.6
SHH 1.22 82 P 10 32.62 -0.8
GSC 1.30 11 iPd 10 34.36 -0.5
CIW 1.32 246 P 10 33.65 -1.4
STTC 1.36 305 P 10 35.72 0.0
GRP 1.47 57 P 10 36.20 -1.2
XMS 1.52 352 P 10 37.38 -0.6
WSHM 1.64 349 P 10 38.40 -1.4
TJR 1.68 307 P 10 39.50 -0.9
CLC 1.84 348 P 10 41.58 -1.1
WWPM 1.89 335 P 10 46.12 2.6
ABL 1.93 296 eP 10 42.93 -1.2
ISA 1.99 326 eP 10 43.56 -1.3
WCHM 2.02 337 P 10 48.13 2.6
RUN 2.06 120 P 10 43.93 -1.9
GLA 2.14 116 eP 10 44.66 -2.3
SYP 2.43 283 P 10 49.77 -1.5
BCH 2.72 296 eP 10 54.23 -1.1
TPNV 3.01 13 eP 10 58.47 -1.0
MTUM 3.53 341 (Pn) 11 07.04 0.1
ePg 11 15.10
MEMM 3.93 338 (Pn) 11 12.50 0.1
BONR 4.05 347 ePn 11 12.78 -1.5
TNP 4.06 359 ePn 11 13.89 -0.5
ePg 11 25.03
33 obs. associated

DEC 10, 1993 11h 13m 52.87± 0.40s
20.804 N ± 5.7km 121.240 E ± 7.2km
DEPTH = 33.0km (normal)
4.5mb (18 obs.) 4.1Msz (1 obs.)
PHILIPPINE ISLANDS REGION (248)

PIP 2.53 193 iPd 14 33.40 0.8
iS 15 03.00
BAG 4.41 188 ePd 15 00.30 0.8
eS 15 48.00
QZH 4.79 330 ePn 15 03.00 -1.5
Sn 15 54.00
QCP 6.14 181 eP 15 48.00 24.4X
HKC 6.75 284 iP 15 29.60 -2.6
GZH 7.67 289 Pc 15 42.00 -3.2X
QIZ 10.87 263 eP 16 29.60 0.4
eS 18 31.20
GYA 14.49 296 P 17 16.40 -1.3
1.2s 43.00nm 4.8mb
TIA 15.77 348 eP 17 40.00 5.9X
1.0s 21.00nm 4.3mb
XAN 17.11 323 P 17 55.50 4.4X
Z 15s 2.61um
KMI 17.57 288 Pc 18 00.50 3.4X
1.8s 50.00nm 4.3mb
sP 18 10.00
TIY 18.50 338 eP 18 06.70 -1.7
Z 16s 1.55um
N 13s 0.66um
CD2 18.65 306 eP 18 09.60 -0.7
0.8s 27.00nm 4.5mb
Z 15s 1.68um 4.2MszX
E 15s 1.32um
BJI 19.66 348 eP 18 21.00 -0.9
1.6s 23.00nm 4.2mb
Z 20s 0.60um 7.3MszX
eS 22 04.00
NST 20.68 259 eP 18 36.00 3.3X
CHTO 21.07 268 iPc 18 37.80 1.1
1.1s 13.25nm 4.3mb
LZH 21.53 319 eP 18 42.50 1.1
1.8s 33.00nm 4.4mb
Z 18s 0.69um 4.1Msz
E 12s 0.41um
sP 18 56.50
MAT 21.57 40 (P) 18 43.00 1.3
1.0s 8.00nm 4.1mb
eS 22 50.00
HHC 21.61 340 P 18 44.00 1.8
1.0s 15.00nm 4.4mb
Z 14s 0.59um 4.1MszX
BTO 21.93 337 eP 18 48.10 2.8X
GTA 26.11 320 eP 19 27.50 1.9
LSA 28.55 294 eP 19 50.60 2.2
GUN 32.90 289 P 20 27.40 0.7
KKN 33.42 289 P 20 31.20 0.1
GKN 34.00 289 P 20 32.50 -3.6X
WRA 42.48 162 P 21 46.00 -0.7
0.7s 15.70nm 4.9mb
WB2 42.48 162 eP 21 45.60 -1.2
0.8s 35.90nm 5.2mb
ASPA 45.89 164 iPc 22 13.70 -0.5
0.4s 15.80nm 5.3mb
STK 55.90 159 iPd 23 29.30 -0.6
1.0s 4.70nm 4.5mb
ADE 57.89 163 e(P) 23 43.50 -0.6
CNB 61.86 154 eP 24 10.20 -1.2
TOO 62.39 158 eP 24 15.30 0.5
0.8s 11.00nm 5.0mb
TTA 68.41 29 eP 24 53.24 -0.1
0.7s 4.03nm 4.6mb
IMA 69.20 26 (P) 24 59.00 0.8
1.2s 15.15nm 4.9mb
CRP 70.37 31 (P) 25 04.01 -1.4
FBA 71.78 27 eP 25 13.34 -0.4
0.9s 3.08nm 4.3mb
KLU 73.29 30 eP 25 22.87 0.2
GEC2 85.48 321 PKP 26 30.20 1.4
e 26 35.80
e 26 41.60
e 26 45.20
YKA 86.05 23 P 26 31.60 0.4
0.7s 1.90nm 4.4mb
S.D. = 1.2 on 31 of 39 obs.

? DEC 10, 1993 11h 38m 04.99± 0.95s
37.006 N ± 6.9km 4.217 W ± 9.5km
DEPTH = 5.0km (geophysicist)
SPAIN (377)
mbLg 2.5 (MDD).

ELOJ 0.15 20 iP 38 08.10 -0.1
eS 38 11.20
EMAL 0.30 215 eP 38 10.98 0.0
e 38 15.10
EGUA 0.55 108 eP 38 16.00 0.0
e 38 24.50
EBAN 1.21 16 eP 38 28.00 0.1
e 38 44.00
S.D. = 0.1 on 4 of 4 obs.

DEC 10, 1993 11h 52m 15.87± 0.63s
19.664 S ± 8.3km 178.150 W ± 6.7km
DEPTH = 615.5 ± 6.8 km
5.0mb (35 obs.)
FIJI ISLANDS REGION (181)

SVA 3.56 295 eP 53 40.10 0.1
MBU 4.00 312 eP 53 44.10 1.2
AFI 8.36 48 eP 54 17.00 -2.6
BKM 13.05 277 iPc 55 06.30 1.6
DZM 14.60 258 iPc 55 20.80 0.9
MRW 22.35 194 P 56 18.00 -13.6X
S 59 25.00
ARMA 29.32 243 iPd 57 32.70 -0.1
0.6s 19.00nm 4.9mb
CNB 32.58 235 eP 58 00.60 0.4
0.4s 11.00nm 4.8mb
CAN 32.87 235 eP 58 02.60 0.0
LAT 36.22 286 eP 58 31.00 0.7
TOO 36.28 233 iPd 58 31.20 0.5
0.7s 70.00nm 5.4mb
MDG 37.91 287 ePd 58 44.80 0.7
STK 38.03 243 iPd 58 45.30 0.3
1.3s 33.10nm 4.7mb
QIS 39.60 261 eP 58 57.00 -0.8
ADE 40.92 239 iPd 59 08.20 0.0
WB2 44.57 261 iPc 59 35.60 -1.2
0.5s 96.60nm 5.6mb
eS 05 22.50
ASPA 44.58 256 iPd 59 36.40 -0.5
0.8s 130.20nm 5.5mb
Z 20s 0.20um 4.0Msz
iPcP 01 05.50
iS 05 27.90
iScS 08 27.40
WRA 44.58 261 P 59 36.00 -0.9
0.5s 31.70nm 5.1mb
DHH 45.29 27 eP 59 41.24 -0.9
GUA 49.10 309 eP 00 10.70 -0.2
0.8s 286.57nm 5.8mb
GUMO 49.16 309 eP 00 11.00 -0.4
0.8s 233.90nm 5.7mb
PJG 49.16 309 eP 00 11.10 -0.3
FORT 49.50 246 eP 00 12.60 -1.2
0.7s 95.00nm 5.4mb
MBL 57.81 257 iPd 01 11.10 -1.3
MEEK 58.06 250 iPd 01 12.70 -1.4
0.3s 17.00nm 4.8mb
KLB 58.28 244 iPd 01 14.20 -1.3
0.7s 54.00nm 4.9mb
NWAO 58.62 243 iPc 01 16.70 -1.0
0.6s 7.00nm 4.1mb
SBA 58.69 184 iPc 01 19.00 1.5
BAL 59.27 246 iPd 01 20.60 -1.4
0.6s 71.00nm 5.1mb
MUN 59.56 244 eP 01 23.00 -1.0
0.7s 50.00nm 4.9mb
MRWA 60.04 247 iPd 01 26.00 -1.1
0.5s 16.00nm 4.5mb
MAT 69.46 324 eP 02 25.00 -0.6
0.6s 28.00nm 4.9mb
SPA 70.46 180 iPc 02 31.00 -0.2
0.7s 39.06nm 5.0mb
ADK 71.25 1 eP 02 34.14 -1.4
0.5s 14.46nm 4.8mb
LEM 72.92 269 iPd 02 56.50 10.2X
TPI 74.20 273 ePd 02 54.20 1.0
e 03 24.20
YSS 75.15 333 iPd 02 57.40 -0.3
1.0s 90.00nm 5.3mb
SSE 77.05 310 P 03 08.50 0.1
1.0s 14.00nm 4.4mb
BCH 77.50 45 eP 03 12.30 1.4
PLM 78.70 48 eP 03 18.05 0.7
CMB 78.95 43 eP 03 18.87 0.5
1.0s 11.58nm 4.3mb
ORV 79.14 41 eP 03 19.87 0.6
LGPM 79.15 39 eP 03 20.43 1.0
BONR 80.25 44 eP 03 26.48 1.0
KVN 81.00 43 eP 03 30.13 1.0
TUC 82.58 52 eP 03 39.47 2.4
1.2s 21.18nm 4.6mb
CRP 83.31 12 eP 03 38.73 -1.5
ARUT 83.40 46 eP 03 42.38 1.2
TTA 84.15 10 eP 03 44.02 -0.1
1.1s 13.18nm 4.5mb
SNG 84.20 280 eP 03 47.90 2.6
1.1s 126.58nm 5.5mb
PMR 84.24 13 eP 03 43.51 -1.0
0.6s 22.95nm 5.0mb
MSU 84.63 46 eP 03 47.87 0.6
KLU 84.90 15 eP 03 47.16 -0.7
BJI 85.20 315 eP 03 50.50 0.9
1.0s 17.00nm 4.7mb
SRU 86.05 46 eP 03 54.31 0.3
PV09 86.71 47 eP 03 57.41 0.1
PV10 86.71 47 eP 03 57.14 -0.1
LTX 86.73 57 eP 03 58.14 0.8
NNT 86.92 284 iPc 04 00.50 2.2

10d 12h

```
PV08    87.08  47 eP     03 59.70   0.6
IMA     87.45  10 eP     03 59.03  -0.9
        0.8s     8.83nm          4.6mb
FBA     87.46  12 iPd    03 58.57  -1.3
        0.8s    39.81nm          5.2mb
SYO     87.53 193 ePc    04 01.60   1.3
                 eS      13 28.00
                 eScS    13 48.00
NST     87.65 287 eP     04 03.00   1.3
KMI     88.85 297 Pd-    04 09.00   1.6
        1.2s   100.00nm          5.6mb
                 pP      04 16.50  23kmX
BDT     89.22 289 eP     04 10.00   1.1
        1.0s    89.70nm          5.6mb
CHTO    89.83 290 ePd    04 13.00   1.3
        0.9s    40.07nm          5.3mb
LZH     92.15 308 eP     04 23.00   0.7
        1.0s    49.00nm          5.5mb
RSSD    92.65  44 eP     04 24.39  -0.1
        1.5s    16.33nm          4.9mb
MEO     92.84  54 iPd    04 25.60   0.3
YKA     95.82  25 P      04 37.00  -1.1
        0.6s     2.10nm          4.5mb
ARU    124.42 326 iPKP   10 06.00  -1.2
MAIO   127.20 301 ePKP   10 13.00  -0.3
KAF    134.31 344 ePKP   10 23.00  -2.9X
OBN    135.95 332 ePKP   10 28.00  -1.2
        1.0s    28.00nm
NUR    136.10 344 ePKP   10 18.80 -10.5X
NB2    138.14 353 PKP    10 22.40 -10.8X
        0.7s     7.90nm
HFS    138.70 351 ePKP   10 23.70 -10.4X
        0.4s     9.90nm
MUD    142.85 353 iPKPd  10 39.90  -1.6
        0.8s    80.00nm
EDU    142.99   4 ePKP   10 38.90  -2.9X
ELO    143.01   5 ePKPd  10 39.00  -2.8X
EAB    143.24   6 ePKP   10 39.90  -2.3X
BSD    143.25 347 iPKPd  10 39.90  -2.3X
        0.8s    80.00nm
EBH    143.25   5 ePKPd  10 40.00  -2.2X
ESY    143.65   4 ePKP   10 41.00  -1.9
EAU    143.66   5 ePKP   10 41.40  -1.5
EBL    143.76   5 ePKPd  10 41.60  -1.5
EKA    144.19   5 PKP    10 43.00  -0.8
CTK    144.93 314 ePKP   10 47.30   1.5
KAS    145.32 316 ePKP   10 47.00   0.7
DCN    145.65  10 iPKPd  10 47.40   1.1
DLF    145.81   9 iPKPd  10 47.80   1.2
MRFT   145.94 314 ePKP   10 49.60   2.1X
CLI    146.04 328 ePKPd  10 49.50   2.3X
OJC    146.33 339 iPKP   10 49.70   2.1
        0.7s    57.00nm
CFR    146.51 325 ePKP   10 50.50   2.6X
DVR    146.57 316 ePKP   10 50.20   1.9
UZH    146.73 335 iPKPd  10 52.00   3.8X
        1.0s   310.00nm
                 e       11 03.70
VRI    146.79 328 ePKPd  10 51.00   2.6X
BHL    146.83 302 PKP    10 51.00   2.0
SGKT   146.84 316 ePKP   10 51.50   2.5X
KSP    146.85 343 ePKP   10 48.20  -0.2
        0.8s    92.00nm
                 id      10 51.00
                 i       10 55.00
                 e       13 11.40
SPC    147.05 338 ePKP   10 48.40  -0.6
                 i       10 52.20
CLL    147.22 347 iPKP   10 48.30  -0.6
        1.2s    12.00nm
ISR    147.39 327 ePKPd  10 53.00   3.5X
BRG    147.42 346 iPKP   10 49.40   0.1
                 i       10 52.90
                 i       10 56.80
MLR    147.45 328 ePKPd  10 53.00   3.3X
NAL    147.52 315 ePKP   10 53.60   3.6X
CMP    148.06 328 ePKPc  10 57.00   6.5X
PRU    148.09 344 iPKPd  10 54.40   4.0X
        0.8s    64.30nm
                 i       10 59.90
                 e       11 19.50
MOX    148.13 348 ePKP   10 50.00  -0.4
HOF    148.39 348 iPKPd  10 55.30   4.4X
        1.0s    55.00nm
UCC    148.87 357 PKP    10 57.00   5.5X
SRO    148.90 338 iPKP   10 56.70   5.1X
ZST    148.97 340 ePKP   10 51.40  -0.4

                 i       10 57.10
TNS    149.06 352 ePKPc  10 56.40   4.5X
GRF    149.12 348 ePKP   10 52.00   0.0
                 id      10 57.50
                 e       11 04.20
KHC    149.13 345 PKP    10 52.00   0.0
        1.0s    60.50nm
                 i       10 57.30
                 e       11 04.00
                 e       12 02.30
JMB    149.13 323 iPKP   10 57.00   4.8X
SNF    149.16 357 iPKPd  10 56.99   5.1X
                 ic      11 03.83
PVL    149.33 325 iPKP   10 59.00   6.6X
DOU    149.56 357 iPKPd  10 58.00   5.4X
WLF    149.87 354 iPKP   10 59.00   6.0X
PGB    150.41 325 iPKP   11 00.00   5.8X
PLD    150.42 324 iPKP   10 59.00   4.9X
FUR    150.56 347 iPKPd  11 00.40   6.2X
                 i       11 10.30
RZN    150.69 324 ePKP   11 00.00   5.2X
VTS    150.89 326 iPKP   11 01.00   6.0X
FLN    150.91   3 ePKP   11 00.70   6.1X
        0.8s    77.10nm
CDF    150.99 353 ePKP   11 01.10   6.2X
        0.8s    43.40nm
KBA    151.09 344 iPKPd  10 54.70  -0.5
                 i       11 00.70
                 i       11 12.90
LDF    151.10   3 ePKP   11 01.00   6.1X
        0.6s    37.70nm
GRR    151.26   4 ePKP   11 01.60   6.4X
        0.6s    47.80nm
WATA   151.28 346 iPKPd  10 53.40  -2.1X
                 i       11 01.70
MMB    151.31 324 iPKP   11 02.00   6.5X
WTTA   151.33 346 iPKPd  10 54.80  -0.8
                 i       11 02.00
                 i       11 13.60
PTJ    151.36 339 ePKP   11 02.00   6.5X
MOTA   151.38 347 iPKPd  10 54.80  -0.8
                 i       11 02.00
KKB    151.47 326 iPKP   11 02.00   6.3X
SQTA   151.47 347 iPKPd  10 55.10  -0.6
                 i       11 02.20
HAU    151.49 354 ePKP   11 02.10   6.5X
        0.8s    34.65nm
LPF    151.61   4 ePKP   11 02.50   6.8X
        0.6s    76.50nm
BSF    151.62 353 ePKP   11 02.30   6.4X
        0.8s    25.65nm
LJU    151.69 341 ePKP   10 56.50   0.6
                 ePKPbc11 02.70
OGA    151.85 347 iPKPc  10 56.40   0.1
VOY    151.89 342 ePKP   10 55.80  -0.5
                 iPKPbc11 02.60
                 ePKPab11 14.60
VAY    152.12 325 iPKP   11 02.70   6.1X
                 i       11 17.70
TRI    152.22 342 ePKPd  11 03.50   6.9X
                 e       11 16.40
SKO    152.24 328 ePKP   10 56.00  -0.8
                 i       11 04.00
                 iPKPab11 18.00
LOR    152.42 357 ePKP   11 04.30   7.4X
        0.9s    35.05nm
SSF    152.64 358 ePKP   11 04.80   7.6X
        0.9s    28.65nm
LBF    152.69 357 ePKP   11 04.80   7.5X
        0.7s    11.25nm
SMF    153.04 357 ePKP   11 05.40   7.6X
MFF    153.08   3 ePKP   11 05.50   7.7X
        0.8s    22.05nm
BGF    153.16 358 ePKP   11 05.90   8.0X
OHR    153.20 327 ePKP   10 57.80  -0.4
TCF    153.45 359 ePKP   11 06.30   7.9X
        0.9s    21.95nm
LSF    153.48   0 ePKP   11 06.20   7.8X
        0.6s    15.60nm
MAF    153.51 359 ePKP   11 06.90   8.5X
LPG    153.92 352 ePKP   11 08.40   9.0X
RJF    154.43   1 ePKP   11 09.10   9.4X
LIC    165.06 152 PKP    11 11.70  -0.4
KIC    165.31 153 PKP    11 11.88  -0.4
        0.7s    11.50nm
TIC    165.44 152 PKP    11 12.00  -0.4
        0.8s    10.50nm

LKO   167.63 143 PKP    11 13.38  -0.7
      1.0s    18.00nm
    S.D. = 1.1  on 105 of 165 obs.
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% DEC 10, 1993  12h 04m 32.70± 0.59s
  36.993 N ± 5.8km    4.232 W ± 4.9km
  DEPTH =  10.0km  (geophysicist)
STRAIT OF GIBRALTAR                (385)
  mbLg 2.7 (MDD).

EMAL     0.28 214 eP     04 38.35  -0.2
                  e      04 42.50
EGUA     0.56 106 iPc    04 43.70  -0.3
                  e      04 51.20
ELUQ     0.57 357 eP     04 44.00  -0.2
                  e      04 52.50
ECOG     0.60  62 eP     04 44.34  -0.6
                  e      04 53.50
EPRU     0.80 268 eP     04 49.02   0.7
                  e      04 59.90
EHOR     1.16 316 iPc    04 53.52  -0.8
                  e      05 09.70
EBAN     1.22  17 iPd    04 55.63   0.2
                  e      05 12.50
EHUE     1.54  57 eP     05 01.22   0.9
                  e      05 21.80
EVIA     2.14  39 eP     05 09.35   0.3
                  e      05 35.70
    S.D. = 0.7  on   9 of   9 obs.
--------------------------------------
% DEC 10, 1993  12h 44m 24.52± 0.59s
  37.608 S ± 5.6km  176.922 E ± 4.3km
  DEPTH =  10.0km  (geophysicist)
NORTH ISLAND, NEW ZEALAND          (159)
  ML 3.9 (WEL).

WIZ      0.23  70 P      44 29.40   0.0
                  eS     44 32.00
URZ      0.67 167 Pc     44 36.50  -1.3
                  eS     44 44.60
TAZ      0.70 208 P      44 39.40   1.0
WLZ      1.08 256 P      44 45.10   0.2
                  S      45 00.70
HBZ      1.10  90 eP     44 45.10   0.0
PUZ      1.15 114 P      44 46.20   0.1
PAHZ     1.25 175 eP     44 47.70  -0.1
KUZ      1.29 311 P      44 48.00  -0.4
                  S      45 05.80
NOZ      1.34 139 eP     44 50.10   1.0
MOZ      1.90 241 eP     44 57.20   0.0
WAHZ     2.13 192 P      45 01.30   0.6
TEHZ     2.38 182 eP     45 02.90  -1.3
    S.D. = 0.8  on  12 of  12 obs.
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  DEC 10, 1993  12h 51m 21.24± 0.66s
  50.798 N ± 7.9km    6.712 E ± 4.3km
  DEPTH =  10.0km  (geophysicist)
GERMANY                            (543)
  ML 2.2 (KOE), 2.1 (BNS).

BNS      0.34  60 Pg     51 28.70   0.5
      0.3s   250.00nm
                  Sg     51 33.40
ENN      0.50 267 iPc    51 31.20  -0.2
      0.4s    54.20nm
                  iS     51 38.00
BGG      0.71 146 Pg     51 35.30   0.0
      0.1s   105.00nm
                  Sg     51 45.00
KOE      0.75 119 Pg     51 35.90   0.0
      0.3s   *******nm
                  Sg     51 45.40
WLF      1.19 198 iP     51 44.00   0.6
                  S      51 59.00
DOU      1.53 243 iPd    51 48.30  -0.2
                  iS     52 07.30
SNF      1.57 260 iP     51 49.30   0.1
GEC2     4.93 111 Pn     52 36.30  -0.9
      0.3s      0.73nm
    S.D. = 0.5  on   8 of   8 obs.
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* DEC 10, 1993  13h 10m 47.83± 0.49s
  0.411 N ± 8.0km  125.796 E ±12.8km
  DEPTH =  33.0km  (normal)
  4.8mb (  9 obs.)
NORTHERN MOLUCCA SEA               (266)
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BIP 7.78 3 eP 12 40.00 -1.6
CGP 8.07 352 ePc 12 58.00 12.4X
TSM 8.80 296 eP 13 01.00 5.1X
LEM 19.51 248 iPd 15 16.50 0.8
WB2 21.90 158 iPd 15 38.70 -1.4
0.7s 23.60nm 4.7mb
eS 19 41.60
MBL 22.22 195 eP 15 44.00 0.8
QIS 24.84 148 eP 16 08.00 -0.8
ASPA 25.20 162 iPd 16 11.90 -0.3
0.6s 24.00nm 5.0mb
eS 20 40.30
KMI 33.17 320 Pd 17 24.00 0.1
1.6s 50.00nm 5.2mb
pP 17 31.50 26kmX
MUN 33.47 195 eP 17 26.00 -0.1
STK 35.43 156 iPd 17 41.90 -1.1
0.8s 7.80nm 4.7mb
ARMA 39.29 144 eP 18 17.40 1.7
BJI 40.41 349 eP 18 26.50 2.0
1.4s 12.00nm 4.5mb
LZH 40.94 332 eP 18 30.00 0.8
TOO 41.95 156 eP 18 42.00 4.7X
GUN 47.00 309 P 19 17.00 -1.4
0.7s 23.00nm 5.3mb
GKN 48.01 308 P 19 24.50 -1.7
HYB 49.44 293 eP 19 36.00 -1.2
GBA 49.63 288 P 19 39.00 0.4
YAK 61.52 2 eP 21 06.40 2.8
0.8s 52.00nm 5.7mb
IMA 85.78 24 eP 23 24.47 -0.5
0.6s 1.98nm 4.5mb
YKA 102.89 24 Pdiff 24 42.50 -1.1
0.8s 0.40nm 4.2mb
RTCB 146.14 157 iPKPd 30 27.20 1.1
RTLL 146.41 158 iPKPd 30 27.20 0.7
S.D. = 1.3 on 21 of 24 obs.

? DEC 10, 1993 13h 16m 12.49± 3.25s
42.472 N ±28.7km 24.074 E ±13.7km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS 1.40 195 ePb 16 37.24 -0.8
eSb 16 57.21
KNT 1.58 214 ePb 16 39.16 -1.4
eSb 17 02.12
VAY 1.61 225 iPn 16 39.60 -1.4
SOH 1.74 198 ePb 16 43.01 0.1
eSb 17 08.72
GRG 1.97 220 ePn 16 47.88 1.7
eSn 17 15.12
SKO 2.02 257 ePn 16 47.50 0.5
OUR 2.14 182 ePn 16 50.44 1.8
ALN 2.16 136 ePn 16 48.52 -0.4
eSn 17 15.92
S.D. = 1.5 on 8 of 8 obs.

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* DEC 10, 1993 13h 37m 56.27± 0.90s
5.849 S ±10.1km 146.120 E ±15.0km
DEPTH = 33.0km (normal)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.42 201 iPc 38 05.50 -0.3
MDG 0.68 330 iPc 38 09.80 0.3
LAT 1.19 133 eP 38 16.20 -0.5
MNDI 2.47 263 eP 38 44.00 8.7X
WWKK 3.33 312 eP 38 47.00 -0.3
PMG 3.68 164 eP 38 53.00 0.8
S.D. = 0.7 on 5 of 6 obs.

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* DEC 10, 1993 14h 32m 24.38± 3.33s
45.365 N ±21.8km 13.927 E ±17.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (VIE). MD 2.6 (LJU).

RIY 0.32 94 iPgd 32 30.40 -0.7
iSg 32 35.60
TRI 0.36 342 ePg 32 32.00 0.2
iSg 32 38.10
CEY 0.51 43 ePg 32 34.70 -0.1
eSg 32 44.00
VOY 0.67 358 ePg 32 37.40 -0.3
eSg 32 48.20
VBY 0.95 81 ePg 32 43.30 0.9
eSg 32 57.00
KBA 1.76 347 iPgd 32 58.60 3.3X
iSg 33 21.70
S.D. = 0.8 on 5 of 6 obs.

DEC 10, 1993 14h 42m 52.34± 0.46s
7.000 N ± 7.6km 76.648 W ± 8.0km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
NORTHERN COLOMBIA (99)

UPA 3.47 305 iP 43 43.73 -1.6
eS 44 24.83
BOG 3.49 132 eP 43 49.00 3.0X
eS 44 32.00
BMG 3.55 89 iPc 44 34.80 48.2X
ECO 3.82 308 eP 43 48.82 -1.5
eS 44 25.25
PSO 5.81 187 eP 44 19.00 0.1
SDV 6.25 72 ePd 44 24.60 -0.2
iS 45 31.50
TOV 7.33 67 ePn 44 39.10 -0.8
OLLA 10.19 72 iP 45 15.90 -3.6X
ARE 23.86 168 e(P) 48 06.00 1.8
LPAZ 24.63 160 eP 48 10.62 -1.3
1.3s 10.18nm 4.2mb
LPB 24.86 160 eP 48 13.00 -1.0
CNCB 25.16 160 P 48 17.10 0.1
SIV 27.56 146 P 48 28.50 -10.0X
LHS 27.61 353 (P) 48 41.13 2.3
LTX 33.78 314 (P) 49 35.41 1.8
PV08 42.69 322 eP 50 48.86 0.6
PV10 42.81 322 eP 50 49.40 0.3
SRU 44.17 322 eP 51 00.14 0.0
DAU 45.41 322 eP 51 10.55 0.4
PLM 45.52 311 eP 51 11.49 0.5
TNP 47.98 316 eP 51 30.57 0.2
0.7s 3.12nm 4.4mb
BONR 48.67 316 eP 51 36.19 0.4
YKA 61.93 341 P 53 08.40 -2.5
0.8s 1.90nm 4.3mb
LKO 70.26 82 Pd 54 04.60 -0.4
0.7s 4.50nm 4.6mb
KIC 71.35 86 P 54 12.36 0.7
GEC2 85.02 42 PKP 55 32.70 6.7X
1.0s 1.59nm 4.2mb
GBA 147.12 52 PKP 02 35.00 2.7X
WRA 147.31 244 PKP 02 45.30 12.7X
0.7s 1.10nm
S.D. = 1.3 on 21 of 28 obs.

DEC 10, 1993 14h 55m 05.39± 0.72s
57.594 N ± 6.6km 155.923 W ± 5.3km
DEPTH = 124.4 ± 6.4 km
3.7mb (3 obs.)
ALASKA PENINSULA (12)

KDC 1.85 84 P 55 40.00 2.4
S 55 59.60
AUW 2.20 35 eP 55 42.20 0.2
AUH 2.20 35 eP 55 42.39 0.3
AUL 2.22 35 eP 55 42.57 0.3
AUE 2.22 36 eP 55 42.70 0.4
PDB 2.38 22 eP 55 44.01 -0.3
OPT 2.50 33 eP 55 46.26 0.3
INE 2.89 30 eP 55 51.51 0.4
ILIM 2.93 30 eP 55 52.16 0.6
HOM 3.05 45 eP 55 54.47 1.4
CNPM 3.13 50 eP 55 54.26 0.1
eS 56 30.28
RED 3.27 29 eP 55 56.66 0.5
RS2 3.31 28 eP 55 57.64 0.8
RSO 3.31 28 eP 55 57.58 0.8
RDW 3.31 28 eP 55 57.49 0.7
REF 3.35 28 eP 55 57.64 0.4
NCT 3.35 26 eP 55 57.74 0.5
SDN 3.40 230 eP 55 55.96 -1.7
eLg 56 33.83
BRLK 3.41 48 eP 55 57.91 -0.1
eS 56 35.43
DFR 3.44 28 eP 55 58.98 0.6
SVW 3.53 2 eP 55 58.90 -0.7
BKG 3.96 27 eP 56 05.72 0.3
CKL 4.05 25 eP 56 07.77 1.1
CKT 4.09 26 eP 56 07.58 0.5
BGL 4.10 25 eP 56 07.29 0.0
SPU 4.11 27 eP 56 07.92 0.6
CKN 4.11 26 eP 56 08.65 1.2
CP2 4.13 25 eP 56 08.28 0.4
SLKM 4.15 43 eP 56 07.90 0.0
eS 56 52.75
CRP 4.16 26 eP 56 09.13 1.0
SEW 4.20 50 eP 56 08.94 0.4
CGLM 4.23 27 eP 56 10.13 1.1
NCG 4.28 25 eP 56 10.79 1.1
MPA 4.46 47 eP 56 12.12 0.1
SUA 4.69 32 eP 56 15.97 0.6
PMS 4.89 39 P 56 17.80 -0.2
MTU 4.93 57 eP 56 17.96 -0.4
PWL 5.09 47 eP 56 19.67 -1.0
PWA 5.09 34 P 56 20.70 0.1
PMR 5.29 38 (P) 56 22.96 -0.3
MID 5.35 66 P 56 24.70 0.6
TTA 5.35 360 eP 56 23.77 -0.5
KNK 5.40 42 eP 56 23.88 -0.9
GHO 5.49 37 eP 56 26.82 0.7
CFI 5.51 46 eP 56 26.16 0.0
CUT 5.60 28 eP 56 27.88 0.4
HIN 5.62 56 eP 56 27.13 -0.8
SML 5.71 39 eP 56 28.03 -1.1
FID 5.79 53 eP 56 28.68 -1.6
VZW 5.92 50 eP 56 31.85 -0.2
CVA 6.02 56 eP 56 32.24 -1.1
VLZ 6.05 50 eP 56 33.43 -0.3
SCM 6.08 42 eP 56 34.10 -0.1
KLU 6.41 48 eP 56 37.92 -0.9
RAGM 6.45 60 eP 56 38.26 -1.0
TRF 6.50 23 eP 56 40.06 0.0
HMT 6.63 61 eP 56 40.73 -0.9
TOA 6.67 43 P 56 44.00 1.7
SNH 7.26 64 eP 56 50.39 0.2
GLB 7.27 53 eP 56 49.68 -0.6
CRQM 7.29 59 eP 56 49.90 -0.9
TGL 7.43 59 eP 56 52.12 -0.5
NEA 7.75 22 eP 56 55.31 -1.5
BALM 7.75 58 eP 56 56.59 -0.4
YAH 7.83 63 eP 56 58.10 -0.1
WRH 7.87 26 eP 56 56.97 -1.5
CCB 8.09 26 eP 56 59.70 -1.6
HDA 8.10 29 eP 56 59.95 -1.6
CTGM 8.20 60 eP 57 02.87 -0.1
MDM 8.26 23 eP 57 02.16 -1.6
FBA 8.30 25 ePc 57 02.28 -2.0
ANM 8.35 331 (P) 57 05.29 0.4
GLM 8.47 25 eP 57 05.04 -1.6
IMA 8.57 6 eP 57 07.17 -0.9
YKA 20.92 59 P 59 41.40 2.3
0.4s 0.70nm 3.4mb
BONR 31.43 112 eP 01 22.22 5.4X
NB2 61.28 7 P 05 09.80 0.7
0.7s 2.10nm 4.2mb
HFS 62.33 6 eP 05 16.60 0.6
0.4s 6.10nm 5.0mb X
GEC2 73.58 7 P 06 28.40 2.4
0.5s 0.60nm 3.6mb
S.D. = 1.0 on 78 of 79 obs.

& DEC 10, 1993 15h 06m 37.11s
35.648 N 117.638 W
DEPTH = 5.5km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 3.0 (PAS), 2.9 (GS).
Felt at Ridgecrest.

ISA 0.68 272 eP 06 49.56 -1.2
eS 06 58.68
GSC 0.76 117 ePc 06 51.42 -1.0
SSK 1.43 182 eP 07 03.26 -0.7
ABL 1.52 239 eP 07 03.74 -1.4
TPNV 1.72 40 eP 07 06.51 -1.4
PEC 1.80 167 eP 07 07.95 -1.0
MTUM 1.86 337 eP 07 10.85 0.9
BCH 2.05 258 eP 07 11.55 -1.2
PHAM 2.25 276 (P) 07 15.35 -0.2
MMPM 2.25 331 (Pn) 07 16.33 0.4
MEMM 2.27 333 (Pn) 07 14.69 -1.1
BONR 2.36 347 ePn 07 16.54 -0.9
ePg 07 21.13
PLM 2.38 164 ePn 07 16.18 -1.3
ePg 07 20.70
TNP 2.45 8 (P) 07 20.29 1.7
CMB 3.25 318 ePn 07 29.99 0.3
GLA 3.48 137 (P) 07 29.69 -3.3
ARN 3.57 300 (P) 07 36.85 2.6
ARUT 3.99 56 (Pn) 07 39.82 -0.6

10d 15h

ePg 07 52.31
MSU 5.22 55 (Pn) 08 00.63 2.7
ePg 08 15.48
19 obs. associated

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* DEC 10, 1993 15h 08m 12.02± 0.52s
0.317 N ± 8.4km 125.865 E ± 9.5km
DEPTH = 33.0km (normal)
4.7mb (7 obs.) 4.3Msz (1 obs.)
NORTHERN MOLUCCA SEA (266)

CGP 8.17 352 eP 10 32.00 20.8X
TSM 8.91 296 eP 10 22.00 0.5
WWKK 18.17 103 eP 12 59.50 35.8X
MNDI 18.89 110 eP 12 32.00 -0.6
LEM 19.54 248 iPc 12 41.00 0.8
MBL 22.14 195 eP 13 07.00 0.3
MRWA 30.85 197 eP 14 27.00 -0.5
0.8s 17.00nm 4.9mb
CHTO 32.19 306 eP 14 39.50 0.1
KMI 33.28 320 eP 14 50.00 0.9
2.0s 80.00nm 5.3mb
pP 14 56.50 22kmX
CD2 36.96 327 eP 15 19.00 -1.1
XAN 37.12 336 P 15 20.50 -1.0
1.0s 3.60nm 4.2mb
TIY 39.22 343 eP 15 41.20 2.1
Z 20s 0.50um 4.3Msz
BJI 40.51 349 eP 16 05.50 15.9X
1.0s 6.00nm
LZH 41.05 332 eP 15 55.00 0.7
SNY 41.37 357 Pc 15 56.50 -0.1
1.4s 53.00nm 5.1mb
GTA 45.62 332 eP 16 31.20 0.0
1.0s 6.00nm 4.5mb
sP 16 44.00
PcP 18 10.00
HYB 49.54 293 eP 17 01.00 -1.1
GBA 49.73 288 P 17 02.00 -1.5
WMQ 55.05 327 P 17 42.00 -1.0
1.5s 18.00nm 4.9mb
sP 18 00.00
YAK 61.61 2 iP 18 34.50 6.1X
1.0s 76.00nm 5.8mb X
MAIO 70.91 308 eP 19 28.00 -0.4
YKA 102.94 24 Pdiff 22 08.50 0.4
0.9s 0.70nm 4.4mb
RTLL 146.30 158 ePKPc 27 52.00 1.5
S.D. = 1.0 on 19 of 23 obs.

% DEC 10, 1993 17h 04m 24.58± 3.68s
41.912 N ±26.8km 19.227 E ± 7.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.8 (TTG).

ULC 0.05 18 iPgc 04 26.12 -0.7
iSg 04 26.69
BDV 0.48 321 iPgd 04 33.93 -0.3
iSg 04 40.59
TTG 0.52 3 iPgd 04 34.53 -0.5
iSg 04 41.88
HCY 0.76 315 iPgd 04 39.35 -0.1
iSg 04 50.14
PVY 0.88 39 ePg 04 41.61 0.1
iSg 04 53.91
NKY 0.92 349 iPgc 04 42.17 0.0
iSg 04 55.09
IVA 1.08 27 iPgd 04 45.19 0.2
iSg 05 00.58
BRY 1.11 333 iPgd 04 45.75 0.3
iSg 05 01.38
PLE 1.42 5 iPgd 04 51.47 0.9
iSg 05 11.87
S.D. = 0.6 on 9 of 9 obs.

% DEC 10, 1993 17h 17m 17.56± 0.95s
37.292 N ± 6.6km 2.336 W ±11.7km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.5 (MDD).

ENIJ 0.34 162 iPd 17 24.45 -0.1
e 17 29.50
EHUE 0.56 339 eP 17 28.31 -0.7
e 17 36.20
EGUA 1.08 245 iPc 17 38.06 0.1
e 17 52.40
EVIA 1.35 354 eP 17 43.00 0.5
e 18 00.70
EBAN 1.44 308 iPd 17 43.86 0.1
e 18 03.30
S.D. = 0.6 on 5 of 5 obs.

DEC 10, 1993 18h 44m 25.64± 0.40s
0.411 N ± 8.9km 125.916 E ± 7.5km
DEPTH = 33.0km (normal)
4.9mb (9 obs.)
NORTHERN MOLUCCA SEA (266)

TSM 8.91 296 eP 46 36.00 0.8
WWKK 18.14 103 eP 48 35.80 -1.1
LEM 19.62 248 iPc 48 56.20 1.5
MDG 20.62 106 eP 49 05.00 0.1
WB2 21.85 158 iPc 49 16.60 -0.8
1.0s 27.70nm 4.6mb
eS 53 15.10
LAT 22.18 109 eP 49 22.00 1.3
PMG 23.29 115 e(P) 49 30.00 -1.6
QIS 24.77 148 eP 49 46.40 0.4
ASPA 25.16 163 iPd 49 50.10 0.5
0.8s 41.80nm 5.1mb
MRWA 30.95 197 eP 50 41.50 -0.5
0.7s 10.00nm 4.7mb
KMI 33.25 319 eP 51 03.50 1.1
2.0s 60.00nm 5.2mb
pP 51 08.00 15kmX
sP 51 11.00
MUN 33.50 195 eP 51 03.00 -1.2
STK 35.38 157 iPc 51 19.90 -0.5
0.6s 7.60nm 4.8mb
ARMA 39.22 144 iPd 51 53.80 0.9
0.6s 7.00nm 4.6mb
CAN 41.57 151 eP 52 13.20 1.2
TOO 41.90 157 eP 52 15.40 0.7
GUN 47.09 309 P 52 56.60 -0.4
0.6s 20.00nm 5.3mb
PKI 47.30 308 P 52 57.60 -1.0
KKN 47.50 309 P 52 59.80 -0.3
GKN 48.10 308 P 53 03.20 -1.5
0.6s 9.00nm 5.0mb
HYB 49.55 293 eP 53 15.00 -0.8
GBA 49.75 287 P 53 16.00 -1.3
YAK 61.52 2 eP 54 51.80 10.4X
1.0s 35.00nm
MAIO 70.89 308 eP 55 43.00 1.1
IMA 85.73 24 eP 57 04.00 1.4
1.0s 5.00nm 4.7mb
LPAZ 159.01 139 PKP 04 39.40 16.3X
S.D. = 1.1 on 24 of 26 obs.

& DEC 10, 1993 19h 45m 17.10s
42.278 N 122.019 W
DEPTH = 6.7km
OREGON (32)
<SEA-P>. MD 2.8 (SEA).

LAB 0.03 252 Pd 45 18.80 0.0
VRC 0.16 292 Pc 45 20.78 0.3
S 45 23.48
HAMO 0.21 170 Pc 45 21.60 0.0
S 45 25.56
LASM 0.75 154 P 45 30.98 -1.3
BBOR 0.78 321 P 45 31.80 -0.9
S 45 43.08
LMPM 0.80 188 P 45 32.10 -0.9
LBFM 0.94 174 iPc 45 34.53 -0.9
LGBM 0.94 188 P 45 34.43 -1.1
DBO 1.23 313 P 45 39.59 -0.8
LBKM 1.29 202 P 45 39.64 -1.7
HSO 1.47 328 P 45 43.94 -0.3
LGPM 1.49 204 eP 45 42.86 -1.6
LHCM 1.52 165 P 45 44.40 -0.4
NCOR 1.56 24 P 45 45.60 0.0
HBO 1.58 352 P 45 45.56 -0.2
LMEM 1.77 169 eP 45 48.71 0.1
LCFM 1.83 168 P 45 50.04 0.5
LSLM 1.88 169 P 45 50.45 0.4
LHKM 1.92 163 P 45 51.32 0.5
MIN 1.96 171 P 45 51.04 -0.2
RNO 2.06 323 P 45 53.88 1.2
FBO 2.07 349 P 45 53.44 0.6
BPO 2.39 6 P 45 57.80 0.3
MPOR 2.49 334 P 46 00.18 1.3
SSOR 2.60 353 P 46 00.17 -0.2
ORV 2.75 172 eP 46 02.58 0.1
VGB 3.36 15 (Pn) 46 11.92 0.8
27 obs. associated

DEC 10, 1993 20h 26m 04.33± 1.09s
31.988 S ± 8.3km 70.998 W ±11.9km
DEPTH = 70.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.8 (SAN).

JACH 0.77 154 iP+ 26 20.57 0.2
iS 26 33.19
ROCH 0.98 181 eP 26 23.07 0.0
PEL 1.18 167 iP+ 26 25.75 0.3
iS 26 42.26
FCH 1.46 156 iP 26 29.90 0.4
iS 26 49.59
LCCH 1.56 198 iPd 26 30.52 0.0
TACH 1.66 178 iPd 26 32.13 0.2
iS 26 52.89
PCH 1.68 166 eP 26 32.51 0.3
eS 26 54.07
LNV 1.99 190 eP 26 35.36 -1.1
eS 27 01.90
RTCV 2.10 87 eP 26 38.00 0.1
S 27 04.00
CACH 2.15 171 eP 26 38.80 0.0
iS 27 05.98
RTRS 2.24 36 iPc 26 40.50 0.6
S 27 09.00
RTLL 2.25 74 ePc 26 39.00 -1.1
S 27 06.00
CFA 2.38 82 ePc 26 42.00 0.1
S 27 07.00
S.D. = 0.6 on 13 of 13 obs.

? DEC 10, 1993 20h 36m 45.82± 3.94s
34.575 S ±42.9km 70.901 W ±16.1km
DEPTH = 90.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

CACH 0.52 29 iP+ 37 01.20 0.1
iS 37 14.77
LNV 0.75 326 iP+ 37 02.77 -0.2
iS 37 17.39
TACH 0.92 358 iP+ 37 05.17 0.3
iS 37 21.05
PCH 1.00 19 eP 37 06.15 0.2
iS 37 23.61
LCCH 1.23 333 iPd 37 08.61 0.1
iS 37 27.51
FCH 1.34 22 (P) 37 09.92 -0.4
S.D. = 0.3 on 6 of 6 obs.

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* DEC 10, 1993 21h 16m 26.26± 2.30s
0.422 N ±10.2km 125.581 E ±16.8km
DEPTH = 73.6 ± 22.2 km
4.7mb (8 obs.)
NORTHERN MOLUCCA SEA (266)

CTB 6.87 348 ePc 18 07.00 0.5
CGP 8.03 354 eP 18 45.00 22.5X
LEM 19.32 248 iPd 20 48.80 0.2
WB2 21.99 157 eP 21 11.60 -4.1X
0.5s 9.90nm 4.5mb
i 21 19.00
ASPA 25.27 162 iPc 21 46.80 -0.6
0.8s 12.70nm 4.4mb
KMI 33.02 320 eP 22 58.00 1.0
1.6s 30.00nm 4.9mb
sP 23 07.50
STK 35.52 156 eP 23 18.30 0.2
1.1s 4.80nm 4.3mb
XAN 36.91 337 P 23 28.40 -1.4
TIY 39.04 343 eP 23 46.60 -1.0
Z 30s 2.34um 4.8MszX
N 15s 0.40um
LZH 40.83 333 eP 24 03.00 0.5
GTA 45.39 332 eP 24 39.00 -0.4
1.5s 8.00nm 4.4mb
pP 24 47.00 27kmX
GUN 46.82 309 P 24 51.60 0.4
0.8s 27.00nm 5.2mb
PKI 47.03 308 P 24 51.60 -1.2
KKN 47.23 309 P 24 54.00 -0.2
GKN 47.83 309 P 24 58.60 -0.3

HYB 49.24 293 eP 25 08.00 -1.7
GBA 49.42 288 P 25 12.00 0.9
WMQ 54.81 327 P 25 50.50 -0.6
0.8s 8.30nm 4.8mb
MAIO 70.62 308 eP 27 37.00 0.8
OBN 89.07 325 eP 29 17.00 2.6
1.0s 14.00nm 5.2mb
S.D. = 1.1 on 18 of 20 obs.

% DEC 10, 1993 21h 18m 29.49± 1.17s
34.135 S ±14.2km 70.744 W ±11.4km
DEPTH = 80.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.4 (SAN).

CACH 0.12 82 eP 18 41.61 0.2
eS 18 51.22
TACH 0.51 341 iPd 18 43.60 0.1
iS 18 54.77
PCH 0.55 21 iP 18 43.86 -0.1
iS 18 55.23
LNV 0.58 288 eP 18 44.06 -0.1
FCH 0.89 25 iPd 18 47.47 -0.4
iS 19 01.67
LCCH 0.95 313 iPd 18 48.00 -0.2
iS 19 02.55
PEL 0.99 3 iP 18 48.99 0.3
iS 19 03.90
ROCH 1.18 349 eP 18 51.50 0.2
S.D. = 0.3 on 8 of 8 obs.

DEC 10, 1993 22h 21m 16.67± 0.18s
0.517 N ± 3.6km 125.863 E ± 4.2km
DEPTH = 27.7km (4 depth phases)
5.3mb (37 obs.)
NORTHERN MOLUCCA SEA (266)

DAV 6.53 357 eP 22 54.00 0.5
TSM 8.82 295 eP 23 27.00 1.6
KKM 11.08 300 ePc 24 06.10 9.5X
KHKI 13.50 229 eP 24 39.10 10.2X
e 27 57.10
KNA 16.42 170 eP 25 08.00 1.2
1.0s 167.00nm 5.1mb
BAG 16.63 342 ePd 25 12.00 2.3
WWKK 18.22 103 eP 25 30.00 0.5
LEM 19.61 248 iPc 25 46.00 -0.3
i(S) 29 44.00
MDG 20.70 106 eP 25 56.00 -1.4
KLI 21.65 255 eP 26 11.00 3.9X
WB2 21.97 158 iPd 26 08.40 -1.9
0.6s 119.20nm 5.5mb
eS 30 12.50
LAT 22.27 109 eP 26 13.30 0.0
MBL 22.34 195 iPd 26 13.90 0.0
GUMO 22.87 55 eP 26 18.70 -0.4
0.9s 227.10nm 5.7mb
PJG 22.87 55 eP 26 18.70 -0.5
GUA 22.88 55 eP 26 19.20 -0.1
PMG 23.38 115 iPd 26 24.60 0.4
QIS 24.89 148 eP 26 38.60 -0.2
IPM 25.13 280 ePd 26 43.00 1.8
ASPA 25.28 163 iPd 26 42.00 -0.4
0.9s 99.50nm 5.4mb
iScP 30 16.00
eS 31 03.70
WARB 26.56 178 eP 26 54.80 0.5
MEEK 27.89 194 iPc 27 05.80 -0.6
1.0s 43.00nm 5.1mb
NNT 28.55 296 eP 27 12.00 -0.5
LOE 29.08 307 eP 27 16.00 -1.2
NST 29.52 302 eP 27 20.50 -0.7
KHT 30.45 299 eP 27 28.50 -1.0
MRWA 31.04 197 iPc 27 34.30 -0.2
0.4s 7.00nm 4.8mb
BDT 31.23 304 eP 27 36.00 -0.3
0.8s 36.30nm 5.3mb
CHTO 32.07 306 ePd 27 43.60 -0.1
1.2s 27.78nm 5.1mb
BAL 32.15 195 iPc 27 44.00 -0.3
0.9s 81.00nm 5.6mb
KLB 32.85 193 iPc 27 49.80 -0.5
KMI 33.13 319 Pd 27 53.50 0.4
1.4s 110.00nm 5.6mb
Z 22s 1.20um 4.6Msz
pP 38 01.00
MUN 33.59 195 eP 27 56.00 -0.7
NWAO 34.25 193 iPc 28 02.40 0.0
0.8s 15.00nm 5.0mb
STK 35.50 157 iPc 28 11.70 -1.4
0.5s 28.30nm 5.5mb
MAT 37.63 16 (P) 28 31.00 0.0
0.7s 10.96nm 4.8mb
eS 34 20.00
ARMA 39.34 144 eP 28 45.00 -0.6
0.8s 25.00nm 5.0mb
BJI 40.32 348 eP 28 53.00 -0.3
1.2s 16.00nm 4.6mb
Z 28s 0.70um 4.4MszX
eS 35 02.00
LZH 40.87 332 eP 28 58.00 -0.2
1.6s 63.00nm 5.1mb
Z 23s 1.33um 4.7MszX
pP 29 08.00 34km
SHL 41.17 310 eP 29 01.00 0.2
eS 35 08.00
CAN 41.69 151 eP 29 05.10 0.4
i 29 31.50 115kmX
e 31 02.10
CNB 41.86 151 eP 29 07.30 1.1
TOO 42.02 157 iPd 29 08.30 0.9
0.5s 18.00nm 5.1mb
BKM 45.45 116 iPc 29 36.00 0.5
DZM 45.48 122 iPc 29 34.90 -0.9
GUN 46.98 309 P 29 46.40 -1.5
0.6s 30.00nm 5.5mb
PKI 47.19 308 P 29 49.20 -0.3
KKN 47.39 308 P 29 50.60 -0.4
0.4s 10.00nm 5.2mb
GKN 47.99 308 P 29 55.20 -0.4
0.6s 16.00nm 5.2mb
HYB 49.46 293 ePc 30 06.00 -0.9
GBA 49.66 287 P 30 05.00 -3.4X
CIT 52.33 350 eP 30 29.00 0.8
ZAK 53.27 342 eP 30 34.00 -1.1
1.4s 18.00nm 4.8mb
e 31 42.50 322kmX
POO 54.07 293 eP 30 40.50 -1.1
NDI 54.21 306 eP 30 40.50 -1.9
BOD 57.91 353 iPc 31 08.20 -0.3
1.5s 65.00nm 5.4mb
YAK 61.41 2 iP 31 46.90 14.4X
0.8s 198.00nm
eS 40 09.00
FRU 62.19 320 eP 31 37.20 -1.0
e 31 54.80 67kmX
e 32 10.00
QUE 63.16 304 eP 31 45.50 0.5
CSY 67.56 187 iPc 32 02.30 -10.1X
0.8s 16.60nm
MAIO 70.79 308 eP 32 34.00 1.0
TIK 71.03 1 iPc 32 32.50 -1.1
1.5s 64.00nm 5.5mb
i 32 53.00 77kmX
e 35 19.00
eS 41 44.00
SVE 76.23 329 iPd 33 04.30 0.1
1.6s 60.00nm 5.4mb
ARU 77.15 328 eP 33 08.00 -1.4
1.0s 80.00nm 5.7mb
SDN 80.31 34 eP 33 26.45 -0.1
0.8s 117.81nm 6.0mb
GRO 82.50 314 iPd 33 40.00 1.7
1.5s 160.00nm 5.9mb
MTA 82.98 312 iPd 33 41.80 1.0
0.8s 40.00nm 5.6mb
i 33 50.20 27km
ERE 83.06 310 iP 33 42.00 0.6
SVW 84.00 29 eP 33 47.04 1.3
0.9s 39.04nm 5.6mb
TTA 84.14 27 eP 33 47.15 0.7
1.1s 18.45nm 5.2mb
PYA 84.46 314 iPd 33 43.00 -5.3X
KIV 84.72 314 iPc 33 50.00 0.2
1.7s 61.00nm 5.5mb
KDC 85.10 32 (P) 33 50.69 -0.4
0.6s 7.59nm 5.1mb
IMA 85.65 24 eP 33 54.39 0.4
0.6s 2.65nm 4.6mb
SLKM 86.55 30 eP 33 57.31 -1.1
PMR 87.16 28 (P) 34 01.99 0.7
0.8s 11.34nm 5.2mb
TOA 88.59 28 eP 34 09.00 0.8
OBN 89.16 325 eP 34 10.00 -0.9
e 34 17.00 22km
SYO 89.17 201 ePd 34 13.20 2.5
BALM 90.42 29 eP 34 17.09 0.2
SPA 90.51 180 iPd 34 18.00 0.7
0.8s 16.67nm 5.4mb
KAF 94.02 332 ePKP 34 34.00 0.7
NUR 95.07 331 eP 34 19.00 -19.1X
UZH 98.56 319 eP 34 52.50 -1.7
1.0s 16.00nm 5.5mb
e 35 01.70 29km
YKA 102.76 24 Pdiff 35 12.40 -0.3
0.8s 0.80nm 4.5mb
RSSD 117.24 38 ePKP 40 01.19 -0.4
LTX 124.22 53 ePKP 40 13.18 -2.1
KIC 130.23 279 PKP 40 28.22 1.1
0.8s 13.50nm
LKO 130.65 283 PKP 40 29.07 1.2
0.8s 6.50nm
MYNC 134.85 35 ePKP 40 35.45 0.1
RTLL 146.48 157 ePKPc 40 57.20 1.0
CNCB 158.83 141 PKP 41 17.10 2.4X
LPB 158.96 140 PKP 41 18.00 3.4X
LPAZ 159.12 139 ePKP 41 16.79 1.7
SIV 163.17 156 PKP 41 19.90 1.5
S.D. = 1.0 on 85 of 95 obs.

% DEC 10, 1993 22h 40m 31.52± 1.01s
39.823 N ±10.1km 20.618 E ±11.7km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

IGT 0.36 217 ePg 40 39.10 0.1
eSg 40 46.48
FNA 1.12 31 ePg 40 52.16 -0.4
eSg 41 09.04
LIT 1.47 78 ePb 40 58.56 0.6
iSb 41 17.72
AGG 1.55 121 ePb 40 58.72 -0.5
eSb 41 18.02
GRG 1.77 50 ePb 41 02.68 0.2
S.D. = 0.6 on 5 of 5 obs.

% DEC 10, 1993 23h 01m 13.58± 7.91s
39.189 N ±41.2km 20.323 E ±57.1km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

IGT 0.34 1 ePg 01 19.94 -0.7
eSg 01 25.42
AGG 1.57 95 ePb 01 41.50 -0.1
eSb 02 03.14
FNA 1.79 27 ePb 01 46.02 1.3
eSb 02 07.90
LIT 1.90 61 ePb 01 45.82 -0.6
eSb 02 09.98
GRG 2.38 41 ePn 01 53.34 0.1
eSn 02 22.30
S.D. = 1.1 on 5 of 5 obs.

DEC 10, 1993 23h 17m 37.02± 0.40s
51.951 N ± 7.8km 158.809 E ± 7.7km
DEPTH = 25.2km (3 depth phases)
4.8mb (32 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

YAK 18.61 314 eP 22 09.80 15.5X
1.5s 33.00nm
MAT 21.22 232 eP 22 24.00 1.0
0.8s 21.64nm 4.6mb
IMA 27.42 41 eP 23 22.60 0.3
0.9s 1.30nm 3.6mb X
FBA 29.79 44 eP 23 42.90 -0.6
0.9s 0.80nm 3.5mb X
YKA 44.54 41 P 25 55.50 7.6X
0.5s 1.00nm 4.0mb
DAG 51.54 359 eP 26 36.50 -5.6X
0.6s 2.00nm 4.2mb
ipP 26 42.00 18km
CHTO 56.90 258 ePc 27 22.50 0.3
0.8s 13.36nm 5.0mb
TNP 57.74 68 iP 27 36.70 8.5X
0.9s 41.41nm 5.5mb
pP 27 48.20 40kmX
GUN 58.23 276 P 27 31.00 -0.9
KKN 58.68 276 P 27 34.20 -0.7
0.4s 11.00nm 5.3mb
PKI 58.76 276 P 27 35.20 -0.4

10d 23h

GKN 58.93 277 P 27 35.60 -0.9
KAF 60.22 336 iP 27 43.70 -1.1
0.4s 1.40nm 4.4mb
RSSD 60.70 55 eP 27 47.65 -0.9
0.6s 6.29nm 4.9mb
pP 27 57.90 34km
PV08 62.21 62 eP 27 58.78 -0.2
NB2 64.42 343 P 28 11.70 -1.1
0.6s 9.40nm 5.1mb
HFS 64.79 342 eP 28 13.80 -1.4
0.4s 8.40nm 5.2mb
HYB 70.51 273 eP 28 51.00 -0.6
CLL 73.13 338 iPd 29 06.30 -0.4
0.9s 11.00nm 4.9mb
GBA 74.11 272 P 29 13.00 0.2
WB2 74.71 204 eP 29 15.80 -0.3
0.6s 4.10nm 4.6mb
WRA 74.71 204 P 29 16.40 0.2
0.6s 1.90nm 4.3mb
KHC 75.03 337 eP 29 18.00 0.2
0.8s 2.50nm 4.3mb
GRF 75.05 339 eP 29 18.60 0.7
GEC2 75.27 337 P 29 19.00 -0.2
0.6s 2.18nm 4.4mb
KBA 77.00 337 iPc 29 29.70 0.6
0.8s 22.40nm 5.2mb
i 29 37.10 24km
CDF 77.10 341 eP 29 29.50 0.0
0.9s 8.50nm 4.8mb
WTTA 77.24 338 iPc 29 30.40 0.0
0.9s 11.00nm 4.9mb
SQTA 77.38 338 iPc 29 31.50 0.4
0.8s 5.90nm 4.7mb
HAU 77.67 341 eP 29 32.60 0.0
0.8s 7.95nm 4.8mb
FLN 78.12 346 eP 29 35.70 0.7
1.1s 20.25nm 5.1mb
LDF 78.23 346 eP 29 35.50 -0.1
0.9s 15.55nm 5.0mb
GRR 78.54 346 eP 29 37.30 0.0
0.8s 9.00nm 4.9mb
LOR 78.85 343 eP 29 39.10 0.0
0.7s 5.85nm 4.7mb
SSF 79.12 343 eP 29 40.80 0.3
0.7s 4.20nm 4.6mb
AVF 79.41 343 eP 29 42.40 0.4
0.9s 8.20nm 4.8mb
SMF 79.46 343 eP 29 42.70 0.3
1.2s 16.35nm 4.9mb
LPL 79.98 340 eP 29 46.40 1.0
0.7s 4.65nm 4.6mb
LPG 79.99 340 eP 29 46.70 1.1
0.9s 7.70nm 4.7mb
TCF 80.09 344 eP 29 46.30 0.5
0.9s 6.70nm 4.7mb
MAF 80.10 344 eP 29 46.90 1.1
0.7s 4.95nm 4.6mb
LSF 80.25 344 eP 29 47.10 0.5
0.9s 13.10nm 5.0mb
S.D. = 0.7 on 38 of 42 obs.

DEC 11, 1993 00h 01m 30.71± 0.22s
41.931 N ± 3.4km 142.388 E ± 3.9km
DEPTH = 72.6km (16 depth phases)
5.0mb (68 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (III JMA) at Urakawa; (II JMA) at Hiroo and Tomakomai, Hokkaido. Also felt (II JMA) at Mutsu, Honshu.

HOOJ 0.81 56 P 01 46.50 -0.7
eS 01 58.30
MRRJ 1.10 297 P 01 50.30 -0.5
eS 02 05.60
SAP 1.37 326 iP 01 54.00 -0.4
eS 02 10.00
AOMJ 2.05 229 eP 02 04.50 0.9
S 02 32.00
KUSJ 2.08 55 P 02 02.80 -1.2
ASAJ 2.19 5 P 02 05.60 -0.1
OFUJ 2.90 191 P 02 15.10 -0.4
YAMJ 4.16 206 P 02 34.00 0.8
YSS 5.09 3 iP+ 02 45.50 -0.6
Z 18s 1.30um 4.8MszX
N 18s 1.00um
E 18s 1.20um
eS 03 38.00
KUR 5.17 48 eP 02 48.00 0.8
eS 03 43.50
NIIJ 5.36 210 P 02 50.40 0.4
KAKJ 5.97 197 P 02 55.60 -2.8
eS 04 01.80
MAT 6.28 212 eP 03 03.00 0.2
0.6s 32.00nm 4.9mb
eS 04 28.00
MTMJ 6.41 215 P 03 05.50 0.8
CHJJ 6.44 205 P 03 04.30 -0.6
IIDJ 7.33 210 P 03 17.70 0.4
TSRJ 8.11 220 P 03 30.10 2.1
WKYJ 9.37 217 P 03 44.60 -0.8
YONJ 9.70 229 P 03 51.10 1.3
MDJ 9.71 290 eP 03 52.00 2.1
0.9s 34.00nm 5.3mb
Z 20s 1.72um 4.5Msz
TKSJ 10.30 222 eP 03 57.50 -0.5
CN2 12.57 284 eP 04 29.00 0.8
1.0s 17.00nm 4.8mb
Z 18s 0.66um 4.4Msz
N 10s 0.55um
E 10s 0.40um
epP 04 37.00
SKR 12.88 43 eP 04 33.80 1.7
1.0s 1110.00nm 6.6mb X
Z 12s 1.00um 4.4MszX
eS 06 45.00
SNY 14.02 276 Pc 04 48.60 1.5
0.8s 27.00nm 4.7mb
BJI 19.86 273 eP 05 55.00 -3.3X
1.0s 39.00nm 4.7mb
N 14s 0.40um
SSE 20.13 244 P 05 47.20 -13.9X
1.2s 17.00nm
Z 20s 0.80um 4.1Msz
sP 06 02.30
S 09 54.00
TIA 20.39 262 P 06 01.30 -2.6
1.2s 280.00nm 5.5mb
NJ2 21.17 250 Pc 06 08.60 -3.1X
1.0s 23.00nm 4.5mb
sP 06 34.20
YAK 21.50 344 eP 06 10.80 -4.0X
1.5s 221.00nm 5.3mb
eS 10 00.00
CIT 21.94 307 eP 06 17.00 -2.4
HHC 23.09 278 P 06 29.00 -1.8
1.2s 16.00nm 4.3mb
TIY 23.33 270 eP 06 31.40 -1.7
BOD 23.91 321 eP 06 35.10 -3.3X
0.6s 15.00nm 4.6mb
BTO 24.29 278 eP 06 40.00 -2.5
WHN 25.20 252 P 06 49.50 -1.4
1.0s 45.00nm 4.9mb
XAN 27.40 264 P 07 09.50 -1.7
1.2s 37.00nm 4.8mb
ZAK 28.10 301 iPc 07 17.00 -0.3
1.3s 26.00nm 4.7mb
LZH 30.33 272 eP 07 37.00 -0.6
1.2s 30.00nm 4.9mb
Z 25s 0.48um 4.0MszX
TIK 30.53 352 eP 07 33.00 -5.7X
e 07 53.00 87kmX
GTA 32.15 280 eP 07 53.00 -0.4
CD2 32.72 263 eP 07 56.20 -2.2
GYA 33.06 254 P 08 00.60 -0.9
SDN 38.94 50 eP 08 48.00 -2.7
WMQ 39.51 292 Pc 08 55.50 -0.3
1.0s 30.00nm 5.2mb
Z 18s 0.63um 4.5Msz
pP 09 11.00 61kmX
BRW 41.64 25 (P) 09 11.42 -1.3
LSA 42.72 270 P 09 25.00 2.3
1.0s 19.00nm 4.9mb
CHTO 43.40 251 ePc 09 28.40 0.7
0.7s 16.52nm 5.0mb
NST 44.70 247 eP 09 39.00 0.7
KHT 46.38 248 eP 09 51.70 0.1
NNT 47.16 244 eP 09 59.80 2.1
GUN 47.59 272 P 10 01.80 0.3
KKN 48.11 272 P 10 05.60 0.3
PKI 48.13 272 P 10 05.40 -0.2
GKN 48.47 273 P 10 08.10 0.1
FRU 48.81 295 iP 10 10.20 -0.1
2.2s 70.00nm 5.3mb
e 10 28.50 73km
e 11 29.00
KSH 49.26 291 P 10 14.50 0.6
0.7s 16.00nm 5.2mb
SVE 52.06 316 iPc 10 35.00 0.2
1.8s 40.00nm 5.1mb
e 10 55.00 80km
ARU 53.26 316 ePc 10 42.20 -1.4
1.5s 90.00nm 5.6mb
NDI 53.62 278 iPc 10 46.20 -0.5
HYB 59.19 266 ePc 11 26.00 -0.6
1.0s 50.00nm 5.6mb
e 11 40.50 53kmX
QUE 60.30 285 eP 11 34.50 0.3
DAG 60.98 355 iPd 11 36.00 -2.0
0.7s 5.48nm 4.8mb
WB2 62.01 189 iPd 11 44.10 -1.4
0.7s 9.40nm 5.0mb
i 12 04.10 77km
POO 62.01 270 iPc 11 46.20 0.4
WRA 62.01 189 P 11 44.70 -0.8
0.7s 4.50nm 4.7mb
MAIO 62.16 295 eP 11 46.00 -0.6
GBA 62.43 264 P 11 49.00 0.5
KAF 64.32 332 iP 11 58.60 -1.7
0.5s 7.30nm 4.9mb
KOD 64.61 261 eP 12 03.00 -0.1
OBN 64.65 322 ePc 12 01.00 -1.5
1.0s 32.00nm 5.2mb
e 12 22.00 81km
e 12 29.00
ASPA 65.74 189 eP 12 10.80 1.0
1.2s 5.90nm 4.4mb
NUR 66.00 331 iP 12 09.60 -1.5
0.5s 12.70nm 5.1mb
NEW 66.14 46 eP 12 12.45 0.2
1.0s 8.53nm 4.6mb
KIV 68.30 310 iPc 12 26.60 0.5
1.3s 136.00nm 5.7mb
epP 12 46.20 74km
e 14 54.40
MTA 68.44 307 iPc 12 27.00 0.2
0.8s 60.00nm 5.6mb
ORV 68.85 56 (P) 12 28.54 -0.8
MNK 69.44 325 eP 12 29.00 -3.6X
ERE 69.55 306 iP- 12 34.60 0.9
HFS 69.95 335 eP 12 34.60 -1.1
0.5s 12.80nm 5.1mb
Z 16s 0.14um 4.3MszX
LR 40 16.00
NB2 69.97 337 P 12 35.00 -0.9
0.6s 9.10nm 4.9mb
TNP 72.38 55 eP 12 51.11 0.1
0.8s 24.63nm 5.2mb
e 13 09.37 67km
ARMA 72.49 172 iPc 12 36.60 -14.7X
0.5s 10.00nm
STK 73.45 181 eP 13 16.10 19.4X
2.5s 2.60nm
GSC 74.42 57 (P) 13 03.96 1.2
e 13 21.14 63km
CLI 74.74 320 eP 13 05.50 1.3
MSU 75.11 51 eP 13 07.73 0.9
OJC 75.40 326 iPd 13 08.10 0.1
0.8s 42.00nm 5.4mb
i 13 12.50 14kmX
UZH 75.52 324 eP 13 08.00 -0.6
e 13 33.50 98kmX
SRU 75.66 50 eP 13 10.34 0.5
e 13 28.21 65km
e 13 59.13
RSSD 75.71 43 (P) 13 09.38 -0.7
0.7s 4.14nm 4.5mb
SPC 76.00 325 eP 13 11.70 0.1
ISR 76.11 319 eP 13 13.50 1.4
MLR 76.15 320 eP 13 13.00 0.6
KSP 76.34 328 eP 13 13.00 -0.2
e 13 31.50 68km
PV10 77.01 50 iP 13 18.37 0.9
e 13 36.45 66km
PV08 77.10 50 eP 13 18.85 0.8
e 13 46.32 107kmX
BRG 77.23 329 iP 13 18.20 0.1
CLL 77.23 330 iPd 13 18.20 0.1
e 13 38.00 73km
PRU 77.70 329 iPc 13 20.90 0.2
1.1s 24.50nm 5.1mb

e 13 42.20 80km
SRO 77.88 325 iP 13 23.00 1.3
ZST 78.09 326 eP 13 23.50 0.6
KHC 78.77 329 P 13 27.30 0.6
1.0s 12.50nm 4.8mb
e 13 47.00 73km
EKA 78.77 341 P 13 28.00 1.5
1.0s 37.80nm 5.3mb
GEC2 78.95 328 P 13 27.60 -0.1
0.6s 2.40nm 4.3mb
e 13 39.30 39kmX
e 13 49.00
e 13 53.10
e 18 33.00
e 18 35.40
e 25 39.80
GRF 79.21 330 iPc 13 29.70 0.7
1.2s 57.00nm 5.4mb
BHG 80.18 328 iPd 13 35.50 1.2
KBA 80.52 327 iPd 13 36.90 0.6
1.0s 19.30nm 5.0mb
i 13 51.20 50kmX
i 13 58.60
LJU 80.87 326 iPc 13 38.00 0.1
VAY 80.88 319 iP 13 38.60 0.6
WATA 81.01 329 iPc• 13 39.00 0.2
WTTA 81.04 329 iPc 13 39.40 0.4
0.9s 10.20nm 4.8mb
i 14 00.00 76km
MOTA 81.18 329 iPc 13 40.00 0.3
0.9s 26.10nm 5.2mb
i 14 01.10 78km
SQTA 81.24 329 iPc 13 40.00 0.0
0.9s 13.40nm 4.9mb
CDF 81.71 332 iPc 13 42.40 0.1
1.0s 12.80nm 4.8mb
OHR 81.91 319 iP 13 43.00 -0.5
1.0s 60.00nm 5.5mb
BSF 82.37 332 eP 13 45.40 -0.4
HAU 82.38 332 iPc 13 45.60 -0.2
1.1s 17.60nm 4.9mb
LOR 83.87 333 iPc 13 53.40 0.0
0.9s 15.90nm 5.0mb
FLN 83.94 336 iPc 13 53.70 0.0
1.0s 19.00nm 5.1mb
LDF 83.99 336 eP 13 54.20 0.3
1.1s 19.55nm 5.0mb
LBF 84.08 333 iPc 13 54.50 0.0
0.8s 10.75nm 4.9mb
SSF 84.17 333 iPc 13 55.10 0.2
1.0s 21.60nm 5.1mb
LPL 84.37 330 iPc 13 56.80 0.6
1.2s 22.90nm 5.1mb
LPG 84.37 330 iPc 13 56.90 0.6
1.3s 27.10nm 5.1mb
GRR 84.39 336 iPc 13 56.10 0.1
0.9s 26.35nm 5.3mb
SMF 84.42 333 eP 13 56.40 0.2
0.9s 17.70nm 5.1mb
AVF 84.46 333 iPc 13 56.70 0.4
0.9s 26.55nm 5.3mb
LPF 84.76 336 iPc 13 57.50 -0.3
1.0s 22.80nm 5.2mb
BGF 84.83 333 eP 13 58.90 0.7
0.8s 6.70nm 4.7mb
MAF 85.22 333 iPc 14 01.00 0.8
1.1s 42.00nm 5.4mb
TCF 85.28 334 eP 14 01.20 0.7
1.0s 11.00nm 4.9mb
MEO 85.41 46 iPc 14 20.20 18.9X
LSF 85.54 334 iPc 14 02.20 0.4
0.9s 22.75nm 5.2mb
MFF 85.77 335 iPc 14 03.50 0.6
1.1s 43.95nm 5.4mb
CAF 86.53 333 iPc 14 08.00 1.3
1.1s 46.90nm 5.5mb
LTX 86.56 53 eP 14 06.13 -1.1
e 14 24.57 66km
LFF 86.96 334 iPc 14 09.90 1.2
1.0s 33.80nm 5.4mb
LPO 87.04 333 iPc 14 10.30 1.2
1.0s 26.80nm 5.3mb
LKO 120.95 322 PKP 20 35.02 18.4X
1.1s 7.50nm
LPAZ 143.41 55 PKP 20 58.40 -1.1
LPB 143.62 55 PKP 20 52.00 -7.6X
CNCB 143.90 55 PKP 20 59.30 -0.9
CCH 145.46 54 PKP 21 03.20 0.6
SIV 147.21 45 PKP 21 05.80 0.8
S.D. = 1.0 on 132 of 144 obs.

DEC 11, 1993 00h 07m 20.87± 0.18s
59.538 N ± 2.3km 152.411 W ± 1.7km
DEPTH = 87.8 ± 1.5 km
4.8mb (23 obs.)
SOUTHERN ALASKA (2)
Felt (III) at Anchor Point,
Homer and Port Graham.

XLV 0.36 103 ePc 07 34.89 0.3
eS 07 44.44
HOM 0.41 72 iPd 07 35.49 0.6
OPT 0.43 286 iPc 07 34.89 -0.2
AUE 0.52 250 iPd 07 35.59 -0.2
AUP 0.55 252 iPc 07 35.70 -0.4
AUL 0.55 254 iPd 07 35.92 -0.1
AGU 0.55 252 ePd 07 35.98 -0.2
AUH 0.56 252 iPd 07 35.97 -0.2
AUI 0.56 249 eP 07 35.86 -0.2
AUW 0.57 253 iPd 07 36.06 -0.1
CNPM 0.60 91 iPd 07 37.07 0.6
ILIM 0.61 333 iPc 07 36.24 -0.4
INE 0.62 328 iPc 07 36.34 -0.5
NNL 0.76 48 eP 07 39.42 1.4
BRLK 0.81 73 eP 07 39.19 0.6
eS 07 51.75
CDD 0.88 227 iPd 07 39.27 -0.1
RED 0.90 349 iPc 07 39.73 0.0
PDB 0.94 286 iPc 07 39.34 -0.7
eS 07 52.53
RSO 0.94 350 ePc 07 40.44 0.2
RS2 0.94 350 iPc 07 40.49 0.2
REF 0.97 351 iPc 07 40.68 0.2
RDW 0.97 348 iPc 07 40.67 0.1
MCNL 1.05 251 eP 07 40.72 -0.6
NCT 1.06 346 iPc 07 41.64 0.1
DFR 1.07 353 iPc 07 41.79 0.2
NKA 1.34 25 iPd 07 47.22 2.3
BGM 1.45 265 eP 07 45.87 -0.4
SLKM 1.47 48 iPd 07 46.62 0.1
BKG 1.54 3 iPc 07 48.05 0.5
SEW 1.60 68 ePd 07 48.14 0.0
SPU 1.66 6 iPc 07 49.77 0.7
CKL 1.67 1 iPc 07 49.86 0.7
CKT 1.67 3 iPc 07 49.89 0.6
CKN 1.70 4 iPc 07 50.44 0.9
BGL 1.73 0 iPc 07 50.80 0.7
CP2 1.73 3 iPc 07 50.78 0.6
CRP 1.74 4 iPc 07 50.48 0.2
CGLM 1.79 6 iPc 07 51.69 0.9
KDC 1.80 181 ePd 07 50.71 -0.1
S 08 11.26
MPA 1.80 57 ePd 07 51.26 0.4
NCG 1.88 4 iPc 07 52.84 0.8
SUA 2.10 22 iPd 07 56.08 1.1
eS 08 23.39
PTE 2.15 50 eP 07 56.44 0.9
PMS 2.22 38 P 07 57.20 0.6
SVW 2.24 316 iPc 07 56.11 -0.8
LTI 2.36 76 eP 08 00.25 1.9
eS 08 26.96
PWL 2.43 55 iPd 07 59.62 0.2
MTU 2.45 77 eP 07 59.80 0.2
PWA 2.46 29 P 08 00.50 0.7
KNIM 2.49 69 eP 08 00.92 0.7
SKT 2.49 10 ePc 08 00.75 0.5
PLRM 2.62 37 iPd 08 02.09 0.1
PMR 2.62 37 iPd 08 01.79 -0.2
eS 08 30.27
KNK 2.72 44 iPd 08 03.44 0.1
eS 08 35.04
GHO 2.82 36 iPd 08 04.97 0.1
eS 08 38.12
CFI 2.84 52 iPd 08 04.61 -0.3
SML 3.04 40 iPd 08 07.68 0.0
CUT 3.06 19 iPd 08 08.60 0.6
HIN 3.09 71 ePd 08 08.05 -0.5
MID 3.10 89 P 08 09.10 0.6
FID 3.21 65 eP 08 08.81 -1.2
SCM 3.40 45 ePd 08 12.73 0.0
VLZ 3.42 60 ePd 08 12.53 -0.4
eS 08 50.51
CVA 3.49 70 ePd 08 13.13 -0.8
HUR 3.70 20 eP 08 17.96 1.0
KLU 3.76 56 iPd 08 17.65 -0.1
TTA 3.82 334 iPc 08 17.51 -1.1
RAGM 3.98 74 eP 08 19.98 -0.8
TOA 3.99 47 P 08 21.20 0.2
TRF 4.06 14 eP 08 21.70 -0.3
KAIM 4.07 81 eP 08 22.27 0.3
KTH 4.09 9 eP 08 22.71 0.3
HMT 4.18 75 eP 08 22.64 -0.9
RND 4.24 22 eP 08 24.53 0.1
TZL 4.25 51 eP 08 24.44 0.0
DHY 4.30 32 ePd 08 25.36 0.0
SDG 4.49 45 eP 08 27.38 -0.4
MCK 4.52 20 eP 08 28.96 0.6
GLB 4.66 62 iPd 08 29.48 -0.8
CRQM 4.79 71 eP 08 31.05 -1.2
PAX 4.80 41 iPd 08 32.05 -0.2
BWN 4.86 15 eP 08 33.24 0.4
SNH 4.87 78 eP 08 33.01 -0.1
TGL 4.94 72 eP 08 33.02 -1.2
THY 5.03 36 eP 08 36.09 0.7
CYK 5.04 80 eP 08 35.63 0.2
BALM 5.23 69 eP 08 36.90 -1.3
WRG 5.27 80 P 08 36.20 -2.5X
DDM 5.28 33 eP 08 40.08 1.2
NEA 5.29 16 eP 08 38.15 -0.9
WRH 5.35 20 eP 08 38.80 -1.0
YAH 5.43 77 eP 08 40.62 -0.4
HDA 5.52 25 ePd 08 41.47 -0.7
DJE 5.52 32 eP 08 42.00 -0.2
CCB 5.56 21 eP 08 41.69 -1.1
MLY 5.57 7 eP 08 42.77 -0.1
CTGM 5.70 71 eP 08 43.93 -0.9
DOT 5.73 40 eP 08 44.72 -0.4
MDM 5.78 18 eP 08 44.81 -1.0
FBA 5.80 20 ePd 08 44.70 -1.3
0.3s 49.07nm 5.3mb X
IL1 5.85 24 eP 08 45.70 -1.1
ILB 5.85 24 eP 08 45.72 -1.1
eS 09 48.83
TMW 5.90 46 eP 08 47.02 -0.4
GLM 5.95 21 eP 08 46.97 -1.2
BC3 6.22 51 ePd 08 51.08 -0.8
YKU 6.45 84 P 08 55.60 0.7
IM3 6.50 355 ePc 08 54.78 -0.9
IMA 6.58 355 eP 08 55.78 -1.1
0.8s 51.26nm 5.0mb X
FYU 7.77 22 eP 09 11.78 -1.3
ANM 7.90 315 eP 09 13.73 -1.1
e 09 22.86
BM3 8.64 20 eP 09 22.49 -2.6X
SIT 9.33 98 eP 09 31.35 -3.0X
0.4s 21.48nm 5.4mb X
eS 11 08.53
BRW 11.95 353 eP 10 06.39 -2.9X
DAG 40.86 15 iPd 14 54.40 -0.3
0.6s 2.67nm 4.3mb
CN2 49.91 290 Pc 16 06.80 -0.2
0.8s 34.00nm 5.4mb
esP 16 42.00
SDF 53.35 1 eP 16 32.00 -0.4
HHC 58.66 298 eP 17 10.40 -0.6
1.2s 13.00nm 4.9mb
KAF 58.67 1 eP 17 10.50 -0.1
NB2 59.09 9 P 17 12.30 -1.3
0.9s 4.40nm 4.6mb
APO 59.79 8 eP 17 16.50 -1.8
0.4s 1.70nm 4.6mb
NUR 60.27 2 eP 17 21.00 -0.5
EKA 62.87 19 P 17 39.00 -0.1
1.0s 60.30nm 5.5mb
GTA 64.94 305 eP 17 52.00 -1.0
LZH 66.01 301 eP 18 00.00 0.1
1.0s 24.00nm 5.1mb
CLL 68.88 10 i(P) 18 17.60 0.2
BRG 69.39 9 i(P) 18 20.60 0.1
MOX 69.41 11 eP 18 21.10 0.4
0.9s 19.00nm 5.0mb
KSP 69.60 8 eP 18 20.50 -1.3
PRU 70.32 9 Pd 18 26.80 0.6
KHC 71.09 10 eP 18 31.50 0.6
0.9s 6.00nm 4.5mb
e 18 51.00
CDF 71.14 14 iPc 18 31.50 0.2
0.9s 5.90nm 4.5mb
HAU 71.42 15 iPc 18 33.10 0.2
0.6s 9.00nm 4.8mb
BSF 71.65 15 iPc 18 34.30 -0.1

```
        1.0s     13.40nm          4.8mb
LOR     71.79  17 iPc    18 35.30   0.2
        0.8s     10.35nm          4.8mb
SSF     71.94  17 iPc    18 36.30   0.3
        1.0s     21.60nm          5.0mb
LBF     72.09  17 iPc    18 36.80  -0.1
        0.9s      8.20nm          4.6mb
AVF     72.19  17 iPc    18 37.50   0.1
        0.9s     12.30nm          4.8mb
SMF     72.40  17 iPc    18 38.70   0.0
        0.8s     11.30nm          4.8mb
LSF     72.43  19 iPc    18 38.90   0.0
WATA    72.68  11 iPc    18 40.80   0.3
SQTA    72.76  12 iPc    18 41.40   0.4
        0.8s     15.20nm          4.9mb
WTTA    72.76  11 iPc    18 41.60   0.6
        0.7s     12.80nm          4.9mb
GYA     72.86 293 P      18 42.60   0.8
KBA     73.11  10 iPc    18 43.80   0.8
        0.8s     22.10nm          5.1mb
LPO     73.89  19 eP     18 47.80   0.4
        0.8s      8.85nm          4.7mb
SBF     75.63  15 eP     18 57.80   0.3
        0.7s     26.00nm          5.2mb
PGF     77.12  14 eP     19 06.40   0.5
        0.8s     31.70nm          5.2mb
OHR     79.55   5 eP     19 19.50   0.4
GUN     80.58 310 P      19 26.80   1.7
KKN     80.92 311 P      19 28.60   1.8
GKN     80.98 311 P      19 28.40   1.4
PKI     81.07 310 P      19 28.60   0.9
SLR    146.21 359 iPKPc  26 52.60   1.5X
        0.7s     17.12nm
     S.D. = 0.7  on 148 of 153 obs.
--------------------------------------
   DEC  11, 1993  00h 18m 28.28± 0.57s
   35.812 N ± 4.5km    5.151 W ± 7.4km
   DEPTH =  91.5 ±  9.6 km
 STRAIT OF GIBRALTAR              (385)
     MD 3.0 (RBA).

CPS      0.35 266 iP     18 44.00   1.7
                  iS     18 56.00
NKM      0.42 210 iPgc   18 42.50  -0.3
                  iSg    18 51.50
                  i      18 53.50
BIT      0.50 251 iP     18 43.00  -0.3
                  iS     18 53.00
PLAT     0.58 302 eP     18 44.00  -0.1
MOMI     0.69 318 eP     18 44.00  -1.0
EJIF     0.69 338 eP     18 45.33   0.3
                  e      18 53.70
TSY      0.80 237 iP     18 47.00   0.9
                  iS     18 58.00
CNIL     0.92 308 eP     18 47.00  -0.4
ALJ      0.93 337 iP     18 47.00  -0.7
EGUA     1.64  51 ePn    18 54.77  -1.5
                  eSn    19 14.60
ELUQ     1.88  22 eP     19 00.09   0.5
                  e      19 21.80
EHOR     2.01 358 iPd    19 01.20   0.0
                  e      19 24.00
EVAL     2.18 325 iPd    19 03.53   0.0
                  e      19 28.60
IFR      2.29 179 iPn    19 05.00  -0.2
                  iSn    19 29.50
EBAN     2.59  25 eP     19 09.77   0.7
                  e      19 37.80
EHUE     2.87  45 eP     19 13.15   0.2
                  e      19 44.90
AVE      3.13 217 ePn    19 16.00  -0.4
                  e      19 19.50
                  eSn    19 49.00
                  iS     19 52.00
                  i      19 54.00
EVIA     3.53  36 eP     19 21.56  -0.4
PAB      3.78   9 e(Pn)  19 41.00  15.5X
                  eSg    20 05.00
EPLA     4.31 350 eP     19 32.43  -0.3
TIO      5.18 201 iPn    19 45.00   0.0
                  iSn    20 40.00
ETOR     5.56  25 eP     19 51.43   1.2
    S.D. = 0.8  on  21 of  22 obs.
--------------------------------------
% DEC  11, 1993  00h 33m 34.18± 0.50s
  37.021 N ± 5.0km    4.255 W ± 4.3km
  DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
     mbLg 2.8 (MDD).

EMAL     0.29 208 eP      33 39.82  -0.5
                  e       33 43.90
ELUQ     0.54 359 eP      33 45.15   0.1
                  e       33 52.10
EGUA     0.58 108 iP      33 45.34  -0.7
                  e       33 53.50
ECOG     0.61  65 eP      33 45.36  -1.2
                  e       33 53.50
EPRU     0.78 266 eP      33 50.10   0.6
                  e       34 00.80
EHOR     1.13 316 eP      33 55.06  -0.2
                  e       34 11.20
EJIF     1.13 240 eP      33 56.20   0.9
                  e       34 11.50
EBAN     1.20  18 eP      33 56.88   0.3
                  e       34 12.80
EHUE     1.54  59 eP      34 03.11   1.3
                  e       34 22.50
ENIJ     1.64  91 eP      34 04.15   1.0
                  e       34 25.50
EVAL     2.07 287 eP      34 08.00  -1.3
                  e       34 34.00
EVIA     2.13  40 eP      34 10.00  -0.4
                  e       34 36.70
PAB      2.52 358 e(Pn)   34 16.00   0.1
                  eSg     34 56.00
     S.D. = 0.9  on  13 of  13 obs.
--------------------------------------
& DEC  11, 1993  01h 18m 53.29s
  63.131 N              150.682 W
  DEPTH = 121.6km
CENTRAL ALASKA                    (  1)
     &lt;AEIC&gt;.

TRF      0.37  29 eP      19 10.75  -0.4
                  eS      19 23.83
KTH      0.44 346 eP      19 11.05  -0.4
                  eS      19 24.03
HUR      0.50 107 eP      19 11.50  -0.2
CUT      0.75 165 eP      19 12.77  -0.7
                  eS      19 28.27
RND      0.87  71 eP      19 14.08  -0.6
MCK      0.99  52 eP      19 14.98  -0.7
BWN      1.18  27 eP      19 17.29  -0.3
SKT      1.22 199 eP      19 17.48  -0.6
                  eS      19 36.56
DHY      1.51  91 eP      19 20.76  -0.7
                  eS      19 41.86
PWA      1.53 166 P       19 21.20  -0.3
GHO      1.59 148 eP      19 21.81  -0.5
                  eS      19 44.75
SUA      1.67 181 eP      19 23.21  -0.2
PLRM     1.71 154 eP      19 22.53  -1.1
PMR      1.71 154 eP      19 22.19  -1.4
                  eS      19 45.35
SML      1.72 140 eP      19 22.66  -1.2
                  eS      19 45.91
WRH      1.77  39 eP      19 23.38  -1.0
NCG      1.87 202 eP      19 25.21  -0.5
MLY      1.91 359 eP      19 25.29  -0.9
CGLM     1.93 199 eP      19 26.44  -0.1
PMS      1.97 164 P       19 26.20  -0.7
CCB      1.98  39 eP      19 26.13  -0.9
CRP      1.99 201 eP      19 26.83  -0.6
CP2      2.01 202 eP      19 27.36  -0.3
KNK      2.01 148 eP      19 26.48  -1.0
SCM      2.03 128 eP      19 26.51  -1.2
BGL      2.04 204 eP      19 28.62   0.7
CKN      2.04 201 eP      19 28.25   0.4
SPU      2.06 199 eP      19 28.07   0.0
CKT      2.07 201 eP      19 28.39   0.2
CKL      2.09 203 eP      19 28.59   0.0
HDA      2.09  51 eP      19 27.45  -1.0
MDM      2.13  29 eP      19 28.08  -0.9
FBA      2.18  34 eP      19 28.91  -0.7
BKG      2.20 200 eP      19 29.92   0.0
DDM      2.26  71 eP      19 31.06   0.4
TOA      2.33 114 P       19 30.70  -0.8
GLM      2.36  36 eP      19 30.97  -1.0
PAX      2.38  92 eP      19 31.50  -0.7
CFI      2.39 144 eP      19 30.79  -1.4
NKA      2.41 187 eP      19 35.82   3.3
SDG      2.44 102 eP      19 31.97  -0.9
                  eS      20 02.40
PWL      2.53 153 eP      19 32.75  -1.4
SLKM     2.64 175 eP      19 35.41  -0.2
DFR      2.72 201 eP      19 38.04   1.4
MPA      2.72 166 eP      19 35.44  -1.2
KLU      2.77 124 eP      19 35.21  -2.0
NCT      2.79 203 eP      19 38.11   0.5
REF      2.82 201 eP      19 39.18   1.1
VLZ      2.86 133 eP      19 36.48  -1.9
DOT      3.02  77 eP      19 39.24  -1.4
SEW      3.09 168 eP      19 40.30  -1.2
CNPM     3.63 184 eP      19 48.04  -0.7
GLB      3.63 115 eP      19 47.18  -1.6
HMT      4.15 130 eP      19 53.61  -2.1
CRQM     4.29 120 eP      19 55.87  -1.9
TGL      4.41 119 eP      19 57.02  -2.3
BALM     4.45 114 eP      19 57.63  -2.3
CTGM     4.91 112 eP      20 04.82  -1.3
        58 obs. associated
--------------------------------------
? DEC  11, 1993  01h 26m 54.76± 1.73s
   5.628 S ±18.3km  146.359 E ±20.2km
  DEPTH =  33.0km  (normal)
  3.9mb (  1 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

MDG      0.69 303 eP      27 08.00   0.0
MDG      0.69 303 ePc     27 10.60   2.6X
                  eS      27 22.50
LAT      1.21 148 eP      27 15.40  -0.1
PMG      3.84 168 eP      27 53.00   0.1
WB2     18.41 218 eP      31 09.20   0.0
        1.0s      3.50nm          3.5mb X
ASPA    21.58 213 eP      31 47.30   3.5X
        1.2s      6.60nm          3.9mb
     S.D. = 0.1  on   4 of   6 obs.
--------------------------------------
* DEC  11, 1993  01h 32m 17.62± 1.25s
   5.900 S ± 9.4km  146.030 E ±22.5km
  DEPTH =  33.0km  (normal)
  4.4mb (  2 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY     0.34 190 eP      32 27.00   0.9
MDG      0.69 339 eP      32 31.00   0.1
PMG      3.66 162 eP      33 13.00  -0.3
WB2     17.99 218 iPd     36 26.90  -0.1
        0.6s     19.20nm          4.4mb
ASPA    21.17 212 eP      37 02.00  -0.6
        0.6s     11.30nm          4.4mb
     S.D. = 0.8  on   5 of   5 obs.
--------------------------------------
% DEC  11, 1993  01h 40m 57.40± 0.69s
  37.054 N ± 6.8km    4.173 W ± 5.5km
  DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
     mbLg 2.7 (MDD).

EMAL     0.36 215 eP      41 03.01  -1.7
                  e       41 07.20
ELUQ     0.51 352 eP      41 07.52  -0.2
                  e       41 14.40
ECOG     0.53  65 eP      41 08.63   0.4
                  e       41 16.10
EGUA     0.53 114 iP      41 08.27   0.1
                  e       41 15.70
EPRU     0.85 264 ePg     41 15.30   1.5
                  eSg     41 26.80
EHOR     1.15 312 eP      41 18.30  -0.6
                  e       41 33.20
EBAN     1.15  15 eP      41 19.09   0.2
                  e       41 34.80
EJIF     1.20 240 ePn     41 21.48   1.7
                  eSn     41 39.20
EHUE     1.47  58 eP      41 23.87  -0.1
                  e       41 42.90
EVAL     2.12 285 ePn     41 34.47   1.1
                  eSn     41 59.80
EVAL     2.12 285 eP      41 31.10  -2.2
                  e       41 56.00
     S.D. = 1.4  on  11 of  11 obs.
--------------------------------------
? DEC  11, 1993  01h 59m 15.49± 1.00s
  37.013 N ± 9.2km    4.326 W ± 9.0km
  DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
     mbLg 2.5 (MDD).
```

EMAL 0.26 198 eP 59 21.92 0.9
e 59 25.90
EGUA 0.64 106 eP 59 27.50 -0.8
e 59 35.50
EPRU 0.73 267 eP 59 29.00 -0.8
e 59 40.00
EBAN 1.23 20 iPc 59 39.00 0.7
e 59 54.60
S.D. = 1.6 on 4 of 4 obs.

DEC 11, 1993 01h 59m 44.03± 0.35s
2.378 N ± 6.4km 128.378 E ± 7.6km
DEPTH = 23.4km (3 depth phases)
4.7mb (10 obs.)
HALMAHERA, INDONESIA (267)

DAV 5.45 329 ePd 01 08.50 2.6
BIP 6.18 340 eP 01 16.00 -0.3
CTB 6.35 319 ePc 01 18.00 -0.6
CGP 7.06 329 ePd 01 42.50 13.9X
MKS 11.67 230 ePd 02 27.50 -4.7X
BAG 15.92 332 eP 03 36.00 7.5X
WWKK 16.36 111 e(P) 03 39.00 5.0X
CVP 16.53 338 ePd 03 41.00 4.8X
GUMO 19.75 55 eP 04 15.40 0.0
GUA 19.76 55 eP 04 15.60 0.1
e 04 30.20 72kmX
LAT 20.65 116 e(P) 04 25.00 0.2
WB2 22.94 165 eP 04 47.90 0.1
0.8s 31.50nm 4.9mb
ipP 04 55.00 26km
iPP 05 14.60
eS 08 58.80
QIS 25.31 155 eP 05 11.60 0.9
ASPA 26.44 169 iPd 05 20.50 -0.7
1.1s 11.00nm 4.4mb
Z 21s 0.30um 3.8Msz
CHTO 33.13 302 eP 06 20.70 -0.1
1.0s 13.50nm 4.8mb
STK 36.31 161 eP 06 47.50 -0.4
0.9s 5.70nm 4.5mb
BJI 39.09 345 eP 07 11.50 0.3
1.1s 13.00nm 4.6mb
ARMA 39.44 148 eP 07 15.30 0.9
LZH 40.50 329 P 07 24.30 1.2
1.5s 61.00nm 5.1mb
Z 25s 0.32um 4.1MszX
pP 07 30.00 19km
ePP 09 26.50
GUN 47.85 306 P 08 22.20 -0.5
PKI 48.09 306 P 08 24.40 -0.1
KKN 48.28 306 P 08 25.20 -0.7
GKN 48.89 306 P 08 30.50 0.0
HYB 51.12 290 eP 08 47.50 0.0
GBA 51.55 285 P 08 51.00 0.2
ZAK 52.34 340 eP 08 57.00 0.8
1.7s 15.00nm 4.6mb
e 10 06.70 330kmX
BOD 56.44 351 eP 09 23.80 -2.3
1.5s 20.00nm 4.9mb
QUE 64.26 302 eP 10 20.50 0.3
TIK 69.16 0 eP 10 49.00 -1.2
0.8s 12.00nm 5.1mb
e 10 57.00 26km
e 11 09.00
MAIO 71.63 307 eP 11 06.00 -0.1
SVE 75.96 328 ePd 11 29.70 -1.0
NUR 94.67 331 eP 13 16.60 12.3X
YKA 100.03 25 Pdiff 13 36.00 7.4X
0.6s 0.40nm 4.1mb
S.D. = 0.9 on 26 of 33 obs.

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* DEC 11, 1993 02h 09m 50.67± 0.48s
45.719 N ± 4.1km 26.664 E ± 6.5km
DEPTH = 147.0 ± 6.8 km
3.6mb (2 obs.)
ROMANIA (358)

VRI 0.16 16 iPc 10 10.60 0.5
MLR 0.55 246 iPc 10 12.50 0.1
ISR 0.59 188 iPd 10 13.00 0.5
CLI 0.94 27 iPc 10 15.10 0.2
CFR 1.18 116 iPd 10 16.60 -0.4
PTT 1.23 351 iPc 10 18.00 0.4
BUC 1.37 197 iPc 10 40.00 21.1X
BUC1 1.44 198 iPd 10 42.00 22.3X
TNR 1.68 269 ePc 10 20.00 -2.3
PSN 2.31 151 iPc 10 29.00 -0.7
DEV 2.64 275 ePd 11 07.00 33.2X
PVL 2.68 201 iPd 10 36.00 1.7
GZR 2.75 265 ePd 10 45.50 10.2X
JMB 3.25 181 iPd 10 41.00 -0.7
BZS 3.54 270 eP 10 38.00 -7.4X
SSR 3.58 258 ePc 11 20.00 34.0X
VTS 3.99 220 iP 10 51.00 -0.6
KDZ 4.17 193 iP 10 53.00 -0.8
RZN 4.27 200 iP 10 55.00 -0.3
KKB 4.64 215 eP 11 00.00 -0.1
ALN 4.84 186 ePn 11 02.92 0.2
SRS 5.11 207 iPn 11 06.44 0.0
iSn 11 49.80
VAY 5.31 216 ePn 11 25.00 16.0X
KNT 5.32 212 iPn 11 09.96 0.9
eSn 11 56.14
SOH 5.46 207 ePn 11 11.28 0.2
eSn 11 57.52
OUR 5.73 201 ePn 11 15.04 0.4
PAIG 6.19 202 iPn 11 21.33 0.5
KAS 6.75 128 iPc 11 28.20 -0.3
GEC2 9.35 294 P 12 04.00 0.8
0.9s 1.43nm 3.6mb
HFS 16.37 337 eP 13 32.00 -1.0
0.3s 0.90nm 3.5mb
KAF 16.43 359 eP 13 34.40 0.7
S.D. = 0.9 on 24 of 31 obs.

DEC 11, 1993 02h 51m 08.10± 0.78s
38.079 N ± 5.6km 0.705 W ± 7.3km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 3.4 (MDD). Felt (IV) in the
epicentral area.

ACU 0.49 28 iPd 51 18.40 0.3
e 51 25.60
EALH 0.61 249 eP 51 21.12 0.8
e 51 29.30
EHUE 1.52 261 eP 51 36.15 0.8
e 51 55.80
EVIA 1.52 292 eP 51 36.15 0.7
e 51 56.00
ECHE 1.52 352 eP 51 36.09 0.7
e 51 55.40
ENIJ 1.63 228 eP 51 36.25 -0.7
e 51 57.60
ECOG 2.41 251 eP 51 49.11 0.8
e 52 16.80
EBAN 2.43 273 eP 51 48.34 -0.2
e 52 17.70
EGUA 2.59 242 eP 51 51.06 0.2
e 52 21.10
EROQ 2.87 17 eP 51 54.22 -0.5
e 52 28.40
EBR 2.89 18 eP 51 59.00 4.0X
ETOR 2.93 340 eP 51 55.77 0.1
e 52 30.70
PAB 3.20 298 ePn 51 59.00 -0.5
ePb 52 01.00
iPg 52 11.00
iSn 52 50.00
iSb 52 54.00
iSg 53 57.00
EMEL 3.31 214 eP 52 00.59 -0.4
e 52 38.60
EHOR 3.60 267 eP 52 03.88 -1.2
e 52 46.70
GUD 3.70 315 eP 52 06.30 -0.4
e 52 49.20
EGRA 4.12 4 eP 52 13.00 0.6
e 52 59.90
EPLA 4.63 297 eP 52 19.45 -0.3
e 53 12.10
ECRI 4.73 344 eP 52 20.28 -0.9
e 53 13.10
S.D. = 0.7 on 18 of 19 obs.

? DEC 11, 1993 03h 13m 56.46± 1.89s
0.576 N ±10.2km 126.049 E ±15.4km
DEPTH = 80.4 ± 21.3 km
4.9mb (1 obs.)
NORTHERN MOLUCCA SEA (266)

CTB 6.83 344 ePc 15 36.00 0.0
MKS 8.74 229 ePd 16 02.40 0.2
WB2 21.96 159 iPc 18 44.00 -1.0
0.8s 38.90nm 4.9mb
eS 22 44.20
QIS 24.84 148 eP 19 13.40 0.4
ASPA 25.28 163 iPc 19 17.10 0.1
0.8s 59.70nm 5.1mb X
eS 23 46.10
STK 35.48 157 eP 20 45.90 -1.3
0.7s 13.40nm 5.0mb X
CAN 41.65 151 iPc 21 40.30 1.7
GUN 47.09 309 P 22 22.70 -0.1
HYB 49.61 292 eP 22 42.00 0.0
S.D. = 1.1 on 9 of 9 obs.

? DEC 11, 1993 03h 50m 22.41± 1.57s
17.614 S ±22.3km 167.852 E ±10.0km
DEPTH = 33.0km (normal)
4.7mb (1 obs.)
VANUATU ISLANDS (186)

BKM 0.38 98 iPd 50 31.10 -0.1
PVC 0.46 106 iPd 50 32.50 0.1
iS 50 38.00
DZM 4.63 196 iPc 51 31.90 0.0
iS 52 24.70
ASPA 32.28 253 eP 56 50.60 0.0
0.5s 5.30nm 4.7mb
S.D. = 0.2 on 4 of 4 obs.

? DEC 11, 1993 04h 26m 49.30± 1.06s
36.998 N ± 9.2km 4.235 W ±10.6km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.6 (MDD).

EMAL 0.28 213 eP 26 55.14 -0.1
e 26 59.40
EGUA 0.56 107 eP 27 01.00 0.3
e 27 10.00
ECOG 0.60 62 eP 27 01.10 -0.5
e 27 09.00
EBAN 1.22 17 eP 27 12.20 0.2
e 27 28.00
S.D. = 0.6 on 4 of 4 obs.

& DEC 11, 1993 05h 23m 11.32s
64.035 N 145.667 W
DEPTH = 17.3km
CENTRAL ALASKA (1)
<AEIC>. ML 3.5 (AEIC), 3.5
(PMR). Felt (V) at Delta
Junction and Pump Station No. 9
of the Trans-Alaska Pipeline.

DDM 0.26 199 eP 23 16.40 -1.0
HDA 0.67 304 eP 23 24.80 0.5
IL1 0.91 325 eP 23 29.00 0.7
eS 23 40.86
ILB 0.91 325 eP 23 29.06 0.8
eS 23 40.76
FBA 1.27 314 ePc 23 32.96 -1.2
MDM 1.45 311 eP 23 35.80 -0.9
eS 23 57.00
RND 1.55 247 eP 23 38.40 0.1
TOA 1.95 187 ePc 23 44.40 0.3
BC3 1.99 117 eP 23 44.13 -0.5
eS 24 10.43
KLU 2.55 183 eP 23 53.31 0.6
PMR 2.92 215 eP 23 57.93 0.1
eS 24 29.64
PWA 3.08 221 eP 24 00.80 0.8
PMS 3.33 214 eP 24 05.90 2.3
BALM 3.38 151 eP 24 06.10 1.7
BM3 3.43 7 eP 24 05.53 0.5
IM3 3.95 303 P 24 11.10 -1.3
IMA 3.96 305 ePn 24 10.72 -1.9
NCG 3.99 231 P 24 14.50 1.5
CGLM 4.00 230 eP 24 14.88 1.6
CRP 4.08 230 eP 24 14.75 0.3
SPU 4.11 229 eP 24 16.42 1.7
CP2 4.11 230 eP 24 15.98 1.0
CKN 4.12 230 eP 24 17.76 2.8
SLKM 4.13 213 eP 24 16.45 1.4
BGL 4.17 231 P 24 18.20 2.6
CKL 4.20 230 P 24 17.20 1.2
BKG 4.26 229 eP 24 18.12 1.2
TTA 4.77 261 ePn 24 21.27 -2.9

11d 05h

ePg 24 36.36
NCT 4.86 227 eP 24 26.42 1.0
RED 4.92 226 eP 24 27.19 1.0
30 obs. associated

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* DEC 11, 1993 06h 44m 10.98± 2.06s
32.372 S ±10.5km 69.680 W ±12.6km
DEPTH = 134.0 ± 29.0 km
MENDOZA PROVINCE, ARGENTINA (139)
MD 3.9 (SAN).

JACH 0.83 248 iP 44 32.94 -0.2
iS 44 49.51
FCH 1.08 208 iPd 44 36.28 0.6
iS 44 54.72
PEL 1.14 227 iP 44 36.45 0.5
iS 44 54.12
ROCH 1.27 242 iP 44 36.93 -0.6
iS 44 56.02
PCH 1.43 209 iPd 44 39.43 0.4
iS 45 00.95
CFA 1.44 58 iPd 44 38.50 -0.6
(S) 44 58.50
RTLL 1.46 45 iPd 44 39.00 -0.4
(S) 44 56.60
TACH 1.66 219 iP . 44 41.49 0.0
CACH 1.90 204 iPd 44 45.36 0.8
eS 45 11.87
LCCH 1.93 235 eP 44 44.25 -0.5
LNV 2.14 222 iP+ 44 46.41 -0.9
eS 45 12.70
RTRS 2.20 5 iPd 44 49.00 0.9
S 45 15.00
S.D. = 0.7 on 12 of 12 obs.

% DEC 11, 1993 07h 06m 48.12± 2.91s
34.015 S ±13.4km 70.134 W ±17.8km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.6 (SAN).

CACH 0.40 255 iP+ 06 56.43 0.1
iS 07 02.49
PCH 0.50 321 iPd 06 58.52 0.1
iS 07 06.37
FCH 0.70 349 iPd 07 01.61 -0.5
TACH 0.76 298 iP+ 07 03.03 0.0
iS 07 14.15
PEL 0.98 332 eP 07 06.74 -0.1
iS 07 21.24
LNV 1.06 273 iP+ 07 07.90 -0.2
ROCH 1.27 325 iP 07 11.99 0.1
iS 07 29.43
LCCH 1.31 294 iP 07 12.35 0.0
iS 07 30.64
JACH 1.38 344 iP 07 14.08 0.5
S.D. = 0.3 on 9 of 9 obs.

% DEC 11, 1993 08h 39m 48.71± 0.92s
33.465 S ± 5.3km 70.186 W ± 7.4km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).

FCH 0.16 327 iP+ 39 52.68 0.0
iS 39 57.33
PCH 0.31 240 iP+ 39 55.98 0.7
iS 40 03.78
PEL 0.53 307 iPd 39 59.68 0.3
iS 40 09.13
TACH 0.66 253 iP+ 40 01.94 0.2
iS 40 13.86
CACH 0.74 208 iP+ 40 02.41 -0.8
ROCH 0.85 305 iP 40 05.20 0.0
iS 40 19.24
JACH 0.85 336 eP 40 04.04 -1.2
iS 40 16.32
LNV 1.13 244 iP+ 40 09.61 -0.3
iS 40 27.13
LCCH 1.16 269 iP 40 10.77 0.4
iS 40 28.81
CFA 2.48 42 ePc 40 30.50 0.7
S.D. = 0.7 on 10 of 10 obs.

DEC 11, 1993 08h 47m 25.23± 0.24s
6.520 N ± 3.9km 126.900 E ± 5.5km
DEPTH = 28.1km (7 depth phases)
5.0mb (34 obs.) 4.8Msz (18 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)
Felt (II RF) at Bislig.

DAV 1.43 293 ePc 47 55.00 5.5X
BIP 1.81 339 iPc 47 56.50 1.5
iS 48 18.00
CTB 2.77 284 ePc 48 16.00 7.4X
iS 48 55.00
CGP 2.91 311 iPd 48 16.00 5.3X
iS 48 51.00
MAP 4.76 323 iPc 48 42.00 5.1X
eS 49 13.00
PLP 4.99 338 ePc 48 41.50 1.2
SWI 8.53 149 eP 49 05.50 -24.4X
eS 50 35.00
PPR 8.71 292 ePd 49 37.00 4.6X
TSM 9.26 257 eP 49 47.00 7.1X
TGY 9.55 323 eP 49 54.00 9.9X
KKM 10.63 268 ePd 50 10.90 11.9X
BAG 11.61 328 ePc 50 21.00 8.6X
eS 53 05.00
TLE 13.41 154 ePd 50 36.50 0.2
MKS 13.82 213 iPd 50 50.00 8.4X
JAY 16.45 123 ePd 51 13.40 -2.4
eS 52 46.90
GUMO 19.03 67 eP 51 49.40 1.6
GUA 19.05 67 eP 51 49.60 1.5
HKC 19.93 323 eP 52 04.00 6.1X
QIZ 20.74 308 eP 52 07.80 1.4
N 17s 2.41um
E 17s 2.27um
eS 55 58.00
GZH 21.02 323 P 52 12.00 2.9
Z 20s 1.87um 4.5Msz
E 18s 2.30um
TPI 21.31 245 ePd 52 14.00 1.8
e 54 00.00
KNA 22.20 175 eP 52 22.20 1.1
KGM 23.93 260 eP 52 41.00 3.0
SSE 25.03 348 P 52 48.00 -0.5
Z 20s 1.80um 4.6Msz
N 20s 1.90um
IPM 25.82 267 ePd 52 58.90 2.8
SNG 26.10 273 eP 53 07.00 8.3X
WHN 26.65 335 eP 53 08.00 4.5X
Z 20s 1.86um 4.6Msz
WRA 27.30 165 P 53 08.80 -0.8
0.6s 6.60nm 4.5mb
WB2 27.30 165 iPc 53 08.80 -0.8
0.8s 9.40nm 4.5mb
epP 53 11.50 10kmX
iPcP 56 25.00
eS 57 36.70
NNT 27.45 285 eP 53 21.60 10.6X
GYA 27.66 318 P 53 14.00 1.0
1.0s 11.00nm 4.5mb
Z 20s 2.07um 4.7Msz
pP 53 22.80 31km
NST 27.77 291 eP 53 15.00 1.1
TKSJ 28.12 13 P 53 17.20 0.3
WKYJ 28.71 15 eP 53 22.60 0.3
YONJ 29.16 11 P 53 26.60 0.3
KMI 29.61 311 eP 53 40.00 9.3X
1.8s 80.00nm 5.2mb
Z 18s 2.70um 4.9Msz
N 19s 1.80um
E 19s 2.20um
pP 53 46.00 21km
eS 58 54.00
QIS 29.66 155 eP 53 29.20 -1.8
CHTO 29.83 297 eP 53 37.00 4.5X
ASPA 30.77 167 iPd 53 40.60 -0.1
0.4s 11.00nm 5.0mb
iPcP 56 37.20
eS 58 40.20
eScS 04 10.20
MAT 31.62 18 eP 53 46.00 -2.1
0.7s 13.70nm 4.9mb
Z 20s 1.77um 4.7Msz
XAN 32.04 331 P 53 49.50 -2.3
1.0s 19.00nm 5.0mb
Z 15s 1.11um 4.7MszX
N 13s 0.59um
WARB 32.51 180 eP 53 56.00 0.1
CD2 32.55 321 eP 53 55.70 -0.6
1.0s 39.00nm 5.3mb

Z 18s 1.92um 4.8Msz
N 16s 1.71um
YAMJ 33.69 19 P 54 06.60 0.5
MEEK 33.93 193 eP 54 07.80 -0.5
BJI 34.74 345 eP 54 13.50 -1.5
Z 20s 0.91um 4.5Msz
N 16s 0.56um
epP 54 22.00 29km
eS 59 48.00
OFUJ 35.05 20 P 54 19.40 1.6
SNY 35.28 356 eP 54 18.80 -0.9
Z 20s 1.39um 4.7Msz
S 59 50.00
LZH 36.22 328 Pd 54 28.50 0.5
2.0s 110.00nm 5.4mb
Z 20s 1.24um 4.7Msz
N 14s 0.76um
pP 54 37.50 30km
sP 54 43.50
HHC 36.83 340 P 54 32.00 -0.9
1.0s 68.00nm 5.5mb
Z 18s 1.82um 4.9Msz
N 16s 0.88um
MRWA 37.05 196 eP 54 35.00 0.3
0.6s 8.00nm 4.7mb
FORT 37.10 178 eP 54 35.20 0.1
CN2 37.15 358 eP 54 36.00 0.6
Z 18s 0.60um 4.4Msz
COOL 37.60 188 eP 54 39.00 -0.3
MRRJ 37.90 17 eP 54 43.20 1.5
MDJ 38.02 3 eP 54 43.50 0.8
BAL 38.19 194 iPd 54 44.60 0.3
0.5s 8.00nm 4.8mb
HOOJ 38.55 20 eP 54 49.70 2.5
KLB 38.89 192 eP 54 50.50 0.3
MUN 39.62 194 eP 54 56.80 0.6
KUSJ 39.67 21 eP 54 58.20 1.7
ASAJ 39.91 18 eP 55 00.20 1.7
NWAO 40.29 193 eP 55 02.20 0.5
0.5s 9.00nm 4.8mb
STK 40.68 161 eP 55 03.80 -1.1
0.5s 5.10nm 4.5mb
i 55 09.80 20km
eS 01 07.80
LSA 40.78 309 P 55 07.80 1.4
GTA 40.83 327 Pc 55 06.00 -0.3
1.6s 43.00nm 4.9mb
Z 20s 2.07um 5.0Msz
E 17s 1.01um
RKG 41.92 192 eP 55 17.40 2.3
YSS 42.57 16 eP 55 20.70 0.4
1.0s 30.00nm 5.0mb
Z 18s 0.50um 4.4Msz
N 18s 0.40um
E 18s 0.50um
ADE 42.74 166 e(P) 55 22.00 0.1
ARMA 43.72 148 eP 55 30.50 0.6
GUN 44.28 304 P 55 35.00 0.1
PKI 44.55 303 P 55 35.40 -1.7
0.9s 31.00nm 5.2mb
KKN 44.73 303 P 55 38.00 -0.4
0.9s 46.00nm 5.4mb
GKN 45.34 303 P 55 42.80 -0.4
0.8s 24.00nm 5.2mb
CAN 46.53 155 eP 55 56.10 3.8X
CIT 46.65 349 eP 55 52.20 -0.8
ZAK 47.97 340 eP 56 02.20 -1.2
1.6s 14.00nm 4.7mb
Z 14s 0.49um 4.6MszX
E 16s 0.49um
e 57 30.00 449kmX
DZM 48.04 127 iPc 56 05.00 0.6
HYB 48.39 287 eP 56 07.20 0.0
KOD 49.01 278 eP 56 13.80 1.5
GBA 49.14 282 P 56 13.00 0.2
WMQ 50.57 324 P 56 23.00 -0.6
1.0s 20.00nm 5.1mb
Z 18s 1.36um 5.0Msz
pP 56 38.00 57kmX
ScS 06 07.00
NDI 51.78 301 eP 56 31.00 -1.9
BOD 52.15 351 eP 56 32.90 -2.3
1.2s 16.00nm 4.8mb
POO 52.96 288 eP 56 40.50 -1.4
YAK 55.42 2 eP 57 03.50 4.4X
0.9s 56.00nm 5.6mb
FRU 58.43 317 (P) 57 19.00 -2.0

Z 22s 1.10um 4.9Msz
E 22s 1.40um
e 58 16.00 255kmX
e 59 32.00
QUE 60.84 301 eP 57 36.60 -1.4
TIK 65.05 1 eP 58 03.00 -1.8
1.2s 20.00nm 5.1mb
Z 18s 0.70um 4.9Msz
e 58 37.00 141kmX
ePPP 02 03.00
eS 06 42.00
e 06 58.00
ePS 07 13.00
MAIO 67.98 306 iPd 58 23.00 -1.3
ASH 69.13 308 eP 58 28.50 -2.7
SVE 71.69 328 ePc 58 45.20 -1.2
ARU 72.66 327 eP 58 51.00 -1.2
CSY 73.60 187 eP 58 47.30 -10.1X
0.5s 21.20nm
SDN 74.79 34 eP 59 04.70 0.2
SVW 78.27 29 eP 59 24.25 0.2
1.3s 49.72nm 5.4mb
TTA 78.35 27 eP 59 25.10 0.6
BRW 79.49 19 eP 59 31.30 0.9
KDC 79.50 33 eP 59 30.81 0.1
0.5s 20.02nm 5.4mb
IMA 79.78 24 eP 59 32.29 0.0
0.6s 5.93nm 4.8mb
SLKM 80.85 30 eP 59 36.93 -1.0
PYA 81.08 313 iP 59 39.00 -0.5
1.5s 60.00nm 5.4mb
KIV 81.35 313 eP 59 39.00 -2.0
0.5s 6.00nm 4.9mb
(S) 09 51.50
PMR 81.43 29 eP 59 39.92 -0.9
1.0s 53.73nm 5.5mb
FBA 82.14 25 eP 59 43.59 -0.9
0.7s 6.06nm 4.7mb
TOA 82.84 28 eP 59 49.80 1.5
KLU 82.97 29 eP 59 49.41 0.4
MOS 84.25 325 eP 59 56.00 0.5
e 00 06.00 32km
BALM 84.71 29 eP 59 58.21 0.4
e 00 18.02 72kmX
OBN 84.88 325 iPd 59 58.20 -0.4
1.8s 132.00nm 5.9mb
Z 20s 1.00um 5.2Msz
E 20s 0.60um
e 00 09.00 34km
e 05 12.00
MNK 90.25 324 eP 00 22.00 -2.6
YKA 96.90 24 P 00 54.70 -0.3
0.7s 3.00nm 4.9mb
GEC2 100.01 322 Pdiff 01 08.80 -0.7
0.9s 1.64nm 4.6mb
e 01 19.80
KIC 130.08 284 PKP 06 35.72 0.5
0.7s 9.50nm
TCA 153.07 158 ePKP 07 22.00 7.3X
S.D. = 1.3 on 94 of 115 obs.

% DEC 11, 1993 09h 10m 48.14± 3.76s
33.480 S ± 7.3km 69.968 W ±26.3km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.6 (SAN).

FCH 0.31 299 iP+ 10 54.84 0.1
PCH 0.48 253 iP+ 10 58.07 0.2
iS 11 06.44
PEL 0.69 299 iP 11 01.79 0.0
iS 11 11.37
CACH 0.83 219 iP 11 04.33 0.1
TACH 0.83 258 iP+ 11 04.09 -0.1
iS 11 16.17
ROCH 1.01 300 iP 11 07.38 0.0
iS 11 21.45
LNV 1.29 248 iP+ 11 11.76 -0.3
iS 11 29.22
LCCH 1.34 270 iPd 11 12.75 0.0
iS 11 30.92
S.D. = 0.2 on 8 of 8 obs.

? DEC 11, 1993 09h 26m 27.15± 1.55s
8.401 S ±27.7km 120.203 E ±22.6km
DEPTH = 161.7 ± 39.8 km
4.3mb (3 obs.)

FLORES REGION, INDONESIA (286)

MKS 3.25 347 iPc 27 18.60 0.0
KNA 11.11 132 eP 29 02.50 0.0
eS 31 01.50
WB2 17.86 131 iPd 30 27.10 0.2
0.5s 6.70nm 4.3mb
eS 33 40.00
ASPA 20.06 141 eP 30 49.70 -0.2
0.6s 15.60nm 4.6mb
iS 34 31.30
MRWA 21.08 190 eP 31 00.00 0.0
0.2s 1.00nm 3.9mb
eS 34 25.00
S.D. = 0.2 on 5 of 5 obs.

% DEC 11, 1993 09h 48m 33.45± 1.00s
40.673 N ± 5.7km 22.974 E ±10.2km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.5 (THE).

THE 0.04 189 ePg 48 34.34 -0.5
iSg 48 35.18
SOH 0.32 63 ePg 48 39.82 -0.2
iSg 48 45.05
KNT 0.49 353 ePg 48 43.50 0.2
eSg 48 51.18
SRS 0.65 46 ePg 48 46.18 -0.2
eSg 48 55.26
PAIG 0.92 144 iPg 48 52.10 0.6
S.D. = 0.6 on 5 of 5 obs.

% DEC 11, 1993 10h 09m 18.42± 0.86s
40.423 N ± 5.8km 23.312 E ± 8.2km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

THE 0.34 309 ePg 09 25.00 -0.2
eSg 09 29.64
SOH 0.40 5 ePg 09 26.92 0.5
eSg 09 33.44
PAIG 0.57 150 ePg 09 29.68 -0.1
eSg 09 38.12
LIT 0.71 243 iPg 09 32.84 0.3
KNT 0.80 337 ePg 09 34.08 -0.4
eSg 09 46.56
S.D. = 0.5 on 5 of 5 obs.

DEC 11, 1993 10h 19m 22.26± 0.43s
44.048 N ± 3.7km 7.682 E ± 3.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (LDG), 2.2 (GEN).

SAOF 0.11 236 Pg 19 24.78 -0.4
Sg 19 27.81
AUTN 0.19 254 Pg 19 26.53 -0.1
Sg 19 29.54
IMI 0.20 133 P 19 26.60 -0.2
S 19 29.93
SBF 0.26 224 Pg 19 27.80 0.1
Sg 19 31.60
ENR 0.26 314 P 19 27.52 -0.3
ROB 0.28 29 P 19 28.43 0.2
S 19 32.45
AURF 0.30 238 Pg 19 28.98 0.4
TOUF 0.31 264 Pg 19 28.92 0.0
STV 0.32 307 P 19 28.73 -0.3
S 19 33.04
FIN 0.41 67 P 19 30.60 -0.1
S 19 36.20
MVIF 0.41 249 Pg 19 30.93 0.2
Sg 19 36.89
PZZ 0.62 318 P 19 34.08 -0.7
CALN 0.64 243 Pg 19 33.55 -1.7
PCP 0.79 51 P 19 37.34 -0.4
BHB 0.85 339 P 19 38.03 -0.6
S 19 48.65
FRF 0.89 237 Pg 19 39.80 0.4
Sg 19 50.80
LMR 1.11 230 Pg 19 43.50 0.4
Sg 19 58.40
LRG 1.13 239 Pg 19 44.10 0.7
Sg 19 58.80
LPG 1.59 336 Pg 19 54.20 3.4X
LPL 1.62 336 Pg 19 53.30 2.2
S.D. = 0.8 on 19 of 20 obs.

% DEC 11, 1993 11h 25m 37.74± 1.10s
42.930 N ± 9.2km 18.733 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (TTG).

BRY 0.14 258 iPgd 25 41.27 0.1
iSg 25 44.01
NKY 0.23 121 iPgc 25 43.00 0.3
iSg 25 47.38
HCY 0.51 200 iPgc 25 47.95 -0.2
iSg 25 56.15
TTG 0.63 142 iPgd 25 50.13 -0.3
iSg 26 00.29
BDV 0.65 174 iPgd 25 50.56 -0.2
iSg 26 00.77
IVA 0.86 94 iPgc 25 54.16 -0.2
iSg 26 07.07
PVY 0.97 110 iPgd 25 56.26 -0.1
iSg 26 11.04
ULC 1.04 158 iPgc 25 57.77 0.4
iSg 26 13.76
S.D. = 0.3 on 8 of 8 obs.

? DEC 11, 1993 11h 49m 55.91± 5.04s
28.697 N ±13.9km 34.674 E ±34.8km
DEPTH = 10.0km (geophysicist)
EGYPT (553)

BADA 0.34 121 iPc 50 02.57 -0.3
SRFA 0.51 63 iPc 50 05.67 -0.5
eS 50 12.67
HQL 0.66 30 iPd 50 09.00 0.0
eS 50 18.33
AYN 1.18 81 iPc 50 18.67 0.8
eS 50 34.67
S.D. = 1.0 on 4 of 4 obs.

% DEC 11, 1993 12h 00m 10.61± 1.41s
41.210 N ±12.0km 23.168 E ± 5.1km
DEPTH = 5.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.0 (THE).

KNT 0.21 257 ePg 00 14.72 -0.2
eSg 00 17.48
SRS 0.33 106 ePg 00 17.32 0.0
eSg 00 21.84
SOH 0.41 160 ePg 00 18.72 -0.2
iSg 00 24.68
THE 0.60 195 iPg 00 22.60 0.0
eSg 00 30.00
GRG 0.63 247 ePg 00 23.44 0.2
iSg 00 31.16
OUR 1.07 144 ePg 00 31.36 0.1
eSg 00 45.96
S.D. = 0.2 on 6 of 6 obs.

DEC 11, 1993 12h 08m 16.56± 0.82s
42.267 N ± 6.0km 121.973 W ±10.6km
DEPTH = 5.0km (geophysicist)
OREGON (32)
MD 3.1 (GS).

LASM 0.73 156 P 08 30.84 -0.3
LMPM 0.79 190 P 08 32.56 0.0
LBFM 0.92 176 (P) 08 34.80 0.0
LGBM 0.94 190 P 08 35.13 0.1
LBKM 1.29 204 P 08 40.59 -0.4
LGPM 1.50 206 eP 08 43.43 -0.8
eS 09 02.79
KMPM 2.46 222 (P) 08 58.69 0.7
ORV 2.73 172 ePn 09 02.82 0.9
VGB 3.36 14 (P) 09 10.72 -0.1
S.D. = 0.6 on 9 of 9 obs.

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* DEC 11, 1993 12h 09m 54.68± 1.34s
33.091 S ± 9.6km 68.183 W ±12.0km
DEPTH = 10.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)
MD 4.3 (SAN).

RTCV 1.26 346 ePd 10 17.80 -0.4
CFA 1.48 358 iPc 10 21.50 0.1

11d 12h

S 10 40.70
ZON 1.60 345 iPc 10 22.20 -0.9
eS 10 42.20
RTLL 1.77 352 iPc 10 21.50 -4.1X
S 10 43.00
FCH 1.78 262 eP 10 26.16 0.1
PCH 2.02 254 iPd 10 29.54 0.3
iS 10 57.46
JACH 2.07 281 iP 10 30.90 0.9
iS 10 58.01
PEL 2.10 268 iPd 10 30.58 0.2
iS 10 58.75
CACH 2.26 242 iPd 10 33.37 0.5
iS 11 05.16
TACH 2.37 256 eP 10 33.92 -0.4
iS 11 07.78
ROCH 2.38 272 iP+ 10 34.53 0.0
LNV 2.83 251 iPd 10 40.14 -0.6
LCCH 2.86 261 iPd 10 40.32 -0.9
RTRS 3.11 339 eP 10 45.50 0.9
S 11 29.00
RTPR 3.12 28 eP 10 45.00 0.2
S 11 30.00
S.D. = 0.6 on 14 of 15 obs.

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* DEC 11, 1993 12h 10m 46.56± 1.78s
36.348 N ±14.0km 21.448 E ±13.0km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
SOUTHERN GREECE (368)
MD 3.8 (ATH).

VLI 1.26 72 ePg 11 08.70 0.8
VLS 1.95 340 ePb 11 20.10 2.1
VAM 2.42 112 ePn 11 26.00 1.3
ATH 2.43 48 ePn 11 26.00 1.2
AGG 2.76 14 ePn 11 30.70 1.3
IGT 3.30 345 ePn 11 37.42 0.3
eSn 12 14.10
KEK 3.60 339 ePn 11 40.60 -0.8
LIT 3.84 12 ePn 11 45.58 0.9
eSn 12 27.26
KZN 3.96 4 ePn 11 47.10 0.5
PAIG 3.98 26 ePn 11 46.82 0.0
FNA 4.43 359 ePn 11 51.54 -1.7
eSn 12 42.02
OUR 4.45 26 ePn 11 52.46 -1.0
GRG 4.66 9 ePn 11 56.34 -0.1
SOH 4.71 18 ePn 11 56.58 -0.6
iSn 12 47.18
OHR 4.78 354 ePn 11 51.00 -7.2X
KNT 4.94 13 ePn 11 59.82 -0.6
eSn 12 51.38
VAY 5.04 10 ePn 12 01.60 -0.2
KSL 6.58 90 ePn 12 21.20 -2.3
NB2 25.56 348 P 16 12.70 -1.1
0.7s 1.80nm 3.8mb
S.D. = 1.2 on 18 of 19 obs.

? DEC 11, 1993 12h 23m 11.64± 3.46s
41.346 N ±25.4km 20.735 E ±18.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)

FNA 0.74 139 ePg 23 26.26 0.0
eSg 23 38.06
GRG 1.32 107 ePb 23 36.30 0.3
eSb 23 56.82
KNT 1.64 96 ePb 23 40.54 -0.1
LIT 1.82 132 ePb 23 42.98 -0.3
IGT 1.84 190 ePb 23 43.58 0.1
eSb 24 10.34
S.D. = 0.3 on 5 of 5 obs.

DEC 11, 1993 13h 04m 52.66± 0.28s
49.733 N ± 5.6km 157.246 E ± 4.8km
DEPTH = 31.9km (3 depth phases)
5.0mb (66 obs.)
EAST OF KURIL ISLANDS (222)
Felt (III) at Severo-Kurilsk and
on Shumshu.

SKR 1.19 322 iPnc- 05 17.40 4.3X
iS 05 33.80
PET 3.40 14 ePn 05 49.00 4.2X
eS 06 29.00
KUR 7.78 238 ePn 06 47.00 0.5

YSS 10.04 260 iPnc 07 20.30 2.6
Z 18s 0.50um
SMY 10.99 68 eP 07 26.11 -4.4X
MGD 11.02 343 ePn 07 32.00 0.9
MAT 19.08 233 iPc 09 14.80 -0.3
1.5s 125.00nm 4.9mb
MDJ 19.43 265 eP 09 20.00 0.9
1.0s 17.00nm 4.3mb
YAK 19.55 319 iPc 09 21.70 1.4
1.0s 75.00nm 4.9mb
CN2 22.46 267 eP 09 50.40 0.2
Z 20s 0.37um 3.8Msz
ANM 24.64 39 eP 10 13.08 1.9
TIK 25.49 340 iPc 10 17.00 -2.1
1.0s 19.00nm 4.7mb
i 10 57.00 203kmX
e 11 07.00
BOD 26.30 305 eP 10 25.90 -0.9
1.0s 14.00nm 4.5mb
IMA 29.76 38 ePc 10 58.46 0.3
1.1s 11.67nm 4.6mb
FBA 32.10 41 ePc 11 19.37 0.8
1.0s 12.77nm 4.8mb
ZAK 34.01 292 eP 11 34.00 -1.3
1.4s 12.00nm 4.6mb
LZH 40.57 271 eP 12 33.00 2.2
1.8s 18.00nm 4.5mb
Z 25s 0.32um 4.1MszX
MBC 40.83 21 iPc 12 34.90 2.7
PP 14 12.30
PP 14 12.60
PcP 14 34.00
PcP 14 34.60
PPP 14 36.00
PPP 14 37.50
ScP 17 59.70
S 18 40.70
SSS 21 16.00
SS 21 30.70
SS 21 31.00
NVS 43.61 306 iPc 12 53.30 -1.9
i 14 41.80 628kmX
GYA 45.05 258 P 13 06.80 -0.5
1.0s 13.00nm 4.8mb
YKA 46.87 39 P 13 21.70 0.6
0.9s 6.40nm 4.6mb
DAG 53.75 359 iPd 14 13.10 -0.2
0.8s 23.13nm 5.2mb
ARU 54.68 318 eP 14 17.00 -3.4X
CHTO 55.47 258 ePc 14 26.30 -0.3
0.9s 12.79nm 5.0mb
LAT 56.87 192 eP 14 36.50 -0.1
GUN 57.47 276 P 14 40.70 -0.6
KKN 57.94 276 P 14 44.40 0.0
0.6s 32.00nm 5.6mb
PKI 58.00 276 P 14 45.10 0.1
GKN 58.21 277 P 14 45.90 -0.3
0.6s 16.00nm 5.3mb
ABL 60.47 70 (P) 15 01.43 -0.4
NIL 61.56 289 iPd 15 11.00 2.0
KAF 61.86 336 eP 15 09.70 -0.9
0.4s 1.60nm 4.5mb
SRU 62.72 61 eP 15 17.21 0.3
RSSD 62.80 53 ePc 15 17.60 0.2
0.8s 16.65nm 5.2mb
e 15 32.93 56kmX
NUR 63.65 336 iP 15 21.20 -1.2
0.5s 5.50nm 4.9mb
PV09 63.93 61 ePd 15 25.55 0.6
PV10 64.06 61 eP 15 26.76 0.9
PV08 64.15 60 ePc 15 26.71 0.2
OBN 64.37 327 eP 15 26.00 -1.2
1.2s 31.00nm 5.3mb
UPP 65.96 339 iP 15 36.60 -0.7
NB2 66.25 343 P 15 38.70 -0.6
0.7s 16.40nm 5.2mb
HFS 66.58 341 eP 15 39.90 -1.4
0.5s 8.60nm 5.1mb
Z 15s 0.11um 4.2MszX
LR 44 41.00
HYB 69.65 273 eP 16 00.50 -0.5
KIV 70.64 316 eP 16 07.30 0.5
1.2s 17.00nm 5.0mb
WB2 72.28 203 iPd 16 15.50 -1.2
1.0s 11.40nm 4.8mb
i 16 27.70 41km
i 16 34.60

WRA 72.28 203 P 16 15.90 -0.8
0.9s 9.80nm 4.8mb
WMOK 72.39 57 eP 16 17.72 0.4
2.4s 52.07nm 5.1mb
ERE 72.73 312 iP 16 20.60 1.2
0.9s 10.00nm 4.8mb
GBA 73.17 271 P 16 22.00 -0.1
LTX 73.66 64 eP 16 24.14 -0.8
OJC 73.97 333 eP 16 26.40 0.1
0.9s 58.00nm 5.6mb
EKA 74.03 349 P 16 27.00 0.5
KSP 74.40 336 iPc 16 28.90 0.1
1.0s 37.00nm 5.3mb
UZH 74.62 331 ePd 16 30.00 0.0
1.0s 31.00nm 5.3mb
e 16 37.70 25km
SPC 74.76 332 iP 16 32.20 1.1
CLL 74.82 338 iPc 16 31.00 -0.2
1.1s 61.00nm 5.5mb
BRG 74.99 337 iP 16 32.30 0.2
1.0s 24.00nm 5.2mb
MIAR 75.31 54 ePc 16 34.35 0.1
0.6s 8.38nm 4.9mb
e 16 58.20 91kmX
PRU 75.64 336 iPc 16 36.30 0.4
0.9s 34.80nm 5.4mb
e 16 50.10 48kmX
MOX 75.77 338 iP 16 37.10 0.5
1.1s 34.00nm 5.3mb
ASPA 75.96 202 eP 16 37.60 -0.4
0.6s 7.00nm 4.8mb
e 16 56.70 71kmX
HOF 76.02 338 iPc 16 38.40 0.3
0.7s 17.00nm 5.2mb
MLR 76.14 327 ePc 16 39.00 0.1
ISR 76.23 326 eP 16 40.00 0.6
SRO 76.57 333 iP 16 42.30 1.2
ZST 76.57 334 iPc 16 41.80 0.7
0.9s 31.50nm 5.3mb
KAS 76.61 320 iPc 16 42.70 1.1
KHC 76.68 336 iPc 16 42.50 0.7
1.0s 32.00nm 5.3mb
e 17 05.50 87kmX
GRF 76.75 338 iPc 16 43.40 1.2
0.9s 83.00nm 5.8mb
WET 76.85 337 iPc 16 43.80 1.1
1.0s 58.00nm 5.6mb
TNS 76.90 340 ePd 16 43.10 0.1
GEC2 76.91 336 P 16 43.30 0.1
0.7s 11.53nm 5.0mb
e 16 47.80 14kmX
GEC2 76.91 336 e(P) 16 43.50 0.3
0.6s 10.50nm 5.0mb
ENN 76.92 342 eP 16 44.00 1.0
0.9s 26.10nm 5.3mb
FUR 78.16 337 eP 16 50.70 0.8
KBA 78.63 336 iPc 16 54.00 1.2
1.1s 65.20nm 5.6mb
WATA 78.85 337 iPc 16 54.80 0.9
CDF 78.87 340 eP 16 52.70 -1.2
1.1s 16.10nm 4.9mb
WTTA 78.91 337 iPc 16 55.20 0.9
1.0s 29.40nm 5.2mb
i 17 04.60 30km
MOTA 78.96 337 iPc 16 55.10 0.5
0.9s 21.00nm 5.1mb
OGA 79.43 337 iPd 16 58.60 1.5
HAU 79.45 341 eP 16 55.60 -1.4
0.8s 8.20nm 4.8mb
BSF 79.52 340 eP 16 55.80 -1.7
0.9s 7.20nm 4.7mb
FLN 80.03 345 eP 16 58.70 -1.3
1.2s 46.40nm 5.4mb
LDF 80.13 345 eP 16 59.30 -1.3
1.1s 17.85nm 5.0mb
GRR 80.45 345 eP 17 01.30 -1.0
1.1s 35.90nm 5.3mb
LOR 80.67 342 eP 17 02.30 -1.2
0.9s 10.00nm 4.8mb
SRS 80.79 326 iP 17 04.30 0.1
LPF 80.83 345 eP 17 02.70 -1.6
1.0s 22.40nm 5.1mb
LBF 80.92 342 eP 17 03.40 -1.5
0.9s 5.55nm 4.6mb
SSF 80.94 342 eP 17 03.70 -1.2
1.0s 16.00nm 5.0mb
VAY 80.98 327 iP 17 05.50 0.3

KNT 81.00 327 iP 17 05.44 0.1
AVF 81.23 342 eP 17 05.40 -1.0
1.1s 13.65nm 4.9mb
SMF 81.27 342 eP 17 05.50 -1.2
1.0s 10.40nm 4.8mb
OUR 81.34 326 eP 17 06.92 -0.1
LPL 81.73 340 eP 17 08.70 -0.6
0.9s 12.60nm 4.9mb
LPG 81.74 340 eP 17 09.10 -0.4
0.9s 13.75nm 5.0mb
MAF 81.93 343 eP 17 09.80 -0.3
0.8s 7.50nm 4.8mb
TCF 81.94 343 eP 17 09.40 -0.8
0.9s 6.90nm 4.7mb
MFF 82.06 344 eP 17 10.30 -0.5
0.9s 13.25nm 5.0mb
LSF 82.10 343 eP 17 10.40 -0.6
1.0s 20.40nm 5.1mb
RJF 83.02 343 eP 17 14.90 -0.9
1.2s 29.75nm 5.3mb
LFF 83.51 343 eP 17 17.50 -0.8
0.8s 18.00nm 5.3mb
LPO 83.68 343 eP 17 18.60 -0.5
LPAZ 130.53 64 PKP 24 02.80 0.2
LPB 130.74 64 PKPc 23 57.80 -4.9X
1.1s 60.76nm
PP 26 13.90
CNCB 131.03 64 PKPc 24 04.00 0.6
MOCB 135.86 66 PKP 24 11.80 -0.6
SYO 144.95 214 ePKPc 24 27.10 0.5
S.D. = 1.0 on 105 of 110 obs.

DEC 11, 1993 13h 50m 57.18± 0.26s
44.035 N ± 2.3km 7.673 E ± 2.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.6 (GEN), 3.4 (LDG), 2.9
(STR).

SAOF 0.10 240 Pg 50 59.55 -0.4
AUTN 0.18 258 Pg 51 01.30 -0.1
Sg 51 04.48
IMI 0.20 129 Pd 51 01.51 -0.1
S 51 05.07
SBF 0.24 225 Pg 51 02.50 0.1
Sg 51 06.40
ENR 0.26 317 Pc 51 02.63 -0.2
S 51 05.81
AURF 0.29 240 Pg 51 03.66 0.4
Sg 51 07.93
ROB 0.30 29 Pd 51 03.42 0.0
S 51 06.86
TOUF 0.31 266 Pg 51 03.86 0.2
Sg 51 08.52
STV 0.33 310 Pc 51 03.74 -0.3
S 51 08.09
REVF 0.37 217 Pg 51 05.35 0.6
Sg 51 11.40
MVIF 0.40 250 Pg 51 05.74 0.3
Sg 51 11.51
FIN 0.42 65 Pd 51 05.43 -0.4
S 51 11.02
PZZ 0.62 319 Pc 51 09.04 -0.8
S 51 17.43
CALN 0.63 244 Pg 51 10.22 0.2
Sg 51 18.85
PCP 0.81 51 Pd 51 12.44 -0.4
S 51 22.02
BHB 0.86 340 Pc 51 12.96 -0.8
S 51 23.98
FRF 0.88 238 Pg 51 14.30 0.2
Sg 51 26.10
RRL 1.09 325 Pc 51 17.30 -0.5
S 51 31.02
LMR 1.10 231 Pg 51 18.30 0.5
Sg 51 33.00
LRG 1.11 239 Pg 51 18.70 0.6
Sg 51 33.50
RSP 1.16 345 Pc 51 17.70 -1.2
S 51 32.40
LSD 1.47 346 P 51 23.22 -0.7
BORS 1.56 82 P 51 24.65 -0.4
S 51 43.29
LPG 1.60 336 Pn 51 26.00 0.1
Pg 51 29.30
Sg 51 51.50
ORX 1.61 8 P 51 25.21 -0.7
LPL 1.63 336 Pn 51 26.30 0.1
PGF 1.77 146 Pn 51 26.40 -1.8
Sn 51 47.00
RSL 1.81 336 Pg 51 29.78 1.0
Sg 51 56.34
SARO 1.97 85 P 51 30.64 -0.4
S 51 52.12
MMK 2.03 6 eP 51 32.10 0.1
DIX 2.05 355 iP 51 32.30 -0.1
EMS 2.10 346 iPd 51 34.60 1.6
TMA 2.24 22 iPc 51 35.60 0.6
SSB 2.56 300 Pn 51 40.14 0.7
VDL 2.76 27 iPd 51 43.90 1.4
LLS 2.98 18 eP 51 46.50 0.9
OSS 3.17 32 eP 51 50.30 2.1
SMF 3.76 315 Pn 51 57.10 0.7
Sn 52 39.30
BSF 3.85 351 Pn 51 57.50 -0.3
Sn 52 40.90
LBF 3.93 320 Pn 51 59.30 0.4
Sn 52 44.10
HAU 4.08 347 Pn 52 00.40 -0.5
Sn 52 46.70
AVF 4.10 314 Pn 52 01.90 0.6
Sn 52 47.70
CAF 4.11 284 Pn 52 01.50 0.1
Sn 52 48.50
LOR 4.20 322 Pn 52 02.50 -0.1
Sn 52 50.10
SSF 4.21 317 Pn 52 03.10 0.3
Sn 52 51.50
MAF 4.22 303 Pn 52 03.80 0.8
Sg 53 12.80
BGF 4.24 308 Pn 52 03.50 0.3
Pg 52 18.10
Sn 52 52.60
Sg 53 13.60
WTTA 4.26 39 iPnc 52 05.90 2.2
0.6s 10.10nm
i 52 06.50
i(Sg) 52 59.60
CDF 4.39 357 Pn 52 04.50 -0.9
Sn 52 54.70
TCF 4.47 302 Pn 52 07.30 0.7
Sn 52 57.80
RJF 4.57 288 Pn 52 08.00 0.0
Sn 52 59.50
LPO 4.70 280 Pn 52 09.90 0.1
LSF 4.88 299 Pn 52 12.80 0.5
Sn 53 07.80
LFF 5.04 283 Pn 52 14.60 0.0
EPF 5.43 262 Pn 52 19.00 -1.1
MFF 6.08 298 Pn 52 28.70 -0.6
KHC 6.52 37 Pn 52 34.50 -1.0
e 53 26.50
eSn 53 46.50
e 54 32.50
LDF 7.06 313 Pn 52 42.20 -0.9
LPF 7.26 306 Pn 52 45.10 -0.8
GRR 7.35 309 Pn 52 45.00 -2.0
FLN 7.36 313 Pn 52 46.40 -0.8
S.D. = 0.8 on 61 of 61 obs.

% DEC 11, 1993 13h 51m 39.43± 1.14s
44.015 N ±10.6km 7.650 E ± 8.4km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

IMI 0.20 121 P 51 43.60 0.0
S 51 46.75
ENR 0.27 322 P 51 44.93 0.0
S 51 48.08
ROB 0.32 30 P 51 45.94 0.0
S 51 49.94
STV 0.33 314 P 51 46.13 0.1
S 51 50.14
PZZ 0.63 321 P 51 51.89 -0.1
S.D. = 0.1 on 5 of 5 obs.

? DEC 11, 1993 14h 12m 30.14± 1.83s
39.165 N ±17.8km 22.956 E ±12.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

AGG 0.51 254 ePg 12 40.48 0.0
eSg 12 49.44
PAIG 0.94 36 ePg 12 48.52 0.4
eSg 13 00.88
LIT 1.00 339 ePg 12 49.12 0.0
eSg 13 01.40
OUR 1.41 34 ePb 12 55.40 -0.4
S.D. = 0.6 on 4 of 4 obs.

? DEC 11, 1993 14h 36m 21.62± 1.01s
5.878 S ±10.3km 146.128 E ±15.4km
DEPTH = 33.0km (normal)
4.4mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.39 204 iPd 36 30.90 0.1
eS 36 39.00
MDG 0.71 331 iPc 36 35.20 0.0
LAT 1.17 132 ePd 36 41.80 0.1
WWKK 3.35 312 eP 37 17.50 4.5X
PMG 3.65 164 eP 37 17.00 -0.2
ASPA 21.24 212 iPc 41 12.30 5.0X
0.3s 4.80nm 4.4mb
S.D. = 0.2 on 4 of 6 obs.

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* DEC 11, 1993 14h 45m 39.96± 0.50s
0.331 N ± 8.3km 126.061 E ±14.0km
DEPTH = 33.0km (normal)
5.0mb (10 obs.)
NORTHERN MOLUCCA SEA (266)

DAV 6.73 356 eP 47 22.00 2.9
MKS 8.58 230 ePd 47 49.20 4.2X
TSM 9.08 296 eP 47 52.00 0.2
BAG 16.87 342 ePc 49 35.00 -0.5
WB2 21.72 159 eP 50 29.50 -1.0
0.7s 79.30nm 5.2mb
ipP 50 34.20 17kmX
eS 54 32.20
QIS 24.63 148 eP 51 00.40 1.5
ASPA 25.04 163 eP 51 03.10 0.3
0.4s 24.50nm 5.2mb
eS 55 34.80
IPM 25.36 280 ePc 51 10.80 4.9X
WARB 26.37 179 eP 51 17.00 1.9
FORT 31.00 177 eP 51 57.00 0.3
STK 35.25 157 iPc 52 32.60 -1.0
0.6s 6.90nm 4.8mb
ARMA 39.07 144 eP 53 06.00 0.0
BJI 40.54 348 eP 53 18.50 0.8
1.0s 6.00nm 4.3mb
Z 24s 0.32um 4.1MszX
eS 59 24.00
LZH 41.13 332 eP 53 23.00 0.1
1.2s 15.00nm 4.6mb
Z 25s 0.54um 4.3MszX
GUN 47.25 309 P 54 10.40 -2.2
GBA 49.91 287 P 54 33.00 0.1
YAK 61.59 2 eP 56 00.00 3.8X
0.9s 31.00nm 5.4mb
SDN 80.36 34 (P) 57 48.43 -0.9
1.0s 89.29nm 5.7mb
SVW 84.07 29 ePc 58 09.73 1.2
0.8s 12.12nm 5.1mb
TTA 84.22 27 eP 58 08.57 -0.7
1.4s 15.06nm 5.0mb
IMA 85.74 24 eP 58 15.46 -1.5
0.6s 1.59nm 4.4mb
SLKM 86.61 30 eP 58 19.64 -1.5
S.D. = 1.4 on 19 of 22 obs.

? DEC 11, 1993 15h 14m 02.76± 0.98s
31.683 S ± 8.0km 117.038 E ±11.8km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

KLB 0.62 82 iPd 14 15.30 0.0
eS 14 23.60
BAL 1.11 345 iPd 14 23.40 -0.2
eS 14 37.00
NWAO 1.25 172 iPc 14 26.00 0.0
eS 14 42.60
MRWA 2.62 340 eP 14 46.00 0.2
eS 15 21.00
S.D. = 0.3 on 4 of 4 obs.

& DEC 11, 1993 15h 59m 18.76s
36.159 N 118.030 W
DEPTH = 8.2km

11d 15h

CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.1 (GM). ML 2.8
(PAS).

WLHM 0.23 268 P 59 23.50 -0.2
WCHM 0.28 188 P 59 24.39 -0.2
NMC 0.33 162 P 59 25.28 -0.3
RCWM 0.37 124 P 59 26.17 -0.2
WORM 0.49 201 P 59 28.29 -0.4
WASM 0.60 226 P 59 30.44 -0.4
ISA 0.61 216 eP 59 30.42 -0.6
WSHM 0.68 140 P 59 32.32 -0.2
WJPM 0.83 206 P 59 34.58 -0.5
SNDC 1.04 192 P 59 38.43 -0.2
BMTC 1.12 204 P 59 39.56 -0.5
ARVC 1.22 213 P 59 42.00 0.4
MTUM 1.27 340 eP 59 42.02 -0.6
eS 59 58.45
GSC 1.31 130 eP 59 43.28 0.0
HTCR 1.49 337 P 59 46.47 0.3
ORC 1.56 341 P 59 47.56 0.6
TMB 1.63 229 P 59 49.20 1.3
TPNV 1.64 61 eP 59 47.95 -0.1
MCSM 1.65 335 P 59 49.30 1.0
CRGC 1.65 237 P 59 49.54 1.3
MMPM 1.65 331 eP 59 48.82 0.3
MEMM 1.67 334 eP 59 48.87 0.5
BONR 1.81 353 (P) 59 51.78 1.1
PARM 1.87 273 P 59 52.88 1.5
PDRM 1.90 276 P 59 53.45 1.7
BCH 1.93 240 (P) 59 52.92 0.6
PHAM 1.95 261 (P) 59 52.69 0.2
SSK 1.96 172 (P) 59 51.80 -1.0
TNP 2.03 18 eP 59 55.50 1.7
SCCM 2.13 236 P 59 56.99 1.9
BRMM 2.35 287 P 00 00.38 2.1
ARN 3.05 294 (P) 00 08.63 0.4
32 obs. associated

? DEC 11, 1993 16h 00m 07.41± 0.72s
19.817 S ±11.7km 175.878 W ±15.5km
DEPTH = 300.0km (geophysicist)
4.7mb (9 obs.)
TONGA ISLANDS (173)

AFI 7.06 34 eP 02 49.00 58.7X
BKM 15.19 275 iPd 03 29.00 -0.5
DZM 16.67 259 iPc 03 45.30 0.1
PUZ 18.89 194 eP 04 09.10 1.2
URZ 19.36 197 eP 04 11.10 -1.4
NOZ 19.46 194 P 04 14.00 0.5
LTZ 24.98 201 eP 05 07.70 1.6
ARMA 31.16 244 eP 06 01.50 0.4
PMG 37.15 281 eP 06 50.00 -1.9
ASPA 46.62 256 iPd 08 07.30 -0.9
0.5s 41.50nm 5.0mb
WB2 46.66 261 iPc 08 07.10 -1.4
0.4s 40.90nm 5.1mb
WARB 52.94 252 eP 08 54.80 -1.0
0.3s 4.00nm 4.3mb
MDJ 81.12 324 eP 11 52.40 1.7
1.0s 21.00nm 4.9mb
CN2 82.99 321 eP 12 02.00 1.7
1.2s 14.00nm 4.7mb
IPM 85.06 277 ePd 12 13.00 1.7
FBA 87.16 12 eP 12 19.59 -0.8
0.9s 6.37nm 4.6mb
TIY 88.32 311 eP 12 27.30 0.7
XAN 89.32 307 P 12 33.00 1.7
1.0s 8.90nm 4.6mb
HHC 90.31 314 P 12 38.00 2.2
1.2s 9.70nm 4.6mb
YKA 95.07 24 P 12 56.90 -0.1
0.8s 0.90nm 4.0mb
KSP 147.58 346 ePKP 19 19.00 4.5X
CLL 147.80 350 iPKPc 19 19.40 4.6X
1.3s 32.00nm
SPC 147.97 340 ePKP 19 20.70 5.3X
BRG 148.05 348 e(PKP)19 18.60 3.4X
PRU 148.77 347 ePKP 19 16.50 0.1
e 19 22.00
GRF 149.66 351 ePKP 19 25.00 7.3X
KHC 149.78 348 PKP 19 25.40 7.4X
1.2s 10.00nm
e 19 31.00
SRO 149.79 341 ePKP 19 24.80 6.9X
ZST 149.80 343 e(PKP)19 16.80 -1.2
i 19 25.10
GEC2 150.03 347 PKP 19 24.50 6.1X
1.0s 6.29nm
e 19 30.40
LDF 151.09 6 ePKP 19 25.90 6.0X
1.0s 29.60nm
GRR 151.21 7 ePKP 19 25.70 5.6X
1.1s 21.75nm
LPF 151.54 7 ePKP 19 25.30 4.7X
0.7s 7.95nm
LOR 152.62 0 ePKP 19 19.50 -2.7
0.9s 6.20nm
SSF 152.82 1 ePKP 19 20.80 -1.7
1.1s 16.35nm
S.D. = 1.5 on 23 of 35 obs.

DEC 11, 1993 16h 34m 29.71± 0.56s
39.166 N ± 6.4km 141.852 E ±11.1km
DEPTH = 109.8 ± 5.5 km
4.0mb (4 obs.)
EASTERN HONSHU, JAPAN (227)

OFUJ 0.17 239 iPd 34 45.90 0.9
S 34 56.50
YAMJ 1.73 236 iP+ 35 00.00 0.2
S 35 21.70
AOMJ 1.80 321 iPd 35 01.40 0.8
S 35 25.10
NIIJ 2.96 230 P 35 16.20 0.4
KAKJ 3.24 205 P 35 18.10 -1.6
S 35 53.70
MRRJ 3.31 350 eP 35 20.30 -0.3
eS 35 57.00
HOOJ 3.39 18 eP 35 21.90 0.2
eS 36 00.40
CHJJ 3.85 217 P 35 27.30 -0.7
MAT 3.90 229 iPc 35 28.90 0.3
eS 36 27.00
MTMJ 4.11 232 P 35 32.00 0.4
KUSJ 4.48 28 P 35 35.20 -1.3
eS 36 24.60
IIDJ 4.84 222 P 35 41.70 0.2
ASAJ 4.98 7 eP 35 42.60 -0.8
WRA 59.22 188 P 44 21.00 -0.5
0.5s 0.50nm 3.9mb
KAF 66.58 332 iP 45 09.10 -0.5
0.4s 1.70nm 4.3mb
NUR 68.24 332 eP 45 19.20 -0.8
HFS 72.29 336 eP 45 44.40 -0.2
0.4s 1.50nm 4.1mb
SRU 77.76 49 eP 46 17.88 1.6
PV10 79.11 49 eP 46 25.62 1.8
GEC2 81.08 328 P 46 33.90 0.1
0.5s 0.60nm 3.7mb
LPAZ 145.29 57 PKP 53 56.70 -0.4
LPB 145.48 58 ePKP 54 03.00 5.8X
CNCB 145.76 58 PKP 54 01.00 3.2X
S.D. = 0.9 on 21 of 23 obs.

% DEC 11, 1993 17h 20m 22.26± 0.78s
42.394 N ± 5.3km 19.269 E ± 5.0km
DEPTH = 20.7 ± 13.3 km
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (TTG).

TTG 0.04 350 iPgc 20 25.98 0.1
iSg 20 28.40
BDV 0.35 251 iPgd 20 29.63 -0.1
iSg 20 35.45
ULC 0.43 182 iPgd 20 31.19 0.0
iSg 20 38.06
NKY 0.46 335 iPgd 20 31.59 -0.2
iSg 20 38.87
PVY 0.56 69 iPgd 20 33.24 -0.1
iSg 20 41.89
HCY 0.57 276 iPgd 20 33.66 0.1
iSg 20 42.39
IVA 0.67 44 iPgd 20 35.21 0.1
iSg 20 45.10
BRY 0.74 314 iPgc 20 36.36 0.0
iSg 20 47.53
PLE 0.94 6 iPgd 20 39.95 0.1
iSg 20 53.90
S.D. = 0.1 on 9 of 9 obs.

% DEC 11, 1993 17h 45m 56.24± 1.00s
43.017 N ± 7.4km 18.734 E ± 6.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.1 (TTG).

BRY 0.18 230 iPgd 46 00.80 0.4
iSg 46 04.05
NKY 0.28 136 iPgc 46 02.52 0.3
iSg 46 06.58
PLE 0.58 57 iPgd 46 07.71 -0.3
iSg 46 16.49
HCY 0.60 197 iPgc 46 07.91 -0.4
iSg 46 16.87
TTG 0.70 146 iPgd 46 09.59 -0.5
iSg 46 19.93
BDV 0.74 175 iPgc 46 10.50 -0.2
iSg 46 21.14
IVA 0.87 99 iPgc 46 13.15 0.2
iSg 46 25.76
PVY 1.00 114 iPgd 46 15.68 0.3
iSg 46 30.38
ULC 1.12 160 ePg 46 17.41 0.2
iSg 46 33.96
S.D. = 0.4 on 9 of 9 obs.

? DEC 11, 1993 17h 53m 15.20± 0.85s
2.132 S ±11.9km 134.239 E ±11.1km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
IRIAN JAYA REGION, INDONESIA (196)

SWI 3.23 293 ePd 54 04.50 -0.3
iS 54 42.50
TLE 3.79 203 ePc 54 16.00 3.4X
JAY 6.47 93 ePc 54 50.50 -0.2
WWKK 9.49 99 eP 55 46.00 13.3X
WB2 17.70 180 eP 57 20.10 -0.9
1.0s 14.80nm 4.1mb
i 57 23.30
i 58 10.70
eS 00 34.40
ASPA 21.41 181 iPd 58 03.70 1.1
1.1s 22.20nm 4.5mb
e 58 55.40
ARMA 32.61 151 eP 59 50.80 4.6X
e 00 37.60
BJI 45.11 340 eP 01 30.50 0.3
1.4s 12.00nm 4.6mb
QUE 71.60 303 eP 04 39.50 3.5X
CNCB 151.10 131 PKP 13 11.90 9.8X
LPB 151.18 131 ePKP 13 11.00 8.9X
LPAZ 151.31 130 PKP 13 10.60 8.1X
S.D. = 1.1 on 5 of 12 obs.

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* DEC 11, 1993 18h 03m 46.67± 1.51s
8.097 S ± 5.8km 123.446 E ± 9.0km
DEPTH = 134.8 ± 17.0 km
4.9mb (12 obs.)
FLORES REGION, INDONESIA (286)

MKS 4.88 306 ePd 05 08.00 8.9X
SLKI 7.78 90 iPd 05 39.00 0.6
iS 17 10.00
KNA 9.22 146 iPc 05 58.10 0.4
0.3s 107.00nm 6.1mb X
TLE 9.55 76 ePc 06 03.00 0.8
WB2 15.82 139 iPc 07 21.30 -1.9
i 07 24.50
eS 10 07.80
WARB 18.24 171 iPd 07 52.30 -0.2
0.3s 29.00nm 5.1mb
ASPA 18.44 148 iPd 07 53.80 -0.9
0.6s 304.60nm 5.8mb
iS 11 17.50
MEEK 19.00 193 iPd 08 01.00 0.4
0.3s 28.00nm 5.1mb
iS 11 31.50
QIS 19.94 130 iPd 08 09.20 -1.1
eS 11 42.00
MRWA 22.15 197 iPd 08 33.30 1.1
0.4s 14.00nm 4.7mb
eS 12 36.00
COOL 22.77 185 eP 08 38.00 -0.3
0.4s 7.00nm 4.4mb
FORT 22.97 170 iPc 08 40.80 0.6
0.3s 15.00nm 4.9mb
BAL 23.27 195 eP 08 43.50 0.5
0.3s 14.00nm 4.9mb

eS 13 09.00
KLB 23.97 192 eP 08 49.70 -0.2
0.4s 11.00nm 4.7mb
MUN 24.70 195 eP 08 56.50 -0.2
eS 13 46.00
NWAO 25.37 192 eP 09 02.40 -0.5
0.5s 7.00nm 4.5mb
eS 13 59.00
ARMA 34.47 134 iPc 10 23.70 0.0
0.8s 12.00nm 4.7mb
TOO 35.49 149 eP 10 32.50 0.4
CAN 35.80 143 iPc 10 35.10 0.3
CNB 36.02 143 iPd 10 36.80 0.2
0.7s 26.00nm 5.1mb
GBA 50.51 295 P 12 32.00 -1.3
GUN 50.99 316 P 12 37.50 0.2
PKI 51.11 315 P 12 37.30 -0.8
0.6s 14.00nm 5.0mb
KKN 51.33 315 P 12 40.00 0.3
GKN 51.91 315 P 12 43.90 -0.1
SYO 80.32 201 ePd 15 45.40 1.7
MOCB 149.50 163 PKP 23 22.60 4.5X
CNCB 152.79 155 ePKP 23 12.00 -11.2X
e 23 31.00
LPB 152.99 155 ePKP 23 11.00 -12.3X
LPAZ 153.20 155 PKP 23 11.10 -12.7X
i 23 32.50
S.D. = 0.8 on 25 of 30 obs.

% DEC 11, 1993 18h 04m 56.71± 0.76s
44.455 N ± 6.2km 7.290 E ± 7.9km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

PZZ 0.14 291 P 05 00.02 0.2
S 05 01.85
STV 0.21 173 P 05 00.84 -0.2
S 05 03.82
ENR 0.25 158 P 05 01.72 0.0
S 05 05.11
BHB 0.39 357 P 05 04.27 -0.2
S 05 10.18
ROB 0.45 111 P 05 05.91 0.2
S 05 11.95
S.D. = 0.3 on 5 of 5 obs.

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* DEC 11, 1993 18h 29m 51.44± 0.93s
54.109 N ±15.5km 164.212 W ±11.2km
DEPTH = 10.0km (geophysicist)
3.9mb (2 obs.)
UNIMAK ISLAND REGION (10)

SDN 2.48 59 eP 30 33.72 1.2
eS 31 07.47
KDC 7.52 56 eP 31 44.44 0.7
ADK 7.85 259 (P) 31 48.40 0.1
SVW 8.39 30 eP 31 56.59 0.7
eS 34 25.20
CRP 9.64 37 (P) 32 14.09 0.8
TTA 9.82 22 eP 32 15.39 -0.3
PMS 10.60 42 eP 32 25.10 -1.2
KLU 12.21 45 eP 32 46.74 -1.5
TOA 12.42 43 eP 32 50.30 -0.7
IMA 13.07 19 eP 33 00.45 0.8
BALM 13.58 51 eP 33 06.11 -0.4
FBA 13.60 31 (P) 33 06.36 -0.2
YKA 26.74 52 P 35 36.30 3.8X
0.7s 3.00nm 4.1mb
WRA 90.53 236 P 42 54.50 -0.2
0.7s 0.30nm 3.7mb
S.D. = 0.9 on 13 of 14 obs.

& DEC 11, 1993 18h 57m 55.97s
32.370 N 115.348 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.7 (PAS).

GLA 0.81 33 eP 58 09.63 -2.5
PLM 1.61 308 ePn 58 22.79 -2.4
eS 58 42.03
PEC 2.15 315 ePn 58 31.40 -1.5
SSK 2.69 314 (Pn) 58 39.38 -1.3
GSC 3.17 338 (Pn) 58 47.21 -0.1
5 obs. associated

? DEC 11, 1993 19h 12m 48.89± 8.01s
33.840 S ±22.4km 72.484 W ±62.3km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)
MD 4.4 (SAN).

LCCH 0.84 65 iP+ 13 04.01 -0.3
iS 13 17.05
LNV 0.90 98 iP+ 13 04.64 -0.5
iS 13 17.97
IHA 1.08 41 eP 13 07.60 -0.1
e(S) 13 25.30
TACH 1.30 82 iPd 13 10.50 -0.4
iS 13 28.47
ROCH 1.51 55 iP+ 13 14.06 0.0
SAN 1.57 76 eP 13 14.84 0.0
CACH 1.59 101 iPd 13 15.77 0.6
iS 13 36.09
PCH 1.66 83 iPd 13 15.93 -0.2
PEL 1.66 66 iPd 13 16.86 0.8
FCH 1.90 75 ePd 13 20.07 0.2
eS 13 44.80
JACH 1.96 54 eP 13 20.41 -0.2
S.D. = 0.4 on 11 of 11 obs.

& DEC 11, 1993 19h 12m 54.23s
37.645 N 118.863 W
DEPTH = 4.4km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.8 (GM).

MEMM 0.06 289 iPc 12 56.09 0.3
MMPM 0.14 255 iPc 12 57.22 0.0
MRCM 0.28 85 eP 12 59.95 -0.1
MTUM 0.38 141 eP 13 01.67 -0.1
BONR 0.54 55 eP 13 04.15 -1.0
TNP 1.37 71 eP 13 20.39 0.1
ISA 2.00 171 ePn 13 28.67 -0.6
ARN 2.14 263 eP 13 31.51 0.3
ORV 2.81 314 (P) 13 40.44 -0.3
9 obs. associated

DEC 11, 1993 20h 03m 01.03± 0.42s
39.310 N ± 4.6km 25.845 E ± 3.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.9 (ATH).

PRK 0.34 101 iPg 03 08.40 0.4
ALN 1.59 5 iPb 03 28.96 -0.3
eSb 03 51.84
OUR 1.76 306 ePb 03 31.88 0.1
eSb 03 58.80
PAIG 1.78 291 ePb 03 32.12 0.1
eSb 03 56.28
RDO 1.85 353 iPb 03 32.60 -0.4
ATH 2.14 232 iPn 03 37.00 -0.2
SOH 2.44 309 ePn 03 41.60 0.1
SRS 2.50 317 ePn 03 42.56 0.2
THE 2.58 302 iPn 03 43.84 0.4
LIT 2.71 288 ePn 03 46.04 0.7
AGG 2.75 265 ePn 03 47.08 1.1
KNT 2.92 310 iPn 03 49.48 1.2
ITU 3.02 53 ePn 03 57.00 7.3X
iSg 04 34.00
GRG 3.11 303 ePn 03 51.60 0.5
GBZT 3.13 61 ePn 03 53.90 2.5
eSg 04 39.20
VAY 3.21 310 iPn 03 53.30 0.8
0.8s 270.00nm
i 04 02.60
iSn 04 45.30
Lg 04 49.50
KZN 3.29 289 iPn 03 54.10 0.4
VLI 3.46 222 iPn 03 55.20 -0.8
NPS 4.04 183 iPn 04 03.60 -0.7
VAM 4.11 199 iPn 04 04.30 -0.9
OHR 4.26 297 ePn 04 11.00 3.5X
NAL 4.30 76 eP 04 06.20 -2.0
eS 04 22.30
KSL 4.35 136 iPn 04 09.00 0.3
SGKT 4.94 73 eP 04 16.30 -0.9
eS 04 36.30
DVR 5.07 67 eP 04 18.90 0.0
eS 04 40.90
ISR 5.85 5 eP 04 31.50 1.7
CMP 5.98 355 ePc 04 31.00 -0.7
CFR 6.12 16 eP 04 32.00 -1.5
MLR 6.18 1 ePc 04 34.00 -0.6
SSR 6.33 333 ePd 04 34.00 -2.7
KAS 6.39 69 eP 04 40.50 2.9
VRI 6.59 5 ePd 04 39.50 -0.8
BZS 7.03 335 ePc 04 36.50 -10.0X
PTT 7.63 3 eP 04 54.00 -0.9
SPC 10.66 340 eP 05 54.30 17.4X
S.D. = 1.2 on 31 of 35 obs.

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* DEC 11, 1993 20h 04m 36.43± 1.91s
51.254 N ±20.7km 15.839 E ± 9.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 2.3 (CLL).

KSP 0.50 145 iPd 04 44.80 -1.8
0.5s 38.00nm
iS 04 54.30
e 05 00.00
BRG 1.25 253 iPg 05 00.90 1.2
iSg 05 20.90
PRU 1.51 214 ePn 05 04.80 1.2
0.5s 25.40nm
Pg 05 07.60
i 05 10.30
Sn 05 22.50
eSg 05 29.20
CLL 1.78 273 iPn 05 05.50 -1.9
iPg 05 08.80
iSg 05 34.80
KHC 2.57 215 ePn 05 19.00 0.1
ePg 05 25.00
e 05 54.00
eSg 06 08.00
HOF 2.69 251 iPd 05 28.20 7.7X
OJC 2.72 111 ePg 05 22.40 1.4
iSg 05 56.60
MOX 2.74 259 iPg 05 25.50 4.3X
iSg 06 08.30
GRF 3.34 244 ePn 05 29.50 -0.2
ePg 05 36.50
e(Sn) 06 16.10
eSg 06 27.10
S.D. = 1.7 on 7 of 9 obs.

DEC 11, 1993 21h 36m 29.41± 0.73s
39.455 N ± 7.7km 24.955 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.2 (ATH).

PRK 1.04 101 ePg 36 48.30 -0.8
PAIG 1.09 296 ePg 36 50.54 0.6
eSg 37 06.22
OUR 1.15 320 ePb 36 51.38 0.4
eSb 37 08.02
ALN 1.67 30 ePb 37 00.58 1.9
iSb 37 23.38
RDO 1.75 15 ePb 36 58.70 -1.2
ATH 1.77 214 ePb 37 01.40 1.2
SOH 1.84 319 ePb 37 01.02 -0.3
iSb 37 27.10
THE 1.93 308 ePb 37 02.30 -0.2
LIT 2.01 290 ePn 37 03.30 -0.4
AGG 2.08 259 ePn 37 03.82 -1.0
GRG 2.46 308 ePn 37 10.14 -0.2
VAY 2.61 316 iPn 37 19.00 6.7X
S.D. = 1.0 on 11 of 12 obs.

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* DEC 11, 1993 22h 25m 32.76± 0.68s
7.643 N ±15.0km 36.128 W ±17.3km
DEPTH = 10.0km (geophysicist)
4.3mb (3 obs.) 4.7Msz (1 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)

SOB1 17.40 196 eP 29 37.00 -0.4
BAO 25.94 207 eP 31 06.50 -0.8
e 31 11.80
e 31 22.40
BDFB 25.96 207 eP 31 08.01 0.5
1.2s 24.04nm 4.8mb
LKO 30.25 84 P 31 47.16 0.8
0.9s 4.00nm 4.3mb
LPAZ 39.61 233 iPc 33 06.70 -0.5
LPB 39.72 233 P 33 08.80 1.0
Z 20s 1.06um 4.7Msz

11d 22h

LR 44 34.00
CNCB 39.79 232 P 33 09.00 0.4
GEC2 58.56 36 P 35 33.50 1.5
e 35 36.10
MLR 65.13 43 eP 36 14.00 -2.3
YKA 77.94 332 P 37 32.20 -0.2
0.7s 1.00nm 4.0mb
S.D. = 1.2 on 10 of 10 obs.

? DEC 11, 1993 23h 17m 05.75± 1.08s
5.640 S ±13.8km 146.654 E ±18.8km
DEPTH = 224.1 ± 7.3 km
4.8mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.91 229 iPc 17 38.80 0.9
MDG 0.95 294 eP 17 37.70 -0.3
LAT 1.08 161 eP 17 39.20 0.5
WWKK 3.62 303 eP 18 04.00 -0.5
PMG 3.77 172 iPd 18 05.10 -1.1
WB2 18.58 219 iPc 21 08.00 -0.6
0.2s 26.50nm 5.4mb X
eS 24 27.20
ASPA 21.73 213 iPd 21 40.90 1.0
0.4s 12.40nm 4.8mb
ipP 21 51.40 41kmX
eS 25 27.70
SDV 142.88 83 iPKPc 36 15.50 0.1
TOV 143.66 81 ePKP 36 23.10 6.5X
S.D. = 1.0 on 8 of 9 obs.

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* DEC 11, 1993 23h 26m 47.53± 0.89s
38.765 N ± 8.2km 142.838 E ±11.8km
DEPTH = 15.1km (2 depth phases)
4.6mb (8 obs.) 4.4Msz (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ 0.96 289 iPd 27 04.10 -1.3
iS 27 13.60
YAMJ 2.28 256 P 27 24.30 -0.8
S 27 51.00
KAKJ 3.32 220 eP 27 39.20 -0.7
eS 28 17.70
NIIJ 3.39 245 eP 27 43.00 2.1
HOOJ 3.63 5 eP 27 45.20 0.9
eS 28 25.00
MRRJ 3.90 340 eP 27 49.70 1.7
eS 28 32.80
CHJJ 4.09 230 eP 27 52.40 1.6
MAT 4.29 240 eP 27 55.00 1.3
eS 28 47.00
MTMJ 4.55 243 eP 27 59.60 2.2
KUSJ 4.56 18 eP 27 57.10 -0.3
eS 28 48.00
IIDJ 5.12 232 eP 28 07.40 1.9
eS 29 08.90
ASAJ 5.35 358 eP 28 11.20 2.5
YONJ 8.31 247 P 28 52.10 1.9
TKSJ 8.54 239 P 28 56.30 2.8X
SSE 19.30 253 Pc 31 13.00 -1.6
1.0s 12.00nm 4.1mb
Z 20s 0.50um 4.5MszX
pP 31 18.30 20km
TIA 20.54 271 P 31 24.30 -3.7X
BJI 20.62 282 eP 31 24.00 -4.7X
Z 16s 0.29um 3.7MszX
TIY 23.86 277 eP 32 02.20 1.2
Z 19s 1.11um 4.4Msz
E 14s 0.73um
XAN 27.61 271 P 32 34.00 -2.2
0.8s 5.50nm 4.3mb
GYA 32.64 259 iPd 33 19.00 -2.1
1.0s 11.00nm 4.7mb
pP 33 22.00 10km
WMQ 41.09 295 P 34 31.50 -0.7
0.8s 8.30nm 4.5mb
sP 34 41.00
IMA 44.63 31 (P) 35 04.00 3.2X
FBA 47.04 33 (P) 35 24.00 4.3X
GUN 48.12 275 P 35 28.20 -0.9
KKN 48.64 275 P 35 32.20 -0.8
PKI 48.65 275 P 35 31.80 -1.4
GKN 49.04 276 P 35 35.00 -1.0
WB2 58.94 189 iPc 36 48.10 -0.3
0.7s 14.60nm 5.2mb
WRA 58.94 189 P 36 48.20 -0.2
0.6s 6.70nm 4.9mb
HYB 59.38 268 eP 36 50.00 -1.7
GBA 62.47 265 P 37 11.00 -1.7
ASPA 62.66 189 iPd 37 14.00 0.3
0.8s 7.10nm 4.9mb
GEC2 81.83 329 P 39 07.20 0.0
0.6s 0.70nm 3.9mb
e 39 17.20 32kmX
S.D. = 1.5 on 28 of 33 obs.

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* DEC 11, 1993 23h 32m 24.59± 0.59s
11.221 N ±15.1km 86.821 W ±22.0km
DEPTH = 32.3km (3 depth phases)
4.3mb (3 obs.) 4.6Msz (1 obs.)
NEAR COAST OF NICARAGUA (74)

LHS 23.79 12 eP 37 36.78 1.5
UYO 23.88 344 iPd 37 36.30 0.1
LTX 23.91 321 eP 37 35.26 -1.4
MIAR 24.02 346 eP 37 37.38 -0.2
0.7s 7.12nm 4.3mb
WMOK 25.82 337 eP 37 55.20 0.4
pP 38 02.91 27km
TUL 25.89 343 iPd 37 54.40 -0.9
ALQ 29.61 326 (P) 38 27.00 -2.4
pP 38 37.70 39km
LPAZ 33.00 146 P 39 00.10 0.3
LR 52 26.00
LPB 33.22 146 P 39 02.60 1.2
Z 20s 1.06um 4.6Msz
LR 52 10.00
CNCB 33.51 146 P 39 04.00 -0.1
PV10 33.55 327 eP 39 02.99 -1.0
RSSD 35.99 339 (P) 39 26.01 1.2
SSK 36.28 314 (P) 39 27.30 0.0
HVU 37.99 328 (P) 39 43.23 1.7
e 39 52.33 31km
BDFB 46.78 124 eP 40 52.30 -1.0
0.8s 8.42nm 4.8mb
BAO 46.79 124 eP 40 52.00 -1.5
VAO 51.76 131 (P) 41 31.00 -0.6
YKA 54.95 345 P 41 54.70 0.1
0.8s 1.00nm 3.9mb
WRA 139.51 252 PKP 51 53.80 2.3
0.6s 0.70nm
CHTO 149.62 349 ePKP 52 12.60 4.0X
GBA 150.81 33 PKP 52 16.00 5.6X
S.D. = 1.3 on 19 of 21 obs.

DEC 11, 1993 23h 47m 30.13± 0.25s
21.935 S ± 8.4km 176.415 W ± 5.0km
DEPTH = 163.9km (9 depth phases)
5.3mb (31 obs.)
FIJI ISLANDS REGION (181)

SVA 6.14 307 eP 49 00.50 0.9
MBU 6.74 316 eP 49 10.00 2.2
AFI 9.12 30 eP 49 31.00 -8.4X
PVC 14.96 283 iPc 50 59.50 4.9X
BKM 15.05 284 iP 51 02.00 6.3X
DZM 15.90 266 iPd 51 11.30 5.0X
MRW 20.65 199 P 52 01.00 2.7
S 55 35.00
AFR 25.44 85 iPc 52 44.00 -0.4
1.3s 268.60nm 5.7mb
PAE 25.59 85 iPc 52 45.20 -0.6
PPT 25.62 85 iPc 52 45.50 -0.6
1.1s 121.10nm 5.4mb
Z 25s 475.00um 6.9MszX
PPN 25.76 85 iPc 52 46.70 -0.7
0.9s 47.80nm 5.1mb
TVO 25.86 86 iPc 52 48.00 -0.4
0.8s 90.30nm 5.5mb
PMO 27.88 81 iPc 53 05.60 -1.0
1.5s 175.50nm 5.6mb
TPT 28.14 81 iPc 53 08.00 -1.0
0.8s 60.70nm 5.4mb
RUV 28.29 81 iPc 53 09.20 -1.2
1.1s 133.80nm 5.6mb
ARMA 29.82 247 eP 53 24.30 0.3
0.9s 43.00nm 5.2mb
iPcP 55 26.60
CAN 32.98 239 eP 53 52.50 1.0
TOO 36.28 236 iPd 54 20.80 1.4
0.9s 162.00nm 5.7mb
PMG 37.11 284 iPd 54 26.80 0.3
0.8s 179.10nm 5.8mb
STK 38.53 246 eP 54 37.90 -0.4
0.7s 42.60nm 5.3mb
MDG 40.15 289 eP 54 51.50 -0.3
ADE 41.21 242 iPc 55 00.90 0.5
ASPA 45.65 258 iPd 55 35.40 -0.8
0.9s 293.50nm 5.9mb
Z 20s 0.20um 4.1Msz
iS 02 02.10
iScS 05 17.20
WB2 45.87 263 iPc 55 36.80 -1.1
1.0s 117.90nm 5.4mb
WRA 45.88 263 P 55 37.20 -0.8
0.8s 40.60nm 5.0mb
FORT 50.10 248 eP 56 09.50 -1.0
0.8s 163.00nm 5.8mb
GUA 51.78 309 eP 56 23.10 -0.2
0.7s 465.75nm 6.3mb
WARB 51.82 253 eP 56 22.20 -1.4
0.6s 61.00nm 5.5mb
GUMO 51.85 309 eP 56 23.50 -0.3
PJG 51.85 309 eP 56 23.40 -0.4
COOL 56.01 247 eP 56 52.00 -2.1
0.8s 21.00nm 5.1mb
KLB 58.80 246 eP 57 12.00 -1.5
0.8s 34.00nm 5.3mb
NWAO 59.06 244 iPd 57 15.60 0.3
0.8s 13.00nm 4.9mb
BAL 59.83 247 eP 57 19.00 -1.6
0.6s 35.00nm 5.4mb
MUN 60.05 245 eP 57 18.00 -4.1X
MRWA 60.67 248 eP 57 23.00 -3.4X
0.7s 74.00nm 5.7mb
e 57 25.70 9kmX
i 57 27.30
CSY 63.31 206 eP 57 24.30 -19.0X
0.7s 12.20nm
i 57 35.10 35kmX
SPA 68.20 180 iPc 58 16.50 1.9
0.9s 68.18nm 5.5mb
MAT 72.24 323 (P) 58 37.00 -2.1
0.9s 6.72nm 4.4mb
CMB 79.53 42 eP 59 20.67 0.5
1.0s 10.89nm 4.5mb
epP 00 01.30 165km
ORV 79.80 40 eP 59 22.03 0.5
epP 00 03.34 168km
GLA 80.25 49 eP 59 25.75 1.7
TUC 82.71 51 eP 59 39.41 2.5
0.8s 9.99nm 4.6mb
epP 00 18.90 158km
ARUT 83.82 45 eP 59 43.75 1.2
epP 00 25.46 167km
RMW 84.72 34 eP 59 47.48 0.8
IPM 84.81 277 ePc 59 48.70 0.9
0.8s 26.10nm 5.1mb
MSU 85.05 45 eP 59 50.37 1.6
epP 00 31.36 164km
SYO 85.67 192 ePc 59 54.50 3.4X
SRU 86.46 45 eP 59 56.49 0.9
epP 00 37.04 161km
LTX 86.59 57 eP 59 55.87 -0.5
epP 00 37.04 164km
DPW 86.86 35 eP 59 58.02 0.8
FBA 89.33 12 eP 00 07.78 -0.7
0.7s 9.19nm 4.9mb
IMA 89.41 9 eP 00 08.68 -0.4
0.8s 3.10nm 4.4mb
epP 00 51.00 168km
MEO 92.85 54 iPc 00 26.00 0.6
RSSD 93.16 43 eP 00 27.21 0.3
0.9s 19.06nm 5.3mb
epP 01 08.06 161km
YKA 97.20 24 P 00 43.90 -0.6
0.9s 2.60nm 4.7mb
KAF 136.93 345 iPKP 06 33.30 -1.1
0.6s 6.20nm
OBN 138.71 332 ePKPd 06 40.50 2.6
NUR 138.72 344 iPKP 06 36.80 -0.9
0.6s 8.30nm
NB2 140.56 354 PKP 06 32.80 -8.4X
1.0s 3.10nm
KIV 141.01 314 (PKP) 06 43.60 1.0
1.3s 15.00nm
KAC 143.89 8 ePKP 06 44.80 -2.2
KPL 144.00 9 ePKP 06 45.20 -1.9
KSB 144.15 8 ePKP 06 45.40 -2.0
EDR 144.77 6 ePKP 06 47.10 -1.4
EDU 145.09 6 ePKP 06 48.50 -0.5

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ELO    145.09    7 ePKP  06 48.40  -0.7
MUD    145.27  355 iPKPc 06 48.50  -0.8
   0.9s      52.00nm
EAB    145.29    8 ePKP  06 49.20  -0.2
EBH    145.33    7 ePKP  06 49.40  -0.1
EAU    145.73    7 ePKP  06 51.10   0.9
ESY    145.75    6 ePKP  06 50.20   0.0
EBL    145.85    7 ePKP  06 51.10   0.8
EKA    146.27    7 PKPc  06 51.95   0.9
DCN    147.56   12 ePKP  06 56.10   3.0X
DLF    147.75   11 ePKP  06 56.50   3.1X
KAS    148.06  314 ePKP  06 59.50   5.0X
WIT    149.08  356 ePKP  07 02.00   6.5X
BHL    149.38  300 PKP   07 01.00   4.2X
UZH    149.46  335 ePKP  07 02.50   6.2X
                   i     07 04.70
                   i     07 10.90
                   i     07 48.50
KSP    149.48  344 ePKP  06 53.20  -3.1X
                   i     07 01.30
                   e     07 41.40
SPC    149.75  338 ePKP  07 04.70   7.7X
CLL    149.77  348 iPKP  07 01.60   4.9X
   1.0s      44.00nm
                   pP    07 45.00
WTS    149.89  356 ePKP  07 02.00   5.2X
   0.8s      33.30nm
BRG    150.00  347 iPKP  07 02.80   5.8X
   1.5s      31.00nm
                   i     07 44.80
MLR    150.22  327 ePKPd 07 04.50   6.8X
MOX    150.66  350 ePKP  07 04.50   6.4X
   1.4s      33.00nm
PRU    150.70  345 iPKPd 07 04.10   6.0X
   0.7s      18.60nm
                   i     07 10.10
                   e     07 48.50
ENN    151.17  357 ePKP  07 05.50   6.8X
   0.8s      17.30nm
SNF    151.47  359 PKP   07 06.20   7.0X
SRO    151.59  339 ePKP  07 07.00   7.5X
ZST    151.65  341 iPKP  07 06.90   7.3X
GRF    151.65  350 iPKPc 07 07.00   7.4X
KHC    151.72  346 iPKPc 07 07.00   7.3X
   1.0s      14.30nm
                   e     07 48.50
                   e     08 06.90
DOU    151.88  359 PKPc  07 07.10   7.2X
GEC2   151.96  346 ePKP  07 00.90   0.7
   0.7s       5.70nm
                   e     07 06.20
                   e     07 08.90
                   e     07 11.60
WLF    152.25  356 PKPc  07 08.00   7.6X
FLN    153.03    6 ePKP  07 08.90   7.4X
   0.5s       7.05nm
LDF    153.23    5 ePKP  07 09.80   8.0X
   0.5s       6.50nm
GRR    153.37    7 ePKP  07 10.40   8.4X
   0.5s      10.70nm
CDF    153.42  355 ePKP  07 10.70   8.5X
   0.7s       6.85nm
LPF    153.70    7 ePKP  07 11.10   8.6X
   0.6s      18.60nm
HAU    153.89  356 ePKP  07 11.60   8.8X
   0.6s       5.30nm
BSF    154.03  355 ePKP  07 11.90   8.8X
   0.5s       2.25nm
LBF    155.01  359 ePKP  07 14.20   9.9X
   0.8s       4.85nm
BGF    155.43    1 ePKP  07 16.90  12.0X
   0.9s      10.15nm
MAF    155.76    2 ePKP  07 15.80  10.4X
   0.7s       6.40nm
LIC    162.30  151 PKP   07 14.64   1.1
   1.3s      17.50nm
KIC    162.55  151 PKPd  07 14.94   1.1
   1.2s      28.00nm
TIC    162.67  150 PKP   07 14.68   0.7
   0.9s       5.50nm
LKO    164.85  143 PKP   07 16.42   0.4
   1.0s       6.00nm
     S.D. = 1.2  on  70 of 111 obs.
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* DEC 11, 1993  23h 48m 50.57± 2.02s
  33.725 N ±22.6km   25.608 E ±10.3km
  DEPTH =  33.0km  (normal)
   3.8mb (  9 obs.)
 EASTERN MEDITERRANEAN SEA        (371)
VAM      2.04 326 ePb    49 24.60   1.3
                  eSn    49 48.80
VLI      3.70 325 ePn    49 47.30   0.5
KSL      4.05  53 ePn    49 52.00   0.3
ATH      4.51 341 ePn    49 57.60  -0.7
KZN      7.25 336 ePn    50 36.20  -0.8
GEC2    17.52 333 P      52 54.30   0.4
        0.6s     0.59nm           2.9mb
LPG     18.64 315 eP     53 11.00   3.1X
        0.5s     1.40nm           3.4mb
LPL     18.66 315 eP     53 11.50   3.4X
        0.6s     2.55nm           3.6mb
BSF     19.97 320 eP     53 21.40  -1.4
        0.6s     2.25nm           3.7mb
HAU     20.31 320 eP     53 25.40  -0.9
        0.6s     3.80nm           3.9mb
SMF     20.96 314 eP     53 33.00  -0.1
        0.8s     5.10nm           4.0mb
LBF     21.06 315 eP     53 34.10   0.1
        0.6s     6.95nm           4.2mb
LOR     21.27 316 eP     53 36.60   0.4
        0.6s     3.70nm           4.0mb
SSF     21.37 315 eP     53 38.00   0.8
        0.7s     5.85nm           4.1mb
      S.D. = 0.9  on  12 of  14 obs.
-------------------------------------
 * DEC 11, 1993  23h 57m 54.29± 1.27s
   19.054 N ±12.2km   64.499 W ± 8.7km
   DEPTH =  55.8 ± 14.5 km
   4.5mb (  6 obs.)
 VIRGIN ISLANDS                   ( 91)
LPR      1.50 240 P      58 19.00  -0.2
CPD      1.68 233 P      58 23.00   1.2
SJG      1.82 239 iP     58 24.20   0.4
APR      2.20 255 P      58 28.60  -0.4
CLLP     2.20 244 P      58 28.90  -0.1
SKI      2.39 135 eP     58 39.00   7.2X
MGP      2.67 247 P      58 35.20  -0.5
ANG      3.16 126 eP     58 48.00   5.2X
BPA      3.21 128 eP     58 41.20  -2.3
PAG      4.04 138 eP     58 59.50   4.4X
DEG      4.26 129 eP     59 00.00   1.7
TOV     10.54 210 eP     00 31.20   5.8X
SDV     11.73 211 eP     00 47.10   5.5X
HBF     19.83 317 eP     02 23.16  -0.1
SGS     20.09 318 eP     02 26.32   0.5
LHS     21.12 320 (P)    02 37.82   1.3
CEH     21.14 325 eP     02 37.10   0.4
        0.3s    40.84nm           5.2mb
JSC     21.26 319 (P)    02 40.77   2.8X
PRM     21.84 317 (P)    02 49.62   5.9X
                  eS     06 37.11
BLA     22.84 326 (P)    03 03.42   9.9X
        0.6s    18.12nm           4.7mb
NAV     23.12 325 (P)    02 58.50   2.2X
                  e      03 08.62
CRNY    23.49 343 (P)    03 10.94  11.2X
SIV     34.99 174 P      04 43.00  -0.4
LPAZ    35.30 186 (P)    04 55.04   8.2X
        1.4s    10.22nm           4.6mb
LPB     35.54 186 eP     04 54.00   5.4X
CNCB    35.81 186 eP     04 52.00   1.0
LTX     37.01 294 P      04 57.54  -3.1
ALQ     40.28 302 eP     05 22.30  -5.6X
        1.0s     3.75nm           4.2mb
YKA     55.31 334 P      07 17.90  -6.3X
        0.8s     3.40nm           4.4mb
NSD     70.09  26 eP     09 09.70   7.5X
        0.2s     0.50nm           4.0mb
SDF     72.92  24 eP     09 39.00  19.8X
WRA    162.22 264 PKP    17 51.50   0.5
        0.8s     5.00nm
      S.D. = 1.4  on  16 of  32 obs.
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 ? DEC 12, 1993  00h 48m 11.19± 3.61s
   17.016 N ±27.1km   61.256 W ±24.4km
   DEPTH =  33.0km  (normal)
 LEEWARD ISLANDS                  ( 92)
     ML 2.7 (FDF).
BPA      0.58 273 eP     48 23.09   0.2
                  S      48 31.22
SEG      0.65 201 eP     48 28.70   4.7X
                  S      48 41.45
DEG      0.72 165 iPc    48 24.81  -0.2
                  S      48 34.31
MGH      0.97 252 eP     48 28.01  -0.4
DOG      1.04 200 eP     48 29.75   0.3
PAG      1.06 203 eP     48 29.80   0.0
                  S      48 44.04
      S.D. = 0.4  on   5 of   6 obs.
-------------------------------------
 ? DEC 12, 1993  01h 05m 21.45± 5.53s
   33.734 S ±12.5km   71.902 W ±45.9km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
     MD 3.7 (SAN).
LCCH     0.38  47 iP+    05 30.04  -0.2
                  iS     05 36.69
LNV      0.47 119 iP+    05 31.13  -0.4
                  iS     05 38.70
TACH     0.81  85 iP+    05 35.89  -0.5
                  iS     05 47.08
ROCH     1.06  45 iPd    05 40.18  -0.1
                  iS     05 55.02
SAN      1.07  75 iP     05 40.16  -0.1
                  iS     05 53.76
CACH     1.15 110 iP+    05 42.11   0.7
                  iS     05 58.02
PCH      1.16  85 iP+    05 41.46  -0.1
                  iS     05 56.98
PEL      1.18  60 iP+    05 42.23   0.5
                  iS     05 57.40
FCH      1.41  74 iP+    05 45.51   0.2
                  iS     06 04.28
JACH     1.52  47 iPd    05 46.76   0.1
                  iS     06 06.51
      S.D. = 0.4  on  10 of  10 obs.
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 % DEC 12, 1993  01h 26m 48.37± 4.42s
   33.726 S ±13.2km   70.599 W ±15.3km
   DEPTH =  91.4 ± 39.5 km
 CHILE-ARGENTINA BORDER REGION    (127)
     MD 3.7 (SAN).
PCH      0.13  34 iP+    27 01.53  -0.2
                  iS     27 11.73
TACH     0.29 284 iP     27 02.26   0.1
                  iS     27 12.99
CACH     0.39 180 iP+    27 03.01   0.2
                  iS     27 14.65
FCH      0.47  33 iP+    27 03.59  -0.1
                  iS     27 15.92
PEL      0.59 353 iP     27 04.48   0.2
                  iS     27 16.84
LNV      0.71 251 iPd    27 05.16  -0.2
                  iS     27 18.47
ROCH     0.83 335 iP     27 06.68  -0.1
                  iS     27 21.99
LCCH     0.85 287 iPd    27 06.81   0.1
                  iS     27 21.21
JACH     1.04   0 iP     27 09.07   0.0
                  iS     27 25.37
      S.D. = 0.2  on   9 of   9 obs.
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 ? DEC 12, 1993  01h 50m 01.03± 3.51s
   34.045 S ±24.1km   72.253 W ±21.7km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
     MD 4.6 (SAN).
LNV      0.70  83 iP     50 14.16  -0.3
                  iS     50 29.05
LCCH     0.80  45 iP     50 15.41  -0.5
                  iS     50 31.83
IHA      1.14  27 e(P)   50 20.50  -0.2
                  iS     50 39.90
TACH     1.16  71 iP     50 20.54  -0.5
CACH     1.37  93 iP     50 24.10  -0.1
SAN      1.45  66 iP     50 25.51   0.3
ROCH     1.49  44 eP     50 26.29   0.3
PCH      1.51  74 eP     50 25.81  -0.3
PEL      1.59  56 eP     50 28.44   1.2
FCH      1.79  67 eP     50 30.54   0.2
MDZ      3.07  69 eP     50 49.20   0.8
                  iS     51 39.20
RTCV     3.81  56 eP     51 02.00   3.2X
ZON      3.91  51 eP     51 02.00   1.7
RTPR     6.13  54 eP     51 29.50  -2.2
```

12d 01h

SLA 10.99 34 e(P) 52 39.00 -0.2
MOCB 14.02 26 P 53 22.70 2.7X
CCH 17.48 20 P 54 01.80 -2.4
ARE 17.52 2 eP 54 06.00 1.2
CNCB 17.58 14 P 54 07.00 1.2
LPB 17.83 13 P 54 13.00 4.2X
Z 16s 0.67um
LR 01 06.00
LPAZ 18.07 13 iPc 54 11.30 -0.5
LR 01 30.00
SIV 20.61 32 P 54 32.50 -7.6X
S.D. = 1.2 on 18 of 22 obs.

? DEC 12, 1993 02h 27m 24.28± 1.02s
38.454 N ±11.6km 69.259 E ±17.0km
DEPTH = 33.0km (normal)
3.8mb (3 obs.)
TAJIKISTAN (715)

MAIO 8.07 258 ePn 29 21.00 -1.1
eSn 30 53.00
QUE 8.46 194 eP 29 29.20 1.5
eS 31 04.50
HYB 22.48 156 eP 32 21.00 -1.2
HFS 40.68 321 ePKP 35 03.40 0.6
0.4s 1.70nm 4.1mb
NB2 41.99 322 P 35 14.10 0.5
0.6s 1.20nm 3.8mb
YKA 79.35 2 P 39 27.50 -0.3
0.9s 0.70nm 3.7mb
S.D. = 1.4 on 6 of 6 obs.

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* DEC 12, 1993 02h 35m 13.05± 0.60s
7.276 S ±12.2km 155.723 E ±11.3km
DEPTH = 33.0km (normal)
4.7mb (10 obs.)
SOLOMON ISLANDS (193)

PMG 8.73 255 eP 37 21.00 0.9
WB2 24.25 237 iPc 40 27.50 -0.8
0.6s 6.40nm 4.3mb
eS 45 14.70
WRA 24.26 237 P 40 45.70 17.3X
1.5s 1.90nm
ASPA 26.54 230 eP 40 58.20 8.3X
0.8s 5.50nm 4.2mb
STK 27.80 206 eP 41 00.70 -0.5
0.5s 2.30nm 4.1mb
LOE 58.71 295 eP 45 10.00 -0.3
CHTO 61.67 296 eP 45 31.00 0.4
SHL 70.06 300 iP 46 24.00 -0.5
YAK 71.96 347 eP 46 36.00 1.0
0.7s 21.00nm 5.2mb
GUN 75.88 301 P 46 59.00 0.1
0.7s 36.00nm 5.5mb
PKI 76.19 301 P 47 00.20 -0.4
KKN 76.36 301 P 47 01.40 0.0
0.7s 25.00nm 5.3mb
GKN 76.96 301 P 47 04.60 -0.1
0.8s 30.00nm 5.4mb
SLKM 79.70 24 (P) 47 18.61 -0.3
IMA 81.84 19 eP 47 29.77 -0.4
1.1s 3.82nm 4.3mb
FBA 83.12 21 eP 47 35.69 -0.9
0.9s 3.92nm 4.5mb
YKA 96.25 28 P 48 39.20 0.2
0.7s 1.00nm 4.4mb
BAO 147.29 134 ePKP 54 55.30 1.8
e 54 57.80
S.D. = 0.8 on 16 of 18 obs.

? DEC 12, 1993 02h 36m 29.84± 9.12s
34.155 S ±38.6km 72.407 W ±63.9km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.4 (SAN).

LNV 0.85 77 iPd 36 45.04 -0.3
iS 37 00.27
LCCH 0.97 46 iPd 36 46.72 -0.4
iS 37 02.56
IHA 1.29 30 eP 36 51.50 -0.2
TACH 1.32 68 iPd 36 51.53 -0.6
CACH 1.50 89 iPd 36 55.18 0.3
SAN 1.61 65 iPd 36 56.30 -0.1
ROCH 1.66 45 iP+ 36 56.90 -0.3
PCH 1.66 72 iPd 36 57.00 -0.2
PEL 1.75 55 iPd 36 58.74 0.3
FCH 1.95 66 iPd 37 01.23 -0.3
JACH 2.11 46 eP 37 03.00 -0.6
MDZ 3.23 68 eP 37 50.30 30.8X
RTCB 4.04 50 iPd 37 32.50 1.5
RTLL 4.35 51 iPd 37 36.00 0.6
S.D. = 0.6 on 13 of 14 obs.

DEC 12, 1993 02h 58m 54.38± 0.63s
47.035 N ± 4.2km 0.480 W ± 6.5km
DEPTH = 17.2 ± 3.7 km
FRANCE (538)
ML 3.8 (LDG), 3.5 (STR).

MFF 0.49 152 Pg 59 04.00 -0.2
Sg 59 10.50
LPF 1.07 339 Pg 59 14.50 0.5
Sg 59 27.90
GRR 1.38 349 Pn 59 19.60 0.8
Pg 59 21.30
Sg 59 38.30
LDF 1.58 9 Pn 59 22.50 0.8
Pg 59 24.50
Sg 59 45.00
LSF 1.59 119 Pn 59 23.10 1.2
Pg 59 24.50
Sg 59 45.40
FLN 1.73 360 Pn 59 24.20 0.4
Pg 59 26.50
Sg 59 49.20
TCF 2.00 111 Pn 59 29.00 1.2
Pg 59 31.70
Sg 59 58.10
HYF 2.14 83 Pn 59 31.40 1.5
Pg 59 34.70
Sg 00 01.40
RJF 2.22 141 Pn 59 31.20 0.2
Pg 59 35.80
Sg 00 04.80
MAF 2.25 110 Pn 59 32.20 0.8
Pg 59 36.30
Sg 00 04.20
LFF 2.26 157 Pn 59 31.90 0.4
Pg 59 36.50
Sg 00 07.10
BGF 2.33 101 Pn 59 33.60 1.0
Pg 59 37.60
Sg 00 06.70
LPO 2.62 153 Pn 59 36.80 0.1
Pg 59 43.90
Sg 00 18.00
AVF 2.64 94 Pn 59 37.40 0.5
Pg 59 43.80
Sg 00 15.60
AGO 2.68 110 Pn 59 38.04 0.5
Pg 59 46.27
Sg 00 19.27
SSF 2.73 88 Pn 59 38.80 0.6
Pg 59 45.30
Sg 00 19.20
PYM 2.73 117 Pn 59 39.18 0.8
Pg 59 46.34
Sg 00 22.22
CAF 2.76 139 Pn 59 38.90 0.3
Pg 59 45.80
Sn 00 10.50
LOR 2.97 84 Pn 59 41.80 0.2
Pg 59 50.40
Sg 00 26.50
SMF 2.99 96 Pn 59 42.50 0.6
Pg 59 49.80
Sg 00 26.90
PLDF 3.03 109 Pn 59 43.03 0.6
Pg 59 52.31
Sg 00 30.01
LBF 3.05 89 Pn 59 43.10 0.3
Sg 00 28.00
LBL 3.16 123 Pn 59 44.67 0.3
Sg 00 36.57
COLF 3.27 116 Pn 59 46.11 0.2
EPF 4.05 171 Pn 59 55.80 -1.1
Sg 01 02.70
DOU 4.55 46 iPd 00 04.00 -0.1
iS 00 22.80
HAU 4.73 76 Pn 00 05.00 -1.6
Sg 01 23.70
BSF 5.00 78 Pn 00 08.60 -1.9
Sg 01 30.10
LPL 5.23 104 Pn 00 14.60 0.8
LPG 5.25 104 Pn 00 14.00 -0.1
CDF 5.41 72 Pn 00 13.80 -2.5
Pg 00 34.60
Sg 01 42.70
S.D. = 0.9 on 31 of 31 obs.

DEC 12, 1993 04h 28m 01.53± 1.08s
41.227 N ±10.0km 23.938 E ± 5.4km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.6 (THE).

SRS 0.28 247 iPg 28 07.72 0.2
eSg 28 12.08
SOH 0.60 228 ePg 28 13.48 -0.2
eSg 28 20.96
KNT 0.79 266 iPg 28 16.70 -0.2
eSg 28 27.76
OUR 0.89 178 ePg 28 18.80 0.2
eSg 28 31.76
THE 0.95 231 ePg 28 20.00 0.5
eSg 28 32.00
VAY 1.04 276 ePn 28 23.70 2.6X
GRG 1.19 257 ePg 28 23.60 -0.2
iSg 28 41.56
PAIG 1.31 189 ePb 28 25.40 -0.4
eSb 28 42.72
ALN 1.63 101 ePb 28 30.36 0.1
S.D. = 0.3 on 8 of 9 obs.

DEC 12, 1993 04h 28m 03.50± 0.35s
19.744 S ±12.2km 174.412 W ± 9.5km
DEPTH = 33.0km (normal)
5.2mb (19 obs.)
TONGA ISLANDS (173)

AFI 6.33 24 eP 29 37.00 0.0
SVA 6.94 282 ePd 29 56.70 11.2X
MBU 7.08 292 eP 29 59.10 11.5X
BKM 16.56 274 iPc 32 02.80 7.9X
DZM 18.04 259 iPc 32 17.80 4.4X
ARMA 32.43 244 iPc 34 34.00 1.0
0.5s 12.00nm 5.0mb
CNB 35.44 236 iPd 34 59.50 0.6
0.9s 40.00nm 5.3mb
CAN 35.73 237 iPc 35 00.50 -0.8
PMG 38.50 280 eP 35 25.50 0.8
TOO 39.07 234 iPd 35 30.10 0.8
0.7s 56.00nm 5.4mb
STK 41.15 244 eP 35 45.70 -0.7
0.9s 11.40nm 4.6mb
MDG 41.31 285 eP 35 35.00 -12.9X
ADE 43.92 240 e(P) 36 11.00 1.9
ASPA 47.97 256 iPc 36 40.90 -0.5
0.9s 52.90nm 5.6mb
Z 21s 0.30um 4.2Msz
iS 43 30.10
iScS 46 30.60
WB2 48.04 261 eP 36 40.40 -1.5
0.6s 34.30nm 5.6mb
WRA 48.05 261 P 36 36.50 -5.5X
0.7s 12.30nm 5.0mb
TLE 53.20 278 ePc 37 21.00 -0.2
WARB 54.27 251 eP 37 27.80 -1.1
MBL 61.21 256 iPd 38 17.00 -0.9
0.5s 25.00nm 5.6mb
KLB 61.42 244 eP 38 18.20 -1.0
NWAO 61.71 243 eP 38 20.90 -0.3
BAL 62.44 245 eP 38 25.00 -1.0
MUN 62.68 244 eP 38 26.80 -0.8
SPA 70.38 180 iPd 39 16.90 0.8
1.2s 56.34nm 5.5mb
MAT 71.66 321 iPc 39 23.20 -0.9
1.0s 15.00nm 5.0mb
ORV 76.93 39 iPc 39 53.98 -0.4
BONR 77.91 42 iPc 40 00.33 0.1
TPNV 78.63 44 iPc 40 04.04 0.0
0.7s 15.49nm 5.1mb
TUC 79.88 50 ePd 40 11.55 0.7
0.8s 10.72nm 4.9mb
ARUT 80.95 45 ePd 40 16.29 -0.2
e 42 54.83
MSU 82.19 44 ePd 40 23.13 0.2
SLKM 82.34 12 (P) 40 25.57 2.6
KGM 83.40 275 ePd 40 31.00 1.5

HVU 83.58 41 ePd 40 29.65 -0.3
SRU 83.59 45 ePd 40 30.20 0.0
LTX 83.82 56 (P) 40 30.47 -0.9
PV09 84.21 46 eP 40 33.63 0.2
PV10 84.21 46 iPd 40 32.97 -0.4
e 43 32.21
ALQ 84.32 50 ePd 40 34.01 0.1
1.1s 29.72nm 5.4mb
PTI 84.43 41 eP 40 34.50 0.2
TOA 84.61 13 eP 40 42.80 8.2X
IPM 86.43 276 ePc 40 45.90 1.3
0.8s 52.10nm 5.8mb
FBA 86.82 11 eP 40 41.60 -3.8X
FBA 86.82 11 eP 40 44.76 -0.6
0.9s 15.83nm 5.2mb
IMA 86.98 8 eP 40 46.39 0.1
1.5s 10.19nm 4.8mb
GLD 87.47 46 (P) 40 49.71 0.4
RSSD 90.29 43 eP 41 01.45 -1.2
1.0s 10.23nm 5.1mb
TUL 92.59 53 iPd 41 12.80 -0.3
CHTO 93.18 289 iPc 41 17.40 1.3
1.1s 17.67nm 5.4mb
YKA 94.44 24 P 41 20.00 -1.0
0.7s 1.10nm 4.4mb
NSD 133.73 352 ePKP 47 24.60 6.7X
0.4s 0.70nm
OJC 147.56 343 ePKP 47 45.30 2.2
KAS 147.78 318 ePKP 47 48.00 4.2X
KSP 147.83 347 iPKP 47 46.70 3.2X
i 47 55.70
CLL 147.96 351 iPKP 47 46.70 3.1X
e 47 54.00
e 48 07.00
BRG 148.24 350 ePKP 47 48.00 3.9X
e 48 09.70
MOX 148.80 353 ePKP 47 49.40 4.3X
PRU 148.99 349 ePKP 47 49.50 4.2X
e 48 10.00
MLR 149.30 331 ePKP 47 51.00 4.8X
DOU 149.71 1 PKP 47 57.10 10.7X
e 48 14.10
GRF 149.78 353 ePKP 47 52.00 5.4X
KHC 149.99 349 ePKP 47 52.50 5.6X
1.2s 10.00nm
e 48 14.40
e 48 25.50
ZST 150.12 344 ePKP 47 54.00 6.9X
e 12 38.80
WLF 150.14 359 PKP 48 01.00 14.0X
SRO 150.15 343 ePKP 47 50.80 3.7X
GEC2 150.24 349 ePKPd 47 54.80 7.4X
e 47 58.60
e 48 00.20
e 48 02.40
e 48 05.70
e 48 10.10
e 48 13.90
e 48 20.60
e 48 22.80
e 48 25.20
e 48 32.60
FLN 150.64 8 ePKP 47 52.60 4.7X
1.1s 32.70nm
LDF 150.85 8 ePKP 47 53.10 4.9X
1.0s 17.80nm
GRR 150.95 9 ePKP 47 54.20 5.9X
0.8s 9.65nm
BZS 151.00 336 ePKP 47 46.50 -2.0
LPF 151.27 9 ePKP 47 55.10 6.3X
1.0s 14.60nm
CDF 151.37 358 ePKP 48 00.30 11.2X
0.7s 4.95nm
HAU 151.80 359 ePKP 48 01.70 12.0X
0.8s 10.05nm
BSF 151.97 358 ePKP 48 02.10 12.1X
0.8s 4.15nm
LOR 152.51 3 ePKP 48 04.30 13.6X
0.7s 3.00nm
SSF 152.70 3 ePKP 48 05.60 14.7X
1.1s 12.70nm
LJU 152.76 346 ePKP 47 59.00 7.9X
LBF 152.80 2 ePKP 48 06.10 15.0X
0.9s 5.10nm
AVF 152.96 3 ePKP 48 07.10 15.8X
0.7s 3.40nm
BGF 153.16 4 ePKP 48 07.80 16.2X
0.7s 4.65nm
LSF 153.35 6 ePKP 48 08.40 16.5X
0.7s 4.85nm
TCF 153.38 5 ePKP 48 07.50 15.5X
0.9s 7.20nm
MAF 153.48 5 ePKP 48 09.30 17.2X
0.8s 5.90nm
S.D. = 1.0 on 44 of 83 obs.

DEC 12, 1993 05h 12m 32.25± 0.47s
51.985 N ± 8.1km 158.713 E ± 8.6km
DEPTH = 33.0km (normal)
4.9mb (37 obs.) 5.2Msz (8 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

SMY 9.45 79 eP 14 43.15 -5.9X
KUSJ 12.96 232 eP 15 35.30 -1.3
ASAJ 13.30 240 eP 15 44.50 3.4X
YAK 18.55 314 iP 16 50.00 2.1
0.6s 45.00nm 4.8mb
e 17 01.00
NIIJ 20.26 231 eP 17 07.20 -0.1
MAT 21.20 231 iPc 17 16.80 -0.2
0.9s 33.61nm 4.7mb
Z 20s 2.48um 4.6Msz
(S) 23 14.00
CHJJ 21.22 229 eP 17 18.50 1.2
MTMJ 21.36 232 eP 17 22.70 3.9X
IIDJ 22.19 230 eP 17 28.90 1.8
YONJ 24.64 237 P 17 52.30 1.5
TKSJ 25.28 234 eP 17 59.80 2.8X
IMA 27.43 41 (P) 18 18.00 1.4
1.0s 5.50nm 4.2mb
FBA 29.81 44 eP 18 38.80 0.9
1.0s 7.50nm 4.4mb
NJ2 35.10 251 Pd 19 43.60 19.4X
Z 18s 4.47um 5.3Msz
N 13s 4.33um
E 14s 2.37um
WHN 38.85 254 Pc 19 43.00 -12.8X
1.3s 110.00nm
Z 20s 4.97um 5.3Msz
N 14s 7.52um
pP 19 57.00 54kmX
LZH 41.49 270 eP 20 17.60 -0.1
1.0s 15.00nm 4.7mb
YKA 44.55 41 P 20 41.30 -0.8
0.8s 0.90nm 3.7mb X
CD2 45.02 264 eP 20 44.20 -2.1
0.8s 130.00nm 5.9mb
Z 18s 11.90um 5.9Msz
N 12s 6.90um
PP 21 21.00
DAG 51.51 359 iPc 21 34.60 -1.4
0.9s 12.60nm 4.9mb
LSA 53.65 273 P 22 05.30 12.1X
1.0s 18.00nm
N 14s 1.04um
GUN 58.17 276 P 22 25.20 -0.4
0.3s 6.00nm 5.1mb
KKN 58.62 276 P 22 28.50 -0.1
0.4s 15.00nm 5.4mb
PKI 58.70 276 P 22 28.80 -0.5
GKN 58.87 277 P 22 29.40 -0.8
KAF 60.17 336 eP 22 36.90 -1.6
RSSD 60.73 55 (P) 22 41.59 -1.3
0.8s 13.04nm 5.1mb
SRU 60.84 63 (P) 22 43.21 -0.4
NB2 64.37 343 P 23 05.60 -1.0
0.4s 5.30nm 5.0mb
HFS 64.74 342 eP 23 07.30 -1.7
0.4s 7.90nm 5.2mb
POO 72.49 278 eP 24 03.00 5.4X
CLL 73.08 338 eP 23 59.00 -1.5
WTS 73.72 342 eP 24 04.50 0.4
0.9s 19.80nm 5.1mb
PRU 73.95 337 eP 24 05.00 -0.5
Z 20s 1.10um 5.1Msz
MOX 74.01 339 eP 24 06.00 0.1
GBA 74.05 272 P 24 05.50 -1.1
1.0s 11.00nm 4.8mb
ZST 74.95 335 eP 24 10.80 -0.5
SRO 74.97 334 e(P) 24 11.80 0.3
e 28 25.20
KHC 74.98 337 eP 24 11.50 -0.1
1.0s 8.90nm 4.7mb
Z 20s 1.40um 5.3Msz
N 20s 1.10um
E 20s 1.10um
GRF 75.00 339 iPc 24 12.10 0.5
1.7s 70.00nm 5.4mb
ENN 75.06 343 eP 24 12.00 0.1
1.0s 21.00nm 5.1mb
GEC2 75.21 337 ePc 24 12.60 -0.4
0.5s 2.25nm 4.4mb
e 24 14.20
KBA 76.95 337 iPd 24 22.30 -0.6
1.1s 48.70nm 5.4mb
CDF 77.05 341 eP 24 23.30 0.0
1.1s 16.10nm 5.0mb
WATA 77.13 338 iPc 24 24.00 0.1
WTTA 77.18 338 iPd 24 24.90 0.7
0.9s 15.10nm 5.0mb
i 24 33.50
HAU 77.62 341 eP 24 26.20 -0.2
1.1s 15.15nm 4.9mb
Z 20s 1.00um 5.1Msz
BSF 77.70 341 eP 24 26.60 -0.3
1.0s 8.80nm 4.7mb
LOR 78.80 343 eP 24 32.90 0.0
1.1s 19.55nm 5.0mb
Z 21s 1.50um 5.3Msz
LBF 79.06 343 eP 24 34.20 -0.1
0.8s 5.25nm 4.6mb
SSF 79.07 343 eP 24 34.40 0.1
1.0s 10.00nm 4.8mb
AVF 79.36 343 eP 24 36.20 0.3
1.1s 22.45nm 5.1mb
SMF 79.41 343 eP 24 36.40 0.2
1.3s 18.75nm 4.9mb
VAY 79.57 328 iP 24 37.00 -0.1
i 28 20.00
LPL 79.93 340 eP 24 40.10 0.9
1.2s 17.55nm 4.9mb
LPG 79.94 340 eP 24 40.40 1.0
1.1s 12.70nm 4.8mb
TCF 80.05 344 eP 24 40.00 0.4
1.2s 16.65nm 4.9mb
MAF 80.05 343 eP 24 40.40 0.8
1.3s 33.20nm 5.2mb
LSF 80.20 344 eP 24 40.90 0.5
1.0s 10.60nm 4.8mb
RJF 81.12 344 eP 24 45.90 0.6
1.2s 19.05nm 5.0mb
Z 23s 0.80um 5.0MszX
CAF 81.39 343 eP 24 48.00 1.3
1.1s 15.65nm 4.9mb
LFF 81.60 344 eP 24 48.80 1.0
1.1s 20.25nm 5.1mb
LPO 81.78 344 eP 24 49.60 0.9
1.1s 14.15nm 4.9mb
S.D. = 0.9 on 54 of 62 obs.

% DEC 12, 1993 05h 13m 53.14± 0.60s
40.642 N ± 4.9km 23.032 E ± 4.9km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 2.1 (THE).

THE 0.05 259 ePg 13 54.48 -0.2
eSg 13 55.48
SOH 0.30 54 ePg 13 59.44 0.2
eSg 14 04.28
KNT 0.53 349 ePg 14 03.64 -0.1
eSg 14 10.88
GRG 0.57 303 ePg 14 05.08 0.5
eSg 14 13.76
SRS 0.64 42 iPg 14 05.48 -0.4
eSg 14 14.60
LIT 0.68 218 ePg 14 06.44 -0.3
eSg 14 15.08
PAIG 0.87 145 ePg 14 10.64 0.3
eSg 14 22.68
S.D. = 0.4 on 7 of 7 obs.

DEC 12, 1993 05h 15m 24.52± 0.25s
13.693 N ± 3.8km 123.035 E ± 5.4km
DEPTH = 21.9km (5 depth phases)
5.0mb (46 obs.) 5.3Msz (16 obs.)
LUZON, PHILIPPINE ISLANDS (249)
Mw 5.6 (HRV). Felt (III RF) in
the epicentral area.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN

12d 05h

L.P.B.: 24S, 36C
Centroid Location:
Origin Time 05:15:26.1 0.4
Lat 13.95N 0.05 Lon 123.13E 0.05
Dep 15.0 FIX Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr=-0.44 0.07 Mtt= 1.39 0.08
Mff=-0.96 0.10 Mrt= 0.18 0.29
Mrf=-1.54 0.25 Mtf= 1.42 0.07
Principal Axes:
T Val= 2.18 Plg=13 Azm=150
N 0.46 52 42
P -2.64 34 249
Best Double Couple:Mo=2.4*10**17
NP1:Strike=284 Dip=56 Slip= -17
NP2: 23 76 -145

PGP 2.03 265 iPc 15 57.50 -0.6
iS 16 38.00
TGY 2.08 282 iPd 15 55.00 -3.8X
iS 16 15.00
QCP 2.12 297 iP 16 30.00 30.7X
QVP 2.18 295 eP 16 00.00 -0.1
eS 16 27.50
PLP 3.15 143 ePc 16 13.50 -0.4
iS 16 34.00
MAP 3.47 164 iPd 16 20.00 1.5
iS 17 07.00
BAG 3.60 319 ePc+ 16 18.00 -2.4
iS 17 12.00
CVP 4.16 344 eP 16 27.00 -1.2
eS 17 13.00
SZP 4.57 327 iPc 16 03.40 -30.7X
PIP 5.16 334 ePd 16 43.50 1.1
PPR 5.74 228 iPd 16 50.50 -0.1
iS 17 54.00
BIP 6.28 150 eP 17 00.50 2.2
DAV 7.02 159 eP+ 17 10.00 1.3
e 18 52.00
TSM 10.64 209 eP 18 01.00 2.2
MNI 12.30 172 ePc 18 22.00 0.6
GZH 13.10 317 P 18 30.00 -2.0
Z 16s 14.30um
N 16s 12.50um
E 18s 11.50um
QIZ 13.72 294 eP 18 41.00 0.7
N 14s 13.80um
PP 18 54.00
SSE 17.40 355 P+ 19 24.00 -3.6X
Z 20s 7.30um
N 14s 5.20um
E 12s 4.20um
sP 19 37.50
PPP 19 48.00
S 22 39.00
sS 22 52.00
KAGJ 18.85 21 eP 19 49.30 3.8X
GYA 19.91 312 P 19 57.20 -0.7
1.2s 62.00nm 4.8mb
Z 16s 11.70um 4.5Msz
N 13s 5.34um
E 13s 4.80um
KUMJ 20.06 20 eP 20 02.70 3.5X
LOE 20.85 283 eP 20 06.90 -0.6
GUMO 21.22 88 eP 20 16.00 4.7X
1.1s 282.10nm 5.6mb
e 20 22.10 22km
PJG 21.22 88 eP 20 15.20 3.9X
(TT) 40 36.80
GUA 21.27 88 eP 20 16.00 4.2X
0.7s 87.67nm 5.3mb
TLE 21.49 153 ePd 20 18.60 4.6X
SHNJ 21.62 18 eP 20 21.00 5.8X
KMI 22.23 304 Pd 20 23.50 1.8
1.8s 200.00nm 5.3mb
Z 18s 9.30um 5.2Msz
N 14s 5.90um
E 14s 4.30um
PP 20 49.00
eS 24 17.00
SS 24 56.00
NST 22.24 278 eP 20 21.50 0.0
TPI 22.36 224 ePc 20 22.50 -0.2
e 22 00.00
KGM 22.69 241 ePd 20 26.00 0.0
0.8s 125.00nm 5.5mb
TIA 23.04 348 eP 20 29.30 0.0

Z 18s 2.94um 4.8Msz
E 12s 2.43um
eS 24 32.00
BDT 23.42 282 eP 20 34.00 0.9
1.0s 48.30nm 5.0mb
IPM 23.52 249 ePc 20 34.80 0.7
0.8s 78.10nm 5.3mb
CHTO 23.67 286 iPd 20 35.10 -0.5
1.0s 57.00nm 5.1mb
KHT 23.71 276 eP 20 34.30 -1.7
XAN 23.97 330 P 20 37.40 -0.9
1.2s 79.00nm 5.1mb
Z 15s 7.02um 5.3MszX
N 14s 4.45um
E 14s 5.52um
PP 21 11.00
DL2 25.14 357 eP 20 49.50 -0.1
1.0s 150.00nm 5.6mb
Z 16s 5.06um 5.1MszX
N 14s 6.81um
E 16s 6.33um
S 25 09.00
TIY 25.72 340 eP 20 54.40 -0.7
Z 22s 4.67um 5.0Msz
E 15s 4.17um
PP 21 34.00
MAT 26.51 28 (P) 21 09.00 6.7X
1.6s 50.00nm 4.9mb
BJI 26.93 348 eP 21 04.50 -1.6
2.0s 96.00nm 5.1mb
Z 18s 4.14um 5.0Msz
E 15s 3.30um
ePcS 28 05.00
SNY 28.04 1 eP 21 13.60 -2.5
1.8s 140.00nm 5.4mb
Z 20s 3.93um 5.0Msz
E 13s 3.93um
LZH 28.18 326 eP 21 16.50 -1.2
1.8s 220.00nm 5.6mb
Z 22s 8.72um 5.3Msz
N 14s 5.35um
PP 22 06.00
SS 27 24.00
HHC 28.85 342 P 21 24.20 0.5
1.0s 29.00nm 5.0mb
Z 22s 6.08um 5.2Msz
N 14s 2.19um
E 13s 2.58um
BTO 29.13 339 P 21 31.00 4.9X
N 16s 1.35um
E 16s 2.06um
CN2 30.08 3 eP 21 33.00 -1.5
1.0s 14.00nm 4.7mb
Z 17s 2.63um 4.9MszX
N 13s 1.81um
E 13s 3.13um
MDJ 31.32 9 eP 21 45.50 0.1
N 14s 2.19um
E 14s 3.93um
SHL 31.54 297 iP 21 47.50 -0.3
eS 26 52.00
GTA 32.78 326 eP 21 58.00 -0.5
1.5s 13.00nm 4.6mb
Z 20s 8.64um 5.5Msz
E 15s 3.21um
PP 23 08.00
MBL 34.78 185 eP 22 14.20 -1.4
0.6s 18.00nm 5.2mb
WB2 35.23 161 eP 22 16.80 -2.8
0.6s 19.70nm 5.2mb
YSS 37.09 22 (P) 22 37.90 3.0
Z 16s 2.20um 5.0MszX
N 17s 2.00um
E 18s 1.30um
e 22 44.70 23km
QIS 37.73 154 eP 22 39.20 -1.5
ASPA 38.62 164 iPc 22 47.20 -0.9
0.5s 17.80nm 5.1mb
Z 22s 2.00um 4.9Msz
iS 28 46.60
CIT 38.95 351 eP 22 52.00 1.3
WARB 39.79 175 eP 22 57.00 -0.8
0.4s 10.00nm 4.9mb
ZAK 39.98 340 eP 22 58.80 -0.2
2.1s 59.00nm 4.9mb
Z 14s 1.47um 5.0MszX
N 14s 1.43um

E 14s 0.96um
eS 29 10.00
MEEK 40.32 186 eP 23 00.50 -1.6
WMQ 42.59 322 P 23 21.50 0.8
0.7s 6.90nm 4.5mb
Z 16s 9.31um 5.8MszX
E 15s 2.82um
PP 25 05.00
PcP 25 14.00
PcS 29 04.20
S 29 38.00
HYB 42.94 281 eP 23 24.00 0.1
MRWA 43.20 189 eP 23 23.50 -2.2
GBA 44.26 276 P 23 34.70 0.2
0.8s 8.00nm 4.6mb
COOL 44.36 182 eP 23 35.00 -0.1
UER 44.39 334 iPc 23 34.00 -1.1
1.8s 30.00nm 4.9mb
eS 30 16.00
BAL 44.46 188 eP 23 35.20 -0.7
BOD 44.58 353 eP 23 41.70 5.2X
1.6s 30.00nm 4.9mb
KOD 44.66 271 eP 23 39.80 1.6
NDI 44.97 297 eP 23 30.50 -9.6X
KLB 45.31 186 eP 23 42.00 -0.7
MUN 45.88 188 eP 23 46.20 -1.0
NWAO 46.69 187 eP 23 52.30 -1.2
PET 48.33 28 eP 24 10.00 3.8X
Z 18s 3.60um 5.4Msz
eS 31 14.00
BOM 48.35 283 eP 24 04.50 -2.4
eS 30 42.00
YAK 48.49 4 eP 24 07.50 0.2
1.0s 65.00nm 5.6mb
Z 17s 2.50um 5.3MszX
N 17s 1.90um
E 18s 1.10um
e 31 13.00
KSH 48.58 311 P 24 10.00 1.4
1.2s 60.00nm 5.5mb
Z 18s 5.70um 5.6Msz
N 16s 5.01um
E 16s 4.72um
PP 26 02.00
PcS 29 32.00
eS 31 03.00
STK 48.68 159 eP 24 06.50 -2.7
0.8s 4.80nm 4.6mb
e 26 02.30 661kmX
ADE 50.63 163 eP 24 23.80 -0.3
FRU 50.66 315 eP 24 27.00 2.6
1.5s 60.00nm 5.3mb
Z 16s 2.50um 5.3MszX
E 24s 5.50um
ARMA 51.78 148 eP 24 34.20 1.2
0.6s 8.00nm 4.8mb
QUE 54.04 297 eP 24 53.80 3.8X
CNB 54.76 154 eP 25 03.00 8.1X
TOO 55.19 158 eP 24 58.10 0.1
0.5s 12.00nm 5.2mb
DZM 55.45 129 iPd 25 00.40 0.2
TIK 58.02 2 eP 25 16.00 -1.7
0.8s 19.00nm 5.2mb
Z 16s 3.30um 5.5MszX
i 25 25.00 30km
i 27 23.00
ePPP 28 50.00
eS 33 20.00
ePS 33 36.00
MAIO 60.76 304 eP 25 40.00 2.7
eS 33 56.00
ASH 61.80 306 eP 25 44.00 -0.2
SVE 63.63 327 ePd 25 54.50 -1.5
2.2s 140.00nm 5.7mb
e 28 16.90 777kmX
eS 34 27.00
ARU 64.61 326 eP 26 00.50 -2.0
Z 18s 2.00um 5.4Msz
N 16s 1.00um
E 18s 1.50um
e 26 06.50 19km
e 26 14.50
e 28 31.00
MTA 72.28 310 eP 26 51.00 0.6
ERE 72.59 308 eP 26 55.00 2.6
e 36 50.00
PYA 73.44 312 eP 27 01.10 3.9X

Z 18s 3.00um 5.6Msz
N 18s 0.55um
E 18s 3.00um
KIV 73.72 312 eP 27 01.20 2.3
0.9s 17.00nm 5.1mb
Z 16s 2.60um 5.6MszX
e 29 46.10
TTA 73.80 28 eP 26 59.69 0.8
1.1s 6.40nm 4.6mb
SVW 73.94 30 (P) 26 59.19 -0.6
1.1s 21.96nm 5.1mb
BRW 73.98 19 eP 27 04.40 4.6X
BRW 73.98 19 eP 27 00.11 0.3
IMA 74.86 25 eP 27 05.60 0.4
0.9s 8.08nm 4.8mb
KDC 75.60 33 (P) 27 10.31 1.1
0.8s 10.63nm 4.9mb
MOS 76.23 325 eP 27 16.00 3.1X
e 27 21.00 16km
SLKM 76.60 31 (P) 27 14.58 -0.4
OBN 76.87 324 eP 27 18.00 1.5
1.7s 100.00nm 5.6mb
Z 20s 2.80um 5.6Msz
N 24s 1.10um
E 20s 1.70um
eS 37 10.00
PMR 77.05 29 eP 27 18.50 1.2
FBA 77.37 26 eP 27 19.13 0.1
1.0s 8.65nm 4.7mb
TOA 78.39 29 eP 27 23.40 -1.4
KLU 78.59 29 (P) 27 26.16 0.2
SDF 80.01 337 iP 27 32.50 -0.9
KAF 81.14 332 iP 27 38.20 -1.3
0.5s 3.90nm 4.7mb
MNK 82.25 324 eP 27 48.00 2.6
Z 18s 2.20um 5.6Msz
E 18s 2.30um
NUR 82.28 330 iP 27 48.80 3.4X
MLR 85.25 316 ePc 28 05.00 3.9X
LVV 85.37 320 eP 28 02.00 0.6
UPP 85.83 331 iP 28 03.20 -0.2
UZH 86.79 319 eP 28 10.50 2.1
e 28 28.10 63kmX
HFS 87.56 332 eP 28 11.30 -0.6
0.5s 2.80nm 4.8mb
Z 18s 1.96um 5.6Msz
LR 05 22.00
OJC 87.86 321 eP 28 14.50 0.9
i 28 17.00 8kmX
SPC 87.92 320 eP 28 15.50 1.4
NB2 88.30 333 P 28 14.80 -0.7
0.6s 2.20nm 4.7mb
KSP 89.75 323 iP 28 26.10 3.6X
ZST 90.21 320 eP 28 29.20 4.5X
BRG 91.11 323 eP 28 32.20 3.4X
YKA 91.90 23 P 28 31.50 -0.8
0.9s 3.60nm 4.8mb
GEC2 92.06 321 eP 28 34.10 0.7
1.7s 9.95nm 5.0mb
e 28 45.30 35kmX
e 28 55.30
GRF 93.19 323 eP 28 31.50 -7.0X
LKO 124.03 292 PKP 34 26.33 2.5
1.1s 6.50nm
KIC 124.46 288 PKPd 34 24.96 0.3
0.7s 11.50nm
TIC 124.62 288 PKP 34 25.14 0.2
0.8s 5.00nm
LIC 124.78 288 PKP 34 25.44 0.2
0.8s 7.00nm
MOCB 168.83 133 PKP 35 35.60 3.6X
LPB 168.89 106 PKP 35 46.00 13.9X
LPAZ 168.91 105 PKP 35 46.60 14.2X
CNCB 168.93 108 PKP 35 36.00 3.7X
SIV 175.42 120 PKP 35 35.80 1.4
S.D. = 1.3 on 101 of 132 obs.

% DEC 12, 1993 05h 32m 47.58± 0.91s
16.643 N ± 9.1km 61.484 W ±10.8km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.7 (FDF).

SEG 0.24 185 iP 32 59.28 4.7X
SFG 0.48 145 eP 32 57.75 -0.1
DEG 0.52 129 iP 32 58.55 0.0
S 33 05.93
BPA 0.54 318 eP 32 58.77 0.0
S 33 06.08
DOG 0.62 192 iP 32 59.95 0.0
PAG 0.64 197 iPc 33 00.10 -0.1
S 33 08.35
MGG 0.74 167 eP 33 01.70 0.2
S 33 11.30
S.D. = 0.1 on 6 of 7 obs.

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* DEC 12, 1993 05h 34m 11.26± 1.31s
33.956 S ± 7.7km 70.341 W ± 9.0km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 4.0 (SAN).

CACH 0.27 233 iP+ 34 16.55 -0.4
iS 34 22.23
PCH 0.36 337 iPd 34 19.26 0.5
iS 34 26.91
SAN 0.57 332 eP 34 22.90 0.1
iS 34 33.20
TACH 0.58 301 iPd 34 23.57 0.5
iS 34 34.71
FCH 0.63 4 iP+ 34 22.62 -1.5
PEL 0.86 340 iPd 34 27.87 0.0
iS 34 42.31
LNV 0.89 270 iPd 34 28.25 0.0
iS 34 42.99
ROCH 1.13 330 eP 34 32.54 -0.1
eS 34 50.82
LCCH 1.13 295 iPd 34 32.71 0.3
iS 34 50.98
JACH 1.29 351 iP 34 34.63 -0.6
iS 34 53.97
RTCB 2.78 28 eP 35 00.50 3.7X
RTLL 3.06 32 eP 35 01.80 1.2
S.D. = 0.8 on 11 of 12 obs.

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* DEC 12, 1993 05h 55m 15.33± 1.38s
53.460 N ±24.8km 163.242 W ±15.1km
DEPTH = 33.0km (normal)
4.7mb (19 obs.)
UNIMAK ISLAND REGION (10)
ML 4.4 (PMR).

SDN 2.48 39 eP 55 55.21 1.0
KDC 7.45 50 eP 57 12.10 7.8X
ADK 8.32 264 eP 57 15.80 -0.8
SVW 8.70 25 eP 57 22.91 1.1
SLKM 10.00 40 eP 57 38.60 -1.2
TTA 10.23 19 eP 57 44.66 1.8
PMS 10.73 38 eP 57 48.00 -1.6
KLU 12.28 42 eP 58 07.92 -2.7
TOA 12.53 40 eP 58 12.00 -2.0
IMA 13.51 17 (P) 58 27.70 0.8
0.8s 4.19nm 4.4mb
BALM 13.57 48 eP 58 26.20 -1.6
FBA 13.88 28 (P) 58 35.27 3.6X
1.0s 7.14nm 4.4mb
YKA 26.70 51 P 00 55.70 2.8
0.5s 1.90nm 4.0mb
MAT 43.41 271 eP 03 16.00 -0.3
0.9s 10.92nm 4.6mb
CN2 46.25 288 eP 03 37.30 -1.6
1.0s 14.00nm 4.9mb
epP 03 47.50 34kmX
DAG 48.10 10 iPd 03 52.60 -0.4
0.8s 6.72nm 4.7mb
BJI 53.93 290 eP 04 36.50 -1.1
1.0s 6.00nm 4.6mb
HHC 55.93 294 eP 04 52.30 0.0
1.0s 18.00nm 5.1mb
BTO 56.94 295 eP 04 59.00 -0.6
TIY 57.65 291 eP 05 04.40 -0.1
XAN 62.27 290 P 05 35.00 -1.2
1.0s 5.40nm 4.6mb
pP 05 38.80 12kmX
GTA 63.20 301 eP 05 40.80 -1.6
1.5s 19.00nm 5.0mb
LZH 63.55 295 eP 05 44.20 -0.6
1.6s 35.00nm 5.2mb
pP 05 47.50 11kmX
KAF 64.53 355 eP 05 49.70 -0.9
NB2 65.76 3 P 05 58.30 -0.3
1.1s 8.70nm 4.8mb
NUR 66.21 356 eP 06 00.90 -0.4
HFS 66.73 2 eP 06 03.80 -0.9
0.5s 4.30nm 4.8mb
CD2 67.49 292 eP 06 09.80 -0.2
GYA 69.25 287 iPc 06 21.00 -0.1
1.2s 29.00nm 5.2mb
LSA 75.22 300 P 06 58.10 1.2
0.8s 6.70nm 4.7mb
BRG 76.01 2 e(P) 07 11.40 11.0X
MOX 76.18 3 eP 07 02.60 1.2
PRU 76.91 1 eP 07 06.50 1.1
GRF 77.12 4 eP 07 08.20 1.6
1.0s 11.00nm 4.8mb
epP 07 19.00 35kmX
esP 07 25.30
KHC 77.75 2 eP 07 11.60 1.5
1.0s 5.40nm 4.5mb
e 07 23.40
e 07 40.50
GEC2 78.04 2 ePd 07 13.00 1.2
0.7s 1.54nm 4.1mb
e 07 16.50
e 07 23.20
e 07 28.40
GUN 79.36 303 P 07 20.90 1.2
KKN 79.76 303 P 07 22.70 1.0
PKI 79.88 303 P 07 23.30 0.8
GKN 79.91 304 P 07 23.30 0.9
0.7s 18.00nm 5.2mb
HYB 91.80 303 ePd 08 22.00 0.9
S.D. = 1.3 on 38 of 41 obs.

% DEC 12, 1993 08h 13m 50.34± 1.07s
13.536 N ±13.6km 122.924 E ±12.4km
DEPTH = 33.0km (normal)
LUZON, PHILIPPINE ISLANDS (249)

PGP 1.92 269 ePc 14 21.00 -0.3
TGY 2.01 286 ePc 14 24.00 1.3
QVP 2.15 300 ePd 14 23.50 -1.1
PLP 3.10 139 ePd 14 38.00 0.0
CVP 4.28 346 eP 14 55.00 0.2
S.D. = 1.2 on 5 of 5 obs.

? DEC 12, 1993 08h 17m 14.53± 1.17s
8.433 N ±30.0km 77.836 W ± 6.7km
DEPTH = 33.0km (normal)
4.0mb (2 obs.)
PANAMA-COLOMBIA BORDER REGION (82)

UPA 1.77 288 eP 17 42.89 -0.4
ECO 2.06 297 eP 17 47.79 0.3
eS 18 26.80
DVD 4.57 270 eP 18 22.19 -0.9
eS 19 27.92
BRU 4.69 275 eP 18 26.32 1.1
eS 19 32.92
SDV 7.14 86 iPnd 18 59.00 -0.5
eSn 20 19.70
TOV 8.06 80 eP 19 13.10 0.8
ALQ 37.20 319 (P) 24 26.00 1.1
1.0s 3.75nm 4.2mb
e 24 30.00
e 24 34.80
YKA 60.20 341 P 27 19.80 -1.6
0.8s 0.70nm 3.8mb
S.D. = 1.2 on 8 of 8 obs.

? DEC 12, 1993 08h 47m 03.46± 0.87s
37.113 N ± 7.1km 4.065 W ± 7.9km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.4 (MDD).

EMAL 0.46 220 eP 47 12.69 0.0
e 47 19.50
EGUA 0.49 125 eP 47 13.39 0.0
e 47 21.50
EBAN 1.07 12 eP 47 23.60 -0.1
e 47 40.00
EHOR 1.18 307 eP 47 25.50 0.1
e 47 39.70
S.D. = 0.1 on 4 of 4 obs.

? DEC 12, 1993 08h 59m 14.48± 1.09s
13.371 N ±14.8km 122.597 E ±12.8km
DEPTH = 33.0km (normal)
LUZON, PHILIPPINE ISLANDS (249)

12d 08h

PGP 1.61 275 eP 59 40.00 -0.9
TGY 1.77 294 iPc 59 44.50 1.1
QVP 1.98 309 eP 59 43.60 -2.8X
eS 00 08.70
PLP 3.20 133 ePc 00 03.70 0.1
CVP 4.37 350 eP 00 20.00 -0.3
S.D. = 1.5 on 4 of 5 obs.

& DEC 12, 1993 09h 01m 58.53s
60.912 N 146.465 W
DEPTH = 15.0km
2.8mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>. ML 2.9 (AEIC).

VZW 0.15 344 iP 02 02.69 0.0
FID 0.16 182 eP 02 02.57 -0.2
VLZ 0.23 16 iP 02 03.67 -0.1
eS 02 07.63
CVA 0.51 136 iP 02 08.19 -0.4
eS 02 15.97
HIN 0.52 182 iP 02 08.37 -0.4
eS 02 16.09
KLU 0.64 24 iP 02 10.24 -0.7
eS 02 19.66
CFI 0.69 294 eP 02 10.29 -1.4
PWL 0.92 268 eP 02 14.01 -1.6
eS 02 26.98
SCM 1.01 336 eP 02 16.73 -0.6
RAGM 1.03 120 eP 02 17.90 0.4
KNK 1.09 298 eP 02 18.41 -0.1
MTU 1.10 213 eP 02 18.02 -0.7
TOA 1.21 7 P 02 20.10 -0.5
HMT 1.23 117 eP 02 20.25 -0.7
TZL 1.24 23 eP 02 20.88 -0.2
SML 1.27 316 eP 02 21.18 -0.5
eS 02 39.25
GLB 1.39 66 eP 02 22.30 -1.1
eS 02 41.70
KAIM 1.42 133 eP 02 23.75 0.1
PLRM 1.46 299 eP 02 23.92 -0.3
PMR 1.46 299 iPc 02 23.74 -0.5
eS 02 44.32
GHO 1.47 307 eP 02 24.27 -0.2
MPA 1.49 255 eP 02 24.07 -0.6
MID 1.49 178 P 02 24.00 -0.7
PMS 1.54 284 P 02 25.20 -0.3
CRQM 1.64 94 eP 02 27.05 0.0
SDG 1.68 15 eP 02 27.69 0.2
SEW 1.68 243 eP 02 26.69 -0.8
TGL 1.79 93 eP 02 28.81 -0.3
PWA 1.81 296 eP 02 29.46 0.2
WAX 1.84 103 eP 02 29.35 -0.5
SLKM 1.89 259 eP 02 30.17 -0.4
BALM 2.01 85 eP 02 32.34 -0.1
PAX 2.12 12 eP 02 32.02 -1.9
SUA 2.14 287 eP 02 34.35 0.0
DHY 2.21 349 eP 02 36.05 0.7
NKA 2.34 268 eP 02 37.19 0.2
CUT 2.35 311 eP 02 37.71 0.6
YAH 2.39 101 eP 02 36.74 -1.2
CTGM 2.51 87 eP 02 36.92 -2.6
SKT 2.66 296 eP 02 41.04 -0.5
CGLM 2.72 281 eP 02 41.87 -0.6
SPU 2.73 278 eP 02 41.78 -0.9
RND 2.74 337 eP 02 42.21 -0.6
CNPM 2.76 242 eP 02 41.59 -1.4
CRP 2.79 280 eP 02 42.63 -0.9
NCG 2.80 283 eP 02 43.16 -0.5
BKG 2.83 276 eP 02 42.98 -1.0
CKL 2.87 278 eP 02 43.85 -0.8
BGL 2.90 280 eP 02 44.30 -0.7
DDM 2.90 5 eP 02 45.85 0.9
MCK 3.06 339 P 02 48.40 1.2
DFR 3.07 267 eP 02 46.21 -1.2
REF 3.10 265 eP 02 46.39 -1.5
TRF 3.12 327 P 02 48.70 0.6
RS2 3.13 264 eP 02 46.95 -1.4
RED 3.14 264 eP 02 47.43 -1.0
NCT 3.19 267 eP 02 47.96 -1.3
KTH 3.37 324 eP 02 50.96 -0.8
HDA 3.51 357 eP 02 54.31 0.7
BWN 3.55 338 eP 02 53.44 -0.8
WRH 3.65 349 P 02 55.70 0.1
CCB 3.80 351 P 02 57.50 -0.2
PDB 4.00 257 P 03 01.60 1.1
FBA 4.05 352 eP 03 01.17 0.0
GLM 4.11 355 eP 03 02.96 0.8
CDD 4.12 244 P 03 01.70 -0.6
MDM 4.14 350 P 03 02.20 -0.4
MLY 4.57 337 P 03 08.50 -0.2
IMA 6.10 331 eP 03 28.28 -2.0
YKA 15.11 70 P 05 36.50 3.8
0.7s 0.30nm 2.8mb
70 obs. associated

DEC 12, 1993 09h 25m 17.58± 0.48s
49.134 N ± 4.4km 6.865 E ± 5.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 3.5 (GRF), 2.8 (STR).

LANF 0.64 104 Pg 25 29.85 -0.5
Sg 25 40.79
SRBF 0.69 108 Pg 25 31.63 0.5
WLF 0.71 319 iPd 25 31.00 -0.5
iS 25 41.00
HOFF 0.75 104 Pg 25 32.81 0.6
CDF 0.77 159 Pg 25 31.70 -1.0
WLS 0.79 156 Pg 25 32.00 -1.0
Sg 25 34.88
ABH 0.87 30 ePg 25 33.60 -0.7
VITF 1.09 213 Pg 25 37.24 -0.8
MOF 1.30 172 Pg 25 41.68 0.0
Sg 25 59.74
FEL 1.47 148 ePg 25 45.00 0.7
ENN 1.74 340 ePg 25 50.00 2.0
0.5s 22.20nm
eS 26 12.00
SLE 1.75 141 P 25 48.50 0.4
DOU 1.76 304 P 25 47.60 -0.7
i 25 50.30
iS 26 09.60
LOMF 1.78 181 Pg 25 50.22 1.5
ZLA 1.94 148 P 25 51.00 0.0
SNF 2.17 311 P 25 58.40 4.2X
GRF 2.90 77 e(Pn) 26 07.90 3.3X
e(Pg) 26 14.80
eSg 26 48.80
VDL 3.18 145 iPd 26 09.40 0.7
KHC 4.41 88 ePn 26 25.00 -1.1
e 26 49.00
e 27 02.00
e 27 14.50
eSg 27 37.00
S.D. = 1.0 on 17 of 19 obs.

DEC 12, 1993 11h 12m 57.53± 0.34s
37.037 N ± 2.6km 117.884 W ± 4.0km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 3.0 (GS).

BHPR 0.55 299 P 13 08.23 -0.3
BCKR 0.77 330 P 13 12.42 -0.6
BONR 0.97 340 eP 13 16.20 -0.5
MCSM 1.02 307 P 13 17.03 -0.5
MEMM 1.05 307 ePc 13 17.37 -0.4
eS 13 28.08
VPEM 1.09 177 P 13 18.05 -0.5
RCWM 1.10 170 P 13 18.29 -0.4
TNP 1.17 27 eP 13 19.99 0.0
NMC 1.19 181 P 13 19.90 -0.4
TOW 1.23 175 P 13 21.10 0.2
TPNV 1.31 93 eP 13 22.91 0.5
WASM 1.41 203 P 13 23.48 -0.5
ISA 1.45 199 eP 13 23.79 -0.7
FRI 1.46 269 P 13 24.03 -0.5
WBSM 1.51 188 P 13 25.68 0.2
WOFM 1.64 204 P 13 27.37 0.1
WJPM 1.69 197 P 13 28.69 0.7
GSC 1.94 153 eP 13 30.71 -0.9
BMTC 1.98 197 P 13 33.72 1.5
KVN 2.02 355 eP 13 33.31 0.5
PKEM 2.04 242 (Pn) 13 31.76 -1.2
ARVC 2.05 202 P 13 33.86 0.7
MSTM 2.18 294 P 13 37.25 2.2X
CMB 2.22 297 eP 13 37.01 1.4
YEG 2.32 227 P 13 39.13 2.1X
MARC 2.35 211 P 13 39.93 2.5X
PHAM 2.36 240 ePn 13 39.98 2.5X
BMSM 2.36 262 P 13 41.22 3.5X
BRMM 2.36 266 P 13 40.04 2.4X
ABL 2.44 207 ePn 13 39.14 0.3
ePg 13 40.85
SSK 2.82 177 ePn 13 44.54 0.2
BVYM 2.84 265 P 13 47.47 3.0X
ARN 2.93 277 ePn 13 47.12 1.4
PEC 3.19 169 ePn 13 48.91 -0.5
HMR 3.30 291 (P) 13 53.24 2.3X
MSU 4.76 70 (Pn) 14 13.94 2.1X
S.D. = 0.7 on 27 of 36 obs.

% DEC 12, 1993 11h 36m 51.00± 1.18s
34.186 S ±13.5km 70.937 W ±10.4km
DEPTH = 80.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.7 (SAN).

CACH 0.29 76 iP 37 03.56 0.0
iS 37 13.17
LNV 0.46 300 iPd 37 04.61 0.1
iS 37 13.50
TACH 0.53 360 iP+ 37 05.19 0.0
iS 37 15.68
PCH 0.66 32 iP+ 37 06.33 -0.3
iS 37 18.55
LCCH 0.88 323 iP 37 08.81 -0.1
iS 37 21.20
FCH 1.01 32 iP+ 37 10.93 0.1
iS 37 25.74
PEL 1.06 11 iP+ 37 11.42 0.3
iS 37 26.41
ROCH 1.21 357 eP 37 13.09 -0.1
iS 37 29.54
JACH 1.53 11 eP 37 17.14 0.0
iS 37 37.18
S.D. = 0.2 on 9 of 9 obs.

& DEC 12, 1993 11h 39m 57.32s
60.009 N 152.088 W
DEPTH = 64.3km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.6 (AEIC).

HOM 0.42 147 eP 40 08.83 -0.2
ILIM 0.44 280 iP 40 08.69 -0.6
eS 40 18.22
INE 0.49 276 eP 40 09.22 -0.7
RED 0.53 321 eP 40 09.63 -0.6
eS 40 19.85
RSO 0.56 324 eP 40 10.01 -0.7
eS 40 20.35
RS2 0.56 324 eP 40 10.20 -0.5
REF 0.57 328 eP 40 10.16 -0.6
eS 40 20.94
RDW 0.60 323 eP 40 10.44 -0.6
CNPM 0.65 138 iP 40 10.70 -0.8
eS 40 21.86
BRLK 0.65 112 eP 40 10.91 -0.6
eS 40 21.67
DFR 0.66 333 eP 40 10.74 -0.9
OPT 0.68 239 eP 40 11.27 -0.6
eS 40 22.25
NCT 0.70 323 eP 40 11.41 -0.7
eS 40 23.22
NKA 0.85 29 eP 40 14.77 0.9
AUE 0.92 226 eP 40 14.30 -0.5
AUL 0.93 228 eP 40 14.78 -0.1
AUH 0.94 227 eP 40 12.41 -2.7
AUW 0.95 228 eP 40 14.71 -0.4
SLKM 1.06 61 eP 40 15.86 -0.7
BKG 1.07 355 iP 40 15.99 -0.8
PDB 1.08 259 eP 40 15.66 -1.2
eS 40 30.42
SPU 1.18 1 iP 40 17.34 -0.9
eS 40 33.54
CKL 1.20 354 eP 40 17.83 -0.7
CRP 1.26 359 eP 40 18.33 -1.1
eS 40 35.83
BGL 1.27 353 eP 40 18.78 -0.7
CGLM 1.30 2 eP 40 19.31 -0.6
SEW 1.33 85 eP 40 20.78 0.7
CDD 1.34 217 eP 40 19.40 -1.0
NCG 1.40 359 iP 40 20.63 -0.6
MPA 1.44 69 eP 40 21.04 -0.7
SUA 1.60 24 eP 40 23.38 -0.7
PMS 1.76 44 P 40 25.60 -0.5
PWA 1.97 32 P 40 30.00 1.0
SKT 2.00 8 eP 40 28.29 -1.1
PWL 2.05 64 P 40 28.10 -2.0

SVW 2.06 304 eP 40 27.81 -2.6
PMR 2.15 41 eP 40 29.17 -2.3
KNK 2.27 50 eP 40 31.38 -1.9
KDC 2.28 185 eP 40 30.21 -3.1
GHO 2.35 40 eP 40 33.79 -0.6
CFI 2.44 59 eP 40 34.21 -1.3
CUT 2.56 19 eP 40 36.46 -0.8
SML 2.57 44 eP 40 36.33 -1.2
KLU 3.37 61 eP 40 46.02 -2.8
FBA 5.30 20 eP 41 12.64 -3.1
45 obs. associated

DEC 12, 1993 12h 17m 54.60± 0.79s
0.684 N ± 8.2km 100.344 E ±10.9km
DEPTH = 217.3 ± 8.3 km
4.6mb (6 obs.)
NORTHERN SUMATERA, INDONESIA (706)

KGM 3.26 66 iPd 18 49.50 0.9
0.5s 342.90nm
IPM 3.93 10 ePd 18 56.40 -0.3
0.9s 73.50nm
KSI 4.84 152 ePc 19 08.00 0.0
e 22 00.00
SNG 6.46 2 eP 19 28.20 -0.5
KOD 24.65 293 eP 23 06.00 8.5X
SHL 26.05 342 eP 23 09.50 -0.6
GBA 26.06 301 P 23 10.00 0.0
HYB 27.13 309 eP 23 19.50 -0.3
e 24 01.00
PKI 30.33 333 P 23 48.00 -0.4
GUN 30.41 334 P 23 49.00 -0.2
KKN 30.58 333 P 23 50.20 -0.2
GKN 31.05 332 P 23 54.60 0.1
NDI 35.55 324 iPd 24 33.00 0.2
WRA 39.11 124 P 25 03.20 0.5
0.7s 11.20nm 4.6mb
WB2 39.12 124 iPd 25 02.30 -0.5
0.3s 26.00nm 5.3mb
ASPA 40.60 129 iPc 25 14.50 -0.4
1.1s 5.60nm 4.0mb
FORT 40.90 142 eP 25 08.00 -9.2X
0.6s 18.00nm 4.7mb
STK 50.70 134 eP 26 33.40 -0.9
OBN 74.70 328 eP 29 11.70 -0.1
1.0s 25.00nm 4.9mb
BRG 87.19 321 iP 30 19.00 1.7
GEC2 87.27 319 ePKPd 30 18.70 0.8
1.3s 4.59nm 4.2mb
S.D. = 0.7 on 19 of 21 obs.

% DEC 12, 1993 12h 18m 42.09± 0.54s
44.783 N ± 5.4km 7.558 E ± 7.6km
DEPTH = 33.0km (normal)
NORTHERN ITALY (545)
ML 2.3 (GEN).

BHB 0.22 286 P 18 49.36 0.4
S 18 53.71
RSP 0.43 330 P 18 51.74 0.0
S 18 58.23
ROB 0.54 155 P 18 53.28 0.0
S 19 00.84
ENR 0.57 190 P 18 53.58 -0.2
S 19 01.16
STV 0.56 197 P 18 53.45 -0.3
S 19 00.43
FIN 0.74 141 P 18 55.95 -0.2
PCP 0.74 109 P 18 56.72 0.5
ORX 0.90 19 P 18 58.00 -0.5
S.D. = 0.4 on 8 of 8 obs.

& DEC 12, 1993 12h 52m 59.07s
60.082 N 153.025 W
DEPTH = 113.7km
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.03 222 eP 53 14.25 0.8
eS 53 27.18
ILIM 0.03 93 iPc 53 14.06 0.7
eS 53 26.85
RED 0.36 20 eP 53 15.12 -0.8
eS 53 28.01
RS2 0.40 19 eP 53 15.71 -0.6
RSO 0.40 19 eP 53 15.77 -0.5
RDW 0.42 15 eP 53 15.59 -0.7
REF 0.44 21 eP 53 15.76 -0.7
eS 53 29.01
OPT 0.44 194 eP 53 15.55 -0.7
eS 53 27.95
NCT 0.48 6 eP 53 15.89 -0.7
DFR 0.54 18 ePd 53 16.05 -0.9
PDB 0.66 244 iPd 53 16.80 -0.9
eS 53 31.01
AUL 0.73 197 eP 53 17.67 -0.7
eS 53 32.82
AUE 0.75 194 eP 53 18.01 -0.4
AUW 0.75 198 eP 53 17.70 -0.8
AUH 0.75 197 eP 53 17.91 -0.7
HOM 0.82 121 ePc 53 18.32 -0.7
XLV 0.91 133 eP 53 18.40 -1.6
BKG 1.06 20 iPd 53 20.75 -0.8
eS 53 38.15
CNPM 1.06 121 iPc 53 20.36 -1.2
eS 53 37.64
NKA 1.11 52 eP 53 22.61 0.7
CKL 1.17 17 iPd 53 21.98 -0.8
CKT 1.19 19 P 53 20.80 -2.2
CDD 1.20 196 eP 53 21.46 -1.6
eS 53 40.28
SPU 1.20 23 iPd 53 22.04 -1.1
eS 53 40.52
BGL 1.23 14 ePd 53 22.83 -0.6
CRP 1.26 19 iPd 53 22.53 -1.4
eS 53 41.98
CGLM 1.33 22 ePd 53 23.61 -1.0
NCG 1.39 17 eP 53 24.49 -0.9
SLKM 1.46 72 eP 53 24.41 -1.6
eS 53 43.83
SVW 1.64 310 iPc 53 26.46 -1.8
SUA 1.78 38 iPd 53 28.89 -1.2
eS 53 52.95
SEW 1.79 88 eP 53 28.15 -1.9
MPA 1.87 76 eP 53 29.17 -1.9
SKT 2.04 20 ePd 53 31.73 -1.5
PMS 2.07 54 P 53 31.70 -1.9
PWA 2.20 43 P 53 33.20 -2.1
KDC 2.36 173 eP 53 33.84 -3.5
PLRM 2.44 50 eP 53 35.18 -3.1
PMR 2.44 50 eP 53 36.64 -1.7
eS 54 03.16
PWL 2.45 69 eP 53 35.86 -2.7
KNK 2.61 57 eP 53 37.59 -3.1
GHO 2.62 48 eP 53 38.06 -2.9
CUT 2.68 29 eP 53 39.62 -2.0
MTU 2.70 90 eP 53 39.97 -1.9
CFI 2.82 65 eP 53 39.81 -3.6
SML 2.87 51 ePd 53 41.11 -3.1
HIN 3.27 82 eP 53 47.36 -2.2
SCM 3.29 55 eP 53 46.63 -3.2
HUR 3.33 28 eP 53 48.73 -1.6
VLZ 3.46 69 eP 53 48.73 -3.3
eS 54 28.14
TRF 3.62 20 eP 53 52.20 -2.2
KTH 3.62 15 eP 53 51.78 -2.6
CVA 3.65 80 eP 53 52.34 -2.3
KLU 3.76 65 eP 53 52.68 -3.5
RND 3.88 29 eP 53 55.22 -2.6
TOA 3.90 56 P 53 55.50 -2.6
DHY 4.04 40 eP 53 57.28 -2.8
MCK 4.14 26 eP 53 59.31 -2.1
TZL 4.19 59 eP 53 58.90 -3.0
SDG 4.36 53 eP 54 01.45 -2.9
HMT 4.38 83 eP 54 03.68 -0.9
BWN 4.43 21 eP 54 03.27 -2.0
PAX 4.63 48 eP 54 05.13 -3.0
GLB 4.72 69 eP 54 06.32 -3.0
NEA 4.87 20 eP 54 08.28 -3.0
CRQM 4.95 78 eP 54 09.81 -2.7
WRH 4.97 25 eP 54 09.39 -3.2
DDM 5.02 39 eP 54 12.03 -1.4
MLY 5.08 11 eP 54 11.85 -2.3
WAX 5.08 81 eP 54 11.53 -2.7
TGL 5.10 78 eP 54 11.65 -2.9
HDA 5.18 31 eP 54 12.08 -3.5
CCB 5.18 26 eP 54 12.07 -3.5
DJE 5.25 38 eP 54 14.01 -2.5
BALM 5.36 75 eP 54 15.26 -2.8
MDM 5.37 22 eP 54 15.23 -3.0
FBA 5.41 24 eP 54 15.18 -3.4
GLM 5.57 25 eP 54 17.77 -3.1
CTGM 5.84 76 eP 54 22.42 -2.4
PRP 6.45 29 eP 54 29.48 -3.6
YKA 18.43 66 P 57 22.90 15.0
0.6s 0.30nm
81 obs. associated

DEC 12, 1993 12h 54m 40.93± 0.25s
32.390 N ± 4.5km 87.221 E ± 4.3km
DEPTH = 33.0km (normal)
4.8mb (39 obs.) 4.4Msz (1 obs.)
XIZANG (306)

LSA 4.31 127 Pn 55 50.00 3.8X
Pg 55 59.00
Sn 56 42.00
GUN 4.61 195 P 55 52.10 1.6
KKN 4.88 201 P 55 55.30 1.1
GKN 4.91 208 P 55 55.50 1.0
PKI 5.05 199 P 55 57.60 0.9
SHL 7.93 148 eP 56 34.00 -3.0X
eS 58 52.00
NDI 9.38 249 eP 56 54.00 -2.9
0.8s 22.39nm 5.4mb
WMQ 11.42 2 P 57 25.50 0.7
1.5s 14.00nm 4.9mb
Z 10s 1.13um 7.4MszX
pP 57 31.40
sP 57 38.50
eS 59 36.50
KSH 11.52 311 eP 57 27.00 0.8
1.0s 32.00nm 5.5mb
Z 14s 2.98um 4.3Msz
CD2 14.17 92 eP 58 00.70 -0.6
Z 15s 1.77um
LZH 14.24 70 eP 58 09.50 7.1X
1.4s 36.00nm 4.8mb
Z 12s 2.21um 4.8Msz
eS 00 48.00
KMI 15.41 114 Pd 58 26.50 8.8X
1.4s 70.00nm 4.7mb
sP 58 28.50
S 01 26.00
KMI 15.41 114 Pd 58 16.50 -1.2
1.4s 70.00nm 4.7mb
pP 58 25.00
sP 58 28.50
HYB 16.84 210 eP 58 31.00 -4.9X
1.0s 50.00nm 4.6mb
CHTO 17.14 139 eP 58 39.00 -0.6
QUE 17.47 268 eP 58 41.80 -2.0
eS 04 34.50
GYA 17.93 104 P 58 48.00 -1.5
1.0s 71.00nm 4.8mb
Z 16s 2.05um 4.1MszX
N 10s 0.90um
E 10s 1.00um
S 02 12.00
XAN 18.23 79 P 58 51.50 -1.6
1.2s 13.00nm 4.0mb
Z 20s 1.21um 5.9Msz
POO 18.31 224 eP 58 53.50 -0.6
BOM 18.66 227 eP 58 25.80 -32.5X
eS 02 17.80
BTO 20.04 59 eP 59 14.00 0.0
N 13s 0.55um
E 15s 0.73um
NST 20.36 142 iPc 59 17.00 -0.4
GBA 20.73 208 P 59 20.00 -1.2
S 03 06.00
HHC 21.24 60 P 59 28.00 1.7
Z 14s 0.83um 4.3MszX
N 10s 0.39um
TIY 21.29 69 eP 59 26.70 -0.1
Z 12s 2.17um 4.8MszX
N 13s 1.75um
S 03 18.50
sS 03 28.00
WHN 23.19 87 ePd 59 50.00 4.3X
Z 20s 1.24um 4.4Msz
N 12s 1.06um
KOD 23.82 204 eP 59 54.00 1.8
BJI 24.50 64 eP 00 02.50 4.2X
1.8s 86.00nm 5.0mb
Z 12s 0.91um 4.5MszX
E 10s 0.71um
CN2 31.90 58 eP 01 05.90 0.5
0.8s 12.00nm 4.8mb
Z 13s 0.60um 4.5MszX
N 12s 0.56um

12d 13h

E 12s 0.24um
epP 01 12.00 21kmX
MAT 41.85 70 eP 02 30.00 0.6
1.2s 12.50nm 4.5mb
OBN 41.86 318 eP 02 30.00 0.8
1.5s 42.00nm 4.9mb
MLR 48.32 304 ePd 03 23.50 2.2
UPP 52.48 323 iP 03 52.90 0.4
HFS 54.44 324 eP 04 06.90 0.0
0.5s 4.60nm 4.7mb
Z 17s 0.15um 4.1MszX
LR 26 23.00
BRG 55.48 313 eP 04 15.40 0.8
NB2 55.58 325 P 04 15.10 -0.2
1.2s 30.80nm 5.2mb
GEC2 56.03 310 ePc 04 19.30 0.5
1.0s 5.19nm 4.5mb
e 04 23.30
e 04 29.20
e 04 33.60
KHC 56.05 311 eP 04 17.50 -1.3
1.0s 3.50nm 4.3mb
GRF 57.43 312 eP 04 29.50 0.9
CDF 60.27 311 eP 04 47.50 -0.9
0.9s 5.40nm 4.7mb
BSF 60.74 310 eP 04 50.70 -1.0
1.0s 4.60nm 4.6mb
HAU 60.98 311 eP 04 52.30 -0.8
1.3s 12.25nm 4.9mb
LPG 61.48 308 eP 04 56.60 -0.3
0.9s 4.10nm 4.6mb
LPL 61.49 308 eP 04 56.50 -0.4
1.0s 11.00nm 4.9mb
LOR 62.81 310 eP 05 04.20 -1.2
1.0s 6.00nm 4.7mb
LBF 62.83 310 eP 05 04.20 -1.4
1.1s 6.85nm 4.7mb
SMF 63.03 310 eP 05 05.90 -1.0
1.0s 7.60nm 4.8mb
SSF 63.10 310 eP 05 06.30 -1.0
1.0s 11.20nm 4.9mb
AVF 63.29 310 eP 05 07.90 -0.7
1.1s 8.80nm 4.8mb
TCF 64.21 310 eP 05 14.10 -0.6
1.0s 10.60nm 4.9mb
EKA 64.26 321 P 05 15.00 0.2
1.0s 22.50nm 5.2mb
WRA 68.85 132 P 05 44.20 -0.2
1.0s 1.90nm 4.1mb
WB2 68.85 132 iPd 05 43.80 -0.7
0.5s 5.40nm 4.9mb
ASPA 71.37 135 iPc 05 59.40 -0.4
1.0s 8.70nm 4.8mb
IMA 71.41 22 eP 06 00.40 0.8
1.0s 3.00nm 4.3mb
FBA 74.02 21 eP 06 16.20 1.4
1.5s 17.57nm 4.8mb
YKA 83.83 10 P 07 07.80 -0.2
0.9s 1.50nm 4.1mb
LKO 87.31 280 P 07 25.95 -0.1
1.1s 11.50nm 5.1mb
KIC 88.29 276 P 07 31.27 0.5
0.9s 20.50nm 5.4mb
TIC 88.37 277 P 07 31.55 0.4
1.1s 7.00nm 4.9mb
LIC 88.60 276 P 07 32.51 0.3
1.0s 5.50nm 4.8mb
SIV 146.95 292 PKP 14 19.80 -0.4
LPAZ 152.51 300 PKP 14 30.80 1.4
LPB 152.64 299 PKP 14 33.00 3.6X
CNCB 152.73 299 PKP 14 32.00 2.3
MOCB 153.43 288 PKP 14 32.40 2.0
S.D. = 1.1 on 57 of 66 obs.

DEC 12, 1993 12h 56m 07.84± 0.34s
37.028 N ± 2.8km 117.808 W ± 3.6km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 3.1 (GS).

BCKR 0.81 326 P 56 22.77 -1.3
WLHM 0.96 205 P 56 25.36 -1.5
BONR 1.01 337 eP 56 26.36 -1.2
MCSM 1.07 306 P 56 27.54 -1.2
VPEM 1.08 180 P 56 28.17 -0.5
RCWM 1.08 173 P 56 28.05 -0.7
MEMM 1.10 306 eP 56 27.73 -1.3
eS 56 40.20
TNP 1.15 24 eP 56 30.37 0.4
eS 56 44.95
WCHM 1.16 191 P 56 29.48 -0.8
NMC 1.19 184 P 56 30.13 -0.3
TOW 1.22 178 P 56 31.30 0.3
TPNV 1.25 93 ePc 56 33.27 1.6
WSHM 1.42 170 P 56 34.72 0.4
ISA 1.46 202 eP 56 34.03 -1.0
WBSM 1.51 190 P 56 35.95 0.1
FRI 1.52 269 P 56 34.41 -1.3
WOFM 1.66 206 P 56 37.61 -0.2
WJPM 1.70 199 P 56 38.20 -0.3
GSC 1.90 154 ePn 56 40.73 -0.6
PHBM 1.99 248 P 56 43.12 0.7
BMTC 1.99 199 P 56 44.06 1.4
KVN 2.03 354 ePn 56 44.34 1.0
ePg 56 45.37
ARVC 2.07 204 P 56 46.91 3.2X
PKEM 2.09 243 ePn 56 43.77 -0.2
PDRM 2.17 252 P 56 46.31 1.1
MSTM 2.24 294 P 56 47.30 1.1
CMB 2.28 297 ePn 56 46.66 -0.1
ePg 56 47.70
YEG 2.36 228 P 56 49.36 1.5
CRGC 2.36 222 P 56 49.77 1.8X
MARC 2.37 212 P 56 50.36 2.3X
PHAM 2.40 241 ePn 56 48.72 0.2
BMSM 2.42 262 P 56 51.60 2.8X
BRMM 2.42 266 P 56 50.27 1.5
ABL 2.46 208 ePn 56 49.59 0.2
BCH 2.60 226 ePn 56 50.91 -0.5
MNHM 2.64 296 P 56 53.58 1.8X
LRC 2.72 254 P 56 53.97 1.0
HJSM 2.81 267 P 56 56.82 2.6X
LTR 2.81 268 P 56 56.29 2.1X
SSK 2.81 178 ePn 56 54.45 0.0
BVYM 2.90 266 P 56 57.62 2.0X
ARN 2.99 277 ePn 56 58.12 1.3
PEC 3.17 170 ePn 56 59.19 -0.2
MSU 4.70 70 ePn 57 20.24 -1.2
ePg 57 37.45
DUG 5.03 50 (Pn) 57 26.34 0.4
S.D. = 1.0 on 37 of 45 obs.

? DEC 12, 1993 13h 58m 24.54± 1.16s
21.036 S ±14.4km 70.821 W ±10.0km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
NEAR COAST OF NORTHERN CHILE (122)

ARE 4.59 352 iPc 59 34.50 0.7
iS 00 21.50
MOCB 4.84 93 P 59 37.50 0.1
CNCB 4.99 33 P 59 38.80 -0.8
LPB 5.17 30 eP 59 42.00 -0.1
0.9s 211.76nm 5.6mb X
i 59 47.80
LPAZ 5.37 29 iPc 59 44.60 -0.4
CCH 5.73 51 P 59 50.80 1.0
NNA 10.69 326 eP 01 02.00 3.5X
0.8s 13.43nm 5.2mb X
eS 02 57.00
VAO 22.20 99 (P) 03 14.00 -5.8X
BDFB 22.29 80 eP 03 12.17 -8.6X
0.7s 6.94nm 4.2mb
ALQ 65.15 328 ePd 09 02.80 -2.0
1.0s 3.75nm 4.4mb
SRU 70.43 328 eP 09 38.68 0.9
RSSD 71.62 335 (P) 09 45.29 0.4
DAU 71.79 329 eP 09 47.56 1.4
YKA 90.17 341 P 11 21.30 -1.1
0.9s 2.90nm 4.6mb
S.D. = 1.1 on 11 of 14 obs.

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* DEC 12, 1993 14h 04m 08.62± 0.34s
52.263 N ± 6.5km 158.641 E ± 6.7km
DEPTH = 33.0km (normal)
4.9mb (39 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

PET 0.75 0 iPnd 04 29.50 6.7X
eS 04 41.50
SKR 2.25 226 iPnc 04 46.50 2.2
iS 05 11.90
YSS 11.58 249 ePn 07 00.00 5.6X
KUSJ 13.10 231 eP 07 11.00 -3.8X
ASAJ 13.41 239 eP 07 22.40 3.6X
MRRJ 15.41 237 eP 07 43.10 -1.9
YAK 18.32 313 iPd 08 22.40 0.9
0.9s 77.00nm 4.9mb
NIIJ 20.40 230 P 08 45.10 -0.1
MAT 21.34 231 iPc 08 54.60 -0.2
0.8s 23.88nm 4.7mb
CHJJ 21.37 228 P 08 55.40 0.3
MTMJ 21.49 231 P 08 56.70 0.2
ANM 22.14 42 eP 09 04.11 1.5
IIDJ 22.34 229 P 09 05.80 0.9
TSRJ 23.22 233 eP 09 14.20 0.8
TIK 23.47 337 eP 09 18.00 2.5
0.8s 19.00nm 4.7mb
WKYJ 24.47 232 P 09 26.60 1.0
YONJ 24.75 236 P 09 29.00 0.7
TKSJ 25.41 234 P 09 37.20 2.7
BOD 25.69 300 eP 09 38.40 1.5
TTA 25.97 48 eP 09 39.69 0.1
0.6s 3.86nm 4.2mb
PMR 29.21 51 eP 10 08.65 -0.2
0.6s 8.10nm 4.6mb
FBA 29.64 44 eP 10 12.04 -0.7
0.8s 6.66nm 4.5mb
KLU 30.75 51 (P) 10 22.11 -0.6
BALM 32.53 51 (P) 10 38.21 -0.1
NVS 42.86 305 eP 12 02.50 -2.4
DAG 51.23 359 iPd 13 09.90 -0.4
0.7s 19.86nm 5.2mb
ipP 14 23.90 357kmX
CHTO 56.87 258 eP 13 51.90 -0.5
GUN 58.10 275 P 14 00.00 -1.4
KKN 58.55 276 P 14 02.90 -1.5
0.6s 12.00nm 5.2mb
PKI 58.63 275 P 14 03.20 -1.9
GKN 58.79 276 P 14 03.50 -2.5
RSSD 60.61 55 eP 14 17.95 -0.5
0.7s 18.50nm 5.3mb
PV10 62.09 63 eP 14 28.82 0.3
PV08 62.16 62 eP 14 29.09 0.0
NB2 64.09 343 P 14 40.00 -1.1
0.5s 4.40nm 4.8mb
HFS 64.46 341 eP 14 41.40 -2.1
0.4s 8.50nm 5.2mb
EKA 71.72 349 P 15 29.00 0.3
LTX 71.78 66 eP 15 29.27 -0.4
PRU 73.67 337 eP 15 46.00 5.7X
e 16 20.50
GBA 73.99 272 P 15 41.00 -1.6
GEC2 74.94 337 ePd 15 47.30 -0.5
0.5s 1.20nm 4.1mb
WB2 74.96 204 iPd 15 46.20 -1.8
0.6s 9.60nm 5.0mb
SNF 75.32 343 P 15 50.30 0.5
DOU 75.67 343 P 15 52.20 0.4
KBA 76.67 336 iPc 15 57.60 -0.1
0.8s 14.00nm 5.1mb
CDF 76.77 341 iPc 15 57.90 -0.3
0.9s 9.00nm 4.8mb
HAU 77.35 341 iPc 16 01.10 -0.1
0.7s 7.05nm 4.8mb
BSF 77.42 341 eP 16 01.30 -0.5
0.8s 6.30nm 4.7mb
FLN 77.79 346 eP 16 02.90 -0.7
0.6s 6.05nm 4.8mb
LDF 77.90 346 iPc 16 03.90 -0.3
0.7s 6.40nm 4.8mb
GRR 78.21 346 iPc 16 05.90 0.0
0.8s 11.80nm 5.0mb
LOR 78.53 343 iPc 16 07.60 -0.1
0.6s 14.05nm 5.2mb
LPF 78.59 346 eP 16 08.20 0.2
0.7s 10.45nm 5.0mb
ASPA 78.64 203 iPc 16 08.30 -0.2
0.4s 15.80nm 5.4mb
LBF 78.78 343 iPc 16 08.80 -0.3
0.6s 6.05nm 4.8mb
SSF 78.79 343 iPc 16 09.20 0.1
0.6s 11.00nm 5.0mb
AVF 79.08 343 iPc 16 10.90 0.2
0.6s 14.80nm 5.2mb
SMF 79.13 343 iPc 16 11.10 0.1
0.8s 11.95nm 4.9mb
BGF 79.39 343 iPc 16 12.70 0.3
0.6s 12.10nm 5.1mb
LPL 79.65 340 iPc 16 14.80 0.7
0.6s 6.30nm 4.8mb

```
LPG     79.66 340 iPc    16 15.10    0.8
        0.6s      6.60nm          4.8mb
TCF     79.77 344 iPc    16 14.80    0.3
        0.7s     12.90nm          5.0mb
MAF     79.77 343 iPc    16 15.20    0.7
        0.5s     23.70nm          5.4mb
MFF     79.85 345 iPc    16 15.30    0.4
        0.7s      8.60nm          4.9mb
LSF     79.92 344 iPc    16 15.60    0.3
        0.8s     20.95nm          5.2mb
RJF     80.84 344 iPc    16 21.00    0.8
        0.6s      7.95nm          4.9mb
CAF     81.11 343 iPc    16 22.70    1.1
        0.4s      7.40nm          5.0mb
LFF     81.32 344 iPc    16 23.60    0.9
        0.8s     16.50nm          5.1mb
LPO     81.50 344 iPc    16 24.60    1.0
        0.5s     16.45nm          5.3mb
EPF     83.25 344 iPc    16 33.90    1.1
        0.6s      4.70nm          4.8mb
     S.D. = 1.1  on  65 of  70 obs.
------------------------------------
* DEC 12, 1993  14h 19m 21.77± 0.39s
   29.386 S ±15.1km  176.862 W ± 7.3km
   DEPTH =  37.5km  (  2 depth phases)
   5.3mb (  8 obs.)  5.1Msz (  2 obs.)
 KERMADEC ISLANDS REGION          (177)

RAO      0.93 278 iPc    19 39.20    0.7
AFI     16.11  18 eP     23 23.00   15.8X
DZM     16.70 292 iPc    23 19.00    4.3X
ARMA    27.29 260 eP     25 06.00    1.0
        1.0s     31.00nm          4.9mb
AFR     27.43  71 iPc    25 04.60   -1.5
PAE     27.53  71 iPc    25 07.30    0.3
PPT     27.58  71 iPc    25 07.10   -0.4
        1.3s    114.80nm          5.4mb
     Z  29s  2450.00um          7.6MszX
PPN     27.72  71 iPc    25 09.00    0.3
        1.5s    124.30nm          5.4mb
TVO     27.74  72 iPc    25 11.10    2.1
CNB     29.05 249 eP     25 24.20    3.5X
                  e      25 35.20   41km
CAN     29.34 249 eP     25 25.50    2.1
                  e      25 39.00   54kmX
                  i      25 46.20
VAH     30.38  69 iPc    25 31.10   -1.5
TPT     30.53  68 iPc    25 32.00   -1.9
STK     35.68 255 eP     26 17.00   -1.5
ASPA    44.16 265 iPc    27 26.60   -2.3
        0.8s     24.10nm          5.0mb
     Z  19s     4.40um          5.4Msz
                  iPP    29 20.50
FORT    47.27 254 eP     27 51.00   -2.4
CSY     56.50 208 eP     28 50.10  -12.0X
        0.5s      3.70nm
                  eP'P'  51 17.40
MBL     57.24 263 eP     29 04.30   -3.7X
SPA     60.78 180 iPc    29 32.30    0.1
        1.0s     70.00nm          5.7mb
CHJJ    77.20 325 P      31 13.60    0.1
IIDJ    77.31 324 P      31 15.30    1.1
MAT     77.98 324 eP     31 17.00   -0.8
        1.5s     41.67nm          5.2mb
MTMJ    78.22 324 P      31 19.40    0.2
SYO     78.34 193 ePc    31 21.20    1.9
NVL     79.94 183 P      31 40.00   12.1X
YSS     84.34 334 ePc    31 52.10    1.2
        1.0s     70.00nm          5.8mb
CMB     85.35  41 (P)    31 56.38    0.1
                  e      32 07.17   34km
IPM     85.37 278 ePc    31 56.00   -0.9
MSU     90.57  45 (P)    32 25.33    3.7X
RMW     91.11  34 (P)    32 25.42    1.8
SRU     91.96  45 (P)    32 31.04    3.2X
BJI     92.90 315 eP     32 33.50    1.6
        1.4s     20.00nm          5.4mb
     Z  20s     0.36um          4.8Msz
                  eS     43 52.00
FBA     96.67  12 eP     32 49.60    1.0
LPAZ    97.65 113 (P)    32 56.59    1.6
YKA    104.11  25 Pdiff  33 35.70   13.6X
        0.8s      0.70nm
GRO    143.41 304 ePKP   38 51.00   -2.8
        1.0s    110.00nm
KAF    143.91 342 ePKP   38 50.50   -3.6X
MOS    144.04 327 ePKP   38 54.00   -0.5
                  e      39 03.00
PUL    144.48 337 ePKPd  38 55.00   -0.1
        1.7s    210.00nm
                  e      39 05.00
ERE    144.65 299 iPKP+  38 55.00   -1.2
        1.3s     26.00nm
OBN    144.88 327 iPKPc  38 55.00   -0.9
        1.9s    378.00nm
                  e      39 08.00
UQSK   145.16 274 iPKPc  38 57.87    0.4
PYA    145.18 306 iPKP   38 55.90   -1.0
        1.3s    300.00nm
KIV    145.45 306 iPKP   38 57.80    0.3
        1.4s    226.00nm
                  e      39 08.00
NUR    145.69 341 iPKP   38 57.80    0.7
        0.8s     73.30nm
NB2    147.89 353 PKP    39 04.50    3.7X
        1.1s     35.70nm
UPP    147.98 346 iPKP   39 03.60    2.8X
HFS    148.43 350 ePKP   39 05.70    4.1X
        0.5s      4.40nm
MNK    149.74 331 ePKP   39 08.00    4.3X
WAJH   150.31 272 ePKP   39 12.00    6.5X
AYN    151.34 277 iPKPc  39 14.67    7.7X
BHL    152.02 288 PKP    39 13.00    5.0X
SRFA   152.05 277 ePKP   39 16.33    8.3X
BADA   152.15 276 ePKP   39 16.67    8.5X
KAS    152.46 304 ePKP   39 16.50    8.2X
OJC    155.68 333 ePKP   39 08.40   -4.0X
                  e      39 14.20
                  i      39 30.00
                  i      39 40.20
UZH    155.81 328 ePKP   39 13.00    0.4
KIC    155.92 160 PKP    39 28.46   14.7X
KSP    156.39 339 ePKP   39 24.80   11.5X
        1.3s     41.00nm
                  i      39 43.40
                  i      39 54.70
CLL    156.89 344 ePKP   39 30.00   16.1X
                  i      39 44.70
BRG    157.05 342 ePKP   39 14.00   -0.1
                  i      39 46.10
ZST    158.35 334 ePKP   39 16.40    0.6
                  e      39 51.40
KHC    158.73 341 ePKP   39 16.50    0.3
                  e      39 25.00
                  e      39 39.00
PAB    168.14  29 ePKP   39 42.00   16.7X
     S.D. = 1.3  on  39 of  64 obs.
------------------------------------
* DEC 12, 1993  14h 39m 02.40± 0.91s
   14.194 N ±13.2km   92.836 W ± 9.2km
   DEPTH =  33.0km  (normal)
   4.8mb (  6 obs.)  4.4Msz (  1 obs.)
 NEAR COAST OF CHIAPAS, MEXICO    ( 69)

TPX      0.90  38 iP     39 19.50    0.8
                  iS     39 35.00
SCX      2.53   4 eP     39 43.50    1.4
                  iS     40 17.00
OXX      4.72 308 iP     40 14.00    0.7
                  (S)    41 04.50
IISM     6.45 318 (P)    40 38.64    1.0
LVVM     6.51 328 (P)    40 26.00  -12.3X
ACX      7.27 292 (P)    40 40.50   -8.6X
PPM      7.37 312 iP     40 51.50    0.6
UNM      7.94 311 (P)    41 10.50   11.8X
CRX      8.35 309 (P)    41 05.50    1.0
LTX     18.10 328 eP     43 13.60    0.5
UYO     19.94 356 iPc    43 31.00   -3.5X
TUL     21.79 354 iPd    43 54.50    1.1
MYNC    22.22  19 (P)    43 57.67   -0.1
SDV     22.38 101 eP     44 01.50    1.9
JSC     22.58  26 (P)    43 59.59   -1.6
LHS     22.94  26 (P)    44 03.47   -1.3
TOV     22.96  98 eP     44 06.70    1.5
ALQ     24.04 332 eP     44 13.20   -2.5
        1.0s      8.25nm          4.2mb
YKA     50.65 347 P      47 58.70   -1.6
        0.8s      9.10nm          4.8mb
FBA     62.75 337 eP     49 24.72   -1.7
        0.8s      2.03nm          4.3mb
LKO     85.06  81 P      51 36.05   -0.7
        0.8s      9.50nm          5.0mb
TIC     86.29  84 P      51 42.35   -0.5
LIC     86.38  85 PKP    51 43.05   -0.3
        0.7s      6.50nm          4.9mb
     Z  20s     0.16um          4.4Msz
KIC     86.63  84 PKP    51 44.19   -0.3
        0.6s     12.50nm          5.3mb
GBA    150.75  20 PKP    58 53.00    5.0X
     S.D. = 1.3  on  20 of  25 obs.
------------------------------------
% DEC 12, 1993  14h 59m 23.62± 1.25s
   13.693 N ±14.7km  123.063 E ±13.9km
   DEPTH =  33.0km  (normal)
 LUZON, PHILIPPINE ISLANDS        (249)

PGP      2.06 265 ePc    59 55.00   -1.6
                  eS     00 22.00
TGY      2.11 281 iPd    59 59.00    1.7
                  iS     00 28.00
QVP      2.20 295 eP     59 58.80    0.2
                  eS     00 25.20
PLP      3.13 143 ePc    00 12.00    0.2
CVP      4.16 343 eP     00 26.00   -0.5
                  eS     01 21.00
PPR      5.76 228 ePd    00 44.00   -5.0X
     S.D. = 1.7  on   5 of   6 obs.
------------------------------------
? DEC 12, 1993  15h 18m 42.22± 1.65s
   30.513 S ±28.6km  176.437 W ±25.3km
   DEPTH =  33.0km  (normal)
   4.8mb (  4 obs.)
 KERMADEC ISLANDS REGION          (177)

RAO      1.80 314 iPd    19 04.00   -7.4X
                  S      19 38.20
DZM     17.49 295 iPc    22 44.10   -1.1
ARMA    27.48 262 eP     24 30.00    2.4
STK     35.77 257 eP     25 42.40    2.2
LAT     41.69 297 eP     26 29.80    0.2
ASPA    44.45 266 iPd    26 51.30   -0.8
        0.7s      7.40nm          4.6mb
WB2     45.44 271 eP     26 58.60   -1.4
        0.6s     12.20nm          5.0mb
WRA     45.45 271 P      26 59.30   -0.8
        0.7s      5.20nm          4.6mb
CSY     55.68 208 eP     28 15.40   -1.7
        0.7s     22.90nm          5.3mb
KAF    145.09 341 ePKP   38 17.00   -0.1
OBN    146.02 326 ePKP   38 20.00    1.2
        2.0s    144.00nm
NUR    146.87 341 iPKP   38 22.60    2.6X
        0.7s     14.00nm
NB2    149.05 353 PKP    38 29.20    5.6X
        0.8s      3.30nm
HFS    149.61 350 ePKP   38 29.40    5.0X
        0.4s      1.20nm
     S.D. = 1.7  on  10 of  14 obs.
------------------------------------
* DEC 12, 1993  15h 33m 34.06± 0.39s
    4.152 S ± 6.7km  135.007 E ± 7.7km
   DEPTH =  33.0km  (normal)
   4.9mb ( 12 obs.)  4.4Msz (  2 obs.)
 IRIAN JAYA REGION, INDONESIA     (196)

SWI      4.97 311 ePd    34 40.50   -7.9X
WWKK     8.61  87 e(P)   35 39.00   -0.5
MNDI     8.84 103 eP     35 42.00   -0.8
KNA     13.06 208 eP     36 39.80   -0.1
        1.0s    345.00nm          6.4mb X
PMG     13.14 114 eP     36 40.70   -0.4
CTB     15.60 316 ePd    37 14.00    0.7
WB2     15.71 182 iPd    37 12.40   -2.3
        0.7s     26.80nm          4.5mb
                  i      37 20.20
                  eS     40 00.90
QIS     16.91 165 eP     37 28.20   -1.7
                  eS     40 30.00
TSM     19.06 296 eP     37 56.00   -0.5
ASPA    19.43 183 iPc    38 02.20    1.4
        0.8s    179.80nm          5.4mb
     Z  18s     1.10um          6.9MszX
                  iS     41 30.30
PPR     21.32 311 ePc    38 26.00    5.5X
MBL     22.43 220 eP     38 35.00    3.4X
WARB    23.33 199 iPc    38 44.20    3.9X
        0.5s     14.00nm          4.7mb
FORT    27.28 193 eP     39 20.50    3.0X
STK     28.27 168 eP     39 28.30    1.8
                  eS     44 59.80
ARMA    30.48 151 eP     39 47.50    1.1
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12d 15h

1.0s 13.00nm 4.7mb
ADE 30.85 174 eP 39 52.00 2.4
WHN 39.75 332 eP 41 09.00 3.5X
CHTO 42.21 304 iPc 41 25.50 -0.4
1.1s 12.07nm 4.5mb
XAN 45.27 329 P 41 50.00 -0.5
1.0s 6.30nm 4.5mb
TIY 46.64 335 eP 42 02.60 1.3
Z 21s 0.76um 4.6Msz
BJI 47.26 340 eP 42 08.50 2.4
1.2s 16.00nm 4.9mb
Z 20s 0.30um 4.3Msz
CN2 48.50 351 eP 42 15.00 -0.7
LZH 49.52 327 eP 42 24.00 0.1
1.8s 33.00nm 5.1mb
HHC 49.66 337 eP 42 23.60 -1.2
Z 25s 0.69um 4.6MszX
GTA 54.13 327 eP 42 58.00 -0.4
GUN 57.04 307 P 43 19.20 -0.7
0.8s 23.00nm 5.3mb
PKI 57.26 307 P 43 20.60 -0.9
KKN 57.46 307 P 43 22.20 -0.6
1.0s 28.00nm 5.3mb
GKN 58.07 307 P 43 26.00 -0.9
0.8s 20.00nm 5.2mb
HYB 59.68 293 ePd 43 37.00 -1.1
GBA 59.78 288 P 43 39.00 0.2
WMQ 63.90 324 P 44 05.50 -0.6
1.0s 11.00nm 4.9mb
pP 44 11.00 18kmX
YAK 66.11 357 eP 44 21.20 1.4
e 48 14.80
QUE 73.34 303 eP 45 06.50 1.5
ARE 146.75 129 ePKP 53 21.00 7.1X
MOCB 147.64 142 PKP 53 21.70 6.3X
CNCB 149.18 133 PKP 53 26.00 7.9X
LPB 149.27 133 PKP 53 29.30 11.2X
LPAZ 149.41 132 PKP 53 25.30 6.8X
CCH 150.11 136 PKP 53 26.00 6.8X
SIV 154.43 142 PKP 53 38.50 13.5X
S.D. = 1.3 on 29 of 42 obs.

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* DEC 12, 1993 15h 43m 04.38± 0.77s
37.299 N ±11.1km 138.259 E ±16.0km
DEPTH = 196.1 ± 8.2 km
4.5mb (8 obs.)
NEAR WEST COAST OF HONSHU, JAPAN(226)

MAT 0.76 183 iPd 43 32.40 -0.1
iS 43 53.30
YAK 25.31 351 eP 48 14.90 0.7
0.7s 32.00nm 5.1mb
GUN 44.62 274 P 50 59.30 0.0
0.5s 26.00nm 5.0mb
PKI 45.15 274 P 51 03.30 -0.1
KKN 45.15 274 P 51 03.50 0.2
0.6s 28.00nm 4.9mb
GKN 45.57 274 P 51 06.70 0.1
WRA 57.05 184 P 52 32.30 0.3
0.4s 1.20nm 4.0mb
GBA 58.73 263 P 52 44.00 0.1
KAF 66.90 332 iP 53 36.90 -0.1
0.4s 2.40nm 4.3mb
NUR 68.51 331 iP 53 46.90 0.0
0.3s 3.50nm 4.6mb
NB2 72.95 336 P 54 13.20 -0.3
0.5s 3.00nm 4.3mb
GEC2 81.13 327 eP 54 58.20 -0.7
0.5s 0.68nm 3.6mb
e 55 00.90
S.D. = 0.4 on 12 of 12 obs.

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* DEC 12, 1993 16h 10m 05.41± 0.88s
33.675 N ±15.9km 71.753 E ±10.3km
DEPTH = 33.0km (normal)
4.0mb (4 obs.)
PAKISTAN (710)

QUE 5.36 231 eP 11 24.50 -0.9
eS 12 24.50
NDI 6.83 135 ePn 11 47.40 1.5
GKN 12.43 114 P 13 03.10 0.1
0.4s 14.00nm 5.4mb X
KKN 13.03 113 P 13 10.00 -1.0
PKI 13.23 114 P 13 12.20 -1.6
GUN 13.43 112 P 13 15.30 -1.1
HFS 45.68 324 eP 18 23.60 -1.0

0.4s 1.00nm 4.1mb
WRA 79.97 122 P 22 14.90 1.8
0.5s 0.60nm 3.8mb
WB2 79.98 122 eP 22 14.40 1.3
0.5s 2.80nm 4.5mb
YKA 84.03 3 P 22 34.20 0.8
0.8s 0.40nm 3.6mb
S.D. = 1.4 on 10 of 10 obs.

DEC 12, 1993 17h 03m 19.34± 0.13s
0.317 N ± 2.6km 125.939 E ± 3.3km
DEPTH = 23.0km (12 depth phases)
5.8mb (81 obs.) 5.5Msz (32 obs.)
NORTHERN MOLUCCA SEA (266)
Mw 5.9 (GS), 5.9 (HRV).
Mo=4.7*10**17 Nm (PPT).
RADIATED ENERGY
No. of sta: 9 Focal mech. M
Energy 4.2±0.8*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 34 No. of sta: 7
Moment Tensor; Scale 10**17 Nm
Mrr= 6.91 Mtt=-0.45
Mff=-6.46 Mrt=-0.65
Mrf= 1.33 Mtf=-1.82
Principal axes:
T Val= 7.13 Plg=81 Azm=225
N -0.08 8 14
P -7.06 5 105
Best Double Couple:Mo=7.1*10**17
NP1:Strike=203 Dip=41 Slip= 102
NP2: 8 50 80
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 44S, 98C
Centroid Location:
Origin Time 17:03:28.9 0.2
Lat 0.74N 0.02 Lon 125.90E 0.02
Dep 37.0 BDY Half-duration 2.6
Moment Tensor; Scale 10**17 Nm
Mrr= 7.71 0.16 Mtt=-0.67 0.19
Mff=-7.04 0.27 Mrt=-2.54 0.32
Mrf=-2.42 0.31 Mtf=-2.21 0.17
Principal Axes:
T Val= 8.62 Plg=75 Azm=154
N -0.29 10 22
P -8.33 11 290
Best Double Couple:Mo=8.5*10**17
NP1:Strike= 7 Dip=35 Slip= 72
NP2: 209 57 102

SWI 5.45 102 ePd 04 39.00 -2.2
DAV 6.74 357 ePc+ 05 05.00 5.6X
CTB 7.05 346 ePd 05 06.00 2.1
BIP 7.86 2 eP 05 15.50 0.3
CGP 8.18 351 eP 05 23.00 3.4X
TSM 8.97 296 ePc 05 31.00 0.4
MAP 10.13 349 iPd 05 52.00 5.4X
PLP 10.82 355 ePc 05 57.50 1.5
KKM 11.25 301 ePc 06 10.70 8.7X
0.9s 133.60nm 6.2mb
PPR 11.82 323 ePc 06 16.00 6.4X
eS 07 15.00
PGP 14.00 340 ePd 06 44.00 5.3X
TGY 14.57 340 eP 06 51.00 4.9X
QVP 15.03 341 eP 06 55.30 3.2X
KNA 16.21 170 eP 07 07.80 0.5
1.2s 958.00nm 5.8mb
BAG 16.84 342 ePd- 07 18.00 2.4
1.2s 93.75nm 4.8mb
eS 10 24.00
CVP 17.75 347 ePd 07 28.20 1.5
WWKK 18.10 103 eP 07 32.50 1.3
MNDI 18.82 110 eP 07 42.00 1.8
MDG 20.57 106 eP 07 59.50 0.1
WB2 21.76 158 iPc 08 09.80 -1.6
1.2s 220.20nm 5.5mb
ipP 08 14.60 17km
ePP 08 26.50
eS 12 05.10
LAT 22.13 109 eP 08 14.10 -1.1
MBL 22.16 195 iPc 08 15.30 -0.2
KGM 22.68 274 eP 08 23.00 2.4
GUMO 22.92 54 ePc 08 22.02 -0.9
0.8s 39.16nm 5.0mb
PJG 22.92 54 e(P) 08 23.60 0.7
GUA 22.93 54 e(P) 08 23.50 0.4

0.8s 268.66nm 5.8mb
PMG 23.23 115 ePc 08 25.36 -0.6
1.7s 711.37nm 5.9mb
KSI 23.66 260 e(P) 08 30.50 0.4
e 10 25.00
QIZ 24.40 321 Pc 08 39.00 1.7
N 11s 1.36um
E 15s 3.94um
QIZ 24.40 321 (P) 08 34.81 -2.5
N 11s 1.36um
E 15s 3.94um
KLM 24.44 277 eP 08 39.00 1.3
HKC 24.68 333 eP 08 40.10 0.2
S 13 04.00
QIS 24.68 148 iPc 08 39.70 -0.3
iPcP 12 18.40
TATO 24.89 350 eP 08 42.51 0.6
0.6s 65.05nm 5.4mb
KVG 25.03 97 eP 08 44.00 0.6
ASPA 25.06 163 iPc 08 43.50 -0.2
1.0s 312.50nm 5.9mb
iPcP 12 18.70
eS 13 08.70
iPcS 15 56.00
iScS 19 44.00
IPM 25.24 280 ePc 08 45.20 -0.3
e 12 20.80
QZH 25.49 344 eP 08 48.50 0.8
Z 24s 9.43um 5.2MszX
S 13 16.00
GZH 25.73 332 P 08 48.80 -1.1
1.2s 150.00nm 5.5mb
Z 22s 4.53um 5.0Msz
N 20s 4.74um
E 21s 6.05um
SNG 26.16 286 eP 08 54.00 0.0
eS 13 20.80
e 19 49.00
WARB 26.35 179 eP 08 56.00 0.3
RAB 26.58 100 iPc 08 58.00 0.1
iS 13 34.00
MEEK 27.71 194 iPc 09 07.20 -0.9
1.0s 164.00nm 5.7mb
CTAO 28.41 137 eP 09 14.16 -0.3
1.1s 109.25nm 5.5mb
LOE 29.26 307 eP 09 22.00 -0.1
i 12 29.10
i 14 25.00
NST 29.69 302 eP 09 26.50 0.5
KHT 30.62 299 eP 09 33.00 -1.3
MRWA 30.87 197 iPc 09 35.20 -1.1
1.0s 298.00nm 6.1mb
SSE 30.94 352 Pd 09 37.50 0.6
0.8s 10.00nm 4.7mb X
Z 24s 6.40um 5.2MszX
N 14s 1.30um
E 14s 0.70um
pP 09 48.00 38kmX
S 14 36.00
sS 14 56.00
FORT 30.99 176 iPd 09 36.80 -0.5
0.8s 151.00nm 5.9mb
KAGJ 31.06 8 P 09 37.80 -0.1
COOL 31.36 188 eP 09 39.00 -1.6
BDT 31.40 304 eP 09 41.00 -0.1
0.8s 98.60nm 5.7mb
GYA 31.94 326 P 09 45.60 -0.3
1.0s 89.00nm 5.6mb
Z 28s 5.49um 5.1MszX
N 16s 3.13um
E 16s 1.69um
PP 10 48.00
PcP 12 36.60
S 14 48.00
SS 16 44.00
ScS 20 16.00
BAL 31.98 195 eP 09 44.50 -1.6
WHN 32.01 341 Pd 09 46.00 -0.3
1.2s 67.00nm 5.4mb
Z 24s 7.40um 5.3MszX
N 21s 5.56um
PcP 12 35.50
eS 14 52.00
CHTO 32.25 306 (P) 09 47.82 -0.7
NJ2 32.27 349 Pc 09 49.40 0.9
Z 24s 4.26um 5.1MszX
N 20s 3.94um

E 14s 1.09um
S 15 04.00
KUMJ 32.38 8 P 09 48.90 -0.6
KLB 32.67 193 iPc 09 51.00 -1.0
0.8s 91.00nm 5.8mb
KMI 33.33 319 (P) 09 58.03 -0.1
1.5s 32.00nm 5.0mb
Z 32s 10.20um 5.3MszX
N 15s 2.70um
pP 10 04.00 20km
MUN 33.41 195 eP 09 57.60 -0.9
1.2s 234.00nm 6.0mb
ENH 33.65 334 eP 09 59.07 -1.5
ec 10 05.52 22km
SHNJ 33.98 8 eP 10 03.10 -0.2
NWAO 34.07 193 (P) 10 03.53 -0.7
1.1s 228.70nm 6.0mb
TKSJ 34.34 12 P 10 06.60 0.1
SHK 34.62 10 eP 10 08.60 -0.3
WKYJ 34.92 14 P 10 11.50 0.0
STK 35.29 157 iPc 10 13.60 -1.0
ipP 10 29.20 61kmX
ePP 11 32.30
iPcP 12 44.40
iS 15 45.00
YONJ 35.40 11 P 10 15.80 0.3
RKG 35.70 193 iPd 10 19.20 1.1
TSRJ 36.27 14 P 10 23.30 0.4
TIA 36.64 348 eP 10 25.30 -0.7
Z 32s 4.66um 5.1MszX
IIDJ 36.72 16 P 10 26.70 -0.1
CD2 37.00 327 iPd 10 28.30 -0.8
1.2s 190.00nm 5.8mb
Z 32s 7.14um 5.3MszX
N 20s 6.19um
ADE 37.08 162 iPc 10 30.10 0.3
XAN 37.15 336 ePc 10 28.70 -1.7
1.0s 45.00nm 5.2mb
Z 25s 6.84um 5.3MszX
N 18s 3.37um
E 18s 2.69um
ec 10 35.07 21km
CHJJ 37.57 17 P 10 32.50 -1.3
MTMJ 37.73 16 P 10 35.00 -0.3
MAJO 37.80 16 ePc 10 34.50 -1.3
0.8s 101.02nm 5.7mb
MAT 37.80 16 iPc 10 34.40 -1.4
1.5s 319.44nm 5.9mb
Z 20s 3.90um 5.2Msz
eS 16 21.00
KAKJ 38.08 19 P 10 35.20 -2.9
DL2 38.61 355 P 10 43.30 0.8
1.0s 250.00nm 5.9mb
Z 23s 3.31um 5.1MszX
E 24s 1.80um
S 16 35.00
NIIJ 38.67 17 P 10 41.80 -1.3
ARMA 39.13 144 iPc 10 47.10 -0.1
0.8s 42.00nm 5.2mb
TIY 39.24 343 Pd 10 47.50 -0.4
1.0s 60.00nm 5.3mb
Z 27s 8.10um 5.4MszX
N 23s 7.02um
sP 10 59.00
YAMJ 39.84 17 P 10 53.50 0.7
BJI 40.53 348 ePc 10 57.67 -0.7
1.2s 98.00nm 5.4mb
Z 32s 5.38um 5.2MszX
N 20s 2.13um
ec 11 05.20 25km
LZH 41.09 332 Pd 11 03.80 0.6
1.4s 250.00nm 5.8mb
Z 26s 6.49um 5.4MszX
E 16s 1.72um
PcP 13 03.50
ScP 16 53.00
PcS 16 54.50
esS 17 34.00
SS 20 16.00
ScS 21 06.50
OFUJ 41.18 19 P 11 04.10 0.3
SHL 41.35 310 iP 11 04.80 -0.8
iS 17 14.00
SNY 41.38 357 iPc 11 05.00 -0.3
1.2s 580.00nm 6.2mb
Z 26s 4.44um 5.2MszX
S 17 15.00

ScS 21 08.00
CAN 41.47 151 iPc 11 06.70 0.4
i 11 34.50 122kmX
i 13 04.70
CNB 41.65 151 iPd 11 08.70 1.0
1.2s 114.00nm 5.5mb
HHC 42.40 344 Pd 11 14.00 0.1
1.0s 290.00nm 6.0mb
Z 36s 8.36um 5.4MszX
N 18s 1.53um
E 15s 0.80um
PP 12 56.00
BTO 42.63 342 P 11 15.00 -0.8
N 21s 2.58um
E 18s 0.94um
ePP 12 52.50
VLA 42.95 6 iPc 11 19.00 0.8
1.0s 475.00nm 6.2mb
i 11 27.00 27km
i 13 06.00
iPPP 13 34.00
iS 17 41.00
iSS 21 09.00
CN2 43.30 359 Pc 11 20.40 -0.6
1.0s 48.00nm 5.2mb
Z 28s 2.42um 5.0MszX
N 20s 1.33um
E 20s 2.35um
ePcP 13 09.50
eS 17 42.00
MRRJ 44.08 16 eP 11 28.20 0.9
LSA 44.17 315 eP 11 28.72 -0.2
1.2s 100.00nm 5.5mb
Z 35s 5.32um 5.2MszX
E 12s 0.79um
S 17 57.00
MDJ 44.23 4 ePc 11 29.02 0.5
1.1s 190.00nm 5.9mb
Z 30s 5.32um 5.3MszX
ed 11 34.32 18km
eS 17 57.00
HOOJ 44.69 18 eP 11 30.50 -1.8
BKM 45.29 115 iPc 11 33.20 -4.3X
DZM 45.31 122 iPc 11 38.10 0.3
GTA 45.65 332 eP 11 40.00 -0.2
1.2s 76.00nm 5.5mb
Z 24s 9.01um 5.6MszX
E 15s 1.60um
pP 11 46.00 20km
sP 11 48.60
PcP 13 18.80
PP 13 33.00
ScP 17 11.00
PcS 17 11.20
S 18 25.00
ScS 21 35.00
SS 21 42.00
KUSJ 45.79 19 eP 11 41.80 0.7
ASAJ 46.08 17 eP 11 44.10 0.8
GUN 47.17 309 P 11 51.60 -1.0
PKI 47.37 308 P 11 52.60 -1.7
KKN 47.58 309 P 11 54.50 -1.2
GKN 48.18 308 P 11 59.00 -1.4
KUR 48.75 21 eP 12 04.00 -0.2
1.0s 230.00nm 6.2mb
YSS 48.77 15 ePc 12 02.20 -2.1
HIA 49.05 355 ePc 12 06.67 0.1
ec 12 08.82 7kmX
ed 12 12.13
KOD 49.19 283 eP 12 07.40 -1.1
HYB 49.61 293 ePd 12 10.00 -1.3
1.0s 240.00nm 6.2mb
GBA 49.80 288 P 12 11.00 -1.8
CIT 52.54 350 eP 12 34.00 0.9
ZAK 53.49 342 eP 12 39.30 -0.7
1.4s 78.00nm 5.5mb
Z 18s 1.03um 4.9Msz
N 20s 1.30um
E 18s 2.02um
e 13 46.00 311kmX
eS 20 10.00
POO 54.22 293 iPd 12 46.00 0.0
1.0s 50.00nm 5.5mb
NDI 54.39 306 iPd 12 45.00 -2.1
0.8s 82.09nm 5.8mb
WMQ 55.09 327 Pd 12 51.00 -1.1
1.0s 98.00nm 5.8mb

Z 28s 4.65um 5.4MszX
E 17s 1.58um
pP 12 59.00 26km
sP 13 02.50
PcP 13 55.00
ScP 17 50.00
S 20 24.00
ScS 22 36.50
BOM 55.26 293 eP 12 54.00 0.5
eS 20 29.00
UER 57.69 337 iPc 13 09.00 -1.4
1.5s 188.00nm 5.9mb
iS 21 00.00
BOD 58.12 353 iPc 13 12.80 -0.5
1.7s 300.00nm 6.1mb
MSZ 58.23 146 P 13 13.90 -0.3
0.7s 73.00nm 5.8mb
PET 59.15 22 eP 13 20.00 -0.5
1.3s 191.00nm 6.1mb
Z 20s 1.50um 5.1Msz
e 21 28.00
e 25 16.00
EWZ 59.24 143 eP 13 21.20 -0.1
0.8s 44.00nm 5.6mb
NIL 59.43 310 iPd 13 24.30 1.5
0.5s 0.04nm 2.8mb X
iS 22 09.70
KSH 59.90 317 P 13 26.00 -0.1
1.1s 90.00nm 5.8mb
Z 28s 3.61um 5.4MszX
E 18s 3.62um
PcP 14 15.00
PP 15 38.50
ScP 18 07.00
PcS 18 15.00
ScS 23 07.00
MRW 60.43 139 P 13 27.20 -2.3
URZ 60.65 135 P 13 29.20 -1.8
WAHZ 60.78 137 P 13 30.30 -1.7
PAHZ 60.88 136 P 13 31.40 -1.3
MCQ 61.01 159 iPc 13 33.60 0.4
YAK 61.61 2 iPc+ 13 37.20 0.1
1.0s 745.00nm 6.8mb X
Z 22s 1.30um 5.0Msz
N 22s 0.90um
E 22s 1.80um
ipP 13 52.00 54kmX
i 15 53.00
iS 21 59.00
i 23 26.00
FRU 62.39 320 eP 13 42.00 -0.8
Z 28s 2.50um 5.2MszX
E 28s 4.50um
i 14 14.00 132kmX
e 22 10.00
QUE 63.33 304 eP 13 49.20 -0.3
eS 22 17.50
CSY 67.37 187 iPd 14 04.10 -10.4X
0.9s 100.40nm
DRV 67.58 174 eP 14 20.00 4.1X
S 23 27.00
PAF 68.65 215 eP 14 32.00 9.2X
eS 23 42.00
ADK 70.22 34 iPd 14 32.51 0.1
0.9s 31.25nm 5.4mb
MAIO 70.97 308 eP 14 37.00 -0.5
0.9s 31.97nm 5.5mb
eS 23 52.00
TIK 71.23 1 iPd+ 14 37.00 -1.1
1.2s 250.00nm 6.2mb
Z 19s 1.80um 5.4Msz
i 14 45.00 26km
i 14 51.00
i 17 22.00
iS 23 51.00
iPS 24 37.00
ASH 72.26 310 eP 14 45.00 0.0
SHI 75.45 300 eP 15 03.00 -1.0
SVE 76.44 329 iPc 15 08.00 -0.8
1.4s 560.00nm 6.4mb
Z 18s 1.00um 5.2Msz
N 18s 0.50um
E 18s 0.80um
e 18 09.00
eS 24 42.00
HON 76.90 68 P 15 20.00 8.0X
Z 21s 4.06um 5.7Msz

12d 17h

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ARU    77.36 328 ePd   15 13.00  -0.9
        1.0s   200.00nm          6.1mb
     Z  20s     1.00um           5.1Msz
     E  20s     1.00um
                 e     15 21.00  26km
                 e     15 30.00
                 eS    24 56.00
                 e     25 13.00
                 e     25 25.00
                 e     25 52.00
CRZF   79.29 223 eP    15 30.00   5.3X
                 ePP   19 51.00
                 eS    25 21.00
                 eSS   30 42.00
MAW    80.30 200 iPd   15 30.50   0.8
        1.5s    90.60nm          5.6mb
     Z  23s     2.90um           5.6MszX
                 iSKS  25 38.10
                 i     26 47.40
SDN    80.44  34 eP    15 30.52  -0.1
        0.5s   113.14nm          6.2mb
ANM    80.68  24 (P)   15 32.70   0.9
TAB    81.62 308 iP+   15 39.00   1.6
KMSA   81.87 290 iPc   15 38.67  -0.2
GRO    82.69 314 iPc   15 44.00   1.4
        1.0s   440.00nm          6.5mb
     Z  13s     1.00um           5.4MszX
     N  16s     3.00um
     E  20s     2.00um
                 eS    25 59.00
DHJN   82.71 288 iPc   15 44.67   1.1
MTA    83.17 312 iPc   15 45.60   0.5
        0.8s   200.00nm          6.3mb
                 eS    26 03.00
ARO    83.17 281 eP+   15 46.00   0.3
ERE    83.25 310 iP+   15 46.00   0.3
        1.6s    20.00nm          5.0mb
                 eS    26 07.00
AFIF   83.26 294 iPc   15 47.67   1.6
KMTA   83.32 288 iPc   15 47.67   1.0
ABHA   83.43 288 iPc   15 49.20   1.9
UQSK   84.08 296 iPc   15 51.33   1.1
TTA    84.28  27 iPd   15 51.83   1.3
        0.6s     4.90nm          4.9mb
PYA    84.65 314 iPc   15 52.50  -0.2
        1.3s   600.00nm          6.7mb
                 i     16 06.00  46kmX
KIV    84.91 314 iP    15 54.30   0.2
     Z  23s     1.80um           5.4MszX
                 e     16 05.60  36kmX
                 e     26 09.20
PPN    84.97 108 eP    15 46.70  -7.9X
        1.0s    46.00nm          5.7mb
KDC    85.22  32 eP    15 55.39   0.3
        1.4s    95.11nm          5.8mb
BRW    85.64  18 eP    15 58.27   1.3
TAIF   85.77 291 eP    16 00.70   1.8
IMA    85.80  24 eP    15 58.29   0.2
        0.7s    12.00nm          5.2mb
SLKM   86.68  30 eP    16 02.10  -0.3
SOC    87.04 313 eP    15 57.00  -7.4X
                 e     16 06.00  28km
PMR    87.30  28 P     16 20.00  14.7X
     Z  21s     0.88um           5.1Msz
MOS    88.79 326 eP    16 12.00  -0.5
     Z  23s     2.40um           5.6MszX
                 e     16 27.00  51kmX
ANN    88.81 315 iPd   16 12.00  -0.9
        1.7s   200.00nm          6.2mb
                 eS    26 34.00
SYO    89.01 201 ePc   16 16.10   2.7X
NAI    89.14 269 iPc   16 17.00   1.6
        1.0s    80.00nm          6.0mb
WAJH   89.30 296 eP    16 16.00   0.4
OBN    89.36 325 iPc   16 14.50  -0.8
        1.3s   208.00nm          6.3mb
     Z  20s     2.20um           5.6Msz
     N  28s     1.50um
     E  20s     1.80um
                 e     16 32.50  64kmX
                 eS    26 40.00
                 i     26 58.00
AYN    89.80 299 eP    16 18.33   0.5
BHL    90.06 304 P     16 19.00  -0.2
                 SKS   26 46.00
SPA    90.31 180 iPc   16 20.20   0.5
        0.9s   136.3[illegible]nm          6.2mb
SRFA   90.51 299 eP    16 22.33   1.2
BALM   90.56  29 (P)   16 20.44  -0.5
KAS    91.43 311 eP    16 27.00   1.7
CSS    91.96 305 eP    16 28.00   0.2
PUL    92.57 330 eP    16 31.00   1.0
SDF    93.38 338 iP    16 37.20   3.6X
MTD    94.26 253 iPc   16 23.50 -15.3X
MNK    94.69 324 eP    16 38.00  -1.8
     Z  24s     3.00um           5.7MszX
VRI    96.20 316 ePd   16 46.00  -1.0
MLR    96.79 316 ePc   16 40.00  -9.8X
NSD    96.84 336 eP    16 48.30  -1.2
        0.4s     1.00nm          4.6mb X
SLR    97.04 244 iPd   16 51.60   0.2
        0.9s    21.01nm          5.7mb
     Z  22s     3.70um           5.8Msz
                 e     20 46.50
NVL    98.08 198 Pd    16 57.00   2.0
        1.8s    48.00nm          5.7mb
                 e     17 55.00 237kmX
BLF    98.68 241 eP    16 58.10  -0.6
        0.9s    15.38nm          5.5mb
UZH    98.76 319 iPc   16 59.00   0.6
        1.0s    93.00nm          6.3mb
                 e     17 12.70  46kmX
FRS    99.38 240 iPc   17 02.00   0.3
        1.4s    46.51nm          5.8mb
VAY    99.82 312 iP    17 01.70  -1.8
OJC   100.04 321 ePdiff17 04.70   0.4
                 i     17 07.10
                 e     17 11.90
DAG   100.52 352 iPdiff17 05.50  -0.3
        1.0s    42.00nm          5.9mb
                 ipP   21 14.00
OHR   101.17 312 iPdiff17 07.00  -2.6
NB2   101.46 333 Pdiff 17 08.70  -1.7
        1.0s     7.40nm          5.2mb
SRO   101.54 319 ePdiff17 11.90   0.9
                 e     21 25.80
                 e     22 20.90
                 e     23 52.00
KSP   102.06 322 ePdiff17 13.20  -0.1
                 e     17 22.40
                 e     20 21.00
YKA   102.91  25 Pdiff 17 15.80  -0.9
        0.9s     3.20nm          5.0mb
PRU   103.37 322 ePdiff17 19.50   0.4
     Z  20s     1.00um           5.3Msz
                 e     20 30.00
                 ePP   21 40.00
                 e     21 51.50
BRG   103.48 323 iPdiff17 19.60   0.0
        0.8s    20.00nm          5.9mb
                 i     17 28.60
                 i     17 42.50
CLL   103.91 323 ePdiff17 32.00  10.6X
KHC   104.23 321 ePdiff17 25.00   2.0
        1.4s    11.00nm          5.5mb
     Z  22s     1.70um           5.5Msz
     N  22s     0.80um
     E  22s     1.00um
                 e     17 51.50
                 e     20 39.50
                 e     21 15.50
                 ePP   21 47.00
                 e     22 04.00
                 e     22 46.50
GEC2  104.23 321 ePdiff17 23.00  -0.1
        1.0s     4.41nm          5.3mb
                 e     17 31.00
                 e     17 39.30
                 ePKKP 33 09.60
MOX   104.95 323 ePdiff17 35.80   9.6X
        1.9s    37.00nm          6.0mb
GRF   105.51 322 ePdiff17 28.00  -0.7
SAO   107.79  51 PKP   22 00.00  13.1X
     Z  19s     1.31um           5.5Msz
CMB   108.28  50 PKP   22 00.00  12.1X
     Z  19s     0.81um           5.3Msz
BHB   109.73 318 Pdiff 17 44.57  -3.0
ISA   110.40  52 PKP   22 00.00   8.0X
     Z  20s     1.17um           5.5Msz
DUG   113.19  45 ePKP  21 57.88   0.6
MSU   114.27  47 ePKP  22 00.85   1.3
SRU   115.24  46 ePKP  22 01.20  -0.1
PV09  116.48  46 ePKP  22 04.55   0.7
PV10  116.59  46 ePKP  22 04.87   0.8
PV08  116.79  46 ePKP  22 05.45   0.9
RSSD  117.35  38 ePKP  22 04.67  -0.6
TUC   117.50  53 ePKP  22 07.67   2.0
GOL   118.60  43 ePKP  22 08.27   0.5
PAB   119.77 317 iPKPd 22 10.40   0.6
                 ePP   23 43.00
ALQ   119.88  49 ePKP  22 10.91   0.6
                 PP    23 44.53
                 SP    33 22.56
LTX   124.28  54 ePKP  22 18.90   0.1
WMOK  125.60  45 ePKP  22 20.98  -0.1
     Z  21s     1.85um           5.7Msz
TIO   125.84 309 iPKPd 22 23.00   1.2
OCO   126.11  44 iPKPc 22 23.40   1.3
TUL   127.06  43 iPKPd 22 24.50   0.7
UYO   128.93  44 iPKPc 22 27.90   0.5
FVM   129.27  37 PKP   22 40.00  12.0X
     Z  21s     1.32um           5.6Msz
MIAR  129.32  43 ePKP  22 28.62   0.5
     Z  21s     1.08um           5.5Msz
                 ePP   24 32.00
                 eSKP  25 48.17
                 e     25 58.11
KIC   130.34 279 PKP   22 30.56  -0.1
        1.1s    48.00nm
ELC   130.44  37 (PKP) 22 27.48  -2.7
TIC   130.58 279 PKP   22 31.02  -0.1
        0.9s    25.00nm
LIC   130.63 278 PKP   22 31.06  -0.2
        0.9s    28.00nm
     Z  20s     0.93um           5.5Msz
LKO   130.77 283 PKP   22 31.73   0.2
        1.3s    80.00nm
CBM   131.36  13 PKP   22 40.00   8.4X
     Z  20s     1.38um           5.7Msz
YSNY  132.04  24 PKP   22 31.61  -1.5
     Z  20s     1.41um           5.7Msz
                 e     25 59.19
OXF   132.10  40 (PKP) 22 32.31  -1.1
     Z  20s     0.55um           5.3Msz
LBNH  132.87  18 PKP   22 50.00  15.4X
     Z  19s     1.92um           5.8Msz
LBNH  132.87  18 PKP   22 40.00   5.4X
     Z  19s     1.92um           5.8Msz
BINY  133.29  22 PKP   22 50.00  14.5X
     Z  19s     2.64um           6.0Msz
MCWV  133.76  28 PKP   22 50.00  13.6X
     Z  19s     1.60um           5.8Msz
HRV   134.55  18 PKP   22 50.00  12.2X
     Z  21s     0.91um           5.5Msz
GPD   134.88  22 ePKP  22 37.14  -1.4
MYNC  134.97  36 ePKP  22 38.52  -0.4
     Z  21s     1.47um           5.7Msz
NAV   135.13  31 ePKP  22 38.98  -0.2
BLA   135.40  30 PKP   22 39.63  -0.1
GOGA  136.52  37 PKP   22 50.00   8.1X
     Z  21s     1.32um           5.6Msz
PRM   136.69  35 ePKP  22 42.80   0.6
CEH   137.10  30 PKP   22 42.95   0.1
                 e     26 15.58
JSC   137.17  34 PKP   22 42.95  -0.1
LHS   137.27  33 PKP   22 45.14   1.9
PEL   143.79 156 iPKP+ 22 52.00  -3.0
LPA   145.40 174 ePKP+ 22 58.00   0.4
     Z  20s     1.42um           5.7Msz
ZON   146.00 157 ePKP  23 00.30   1.5
TCA   147.57 163 iPKPd 23 02.30   0.9
                 i     23 04.50
CYA   149.86 159 ePKPd 23 05.60   0.6
BRU   150.20  72 ePKP  23 12.95   6.6X
DVD   150.40  72 ePKP  23 07.03   0.9
FSA   151.91 157 ePKPc 23 10.00   2.0
ECO   152.73  69 ePKP  23 19.63  10.1X
UPA   153.00  69 ePKP  23 14.34   4.5X
SLA   153.33 156 e(PKP)23 11.80   1.5
                 i     23 19.20
NNA   154.59 118 ePKP  23 13.00   0.9
        1.2s    54.69nm
MOCB  156.32 152 PKP   23 16.60   1.8
ARE   156.49 134 ePKP  23 17.00   2.0
CNCB  158.63 141 iPKPc 23 20.10   2.3
LPB   158.76 140 PKPd  23 20.10   2.3
        0.9s   420.17nm
                 SS    48 48.40
                 LR    20 28.50
LPAZ  158.92 140 iPKPc 23 19.60   1.4
                 LR    18 32.00
```

CCH 159.29 146 PKP 23 19.20 1.0
SDV 161.13 61 ePKP 23 20.60 0.5
TOV 161.40 57 ePKP 23 21.00 0.8
CAR 163.29 50 ePKP 23 24.00 1.9
BDF 163.58 201 ePKP 23 21.80 -0.6
i 24 14.10
i 24 36.00
i 28 22.00
BAO 163.64 201 ePKP 23 22.10 -0.3
e 23 35.40
e 23 40.80
e 24 14.20
BDFB 163.65 201 ePKP 23 23.16 0.7
ePKPab24 14.40
S.D. = 1.1 on 247 of 284 obs.

& DEC 12, 1993 17h 13m 32.43s
61.111 N 151.441 W
DEPTH = 60.9km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.1 (AEIC), 2.7
(PMR).

SPU 0.31 284 iPd 13 42.46 -0.4
eS 13 51.48
CGLM 0.34 306 ePd 13 42.71 -0.4
CRP 0.38 295 iPd 13 42.66 -0.9
NKA 0.38 165 ePc 13 44.91 1.5
BKG 0.40 264 iPd 13 43.11 -0.6
CKL 0.44 282 iPd 13 43.63 -0.5
NCG 0.45 311 iPd 13 43.82 -0.4
eS 13 53.24
BGL 0.48 289 iPd 13 44.03 -0.5
SUA 0.49 43 iPd 13 44.40 -0.2
eS 13 54.43
DFR 0.80 230 iPc 13 47.45 -0.7
SLKM 0.85 135 iPc 13 48.00 -0.7
SKT 0.87 357 iPd 13 48.08 -0.9
eS 14 01.06
REF 0.88 225 iPc 13 48.59 -0.7
eS 14 02.07
NCT 0.91 234 eP 13 48.79 -0.8
RS2 0.92 225 ePc 13 49.13 -0.6
RSO 0.92 225 eP 13 49.08 -0.7
PMS 0.92 81 P 13 49.20 -0.4
RDW 0.92 227 eP 13 49.08 -0.7
PWA 0.93 54 P 13 49.70 0.0
RED 0.95 224 ePc 13 49.39 -0.7
eS 14 03.95
MPA 1.20 121 eP 13 52.65 -0.6
PLRM 1.21 66 eP 13 52.72 -0.8
PMR 1.21 66 eP 13 52.43 -1.1
eS 14 09.59
ILIM 1.28 217 eP 13 53.45 -1.0
eS 14 11.56
INE 1.32 218 eP 13 53.92 -1.3
eS 14 12.13
BRLK 1.38 168 eP 13 55.29 -0.5
GHO 1.38 60 ePd 13 55.15 -0.7
SEW 1.41 135 eP 13 54.99 -1.2
CUT 1.41 23 ePd 13 55.23 -1.0
HOM 1.46 184 eP 13 56.55 -0.4
KNK 1.47 77 eP 13 56.22 -0.9
PWL 1.54 98 eP 13 56.52 -1.5
CNPM 1.59 176 ePd 13 57.86 -0.9
eS 14 18.64
SML 1.65 64 eP 13 58.38 -1.2
OPT 1.71 212 eP 13 59.85 -0.6
CFI 1.78 86 eP 13 59.64 -1.7
PDB 1.90 227 eP 14 01.54 -1.5
AUL 2.00 211 eP 14 03.93 -0.5
AUE 2.00 210 eP 14 03.70 -0.7
AUH 2.02 211 eP 14 03.56 -1.2
AUW 2.02 211 eP 14 04.06 -0.6
SVW 2.03 272 eP 14 02.25 -2.6
SCM 2.10 68 eP 14 04.46 -1.5
MTU 2.19 119 eP 14 04.72 -2.3
FID 2.45 96 eP 14 07.02 -3.7
CDD 2.45 208 eP 14 09.36 -1.4
VLZ 2.48 87 eP 14 08.80 -2.3
eS 14 39.10
HIN 2.53 104 eP 14 09.08 -2.8
RND 2.60 27 eP 14 11.00 -1.9
KLU 2.69 79 eP 14 11.70 -2.5
TOA 2.71 66 P 14 13.60 -0.8
DHY 2.75 42 eP 14 13.23 -1.9
TTA 2.82 312 eP 14 12.26 -3.9

CVA 2.84 99 eP 14 14.80 -1.5
TZL 3.03 69 eP 14 18.19 -0.7
SDG 3.14 61 eP 14 19.28 -1.2
PAX 3.38 54 eP 14 23.07 -0.8
HMT 3.61 99 P 14 23.00 -4.2
GLB 3.70 82 eP 14 25.30 -3.1
DDM 3.73 42 eP 14 26.54 -2.3
HDA 3.90 30 eP 14 29.96 -1.2
CCB 3.92 24 eP 14 28.11 -3.3
CRQM 4.07 91 eP 14 33.60 -0.1
MDM 4.13 19 eP 14 30.17 -4.3
FBA 4.15 22 P 14 31.70 -3.0
WAX 4.26 95 eP 14 35.87 -0.5
GLM 4.31 24 eP 14 34.24 -2.7
BALM 4.42 87 eP 14 35.39 -3.2
IMA 5.08 350 P 14 45.00 -2.8
PRP 5.16 29 eP 14 47.45 -1.6
70 obs. associated

? DEC 12, 1993 17h 17m 28.63± 1.18s
44.027 N ±10.7km 7.660 E ± 9.1km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

IMI 0.20 125 P 17 32.82 0.0
S 17 35.97
ENR 0.26 319 P 17 34.20 0.2
S 17 37.34
ROB 0.31 29 P 17 34.82 0.0
S 17 38.29
STV 0.32 312 P 17 35.01 -0.2
S 17 38.99
S.D. = 0.3 on 4 of 4 obs.

DEC 12, 1993 17h 21m 26.20± 0.20s
41.514 N ± 3.1km 28.823 E ± 2.2km
DEPTH = 27.6km (2 depth phases)
4.8mb (20 obs.)
TURKEY (366)
ML 4.5 (ISK). Felt at Istanbul
and Marmara.

ITU 0.43 160 iPg 21 36.00 0.6
ISK 0.48 158 iPg 21 34.90 -1.3
eSg 21 44.90
GBZT 0.86 147 ePg 21 43.30 0.9
eSg 21 55.00
HRT 0.94 137 iPn 21 42.30 -1.3
YLV 1.03 156 eP 21 44.10 -0.8
EYL 1.38 133 iPn 21 49.60 -0.3
JMB 1.92 300 iPd 21 59.00 1.4
ALN 2.18 255 ePn 22 02.08 0.7
eSn 22 53.08
NAL 2.29 124 iP 22 04.70 1.7
eS 22 39.10
RDO 2.50 263 ePn 22 06.50 0.6
DIM 2.52 283 iPd 22 06.00 -0.1
KDZ 2.56 274 iPd 22 07.00 0.3
SGKT 2.62 110 iP 22 08.90 1.1
eS 22 44.50
RZN 3.08 275 iPd 22 14.00 -0.4
PVL 3.10 305 iPd 22 15.00 0.7
PLD 3.14 282 iPd 22 14.00 -0.9
BUC1 3.50 325 eP 22 20.00 0.0
BUC 3.52 326 iPc 22 20.00 -0.4
PGB 3.62 288 iPd 22 22.00 0.2
MRFT 3.65 105 eP 22 22.80 0.5
CFR 3.70 353 iPc 22 11.00 -11.9X
KAS 3.72 91 iPnd 22 22.80 -0.4
iSg 23 06.00
MMB 3.82 273 iPd 22 24.00 -0.7
OUR 3.85 254 iPn 22 24.96 0.0
eSn 23 33.20
SRS 3.96 266 iPn 22 26.56 0.0
ISR 3.98 336 iPd 22 28.00 1.0
SOH 4.19 262 iPn 22 29.50 -0.3
PAIG 4.22 250 ePn 22 29.92 -0.3
eSn 23 42.28
KKB 4.31 277 iPd 22 31.00 -0.6
VTS 4.32 286 iP 22 32.00 0.2
KNT 4.47 267 iPn 22 33.94 0.0
eSn 23 48.76
MLR 4.49 333 iPc 22 34.50 0.2
THE 4.51 261 ePn 22 34.36 -0.1
eSn 23 50.92
CTK 4.61 98 eP 22 36.30 0.3

VAY 4.71 270 iPnc 22 37.40 0.2
GRG 4.87 266 iPn 22 39.89 0.3
LIT 5.01 256 iPn 22 40.92 -0.6
ATH 5.29 230 ePn 22 45.00 -0.4
TNR 5.29 323 ePc 22 45.00 -0.5
KZN 5.48 260 ePn 22 49.00 0.8
SKO 5.54 277 iPn 22 48.50 -0.5
i 22 56.30
PTT 5.69 343 eP 22 49.00 -2.1
GZR 5.86 313 iPd 22 55.00 1.4
OHR 6.06 269 iPn 22 55.00 -1.3
OHR 6.06 269 iPn 23 01.00 4.7X
1.3s 1000.00nm 6.4mb X
i 23 13.00
i 23 23.50
i 24 01.60
i 24 39.60
Lg 24 58.00
DEV 6.12 317 ePc 22 56.50 -0.6
SSR 6.16 305 iPc 22 54.00 -3.7X
VLI 6.62 226 ePn 23 03.50 -0.7
NPS 6.73 203 ePn 23 05.50 -0.3
VLS 7.16 245 ePn 23 13.00 1.3
CSS 7.44 150 eP 23 18.50 2.8X
FAM 7.68 146 eP 23 19.50 0.6
UZD 8.95 308 ePn 23 37.00 0.4
HVAR 9.31 284 eP 23 40.10 -1.6
ORI 9.50 265 P 23 44.11 -0.1
MGR 10.15 267 P 23 53.36 0.2
SGO 10.26 269 P 23 53.77 -0.8
PTJ 10.29 300 eP 23 53.60 -1.6
SOI 10.41 255 P 23 55.99 -0.7
OJC 10.73 327 eP 24 02.40 1.3
i 24 05.00
i 24 07.20
RIY 11.17 295 iP 24 07.50 0.4
SDI 11.24 276 P 24 09.71 1.6
LJU 11.28 298 e(P) 24 10.00 1.4
eS 26 12.00
PZI 11.67 252 P 24 10.25 -3.7X
TRI 11.69 296 e(Pn)c24 14.90 0.7
e 25 47.80
e(Sn) 26 30.40
e 29 12.00
VOY 11.70 298 eP 24 15.50 1.2
e(S) 26 24.10
e 28 05.50
ARV 11.89 285 P 24 15.47 -1.4
MNS 12.06 279 P 24 19.29 0.2
ASS 12.07 283 P 24 18.77 -0.6
FVI 12.60 299 P 24 26.87 0.5
CRE 12.62 285 P 24 26.51 -0.2
SFI 12.71 287 P 24 27.29 -0.5
KSP 12.73 321 eP 24 32.20 4.2X
PGD 12.80 286 P 24 28.63 -0.6
PRU 13.07 315 eP 24 40.50 8.0X
KHC 13.14 311 eP 24 34.50 1.0
1.3s 18.00nm 5.0mb
e 24 38.00
e 24 50.50
e 25 13.00
e 25 50.00
eS 27 34.00
e 27 55.00
OSS 14.37 297 P 24 58.41 8.5X
OBN 14.53 18 eP 24 44.00 -7.7X
1.3s 52.00nm 4.9mb
Z 22s 2.00um 5.3MszX
N 26s 2.40um
E 22s 2.00um
e 24 57.00
e 25 03.00
i 27 03.00
CLL 14.63 317 eP 24 55.00 1.9
GRF 14.76 310 eP 24 47.00 -7.8X
VDL 14.78 296 eP 25 00.30 5.1X
MOX 15.00 313 iPc 25 03.00 5.1X
2.0s 41.00nm 4.4mb
TMA 15.11 294 eP 25 05.40 5.9X
LLS 15.18 297 eP 25 06.10 5.6X
DIX 16.11 294 P 25 15.80 3.3X
EMS 16.44 293 P 25 20.50 3.9X
BNI 16.50 290 P 25 22.01 4.7X
1.0s 23.90nm 4.3mb
NUR 19.19 354 eP 25 44.80 -5.5X
KAF 20.69 357 iP 26 03.60 -2.7
0.5s 20.20nm 4.8mb

12d 17h

HFS 20.85 338 eP 26 06.10 -1.9
0.5s 9.50nm 4.5mb
Z 16s 0.48um 4.0MszX
LR 33 27.00
EROQ 21.37 278 eP 26 17.50 4.1X
EGRA 21.67 282 eP 26 16.80 0.3
NB2 22.30 337 P 26 20.60 -2.0
0.7s 8.20nm 4.3mb
ECHE 22.67 275 eP 26 29.00 2.5
ETOR 23.20 279 eP 26 33.00 1.3
ECRI 23.23 283 eP 26 33.40 1.5
EVIA 24.08 274 eP 26 42.50 2.3
MAIO 24.36 92 iPd 26 45.00 2.0
GUD 24.79 279 eP 26 47.00 -0.2
EKA 25.06 314 P 26 56.00 6.6X
1.0s 39.90nm 5.0mb
EBAN 25.18 273 eP 26 51.50 0.8
PAB 25.21 277 eP 26 51.50 0.4
ECOG 25.30 271 eP 26 52.50 0.5
EGUA 25.45 270 eP 26 53.00 -0.3
ELUQ 25.73 272 eP 26 56.20 0.2
SDF 25.99 358 iP 26 58.10 0.1
EPLA 26.36 279 eP 26 59.50 -2.2
EPRU 26.66 271 eP 27 04.00 -0.5
EVAL 27.58 274 eP 27 10.00 -2.9
DAG 40.61 345 iPd 29 04.60 0.0
0.7s 10.27nm 4.7mb
WMQ 42.56 66 P 29 22.00 0.9
0.7s 11.00nm 4.7mb
pP 29 27.50 18km
sP 29 32.50
GKN 47.04 88 P 29 57.30 0.0
0.6s 30.00nm 5.5mb
KKN 47.63 88 P 30 01.90 -0.2
0.6s 34.00nm 5.5mb
PKI 47.85 88 P 30 03.60 -0.3
0.8s 27.00nm 5.3mb
GUN 48.02 88 P 30 05.00 -0.3
0.8s 42.00nm 5.5mb
SHL 53.79 86 iP 30 47.50 -1.3
LZH 57.01 69 eP 31 11.00 -1.0
1.2s 20.00nm 5.0mb
sP 31 21.50
HHC 59.85 60 Pd 31 32.00 0.3
1.0s 14.00nm 5.0mb
XAN 61.63 68 P 31 43.00 -0.8
1.0s 4.50nm 4.6mb
pP 31 54.00 37km
TIY 62.06 63 eP 31 45.90 -0.8
YKA 72.26 343 P 32 49.40 -1.0
0.7s 2.50nm 4.3mb
IMA 72.74 1 iP 32 53.75 0.5
0.7s 8.77nm 4.9mb
ANM 73.67 6 eP 32 58.80 0.2
FBA 73.89 358 eP 33 00.26 0.4
0.8s 6.30nm 4.7mb
PWA 77.18 359 eP 33 19.10 0.5
PMS 77.59 359 eP 33 21.40 0.5
SVW 77.67 2 eP 33 22.50 1.2
S.D. = 1.0 on 107 of 127 obs.

DEC 12, 1993 18h 26m 28.69± 0.14s
0.344 N ± 2.6km 125.925 E ± 3.2km
DEPTH = 33.0km (normal)
5.6mb (60 obs.) 5.5Msz (36 obs.)
NORTHERN MOLUCCA SEA (266)
Mw 5.9 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 37S, 71C
Centroid Location:
Origin Time 18:26:36.1 0.3
Lat 0.70N 0.03 Lon 125.65E 0.03
Dep 37.7 2.4 Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr= 5.90 0.16 Mtt= 0.93 0.20
Mff=-6.82 0.27 Mrt=-0.58 0.31
Mrf=-4.75 0.39 Mtf= 1.73 0.18
Principal Axes:
T Val= 7.66 Plg=69 Azm=117
N 0.97 12 355
P -8.62 18 261
Best Double Couple:Mo=8.1*10**17
NP1:Strike=333 Dip=29 Slip= 65
NP2: 181 64 103

SWI 5.47 103 ePd 27 46.50 -3.5X
DAV 6.71 357 ePc+ 28 09.00 1.5
e 28 43.00
eS 29 42.00
CTB 7.02 346 ePd 28 16.00 4.1X
eS 28 55.00
BIP 7.84 2 eP 28 22.50 -0.8
eS 29 56.00
CGP 8.15 351 eP 28 29.50 1.8
TSM 8.95 296 ePc 28 39.80 1.1
0.5s 262.10nm 6.7mb X
MAP 10.10 349 ePd 28 58.00 3.4X
KKM 11.22 300 ePc 29 20.00 9.9X
0.8s 137.50nm 6.2mb
TGY 14.54 340 eP 29 59.00 4.9X
JAY 15.05 101 eP 30 00.80 0.1
1.0s 0.70nm 2.9mb X
eS 31 34.50
KNA 16.24 170 eP 30 16.60 0.6
BAG 16.81 342 eP+ 30 24.00 0.5
eS 33 32.00
CVP 17.72 347 iPd 30 35.30 0.6
SZP 17.93 343 iPc 30 39.00 1.8
WWKK 18.12 103 eP 30 40.00 0.3
TPI 18.52 260 ePc 30 44.50 -0.1
e 34 00.00
MNDI 18.84 110 eP 30 48.00 -0.7
MDG 20.59 106 eP 31 06.00 -1.7
WB2 21.79 158 eP 31 17.60 -2.2
0.6s 280.10nm 5.9mb
ipP 31 23.00 19kmX
iPP 31 32.40
eS 35 20.60
LAT 22.15 109 eP 31 23.40 -0.1
MBL 22.19 195 eP 31 23.40 -0.4
KGM 22.66 274 ePc 31 29.00 0.5
GUMO 22.92 54 eP 31 31.00 0.0
1.1s 642.50nm 6.0mb
PJG 22.92 54 eP 31 31.10 0.1
GUA 22.93 54 eP 31 31.10 0.0
0.7s 410.96nm 6.0mb
PMG 23.25 115 eP 31 33.60 -0.7
KSI 23.65 260 e(P) 31 39.50 1.4
e 34 00.00
QIZ 24.37 321 Pc 31 45.00 -0.1
N 15s 2.17um
E 14s 1.03um
S 35 59.00
KLM 24.42 277 eP 31 48.00 2.4
HKC 24.65 333 iP 31 51.00 3.3X
S 36 03.00
QIS 24.71 148 eP 31 48.20 -0.2
KVG 25.05 97 e(P) 31 52.50 0.8
ASPA 25.09 163 eP 31 51.40 -0.7
0.4s 169.90nm 6.0mb
eS 36 18.60
iScS 42 50.30
IPM 25.22 280 ePd 31 52.40 -1.0
0.7s 130.30nm 5.6mb
QZH 25.46 344 eP 31 56.00 0.6
Z 26s 9.17um 5.2MszX
S 36 16.00
GZH 25.70 332 Pc 31 57.00 -0.7
1.0s 140.00nm 5.5mb
Z 24s 4.73um 4.9MszX
E 15s 3.26um
SNG 26.14 286 eP 32 02.30 0.5
eS 36 28.00
WARB 26.38 179 eP 32 04.50 0.5
RAB 26.60 100 eP 32 05.00 -1.1
iS 36 44.00
MEEK 27.73 194 eP 32 15.40 -1.0
0.3s 19.00nm 5.3mb
LOE 29.23 307 iPc 32 28.10 -1.8
NST 29.67 302 iPc 32 33.00 -0.9
KHT 30.59 299 eP 32 39.70 -2.4
MRWA 30.89 197 eP 32 43.50 -1.0
0.4s 23.00nm 5.3mb
SSE 30.91 352 Pc 32 45.00 0.4
Z 20s 5.50um 5.2Msz
N 18s 1.40um
E 18s 1.10um
sP 33 01.00
S 37 44.00
sS 38 04.00
FORT 31.02 176 iPc 32 44.90 -0.7
0.3s 15.00nm 5.3mb
KAGJ 31.03 8 P 32 45.40 -0.3
BDT 31.37 304 eP 32 48.00 -0.9
0.6s 114.30nm 5.9mb
COOL 31.39 188 eP 32 47.20 -1.7
GYA 31.91 326 P 32 53.00 -0.7
1.0s 58.00nm 5.4mb
Z 26s 5.00um 5.1MszX
N 16s 4.69um
E 16s 2.54um
PcP 35 46.60
S 37 58.00
WHN 31.98 341 Pd 32 55.00 0.9
1.0s 30.00nm 5.1mb
Z 24s 6.05um 5.2MszX
N 20s 3.85um
PcP 35 46.00
S 38 04.00
BAL 32.00 195 eP 32 53.30 -1.0
CHTO 32.22 306 iPd 32 54.80 -1.5
1.0s 62.25nm 5.5mb
NJ2 32.24 349 Pc 32 56.40 0.1
Z 26s 4.28um 5.0MszX
E 13s 0.99um
KUMJ 32.35 8 P 32 56.50 -0.8
KLB 32.69 193 eP 32 59.50 -0.8
KMI 33.30 319 Pc 33 06.00 0.1
1.9s 260.00nm 5.8mb
Z 22s 7.50um 5.4Msz
N 15s 3.10um
E 14s 1.90um
pP 33 12.00 21kmX
sP 33 17.50
S 38 19.00
MUN 33.44 195 eP 33 05.70 -1.0
SHNJ 33.95 8 P 33 11.00 -0.2
NWAO 34.09 193 iPc 33 12.40 0.0
TKSJ 34.32 12 P 33 13.30 -1.0
WKYJ 34.90 14 P 33 19.00 -0.4
STK 35.32 157 iPd 33 21.50 -1.4
iPcP 35 52.60
eS 38 54.50
YONJ 35.37 11 P 33 23.20 -0.2
RKG 35.72 193 eP 33 28.20 1.9
TSRJ 36.24 14 P 33 30.60 -0.1
TIA 36.61 348 eP 33 33.10 -0.7
Z 26s 3.42um 5.0MszX
eS 39 10.00
IIDJ 36.70 16 P 33 34.00 -0.6
CD2 36.97 327 eP 33 36.80 -0.1
1.2s 120.00nm 5.6mb
Z 30s 5.27um 5.1MszX
E 15s 2.77um
iS 39 15.00
ADE 37.11 162 iPc 33 38.00 0.0
XAN 37.12 336 P 33 36.50 -1.6
1.0s 31.00nm 5.1mb
Z 25s 5.92um 5.3MszX
N 25s 7.25um
E 25s 7.25um
pP 33 43.00 22kmX
S 39 24.00
CHJJ 37.54 18 P 33 39.90 -1.7
MTMJ 37.70 16 P 33 42.30 -0.8
MAT 37.77 16 iPc 33 41.90 -1.7
1.1s 101.27nm 5.6mb
Z 20s 2.13um 4.9Msz
eS 39 37.00
KAKJ 38.05 19 eP 33 42.50 -3.4X
DL2 38.58 355 eP 33 50.00 -0.2
1.0s 300.00nm 6.1mb
Z 22s 3.33um 5.1Msz
E 18s 2.68um
S 39 43.00
NIIJ 38.65 17 P 33 49.40 -1.5
ARMA 39.16 144 iPc 33 55.70 0.3
0.6s 29.00nm 5.2mb
TIY 39.21 343 iPd 33 55.40 -0.3
0.8s 85.00nm 5.6mb
Z 26s 5.52um 5.3MszX
N 25s 7.21um
S 39 50.00
YAMJ 39.82 17 eP 34 00.80 0.1
BJI 40.50 348 eP 34 06.00 -0.1
1.0s 23.00nm 4.9mb
Z 26s 4.36um 5.2MszX
N 20s 2.13um
eS 40 08.00
LZH 41.05 332 eP 34 11.00 0.0

1.8s 160.00nm 5.4mb
Z 26s 7.29um 5.4MszX
E 20s 2.17um
PP 35 47.00
PcP 36 13.00
ScP 39 58.50
PcS 40 03.00
ScS 44 14.50
OFUJ 41.16 19 eP 34 11.80 0.2
SHL 41.33 310 iP 34 11.50 -1.9
iS 40 20.00
SNY 41.35 357 Pc 34 12.60 -0.5
1.4s 360.00nm 5.9mb
Z 26s 4.84um 5.3MszX
iS 40 25.00
CAN 41.51 151 eP 34 15.20 0.6
i 34 46.70
e 36 13.00
CNB 41.68 151 eP 34 17.00 1.0
AOMJ 42.13 16 eP 34 21.60 2.1
HHC 42.37 344 eP 34 21.80 0.1
1.2s 39.00nm 5.0mb
Z 36s 6.36um 5.2MszX
N 12s 0.43um
E 14s 0.68um
PP 36 00.00
S 40 36.00
BTO 42.60 342 P 34 23.00 -0.5
N 14s 0.84um
E 14s 0.35um
ePP 36 03.00
VLA 42.92 6 iPc 34 26.00 0.1
1.2s 159.00nm 5.6mb
i 34 39.00
i 36 09.00
eS 40 44.00
eSSS 44 44.00
CN2 43.27 359 eP 34 28.30 -0.5
0.8s 35.00nm 5.2mb
Z 24s 2.01um 4.9MszX
N 18s 0.93um
E 18s 0.98um
PcP 36 20.00
eScS 44 26.00
MRRJ 44.05 16 eP 34 35.40 0.3
LSA 44.14 315 Pd 34 39.00 2.3
Z 32s 7.81um 5.4MszX
S 41 04.50
MDJ 44.20 4 iPd 34 36.90 0.6
0.8s 90.00nm 5.6mb
Z 30s 5.47um 5.3MszX
eS 41 10.00
HOOJ 44.67 18 eP 34 42.70 2.5X
BKM 45.32 115 iPd 34 45.50 -0.2
DZM 45.34 122 iPc 34 45.90 0.0
GTA 45.62 332 eP 34 47.80 -0.1
1.2s 13.00nm 4.7mb
Z 28s 9.31um 5.6MszX
E 17s 1.91um
PP 36 28.00
ScS 44 42.50
KUSJ 45.77 19 eP 34 49.20 0.3
ASAJ 46.06 17 eP 34 51.60 0.4
GUN 47.14 309 P 34 59.00 -1.4
PKI 47.34 308 P 34 59.90 -2.1
KKN 47.55 309 P 35 01.70 -1.8
GKN 48.15 308 P 35 06.30 -1.8
YSS 48.74 15 iPc 35 12.00 -0.2
Z 16s 1.20um 5.0MszX
e 42 15.00
KOD 49.17 283 eP 35 17.00 0.7
HYB 49.58 293 ePd 35 16.00 -3.1X
1.0s 150.00nm 6.0mb
GBA 49.78 288 P 35 19.00 -1.6
CIT 52.51 350 eP 35 42.00 1.2
ZAK 53.46 342 eP 35 46.70 -1.0
1.4s 69.00nm 5.5mb
e 36 55.00
eS 43 20.00
e 45 34.00
POO 54.20 293 iPd 35 53.00 -0.8
1.0s 40.00nm 5.4mb
NDI 54.36 306 iPd 35 52.80 -2.0
0.8s 82.09nm 5.8mb
WMQ 55.06 327 P 35 58.50 -1.3
1.0s 73.00nm 5.7mb
Z 30s 4.94um 5.4MszX

E 16s 1.34um
PcP 37 02.40
PP 38 05.00
ScP 40 58.50
S 43 36.00
ScS 45 42.00
SS 47 18.00
BOM 55.23 293 eP 36 02.40 1.1
eS 43 37.40
UER 57.66 337 iP 36 16.80 -1.3
1.5s 82.00nm 5.6mb
eS 44 10.00
BOD 58.09 353 iPc 36 20.00 -1.0
1.3s 78.00nm 5.6mb
PET 59.13 22 eP 36 29.00 0.7
Z 22s 1.80um 5.2Msz
e 44 56.00
e 48 20.00
KSH 59.87 317 P 36 34.00 0.2
1.1s 50.00nm 5.6mb
Z 30s 3.37um 5.3MszX
E 12s 1.16um
PcP 37 22.00
PP 38 46.50
ScP 41 15.00
PcS 41 23.00
ScS 46 14.00
MCQ 61.04 159 eP 36 41.30 -0.1
YAK 61.58 2 iPc 36 46.80 1.9
e 37 28.00
eS 45 11.00
ePS 45 20.00
e 46 34.00
FRU 62.36 320 eP 36 51.00 0.4
Z 28s 2.00um 5.1MszX
E 28s 3.50um
e 37 08.50
e 45 12.00
QUE 63.31 304 eP 36 56.50 -0.7
eS 45 27.30
CSY 67.39 187 eP 37 10.80 -11.8X
0.7s 22.80nm
PAF 68.66 215 eP 37 46.00 15.2X
eS 46 39.00
ADK 70.20 34 ePc 37 40.54 0.3
1.8s 159.14nm 5.8mb
MAIO 70.94 308 eP 37 44.00 -1.2
0.8s 16.47nm 5.1mb
TIK 71.20 1 iPd+ 37 44.00 -1.9
2.0s 205.00nm 5.8mb
Z 18s 1.00um 5.1Msz
ipP 38 04.00 75kmX
i 40 25.00
ePPP 42 13.00
iS 46 59.00
isS 47 30.00
i 47 42.00
ASH 72.23 310 eP 37 49.00 -3.8X
SVE 76.41 329 iPd 38 15.50 -1.0
2.9s 300.00nm 5.8mb
Z 28s 1.00um 5.0MszX
N 25s 0.50um
E 25s 0.60um
HON 76.91 68 P 38 30.00 10.1X
Z 21s 3.68um 5.7Msz
ARU 77.33 328 iPc 38 21.00 -0.6
0.8s 120.00nm 6.0mb
Z 24s 1.00um 5.1MszX
eS 48 05.00
MHA 78.78 70 (P) 38 29.78 -0.5
BAK 79.15 311 iPc 38 32.00 0.1
iS 48 34.00
CRZF 79.30 223 eP 38 48.00 15.4X
eS 48 21.00
eSS 53 51.00
SDN 80.42 34 eP 38 38.20 -0.2
0.5s 100.23nm 6.1mb
KER 80.57 305 eP 38 39.00 -0.9
TAB 81.60 308 iP+ 38 46.00 0.8
KMSA 81.84 290 eP 38 46.00 -0.7
GRO 82.66 314 eP 38 50.00 -0.4
1.0s 220.00nm 6.2mb
Z 16s 1.50um 5.5MszX
N 20s 1.00um
E 20s 1.00um
eS 49 05.00
DHJN 82.69 288 eP 38 52.27 0.9

ERE 83.22 310 iP+ 38 54.00 0.5
iS 49 12.00
AFIF 83.23 294 eP 38 55.33 1.5
KMTA 83.30 288 eP 38 55.67 1.2
ABHA 83.41 288 eP 38 57.00 2.0
UQSK 84.05 296 eP 38 58.67 0.7
SVW 84.12 29 eP 38 58.53 1.0
0.8s 51.24nm 5.7mb
TTA 84.26 27 eP 38 57.11 -1.2
1.3s 43.76nm 5.5mb
PYA 84.62 314 eP 39 01.00 0.6
1.0s 250.00nm 6.4mb
Z 20s 1.00um 5.2Msz
i 39 13.00
iS 49 20.00
KIV 84.88 314 iPc 39 02.50 0.7
Z 21s 1.70um 5.4Msz
e 39 10.70
eS 49 21.00
KDC 85.21 32 eP 39 02.24 -0.7
0.5s 20.02nm 5.6mb
BRW 85.62 18 eP 39 05.89 1.1
TAIF 85.75 291 eP 39 08.33 1.7
IMA 85.78 24 eP 39 06.06 0.1
0.6s 6.63nm 5.0mb
CRP 85.80 29 eP 39 06.20 0.1
SLKM 86.67 30 ePc 39 09.67 -0.5
SOC 87.01 313 eP 39 04.00 -8.2X
e 49 30.00
PMS 87.05 29 eP 39 12.30 0.2
PMR 87.28 28 eP 39 13.30 0.2
1.3s 47.58nm 5.6mb
Z 20s 1.18um 5.3Msz
FBA 88.11 25 eP 39 16.47 -0.5
MOS 88.76 326 eP 39 21.00 0.7
Z 22s 1.40um 5.3Msz
e 39 38.00
ANN 88.78 315 eP 39 21.00 0.4
1.4s 120.00nm 6.0mb
e 49 49.00
SYO 89.03 201 ePd 39 24.30 3.0X
WAJH 89.28 296 eP 39 23.33 0.0
OBN 89.33 325 eP 39 22.00 -1.0
1.5s 175.00nm 6.1mb
Z 23s 2.20um 5.5MszX
N 24s 1.50um
E 24s 1.20um
i 39 41.60
e 43 04.00
i 50 06.00
AYN 89.77 299 eP 39 27.67 2.0
BHL 90.04 304 P 39 26.00 -0.9
SKS 49 54.00
SPA 90.34 180 iPc 39 28.60 0.9
0.7s 39.06nm 5.8mb
BALM 90.54 29 eP 39 29.64 0.9
CSS 91.94 305 eP 39 36.00 0.5
SDF 93.35 338 eP 39 48.00 6.6X
KAF 94.20 332 iP 39 46.00 0.6
MNK 94.66 324 eP 39 46.00 -1.6
Z 24s 3.40um 5.7MszX
NUR 95.25 331 eP 39 52.20 2.0
VRI 96.17 316 ePd 39 54.00 -0.8
MLR 96.76 316 eP 39 57.00 -0.6
BLF 98.68 241 e(P) 40 08.20 1.6
UZH 98.73 319 ePd 40 07.50 1.3
1.0s 31.00nm 5.8mb
e 40 17.20
VAY 99.79 312 eP 40 11.00 -0.2
OJC 100.01 321 ePdiff40 13.20 1.2
i 40 17.60
DAG 100.50 352 iPdiff40 12.70 -0.9
0.6s 7.33nm 5.4mb
HFS 100.61 332 ePdiff40 13.60 -0.9
0.4s 1.10nm 4.7mb
NB2 101.43 333 Pdiff 40 21.40 3.2X
0.7s 2.80nm 5.0mb
KSP 102.03 322 ePdiff40 23.50 2.5X
e 43 22.70
YKA 102.89 24 Pdiff 40 24.70 0.2
1.0s 2.70nm 4.9mb
BRG 103.45 323 ePdiff40 30.50 3.2X
1.4s 21.00nm 5.7mb
GEC2 104.20 321 ePdiff40 31.30 0.4
0.6s 0.70nm 4.7mb
e 40 37.20
e 40 46.70

12d 18h

e 40 51.90
e 43 59.60
e 44 38.40
ePP 44 49.90
WDC 106.00 47 PKP 45 00.00 8.7X
Z 21s 1.79um 5.6Msz
NEW 107.36 39 PKP 45 00.00 6.3X
Z 20s 1.13um 5.4Msz
SAO 107.78 51 PKP 45 10.00 15.2X
Z 21s 1.08um 5.4Msz
CMB 108.28 50 PKP 45 10.00 14.3X
Z 21s 1.10um 5.4Msz
ISA 110.39 52 PKP 45 10.00 10.2X
Z 18s 0.88um 5.4Msz
TPNV 111.74 50 PKP 45 10.00 7.5X
Z 19s 2.22um 5.8Msz
DUG 113.18 45 PKP 45 20.00 14.9X
Z 21s 1.30um 5.5Msz
MSU 114.26 47 (PKP) 45 08.90 1.5
SRU 115.23 46 ePKP 45 09.05 -0.1
PV10 116.58 46 ePKP 45 12.91 1.1
PV08 116.79 46 ePKP 45 13.77 1.4
RSSD 117.33 38 ePKP 45 12.19 -0.8
TUC 117.49 53 PKP 45 20.00 6.5X
Z 20s 1.01um 5.4Msz
GOL 118.59 43 PKP 45 30.00 14.4X
Z 21s 2.46um 5.8Msz
GLD 118.67 43 PKP 45 30.00 14.3X
Z 20s 1.80um 5.7Msz
ALQ 119.87 49 ePKP 45 18.57 0.5
Z 21s 0.24um 4.8Msz
LTX 124.27 54 ePKP 45 25.30 -1.3
WMOK 125.59 45 PKP 45 40.00 11.1X
Z 21s 2.57um 5.9Msz
TUL 127.05 43 iPKPd 45 33.20 1.6
UYO 128.92 44 iPKPc 45 35.50 0.3
FVM 129.25 37 PKP 45 50.00 14.2X
Z 22s 1.05um 5.5Msz
MIAR 129.31 43 ePKP 45 35.61 -0.4
Z 21s 1.39um 5.6Msz
iPP 47 40.56
KIC 130.32 279 PKP 45 39.15 0.7
0.5s 7.50nm
ELC 130.43 37 ePKP 45 38.57 0.6
TIC 130.56 279 PKP 45 39.65 0.7
LIC 130.62 278 PKP 45 39.45 0.4
0.4s 4.00nm
LKO 130.75 283 PKP 45 40.15 0.8
0.6s 10.00nm
CBM 131.34 13 PKP 45 50.00 10.6X
Z 19s 1.40um 5.7Msz
YSNY 132.02 24 ePKP 45 41.61 0.7
Z 20s 1.80um 5.8Msz
OXF 132.09 40 PKP 45 50.00 8.8X
Z 20s 1.05um 5.5Msz
LBNH 132.84 17 PKP 45 50.00 7.6X
Z 21s 1.28um 5.6Msz
MCWV 133.74 28 PKP 45 50.00 5.8X
Z 21s 2.16um 5.8Msz
HRV 134.53 18 PKP 46 00.00 14.4X
Z 21s 0.82um 5.4Msz
MYNC 134.95 35 ePKP 45 48.36 1.6
Z 20s 1.31um 5.7Msz
GOGA 136.51 37 PKP 46 00.00 10.3X
Z 21s 1.40um 5.7Msz
CEH 137.08 30 ePKP 45 50.28 -0.4
Z 20s 1.09um 5.6Msz
LPA 145.43 174 ePKP+ 46 06.00 0.6
Z 20s 1.42um 5.7Msz
ePP 49 25.00
RTCV 145.80 158 ePKP 46 07.00 0.7
RTRS 146.92 155 ePKP 46 10.80 2.8X
BRU 150.20 72 iPKPc 46 19.94 5.7X
DVD 150.41 72 ePKP 46 17.53 3.6X
ECO 152.73 69 ePKP 45 57.11 -20.3X
UPA 153.00 69 ePKP 46 14.22 -3.5X
NNA 154.62 118 ePKP 46 23.50 3.6X
1.0s 19.00nm
MOCB 156.35 152 PKP 46 24.00 1.3
ARE 156.52 134 ePKP 46 26.00 3.2X
CNCB 158.66 141 iPKPc 46 28.90 3.2X
LPB 158.79 140 PKP 46 29.00 3.4X
Z 22s 1.85um 5.9Msz
LPAZ 158.95 140 ePKP 46 27.33 1.2
CCH 159.32 146 PKP 46 27.60 1.5
SDV 161.13 61 ePKP 46 29.10 1.2
TOV 161.40 57 ePKP 46 29.30 1.3

SIV 162.99 156 PKP 46 30.30 0.8
BDFB 163.67 201 ePKP 46 33.38 3.1X
S.D. = 1.0 on 193 of 241 obs.

? DEC 12, 1993 18h 30m 37.23± 1.77s
41.485 N ±12.9km 8.431 W ±17.4km
DEPTH = 10.0km (geophysicist)
PORTUGAL (376)
mbLg 2.8 (MDD).

EZAM 0.69 344 eP 30 51.31 0.4
e 31 01.80
ERUA 1.32 46 eP 31 01.74 0.1
e 31 20.90
STS 1.40 356 eP 31 02.31 -0.5
e 31 23.40
EPLA 2.28 128 eP 31 15.56 0.0
e 31 43.70
S.D. = 0.6 on 4 of 4 obs.

DEC 12, 1993 18h 43m 27.47± 0.69s
36.710 N ± 6.5km 5.052 W ± 5.1km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.8 (MDD).

EPRU 0.29 331 iPc 43 33.83 0.2
e 43 39.80
LIJA 0.34 303 iP 43 34.00 -0.6
EJIF 0.42 233 iPc 43 34.75 -1.4
e 43 41.30
ALJ 0.45 266 iP 43 36.80 0.2
PLAT 0.82 224 eP 43 45.00 1.7
ELUQ 1.06 36 eP 43 48.33 0.9
e 44 03.90
EHOR 1.12 352 eP 43 48.13 -0.4
e 44 03.60
EGUA 1.20 84 eP 43 48.74 -1.1
ECOG 1.32 64 eP 43 52.20 0.3
EVAL 1.61 303 eP 43 56.11 0.1
e 44 16.50
S.D. = 1.0 on 10 of 10 obs.

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* DEC 12, 1993 19h 17m 31.55± 0.50s
0.071 N ± 9.1km 125.744 E ±10.4km
DEPTH = 33.0km (normal)
4.8mb (6 obs.)
NORTHERN MOLUCCA SEA (266)

CTB 7.25 348 ePd 19 19.00 1.1
BIP 8.12 4 eP 19 32.00 1.9
TSM 8.91 298 eP 19 43.00 1.9
WWKK 18.24 102 eP 21 43.50 -0.5
WB2 21.60 158 iPd 22 20.40 -0.5
0.9s 39.40nm 4.8mb
ASPA 24.89 162 iPc 22 53.80 0.8
0.4s 31.80nm 5.3mb X
i 26 29.00
IPM 25.09 281 ePc 22 56.00 1.0
CHTO 32.23 307 eP 23 58.20 -1.1
STK 35.14 156 iPc 24 23.90 -0.4
iPcP 26 54.70
MAT 38.09 16 eP 24 45.00 -4.1X
0.7s 6.85nm 4.6mb
BJI 40.73 349 eP 25 09.00 -1.9
0.8s 4.00nm 4.2mb
LZH 41.21 333 eP 25 13.50 -1.6
1.4s 21.00nm 4.7mb
pP 25 16.50 10kmX
PcP 27 14.00
GUN 47.17 309 P 26 02.50 -1.0
0.6s 11.00nm 5.0mb
PKI 47.37 309 P 26 04.40 -0.7
KKN 47.58 309 P 26 05.20 -1.4
GKN 48.18 309 P 26 10.30 -0.9
HYB 49.52 293 eP 26 22.00 0.5
GBA 49.68 288 P 26 23.00 0.3
YAK 61.86 2 iPd 27 49.90 0.3
1.0s 75.00nm 5.8mb
OBN 89.45 325 eP 30 25.00 -1.4
1.0s 18.00nm 5.3mb X
LKO 130.63 283 PKP 36 42.27 0.3
0.6s 3.00nm
RTCB 145.85 158 ePKPd 37 10.50 1.2
RTLL 146.12 158 ePKPd 37 03.80 -5.9X
CNCB 158.56 142 PKP 37 31.20 2.8X
LPB 158.70 141 ePKP 37 31.00 2.6X

LPAZ 158.86 140 PKP 37 30.90 2.1
S.D. = 1.3 on 22 of 26 obs.

? DEC 12, 1993 19h 40m 13.13± 1.89s
38.568 N ±10.8km 22.081 E ±14.6km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
GREECE (364)

LCI 3.65 300 P 41 07.82 -0.8
BRT 4.41 303 P 41 20.31 0.8
GRI 4.44 275 P 41 20.04 0.1
ORI 4.62 291 P 41 22.29 -0.1
SOI 4.77 266 P 41 24.00 -0.4
MGR 5.30 289 P 41 31.65 -0.3
SGO 5.60 293 P 41 36.36 0.1
PZI 5.88 257 P 41 39.86 -0.4
DUI 6.61 300 P 41 51.11 0.5
SDI 7.07 299 P 41 56.84 -0.1
AQU 7.62 302 P 42 05.36 0.7
MNS 8.12 301 P 42 12.81 1.2
ASS 8.44 305 P 42 16.86 0.8
ARV 8.48 308 P 42 15.96 -0.7
RSM 9.01 310 P 42 24.02 0.1
CRE 9.16 307 P 42 25.73 -0.4
SFI 9.38 308 P 42 30.05 1.1
TRI 9.43 322 P 42 29.21 -0.5
VVI 10.29 319 P 42 40.95 -0.6
FVI 10.54 322 P 42 44.91 0.0
CTI 10.74 317 P 42 45.91 -1.9
VAI 12.26 311 P 43 08.50 0.3
YKA 73.44 341 P 51 44.00 0.5
0.5s 0.50nm 3.8mb
S.D. = 0.7 on 23 of 23 obs.

DEC 12, 1993 20h 41m 30.02± 0.26s
36.445 N ± 4.9km 140.962 E ± 3.6km
DEPTH = 43.1km (18 depth phases)
5.4mb (86 obs.) 4.9Msz (17 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Mw 5.3 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 15C
Centroid Location:
Origin Time 20:41:36.5 0.7
Lat 36.40N FIX;Lon 141.06E FIX
Dep 54.9 5.8 Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr= 8.09 1.06 Mtt=-0.02 1.72
Mff=-8.07 1.14 Mrt= 2.36 1.34
Mrf= 1.40 1.60 Mtf=-6.34 1.35
Principal Axes:
T Val= 8.73 Plg=74 Azm= 5
N 3.11 15 211
P -11.84 7 119
Best Double Couple:Mo=1.0*10**17
NP1:Strike=193 Dip=40 Slip= 67
NP2: 42 54 108

KAKJ 0.68 250 iPd 41 44.10 0.8
S 41 53.40
CHJJ 1.64 257 iPd 41 57.80 1.0
eS 42 17.50
NIIJ 1.76 297 P 42 01.00 2.4
eS 42 24.40
YAMJ 1.88 337 iPd 42 02.20 2.0
MAT 2.22 273 iPd 42 06.40 1.3
eS 42 36.00
MTMJ 2.55 274 iPd 42 12.40 2.5
IIDJ 2.66 250 iPd 42 14.10 2.7
OFUJ 2.69 12 eP 42 11.40 -0.4
AOMJ 4.13 354 eP 42 34.40 2.1
TSRJ 4.14 259 P 42 35.00 2.6
WKYJ 4.92 245 P 42 44.60 1.2
MRRJ 5.97 1 eP 42 57.80 -0.4
eS 44 10.30
TKSJ 6.17 249 P 43 01.80 0.8
HOOJ 6.20 16 eP 42 59.70 -1.6
eS 44 07.50
YONJ 6.22 261 P 43 04.30 2.6
SHK 7.02 257 eP 43 14.70 1.8
KUSJ 7.24 22 eP 43 12.30 -3.7X
eS 44 30.30
ASAJ 7.77 9 eP 43 20.70 -2.6
eS 44 50.50
SHNJ 8.38 257 eP 43 35.50 3.7X

KUMJ 9.23 248 P 43 45.50 2.0
VLA 9.65 316 iPd 43 51.00 1.8
2.2s 452.00nm 6.2mb
Z 16s 1.50um 4.7Msz
N 15s 2.60um
E 15s 3.40um
i 45 40.00
KAGJ 9.88 241 P 43 54.60 2.1
KUR 10.21 29 iPc 43 54.20 -2.7
0.8s 160.00nm 6.3mb
Z 14s 3.20um 4.4Msz
N 14s 5.40um
E 14s 3.20um
iS 45 41.80
YSS 10.64 7 ePc 43 59.00 -3.8X
MDJ 11.88 317 eP 44 23.20 3.6X
1.0s 110.00nm 5.9mb
Z 19s 4.48um 4.1MszX
N 18s 4.27um
E 18s 3.26um
eS 46 35.00
CN2 13.95 307 eP 44 47.00 0.1
1.0s 56.00nm 5.3mb
Z 20s 2.11um 4.5Msz
N 13s 1.28um
E 13s 1.35um
epP 44 55.00
esP 45 05.00
eS 47 28.00
SNY 14.52 297 Pc 44 53.50 -0.9
1.2s 95.00nm 5.2mb
Z 18s 5.51um 5.0Msz
N .14s 2.11um
E 16s 2.45um
sP 45 05.00
DL2 15.51 285 eP 45 09.00 1.8
1.0s 150.00nm 5.1mb
Z 18s 3.44um 4.5MszX
E 16s 5.06um
pP 45 19.00
SSE 17.28 258 P 45 29.50 -0.1
1.0s 12.00nm 4.0mb X
Z 20s 3.20um 4.5MszX
N 15s 1.30um
E 14s 1.40um
pP 45 40.00
sP 45 44.00
NJ2 18.79 263 Pd 45 46.20 -2.0
1.0s 18.00nm 4.2mb X
Z 20s 1.95um 4.4Msz
E 15s 1.52um
TIA 19.20 276 P 45 50.40 -2.8
1.2s 350.00nm 5.5mb
Z 30s 2.59um 4.7Msz
N 15s 1.48um
BJI 19.78 288 eP 45 56.50 -2.8
1.0s 17.00nm 4.3mb X
Z 20s 1.81um 4.8Msz
N 13s 0.68um
eS 49 36.00
SS 50 00.00
e 50 47.50
PET 20.70 31 eP 46 09.00 0.2
Z 16s 0.90um 4.2MszX
TIY 22.76 282 eP 46 27.80 -1.9
Z 17s 5.74um 5.1MszX
E 18s 3.89um
WHN 22.92 263 P 46 29.50 -1.6
1.5s 140.00nm 5.2mb
Z 20s 3.11um 4.7Msz
N 20s 6.73um
eS 50 32.00
HHC 23.32 290 eP 46 32.40 -2.7
1.0s 20.00nm 4.6mb
Z 19s 3.07um 4.8Msz
E 19s 2.29um
BTO 24.50 289 eP 46 44.00 -2.5
N 15s 0.76um
E 15s 0.65um
ePP 47 25.00
CIT 24.82 317 eP 46 48.00 -1.5
XAN 26.22 274 P 47 01.00 -1.7
1.0s 27.00nm 4.8mb
YAK 26.55 348 iPd 47 07.90 2.6
1.2s 321.00nm 5.8mb
Z 18s 2.10um 4.7Msz
N 18s 0.50um
E 20s 1.40um
eS 51 42.00
GZH 27.31 248 P 47 11.40 -1.2
BOD 27.78 329 iPc 47 16.30 -0.3
0.9s 87.00nm 5.4mb
LZH 29.81 281 eP 47 34.00 -1.3
1.4s 44.00nm 5.0mb
Z 18s 3.52um 5.0Msz
E 17s 2.59um
PP 48 34.00
eS 52 20.00
ZAK 30.35 309 iPc 47 39.00 -0.7
1.0s 49.00nm 5.2mb
Z 14s 1.47um 4.8MszX
N 12s 0.86um
E 12s 0.96um
e 48 48.00 369kmX
e 50 38.00
e 54 13.00
GYA 30.77 261 iPc 47 41.80 -1.9
1.2s 130.00nm 5.6mb
CD2 31.32 271 eP 47 46.80 -1.7
0.9s 99.00nm 5.6mb
Z 19s 2.81um 4.9Msz
N 14s 1.68um
eS 52 50.10
GTA 32.39 288 eP 47 56.20 -1.7
1.2s 39.00nm 5.1mb
Z 18s 2.40um 4.9Msz
E 17s 1.35um
pP 48 04.50 29kmX
PP 49 06.00
PcP 50 44.00
S 53 08.00
PcS 54 29.00
KMI 34.52 262 Pc 48 14.50 -2.0
1.5s 140.00nm 5.7mb
Z 20s 2.70um 5.0Msz
N 15s 1.30um
E 16s 2.00um
pP 48 31.00 68kmX
eS 53 36.00
TIK 35.82 353 iPd 48 26.00 -0.8
1.4s 110.00nm 5.6mb
Z 16s 1.00um 4.7MszX
i 48 41.00 58kmX
WMQ 40.79 297 P 49 09.20 0.5
1.2s 120.00nm 5.5mb
Z 20s 1.71um 4.9Msz
E 18s 1.12um
pP 49 19.00 33kmX
sP 49 24.00
PP 50 48.00
PcP 51 10.00
ScP 54 53.00
PcS 54 59.00
S 55 19.00
sS 55 35.00
eSS 58 17.00
ScS 59 09.50
CHTO 40.80 256 eP 49 08.90 0.0
BDT 41.65 254 eP 49 16.00 0.1
NST 41.71 251 eP 49 16.50 0.1
LSA 41.90 276 P 49 19.80 1.3
SHL 43.04 270 iP 49 26.00 -1.5
eS 55 48.00
KHT 43.43 251 eP 49 28.80 -1.6
TTA 46.11 34 eP 49 51.68 0.2
1.0s 8.13nm 4.6mb
epP 50 04.22 46km
SVW 46.19 37 eP 49 53.74 1.6
0.9s 64.67nm 5.6mb
epP 50 05.84 44km
GUN 46.85 276 P 49 58.00 -0.2
BRW 47.10 23 eP 49 59.82 0.8
PKI 47.38 276 P 50 02.00 -0.3
IMA 47.38 30 eP 50 01.69 0.1
1.0s 8.08nm 4.7mb
KKN 47.39 276 P 50 02.30 0.1
GKN 47.81 277 P 50 05.50 0.0
CRP 47.87 37 eP 50 06.05 0.5
IPM 48.45 239 ePc 50 10.10 -0.2
1.0s 69.90nm 5.6mb
KGM 48.80 234 eP 50 13.00 0.1
PMR 49.31 36 eP 50 16.17 -0.2
0.7s 29.96nm 5.4mb
FBA 49.79 32 eP 50 20.28 0.2
0.8s 22.49nm 5.2mb
FRU 50.31 299 iPc 50 25.00 0.7
2.0s 140.00nm 5.6mb
Z 20s 2.00um 5.1Msz
E 20s 2.50um
KSH 50.33 294 P 50 26.00 1.4
0.8s 59.00nm 5.7mb
Z 18s 2.41um 5.3Msz
N 20s 3.82um
E 20s 2.87um
pP 50 37.00 38km
sP 50 44.00
PcP 51 43.00
PP 52 23.00
eS 57 36.00
sS 57 57.00
ScS 00 10.00
SS 01 07.00
TOA 50.68 36 eP 50 27.50 0.6
BALM 52.63 37 eP 50 41.35 -0.4
NDI 53.43 281 iPc 50 47.00 -0.9
WB2 56.43 187 iPc 51 07.60 -2.0
0.9s 21.10nm 5.2mb
e 51 16.50 29kmX
WRA 56.43 187 P 51 07.80 -1.8
0.9s 11.00nm 4.9mb
WRA 56.43 187 P 51 27.00 17.4X
1.1s 6.00nm
ARU 56.55 319 iPc 51 09.20 -1.0
1.2s 180.00nm 6.0mb
Z 16s 1.00um 5.0MszX
E 16s 1.00um
e 51 23.00 50km
HYB 57.83 269 iPc 51 19.00 -0.8
1.0s 70.00nm 5.7mb
e 51 35.00 60kmX
ASPA 60.16 187 iPd 51 33.90 -1.7
1.0s 14.10nm 5.0mb
GBA 60.81 266 Pc 51 40.00 -0.3
POO 61.03 272 iPc 51 41.60 -0.2
1.0s 40.00nm 5.5mb
KOD 62.70 262 eP 51 54.00 0.6
DZM 62.98 153 iPc 52 08.10 13.4X
ASH 63.63 299 eP 51 59.00 0.1
YKA 64.50 30 P 52 03.70 -0.5
0.8s 10.60nm 4.9mb
SDF 65.41 337 iP 52 09.20 -0.8
DAG 66.34 355 iPd 52 15.20 -0.6
1.0s 42.00nm 5.5mb
GMW 67.94 47 eP 52 27.29 0.9
STK 67.97 179 eP 52 24.60 -1.9
OBN 68.34 323 eP 52 27.50 -1.2
1.1s 51.00nm 5.5mb
Z 20s 1.00um 5.0Msz
N 18s 1.10um
E 18s 0.60um
i 52 43.00 56kmX
e 01 43.00
RMW 68.56 46 (P) 52 30.90 0.6
KAF 68.66 333 iP 52 29.60 -1.0
0.9s 41.00nm 5.4mb
SHW 68.95 48 eP 52 33.95 1.1
NUR 70.30 332 iP 52 39.60 -0.9
0.7s 27.60nm 5.4mb
DPW 70.41 45 eP 52 41.89 0.3
PYA 70.75 311 eP 52 41.00 -2.7
Z 16s 1.00um 5.2MszX
NEW 70.81 44 eP 52 43.66 -0.3
0.7s 6.98nm 4.8mb
KIV 71.02 311 iPc 52 45.50 0.1
Z 15s 1.00um 5.2MszX
e 53 01.40 57kmX
eS 02 45.50
ERE 71.90 307 iP 52 51.00 0.2
1.1s 12.00nm 4.8mb
ORV 72.94 53 eP 52 56.23 -0.5
MNK 73.30 325 eP 52 55.00 -3.5X
TOO 73.76 176 eP 53 16.00 14.7X
0.6s 4.00nm
ARN 74.14 55 (P) 53 04.63 0.8
HFS 74.47 336 eP 53 04.60 -0.7
1.0s 39.00nm 5.3mb
Z 18s 0.73um 5.0Msz
LR 21 18.00
CMB 74.51 54 eP 53 06.16 0.2
1.4s 32.07nm 5.1mb
epP 53 19.24 45km

12d 20h

NB2 74.59 337 P 53 05.90 -0.1
0.9s 37.10nm 5.3mb
NAO 74.87 337 P 53 04.73 -2.9
KVN 75.41 52 eP 53 12.16 0.9
epP 53 24.88 43km
MEMM 75.66 54 (P) 53 14.27 1.8
BONR 75.91 53 eP 53 15.10 0.8
HVU 77.07 47 eP 53 21.48 0.9
epP 53 34.25 43km
DUG 78.02 49 eP 53 26.50 0.8
1.4s 50.53nm 5.4mb
epP 53 39.44 44km
GSC 78.43 55 eP 53 28.45 0.4
epP 53 41.21 43km
VRI 78.94 320 ePd 53 32.00 1.5
ARUT 79.10 51 eP 53 32.11 0.4
UZH 79.28 324 eP 53 33.50 1.2
Z 15s 1.00um 5.3MszX
E 15s 0.50um
e 53 37.10 11kmX
e 53 53.60
OJC 79.33 326 eP 53 32.90 0.4
1.3s 77.00nm 5.5mb
i 53 39.70 22kmX
MSU 79.44 50 eP 53 34.44 0.8
epP 53 47.39 44km
MLR 79.60 320 ePd 53 35.00 0.8
SPC 79.86 325 iP 53 36.80 1.2
SRU 80.07 48 eP 53 36.56 -0.4
KSP 80.41 328 iPc 53 38.50 0.2
1.0s 46.00nm 5.4mb
e 53 49.80 37km
e 56 27.30
RSSD 80.51 41 eP 53 39.00 -0.2
1.0s 20.73nm 5.0mb
epP 53 51.95 44km
GLA 81.09 55 eP 53 42.82 0.5
epP 53 55.63 43km
PV09 81.30 48 eP 53 44.15 0.5
BRG 81.37 329 iPd 53 43.60 0.3
1.0s 30.00nm 5.2mb
i 54 00.00 58kmX
CLL 81.42 330 iPc 53 43.60 0.0
1.0s 57.00nm 5.5mb
e 53 59.00 54kmX
PV10 81.44 48 eP 53 45.32 1.1
epP 53 58.44 44km
PV08 81.54 48 eP 53 45.36 0.4
epP 53 58.67 45km
SRO 81.74 325 iP 53 47.10 1.8
PRU 81.79 328 iPc 53 45.80 0.3
0.9s 31.10nm 5.3mb
pP 53 55.70 31kmX
ePP 56 57.00
ZST 82.01 326 eP 53 47.20 0.5
MOX 82.49 330 iPc 53 49.60 0.4
1.6s 47.00nm 5.3mb
UZD 82.50 324 eP 53 49.00 -0.3
HOF 82.65 330 iPd 53 50.80 0.8
0.8s 19.00nm 5.2mb
KHC 82.85 328 iPc 53 51.50 0.4
1.0s 25.00nm 5.2mb
e 54 02.40 35km
e 54 20.00
e 55 03.50
ePP 57 03.30
GEC2 83.02 328 ePc 53 52.00 -0.1
0.8s 8.49nm 4.8mb
e 53 55.50 11kmX
e 54 02.50
e 54 07.50
e 54 09.40
WET 83.14 329 eP 53 53.20 0.6
1.0s 26.00nm 5.2mb
GRF 83.40 330 iPc 53 54.90 1.0
1.1s 87.00nm 5.7mb
Z 19s 0.60um 5.0Msz
ic 54 10.50 55kmX
EKA 83.57 340 P 53 56.00 1.4
2.0s 16.20nm 4.8mb
TUC 84.22 54 eP 53 59.93 1.5
1.2s 12.56nm 4.9mb
epP 54 13.34 45km
BHG 84.24 328 eP 53 58.60 0.4
VAY 84.25 318 iPd 53 58.70 0.4
1.0s 110.00nm 5.9mb
SKO 84.39 319 iP 53 59.80 0.8

FUR 84.57 329 iPc 54 00.50 0.7
0.9s 57.00nm 5.7mb
LJU 84.79 326 eP 54 00.50 -0.4
OHR 85.34 319 iP 54 03.50 -0.4
0.9s 70.00nm 5.8mb
i 54 16.30 43km
CDF 85.99 331 iPc 54 06.70 -0.3
0.9s 27.20nm 5.5mb
BSF 86.65 331 eP 54 09.50 -0.8
0.9s 10.00nm 5.0mb
HAU 86.68 331 eP 54 09.50 -0.8
0.7s 7.70nm 5.0mb
Z 20s 0.40um 4.8Msz
LOR 88.23 332 iPc 54 17.40 -0.4
1.3s 19.15nm 5.2mb
Z 22s 0.35um 4.7Msz
LDF 88.52 335 eP 54 19.90 0.7
1.5s 66.85nm 5.7mb
SSF 88.54 332 iPc 54 19.00 -0.3
1.0s 11.80nm 5.1mb
LPL 88.56 330 eP 54 18.30 -1.4
0.9s 8.20nm 5.0mb
LPG 88.57 330 eP 54 19.20 -0.6
0.6s 4.95nm 5.0mb
SMF 88.76 332 iPc 54 20.00 -0.4
1.2s 23.20nm 5.4mb
AVF 88.82 332 iPc 54 20.50 -0.1
1.0s 30.40nm 5.6mb
GRR 88.95 336 eP 54 21.00 -0.2
0.8s 9.00nm 5.1mb
LPF 89.32 336 iPc 54 22.90 0.0
1.7s 145.55nm 6.0mb
MAF 89.60 333 eP 54 23.50 -0.8
1.1s 15.65nm 5.2mb
TCF 89.67 333 eP 54 24.60 -0.1
1.2s 15.75nm 5.2mb
LSF 89.95 333 iPc 54 25.70 -0.3
1.0s 23.20nm 5.4mb
FRF 90.19 329 eP 54 26.20 -0.9
1.2s 26.20nm 5.4mb
MFF 90.25 334 iPc 54 27.40 0.1
1.1s 32.50nm 5.6mb
LRG 90.40 329 eP 54 27.20 -0.8
1.1s 35.15nm 5.6mb
Z 20s 0.45um 4.9Msz
LMR 90.44 329 iPc 54 27.50 -0.7
1.0s 27.80nm 5.6mb
RJF 90.76 333 iPc 54 29.80 0.1
0.9s 19.65nm 5.5mb
Z 22s 0.35um 4.8Msz
TUL 90.77 43 iPc 54 30.50 0.6
CAF 90.88 332 iPc 54 30.60 0.3
1.0s 20.80nm 5.5mb
LFF 91.36 333 iPc 54 32.70 0.3
0.7s 12.80nm 5.4mb
LPO 91.42 333 eP 54 32.90 0.2
1.1s 22.20nm 5.5mb
UYO 92.80 43 iPd 54 52.50 13.2X
EPF 93.15 332 iPc 54 40.30 -0.5
1.1s 11.00nm 5.2mb
LKO 124.48 319 PKP 00 25.63 -1.0
1.0s 17.50nm
TIC 126.58 316 PKP 00 30.23 -0.5
1.0s 16.50nm
KIC 126.66 316 PKP 00 30.37 -0.5
1.0s 25.50nm
LIC 126.93 316 PKP 00 30.85 -0.5
1.0s 16.00nm
LPAZ 147.30 60 ePKP 01 09.64 0.5
iPKPbc01 11.43
LPB 147.49 60 PKP 01 13.00 3.8X
CNCB 147.76 60 PKP 01 11.10 1.3
CCH 149.44 59 PKP 01 15.00 2.8
SIV 151.74 50 PKP 01 15.20 -0.1
S.D. = 1.2 on 173 of 183 obs.

& DEC 12, 1993 20h 43m 05.47s
60.008 N 152.618 W
DEPTH = 95.5km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.19 293 eP 43 18.66 0.9
eS 43 29.52
INE 0.23 284 eP 43 18.74 0.7
eS 43 30.08
RED 0.42 350 eP 43 19.88 -0.7
eS 43 31.09
RSO 0.46 352 eP 43 20.33 -0.6
RS2 0.46 351 eP 43 20.34 -0.6
eS 43 31.97
OPT 0.47 221 eP 43 20.26 -0.6
eS 43 32.21
REF 0.48 355 eP 43 20.47 -0.7
eS 43 32.27
RDW 0.49 349 iP 43 20.40 -0.7
eS 43 32.51
NCT 0.58 345 eP 43 21.14 -0.6
eS 43 33.50
DFR 0.59 357 iP 43 21.07 -0.7
eS 43 33.69
HOM 0.60 125 eP 43 21.53 -0.3
AUL 0.75 214 eP 43 22.60 -0.6
AUE 0.76 211 eP 43 22.38 -0.8
AUH 0.77 213 eP 43 22.73 -0.7
AUW 0.77 214 eP 43 22.60 -0.8
PDB 0.82 255 iP 43 23.10 -0.8
eS 43 37.02
CNPM 0.85 124 eP 43 23.48 -0.8
BRLK 0.91 105 eP 43 24.27 -0.6
eS 43 38.30
NKA 1.01 42 eP 43 26.85 1.0
BKG 1.08 9 iP 43 26.05 -0.8
eS 43 42.56
CKL 1.20 6 iP 43 27.44 -0.9
SPU 1.21 13 eP 43 27.45 -0.9
BGL 1.26 5 iP 43 28.35 -0.7
CRP 1.28 10 eP 43 28.63 -0.7
SLKM 1.30 66 eP 43 28.05 -1.3
CGLM 1.34 13 eP 43 29.18 -0.8
NCG 1.42 9 eP 43 30.10 -0.9
SEW 1.59 85 eP 43 31.45 -1.6
MPA 1.69 72 eP 43 32.98 -1.4
SUA 1.73 31 eP 43 34.10 -0.8
SVW 1.85 308 eP 43 34.41 -2.0
PMS 1.95 49 P 43 36.50 -1.3
SKT 2.05 15 eP 43 37.56 -1.5
PWA 2.13 38 P 43 39.00 -1.0
KDC 2.27 178 eP 43 38.26 -3.7
PWL 2.29 66 eP 43 40.74 -1.5
PLRM 2.33 46 eP 43 41.45 -1.4
PMR 2.33 46 (P) 43 41.26 -1.6
KNK 2.48 54 eP 43 42.47 -2.4
MTU 2.50 88 eP 43 43.34 -1.7
GHO 2.53 44 eP 43 43.84 -1.7
CUT 2.66 24 eP 43 45.83 -1.4
SML 2.76 47 eP 43 46.29 -2.4
SCM 3.17 52 eP 43 51.91 -2.4
KLU 3.61 63 eP 43 57.30 -3.0
TRF 3.63 17 eP 43 59.67 -1.0
FBA 5.40 22 eP 44 21.77 -3.2
47 obs. associated

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* DEC 12, 1993 21h 16m 37.01± 0.62s
6.165 S ±10.2km 145.197 E ± 8.1km
DEPTH = 33.0km (normal)
4.4mb (1 obs.)
NEW GUINEA, PAPUA NEW GUINEA (202)

YYYY 0.77 96 ePc 16 52.00 0.4
eS 17 00.00
MDG 1.08 33 iPd 16 56.30 0.5
LAT 1.86 106 ePc 17 05.90 -1.2
PMG 3.76 149 iP 17 34.80 0.7
eS 18 15.40
WB2 17.28 217 eP 20 45.30 7.8X
0.2s 5.80nm 4.4mb
GUN 66.46 304 P 27 26.20 0.0
PKI 66.73 303 P 27 27.80 -0.1
KKN 66.92 304 P 27 28.80 -0.1
GKN 67.52 304 P 27 32.60 -0.1
LKO 150.87 278 PKP 36 27.21 4.2X
0.6s 3.00nm
S.D. = 0.7 on 8 of 10 obs.

% DEC 12, 1993 22h 35m 50.62± 0.82s
28.148 S ± 7.6km 67.600 W ±13.6km
DEPTH = 100.0km (geophysicist)
LA RIOJA PROVINCE, ARGENTINA (138)

CYA 1.62 101 iPc 36 19.00 0.2
S 36 39.50
RTPR 2.35 156 iPd 36 28.00 -0.3
S 36 56.50

FSA 2.50 35 iPc 36 30.80 0.5
RTLL 3.26 193 iPd 36 40.70 0.0
RTCB 3.49 197 iPd 36 44.20 0.3
CFA 3.49 189 iPd 36 43.80 -0.1
S 37 24.00
RTCV 3.79 192 eP 36 48.00 0.0
S 37 31.00
SLA 3.89 29 iPd 36 49.00 -0.6
S.D. = 0.4 on 8 of 8 obs.

& DEC 12, 1993 23h 00m 15.59s
32.444 N 115.329 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.8 (PAS).

GLA 0.74 35 eP 00 28.38 -2.0
PLM 1.58 306 eP 00 41.16 -3.2
eS 01 00.97
PEC 2.11 314 (P) 00 48.81 -3.1
SSK 2.65 312 (P) 00 56.09 -3.7
4 obs. associated

DEC 12, 1993 23h 16m 41.14± 0.53s
46.259 N ± 7.5km 13.089 E ± 6.7km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
MD 3.0 (LJU), 2.4 (TRI). ML 2.4
(VIE).

VOY 0.60 112 iPgc 16 51.80 -1.6
eSg 17 02.70
TRI 0.72 139 e(Pg) 16 55.00 -0.4
i(Sg) 17 04.70
KBA 0.84 12 iPgc 16 57.10 -0.4
iSg 17 10.00
LJU 1.03 102 e(Pg) 17 01.10 0.5
eSg 17 17.40
CEY 1.07 119 ePn 17 01.50 0.2
eSn 17 21.20
SCE 1.23 310 iPgd 17 03.40 -0.7
RIY 1.29 135 ePn 17 04.90 -0.1
iSn 17 24.40
WTTA 1.42 316 iPgd 17 06.70 -0.4
iSg 17 26.60
WATA 1.50 317 iPgd 17 08.10 -0.1
iSg 17 30.00
SQTA 1.61 307 iPnd 17 09.90 0.1
iPg 17 11.40
iSg 17 34.50
VBY 1.69 116 ePn 17 12.20 1.3
iSn 17 37.20
MOTA 1.74 309 iPgd 17 12.80 1.0
iSg 17 36.60
KHC 2.89 6 ePn 17 28.50 0.4
ePg 17 38.50
eSn 18 06.50
eSg 18 16.50
S.D. = 0.8 on 13 of 13 obs.

DEC 12, 1993 23h 34m 18.05± 0.20s
27.263 N ± 3.9km 92.076 E ± 2.9km
DEPTH = 33.0km (normal)
4.9mb (41 obs.)
EASTERN XIZANG-INDIA BORDER REG.(313)
Felt in the Gauhati area, India.

SHL 1.70 186 iPn 34 47.00 1.0
iSn 35 07.00
LSA 2.56 342 iPgc 35 03.60 5.0X
Sg 35 37.00
GUN 5.54 278 P 35 40.80 0.1
PKI 5.93 274 P 35 45.30 -1.0
KKN 6.06 277 P 35 47.30 -0.6
GKN 6.64 278 P 35 55.00 -1.0
KMI 9.81 100 eP 36 39.50 -0.7
E 16s 1.50um
CHTO 10.52 142 eP 36 46.90 -2.7
CD2 10.84 68 iPd 36 55.50 1.4
Z 10s 0.67um
E 10s 0.65um
NDI 13.21 280 eP 37 21.00 -4.9X
0.8s 29.85nm 5.3mb
LOE 13.26 136 eP 37 36.40 9.9X
LZH 13.32 46 eP 37 26.50 -1.0
1.8s 33.00nm 5.0mb
Z 10s 1.07um 4.4MszX
pP 37 31.50
PP 37 40.50
GTA 13.72 26 P 37 31.50 -1.2
1.5s 39.00nm 5.0mb
Z 12s 1.20um 4.1MszX
E 12s 0.51um
pP 37 35.00
NST 13.75 145 eP 37 34.00 1.0
KHT 13.82 153 eP 37 29.00 -4.9X
HYB 15.88 235 eP 37 56.00 -4.8X
eS 40 45.00
XAN 15.98 61 P 38 00.60 -1.5
1.0s 18.00nm 4.2mb
pP 38 04.50
WMQ 16.90 349 P 38 13.50 -0.1
1.2s 65.00nm 4.6mb
Z 10s 0.57um 5.9Msz
pP 38 17.00
sP 38 20.50
PP 38 27.50
S 41 17.00
SS 41 37.00
PcP 43 04.00
KSH 18.09 316 eP 38 29.00 0.4
0.8s 30.00nm 4.5mb
Z 12s 1.22um 4.1MszX
N 10s 1.15um
E 10s 0.95um
pP 38 34.00
sP 38 38.00
PP 38 47.00
POO 18.89 246 eP 38 36.50 -1.9
GBA 19.28 228 P 38 43.00 0.0
S 02 04.00
WHN 19.77 75 eP 38 48.50 0.3
Z 16s 1.18um
N 15s 1.26um
BTO 19.91 44 eP 38 50.00 0.2
N 10s 0.41um
E 11s 0.29um
TIY 20.05 54 eP 38 50.10 -1.1
HHC 21.02 45 eP 39 02.00 0.7
1.0s 9.00nm 4.1mb
QUE 22.21 283 eP 39 14.50 1.0
eS 41 28.80
BJI 23.68 51 eP 39 18.00 -9.5X
Z 12s 0.60um 4.3MszX
eS 43 46.00
NJ2 23.73 72 Pc 39 33.50 5.5X
IPM 24.12 158 ePc 39 33.70 1.7
MAIO 29.02 296 eP 40 18.00 0.8
SNY 29.55 52 eP 40 22.60 0.9
CN2 31.51 50 eP 40 42.30 3.2X
0.8s 4.70nm 4.4mb
epP 40 51.00 30kmX
MAT 39.92 65 eP 41 51.00 0.2
0.8s 11.19nm 4.7mb
OBN 48.48 321 eP 43 00.00 0.7
1.5s 91.00nm 5.6mb
e 43 04.00
KAS 49.31 302 eP 43 07.00 1.0
VRI 54.17 308 ePc 43 43.00 0.6
MLR 54.75 308 ePd 43 48.00 1.2
KAF 54.98 328 eP 43 48.20 0.2
NUR 55.60 326 eP 43 52.50 0.0
SDF 55.82 335 iP 43 54.30 0.3
SPC 58.27 313 iP 44 12.40 0.5
OJC 58.45 314 eP 44 12.80 -0.1
e 44 17.20
SRO 59.71 311 eP 44 21.40 -0.2
ZST 60.46 312 eP 44 26.20 -0.6
KSP 60.60 315 ePc 44 27.00 -0.7
HFS 61.04 326 eP 44 29.50 -1.1
0.5s 7.60nm 5.0mb
HVAR 61.82 306 iPd 44 34.80 -1.3
PRU 61.83 314 iPc 44 36.30 0.2
BRG 62.06 315 iP 44 38.00 0.4
0.8s 12.00nm 5.1mb
NB2 62.17 327 P 44 37.40 -0.9
0.7s 9.80nm 5.0mb
WRA 62.27 134 P 44 39.50 0.1
0.7s 3.80nm 4.6mb
WB2 62.28 134 iPc 44 39.10 -0.3
0.7s 11.90nm 5.1mb
i 44 42.70
GEC2 62.58 313 e(P) 44 41.40 0.2
0.7s 13.10nm 5.2mb
GEC2 62.58 313 e(P) 44 44.10 2.9X
0.5s 5.40nm 4.9mb
KHC 62.60 314 eP 44 41.50 0.2
MOX 63.56 315 eP 44 47.40 -0.1
GRF 64.00 314 ePc 44 51.10 0.6
1.5s 40.00nm 5.3mb
e 44 55.70
ASPA 64.76 137 iPd 44 55.60 -0.1
0.6s 6.30nm 4.9mb
OSS 65.39 311 iPd 44 59.30 -0.4
LLS 66.11 312 iPd 45 03.80 -0.5
TMA 66.39 311 iPd 45 05.40 -0.7
CDF 66.83 314 iPc 45 08.50 -0.3
0.8s 9.40nm 4.9mb
BSF 67.29 313 iPc 45 11.30 -0.5
0.8s 8.60nm 4.9mb
DIX 67.37 311 iPd 45 13.00 0.5
LPG 67.98 311 eP 45 16.50 0.2
0.7s 7.05nm 4.9mb
LPL 67.99 311 eP 45 16.40 0.1
0.5s 5.90nm 4.9mb
LMR 68.79 309 iPc 45 20.90 -0.1
0.8s 8.20nm 4.9mb
LRG 68.86 309 iPc 45 21.40 0.0
0.8s 11.30nm 5.0mb
LOR 69.36 313 iPc 45 24.00 -0.5
0.9s 10.50nm 4.9mb
LBF 69.37 313 iPc 45 24.10 -0.5
0.5s 2.60nm 4.6mb
SMF 69.57 313 iPc 45 25.50 -0.2
0.8s 11.80nm 5.0mb
SSF 69.65 313 iPc 45 26.10 -0.1
0.6s 7.75nm 4.9mb
AVF 69.84 313 iPc 45 27.10 -0.3
0.8s 8.35nm 4.9mb
BGF 70.24 313 iPc 45 29.70 -0.2
0.7s 5.50nm 4.7mb
MAF 70.54 313 iPc 45 32.10 0.4
1.0s 11.20nm 4.9mb
TCF 70.75 313 iPc 45 33.30 0.3
0.7s 8.95nm 4.9mb
EKA 70.88 323 P 45 35.00 1.4
1.0s 24.90nm 5.2mb
CAF 71.30 311 eP 45 36.60 0.2
0.5s 4.25nm 4.7mb
LDF 71.45 316 eP 45 37.00 -0.1
0.8s 15.60nm 5.1mb
RJF 71.54 312 eP 45 38.40 0.7
1.0s 23.40nm 5.2mb
MFF 72.17 314 iPc 45 42.10 0.7
0.7s 6.05nm 4.7mb
LFF 72.18 312 eP 45 41.90 0.4
0.9s 20.00nm 5.1mb
FBA 77.20 22 eP 46 12.30 2.3
1.0s 6.50nm 4.6mb
YKA 88.04 12 P 47 05.30 -0.7
0.8s 0.80nm 4.1mb
S.D. = 0.8 on 75 of 84 obs.

% DEC 13, 1993 00h 10m 34.82± 0.84s
30.798 S ±10.5km 68.943 W ±13.1km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.67 143 ePd 10 52.50 0.3
S 11 05.00
RTCB 0.70 170 ePd 10 52.70 0.1
S 11 05.30
RTRS 0.77 324 iPd 10 53.00 -0.1
CFA 1.01 143 ePd 10 55.10 -0.5
S 11 13.00
RTCV 1.12 162 eP 10 57.00 0.1
S 11 14.50
RTPR 2.16 77 eP 11 10.00 0.1
S 11 36.80
S.D. = 0.4 on 6 of 6 obs.

? DEC 13, 1993 00h 49m 56.15± 1.25s
12.657 N ±15.5km 88.343 W ±21.7km
DEPTH = 33.0km (normal)
4.2mb (5 obs.)
OFF COAST OF CENTRAL AMERICA (76)

OXF 21.78 358 eP 54 48.03 1.0
0.5s 152.52nm 5.7mb X
LTX 21.87 322 eP 54 48.72 0.6
PRM 22.01 13 eP 54 49.36 -0.1

13d 00h

UYO 22.12 346 iPc 54 51.50 1.0
MIAR 22.30 349 eP 54 51.50 -0.8
0.8s 12.99nm 4.4mb
JSC 22.47 16 eP 54 54.24 0.3
MYNC 22.64 9 eP 54 55.08 -0.6
0.8s 7.41nm 4.2mb
WMOK 23.94 338 (P) 55 08.01 -0.2
1.0s 8.68nm 4.2mb
TUL 24.11 345 iPc 55 10.80 0.9
ALQ 27.60 327 eP 55 42.00 -0.7
1.0s 2.25nm 3.8mb
YKA 53.19 345 P 59 11.10 -2.0
0.7s 1.50nm 4.1mb
WB2 138.48 254 ePKP 09 22.20 1.1
0.3s 5.70nm
WRA 138.49 254 PKP 09 20.60 -0.5
0.5s 1.70nm
S.D. = 1.0 on 13 of 13 obs.

? DEC 13, 1993 01h 12m 33.61± 3.15s
3.570 N ±21.4km 96.593 E ±19.9km
DEPTH = 128.3 ± 29.7 km
4.5mb (7 obs.)
NORTHERN SUMATERA, INDONESIA (706)

IPM 4.53 77 ePd• 13 42.50 1.1
eS 15 08.00
SNG 5.37 48 eP 13 52.00 -0.7
e 14 18.90
e 14 51.00
e 14 59.90
GBA 21.38 299 P 17 11.20 -1.1
SHL 22.33 349 eP 17 20.00 -1.8
HYB 22.41 309 eP 17 22.70 0.3
PKI 26.15 337 P 17 59.20 1.1
0.5s 10.00nm 4.7mb
GUN 26.27 338 P 17 59.00 -0.2
0.6s 27.00nm 5.0mb
KKN 26.39 337 P 18 01.20 1.0
0.6s 14.00nm 4.7mb
GKN 26.84 336 P 18 03.70 -0.4
0.6s 18.00nm 4.8mb
WRA 43.82 124 P 20 28.60 -0.2
0.6s 0.70nm 3.6mb
WB2 43.83 124 eP 20 28.00 -0.8
1.0s 3.50nm 4.0mb
i 20 35.40
GEC2 82.64 319 ePKP 24 45.70 1.6
1.3s 2.72nm 3.9mb
e 24 53.60
e 25 01.80
e 25 06.20
S.D. = 1.2 on 12 of 12 obs.

% DEC 13, 1993 02h 09m 38.28± 0.72s
31.293 S ±12.2km 68.616 W ±13.4km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.13 106 iPd 09 52.80 0.0
(S) 10 04.60
RTCB 0.25 219 iPd 09 52.20 -1.0
(S) 10 04.30
CFA 0.45 134 iPd 09 54.20 0.2
(S) 10 06.50
RTCV 0.57 173 iPd 09 55.50 0.6
S 10 07.50
RTRS 1.33 327 eP 10 03.20 0.4
S 10 22.00
RTPR 2.06 62 eP 10 12.00 -0.2
S 10 37.00
S.D. = 0.7 on 6 of 6 obs.

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* DEC 13, 1993 02h 49m 38.00± 0.89s
5.850 S ±11.5km 146.708 E ±16.6km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.83 242 eP 49 55.80 2.4
eS 50 05.00
LAT 0.86 160 iPd 49 59.60 5.9X
MDG 1.10 303 ePd 50 05.50 8.4X
MNDI 3.05 264 eP 50 39.00 13.8X
PMG 3.56 173 iPd 50 32.00 -0.3
eS 51 09.00
WWKK 3.79 306 eP 50 43.00 7.5X
WB2 18.45 219 eP 53 48.20 -4.9X
0.3s 9.90nm 4.5mb
ASPA 21.58 214 eP 54 25.70 -1.4
0.5s 10.30nm 4.5mb
ipP 54 43.30 81kmX
CHTO 53.06 299 eP 58 54.10 -0.6
SHL 61.69 303 eP 59 55.50 -0.4
GUN 67.54 303 P 00 33.20 -0.9
KKN 68.00 303 P 00 36.10 -0.7
GKN 68.61 303 P 00 39.70 -0.8
FBA 85.16 23 eP 02 13.30 1.4
1.0s 8.00nm 4.9mb
YKA 99.17 28 P 03 18.30 1.1
0.7s 0.40nm 4.1mb
KIC 151.61 273 PKP 09 30.83 5.8X
0.8s 11.50nm
TIC 151.89 273 PKP 09 31.35 5.9X
0.5s 2.50nm
LIC 151.89 272 PKP 09 31.39 5.9X
0.6s 4.00nm
LKO 152.31 279 PKP 09 32.56 6.5X
0.8s 15.00nm
S.D. = 1.4 on 10 of 19 obs.

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* DEC 13, 1993 03h 59m 32.62± 0.74s
37.165 N ±12.9km 71.390 E ±10.5km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

MAIO 9.59 268 iPc 01 50.00 -1.5
0.8s 9.15nm 5.1mb
eS 03 29.00
NDI 9.77 148 eP 01 54.80 0.9
0.8s 44.78nm 5.8mb X
GKN 14.41 126 P 02 56.00 -0.4
KKN 14.98 125 P 03 02.80 -1.0
PKI 15.21 125 P 03 06.60 -0.3
GUN 15.30 123 P 03 07.20 -0.9
POO 18.69 173 eP 03 51.50 1.1
HYB 20.66 160 eP 04 12.00 -0.2
SHL 20.93 118 iP 04 17.00 2.0
eS 07 55.50
GBA 24.08 165 P 04 46.90 0.9
S 09 07.00
HFS 42.74 321 eP 07 29.80 1.8
0.6s 2.30nm 4.1mb
NB2 44.04 323 P 08 01.60 23.0X
0.8s 10.60nm
DAG 54.21 344 eP 09 03.00 6.3X
0.7s 4.79nm 4.6mb
YKA 80.57 3 P 11 42.90 0.3
0.7s 0.80nm 3.8mb
WRA 82.08 122 P 11 50.20 -1.0
0.6s 1.00nm 4.0mb
WB2 82.09 122 eP 11 49.70 -1.6
0.5s 2.60nm 4.5mb
e 12 18.40
S.D. = 1.3 on 14 of 16 obs.

& DEC 13, 1993 05h 12m 19.85s
41.181 N 125.427 W
DEPTH = 23.9km
OFF COAST OF NORTHERN CALIFORNIA(34)
<GM-P>. MD 3.1 (GM). ML 3.0
(GS).

FHC 1.16 109 eP 12 38.64 -2.0
eLg 12 52.67
KMPM 1.25 127 eP 12 39.84 -2.1
eS 12 52.25
LGPM 1.98 97 ePc 12 50.31 -2.3
eLg 13 12.57
WDC 2.27 104 ePc 12 54.47 -2.1
LBFM 2.67 85 eP 13 01.52 -1.0
LMEM 2.99 101 eP 13 04.68 -2.3
ORV 3.41 117 (P) 13 08.83 -3.9
VGB 5.50 36 eP 13 39.78 -2.6
8 obs. associated

& DEC 13, 1993 06h 30m 08.89s
63.019 N 150.988 W
DEPTH = 124.4km
CENTRAL ALASKA (1)
<AEIC>.

KTH 0.54 3 eP 30 27.57 -0.3
eS 30 41.39
TRF 0.54 36 eP 30 27.57 -0.5
eS 30 42.41
HUR 0.62 93 eP 30 27.86 -0.5
eS 30 42.66
CUT 0.70 151 eP 30 28.65 -0.3
eS 30 43.38
RND 1.04 67 eP 30 31.55 -0.6
SKT 1.07 194 eP 30 31.77 -0.6
eS 30 49.62
MCK 1.17 51 eP 30 32.91 -0.4
BWN 1.34 30 eP 30 35.15 0.0
PWA 1.47 159 P 30 36.00 -0.6
SUA 1.57 176 eP 30 38.02 0.2
eS 31 00.06
GHO 1.58 142 eP 30 37.20 -0.8
DHY 1.65 86 eP 30 38.02 -0.9
eS 31 [illegible].14
PLRM 1.67 148 eP 30 37.92 -1.1
PMR 1.67 148 eP 30 37.61 -1.4
NCG 1.71 199 eP 30 38.83 -0.8
SML 1.73 133 eP 30 38.57 -1.2
eS 31 02.76
NEA 1.78 28 eP 30 38.84 -1.4
CGLM 1.78 196 eP 30 39.45 -1.0
CRP 1.84 198 eP 30 39.92 -1.3
BGL 1.88 201 eP 30 41.55 -0.1
PMS 1.90 159 P 30 41.00 -0.9
S 31 05.30
SPU 1.91 196 eP 30 41.02 -0.9
eS 31 06.08
CKL 1.94 200 eP 30 41.73 -0.6
WRH 1.95 40 eP 30 41.37 -1.0
KNK 2.00 143 eP 30 42.27 -0.8
eS 31 07.31
MLY 2.02 3 eP 30 42.32 -1.0
BKG 2.05 198 eP 30 42.50 -1.2
SCM 2.08 123 eP 30 42.79 -1.3
CCB 2.16 39 eP 30 43.93 -1.1
HDA 2.27 50 eP 30 45.24 -1.2
MDM 2.30 31 eP 30 45.60 -1.2
TTA 2.30 270 eP 30 45.41 -1.4
FBA 2.36 35 eP 30 45.87 -1.7
CFI 2.39 139 eP 30 46.98 -0.9
TOA 2.41 110 P 30 47.50 -0.8
DDM 2.43 69 eP 30 49.07 0.5
PWL 2.50 149 eP 30 48.13 -1.3
PAX 2.52 89 eP 30 48.97 -0.8
GLM 2.53 37 eP 30 48.90 -1.0
SLKM 2.55 171 eP 30 49.04 -1.0
SDG 2.55 99 eP 30 49.29 -0.8
DFR 2.57 199 eP 30 49.18 -1.2
MPA 2.65 162 eP 30 50.08 -1.3
REF 2.67 199 eP 30 50.81 -1.0
KLU 2.82 121 eP 30 51.59 -2.1
VLZ 2.90 129 eP 30 52.40 -2.1
eS 31 26.07
SVW 2.90 231 (P) 30 53.66 -1.1
SEW 3.02 165 eP 30 54.85 -1.3
FID 3.12 135 eP 30 56.17 -1.4
IMA 3.28 340 eP 30 58.18 -1.6
CNPM 3.51 182 eP 31 01.70 -1.1
GLB 3.71 112 eP 31 03.79 -1.8
BALM 4.53 112 eP 31 14.38 -2.3
53 obs. associated

% DEC 13, 1993 08h 03m 10.71± 1.14s
31.847 S ±18.1km 67.343 W ± 7.4km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.80 287 ePc 03 03.00 -26.4X
S 03 44.00
RTCV 1.02 269 iPc 03 32.00 0.3
S 03 48.00
RTLL 1.09 298 ePc 03 32.30 -0.2
RTCB 1.29 286 ePc 03 34.70 -0.2
RTPR 1.70 25 eP 03 40.00 0.2
TCA 2.40 79 iPd 03 49.10 -0.1
S 04 18.20
RTRS 2.47 312 eP 03 50.00 0.0
S 04 19.50
S.D. = 0.3 on 6 of 7 obs.

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* DEC 13, 1993 08h 46m 44.93± 0.57s
9.914 N ± 7.5km 126.525 E ±11.6km
DEPTH = 33.0km (normal)

4.8mb (11 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 1.70 189 ePd 47 13.00 0.3
iS 47 35.00
PLP 1.96 309 ePc 47 17.00 0.5
iS 47 34.50
MAP 2.54 279 iPd 47 26.00 1.3
iS 47 59.00
SSE 21.65 348 P 51 35.50 0.9
Z 16s 0.50um 4.0MszX
IPM 25.83 260 ePd 52 16.80 1.5
1.1s 49.30nm 5.0mb
NST 26.35 285 eP 52 23.00 3.0
WB2 30.65 165 eP 52 50.00 -8.8X
1.0s 2.70nm 4.0mb
i 52 57.90
ASPA 34.14 168 eP 53 30.20 1.0
0.3s 6.50nm 5.0mb
WARB 35.88 180 eP 53 44.00 0.0
SHL 36.34 300 eP 53 47.00 -1.1
MEEK 37.14 192 eP 53 54.00 -0.6
MRWA 40.21 194 eP 54 19.50 -0.6
KLB 42.11 191 iPc 54 35.20 -0.5
GUN 42.16 301 P 54 35.80 -0.9
PKI 42.47 300 P 54 37.40 -1.8
0.7s 18.00nm 4.9mb
KKN 42.64 300 P 54 38.20 -2.2
0.8s 19.00nm 4.9mb
MUN 42.81 193 eP 54 41.20 -0.2
NWAO 43.51 191 iPc 54 47.20 0.1
STK 43.99 161 eP 54 50.60 -0.4
0.8s 2.40nm 4.0mb
ADE 46.10 166 e(P) 55 08.60 0.7
GBA 48.14 279 P 55 22.00 -2.2
KAF 86.06 332 iP 59 24.50 1.2
0.4s 2.30nm 4.8mb
NUR 87.23 331 eP 59 29.10 0.0
DAG 91.15 352 eP 59 48.00 0.7
0.4s 3.39nm 5.1mb
HFS 92.48 333 eP 59 52.70 -1.0
0.4s 2.10nm 4.9mb
NB2 93.19 334 P 59 56.70 -0.4
0.7s 1.50nm 4.5mb
YKA 93.98 24 P 00 01.50 0.9
0.7s 1.90nm 4.6mb
S.D. = 1.2 on 26 of 27 obs.

DEC 13, 1993 08h 46m 56.03± 0.40s
57.072 N ± 7.2km 158.036 E ± 6.4km
DEPTH = 33.0km (normal)
4.7mb (25 obs.) 4.9Msz (1 obs.)
KAMCHATKA (217)

PET 4.08 175 ePn 47 57.00 -0.6
N 14s 2.48um
E 16s 13.20um
MGD 4.85 312 ePn 48 04.00 -4.6X
i 49 16.00
SKR 6.52 191 ePn 48 30.40 -1.7
Z 12s 1.20um
N 12s 2.90um
E 12s 2.90um
YAK 15.11 301 eP 50 28.00 -0.4
1.0s 100.00nm 5.0mb
Z 12s 2.10um 3.7Msz
N 12s 0.80um
E 12s 1.40um
TIK 18.98 332 iPc 51 15.00 -1.7
2.0s 120.00nm 4.8mb
TTA 23.28 56 (P) 52 00.89 -0.4
1.2s 18.71nm 4.5mb
BRW 23.51 35 eP 52 05.50 2.2
SVW 23.74 61 eP 52 05.65 -0.1
1.2s 66.55nm 5.0mb
IMA 24.07 48 eP 52 07.01 -1.9
1.6s 30.02nm 4.6mb
MAT 24.44 221 eP 52 12.00 -0.7
eS 56 42.00
CRP 25.35 60 eP 52 21.49 0.2
CIT 25.91 278 eP 52 28.00 1.6
FBA 26.62 51 eP 52 29.99 -2.8
1.1s 7.35nm 4.2mb
ZAK 32.30 282 eP 53 23.80 0.3
1.3s 11.00nm 4.6mb
Z 11s 0.88um 4.7MszX
UER 36.47 289 eP 54 00.00 0.7
NVS 39.99 300 iPc 54 28.80 0.1
YKA 41.10 45 P 54 35.40 -2.3
1.0s 5.10nm 4.2mb
LZH 41.40 263 eP 54 41.00 0.3
1.5s 32.00nm 4.8mb
SVE 48.63 313 ePc 55 33.00 -5.0X
Z 16s 0.80um 4.8MszX
N 16s 0.70um
E 16s 0.70um
ARU 49.72 314 ePc 55 46.00 -0.4
Z 18s 1.00um 4.9Msz
N 18s 0.50um
E 18s 0.50um
FRU 52.16 292 eP 56 06.00 0.8
1.6s 40.00nm 5.1mb
e 56 14.00
KAF 55.36 335 iP 56 27.30 -1.1
0.7s 5.70nm 4.7mb
HVU 55.82 65 (P) 56 33.55 1.3
NUR 57.16 335 eP 56 40.40 -0.9
RSSD 58.21 57 eP 56 49.78 0.6
1.4s 24.33nm 5.1mb
MSU 58.60 67 eP 56 53.94 1.9
NB2 59.38 342 P 56 56.00 -0.9
1.2s 9.40nm 4.8mb
HFS 59.79 340 eP 56 58.10 -1.6
0.6s 2.30nm 4.5mb
PV10 60.27 65 eP 57 04.79 1.2
OJC 67.65 332 eP 57 51.20 -0.1
KSP 67.92 335 eP 57 53.60 0.6
CLL 68.21 337 eP 57 53.00 -1.8
1.7s 35.00nm 5.2mb
LTX 70.16 67 eP 58 08.14 1.0
GEC2 70.38 336 eP 58 08.50 0.2
1.3s 3.85nm 4.3mb
e 58 19.50
CDF 72.11 340 eP 58 19.10 0.4
0.7s 5.20nm 4.6mb
GRR 73.45 345 eP 58 25.90 -0.5
0.7s 7.70nm 4.8mb
LOR 73.82 342 eP 58 28.80 0.2
0.8s 7.40nm 4.7mb
SSF 74.08 342 eP 58 31.00 0.9
0.7s 4.95nm 4.6mb
AVF 74.37 342 eP 58 32.20 0.5
0.7s 4.50nm 4.6mb
SMF 74.43 342 eP 58 32.40 0.3
0.5s 3.65nm 4.6mb
LPL 75.00 340 eP 58 37.20 1.5
0.7s 6.50nm 4.7mb
LPG 75.01 340 eP 58 37.40 1.6
0.8s 7.95nm 4.8mb
WRA 79.25 203 P 59 03.50 4.3X
0.9s 1.10nm 3.9mb
ASPA 82.96 202 eP 59 12.50 -6.1X
LPAZ 126.64 60 PKP 06 01.10 2.9X
LPB 126.86 60 (PKP) 06 04.00 5.7X
CNCB 127.16 60 ePKP 06 02.00 2.9X
SPA 146.89 180 iPKPd 06 34.60 1.6
0.8s 8.33nm
S.D. = 1.2 on 41 of 48 obs.

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* DEC 13, 1993 08h 59m 49.38± 0.43s
55.133 N ± 3.6km 4.576 E ± 4.3km
DEPTH = 10.0km (geophysicist)
NORTH SEA (534)
ML 3.4 (BGS).

KSY 3.74 237 eP 00 49.00 0.7
KUF 3.87 231 eP 00 51.09 0.9
KMY 4.11 5 eP 00 53.59 0.1
Lg 01 37.19
ESY 4.16 284 eP 00 54.81 0.5
CWF 4.22 238 eP 00 55.50 0.3
e 01 42.61
e 01 43.18
KWE 4.33 243 eP 00 57.08 0.3
EDR 4.37 297 eP 00 57.90 0.6
eS 00 57.91
EBL 4.39 282 eP 00 57.73 0.2
BLS5 4.42 13 eP 01 00.56 2.5
eSg 01 47.50
EDI 4.48 283 eP 00 59.32 0.5
e 01 47.44
e 01 49.61
EDU 4.51 291 eP 00 59.42 0.2
EAU 4.62 282 eP 01 01.02 0.2
SNF 4.63 182 iP 01 02.10 1.1
EBH 4.71 287 eP 01 02.30 0.2
ELO 4.86 289 eP 01 04.74 0.4
ODD1 4.92 12 eP 01 05.08 0.0
eSg 01 57.54
EAB 5.16 285 eP 01 08.63 0.2
EGD 5.16 4 eP 01 07.79 -0.7
eSg 02 02.55
HAE 5.26 237 eP 01 09.82 0.0
ASK 5.38 3 eP 01 10.25 -1.2
eSg 02 06.17
WIM 5.46 263 eP 01 11.84 -0.9
WME 5.49 255 eP 01 12.52 -0.6
eS 02 07.87
YLL 5.52 252 eP 01 13.00 -0.5
eS 02 09.00
WLF 5.56 169 eP 01 13.85 -0.3
HTR 5.58 240 eP 01 14.25 -0.2
HGH 5.64 235 eP 01 14.85 -0.3
HCG 5.64 243 eP 01 15.19 -0.1
WFB 5.65 248 eP 01 15.23 -0.2
YRC 5.69 254 eP 01 15.46 -0.5
YRE 5.72 252 eP 01 15.82 -0.6
YRH 5.90 251 eP 01 18.60 -0.3
DLF 6.77 259 eP 01 30.60 -0.5
eS 02 42.00
HFS 7.00 41 eP 01 33.10 -1.3
0.2s 0.80nm 4.6mb
DCN 7.18 260 eP 01 36.00 -0.8
eS 02 55.00
S.D. = 0.7 on 34 of 34 obs.

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* DEC 13, 1993 09h 24m 17.75± 0.91s
9.803 N ±10.4km 126.460 E ±13.2km
DEPTH = 33.0km (normal)
4.7mb (2 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

PLP 1.99 313 ePd 24 48.50 -1.2
iS 24 59.50
CGP 2.20 233 ePc 24 53.00 0.3
iS 25 16.00
MAP 2.50 282 iPd 24 56.00 -0.9
iS 25 27.00
CTB 3.42 221 ePc 25 12.00 2.0
NST 26.32 286 eP 29 54.00 1.5
WARB 35.77 180 eP 31 15.50 -0.4
0.3s 4.00nm 4.9mb
MRWA 40.08 194 eP 31 51.00 -1.0
KLB 41.99 191 eP 32 07.00 -0.6
GUN 42.17 301 P 32 00.00 -9.5X
MUN 42.69 193 eP 32 12.50 -0.7
NWAO 43.39 191 eP 32 18.40 -0.6
IMA 76.98 24 (P) 36 11.50 2.7
YKA 94.11 24 P 37 32.90 -1.1
0.6s 1.00nm 4.4mb
S.D. = 1.5 on 12 of 13 obs.

% DEC 13, 1993 09h 47m 57.00± 4.18s
42.942 N ±10.2km 20.312 E ±29.2km
DEPTH = 11.0 ± 5.9 km
NORTHWESTERN BALKAN REGION (383)
ML 1.9 (TTG).

IVA 0.31 257 iPgc 48 04.34 0.8
iSg 48 08.62
PVY 0.43 216 iPgc 48 06.28 0.5
iSg 48 12.04
PLE 0.78 300 iPgc 48 12.53 0.4
iSg 48 23.42
TTG 0.93 237 iPgd 48 14.13 -0.5
iSg 48 26.30
NKY 0.97 263 iPgc 48 15.03 -0.5
iSg 48 27.87
ULC 1.25 219 iPgd 48 20.31 0.1
iSg 48 37.21
BDV 1.28 240 iPgc 48 20.43 -0.2
iSg 48 37.47
BRY 1.30 269 iPgd 48 21.00 -0.1
iSg 48 38.42
HCY 1.43 250 iPgc 48 22.80 0.0
iSg 48 41.27
S.D. = 0.5 on 9 of 9 obs.

? DEC 13, 1993 11h 34m 43.79± 2.83s
9.864 N ±14.2km 126.457 E ±28.9km
DEPTH = 33.0km (normal)

13d 11h

```
 MINDANAO, PHILIPPINE ISLANDS    (259)

BIP      1.64 187 ePc   35 10.80    0.1
                  eS    35 33.00
PLP      1.95 312 ePd   35 15.00   -0.1
                  eS    35 29.20
CGP      2.23 231 iP    35 19.00   -0.2
                  iS    35 47.50
MAP      2.48 281 eP    35 23.00    0.2
                  iS    35 52.00
     S.D. = 0.3  on   4 of   4 obs.
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   DEC 13, 1993 11h 43m 44.23± 0.14s
   20.422 S ± 4.1km 173.839 W ± 4.2km
   DEPTH =  33.0km  (normal)
   5.8mb ( 59 obs.)  5.9Msz ( 69 obs.)
 TONGA ISLANDS                   (173)
      Mw 5.8 (HRV). Ms 6.0 (BRK).
      Mo=1.5*10**18 Nm (PPT).
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 33S, 61C
      Centroid Location:
      Origin Time        11:43:46.6 0.3
      Lat 20.54S 0.03 Lon 172.90W 0.03
      Dep  15.0 FIX Half-duration  1.9
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 4.74 0.09  Mtt=-0.30 0.16
        Mff=-4.44 0.17  Mrt= 0.58 0.22
        Mrf= 2.25 0.24  Mtf=-2.13 0.10
       Principal Axes:
        T  Val=  5.27  Plg=77  Azm=274
        N        0.58       4       21
        P       -5.84      12      112
      Best Double Couple:Mo=5.6*10**17
       NP1:Strike=207 Dip=33 Slip=  97
       NP2:        19     57        85
AFI      6.77  17 eP    45 16.00  -8.0X
                  eS    46 32.00
SVA      7.63 286 eP    45 39.60   3.7X
MBU      7.84 295 ePc   45 42.60   3.6X
RAR     13.18  96 eP    46 38.51 -13.1X
PVC     17.08 276 iPc   47 45.50   3.3X
BKM     17.16 276 iPc   47 42.20  -1.0
OUZ     18.44 214 eP    47 59.30   0.4
DZM     18.45 261 iPc   48 00.00   0.7
WCZ     18.62 211 eP    47 59.80  -1.3
KUZ     18.65 207 eP    48 02.30   0.8
PUZ     18.88 200 eP    48 01.00  -3.3X
URZ     19.43 202 eP    48 06.40  -4.3X
WLZ     19.66 206 eP    48 12.70  -0.6
MOZ     20.52 206 eP    48 21.50  -0.8
MNG     22.10 202 eP    48 36.90  -1.4
AFR     22.93  87 iPc   48 41.90  -4.7X
        1.8s  1629.60nm         6.2mb
SNZO    22.99 203 eP    48 49.00   2.1
                  S     52 48.00
PAE     23.09  87 iPc   48 43.60  -4.5X
        2.1s  2078.90nm         6.3mb
PPT     23.11  87 iPc   48 43.90  -4.5X
        2.2s  3321.30nm         6.5mb
      Z  20s   *******um        8.6MszX
PPN     23.25  87 iPc   48 45.20  -4.5X
        2.2s  2423.40nm         6.3mb
TVO     23.38  88 iPc   48 46.50  -4.5X
        2.1s  2707.40nm         6.4mb
QRZ     23.42 207 eP    48 51.50   0.3
THZ     24.06 205 eP    48 56.90  -0.5
LTZ     25.17 205 eP    49 06.60  -1.5
PMO     25.28  82 iPc   49 04.40  -4.9X
        1.7s   729.30nm         6.0mb
VAH     25.46  83 iPc   49 06.10  -4.9X
        1.9s   320.10nm         5.6mb
TPT     25.54  82 iPc   49 07.10  -4.6X
        1.7s   826.40nm         6.1mb
RUV     25.70  83 iPc   49 08.80  -4.5X
        1.3s   268.60nm         5.7mb
LSCZ    28.27 206 eP    49 38.50   1.9
CMCZ    28.34 206 eP    49 39.00   1.8
TLC     28.45 206 eP    49 40.20   1.9
ARMA    32.63 245 eP    50 14.80  -0.6
        1.0s    21.00nm         5.0mb
                  e     53 07.30
RIV     33.72 239 eP+   50 23.60  -1.1
                  eS    55 34.00
CNB     35.53 237 iPc   50 39.10  -1.2
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         0.9s    52.00nm          5.5mb
CAN     35.82 238 iPc   50 41.10   -1.6
CTAO    37.38 263 eP    50 54.59   -1.4
        0.8s    34.45nm           5.3mb
TOO     39.12 235 iPd   51 09.70   -0.7
        0.8s   111.00nm           5.7mb
STK     41.35 245 iPc   51 26.60   -2.2
        1.1s    20.00nm         4.8mb X
                  eS    57 18.20
ADE     44.05 240 e(P)  51 49.30   -1.5
HON     44.28  21 P     52 00.00    7.3X
      Z  20s     3.40um          5.3Msz
WRA     48.47 261 P     52 23.10   -2.9
        0.8s    21.30nm           5.2mb
FORT    52.90 246 eP    52 57.50   -2.0
        0.8s    58.00nm           5.6mb
DRV     54.76 201 iP    53 12.00   -0.7
                  S     01 12.00
SBA     58.24 185 eP    53 40.00    2.7X
COOL    58.82 246 eP    53 40.00   -2.1
        1.0s    49.00nm           5.6mb
MBL     61.58 256 eP    53 58.50   -2.6
KLB     61.61 244 eP    53 59.50   -1.7
NWAO    61.88 243 eP    54 02.44   -0.6
        0.9s    59.46nm           5.7mb
BAL     62.64 245 eP    54 06.50   -1.6
MUN     62.87 244 eP    54 09.00   -0.6
CSY     65.71 205 eP    54 27.80    0.4
        1.1s    25.10nm           5.2mb
MAP     68.35 291 eP    54 41.00   -3.9X
SPA     69.70 180 iPd   54 52.30   -0.4
        1.9s   625.00nm           6.4mb
TSM     71.32 282 ePc   55 03.50    0.3
CHJJ    71.73 321 eP    55 04.50   -0.6
IIDJ    71.98 320 eP    55 06.30   -0.4
OFUJ    72.36 325 eP    55 08.50   -0.3
MAT     72.53 321 eP    55 09.00   -0.9
        2.7s   742.86nm           6.2mb
      Z  20s     1.06um          5.1Msz
                  eS    02 36.00
NIIJ    72.55 322 eP    55 08.20   -1.7
WKYJ    72.57 318 P     55 10.10   -0.2
YAMJ    72.61 323 eP    55 09.80   -0.5
MTMJ    72.79 321 eP    55 11.30   -0.3
QCP     72.82 293 eP    55 20.00    8.0X
QVP     72.88 293 eP    54 55.00  -17.3X
TSRJ    73.19 319 eP    55 13.70   -0.1
TKSJ    73.40 317 P     55 14.70   -0.3
TKSJ    73.40 317 eP    55 15.80    0.8
KKM     73.53 283 ePd   55 22.10    5.8X
SMY     73.59 352 P     55 30.00   14.3X
      Z  19s    10.21um         6.1Msz
CVP     73.60 296 ePd   55 18.60    2.1
KAGJ    73.79 313 eP    55 18.10    0.8
KUSJ    73.81 330 eP    55 17.30    0.1
KUR     74.06 333 iPd   55 18.00   -0.5
      Z  18s     4.10um          5.8Msz
      N  18s     5.90um
      E  18s     5.90um
YONJ    74.54 317 P     55 22.50    0.9
KUMJ    74.63 314 eP    55 21.50   -0.7
BCH     75.21  43 eP    55 24.93   -0.7
SAO     75.35  41 eP    55 26.75    0.5
        1.8s   151.25nm           5.7mb
      Z  18s     8.14um          6.1Msz
SHNJ    75.40 315 eP    55 25.40   -1.2
ABL     75.56  44 eP    55 26.89   -0.9
ASAJ    75.57 329 eP    55 28.80    1.5
BKS     75.59  40 eP    55 33.69    6.1X
                  eS    04 47.69
                  eLQ   14 54.69
                  eLR   17 52.69
MHC     75.60  41 eP    55 27.94    0.1
        1.7s   210.00nm           5.9mb
      Z  18s     8.00um          6.1Msz
                  eS    04 55.20
                  eSKS  05 17.20
                  eSS   10 07.20
                  eLQ   14 49.20
                  eLR   18 02.20
ARN     75.67  41 eP    55 27.11   -1.0
SSK     76.18  45 eP    55 30.75   -0.5
PLM     76.23  46 eP    55 30.63   -0.9
SDN     76.31   8 P     55 40.00    8.8X
      Z  20s     3.17um          5.6Msz
PEC     76.35  46 eP    55 30.76   -1.3
        2.3s   395.48nm           6.0mb
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ISA     76.54  44 eP    55 31.81  -1.3
        1.2s    64.28nm          5.5mb
      Z  19s     5.54um          5.9Msz
CMB     76.81  41 eP    55 33.15  -1.4
        1.5s    90.00nm          5.6mb
      Z  18s     6.00um          6.0Msz
                  eS    05 16.31
                  eSKS  05 35.31
                  eSS   10 22.31
                  eLQ   15 15.31
                  eLR   18 50.31
PET     76.93 343 eP    55 34.00  -0.7
      Z  20s     5.80um          5.9Msz
      N  18s     2.25um
      E  16s     3.00um
                  ePS   06 24.00
ORV     77.11  39 eP    55 35.48  -0.6
        1.9s   150.00nm          5.7mb
      Z  17s     2.50um          5.6MszX
                  eS    05 30.39
                  eSKS  06 07.39
                  eSS   10 20.39
                  eLQ   15 25.39
                  eLR   16 40.39
WDC     77.18  38 eP    55 36.30  -0.1
        1.8s   190.00nm          5.8mb
      Z  20s     7.00um          6.0Msz
                  eS    05 29.21
                  eSKS  06 02.21
                  e     10 28.21
                  eLQ   15 04.21
                  eLR   18 53.21
WDC     77.18  38 P     55 50.00  13.6X
      Z  20s     7.25um          6.0Msz
LGPM    77.23  37 eP    55 37.01   0.1
MMPM    77.38  42 (P)   55 38.56   0.5
GSC     77.41  45 eP    55 36.84  -1.1
GLA     77.45  48 eP    55 38.05  -0.1
MEMM    77.47  42 eP    55 39.13   1.1
MTUM    77.51  42 ePd   55 38.83   0.2
MIN     77.56  38 eP    55 37.71  -1.1
        3.2s   710.00nm         6.1mb X
YSS     77.70 331 ePd   55 37.00  -2.1
      Z  18s     2.50um          5.6Msz
      N  18s     2.50um
      E  18s     1.00um
                  iS    05 32.00
MRCM    77.75  42 eP    55 40.67   0.7
YBH     77.84  37 eP    55 41.01   0.8
        1.7s   150.00nm          5.7mb
      Z  20s     7.00um          6.0Msz
                  eS    05 38.52
                  eSKS  06 07.52
                  eSS   10 28.52
                  eLQ   15 39.52
                  eLR   19 26.52
BONR    78.05  42 eP    55 40.95  -0.7
TPNV    78.75  44 eP    55 44.83  -0.6
        0.8s    22.20nm          5.2mb
      Z  19s     8.87um          6.1Msz
TNP     78.80  42 eP    55 44.72  -1.0
        0.9s    51.07nm          5.5mb
KVN     78.84  41 eP    55 45.95   0.0
QZH     79.66 301 Pc    55 49.00  -1.4
        1.5s   200.00nm          5.9mb
      Z  25s     2.21um          5.4MszX
                  S     05 52.00
KDC     79.88  11 eP    55 51.30   0.5
TUC     79.90  50 eP    55 52.51   0.9
        1.5s   120.32nm          5.7mb
      Z  19s     5.59um          5.9Msz
VLA     80.51 323 iPd   55 50.00  -4.5X
                  i     06 40.00
                  i     07 10.00
SSE     80.67 308 iPc   55 56.00   0.4
      Z  20s     2.70um          5.6Msz
      N  12s     0.80um
      E  12s     1.30um
                  S     06 06.00
VIPM    80.82  35 P     55 56.36   0.0
CROR    80.93  35 P     55 57.20   0.4
ARUT    81.06  44 eP    55 57.20  -0.6
ASR     81.38  34 P     55 59.12   0.0
LON     81.66  33 eP    56 01.42   0.9
WPW     81.77  33 P     56 00.98  -0.2
FMW     81.86  33 P     56 01.81   0.1
HKC     82.09 297 iP    56 05.20   2.1
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S 06 24.00
RMW 82.14 33 eP 56 02.51 -0.5
MSU 82.29 44 ePd 56 04.31 0.1
EBG 82.41 34 P 56 04.45 0.0
RSW 82.59 35 P 56 05.53 0.1
MDJ 82.75 323 eP 56 07.00 0.9
2.5s 1040.00nm 6.5mb
Z 20s 5.78um 5.9Msz
DUG 82.82 42 eP 56 05.82 -1.0
1.3s 39.81nm 5.3mb
Z 19s 3.99um 5.8Msz
WAH2 82.84 34 P 56 06.75 0.2
NJ2 82.87 308 Pc 56 08.20 1.2
Z 18s 1.65um 5.4Msz
N 12s 1.44um
E 10s 0.93um
SLKM 82.89 12 eP 56 05.36 -1.2
e 59 55.04
MAW 82.93 199 iPd 56 07.90 1.1
2.2s 107.60nm 5.6mb
Z 19s 8.80um 6.2Msz
i 56 32.90
iS 06 26.90
ETW 82.99 33 P 56 07.42 -0.1
GZH 83.11 298 iPc 56 09.00 0.5
Z 21s 1.90um 5.4Msz
WTV 83.24 33 P 56 08.41 -0.3
CRP 83.25 10 ePd 56 06.07 -2.5
e 59 06.47
SAW 83.53 34 P 56 09.83 -0.3
SIT 83.66 20 P 56 20.00 9.5X
Z 19s 2.41um 5.6Msz
PMS 83.69 12 eP 56 09.50 -1.2
SRU 83.70 44 eP 56 10.65 -0.7
HVU 83.73 41 eP 56 11.15 -0.3
LTX 83.76 56 eP 56 10.75 -1.0
DAU 83.93 43 eP 56 12.64 -0.1
e 56 38.25
KGM 83.99 274 ePd 56 15.00 1.8
PMR 84.10 12 eP 56 12.26 -0.3
2.3s 499.39nm 6.3mb
Z 20s 3.87um 5.8Msz
TTA 84.26 8 eP 56 13.78 0.3
1.3s 39.21nm 5.4mb
DPW 84.26 34 eP 56 13.18 -0.7
PV10 84.29 46 eP 56 13.58 -0.9
e 01 36.34
PV09 84.29 45 eP 56 14.17 -0.4
ALQ 84.34 50 ePd 56 14.32 -0.4
2.0s 447.59nm 6.3mb
Z 19s 3.91um 5.8Msz
e 56 35.24
S 06 43.77
DL2 84.39 315 eP 56 16.00 1.4
1.0s 100.00nm 5.9mb
Z 20s 1.57um 5.4Msz
N 17s 1.51um
sP 56 32.00
PTI 84.59 40 eP 56 15.44 -0.3
KLU 84.65 13 eP 56 15.12 -0.4
PV08 84.66 46 eP 56 16.21 -0.2
CN2 84.67 321 Pc 56 16.00 0.1
1.2s 68.00nm 5.7mb
Z 16s 1.42um 5.4MszX
N 16s 0.88um
E 16s 1.61um
eSKS 06 34.00
SNY 84.70 318 iPc 56 17.00 0.9
Z 18s 2.13um 5.6Msz
ANM 84.96 4 eP 56 17.17 0.3
BALM 85.05 15 eP 56 16.01 -1.6
NEW 85.07 34 P 56 30.00 12.1X
Z 19s 13.40um 6.4Msz
TOA 85.15 13 eP 56 17.10 -0.9
1.5s 273.50nm 6.2mb
WHN 85.57 305 Pd 56 23.00 2.3
Z 20s 1.86um 5.5Msz
eSKS 06 44.00
TIA 86.14 311 Pc 56 23.90 0.5
Z 18s 1.47um 5.4Msz
N 17s 1.69um
E 17s 2.09um
S 06 52.00
IPM 87.03 276 ePc 56 28.90 0.6
1.0s 62.30nm 5.8mb
FBA 87.38 11 eP 56 27.57 -1.2
1.3s 94.97nm 5.9mb
e 00 10.96
GOL 87.43 46 P 56 40.00 10.1X
Z 20s 3.31um 5.7Msz
GLD 87.55 46 eP 56 31.30 0.9
1.2s 17.99nm 5.2mb
Z 19s 3.35um 5.8Msz
IMA 87.57 8 eP 56 29.98 0.1
2.1s 169.13nm 5.9mb
SYO 87.64 191 ePc+ 56 32.30 2.1
eS 07 12.00
SNG 88.32 278 eP 56 36.50 2.1
eS 07 06.00
BJI 88.61 314 Pc 56 35.50 0.3
2.0s 320.00nm 6.3mb
E 18s 2.18um
esP 56 54.00
eSKS 07 04.00
NVL 88.97 182 eP 56 38.00 1.5
Z 20s 3.50um 5.8Msz
N 20s 3.00um
E 20s 1.00um
e 57 05.00
ePP 00 06.00
ePPP 02 14.00
eSKS 07 05.00
eS 07 22.00
ePS 08 28.00
eSS 13 12.00
eSSS 16 56.00
WMOK 89.86 53 P 56 50.00 8.7X
Z 19s 4.89um 6.0Msz
GYA 90.03 298 iPc 56 44.00 1.6
Z 40s 2.68um 5.4MszX
N 22s 1.20um
E 22s 2.14um
pP 56 55.00 35kmX
SKS 07 14.00
TIY 90.16 310 iPc 56 44.00 1.3
Z 22s 3.11um 5.7Msz
N 15s 1.21um
sS 07 47.00
ACO 90.42 51 iPc 56 43.30 -0.6
RSSD 90.42 43 eP 56 42.29 -1.7
1.1s 45.07nm 5.7mb
OCO 91.16 52 iPc 56 48.50 1.2
XAN 91.22 306 P 56 48.50 0.9
1.4s 83.00nm 5.9mb
Z 30s 1.84um 5.3MszX
PP 00 26.00
RTCB 91.58 124 ePc 56 49.00 -0.6
NST 91.75 286 eP 56 51.00 0.7
RTLL 91.91 124 ePc 56 50.00 -1.0
HHC 92.12 313 Pc 56 53.00 1.3
1.4s 13.00nm 5.2mb
Z 24s 2.85um 5.6MszX
N 16s 0.73um
E 17s 1.03um
SKS 07 26.00
NNA 92.30 104 eP 56 53.00 0.0
1.0s 15.00nm 5.4mb
TUL 92.57 53 iPc 56 53.60 -0.1
KMI 92.81 296 iPc 56 56.50 1.2
2.0s 350.00nm 6.4mb
Z 22s 4.40um 5.9Msz
N 20s 1.90um
E 20s 2.90um
SKS 07 30.00
UYO 92.90 55 iPc 56 55.00 -0.3
BTO 93.08 312 iPd 56 57.00 0.9
N 12s 0.24um
E 13s 0.90um
pP 57 09.00 39kmX
ePP 00 38.00
SKS 07 31.00
BDT 93.31 287 eP 56 58.00 0.6
1.0s 41.40nm 5.8mb
YAK 93.52 337 eP 57 00.00 2.6X
2.0s 90.00nm 5.9mb
e 00 41.00
MIAR 93.72 55 P 56 59.11 0.1
Z 20s 4.16um 5.9Msz
S 08 11.69
CHTO 93.90 289 eP 57 02.90 2.7X
CD2 94.06 301 iPc 57 01.00 0.3
Z 20s 2.81um 5.7Msz
isS 08 20.00
YKA 94.84 24 P 57 02.20 -1.3
1.0s 3.90nm 4.8mb
TCA 94.88 126 eP 57 04.50 -0.2
CIT 95.67 324 eP 57 09.00 1.3
LZH 95.84 306 P 57 10.00 1.0
1.8s 100.00nm 6.0mb
Z 20s 1.64um 5.5Msz
E 14s 0.82um
SKS 07 44.00
S 08 27.00
sS 08 36.00
OXF 96.92 56 P 57 20.00 6.4X
Z 20s 3.94um 5.9Msz
FVM 97.33 52 P 57 20.00 4.6X
Z 19s 11.47um 6.4Msz
SLM 97.69 52 P 57 30.00 13.0X
Z 18s 3.32um 5.9Msz
BOD 97.93 329 eP 57 16.30 -1.3
1.9s 47.00nm 5.7mb
LPA 98.00 132 eP- 57 18.00 -0.7
Z 21s 1.43um 5.4Msz
ePP 01 20.00
LPB 98.39 111 Pc 57 20.40 -0.8
1.2s 109.38nm 6.3mb
PP 01 20.10
LPAZ 98.46 111 (P) 57 20.21 -1.6
1.6s 13.99nm 5.2mb
TIK 99.69 344 eP 57 26.00 0.6
2.5s 74.00nm 5.8mb
e 57 36.00
GTA 99.96 308 eP 57 27.50 0.0
Z 26s 3.10um 5.7MszX
E 13s 0.47um
IRK 101.07 322 ePdiff57 30.00 -2.1
e 16 12.00
MYNC 101.22 57 Pdiff 57 40.00 6.8X
Z 20s 4.64um 6.0Msz
GOGA 101.26 59 Pdiff 57 40.00 6.7X
Z 19s 4.48um 6.0Msz
MBC 101.91 11 Pdiff 57 34.00 -1.2
PP 01 51.60
SHL 102.24 293 ePdiff57 40.00 1.9
eS 08 56.00
LSA 104.02 297 Pdiff 57 50.00 3.7X
CEH 105.39 57 PKP 02 10.00 4.5X
Z 19s 0.75um 5.3Msz
MCWV 105.72 53 PKP 02 20.00 13.9X
Z 20s 7.32um 6.2Msz
YSNY 107.31 50 PKP 02 20.00 11.0X
Z 19s 5.56um 6.1Msz
CAR 109.34 86 iPdiff58 12.00 2.1
LBNH 112.35 50 PKP 02 30.00 11.5X
Z 19s 6.48um 6.2Msz
HRV 112.40 51 PKP 02 30.00 11.4X
Z 18s 5.09um 6.1Msz
CBM 115.26 47 PKP 02 30.00 6.0X
Z 20s 6.42um 6.2Msz
KSH 118.04 305 PKP 02 26.00 -3.7X
Z 20s 1.60um 5.6Msz
N 18s 1.92um
sPKP 02 40.00
PP 03 44.00
SKS 09 29.00
SKKS 10 32.00
SS 19 51.00
QUE 124.74 293 ePKP 02 43.80 0.9
SOB1 125.15 118 ePKP 02 42.70 -1.2
SVE 126.12 326 iPKPd 02 45.00 0.5
2.1s 120.00nm
Z 18s 2.50um 5.9Msz
N 18s 2.00um
E 18s 1.50um
e 04 37.00
e 14 40.00
e 16 13.00
BLF 127.10 202 ePKP 02 46.00 -1.5
ARU 127.32 326 ePKP 02 46.50 -0.3
2.0s 100.00nm
Z 20s 3.00um 6.0Msz
N 20s 1.00um
E 20s 2.50um
e 02 58.00
e 04 51.00
e 14 49.00
e 21 49.00
SLR 129.34 206 ePKP 02 35.50 -16.3X
Z 18s 5.50um 6.3Msz
MAIO 131.06 301 ePKP 02 53.00 -1.7

13d 12h

i 05 09.00
ASH 131.83 303 ePKP 02 55.00 -1.0
e 05 15.00
OBN 138.47 334 ePKP 03 11.80 3.9X
1.1s 19.40nm
OBN 138.47 334 ePKP 03 20.80 12.9X
Z 20s 1785.60um 8.8MszX
N 20s 1467.30um
(PP) 05 54.10
eSKP 06 44.30
(PPP) 09 07.30
(SKKS)12 54.80
(PS) 16 12.30
(SS) 24 07.90
OBN 138.47 334 iPKPc-03 04.00 -3.9X
1.4s 54.00nm
ePPP 08 54.00
ePS 16 18.00
ePPS 18 08.00
iSS 24 10.00
eSSS 29 10.00
GRO 139.91 314 ePKP 03 00.00 -10.9X
Z 20s 1.00um 5.6Msz
N 20s 2.50um
E 20s 1.00um
MTA 141.12 312 ePKP 03 17.00 3.9X
E 20s 0.50um
TAB 141.14 306 iPKP- 03 08.00 -5.5X
PYA 141.38 316 iPKP+ 03 06.70 -6.9X
iPPP 10 22.00
i 25 10.00
KIV 141.65 316 ePKP 03 09.00 -5.2X
6.4s 544.00nm
ERE 141.86 310 iPKP- 03 09.00 -5.7X
i 06 20.00
RYD 142.50 284 ePKP 03 12.00 -4.2X
NAI 143.04 238 ePKPd 03 16.00 -1.6
Z 20s 1.21um 5.7Msz
MJMA 143.71 286 ePKP 03 17.00 -1.2
ARO 143.71 262 ePKP+ 03 17.00 -1.5
SOC 143.73 317 ePKP 03 15.00 -2.6
2.4s 400.00nm
e 06 30.00
MUD 143.94 357 ePKP 03 16.00 -1.5
1.2s 75.00nm
KMSA 144.12 277 ePKP 03 17.33 -1.7
EKA 144.44 9 PKP 03 17.00 -1.4
1.0s 151.10nm
COP 144.48 354 ePKP+ 03 17.00 -1.5
ANN 144.55 321 ePKP 03 15.00 -3.9X
Z 21s 1.50um 5.7Msz
N 22s 1.60um
E 22s 1.60um
e 06 29.00
DHJN 144.66 272 ePKP 03 19.33 -1.0
QASM 145.29 287 ePKP 03 21.00 0.1
KMTA 145.33 273 ePKP 03 21.67 0.3
ABHA 145.45 273 ePKP 03 22.80 1.2
DCN 145.55 14 ePKP 03 20.60 0.2
1.4s 475.00nm
AFIF 145.61 283 ePKP 03 22.67 1.1
DLF 145.76 14 ePKP 03 21.30 0.6
1.3s 410.00nm
UQSK 146.35 286 ePKP 03 24.00 1.3
AAE 146.57 255 ePKP 03 25.50 1.9
LVV 147.40 338 iPKP+ 03 26.00 2.5X
Z 20s 2.70um 6.0Msz
i 06 49.00
e 10 13.00
eSSS 26 41.00
KIS 147.67 330 iPKP+ 03 26.00 2.0
Z 22s 3.90um 6.1Msz
e 10 17.00
ePPS 19 29.00
TAIF 148.07 278 ePKP 03 30.00 4.3X
CTK 148.33 316 ePKP 03 30.60 5.1X
OJC 148.36 343 ePKP 03 26.30 1.2
1.9s 17.70nm
i 03 39.90
WTS 148.48 359 ePKP 03 29.00 3.9X
2.1s 525.60nm
KSP 148.61 348 ePKP 03 26.00 0.6
2.2s 527.00nm
i 03 29.50
KAS 148.64 318 ePKP 03 29.00 3.1X
CLL 148.71 352 ePKP 03 25.00 -0.6
2.6s 810.00nm
Z 18s 2.00um 6.0Msz
i 03 29.50
CLI 148.74 331 ePKPc 03 30.00 4.2X
BRG 149.00 350 iPKP 03 29.60 3.6X
2.1s 420.00nm
e 07 15.00
UZH 149.01 339 ePKP 03 27.50 1.4
1.3s 420.00nm
Z 20s 3.00um 6.1Msz
E 20s 1.00um
i 03 30.00
e 27 00.00
SPC 149.16 342 ePKP 03 13.00 -13.6X
i 03 18.70
MRFT 149.31 317 ePKP 03 31.90 4.8X
CFR 149.35 329 ePKP 03 31.00 4.3X
BNS 149.51 359 ePKPd 03 32.00 5.2X
Z 19s 4.50um 6.3Msz
VRI 149.51 331 ePKPc 03 39.00 12.0X
MOX 149.53 353 ePKP 03 29.00 2.1
2.2s 421.00nm
Z 19s 2.50um 6.0Msz
UCC 149.65 2 PKP- 03 33.00 6.0X
ENN 149.72 0 ePKP 03 32.00 4.9X
2.2s 577.80nm
PRU 149.75 349 iPKPd 03 32.60 5.4X
2.3s 323.00nm
Z 20s 2.50um 6.0Msz
N 20s 0.50um
E 20s 1.50um
i 04 05.60
SNF 149.94 2 PKP 03 33.70 6.3X
ISR 150.15 330 ePKP 03 33.00 5.0X
MLR 150.15 331 ePKP 03 29.00 0.9
SGKT 150.16 318 ePKP 03 34.90 6.5X
DOU 150.36 2 PKP 03 33.60 5.5X
GRF 150.52 353 ePKP 03 28.50 0.1
eSKS 10 37.00
eSS 26 27.00
e 27 36.00
BHL 150.64 303 PKP 03 26.00 -3.2X
SKS 14 00.00
KHC 150.75 350 PKP 03 28.50 -0.3
1.0s 42.50nm
Z 20s 2.60um 6.0Msz
N 20s 1.00um
E 20s 1.20um
e 03 35.40
e 03 48.80
e 04 08.00
WLF 150.82 0 PKP 03 37.00 8.2X
NAL 150.84 318 ePKP 03 31.90 2.5X
ZST 150.92 345 ePKP 03 29.30 0.3
e(PP) 07 08.90
SRO 150.96 343 ePKP 03 30.00 0.9
i 03 36.80
GEC2 151.00 350 e(PKP)03 35.10 5.8X
1.1s 11.30nm
GEC2 151.00 350 e(PKP)03 42.80 13.5X
0.9s 9.20nm
GEC2 151.00 350 ePKPd 03 29.20 -0.1
1.4s 24.38nm
e 03 34.90
e 03 41.80
e 03 44.70
e 03 46.80
e 03 52.50
e 03 59.30
e 04 06.00
FLN 151.22 9 ePKP 03 30.50 1.1
1.7s 205.85nm
Z 20s 1.95um 5.9Msz
LDF 151.44 9 ePKP 03 30.90 1.1
1.5s 150.95nm
LANF 151.48 358 PKP 03 38.59 8.7X
GRR 151.53 10 ePKP 03 30.90 1.0
0.7s 22.60nm
KMR 151.69 349 iPKP- 03 38.10 7.9X
LPF 151.85 10 ePKP 03 31.40 1.0
1.3s 106.50nm
FUR 152.02 353 ePKP 03 35.00 4.3X
Z 17s 1.90um 6.0MszX
e 03 40.50
WLS 152.06 358 PKP 03 39.23 8.4X
CDF 152.06 358 PKP 03 39.13 8.3X
CDF 152.06 358 ePKP 03 29.40 -1.4
1.4s 50.55nm
LIBD 152.31 358 PKP 03 39.66 8.6X
HAU 152.48 360 ePKP 03 30.10 -1.3
1.3s 58.10nm
Z 20s 1.92um 5.9Msz
FEL 152.57 357 PKP 03 40.22 8.6X
MOF 152.62 359 PKP 03 40.54 8.9X
BSF 152.65 359 ePKP 03 32.30 0.6
1.6s 59.10nm
KBA 152.77 349 iPKPc 03 33.00 1.0
2.5s 133.00nm
i 03 40.50
i 03 53.90
i 07 21.10
WATA 152.79 352 iPKPc 03 32.80 0.8
i 03 41.20
i 03 50.80
MOTA 152.84 353 iPKPc 03 32.90 0.8
WTTA 152.86 352 iPKPc 03 33.50 1.4
2.6s 412.00nm
i 03 39.20
i 03 51.90
i 07 22.00
SQTA 152.95 352 iPKPc 03 33.30 1.1
2.4s 205.00nm
i 03 41.20
LOMF 153.13 359 PKP 03 42.08 9.7X
LOR 153.15 3 ePKP 03 33.40 1.1
1.6s 77.75nm
Z 20s 3.33um 6.1Msz
SSF 153.34 4 ePKP 03 33.80 1.2
1.6s 124.40nm
PTJ 153.34 345 ePKP 03 34.20 1.5
ZAG 153.41 345 iPKP 03 34.00 1.3
LBF 153.44 3 ePKP 03 33.90 1.1
2.3s 224.15nm
LJU 153.54 347 PKP 03 34.00 1.1
e 03 42.40
e 03 58.00
eSS 27 04.00
AVF 153.60 4 ePKP 03 34.20 1.3
1.7s 90.45nm
SMF 153.77 4 ePKP 03 36.40 3.2X
2.1s 107.45nm
TRI 154.01 348 ePKP 03 26.00 -7.5X
e 20 12.00
eLR 00 36.00
SKO 154.93 332 iPKP 03 36.00 1.1
i 03 44.00
i 03 59.90
i 04 21.00
iPP 07 35.50
VAY 154.94 330 ePKP 03 36.00 1.1
i 04 00.50
HLW 155.39 297 e(PKP)03 35.00 -0.8
OHR 155.91 332 ePKP 03 36.00 -0.3
i 06 44.30
FIR 156.32 351 ePKP 03 40.00 3.3X
MBO 157.15 102 iPKPd 03 40.90 2.4X
EPLA 157.79 26 ePKP 03 39.77 1.1
PAB 158.91 23 ePKP 03 41.50 1.5
ePKKP 04 21.00
EVAL 159.55 31 iPKPc 03 44.00 3.3X
EBAN 160.33 24 ePKP 03 43.04 1.5
EVIA 160.36 21 ePKP 03 43.70 2.0
LIJA 160.72 29 ePKP 03 46.00 3.9X
EPRU 160.75 29 ePKP 03 45.91 3.9X
EJIF 161.06 30 iPKPc 03 45.43 3.2X
EHUE 161.07 22 ePKP 03 43.95 1.6
ECOG 161.19 25 ePKP 03 43.72 1.2
PLAT 161.19 31 ePKP 03 46.00 3.6X
CPS 161.54 31 iPKPc 03 47.50 4.8X
EGUA 161.57 25 iPKPd 03 43.77 1.0
BIT 161.58 32 iPKPc 03 47.50 4.7X
TSY 161.67 33 ePKP 03 48.50 5.6X
LIC 162.19 141 PKP 03 44.84 0.8
1.4s 37.00nm
Z 20s 1.40um
AVE 162.38 41 ePKP 03 45.00 1.3
KIC 162.47 141 PKP 03 45.14 0.8
1.5s 54.50nm
TIC 162.53 140 PKP 03 44.86 0.5
1.1s 13.50nm
CIA 162.61 47 ePKP 03 48.00 4.1X
OUK 163.43 47 ePKP 03 49.00 4.2X
IFR 163.54 35 iPKP 03 54.00 8.9X
i 04 23.00
LKO 164.33 132 PKP 03 45.60 -0.6

1.9s 86.00nm
S.D. = 1.1 on 242 of 348 obs.

DEC 13, 1993 11h 47m 53.16± 0.90s
5.545 S ± 7.5km 151.779 E ± 7.9km
DEPTH = 70.2 ± 7.6 km
5.0mb (4 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 1.40 16 iPc 48 16.20 -0.9
KVG 3.09 342 ePd 48 41.90 1.3
LAT 4.88 257 eP 49 06.80 1.1
PMG 5.97 230 eP 49 19.70 -1.3
eS 50 27.00
TLE 18.94 269 eP 52 12.40 0.9
QIS 19.04 217 eP 52 12.90 0.3
MTN 21.62 249 eP 52 39.00 -0.3
0.3s 66.00nm 5.6mb X
DZM 21.71 141 iPd 52 39.70 -0.5
WB2 22.18 228 eP 52 22.80 -22.0X
0.9s 39.60nm
ipP 52 45.90 111kmX
eS 56 45.00
DAV 29.00 295 eP+ 54 06.00 17.3X
BAG 37.79 306 ePc+ 55 04.80 0.0
1.4s 116.28nm 5.6mb X
e 55 17.00
GUN 71.64 302 P 59 09.60 -0.4
0.8s 26.00nm 5.2mb
PKI 71.94 301 P 59 10.80 -1.0
KKN 72.11 301 P 59 12.00 -0.7
GKN 72.72 301 P 59 15.80 -0.4
HYB 75.78 289 eP 59 32.80 -1.0
GBA 76.19 285 Pd 59 36.00 0.0
FBA 82.95 22 eP 00 10.23 -1.2
0.7s 5.86nm 4.6mb
GMW 90.97 42 (P) 00 50.45 -0.3
NEW 94.83 42 eP 01 09.24 0.7
1.1s 11.71nm 5.2mb
YKA 96.55 28 P 01 16.30 0.3
0.9s 2.70nm 4.8mb
PV09 100.54 52 (Pdiff01 35.11 0.1
NB2 117.26 340 PKP 06 32.00 0.2
0.9s 2.70nm
GEC2 124.15 328 ePKP 06 45.30 -0.2
0.7s 4.63nm
e 06 53.90
e 07 01.40
CNCB 134.85 120 PKP 07 03.00 -4.4X
e 10 39.00
LPAZ 134.95 119 PKP 07 09.00 1.3
e 07 42.00
TIO 147.98 325 iPKPc 07 33.50 3.8X
BDFB 151.24 137 ePKP 07 36.93 2.0
PKPbc 07 41.47
BDF 151.30 138 ePKP 07 40.90 5.8X
0.7s 1.15nm
e 07 49.80
S.D. = 0.9 on 24 of 29 obs.

& DEC 13, 1993 14h 00m 57.02s
34.307 N 117.010 W
DEPTH = 5.5km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS). Felt.

PEC 0.43 197 iPd 01 05.03 -0.7
eS 01 10.11
SSK 0.57 261 iPc 01 07.77 -0.8
GSC 1.01 10 iPd 01 15.72 -0.8
eS 01 28.10
ISA 1.81 319 eP 01 27.92 -1.2
ABL 1.90 287 eP 01 30.17 -0.4
BCH 2.68 290 eP 01 42.40 0.8
TPNV 2.71 13 ePn 01 41.36 -0.7
TNP 3.77 358 (Pn) 01 59.66 2.4
8 obs. associated

DEC 13, 1993 14h 51m 03.05± 0.78s
42.333 N ± 6.9km 105.499 W ± 7.5km
DEPTH = 5.0km (geophysicist)
3.2mb (1 obs.)
WYOMING (460)
ML 3.5 (GS).

RSSD 2.08 30 ePnc 51 39.42 0.2
ePg 51 42.78
GLD 2.59 175 ePn 51 46.28 -0.2
GOL 2.63 178 ePn 51 46.29 -0.9
ePg 51 48.50
eSg 52 17.26
PV08 4.45 214 ePn 52 14.14 1.0
PV09 4.73 217 ePn 52 17.99 1.0
DAU 4.74 248 ePn 52 17.58 0.4
EMUT 4.74 240 ePn 52 16.42 -0.7
PV10 4.79 216 (Pn) 52 18.83 1.0
SRU 4.99 232 ePn 52 19.58 -1.0
PTI 5.10 278 (Pn) 52 22.19 0.1
HVU 5.45 267 (Pn) 52 27.35 0.3
DUG 5.91 251 ePn 52 32.38 -1.1
MSU 6.36 235 ePn 52 40.14 0.1
WMOK 9.23 143 eP 53 12.93 -6.8X
OCO 9.23 135 iPc 53 53.70 33.9X
TUL 9.89 127 iPc 53 22.20 -6.8X
UYO 11.90 130 iPc 53 48.60 -7.7X
YKA 20.90 348 P 55 45.20 -3.3X
0.6s 0.80nm 3.2mb
S.D. = 0.8 on 13 of 18 obs.

DEC 13, 1993 16h 27m 47.60± 0.30s
0.483 N ± 4.8km 126.100 E ± 7.4km
DEPTH = 33.0km (normal)
5.1mb (19 obs.) 4.8Msz (9 obs.)
NORTHERN MOLUCCA SEA (266)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 14C
Centroid Location:
Origin Time 16:27:55.5 1.1
Lat 1.19N 0.11 Lon 125.87E 0.20
Dep 15.0 FIX Half-duration 1.3
Moment Tensor; Scale 10**17 Nm
Mrr=-1.47 0.27 Mtt= 0.20 0.19
Mff= 1.27 0.45 Mrt=-0.11 0.41
Mrf= 0.04 0.49 Mtf=-0.91 0.11
Principal Axes:
T Val= 1.80 Plg= 2 Azm=240
N -0.32 4 150
P -1.48 86 353
Best Double Couple:Mo=1.6*10**17
NP1:Strike=334 Dip=44 Slip= -85
NP2: 147 47 -95

DAV 6.58 355 ePd 29 29.00 4.4X
CTB 6.94 344 ePd 29 32.00 2.4
BIP 7.69 1 eP 29 41.00 0.8
CGP 8.04 350 eP 29 40.50 -4.6X
TSM 9.05 295 eP 30 00.50 1.5
MAP 10.00 348 eP 30 14.00 1.9
BAG 16.74 341 ePc 31 42.00 0.5
1.3s 57.69nm 4.5mb
LAT 22.03 109 eP 32 35.40 -5.8X
MBL 22.36 196 eP 32 44.50 0.0
QIS 24.74 148 eP 33 07.30 -0.3
ASPA 25.17 163 iPc 33 11.30 -0.4
0.7s 45.40nm 5.2mb
i 33 13.60
eS 37 42.80
IPM 25.37 280 ePc 33 15.00 1.3
1.0s 27.70nm 4.8mb
GZH 25.66 332 P 33 13.60 -2.6
Z 20s 4.17um 5.0Msz
SNG 26.27 285 eP 33 21.00 -0.9
WARB 26.52 179 eP 33 24.50 0.3
KHT 30.68 299 eP 34 01.50 -0.2
FORT 31.14 177 iPd 34 05.40 -0.2
0.3s 9.00nm 5.1mb
GYA 31.89 326 P 34 11.40 -1.0
Z 22s 1.30um 4.6Msz
CHTO 32.28 306 eP 34 14.50 -1.3
KMI 33.31 319 Pd 34 24.00 -0.9
1.8s 100.00nm 5.4mb
Z 20s 1.90um 4.8Msz
TKSJ 34.15 12 eP 34 31.20 -0.6
WKYJ 34.72 14 P 34 35.90 -0.9
YONJ 35.20 10 P 34 40.20 -0.6
STK 35.37 157 iPd 34 40.80 -1.5
CD2 36.94 327 eP 34 55.00 -0.6
Z 20s 1.31um 4.7Msz
ADE 37.19 163 e(P) 34 58.00 0.4
CHJJ 37.36 17 eP 34 55.60 -3.4X
MTMJ 37.52 16 eP 34 55.10 -5.4X
TIY 39.13 343 eP 35 13.20 -0.7
Z 23s 1.32um 4.7MszX
N 13s 0.51um
ARMA 39.17 144 eP 35 13.30 -1.1
1.1s 52.00nm 5.2mb
BJI 40.40 348 eP 35 23.00 -1.2
1.4s 12.00nm 4.5mb
N 17s 1.06um
LZH 41.01 332 eP 35 29.00 -0.6
2.0s 43.00nm 4.8mb
Z 21s 0.95um 4.6Msz
N 15s 0.41um
SNY 41.22 357 Pd 35 29.00 -1.9
1.7s 170.00nm 5.5mb
Z 20s 0.67um 4.5Msz
SHL 41.37 310 eP 35 31.50 -1.2
CAN 41.54 151 eP 35 29.70 -4.1X
CNB 41.71 151 eP 35 36.30 1.1
TOO 41.89 157 eP 35 37.40 0.8
0.9s 18.00nm 4.8mb
HHC 42.29 344 eP 35 40.20 0.3
Z 30s 1.40um 4.7MszX
CN2 43.13 359 eP 35 47.60 1.0
0.6s 5.70nm 4.5mb
MDJ 44.05 4 Pc 35 54.20 0.2
1.0s 23.00nm 4.9mb
LSA 44.17 314 P 35 57.60 1.8
GTA 45.58 331 eP 36 05.00 -1.6
Z 20s 1.38um 4.9Msz
pP 36 13.00 27kmX
GUN 47.19 309 P 36 19.50 -0.2
0.9s 50.00nm 5.5mb
PKI 47.40 308 P 36 22.40 1.0
KKN 47.60 308 P 36 23.20 0.4
GKN 48.20 308 P 36 27.80 0.4
HYB 49.69 293 eP 36 38.00 -0.9
GBA 49.90 287 P 36 41.00 0.6
POO 54.30 293 eP 37 14.50 1.0
IRK 54.75 344 eP 37 14.50 -1.7
2.1s 53.00nm 5.2mb
WMQ 55.04 327 P 37 17.40 -1.2
0.7s 14.00nm 5.1mb
Z 20s 0.85um 4.8Msz
ScS 46 55.00
KSH 59.89 317 eP 37 53.50 0.6
1.0s 20.00nm 5.2mb
Z 18s 0.98um 5.0Msz
YAK 61.44 2 eP 38 03.20 0.4
1.4s 89.00nm 5.7mb
e 40 22.00
MAIO 70.99 308 eP 39 04.00 -0.4
SDN 80.21 34 eP 39 56.10 -0.1
SVW 83.92 29 eP 40 17.10 1.7
0.8s 14.40nm 5.2mb
TTA 84.06 27 eP 40 17.30 1.1
IMA 85.59 24 eP 40 24.80 1.0
FBA 87.91 25 (P) 40 36.50 1.5
SYO 89.22 201 ePd 40 43.00 1.9
OBN 89.32 325 iPc 40 41.50 -0.4
1.5s 35.00nm 5.4mb
Z 24s 1.10um 5.2MszX
E 24s 0.50um
i 40 58.00
LR 22 24.00
KAF 94.16 332 eP 41 05.10 1.0
NUR 95.22 331 eP 41 07.30 -1.6
S.D. = 1.1 on 57 of 63 obs.

DEC 13, 1993 16h 34m 35.24± 0.54s
5.530 N ± 8.5km 82.497 W ± 7.6km
DEPTH = 33.0km (normal)
4.7mb (11 obs.) 5.2Msz (1 obs.)
SOUTH OF PANAMA (83)
Mw 5.7 (HRV). MD 4.6 (UPA).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 26S, 44C
Centroid Location:
Origin Time 16:34:35.9 0.6
Lat 5.19N 0.06 Lon 82.38W 0.04
Dep 15.0 FIX Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr=-0.13 0.12 Mtt=-0.03 0.12
Mff= 0.16 0.18 Mrt= 0.95 0.35
Mrf= 0.15 0.42 Mtf= 3.54 0.11
Principal Axes:
T Val= 3.76 Plg=11 Azm=315
N -0.18 75 93

13d 16h

```
         P       -3.57         10        223
       Best Double Couple:Mo=3.7*10**17
        NP1:Strike=359 Dip=75 Slip= 179
        NP2:          89       89         15
DVD        2.89    1 iPd    35 18.53  -1.4
                     eS     35 53.55
BRU        3.26 359 ePc     35 23.61  -2.0
UPA        4.52  40 eP      35 42.74  -0.4
                     iS     36 37.18
ECO        4.72  36 iP      35 45.12  -0.8
                     eS     36 40.27
PSO        6.72 130 eP      36 13.00  -1.6
BOG        8.45  96 eP      36 42.00   3.3X
                     iS     38 17.00
SDV       12.23  73 eP      37 30.60   0.3
                     eS     39 50.50
TOV       13.28  71 eP      37 44.50   0.4
CAR       16.19  71 iP      38 20.00  -2.1
NNA       18.29 162 eP      38 46.00  -2.3
ARE       24.41 154 eP      39 57.00   4.6X
LPAZ      25.92 147 P       40 02.60  -4.5X
                     S      44 31.90
                     LR     48 04.00
LPB       26.14 147 P       39 58.80 -10.1X
      Z  18s       6.19um            5.2Msz
                     i      40 17.80
                     S      44 55.00
                     LR     47 52.00
CNCB      26.43 147 eP      39 54.00 -17.7X
                     i      40 13.30
PRM       28.41    0 eP     40 31.19   2.3
LHS       28.85    3 eP     40 33.35   0.5
UYO       30 58 340 iPd     40 48.30   0.0
MIAR      3[illegible]4 342 eP      40 44.34  -4.5X
          0.[illegible]      12.92nm            4.7mb
NAV       31.68    3 eP     40 57.62  -0.3
ELC       32.20 350 eP      41 00.50  -1.9
CVL       32.51    6 eP     41 06.34   1.2
WMOK      32.73 335 eP      41 04.64  -2.5
          1.2s      24.54nm            5.0mb
FVM       33.10 348 eP      41 10.07  -0.2
ALQ       36.69 326 eP      41 41.78   0.5
          0.9s      14.17nm            4.9mb
YSNY      36.96    5 eP     41 44.21   1.0
TUC       37.52 319 eP      41 49.34   1.2
          0.7s       3.25nm            4.3mb
PV08      40.55 328 eP      42 13.85   0.2
PV10      40.62 327 eP      42 12.81  -1.2
PV09      40.76 327 eP      42 15.95   0.7
SRU       41.95 327 eP      42 24.56  -0.3
MSU       42.45 325 ePd     42 29.56   0.5
EMUT      42.61 327 eP      42 30.45   0.1
ARUT      42.71 323 eP      42 31.17   0.0
RSSD      42.84 337 eP      42 32.42   0.2
          1.6s      43.32nm            4.9mb
DAU       43.27 328 eP      42 35.36  -0.5
GSC       43.31 318 eP      42 36.12   0.1
PTI       45.62 329 (P)     42 56.46   2.0
BONR      45.83 320 eP      42 56.12  -0.3
MMPM      46.10 319 (P)     43 00.23   1.6
ORV       48.80 320 eP      43 18.78  -0.5
YKA       61.56 344 P       44 49.70  -1.7
          1.1s      33.50nm            5.4mb
CRP       75.46 332 eP      46 16.51  -1.3
LKO       76.22  82 P       46 24.73   1.9
          0.6s       3.00nm            4.4mb
TIC       76.97  84 P       46 29.40   2.4
          0.7s       1.50nm            4.1mb
LIC       77.00  85 P       46 29.74   2.6
          0.7s       4.00nm            4.5mb
KIC       77.27  85 Pd      46 31.24   2.6
          0.8s      16.00nm            5.1mb
DAG       78.78  12 iPc     46 37.90   2.1
          1.0s       8.00nm            4.7mb
GKN      144.43  20 PKP     54 11.60   0.9
KKN      144.84  19 PKP     54 10.00  -1.5
          0.8s      40.00nm
GUN      144.91  18 PKP     54 11.40  -0.4
PKI      145.08  19 PKP     54 10.30  -1.8
          0.8s      37.00nm
POO      146.60  44 ePKP    54 23.50   9.1X
SHL      148.61  10 ePKP    54 22.00   4.3X
KMI      149.11 351 ePKP    54 18.50   0.0
HYB      150.50  39 ePKP    54 33.00  12.5X
     S.D. = 1.4   on   46 of  55 obs.
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& DEC  13, 1993  16h 44m 10.40s
   42.275 N            121.932 W
   DEPTH =    7.3km
OREGON                              ( 32)
             <SEA-P>. MD 2.6 (SEA).

LAB        0.10 266 P       44 13.01   0.1
HAMO       0.21 188 P       44 14.97   0.1
VRC        0.22 286 Pc      44 15.26   0.3
BBOR       0.82 318 P       44 25.60  -1.1
                     S      44 37.62
DBO        1.28 312 P       44 33.69  -0.8
HSO        1.51 326 P       44 38.37   0.4
LGPM       1.52 207 eP      44 37.45  -0.6
                     eS     44 55.52
NCOR       1.54  22 P       44 39.13   0.6
HBO        1.59 350 P       44 39.62   0.4
LMEM       1.76 171 (P)     44 43.09   1.5
          10 obs. associated
--------------------------------------
? DEC  13, 1993  17h 04m 50.17± 3.54s
   31.690 S ±42.0km    69.199 W ±60.3km
   DEPTH = 130.0km  (geophysicist)
SAN JUAN PROVINCE, ARGENTINA      (137)

RTCB       0.40  59 ePc     05 09.20   0.1
                     S      05 27.60
RTCV       0.59 107 eP      05 10.00  -0.1
                     S      05 26.00
RTLL       0.72  60 ePc     05 11.00   0.0
                     S      05 27.00
RTRS       1.53 351 eP      05 18.90   0.0
                     S      05 41.50
     S.D. = 0.2   on    4 of   4 obs.
--------------------------------------
   DEC  13, 1993  17h 13m 40.89± 0.34s
    0.491 N ± 5.9km  126.292 E ± 8.1km
   DEPTH =  16.2km  (  3 depth phases)
   5.1mb ( 23 obs.)  4.5Msz (  4 obs.)
NORTHERN MOLUCCA SEA              (266)

DAV        6.59 354 ePc     15 30.90  11.4X
CTB        6.98 343 ePd     15 30.00   5.0X
BIP        7.68 360 eP      15 37.00   2.2
CGP        8.07 349 eP      15 42.00   1.8
TSM        9.22 294 ePd     15 58.00   1.8
MAP       10.03 347 eP      16 12.00   4.6X
PGP       13.97 338 eP      17 09.00   8.6X
BAG       16.79 341 eP      17 38.00   0.8
                     eS     21 03.00
MDG       20.28 107 eP      18 18.00  -0.7
LAT       21.85 109 eP      18 37.40   2.6
QIS       24.65 149 eP      19 02.60   0.5
ASPA      25.13 163 iPd     19 07.00   0.3
          0.9s      82.00nm            5.4mb
                     i      19 08.90    7km
                     eS     23 36.00
IPM       25.56 280 ePd     19 10.60  -0.3
SNG       26.45 285 eP      19 19.00  -0.1
WARB      26.52 179 eP      19 20.20   0.5
KHT       30.84 299 eP      19 53.00  -5.7X
FORT      31.14 177 eP      20 01.00  -0.1
          0.5s      17.00nm            5.2mb
GYA       31.99 325 P       20 09.00   0.2
      Z  22s       1.11um            4.5Msz
CHTO      32.43 306 eP      20 10.50  -2.1
KMI       33.43 319 eP      20 22.00   0.5
          1.5s      50.00nm            5.2mb
                     pP     20 28.00   21km
STK       35.31 157 eP      20 34.90  -2.4
TSRJ      36.02  14 eP      20 43.70   0.5
CD2       37.04 327 eP      20 54.50   2.5
CHJJ      37.29  17 eP      20 52.30  -1.7
MTMJ      37.47  15 eP      20 54.60  -0.9
MAT       37.53  16 eP      20 55.00  -1.0
          1.2s      17.19nm            4.7mb
ARMA      39.07 144 eP      21 09.70   0.6
          0.9s      30.00nm            5.0mb
TIY       39.18 343 eP      21 09.20  -0.7
      Z  34s       1.58um            4.6MszX
BJI       40.43 348 eP      21 20.50   0.5
          1.4s      12.00nm            4.4mb
LZH       41.10 332 eP      21 24.00  -1.8
          1.3s      31.00nm            4.9mb
      Z  25s       0.86um            4.5MszX
      E  20s       1.08um
SNY       41.22 357 Pc      21 27.20   0.7
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          1.6s      99.00nm            5.3mb
      Z  22s       0.62um            4.4Msz
CAN       41.46 152 eP      21 29.00   0.4
SHL       41.51 310 eP      21 30.00   0.6
CNB       41.63 151 eP      21 31.00   0.9
          1.6s      65.00nm            5.1mb
HHC       42.34 343 eP      21 36.00   0.1
      Z  34s       1.38um            4.6MszX
CN2       43.13 359 eP      21 42.50   0.4
          0.6s       5.70nm            4.5mb
      Z  20s       0.31um            4.2Msz
MDJ       44.03    3 eP     21 50.00   0.6
          1.2s      27.00nm            5.0mb
GTA       45.67 331 eP      22 02.50  -0.3
GUN       47.33 309 P       22 15.30  -1.1
HYB       49.87 292 eP      22 29.50  -6.3X
GBA       50.08 287 P       22 39.00   1.6
CIT       52.42 350 eP      22 50.50  -4.2X
ZAK       53.43 342 eP      23 00.50  -1.6
          1.2s      12.00nm            4.7mb
                     e      24 10.30 329kmX
WMQ       55.14 327 P       23 13.50  -1.4
          0.5s      11.00nm            5.1mb
      Z  18s       1.25um            5.0Msz
                     pP     23 20.00   21km
                     sP     23 23.00
BOD       58.00 352 iPc     23 33.50  -1.4
          1.1s      27.00nm            5.2mb
YAK       61.42    2 eP     24 03.50   5.1X
          1.3s      46.00nm            5.5mb
TIK       71.05    1 eP     24 59.00  -0.6
          1.4s      13.00nm            4.9mb
MAIO      71.14 308 eP      25 03.00   2.0
SVE       76.48 329 ePd     25 29.00  -2.5
          1.8s      40.00nm            5.2mb
ARU       77.40 328 eP      25 36.00  -0.6
                     e      25 52.00  57kmX
SDN       80.10  34 eP      25 51.38   0.1
          1.1s     137.54nm            5.9mb
SVW       83.82  29 eP      26 11.82   1.1
          1.1s      36.60nm            5.5mb
TTA       83.97  27 e[illegible]      26 11.83   0.3
          1.2s      20.[illegible]m            5.2mb
PYA       84.79 314 e[illegible]      26 15.00  -0.9
          1.3s     150.00nm            6.1mb
IMA       85.50  24 (P)     26 19.24   0.1
SYO       89.30 201 ePd     26 39.2[illegible]   1.9
OBN       89.42 325 ePc     26 37.00  -1.1
          1.8s      60.00nm            5.6mb
YKA      102.61  25 Pdiff   27 42.00   4.0X
          0.9s       0.80nm            4.4mb
MOCB     156.31 151 PKP     33 47.10   9.7X
CNCB     158.53 140 ePKP    33 39.00  -1.3
LPB      158.66 139 (PKP)   33 34.00  -6.3X
LPAZ     158.82 139 PKP     33 33.80  -6.9X
LPAZ     158.82 139 (PKP)   33 39.38  -1.3
     S.D. = 1.3   on   51 of  63 obs.
--------------------------------------
% DEC  13, 1993  17h 35m 43.79± 1.67s
   15.762 N ± 7.9km    60.640 W ±18.9km
   DEPTH =  33.0km  (normal)
LEEWARD ISLANDS                     ( 92)
     ML 2.7 (FDF).

MGG        0.67 284 iPc     35 56.75   0.0
                     S      36 03.80
DEG        0.68 324 iPc     35 57.00   0.0
                     S      36 05.50
SFG        0.72 313 iP      35 57.50   0.0
DOG        0.98 286 iPc     36 01.38   0.1
PAG        1.04 285 iP      36 01.97  -0.1
CRM        1.04 195 iPc     36 01.66  -0.4
                     S      36 13.97
FDF        1.13 206 iPc     36 03.36  -0.1
                     S      36 16.90
MVM        1.23 192 eP      36 04.84   0.1
                     S      36 19.70
BIM        1.31 199 ePc     36 06.18   0.3
MGH        1.79 302 eP      36 02.50 -10.4X
                     S      36 15.50
     S.D. = 0.2   on    9 of  10 obs.
--------------------------------------
? DEC  13, 1993  18h 39m 29.98± 6.09s
   33.013 S ±19.1km    72.147 W ±41.9km
   DEPTH =  10.0km  (geophysicist)
OFF COAST OF CENTRAL CHILE        (134)
     MD 3.8 (SAN).
```

LCCH 0.67 134 iP+ 39 43.26 0.0
iS 39 52.36
ROCH 0.96 88 iPd 39 48.11 -0.2
LNV 1.12 147 iP+ 39 50.52 -0.5
iS 40 05.58
TACH 1.20 123 iPd 39 52.03 -0.3
iS 40 07.92
PEL 1.23 96 iP+ 39 53.11 0.2
iS 40 09.81
JACH 1.35 76 iPd 39 54.47 -0.4
iS 40 14.79
PCH 1.50 114 iP 39 56.94 0.0
FCH 1.59 102 iP+ 39 59.09 0.6
iS 40 20.04
CACH 1.70 131 iPd 40 00.47 0.6
iS 40 22.43
S.D. = 0.4 on 9 of 9 obs.

% DEC 13, 1993 18h 51m 23.71± 3.18s
33.388 S ± 9.6km 71.819 W ±28.6km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.8 (SAN).

LCCH 0.23 113 iP+ 51 30.52 -0.1
iS 51 33.88
LNV 0.66 149 iP+ 51 36.37 -0.2
iS 51 44.61
TACH 0.78 110 iP+ 51 37.74 -0.6
iS 51 47.57
ROCH 0.79 59 iPd 51 38.21 -0.5
iS 51 47.94
PEL 0.98 76 iPd 51 41.27 0.1
iS 51 52.94
PCH 1.12 102 iP 51 42.89 -0.3
iS 51 57.83
JACH 1.25 56 iP+ 51 45.45 0.4
iS 52 00.31
CACH 1.25 126 iP+ 51 45.84 0.8
iS 52 03.21
FCH 1.28 88 iPd 51 46.03 0.3
iS 52 01.21
S.D. = 0.5 on 9 of 9 obs.

? DEC 13, 1993 18h 59m 04.63± 5.58s
5.869 S ±30.9km 149.080 E ±46.1km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)
NEW BRITAIN REGION, P.N.G. (192)

LAT 2.21 249 eP 59 39.50 -0.2
YYYY 3.12 263 eP 59 56.00 3.2X
MDG 3.34 280 eP 59 56.00 0.2
PMG 4.00 208 eP 00 05.40 0.3
eS 00 49.00
ASPA 22.95 218 eP 04 07.00 -0.2
0.7s 3.80nm 4.0mb
S.D. = 0.5 on 4 of 5 obs.

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* DEC 13, 1993 19h 19m 18.13± 0.73s
43.105 N ±18.1km 16.656 E ± 8.5km
DEPTH = 5.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 3.0 (TTG).

HVAR 0.17 296 iPg 19 21.60 0.0
iSg 19 24.60
BRY 1.40 98 iPgc 19 43.29 -1.2
iSg 20 03.41
HCY 1.51 115 ePg 19 45.23 -0.6
iSg 20 06.66
NKY 1.74 99 iPnd 19 49.60 0.3
iSn 20 14.22
BDV 1.80 116 iPnc 19 50.38 0.3
iSn 20 15.40
PLE 2.01 83 iPnc 19 53.67 0.4
iSn 20 21.04
TTG 2.03 109 iPnd 19 53.79 0.4
iSn 20 21.20
ULC 2.23 120 iPnc 19 56.55 0.2
iSn 20 25.94
IVA 2.39 95 iPnc 19 58.76 0.1
iSn 20 29.94
PVY 2.49 101 iPnd 20 00.05 -0.1
iSn 20 32.47
S.D. = 0.6 on 10 of 10 obs.

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* DEC 13, 1993 20h 16m 58.57± 0.55s
30.141 S ± 6.6km 66.215 W ± 8.6km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
LA RIOJA PROVINCE, ARGENTINA (138)

RTPR 0.30 238 iPc 17 03.90 -2.4
CYA 1.73 12 iPc 17 28.20 1.4
CFA 2.27 229 ePc 17 35.00 0.4
(S) 18 59.00
RTLL 2.27 238 ePc 17 34.80 0.2
(S) 17 50.80
MRA 2.30 169 iPd 17 35.20 0.2
ZON 2.54 236 eP 17 40.90 2.5X
eS 18 08.90
RTCB 2.60 238 ePc 17 39.50 0.3
RTCV 2.63 229 eP 17 40.00 0.3
RTRS 2.81 269 eP 17 43.50 1.4
SLA 5.43 7 iP 18 20.10 0.6
(S) 19 48.50
YJA 7.96 5 eP 18 55.30 0.0
CNCB 13.37 353 eP 20 07.00 -2.0
LPB 13.66 352 (P) 20 09.00 -3.7X
e 20 24.00
LPAZ 13.90 352 P 20 05.70 -10.4X
i 20 23.40
BDFB 22.08 53 eP 21 51.98 -0.6
0.9s 12.32nm 4.3mb
pP 21 59.91 28kmX
BUL 84.12 110 eP 29 28.40 0.4
WRA 126.42 204 PKP 36 00.10 -0.2
0.6s 0.40nm
HYB 145.50 103 ePKP 36 35.70 0.2
S.D. = 1.1 on 15 of 18 obs.

& DEC 13, 1993 20h 54m 09.12s
37.649 N 118.821 W
DEPTH = 1.9km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.8 (GM). ML 2.6
(GS).

CLKR 0.06 182 P 54 10.78 0.3
MCSM 0.07 275 P 54 11.03 0.4
MEMM 0.10 280 iPd 54 11.55 0.5
HTCR 0.13 162 P 54 12.01 0.3
ORC 0.13 96 P 54 12.35 0.5
MMPM 0.17 257 iPc 54 12.86 0.3
MRCM 0.25 85 (P) 54 15.20 1.0
MTUM 0.36 145 eP 54 16.38 0.1
BCKR 0.36 82 P 54 16.87 0.6
CWCR 0.44 110 P 54 18.25 0.4
BHPR 0.44 143 P 54 18.20 0.3
BONR 0.51 53 eP 54 19.05 -0.3
MSTM 1.28 282 P 54 32.99 -0.6
CMB 1.30 288 eP 54 32.34 -1.6
TNP 1.34 71 eP 54 34.17 -0.6
KVN 1.51 22 eP 54 38.01 0.6
WLHM 1.55 165 P 54 38.00 -0.1
MNHM 1.65 288 P 54 39.29 0.0
BRMM 1.79 244 P 54 42.84 1.5
BMSM 1.86 238 P 54 44.18 1.8
ISA 2.00 172 eP 54 45.05 0.6
TPNV 2.17 108 eP 54 47.09 0.2
PHAM 2.21 215 (P) 54 47.31 -0.1
YEG 2.39 203 P 54 46.16 -3.9
JBZM 2.45 256 P 54 51.58 0.8
SCCM 2.91 202 P 55 02.04 4.6
26 obs. associated

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* DEC 13, 1993 21h 32m 52.12± 1.78s
45.081 N ±10.8km 16.484 E ±20.7km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.9 (TRI). ML 2.2 (LJU).

ZAG 0.82 335 iPg 33 07.80 -0.1
iSg 33 18.00
PTJ 0.90 336 iPg 33 08.90 -0.5
iSg 33 20.90
VBY 0.96 296 iPgc 33 08.80 -1.7
iSg 33 23.60
CEY 1.59 295 e(Pn) 33 22.10 1.7
e(Sn) 33 43.00
LJU 1.67 306 ePg 33 23.00 1.4
iSg 33 44.70
HVAR 1.90 181 iPn 33 24.70 -0.2
iSn 33 51.10
TRI 2.02 289 e(Pn) 33 25.90 -0.6
e(Sg) 33 54.70
S.D. = 1.4 on 7 of 7 obs.

DEC 13, 1993 22h 11m 53.74± 0.93s
38.339 N ± 8.2km 21.924 E ± 8.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (THE). MD 3.0 (ATH).

AGG 0.75 25 ePg 12 07.46 -1.0
eSg 12 18.46
VLS 1.06 262 ePb 12 11.00 -2.8
IGT 1.72 314 ePb 12 24.98 1.1
eSb 12 51.06
VLI 1.81 153 ePb 12 26.80 1.7
LIT 1.81 14 ePb 12 26.34 1.1
KZN 1.97 357 ePb 12 28.00 0.5
LSK 2.08 331 ePn 12 31.20 2.0
PAIG 2.09 40 ePn 12 27.86 -1.4
eSn 12 55.58
SRN 2.15 316 ePn 12 53.50 23.5X
FNA 2.48 350 ePn 12 35.46 0.6
eSn 13 07.30
OUR 2.55 38 ePn 12 34.62 -1.2
SOH 2.71 24 ePn 12 38.46 0.2
OHR 2.90 343 ePn 12 41.00 0.2
KNT 2.92 15 ePn 12 41.02 0.0
eSn 13 16.66
VAY 3.02 9 ePn 12 42.70 0.3
SRS 3.06 24 ePn 12 42.10 -0.9
SKO 3.65 354 ePn 12 51.00 -0.4
i 13 04.00
LACI 3.71 333 ePn 13 06.00 13.8X
S.D. = 1.3 on 16 of 18 obs.

DEC 13, 1993 22h 20m 58.65± 0.56s
36.761 N ± 7.8km 31.984 E ± 9.1km
DEPTH = 10.0km (geophysicist)
3.7mb (6 obs.)
TURKEY (366)
ML 3.8 (CSS). Felt at Alanya.

PPCY 1.90 171 eP 21 33.50 2.2
eS 22 00.00
CSS 2.10 148 iPc 21 33.50 -0.8
eS 22 00.00
FAM 2.41 136 eP 21 42.00 3.3X
eS 22 15.00
ADAT 2.72 83 ePn 21 48.70 5.6X
eSg 22 41.90
NAL 3.48 351 eP 21 58.50 4.5X
SGKT 3.81 1 eP 22 00.40 1.6
MRFT 3.91 17 eP 21 59.70 -0.5
EYL 4.06 340 iPn 22 01.80 -0.4
IZI 4.08 332 iPn 22 02.30 -0.1
IZM 4.09 295 iPn 22 00.80 -1.8
eSn 22 46.80
BHL 4.14 132 P 22 03.00 -0.3
HRT 4.44 337 iPn 22 06.80 -0.8
CTK 4.51 29 eP 22 22.70 14.1X
KAS 4.81 16 eP 22 33.00 20.1X
SHMJ 5.09 141 Pd 22 30.48 13.7X
JARJ 5.57 143 Pd 22 37.96 14.3X
SALJ 5.64 146 Pd 22 38.28 13.6X
MASJ 5.90 147 Pd 22 41.87 13.7X
MKRJ 6.01 149 Pd 22 43.21 13.3X
MLR 9.84 334 eP 23 25.00 1.8
e 41 24.00
GEC2 17.99 318 eP 25 12.00 1.6
0.5s 0.69nm 3.0mb
e 25 14.30
e 25 19.30
e 25 22.90
LPG 20.85 303 eP 25 45.80 2.5X
1.1s 9.50nm 4.1mb
LPL 20.87 303 eP 25 45.10 1.7
0.6s 2.55nm 3.8mb
BSF 21.57 309 eP 25 48.50 -1.9
0.5s 3.00nm 4.0mb
HAU 21.91 309 eP 25 52.20 -1.5
0.4s 1.15nm 3.7mb
APO 26.44 340 eP 26 37.70 0.6
0.4s 0.50nm 3.6mb
GKN 44.84 85 P 29 14.60 -0.4
KKN 45.44 85 P 29 19.40 -0.5

13d 22h

PKI 45.64 86 P 29 21.60 0.0
GUN 45.87 85 P 29 22.90 -0.5
S.D. = 1.3 on 19 of 30 obs.

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* DEC 13, 1993 22h 25m 41.23± 0.57s
55.702 S ±14.4km 27.749 W ±16.6km
DEPTH = 33.0km (normal)
5.0mb (8 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SNA 18.41 153 iPc 29 56.00 0.9
0.8s 86.57nm 5.0mb
SYO 32.02 141 ePc 32 07.90 1.7
SPA 34.48 180 iPc 32 26.60 -1.3
0.9s 113.64nm 5.8mb
LBTB 49.21 74 eP 34 29.03 0.8
0.8s 11.15nm 4.9mb
CNCB 49.39 305 P 34 29.80 -0.4
LPB 49.69 305 eP 34 34.00 1.7
LPAZ 49.92 306 eP 34 32.84 -1.5
0.4s 7.19nm 5.1mb
BUL 54.77 73 iPd 35 10.40 0.3
LIC 64.51 25 P 36 17.00 0.2
0.4s 3.50nm 4.8mb
KIC 64.71 25 P 36 18.34 0.2
0.7s 10.50nm 5.1mb
TIC 64.92 25 Pc 36 19.60 0.1
0.7s 6.50nm 4.8mb
LKO 67.58 24 Pc 36 36.67 0.2
0.6s 6.00nm 4.9mb
HFS 120.08 23 ePKP 44 24.50 -4.1X
0.4s 1.30nm
LRM 123.55 303 ePKPd 44 34.00 -2.1
GKN 125.15 91 PKP 44 37.00 -2.6
0.8s 15.00nm
PKI 125.25 92 PKP 44 37.60 -2.5
KKN 125.35 92 PKP 44 37.70 -2.4
GUN 125.78 92 PKP 44 39.00 -2.1
YKA 135.70 318 PKP 44 53.30 -5.1X
0.7s 5.30nm
SSE 147.10 125 PKPc 45 19.50 0.0
1.0s 19.00nm
KLU 148.37 306 ePKP 45 21.59 0.8
e 45 52.88
TOA 148.67 307 ePKP 45 23.50 2.3X
PMS 149.98 305 ePKP 45 25.90 2.7X
FBA 150.05 312 ePKP 45 24.88 1.8
SLKM 150.08 303 ePKP 45 25.15 1.8
CRP 151.20 304 ePKP 45 27.36 2.2
CP2 151.24 304 ePKP 45 28.20 2.9X
BJI 151.58 108 ePKP 45 30.00 3.8X
1.0s 11.00nm
IMA 152.64 314 ePKP 45 31.24 4.1X
SDN 153.65 289 (PKP) 45 30.82 2.2
S.D. = 1.7 on 23 of 30 obs.

? DEC 13, 1993 22h 28m 20.33± 2.12s
11.126 N ±15.3km 62.087 W ±31.4km
DEPTH = 120.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 2.6 (TRN).

TCE 0.54 142 iPc 28 38.20 -0.6
eS 28 52.10
TRN 0.82 125 iPd 28 41.15 0.2
eS 28 56.54
GRW 1.11 22 eP 28 44.08 0.2
eS 28 59.77
TBH 1.19 122 eP 28 45.27 0.7
eS 29 01.19
BOT 1.34 88 eP 28 45.75 -0.6
eS 29 02.13
S.D. = 0.8 on 5 of 5 obs.

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* DEC 13, 1993 22h 38m 38.20± 1.68s
40.277 N ±13.7km 25.416 E ±10.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (THE).

ALN 0.78 38 ePg 38 52.76 -0.7
eSg 39 02.88
OUR 1.10 273 ePg 38 59.16 0.4
eSg 39 14.04
KDZ 1.37 0 iPd 39 03.00 -0.3
PAIG 1.38 256 ePb 39 03.04 -0.4
RZN 1.51 340 iPd 39 05.00 -0.4
SRS 1.62 302 ePb 39 06.44 -0.5
SOH 1.66 290 ePb 39 07.32 -0.2
DIM 1.77 3 iPg 39 11.00 1.9
PLD 1.90 344 iPg 39 15.00 4.0X
KNT 2.11 296 ePn 39 13.88 -0.1
LIT 2.25 266 ePn 39 16.80 0.8
JMB 2.36 22 iPg 39 22.00 4.5X
KKB 2.37 313 iPd 39 17.00 -0.8
VTS 2.85 325 iP 39 25.00 0.4
S.D. = 0.8 on 12 of 14 obs.

& DEC 13, 1993 22h 46m 53.16s
37.647 N 118.822 W
DEPTH = 2.6km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.7 (GM).

MMPM 0.17 257 ePd 46 56.79 0.2
MTUM 0.36 145 ePd 47 00.29 -0.1
BONR 0.51 53 iPc 47 03.46 0.0
CMB 1.30 288 ePd 47 16.89 -1.0
TNP 1.34 71 eP 47 18.39 -0.4
KVN 1.51 22 eP 47 21.00 -0.4
ISA 2.00 172 eP 47 29.07 0.7
eS 47 55.86
TPNV 2.17 108 ePn 47 30.45 -0.4
PHAM 2.21 215 eP 47 31.59 0.3
9 obs. associated

% DEC 13, 1993 23h 34m 12.12± 1.70s
45.136 N ±11.5km 2.829 E ±13.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (LDG).

CAF 0.58 249 Pg 34 22.60 -1.3
Sg 34 31.80
RJF 0.94 281 Pg 34 30.10 0.0
Sg 34 43.30
MAF 1.10 350 Pg 34 32.00 -0.8
Sg 34 47.80
TCF 1.23 340 Pg 34 35.30 0.3
Sg 34 51.60
LPO 1.25 249 Pg 34 35.90 0.5
Sg 34 52.20
BGF 1.42 0 Pg 34 37.80 -0.2
Sg 34 56.20
LSF 1.44 321 Pg 34 38.60 0.4
Sg 34 58.90
LFF 1.49 263 Pg 34 39.80 0.8
Sg 35 00.80
SMF 1.67 25 Pg 34 41.80 0.3
Sg 35 02.10
S.D. = 0.8 on 9 of 9 obs.

? DEC 13, 1993 23h 36m 23.59± 4.40s
42.969 N ±18.2km 9.252 W ±31.3km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 3.2 (MDD).

STS 0.52 99 eP 36 33.81 -0.4
e 36 43.80
EZAM 0.92 153 eP 36 40.79 -0.3
e 36 55.40
EMON 1.48 71 eP 36 50.06 -0.3
e 37 10.60
ERUA 1.66 110 eP 36 53.81 0.9
e 37 17.30
S.D. = 1.1 on 4 of 4 obs.

? DEC 13, 1993 23h 57m 06.30± 1.03s
36.798 N ± 8.9km 32.778 E ±42.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.5 (CSS). Felt at Alanya.

CSS 1.89 166 iPc 57 39.00 0.1
eS 58 06.00
PPCY 1.94 191 eP 57 39.50 -0.1
eS 58 07.00
FAM 2.05 151 eP 57 47.50 6.2X
NAL 3.59 342 eP 58 03.60 0.3
SGKT 3.81 352 eP 58 06.20 -0.3
KAS 4.63 9 eP 58 38.00 20.0X
S.D. = 0.5 on 4 of 6 obs.

DEC 13, 1993 23h 57m 14.33± 0.47s
31.110 S ± 8.5km 69.898 W ±11.1km
DEPTH = 135.2 ± 14.6 km
SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.4 (SAN).

RTRS 1.01 22 iPd 57 38.00 0.0
RTCB 1.01 112 iPd 57 37.80 -0.4
ZON 1.13 113 iPd 57 39.40 0.1
RTLL 1.24 101 iPd 57 39.80 -0.6
RTCV 1.38 123 iPd 57 42.50 0.6
JACH 1.67 200 iP+ 57 45.90 0.7
iS 58 09.28
MDZ 1.98 154 eP 58 12.70 23.9X
ROCH 2.08 207 iPd 57 49.82 -0.5
iS 58 16.03
PEL 2.13 198 iP+ 57 51.09 0.4
iS 58 18.13
FCH 2.24 188 iP+ 57 53.65 1.4
iS 58 23.32
IHA 2.42 217 eP 57 53.20 -1.0
eS 58 20.40
SAN 2.42 195 iP+ 57 54.73 0.4
iS 58 25.11
PCH 2.56 192 iP+ 57 56.73 0.6
iS 58 28.81
TACH 2.68 199 iP+ 57 57.29 -0.4
iS 58 29.64
LCCH 2.75 211 iP+ 57 57.54 -0.9
(S) 58 31.32
RTPR 3.03 75 iPc 58 02.00 0.0
CACH 3.06 191 iP+ 58 03.17 0.6
iS 58 39.66
LNV 3.11 204 iP+ 58 01.92 -1.2
iS 58 37.05
CCH 14.09 15 eP 00 29.00 -0.4
CNCB 14.34 7 P 00 34.00 1.2
LPB 14.60 7 eP 00 38.00 2.0
ARE 14.65 354 eP 00 38.00 1.5
LPAZ 14.84 7 P 00 36.30 -2.9
i 00 40.20
SIV 17.07 30 P 01 05.20 -1.1
S.D. = 1.2 on 23 of 24 obs.

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* DEC 14, 1993 01h 00m 36.34± 0.61s
72.267 N ± 7.8km 0.294 E ± 7.8km
DEPTH = 10.0km (geophysicist)
4.8mb (34 obs.) 4.5Msz (6 obs.)
NORWEGIAN SEA (642)

JNE 3.01 249 eP 01 24.70 -0.1
JNW 3.03 250 eP 01 24.90 -0.2
JMI 3.16 249 eP 01 26.92 -0.1
LOF 6.11 126 eP 02 06.45 -2.3
eS 03 10.02
TRO 6.63 104 eP 02 13.20 -2.9
eS 03 20.00
DAG 6.78 320 iPd- 02 14.30 -3.9X
0.4s 50.85nm 5.9mb X
Z 20s 3.83um 4.6Msz
ipP 03 24.50
KBS 7.26 18 eP 02 23.00 -1.9
ARA0 8.67 96 Pn 02 40.52 -4.0X
Sn 04 13.32
NSS 8.86 145 eP 02 44.79 -2.4
eS 04 16.80
NB2 12.04 154 P 03 29.40 -1.4
1.2s 27.80nm 5.4mb
KONO 13.20 159 eP 03 38.39 -7.7X
e 07 02.30
HFS 13.27 150 eP 03 44.80 -2.3
0.4s 3.30nm 4.7mb
Z 18s 1.73um 4.4MszX
LR 06 12.00
KAF 14.17 123 iP 03 55.70 -3.1X
0.8s 16.70nm 4.8mb
NUR 15.13 129 iP 04 08.20 -3.2X
1.1s 87.10nm 5.1mb
MUD 16.29 162 iPc 04 29.70 3.3X
1.2s 54.00nm 4.6mb
EKA 17.06 187 P 04 39.00 2.8X
COP 17.41 157 eP 04 40.00 -0.4
ENN 21.72 170 eP 05 28.00 -1.1
1.0s 50.00nm 4.9mb
CLL 21.77 158 eP 05 30.00 0.4
2.0s 130.00nm 5.0mb
Z 18s 1.00um 4.3Msz

MNK 21.80 133 eP 05 24.00 -5.8X
Z 20s 3.60um 4.8Msz
N 20s 2.90um
MOX 22.28 161 iP 05 36.20 1.5
1.9s 125.00nm 5.0mb
Z 19s 1.00um 4.3Msz
BRG 22.31 157 iP 05 37.00 2.0
1.8s 100.00nm 5.0mb
Z 18s 3.10um 4.8Msz
N 18s 1.70um
E 18s 1.30um
DOU 22.33 173 Pc 05 42.20 7.0X
HOF 22.63 160 iPd 05 41.20 3.0X
KSP 22.65 153 eP 05 38.20 -0.1
1.1s 29.00nm 4.7mb
MOS 22.66 117 iPc 05 40.00 1.7
2.0s 420.00nm 5.6mb
Z 17s 5.50um 5.1MszX
e 06 06.00
OBN 22.94 119 iPd 05 40.50 -0.6
1.2s 97.00nm 5.2mb
Z 18s 4.30um 4.9Msz
N 16s 3.00um
E 16s 1.30um
GRF 23.18 162 ePc 05 46.00 2.4
Z 24s 1.00um 4.2MszX
PRU 23.26 156 iPc 05 46.70 2.4
1.5s 58.80nm 4.9mb
Z 22s 1.10um 4.3Msz
OJC 23.78 148 eP 05 51.90 2.5
1.0s 81.00nm 5.3mb
i 06 00.60
KHC 23.99 158 Pc 05 54.00 2.6
1.0s 17.50nm 4.6mb
e 06 22.50
CDF 24.15 169 eP 05 52.50 -0.5
1.4s 32.65nm 4.7mb
GEC2 24.28 158 e(P) 05 56.50 2.1
0.8s 10.50nm 4.5mb
HAU 24.50 170 eP 05 55.70 -0.7
1.5s 40.75nm 4.8mb
Z 16s 0.50um 4.1MszX
FUR 24.70 162 iPc 06 01.50 3.2X
i 06 03.20
SPC 24.86 148 e(P) 05 49.20 -10.8X
SSF 25.33 175 eP 06 01.00 -3.3X
1.0s 7.60nm 4.3mb
ZST 25.35 153 iP 06 06.30 1.8
LBF 25.42 174 eP 06 03.00 -2.2
1.2s 18.45nm 4.6mb
WATA 25.55 162 iPd 06 08.50 1.9
AVF 25.60 175 eP 06 05.40 -1.4
1.5s 25.05nm 4.7mb
SQTA 25.63 163 iPd 06 07.90 0.6
1.5s 33.80nm 4.8mb
i 06 11.40
UZH 25.74 145 ePd 06 11.00 2.9X
Z 16s 1.50um 4.6MszX
E 16s 2.00um
e 06 18.60
e 06 47.30
SMF 25.76 174 eP 06 06.40 -1.9
1.3s 22.40nm 4.7mb
SRO 25.90 151 eP 06 12.00 2.4
KBA 25.99 159 iPd 06 13.10 2.4
2.0s 83.80nm 5.1mb
i 06 29.20
TCF 26.08 177 eP 06 09.40 -1.9
1.5s 44.90nm 4.9mb
LPL 27.00 170 eP 06 17.70 -2.4
1.1s 8.80nm 4.4mb
LPG 27.02 170 eP 06 17.80 -2.5
1.6s 31.10nm 4.8mb
ARU 28.27 93 eP 06 31.00 -0.2
Z 16s 0.50um 4.2MszX
N 16s 0.50um
E 16s 0.20um
SVE 28.55 90 ePd 06 35.00 1.3
Z 15s 1.00um 4.5MszX
N 15s 0.60um
E 15s 0.50um
VRI 29.22 140 eP 06 39.00 -0.9
MLR 29.44 142 eP 06 36.00 -5.9X
SIM 31.68 131 eP 07 04.00 2.4
Z 16s 2.40um 5.0MszX
eS 12 16.00
TIK 32.63 27 eP 07 14.00 4.4X

1.8s 33.00nm 5.0mb
KIV 34.73 121 eP 07 26.80 -1.4
1.3s 23.00nm 4.9mb
Z 14s 1.60um 4.9MszX
e 08 37.80
eS 12 57.00
YKA 38.45 317 eP 08 00.20 1.0
1.2s 12.60nm 4.5mb
ERE 38.73 121 iP 08 04.00 2.0
BOD 42.44 46 eP 08 32.00 -0.2
1.5s 16.00nm 4.5mb
MAIO 46.54 107 eP 09 07.00 1.5
e 11 06.00
ZAK 46.59 59 eP 09 06.00 0.4
1.8s 17.00nm 4.8mb
NDI 58.97 93 eP 10 38.50 0.6
GKN 61.88 86 P 10 57.40 -0.6
KKN 62.28 86 P 11 00.04 -0.7
GUN 62.35 85 P 11 01.30 -0.1
LKO 62.78 187 Pd 11 02.65 -1.2
1.0s 13.50nm 5.1mb
KIC 65.91 185 Pd 11 23.11 -1.0
0.7s 11.50nm 5.2mb
SHL 66.37 80 eP 11 27.50 0.2
CHTO 74.84 76 eP 12 18.00 -0.4
S.D. = 1.7 on 53 of 69 obs.

? DEC 14, 1993 02h 27m 28.86± 6.12s
39.724 N ±51.2km 25.371 E ±24.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (THE).

OUR 1.23 300 iPg 27 51.54 -0.2
eSg 28 06.40
ALN 1.28 24 iPb 27 52.54 0.0
eSb 28 08.76
PAIG 1.32 279 ePb 27 53.12 -0.1
eSb 28 09.80
SOH 1.89 306 ePb 28 02.12 0.6
eSb 28 27.32
KNT 2.37 308 ePn 28 08.16 -0.3
S.D. = 0.5 on 5 of 5 obs.

DEC 14, 1993 02h 27m 44.39± 0.51s
28.489 N ± 8.4km 86.844 E ± 7.3km
DEPTH = 33.0km (normal)
4.6mb (9 obs.)
XIZANG (306)

SHL 5.35 122 iPn 29 04.70 0.5
iSn 30 02.00
NDI 8.47 274 iPd 29 49.50 1.8
eS 31 18.00
HYB 13.40 216 eP 30 53.50 -1.3
eS 33 11.00
CHTO 14.67 128 eP 31 16.90 5.5X
CD2 14.90 77 eP 31 20.00 5.6X
POO 15.49 233 iP 31 20.50 -1.6
iS 34 04.50
POO 15.49 233 eP 31 29.50 7.4X
GBA 17.20 213 P 31 43.50 -0.3
S 34 44.50
GYA 17.70 92 P 31 50.60 0.4
1.0s 29.00nm 4.4mb
KOD 20.18 208 eP 32 22.20 2.8
MAIO 24.32 296 eP 33 04.00 3.8X
MLR 50.33 307 eP 36 40.00 -0.1
KAF 51.51 328 iP 36 49.00 0.3
0.3s 0.80nm 4.2mb
NUR 52.01 326 iP 36 52.70 0.2
0.3s 2.20nm 4.6mb
HFS 57.42 325 eP 37 31.00 -0.9
0.4s 6.10nm 5.0mb
GEC2 58.34 312 P 37 38.60 0.0
0.8s 1.90nm 4.3mb
PcP 38 00.20
NB2 58.61 326 P 37 39.60 -0.7
0.7s 4.20nm 4.7mb
WRA 66.51 131 P 38 33.00 -0.3
0.7s 3.90nm 4.6mb
WB2 66.51 131 iPc 38 32.70 -0.6
0.4s 17.10nm 5.5mb
ASPA 68.87 134 eP 38 47.80 -0.3
0.6s 13.30nm 5.2mb
S.D. = 1.2 on 16 of 20 obs.

? DEC 14, 1993 02h 29m 58.34± 1.93s
31.265 S ±27.5km 68.276 W ±43.6km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.18 249 iPd 30 12.50 -0.5
S 30 23.00
CFA 0.34 175 iPd 30 13.70 0.3
S 30 25.40
RTCB 0.50 244 iPd 30 14.50 0.0
S 30 21.00
RTRS 1.49 317 eP 30 25.00 0.1
S 30 44.00
S.D. = 0.6 on 4 of 4 obs.

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* DEC 14, 1993 02h 38m 19.81± 0.51s
16.625 N ± 5.9km 120.519 E ± 9.7km
DEPTH = 106.1 ± 5.4 km
4.5mb (18 obs.)
LUZON, PHILIPPINE ISLANDS (249)

BAG 0.22 165 iPd- 38 34.00 -2.2
SZP 0.92 356 iPc 38 39.80 -0.3
CVP 1.64 49 ePd 38 30.20 -18.4X
eS 39 11.00
PIP 1.69 3 iPc 38 49.50 0.3
iS 39 02.00
QVP 2.04 167 iPd 38 55.00 1.3
iS 39 21.00
QCP 2.05 165 eP 39 09.00 15.3X
TGY 2.54 171 iPc 39 03.00 2.7
PGP 3.13 172 iPd 39 09.00 0.7
HKC 8.23 314 iP 40 16.40 -1.7
GYA 16.17 310 P 42 06.20 3.9X
XAN 20.23 331 P 42 51.00 2.3
1.0s 8.90nm 4.1mb
BDT 20.59 275 eP 42 53.00 0.6
CHTO 20.67 279 eP 42 53.50 0.3
CD2 20.88 316 eP 42 56.20 0.9
TIY 22.18 343 eP 43 07.60 -0.6
BJI 23.64 352 eP 43 22.00 -0.1
1.0s 6.00nm 4.0mb
LZH 24.40 326 eP 43 31.20 1.4
1.4s 26.00nm 4.5mb
GUN 33.86 295 P 44 54.60 -0.1
0.8s 44.00nm 5.3mb
PKI 34.20 295 P 44 56.60 -1.0
0.5s 9.00nm 4.9mb
KKN 34.35 295 P 44 58.30 -0.4
GKN 34.95 295 P 45 03.00 -0.8
WRA 38.79 159 P 45 34.70 -1.2
0.4s 2.20nm 4.3mb
WB2 38.80 159 eP 45 34.10 -1.8
0.4s 5.80nm 4.8mb
e 45 58.30
GBA 41.64 272 P 45 59.80 0.4
0.6s 8.50nm 4.7mb
ASPA 42.13 162 iPc 46 02.40 -0.9
0.4s 9.40nm 4.9mb
WARB 42.96 172 eP 46 08.80 -1.2
0.3s 2.00nm 4.4mb
FBA 75.81 26 eP 49 55.30 -0.2
1.1s 10.00nm 4.5mb
KAF 77.42 331 iP 50 04.40 -0.1
0.5s 2.70nm 4.3mb
NUR 78.55 330 iP 50 10.90 0.2
0.5s 3.60nm 4.4mb
BALM 79.02 29 (P) 50 14.86 1.4
DAG 83.72 351 iPc 50 37.60 0.0
0.7s 6.16nm 4.6mb
HFS 83.84 331 eP 50 38.10 -0.4
0.5s 2.50nm 4.4mb
NB2 84.60 333 P 50 42.40 0.1
0.8s 4.60nm 4.4mb
GEC2 88.27 321 P 51 00.60 0.0
0.6s 0.83nm 3.9mb
YKA 90.15 22 eP 51 09.60 0.5
0.7s 1.30nm 4.2mb
S.D. = 1.2 on 32 of 35 obs.

DEC 14, 1993 03h 07m 07.55± 0.17s
45.069 N ± 1.7km 6.550 E ± 2.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.9 (LDG), 2.8 (GEN), 2.3
(STR).

14d 03h

RRL 0.22 132 Pc 07 12.00 -0.5
S 07 15.54
LPG 0.45 18 Pg 07 16.90 0.1
Sg 07 24.20
LPL 0.47 16 Pg 07 17.10 0.0
Sg 07 24.80
RSP 0.51 80 P 07 17.60 -0.3
S 07 25.10
BHB 0.55 114 P 07 18.19 -0.6
S 07 25.42
LSD 0.58 47 Pc 07 18.77 -0.7
S 07 26.81
RSL 0.62 5 Pg 07 20.32 0.1
PZZ 0.69 145 P 07 20.30 -1.0
S 07 29.40
STV 0.99 146 P 07 26.18 -0.2
S 07 38.47
EMS 1.04 15 eP 07 27.50 0.2
ENR 1.05 143 Pc 07 26.70 -0.6
S 07 40.43
ORX 1.16 60 Pd 07 29.44 0.2
S 07 44.88
TOUF 1.17 154 Pg 07 29.11 -0.4
DIX 1.18 31 eP 07 30.40 0.7
ROB 1.22 129 P 07 30.37 0.1
S 07 45.59
AUTN 1.24 149 Pg 07 30.45 -0.4
MVIF 1.25 160 Pg 07 31.01 0.2
SAOF 1.30 146 Pg 07 31.49 -0.1
AURF 1.31 155 Pg 07 32.23 0.5
CALN 1.34 169 Pg 07 32.57 0.3
Sg 07 55.11
SBF 1.36 152 Pn 07 32.90 0.3
Pg 07 34.30
Sg 07 51.80
MMK 1.40 45 eP 07 34.30 1.0
SSB 1.44 279 Pn 07 33.68 0.0
FIN 1.46 125 Pg 07 34.18 0.2
S 07 52.23
IMI 1.50 140 Pg 07 34.88 0.3
S 07 53.82
FRF 1.51 177 Pn 07 34.80 0.2
Pg 07 36.30
PCP 1.51 110 Pg 07 35.26 0.5
S 07 54.68
LRG 1.62 185 Pg 07 37.80 1.6
Sg 07 57.70
LMR 1.73 181 Pn 07 38.00 0.1
Pg 07 39.70
Sg 08 03.00
COLF 2.06 284 Pn 07 42.36 -0.4
SMF 2.46 311 Pn 07 48.80 0.4
Pg 07 53.80
Sg 08 25.40
LBF 2.62 318 Pn 07 51.10 0.4
Pg 07 57.40
Sg 08 31.00
AVF 2.82 309 Pn 07 51.80 -1.7
Pg 08 01.30
Sg 08 35.90
LOR 2.89 321 Pn 07 53.90 -0.5
Pg 08 02.10
Sg 08 38.00
SSF 2.91 314 Pn 07 54.40 -0.3
Pg 08 02.90
Sg 08 39.10
HAU 2.94 357 Pn 07 55.20 0.0
Sg 08 41.70
BGF 2.99 301 Pn 07 55.70 -0.1
Pg 08 04.40
Sg 08 40.60
MAF 3.02 294 Pn 07 56.20 -0.1
Pg 08 05.80
Sg 08 41.70
CAF 3.19 269 Pn 07 58.80 0.1
TCF 3.28 293 Pn 08 00.10 0.1
RJF 3.57 276 Pn 08 04.50 0.4
Pg 08 14.80
S.D. = 0.6 on 41 of 41 obs.

& DEC 14, 1993 03h 11m 01.87s
60.776 N 151.005 W
DEPTH = 49.6km
2.5mb (1 obs.)
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 2.7 (AEIC).

NKA 0.12 254 iP 11 11.37 3.3
SLKM 0.47 125 iP 11 12.58 -0.3
SPU 0.65 309 iP 11 14.63 -0.5
eS 11 24.81
BKG 0.68 296 iP 11 14.85 -0.7
eS 11 25.74
SUA 0.70 10 iP 11 15.37 -0.5
CGLM 0.72 318 eP 11 15.74 -0.4
CKT 0.72 307 eP 11 15.41 -0.7
CKN 0.73 309 eP 11 15.85 -0.3
CRP 0.75 312 eP 11 16.26 -0.2
eS 11 27.69
CKL 0.77 304 iP 11 16.15 -0.7
CP2 0.78 310 eP 11 16.62 -0.3
BGL 0.83 307 eP 11 17.13 -0.5
NCG 0.84 319 iP 11 17.29 -0.5
eS 11 29.55
PMS 0.85 56 eP 11 17.16 -0.6
DFR 0.85 258 iP 11 16.80 -1.0
eS 11 29.13
MPA 0.86 109 eP 11 17.65 -0.2
REF 0.88 252 eP 11 17.50 -0.9
eS 11 30.23
RSO 0.92 251 eP 11 17.97 -0.9
RS2 0.92 251 iP 11 18.05 -0.8
RDW 0.94 252 iP 11 18.19 -0.9
eS 11 31.64
RED 0.94 248 iP 11 18.20 -0.9
eS 11 31.30
NCT 0.97 258 iP 11 18.59 -0.9
eS 11 32.15
BRLK 1.02 177 eP 11 19.63 -0.4
eS 11 33.64
SEW 1.02 130 eP 11 19.59 -0.5
PWA 1.03 31 eP 11 20.42 0.2
HOM 1.17 196 eP 11 21.87 -0.2
ILIM 1.19 235 eP 11 21.60 -1.0
eS 11 37.45
PLRM 1.22 47 eP 11 22.42 -0.4
SKT 1.23 348 eP 11 22.63 -0.5
INE 1.25 236 eP 11 22.39 -1.0
CNPM 1.26 185 eP 11 22.66 -0.8
PWL 1.31 85 iP 11 23.49 -0.7
KNK 1.39 62 eP 11 24.82 -0.5
GHO 1.42 44 eP 11 25.21 -0.5
OPT 1.58 226 eP 11 27.62 -0.4
CFI 1.63 74 iP 11 27.43 -1.2
eS 11 48.85
SML 1.65 50 eP 11 28.27 -0.7
CUT 1.67 12 eP 11 29.08 -0.1
MTU 1.84 114 eP 11 30.76 -0.9
AUE 1.85 221 eP 11 31.56 -0.2
AUL 1.85 222 eP 11 31.99 0.2
AUH 1.87 222 eP 11 32.31 0.2
PDB 1.87 239 eP 11 30.88 -1.1
AUW 1.88 222 eP 11 31.15 -0.9
SCM 2.07 58 eP 11 33.86 -1.0
HIN 2.25 98 eP 11 35.17 -2.3
CDD 2.28 217 eP 11 37.44 -0.4
HUR 2.30 16 eP 11 38.70 0.6
VLZ 2.31 79 eP 11 36.50 -1.6
KLU 2.57 72 eP 11 40.15 -1.8
TOA 2.68 58 eP 11 42.85 -0.6
TRF 2.71 7 eP 11 44.56 0.5
KTH 2.79 1 eP 11 45.61 0.5
YKA 17.24 68 eP 14 58.50 -1.7
0.5s 0.20nm 2.5mb
54 obs. associated

? DEC 14, 1993 03h 28m 21.02± 4.43s
15.770 N ±39.2km 98.867 W ±13.3km
DEPTH = 33.0km (normal)
OFF COAST OF GUERRERO, MEXICO (65)

ACX 1.45 319 iP 28 45.00 -0.2
iS 29 04.47
OXX 2.44 57 iP 28 59.80 0.2
iS 29 29.00
PPM 3.29 4 eP 29 13.00 1.1
(S) 29 57.50
IIA 3.37 3 eP 29 12.41 -0.1
(S) 29 56.51
IISM 3.50 24 iP 29 13.00 -1.5
UNM 3.55 355 (P) 29 25.50 10.0X
(S) 30 11.00
MRX 4.50 331 (P) 29 39.50 10.9X
(S) 30 35.00

LVVM 4.57 30 iP 29 30.05 0.4
S.D. = 1.1 on 6 of 8 obs.

DEC 14, 1993 03h 30m 56.50± 0.51s
51.271 N ±10.5km 179.833 W ± 5.5km
DEPTH = 33.0km (normal)
4.6mb (18 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK 2.06 71 eP 31 27.81 -1.6
eS 31 56.96
SMY 4.02 294 (P) 31 59.99 2.7X
SVW 16.59 44 (P) 34 49.94 2.1
0.8s 21.20nm 4.3mb
KDC 17.07 57 (P) 34 53.45 -0.4
TTA 17.30 38 eP 34 56.66 -0.1
0.9s 5.27nm 3.7mb
SLKM 18.85 49 (P) 35 16.16 0.3
IMA 19.88 32 eP 35 28.03 0.4
0.9s 9.43nm 4.1mb
KLU 21.13 48 eP 35 41.84 1.4
FBA 21.43 38 eP 35 42.57 -0.8
0.7s 5.72nm 4.1mb
BALM 22.74 50 eP 35 57.56 1.0
YKA 35.78 46 eP 37 53.20 -0.7
0.7s 3.40nm 4.4mb
RMW 37.13 72 eP 38 05.79 0.2
LRM 43.52 70 eP 38 59.00 0.4
TNP 45.10 82 eP 39 11.57 0.2
0.6s 3.30nm 4.4mb
HVU 45.61 75 eP 39 15.68 0.4
TPNV 46.40 82 eP 39 21.04 -0.6
0.8s 6.91nm 4.7mb
DUG 46.53 76 eP 39 23.01 0.5
0.8s 4.28nm 4.5mb
GSC 47.11 84 eP 39 26.72 -0.4
MSU 47.95 78 eP 39 34.20 0.3
SRU 48.59 76 eP 39 38.61 -0.1
PV09 49.82 76 eP 39 48.25 -0.1
PV10 49.95 76 eP 39 49.53 0.2
PV08 50.06 75 eP 39 50.21 -0.1
ELC 62.35 64 eP 41 16.54 -1.3
OXF 64.22 66 eP 41 29.66 -0.5
KAF 65.07 347 iP 41 34.10 -1.2
0.6s 6.20nm 4.9mb
CBM 65.96 44 eP 41 42.00 0.8
1.0s 9.25nm 4.8mb
MYNC 66.81 63 (P) 41 46.76 -0.1
0.8s 4.89nm 4.7mb
NUR 66.84 347 eP 41 45.40 -1.2
NAV 66.99 59 (P) 41 48.68 0.7
NB2 67.69 354 P 41 51.40 -0.6
1.0s 9.00nm 4.8mb
HFS 68.41 353 eP 41 55.00 -1.5
0.4s 1.10nm 4.2mb
GUN 71.29 291 P 42 15.60 0.6
0.9s 46.00nm 5.5mb
KKN 71.73 292 P 42 17.80 0.3
0.7s 11.00nm 5.0mb
PKI 71.82 291 P 42 18.80 0.7
0.8s 11.00nm 4.9mb
GKN 71.95 292 P 42 19.40 0.7
0.8s 13.00nm 5.0mb
GEC2 79.59 351 P 43 01.60 0.1
0.6s 1.17nm 4.0mb
e 43 04.10
e 43 05.70
S.D. = 0.8 on 36 of 37 obs.

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* DEC 14, 1993 03h 35m 05.90± 1.24s
20.626 S ±14.3km 176.639 W ± 7.9km
DEPTH = 265.1 ± 11.2 km
4.7mb (19 obs.)
FIJI ISLANDS REGION (181)

SVA 5.26 298 ePc 36 27.10 1.3
AFI 8.13 36 eP 37 00.00 -1.8
BKM 14.58 279 iPd 38 24.80 2.9
DZM 15.83 262 iPd 38 38.00 1.2
AFR 25.56 88 eP 40 12.20 -0.5
1.0s 65.60nm 5.1mb
PAE 25.72 88 eP 40 13.80 -0.4
PPT 25.74 88 eP 40 14.30 -0.1
1.2s 118.40nm 5.3mb
PPN 25.88 88 eP 40 15.30 -0.3
1.0s 51.20nm 5.0mb
TPT 28.17 83 eP 40 32.00 -4.2X

1.0s 109.60nm 5.4mb
ARMA 30.16 245 eP 40 53.30 -0.5
0.5s 4.00nm 4.3mb
CNB 33.22 237 eP 41 19.70 -0.5
0.6s 15.00nm 4.8mb
TOO 36.86 234 iPc 41 50.10 -0.7
0.6s 12.00nm 4.6mb
STK 38.89 245 eP 42 06.80 -0.8
0.6s 6.20nm 4.3mb
ASPA 45.73 257 iPc 43 01.60 -1.4
0.6s 24.10nm 4.7mb
WB2 45.83 262 iPc 43 01.30 -2.5
0.8s 14.30nm 4.4mb
WRA 45.84 262 P 43 01.90 -2.0
0.6s 5.40nm 4.1mb
MAT 71.07 323 eP 45 55.00 -2.2
0.8s 9.70nm 4.6mb
PLM 78.29 48 eP 46 39.12 0.7
PEC 78.39 47 ePc 46 39.52 0.7
0.6s 7.82nm 4.6mb
ORV 78.94 40 eP 46 41.88 0.3
LGPM 79.01 39 eP 46 43.04 1.0
BONR 79.97 43 ePd 46 48.13 0.7
KDC 80.63 13 (P) 46 46.22 -3.8X
CP2 83.93 12 iP 47 05.83 -1.4
MSU 84.28 45 ePd 47 10.66 1.2
PMR 84.85 13 ePd 47 10.21 -1.2
0.4s 9.45nm 5.0mb
TTA 84.85 9 iP 47 10.89 -0.7
1.1s 24.85nm 5.0mb
TOA 85.95 14 eP 47 16.80 -0.2
LTX 86.05 57 eP 47 19.28 1.0
PV08 86.69 47 eP 47 22.07 0.6
LRM 88.00 39 eP 47 27.70 0.3
FBA 88.10 12 ePd 47 25.63 -1.5
1.0s 20.00nm 4.9mb
IMA 88.16 9 eP 47 26.27 -1.3
0.8s 5.94nm 4.5mb
RSSD 92.36 43 ePd 47 47.63 0.0
0.9s 15.35nm 5.0mb
YKA 96.10 24 eP 48 02.00 -1.9
0.7s 1.30nm 4.3mb
NB2 139.25 354 PKP 53 52.90 -9.6X
0.9s 3.30nm
HFS 139.85 352 ePKP 53 53.40 -10.1X
0.4s 1.50nm
EKA 145.00 6 PKPc 54 11.45 -1.2
WIM 145.98 8 ePKP 54 14.80 0.5
DCN 146.33 12 ePKP 54 15.60 0.7
DLF 146.51 11 ePKP 54 16.20 1.1
WME 146.76 8 ePKP 54 16.80 1.3
YRC 146.86 9 ePKP 54 16.90 1.2
KAS 146.99 316 ePKP 54 18.00 1.5
YRH 147.26 9 ePKP 54 17.80 1.4
OJC 147.73 340 ePKP 54 19.00 1.8
WIT 147.77 356 ePKP 54 21.00 3.8X
HCG 147.90 8 ePKP 54 19.60 2.1
KSP 148.17 344 iPKPd 54 21.10 3.2X
i 54 24.70
HTR 148.18 8 ePKP 54 20.50 2.6
HAE 148.31 7 ePKP 54 21.10 3.0X
CLL 148.46 348 iPKPd 54 21.50 3.2X
1.1s 51.00nm
WTS 148.58 356 ePKP 54 21.50 3.0X
0.8s 31.10nm
HGH 148.67 7 ePKP 54 21.80 3.1X
BRG 148.68 347 iPKP 54 18.50 -0.2
1.2s 42.00nm
i 54 22.00
MLR 149.01 328 ePKP 54 18.00 -1.6
MOX 149.34 350 iPKP 54 23.90 4.1X
1.4s 38.00nm
PRU 149.38 346 iPKPd 54 23.80 4.0X
0.8s 14.90nm
i 54 30.00
ENN 149.85 357 ePKP 54 25.00 4.5X
0.8s 26.20nm
SNF 150.17 359 PKP 54 26.30 5.4X
SRO 150.30 339 ePKP 54 36.80 15.6X
GRF 150.33 350 iPKPd 54 26.90 5.6X
ZST 150.35 341 e(PKP)54 21.20 -0.1
e 54 26.00
KHC 150.41 346 ePKP 54 21.00 -0.5
1.0s 21.00nm
i 54 27.00
e 54 34.00
WET 150.54 347 ePKP 54 27.40 5.8X
DOU 150.58 358 PKPd 54 27.30 5.7X
ec 54 33.80
GEC2 150.65 346 e(PKP)54 21.20 -0.7
0.7s 1.00nm
GEC2 150.65 346 e(PKP)54 26.90 5.0X
0.8s 10.90nm
FLN 151.76 5 iPKPd 54 29.30 5.9X
0.6s 21.30nm
FUR 151.79 349 iPKPd 54 29.80 6.3X
LDF 151.96 5 iPKPd 54 29.50 5.8X
0.5s 11.80nm
GRR 152.09 6 iPKPd 54 30.20 6.3X
0.6s 20.30nm
CDF 152.10 354 iPKPd 54 30.30 6.2X
0.6s 12.10nm
KBA 152.39 345 iPKPc 54 30.30 5.7X
0.8s 9.00nm
LPF 152.43 6 iPKPd 54 31.00 6.6X
0.5s 26.95nm
WATA 152.53 348 iPKPd 54 30.90 6.1X
HAU 152.58 356 iPKPd 54 31.20 6.5X
0.8s 16.80nm
MOTA 152.61 349 iPKPd 54 31.00 6.1X
0.9s 10.60nm
BSF 152.72 355 iPKPd 54 31.40 6.4X
0.6s 7.60nm
LOR 153.42 359 iPKPd 54 33.20 7.4X
0.6s 5.95nm
SSF 153.63 360 iPKPd 54 33.80 7.7X
0.7s 8.25nm
LBF 153.70 359 iPKPd 54 33.90 7.6X
0.8s 10.50nm
MFF 153.93 6 iPKPd 54 34.10 7.6X
0.6s 4.95nm
BGF 154.13 1 ePKP 54 34.70 7.9X
0.7s 8.60nm
TCF 154.39 2 iPKPd 54 35.20 8.0X
0.6s 5.25nm
MAF 154.46 1 ePKP 54 35.60 8.3X
0.7s 4.20nm
S.D. = 1.3 on 49 of 86 obs.

? DEC 14, 1993 03h 53m 44.19± 8.92s
38.496 N ±63.3km 24.004 E ±44.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

AGG 1.41 292 iPb 54 09.90 0.0
eSb 54 30.22
PAIG 1.45 350 iPb 54 10.29 -0.1
eSb 54 28.06
OUR 1.84 359 iPb 54 16.10 0.1
LIT 1.99 324 ePb 54 18.14 -0.1
SOH 2.38 348 ePn 54 23.90 0.1
SRS 2.64 353 ePn 54 27.26 -0.3
eSn 54 59.62
KNT 2.80 343 ePn 54 30.02 0.2
iSn 55 05.33
S.D. = 0.2 on 7 of 7 obs.

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* DEC 14, 1993 03h 56m 39.74± 0.99s
6.752 N ±12.4km 72.779 W ±17.5km
DEPTH = 184.4 ± 10.5 km
4.4mb (5 obs.)
NORTHERN COLOMBIA (99)

BOG 2.47 211 iPc 57 25.00 1.9
iS 57 51.00
SDV 3.00 45 iPnc 57 29.20 -0.1
iSn 58 08.10
TOV 4.22 44 ePd 57 44.30 -0.2
PSO 7.15 220 eP 58 21.00 -2.1
LPAZ 23.35 169 P 01 33.90 0.4
LPB 23.59 169 eP 01 33.00 -2.6
CNCB 23.89 169 P 01 40.10 1.5
CBM 40.23 5 eP 04 00.90 1.2
0.6s 9.54nm 4.6mb
YKA 63.45 340 eP 06 49.50 -2.2
0.5s 0.80nm 3.8mb
TIC 67.24 86 P 07 16.45 -0.4
0.6s 2.00nm 4.0mb
LIC 67.27 86 P 07 16.83 -0.1
0.6s 6.50nm 4.6mb
KIC 67.54 86 P 07 18.59 -0.1
0.6s 10.50nm 4.8mb
ASPA 149.35 234 ePKP 16 06.30 2.0
0.6s 6.90nm
WB2 150.59 241 iPKPd 16 10.90 4.7X
0.5s 6.20nm
i 16 52.70
WRA 150.60 241 PKP 16 07.20 1.0
1.2s 1.60nm
S.D. = 1.7 on 14 of 15 obs.

& DEC 14, 1993 04h 04m 26.63s
37.652 N 118.886 W
DEPTH = 5.4km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.7 (GM).

MCSM 0.01 282 P 04 27.84 -0.1
MEMM 0.04 289 iPc 04 28.17 0.1
CLKR 0.08 141 P 04 28.62 -0.1
MMPM 0.12 250 iPc 04 29.35 0.0
HTCR 0.15 143 P 04 29.86 -0.1
ORC 0.18 95 P 04 30.64 0.1
MRCM 0.30 86 iPc 04 32.94 0.2
MTUM 0.39 139 iPd 04 34.36 -0.2
BCKR 0.41 83 P 04 35.06 0.2
BHPR 0.47 138 P 04 36.09 -0.1
BONR 0.55 57 eP 04 37.23 -0.5
CMB 1.25 288 eP 04 49.15 -1.1
eS 05 03.65
TNP 1.39 71 eP 04 52.86 0.1
KVN 1.53 24 eP 04 54.70 0.0
WLHM 1.57 163 P 04 55.52 0.1
BMSM 1.82 238 P 05 00.47 1.6
WASM 1.93 172 P 05 02.41 1.9
ISA 2.01 170 ePc 05 03.30 1.7
ARN 2.13 263 eP 05 04.17 0.9
WBSM 2.19 164 P 05 06.95 2.5
COE 2.25 261 (P) 05 07.84 2.8
WJPM 2.26 172 P 05 08.10 2.8
BCH 2.64 202 eP 05 10.99 0.2
GSC 2.88 144 (P) 05 14.09 0.0
24 obs. associated

& DEC 14, 1993 05h 33m 50.71s
63.267 N 151.165 W
DEPTH = 11.5km
CENTRAL ALASKA (1)
<AEIC>. ML 2.5 (AEIC).

KTH 0.31 21 eP 33 56.69 -0.5
TRF 0.44 65 iP 33 59.44 -0.3
eS 34 06.02
HUR 0.75 112 eP 34 04.95 -0.4
eS 34 16.21
CUT 0.96 154 iP 34 08.91 0.1
eS 34 22.46
RND 1.05 81 eP 34 10.29 -0.2
eS 34 24.35
MCK 1.10 64 eP 34 11.81 0.5
eS 34 26.33
BWN 1.18 39 eP 34 13.15 0.5
eS 34 30.21
SKT 1.30 188 eP 34 14.21 -0.5
eS 34 31.45
NEA 1.61 34 eP 34 19.60 0.6
PWA 1.73 159 P 34 21.30 0.5
DHY 1.73 95 eP 34 21.66 0.7
eS 34 44.64
MLY 1.78 6 eP 34 21.63 0.0
SUA 1.82 174 eP 34 22.31 0.1
eS 34 47.46
WRH 1.82 47 eP 34 22.98 0.9
eS 34 47.36
GHO 1.83 144 eP 34 22.19 -0.1
NCG 1.93 194 eP 34 23.16 -0.6
eS 34 48.82
PLRM 1.93 150 eP 34 23.57 -0.1
PMR 1.93 150 eP 34 23.49 -0.2
SML 1.97 137 eP 34 23.93 -0.3
CGLM 2.01 192 eP 34 24.46 -0.4
CCB 2.03 45 eP 34 24.26 -0.9
CRP 2.06 193 eP 34 24.77 -1.0
eS 34 53.69
CP2 2.07 195 eP 34 25.43 -0.5
eS 34 55.05
BGL 2.09 196 eP 34 26.15 0.0
eS 34 53.95
CKN 2.11 194 eP 34 26.60 0.3
CKT 2.13 194 eP 34 26.60 -0.1
MDM 2.13 36 eP 34 27.08 0.4

14d 05h

SPU 2.13 192 eP 34 26.50 -0.2
CKL 2.15 195 eP 34 27.25 0.2
PMS 2.16 159 P 34 28.50 1.4
HDA 2.19 57 eP 34 26.99 -0.5
FBA 2.21 41 eP 34 28.94 1.2
eS 34 59.11
TTA 2.23 263 eP 34 27.65 -0.5
KNK 2.25 145 eP 34 28.80 0.4
BKG 2.26 194 eP 34 28.20 -0.4
SCM 2.29 127 eP 34 30.38 1.4
GLM 2.39 42 eP 34 32.09 1.7
DDM 2.43 75 eP 34 32.09 1.1
TOA 2.58 115 P 34 33.20 0.1
PAX 2.61 94 eP 34 34.01 0.5
CFI 2.63 141 eP 34 35.08 1.4
SDG 2.68 104 eP 34 34.72 0.2
PWL 2.76 150 eP 34 36.72 1.1
DFR 2.78 196 eP 34 36.03 0.1
SLKM 2.81 170 eP 34 37.16 0.9
NCT 2.84 198 eP 34 37.60 0.8
REF 2.88 195 eP 34 39.01 1.5
RDW 2.90 196 eP 34 38.29 0.5
RS2 2.91 196 eP 34 39.36 1.4
RED 2.96 196 eP 34 39.91 1.5
SVW 3.01 226 (P) 34 41.39 2.3
IMA 3.01 340 eP . 34 36.80 -2.5
KLU 3.02 124 eP 34 40.87 1.5
53 obs. associated

? DEC 14, 1993 05h 57m 39.39± 2.61s
11.742 N ± 7.0km 62.033 W ±50.7km
DEPTH = 100.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.0 (TRN).

GRW 0.55 41 eP 57 56.39 0.5
eS 58 08.27
TCE 1.07 165 eP 58 00.83 -0.1
eS 58 16.00
TRN 1.25 150 eP 58 02.92 0.0
eS 58 19.32
TBH 1.57 143 eP 58 06.91 0.0
eS 58 27.35
SVB 1.70 27 eP 58 08.38 -0.2
SVV 1.76 27 eP 58 09.14 -0.2
S.D. = 0.3 on 6 of 6 obs.

DEC 14, 1993 06h 07m 16.17± 0.27s
9.314 S ± 5.2km 79.012 W ± 6.9km
DEPTH = 63.5km (18 depth phases)
5.1mb (15 obs.)
OFF COAST OF NORTHERN PERU (108)
Felt (IV) at Chimbote and Huarmey; (III) at Casma; (II) at Huaraz, Lima and Trujillo.

PT10 3.40 144 iP 08 09.00 1.0
iS 08 45.00
NNA 3.41 141 iPd 08 08.50 0.4
e(S) 08 46.50
PT06 5.20 150 iP 08 32.10 -1.2
PT03 5.61 146 eP 08 37.50 -1.6
ARE 10.21 135 eP 09 41.00 -1.8
LPAZ 12.67 124 eP 10 13.84 -2.3
LPB 12.83 125 PKP 10 19.30 1.3
PKS 13 04.00
CNCB 13.07 126 iPKPc 10 21.50 0.1
CCH 14.87 124 P 10 43.00 -1.7
MOCB 17.51 134 P 11 17.70 -0.4
SIV 18.71 113 P 11 31.90 -0.5
SDV 19.91 25 eP 11 45.20 -0.5
TOV 21.08 26 ePg 11 58.60 1.1
OLLA 22.73 33 eP 12 16.30 2.4
CAR 23.07 32 iP 12 16.00 -1.3
RTLL 24.00 157 iPc 12 27.00 0.9
RTCB 24.02 158 iPc 12 27.50 1.2
PEL 24.93 163 ePd 12 36.00 1.0
BDFB 30.89 105 eP 13 27.80 -1.4
1.0s 40.99nm 5.1mb
PRM 43.27 356 eP 15 12.24 -0.9
e 15 28.15 63km
JSC 43.40 357 eP 15 12.87 -1.3
e 15 29.31 65km
LTX 45.18 329 eP 15 28.53 -0.2
UYO 45.66 342 iPd 15 32.80 0.5
MIAR 45.75 343 eP 15 33.21 0.2
0.6s 7.05nm 4.7mb
NAV 46.41 358 eP 15 37.33 -0.9
MEO 47.61 338 iPc 15 47.40 -0.4
TUL 47.68 342 iPd 15 48.20 -0.1
OCO 47.88 340 iPd 15 50.50 0.6
FVM 48.25 348 eP 15 51.57 -1.0
0.8s 19.62nm 5.1mb
epP 16 07.70 63km
ACO 49.53 339 iPc 16 21.40 18.9X
ALQ 51.10 331 iPd 16 12.00 -2.8
pP 16 28.00 62km
GLD 54.53 335 (P) 16 40.90 0.7
1.3s 21.64nm 5.0mb
PV08 55.07 332 eP 16 44.16 -0.2
PV10 55.09 331 eP 16 43.58 -0.8
PV09 55.24 331 eP 16 45.41 -0.1
epP 17 02.72 67km
SRU 56.38 331 eP 16 53.17 -0.4
epP 17 09.78 63km
MSU 56.74 329 eP 16 56.13 0.0
epP 17 12.43 62km
ARUT 56.85 328 eP 16 57.52 0.6
epP 17 14.00 62km
GSC 56.94 323 eP 16 57.90 0.4
epP 17 14.75 64km
EMUT 57.07 331 eP 16 58.29 -0.3
epP 17 14.42 61km
RSSD 57.82 339 eP 17 02.81 -0.9
1.3s 31.82nm 5.3mb
epP 17 19.75 64km
DUG 58.34 330 eP 17 07.33 0.1
1.1s 15.07nm 5.0mb
epP 17 23.82 62km
HVU 59.54 331 eP 17 14.86 -0.7
epP 17 31.84 64km
LRM 62.55 334 eP 17 35.50 -0.5
e 17 52.60 64km
ORV 62.57 324 eP 17 36.57 0.7
epP 17 53.64 64km
LBFM 63.98 325 (P) 17 45.47 0.1
LIC 75.32 81 P 18 54.88 -0.1
1.2s 29.00nm 5.1mb
Z 20s 0.60um 4.9Msz
TIC 75.41 81 P 18 55.42 -0.1
1.0s 21.00nm 5.0mb
LKO 75.45 78 Pd 18 55.55 -0.2
0.5s 5.50nm 4.7mb
KIC 75.63 81 Pd 18 56.78 0.0
0.7s 15.50nm 5.1mb
YKA 76.69 344 eP 19 00.30 -1.5
0.7s 5.30nm 4.6mb
SPA 80.75 180 iPd 19 25.30 1.3
0.9s 45.45nm 5.4mb
EVAL 81.88 50 eP 19 31.70 1.4
EJIF 82.51 51 eP 19 35.70 2.2
EPRU 82.85 51 eP 19 36.40 1.1
EHOR 83.09 50 eP 19 37.50 1.0
ECOG 84.21 51 eP 19 42.70 0.4
PAB 84.27 49 iPd 19 43.20 0.7
EBAN 84.29 50 eP 19 43.50 0.9
GUD 84.73 48 eP 19 45.70 0.8
EVIA 85.39 50 eP 19 49.20 1.0
KLU 87.44 334 eP 19 57.64 -0.1
epP 20 15.80 65km
TOA 87.81 334 eP 19 59.90 0.5
FBA 89.60 337 eP 20 07.68 -0.1
0.9s 11.20nm 5.1mb
epP 20 25.56 63km
SYO 91.14 162 ePd 20 17.70 2.8
IMA 92.31 337 eP 20 20.40 -0.1
0.9s 6.50nm 5.1mb
e 20 39.10 66km
DAG 92.50 12 iPc 20 21.00 0.0
0.9s 17.65nm 5.5mb
MAIO 133.79 48 ePKP 26 28.00 -0.1
ASPA 134.07 224 ePKP 26 28.30 -0.6
1.0s 7.20nm
WB2 136.14 228 ePKP 26 32.30 -0.6
0.4s 19.50nm
WRA 136.15 228 PKP 26 33.00 0.1
0.6s 6.80nm
BJI 146.54 339 ePKP 26 51.00 0.3
1.5s 57.00nm
NDI 150.51 46 iPKPd 27 03.00 5.8X
POO 152.15 68 ePKP 27 07.00 7.0X
LZH 153.22 355 ePKP 27 09.00 7.8X
1.4s 31.00nm
pP 27 20.50
sP 27 29.00
GKN 155.86 37 PKP 27 00.00 -5.0X
S.D. = 1.0 on 71 of 76 obs.

? DEC 14, 1993 06h 30m 54.62± 1.06s
37.015 N ± 8.6km 3.799 W ± 8.5km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.5 (MDD).

EGUA 0.26 134 eP 31 00.20 0.1
e 31 04.00
ELOJ 0.31 295 eP 31 01.00 -0.2
eS 31 05.00
ECOG 0.32 35 eP 31 01.00 -0.3
e 31 05.30
EBAN 1.15 1 eP 31 16.50 0.4
e 31 32.40
S.D. = 0.5 on 4 of 4 obs.

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* DEC 14, 1993 06h 31m 19.33± 0.20s
20.704 S ± 5.6km 173.451 W ± 4.1km
DEPTH = 30.6km (5 depth phases)
5.5mb (41 obs.) 6.1Msz (76 obs.)
TONGA ISLANDS (173)
Mw 6.0 (HRV). Ms 6.1 (BRK).
Mo=2.6*10**18 Nm (PPT).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 40S, 92C M.W.: 29S, 34C
Centroid Location:
Origin Time 06:31:25.2 0.2
Lat 20.51S 0.02 Lon 173.05W 0.01
Dep 15.0 BDY Half-duration 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 7.37 0.08 Mtt=-0.60 0.12
Mff=-6.78 0.11 Mrt= 2.94 0.31
Mrf= 6.52 0.34 Mtf=-3.01 0.07
Principal Axes:
T Val= 10.19 Plg=68 Azm=296
N 0.63 1 203
P -10.81 21 113
Best Double Couple:Mo=1.1*10**18
NP1:Strike=200 Dip=24 Slip= 87
NP2: 24 66 91

AFI 6.94 14 eP 32 56.00 -5.7X
SVA 8.06 287 ePc 33 19.60 2.4
VUN 8.09 288 eP 33 18.40 0.7
MBU 8.29 295 eP 33 21.30 0.8
PVC 17.47 277 iPc 35 24.50 2.1
BKM 17.55 277 iPd 35 26.30 2.9X
DZM 18.77 262 iPc 35 36.70 -1.9
NOZ 19.31 201 eP 35 49.40 4.7X
URZ 19.31 203 eP 35 45.10 0.4
MOZ 20.44 207 eP 35 57.00 0.2
MNG 21.98 203 eP 36 13.80 1.3
AFR 22.58 86 iPd 36 18.20 -0.4
1.3s 348.00nm 5.7mb
PAE 22.74 86 iPd 36 19.70 -0.4
1.3s 213.70nm 5.5mb
PPT 22.77 86 iPd 36 20.20 -0.2
1.4s 458.30nm 5.8mb
Z 30s *******um 8.3MszX
SNZO 22.87 203 P 36 25.00 3.8X
S 40 32.00
PPN 22.91 86 iPd 36 21.50 -0.3
1.3s 156.70nm 5.4mb
TVO 23.03 87 iPd 36 22.40 -0.6
QRZ 23.34 208 eP 36 29.70 3.9X
THZ 23.96 206 eP 36 38.40 6.5X
PMO 24.96 81 iPd 36 45.50 3.8X
1.5s 240.30nm 5.6mb
LTZ 25.07 205 eP 36 42.40 -0.2
EWZ 26.25 206 eP 36 57.80 4.3X
MSCZ 28.14 206 eP 37 14.10 3.3X
LRCZ 28.15 206 eP 37 13.20 2.2
CMCZ 28.24 206 eP 37 16.80 5.0X
ARMA 32.84 246 eP 37 53.50 0.8
0.9s 17.00nm 5.0mb
CNB 35.69 238 iPc 38 17.30 0.2
1.0s 37.00nm 5.3mb
CAN 35.98 238 eP 38 18.40 -1.1
ipP 38 24.90 22km
i 40 05.60
TOO 39.26 236 eP 38 46.00 -1.0
0.5s 37.00nm 5.4mb

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KDB    39.53 280 eP     38 47.00  -2.4
STK    41.55 245 eP     39 03.50  -2.4
       1.3s      8.30nm        4.3mb X
             eS         44 59.30
MDG    42.43 285 e(P)   39 05.00  -8.3X
HON    44.42  21 P      39 40.00  10.8X
     Z  19s      6.90um        5.6Msz
HON    44.42  21 P      39 30.00   0.8
     Z  19s      6.90um        5.6Msz
WB2    48.78 261 eP     40 00.90  -2.9
       0.7s     16.00nm        5.2mb
WRA    48.79 261 P      40 02.00  -1.8
       1.0s      5.80nm        4.6mb
DRV    54.63 201 iP     40 47.00  -0.1
             S          48 30.00
WARB   54.83 252 eP     40 46.00  -3.2X
       0.3s      4.00nm        5.0mb
SBA    57.99 185 eP     41 15.30   4.3X
KLB    61.82 244 eP     41 37.00  -1.0
NWAO   62.08 243 eP     41 40.00   0.2
BAL    62.86 245 eP     41 43.80  -1.1
MUN    63.07 244 eP     41 45.80  -0.5
MRWA   63.69 247 eP     41 48.80  -1.7
       0.4s      8.00nm        5.2mb
CSY    65.61 206 eP     42 03.20   1.0
       1.0s     12.50nm        5.0mb
DAV    65.94 288 eP-    42 03.00  -2.1
CTB    67.21 288 ePd    42 13.00  -0.2
CGP    67.32 289 eP     42 11.00  -2.9
SPA    69.42 180 ePd    42 27.30   0.9
       0.7s     97.66nm        6.0mb
TSM    71.74 282 eP     42 40.00  -1.1
MAJO   72.97 321 eP     42 47.66  -0.3
       0.9s     30.78nm        5.3mb
MAT    72.97 321 (P)    42 47.00  -1.0
       2.0s     88.24nm        5.4mb
     Z  20s      3.55um        5.6Msz
             eS         52 11.00
SMY    73.92 352 P      43 00.00   7.0X
     Z  20s     15.19um        6.3Msz
KKM    73.94 283 eP     43 00.00   5.9X
CVP    74.05 296 eP     42 56.00   1.4
BAG    74.50 295 eP+    42 52.00  -5.4X
             eS         52 30.00
BCH    75.17  43 eP     43 00.55  -0.3
SAO    75.32  41 P      43 10.00   8.4X
     Z  18s     12.34um        6.2Msz
SAO    75.32  41 P      43 06.83   5.3X
     Z  18s     12.34um        6.2Msz
             SP         52 51.78
MHC    75.58  40 eP     43 24.20  21.0X
     Z  18s     11.00um        6.2Msz
             eS         52 54.20
             eLQ        02 32.20
             eLR        05 29.20
PLM    76.16  46 eP     43 05.97  -0.7
PEC    76.28  45 eP     43 06.33  -0.8
       1.8s    138.96nm        5.7mb
ISA    76.50  43 eP     43 07.78  -0.5
       1.8s    192.73nm        5.8mb
     Z  19s      8.88um        6.1Msz
             SP         53 11.91
CMB    76.79  40 ePc    43 09.54  -0.3
     Z  18s      9.94um        6.2Msz
             e          47 03.07
             SP         53 15.30
             e          56 46.82
CMB    76.79  40 eP     43 24.31  14.5X
     Z  18s     10.00um        6.2Msz
             eS         53 04.31
             ePS        53 58.31
             eSS        58 01.31
             eLQ        03 01.31
             eLR        05 47.31
ORV    77.10  39 eP     43 11.55   0.0
WDC    77.18  37 P      43 20.00   8.1X
     Z  19s     12.77um        6.3Msz
WDC    77.18  37 P      43 16.15   4.3X
     Z  19s     12.77um        6.3Msz
             SP         53 32.90
PET    77.30 343 eP     43 06.00  -6.2X
     Z  20s      6.30um        5.9Msz
     N  20s      2.80um
     E  20s      2.80um
             eS         53 00.00
             ePS        53 56.00
GSC    77.36  44 eP     43 12.57  -0.6
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GLA    77.37  47 ePd    43 13.10  -0.1
MTUM   77.48  42 eP     43 14.70   0.8
TATO   77.84 303 eP     43 18.99   3.2X
BONR   78.02  42 eP     43 16.75  -0.2
LBFM   78.06  37 (P)    43 16.68  -0.3
YSS    78.12 331 ePc-   43 17.00   0.1
     Z  18s      4.30um        5.8Msz
     N  18s      4.30um
     E  18s      2.50um
             e          43 27.00  32km
             eS         53 12.00
TPNV   78.70  43 eP     43 20.60   0.0
       0.9s     21.72nm        5.2mb
     Z  19s     13.31um        6.3Msz
TNP    78.77  42 ePc    43 21.03   0.0
       1.1s     51.34nm        5.5mb
TUC    79.80  50 P      43 40.00  13.5X
     Z  20s     10.80um        6.2Msz
TUC    79.80  50 P+     43 32.58   6.0X
     Z  20s     10.80um        6.2Msz
             S          53 16.81
QZH    80.12 301 Pc     43 26.00  -2.3
     Z  20s      4.11um        5.8Msz
             S          53 32.00
VLA    80.96 323 iPc    43 33.00   0.7
             i          48 31.00
ARUT   81.01  44 ePc    43 33.60   0.7
SSE    81.13 308 Pc     43 32.00  -1.4
     Z  20s      4.10um        5.8Msz
             pP         43 40.00  25km
             S          53 42.00
RMW    82.18  32 eP     43 38.36  -0.3
MSU    82.24  44 eP     43 40.08   0.7
DUG    82.78  42 eP     43 41.75  -0.3
       1.4s     34.44nm        5.3mb
     Z  20s      5.66um        5.9Msz
MAW    82.78 199 eP     43 44.90   3.5X
       2.1s     74.60nm        5.4mb
     Z  19s      9.70um        6.2Msz
     N  19s      2.50um
             i          44 01.10  57kmX
             eS         54 00.40
             eSS        00 00.60
             eLQ        10 56.70
MDJ    83.19 323 eP     43 42.00  -1.9
     N  20s      7.79um
NJ2    83.33 308 Pc     43 48.00   3.2X
     Z  20s      2.66um        5.6Msz
GZH    83.57 297 Pc     43 46.00  -0.2
     Z  22s     16.50um        6.4Msz
LTX    83.62  56 eP     43 46.34  -0.2
SRU    83.64  44 eP     43 45.85  -0.7
HVU    83.71  41 eP     43 46.07  -0.7
SIT    83.80  20 P      44 00.00  13.4X
     Z  18s      3.01um        5.7Msz
EMUT   83.84  43 eP     43 47.98   0.4
PV10   84.23  45 ePc    43 49.80   0.2
PV09   84.23  45 eP     43 49.94   0.2
ALQ    84.25  49 eP     43 50.20   0.5
       1.7s    162.27nm        5.9mb
     Z  19s      6.52um        6.0Msz
             e          44 34.37 178kmX
             e          44 46.33
             e          45 37.85
             S          54 20.73
DPW    84.29  34 eP     43 49.27  -0.2
PMR    84.30  11 eP     43 49.20   0.1
PMR    84.30  11 P      43 57.00   7.9X
     Z  19s      5.55um        6.0Msz
             S          54 18.41
KGM    84.37 274 eP     43 51.50   1.0
TTA    84.48   8 eP     43 53.80   3.7X
TTA    84.48   8 eP     43 49.47  -0.6
       1.4s     29.44nm        5.3mb
PTI    84.57  40 eP     43 51.74   0.6
PV08   84.60  45 eP     43 51.73   0.2
DL2    84.85 315 Pc     43 52.00  -0.3
     Z  21s      2.51um        5.6Msz
     N  18s      2.86um
             SKS        54 08.00
             S          54 20.00
NEW    85.10  34 P      44 00.00   6.5X
     Z  18s     22.72um        6.6Msz
CN2    85.11 320 Pc     43 53.00  -0.5
       1.4s     74.00nm        5.7mb
     Z  20s      2.29um        5.6Msz
     N  20s      2.49um
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     E  20s      3.36um
             epP        44 05.00  39km
             eS         54 20.00
SNY    85.15 318 Pc     43 53.40  -0.4
     Z  20s      3.69um        5.8Msz
     E  19s      2.50um
             S          54 20.00
ANM    85.22   3 eP     43 55.60   2.0
BALM   85.23  15 eP     43 52.89  -1.1
WHN    86.03 305 eP     44 00.00   1.6
     Z  20s      2.49um        5.6Msz
LRM    86.21  38 eP     43 58.30  -1.0
TIA    86.60 311 Pc     44 01.10   0.0
     Z  22s      2.09um        5.5Msz
     E  18s      1.52um
GOL    87.36  46 eP     44 05.52   0.5
       1.4s     26.28nm        5.3mb
     Z  20s      5.24um        5.9Msz
             S          54 55.92
IPM    87.42 276 ePc    44 08.40   2.8X
       0.5s     16.50nm        5.6mb
SYO    87.44 191 ePc+   44 03.70  -1.0
GLD    87.49  46 (P)    44 07.04   1.5
       1.5s     39.76nm        5.5mb
     Z  19s      4.06um        5.8Msz
FBA    87.59  11 eP     44 03.71  -1.5
       0.8s     25.63nm        5.6mb
IMA    87.79   8 eP     44 00.40  -6.0X
IMA    87.79   8 eP     44 06.55   0.2
       2.0s     60.61nm        5.5mb
NVL    88.70 182 eP     44 19.00   8.3X
     Z  19s      6.00um        6.0Msz
     N  19s      5.00um
     E  19s      1.50um
             ePP        47 34.00
             ePPP       49 40.00
             eS         54 48.00
             ePS        55 40.00
             eSS        00 40.00
             eSSS       04 10.00
SNG    88.72 278 eP     44 12.90   1.1
             eS         55 04.00
             e          00 39.80
BJI    89.07 314 eP     44 13.00   0.2
       1.5s     42.00nm        5.5mb
     Z  20s      2.72um        5.7Msz
     E  18s      2.18um
             eSKS       54 40.00
WMOK   89.74  53 P      44 30.00  13.8X
     Z  19s     10.34um        6.3Msz
WMOK   89.74  53 P      44 19.27   3.1X
     Z  19s     10.34um        6.3Msz
             SP         55 19.34
MEO    89.91  53 iPd    44 17.00   0.0
ACO    90.32  51 iPc    44 24.50   5.7X
PAF    90.33 216 eP     44 40.00  21.3X
             ePP        48 20.00
             eSP        56 42.00
RSSD   90.39  42 eP     44 18.29  -0.9
       1.3s     35.17nm        5.5mb
GYA    90.48 298 iPc    44 20.00   0.1
     Z  44s      3.50um        5.4MszX
     N  22s      3.95um
     E  22s      2.14um
             PP         47 52.00
             SKS        54 52.00
TIY    90.62 310 Pc     44 20.00  -0.3
     Z  20s      4.99um        5.9Msz
     E  20s      4.11um
             sS         55 25.00
OCO    91.05  52 iPc    44 25.00   2.8X
XAN    91.68 306 P      44 25.80   0.6
       1.4s     42.00nm        5.7mb
     Z  40s      3.81um        5.5MszX
     N  11s      0.46um
     E  16s      1.92um
             SKS        54 58.00
NST    92.18 286 eP     44 30.00   2.3
TUL    92.45  53 iPc    44 23.50  -5.1X
HHC    92.58 313 P      44 29.50   0.3
       1.4s     24.00nm        5.4mb
     Z  22s      3.88um        5.8Msz
     N  20s      1.69um
     E  22s      2.89um
             PP         48 07.00
             SKS        55 03.00
UYO    92.77  55 iPc    44 35.60   5.5X
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14d 06h

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KMI    93.26 295 Pc     44 34.50   1.6
       2.0s  130.00nm             6.0mb
    Z  20s     8.30um             6.2Msz
    N  20s     4.90um
    E  20s     6.00um
                pP      44 45.50  35km
                PP      48 22.00
                SKS     55 06.00
BTO    93.54 312 P      44 36.00   2.3
    N  16s     0.81um
    E  18s     0.80um
                ePP     48 15.50
                eSKS    55 10.00
                eS      55 39.50
MIAR   93.58  55 P      44 50.00  16.1X
    Z  19s     6.86um             6.1Msz
MIAR   93.58  55 P      44 41.92   8.1X
    Z  19s     6.86um             6.1Msz
                S       55 33.36
BDT    93.74 287 eP     44 38.00   3.2X
YAK    93.92 337 eP     44 35.90   1.2
       2.0s   69.00nm             5.7mb
                eS      55 06.00
                esS     55 43.00
CHTO   94.34 288 eP     44 38.90   1.3
YKA    94.96  24 eP     44 38.50  -1.0
       0.9s    2.70nm             4.7mb
ARE    95.00 110 e(P)   44 47.00   5.8X
CIT    96.12 324 eP     44 50.00   4.9X
                e       48 40.00
LZH    96.30 306 eP     44 48.50   2.0
       1.8s   50.00nm             5.7mb
    Z  18s     1.83um             5.6Msz
    E  10s     1.27um
                pP      44 51.00   8kmX
OXF    96.77  56 P      45 00.00  11.6X
    Z  18s     8.63um             6.3Msz
FVM    97.21  52 P      45 00.00   9.6X
    Z  19s    18.93um             6.6Msz
LPA    97.54 132 eP-    44 52.00   0.0
    Z  20s     2.84um             5.8Msz
                ePP     48 52.00
SLM    97.58  52 P      45 00.00   8.0X
    Z  18s     6.99um             6.2Msz
LPB    97.95 111 Pc     45 03.60   8.9X
       0.6s   26.67nm             5.9mb
                PP      49 01.00
                S       55 30.70
                LR      17 34.90
LPAZ   98.02 111 eP     45 02.25   7.0X
       1.3s    5.62nm             4.9mb
                e       48 44.73
MYNC  101.07  57 Pdiff  45 20.00  12.0X
    Z  20s     9.75um             6.3Msz
GOGA  101.09  58 Pdiff  45 20.00  11.9X
    Z  19s     8.49um             6.3Msz
ZAK   101.52 320 ePdiff45 14.00   4.5X
       2.0s   66.00nm             5.9mb
    Z  18s     1.55um             5.6Msz
    E  19s     3.12um
                e       49 20.00
                e       55 52.00
                e       58 31.00
                e       03 48.00
SHL   102.69 293 ePdiff45 15.00  -0.6
CEH   105.24  57 Pdiff  45 40.00  13.5X
    Z  19s     6.15um             6.2Msz
MCWV  105.60  53 Pdiff  45 40.00  12.0X
    Z  19s    13.62um             6.5Msz
YSNY  107.20  51 PKP    50 00.00  15.7X
    Z  18s     6.95um             6.3Msz
BINY  109.00  51 PKP    50 00.00  12.3X
    Z  20s    13.45um             6.5Msz
LSCT  110.94  52 PKP    50 10.00  18.7X
    Z  20s     5.55um             6.1Msz
LBNH  112.26  50 PKP    50 10.00  16.3X
    Z  19s     9.30um             6.4Msz
HRV   112.29  51 PKP    50 10.00  16.2X
    Z  18s     8.90um             6.4Msz
CBM   115.19  47 PKP    50 10.00  10.7X
    Z  20s     9.68um             6.4Msz
KSH   118.50 304 ePKP   50 01.50  -4.5X
    Z  18s     2.44um             5.9Msz
    E  18s     3.44um
                sPKP    50 15.50
                PP      51 20.00
                SKS     57 08.00

                SKKS    58 10.00
ARU   127.75 326 ePKP   50 24.00   0.9
    Z  19s     7.50um             6.4Msz
    N  19s     3.00um
    E  19s     5.00um
                e       09 36.00
MAIO  131.52 301 ePKP   50 33.00   2.0
                e       52 46.00
BUL   134.02 209 ePKP   50 42.10   5.8X
OBN   138.88 334 iPKP   50 52.00   7.9X
       1.0s   28.00nm
                ePPP    56 35.00
                e       57 56.00
                ePPS    05 56.00
                eSS     11 49.00
HFS   140.28 354 ePKP   50 38.60  -7.9X
       0.5s    1.00nm
PYA   141.83 316 ePKP   50 50.00   0.1
KIV   142.10 316 PKP    50 44.30  -6.2X
ERE   142.32 310 iPKP   50 44.00  -7.0X
SOC   144.19 317 iPKP   50 58.00   4.1X
MUD   144.24 358 iPKPc  50 56.30   2.8X
       1.3s   78.00nm
EKA   144.66  10 PKP    50 57.00   2.7X
       1.0s  206.90nm
COP   144.79 354 ePKP   51 16.00  21.5X
    Z  20s     2.84um             6.0Msz
ANN   145.00 321 ePKP   50 54.00  -1.2
                e       54 13.00
                ePPP    57 39.00
                ePPS    06 44.00
                eSS     13 46.00
DCN   145.73  15 ePKP   50 55.10  -1.1
       1.5s  342.00nm
DLF   145.94  14 ePKP   50 56.40  -0.1
       1.5s  371.00nm
SIM   146.80 323 ePKPc  51 00.00   1.8
    Z  22s     3.10um             6.0Msz
AAE   146.84 254 ePKP   51 02.00   2.4
LVV   147.80 339 iPKP   51 03.00   3.4X
    Z  20s    11.60um             6.7Msz
                e       54 39.00
                eSS     14 21.00
WIT   147.95 360 ePKP   51 08.00   8.3X
KIS   148.09 331 ePKP   51 04.00   3.9X
    Z  20s     8.10um             6.5Msz
    N  20s     6.20um
    E  20s     3.40um
DBN   148.64   2 ePKP   51 22.00  21.1X
    Z  20s     3.00um             6.1Msz
OJC   148.73 344 ePKP   51 04.90   3.8X
                i       51 09.70
                e       51 20.30
WTS   148.77 360 ePKP   51 07.50   6.4X
       1.4s  142.90nm
CTK   148.78 316 ePKP   51 07.00   5.3X
KSP   148.96 348 ePKP   51 04.30   2.8X
       2.3s  460.00nm
CLL   149.04 352 iPKP   51 06.90   5.4X
       2.5s  210.00nm
    Z  20s     3.00um             6.1Msz
                i       51 11.50
KAS   149.09 318 ePKP   51 06.50   4.4X
BRG   149.33 351 iPKP   51 06.00   4.0X
       2.0s  150.00nm
    Z  20s     6.30um             6.4Msz
    N  20s     5.80um
    E  20s     1.90um
UZH   149.40 339 iPKPc  51 07.50   5.3X
       1.0s   31.00nm
    Z  20s     4.00um             6.2Msz
    N  20s     2.00um
    E  20s     3.00um
                i       51 14.20
SPC   149.54 342 ePKP   50 47.90 -14.7X
CFR   149.78 329 ePKP   51 10.00   7.2X
                e       06 34.50
BNS   149.80 359 ePKPd  51 06.00   3.3X
    Z  20s     8.50um             6.5Msz
MOX   149.85 354 iPKP   51 05.90   3.1X
       2.3s  351.00nm
    Z  20s    38.00um             7.2MszX
UCC   149.92   3 PKP-   51 11.00   8.1X
VRI   149.93 331 ePKPc  51 08.00   4.9X
ENN   149.99   1 ePKP   51 08.00   5.0X
       1.4s  110.80nm
PRU   150.10 350 ePKP   51 07.80   4.6X

       2.1s  190.00nm
    Z  19s     5.80um             6.4Msz
    N  16s     1.40um
    E  18s     4.50um
                i       51 13.90
                e       51 36.10
                PP      54 44.40
SNF   150.20   3 PKP    51 12.80   9.5X
ISR   150.57 330 ePKP   51 10.00   5.9X
                e       06 36.00
                e       18 58.00
MLR   150.57 332 ePKP   51 07.00   2.8X
                e       06 34.00
DOU   150.63   3 PKP    51 11.10   7.1X
GRF   150.84 354 ePKP   51 08.80   4.5X
                e       51 14.60
                eSS     14 04.00
KHC   151.08 350 PKP    51 08.00   3.2X
       1.0s   32.00nm
    Z  21s     4.50um             6.2Msz
    N  22s     2.30um
    E  20s     0.50um
                e       51 17.00
WET   151.17 351 ePKP   51 15.50  10.6X
ZST   151.28 345 ePKP   51 10.10   5.1X
                i       51 17.00
NAL   151.30 318 ePKP   51 10.00   4.5X
SRO   151.33 343 ePKP   51 05.80   0.7
GEC2  151.34 350 PKP    51 05.30   0.1
       1.1s   10.64nm
GEC2  151.34 350 e(PKP)51 13.90   8.7X
       1.1s    6.80nm
FLN   151.44  10 ePKP   51 11.10   5.9X
       1.2s   66.95nm
LDF   151.66   9 ePKP   51 11.70   6.1X
       1.0s   71.00nm
GRR   151.74  10 ePKP   51 12.60   6.9X
       1.1s   53.70nm
LANF  151.77 358 PKP    51 11.83   6.1X
HOFF  151.80 358 PKP    51 12.49   6.7X
KMR   152.03 349 iPKP-  51 17.40  11.2X
LPF   152.06  11 ePKP   51 11.80   5.6X
       1.3s   97.50nm
FUR   152.34 353 ePKP   51 12.90   6.3X
    Z  19s     3.20um             6.1Msz
                e       51 19.60
                e       51 28.30
CDF   152.35 359 ePKP   51 13.50   6.8X
       1.2s   24.70nm
VITF  152.55   1 PKP    51 15.13   8.2X
LIBD  152.61 358 PKP    51 12.71   5.8X
HAU   152.76   0 ePKP   51 14.60   7.4X
       1.1s   31.00nm
    Z  21s     3.63um             6.2Msz
FEL   152.87 358 PKP    51 15.68   8.2X
MOF   152.91 359 PKP    51 15.90   8.4X
KBA   153.12 350 iPKPc  51 03.40  -4.5X
       2.3s  170.00nm
                i       51 10.60
                i       51 20.30
WATA  153.12 352 iPKPc  51 08.20   0.3
LOR   153.41   4 ePKP   51 16.00   7.9X
       1.5s   37.60nm
    Z  20s     6.10um             6.4Msz
SSF   153.59   5 ePKP   51 16.60   8.2X
       1.3s   45.15nm
LBF   153.70   4 ePKP   51 16.80   8.2X
       1.1s   24.90nm
ZAG   153.78 345 e(PKP)51 16.00   7.4X
LJU   153.89 347 ePKPd  51 14.70   5.9X
       2.5s  280.00nm
                i       51 18.50
                i       51 22.30
                e       51 34.60
                i       51 46.20
                i       51 52.60
                (PP)    55 00.00
                e       05 25.60
                e       06 23.60
SMF   154.03   4 ePKP   51 20.80  11.8X
       1.1s   31.25nm
SKO   155.35 333 ePKP   51 20.00   9.1X
    Z  21s     4.68um             6.3Msz
                iPP     55 14.00
                i       56 02.00
OHR   156.33 332 ePKP   51 13.50   1.2
PAB   159.02  24 (PKP) 51 21.40   5.8X
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                ePP    55 56.00
LIC   161.75 140 PKP    51 19.49    0.5
KIC   162.02 141 PKP    51 19.87    0.5
TIC   162.08 140 PKP    51 19.95    0.5
LKO   163.88 132 PKPd   51 27.08    5.9X
       1.5s     33.00nm
     S.D. = 1.1  on 120 of 248 obs.
-------------------------------------
? DEC  14, 1993  06h 32m 43.01± 8.69s
  39.116 N ±47.9km   24.028 E ±56.2km
  DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)

PAIG    0.85 342 ePg    32 59.28  -0.2
                 eSg    33 09.64
OUR     1.22 358 ePg    33 05.68   0.0
AGG     1.32 266 ePb    33 07.40  -0.1
                 iSb    33 24.92
LIT     1.54 310 ePb    33 10.80   0.2
                 eSb    33 29.64
     S.D. = 0.3  on   4 of   4 obs.
-------------------------------------
? DEC  14, 1993  06h 36m 38.96± 0.98s
  31.019 S ±12.9km   67.990 W ±12.9km
  DEPTH =  80.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA    (137)

CFA     0.62 200 iPc    36 55.00   0.9
RTCV    0.96 209 eP     36 57.00  -0.9
                 S      37 11.00
RTPR    1.46  61 eP     37 04.00  -0.1
                 S      37 31.30
RTRS    1.52 303 eP     37 05.00   0.0
     S.D. = 1.2  on   4 of   4 obs.
-------------------------------------
  DEC  14, 1993  06h 47m 45.40± 0.28s
  20.778 S ±10.1km  173.491 W ± 4.6km
  DEPTH =  36.5km  (  8 depth phases)
  5.2mb ( 26 obs.)  5.7Msz (  1 obs.)
 TONGA ISLANDS                    (173)

VUN     8.08 289 eP     49 44.10   0.8
MBU     8.29 296 eP     49 46.10  -0.1
BKM    17.52 277 iPd    51 50.00   1.3
DZM    18.73 262 iPc    52 03.20  -0.4
AFR    22.63  86 eP     52 44.00  -0.4
       1.2s   265.40nm          5.6mb
PAE    22.79  86 eP     52 45.70  -0.3
       1.0s    70.80nm          5.1mb
PPT    22.81  86 eP     52 46.00  -0.3
       1.3s   345.10nm          5.7mb
PPN    22.95  86 eP     52 47.20  -0.4
       1.3s   184.80nm          5.4mb
TVO    23.07  87 eP     52 48.50  -0.4
TPT    25.27  81 eP     53 08.80  -1.2
       1.4s   246.60nm          5.6mb
RUV    25.43  82 eP     53 10.10  -1.4
       1.1s   138.20nm          5.5mb
ARMA   32.78 246 eP     54 17.60   0.1
       1.0s    10.00nm          4.7mb
CNB    35.61 238 iPc    54 42.30   0.4
       1.0s    38.00nm          5.3mb
CAN    35.91 238 eP     54 44.50   0.2
                 i      54 58.80  55kmX
TOO    39.18 236 iPc    55 12.60   0.8
       0.5s    21.00nm          5.2mb
KDB    39.51 281 eP     55 12.00  -2.6
PMG    39.53 281 eP     55 11.00  -3.8X
STK    41.49 245 eP     55 30.00  -0.7
       1.2s     7.90nm          4.3mb
MDG    42.42 286 eP     55 37.00  -1.5
ASPA   48.56 256 iPd    56 25.90  -1.6
       0.9s    14.80nm          5.0mb
                 iPP    57 53.70
WARB   54.77 252 eP     57 13.00  -1.1
COOL   58.97 246 eP     57 43.00  -1.0
KLB    61.75 245 eP     58 02.80  -0.1
MBL    61.81 257 eP     58 02.00  -1.4
       0.6s    24.00nm          5.5mb
NWAO   62.01 243 iPc    58 05.50   0.8
BAL    62.79 245 eP     58 09.50  -0.3
MUN    63.00 244 eP     58 11.50   0.3
       1.0s    70.00nm          5.7mb
MRWA   63.63 247 eP     58 10.50  -4.9X
       0.6s    15.00nm          5.3mb
SPA    69.35 180 ePd    58 54.80   3.5X
       0.9s    31.82nm          5.4mb
MAT    73.01 321 eP     59 12.00  -1.5
       1.5s    36.11nm          5.1mb
BCH    75.25  43 eP     59 25.64  -1.0
ISA    76.57  43 eP     59 33.80  -0.2
       1.1s    26.02nm          5.2mb
                 ipP    59 45.19  38km
SDN    76.62   8 (P)    59 28.14  -5.5X
TPNV   78.78  43 eP     59 46.48   0.2
       0.8s    12.10nm          4.9mb
TUC    79.88  50 ePd    59 53.34   1.1
       1.0s    13.27nm          4.9mb
ARUT   81.09  44 eP     59 59.19   0.5
MSU    82.32  44 eP     00 06.11   1.0
SLKM   83.17  11 (P)    00 08.88   0.1
LTX    83.69  56 ePc    00 12.48   0.3
                 ipP    00 23.70  36km
SRU    83.72  44 eP     00 12.52   0.3
HVU    83.78  41 eP     00 12.73   0.3
EMUT   83.92  43 eP     00 13.57   0.3
PV10   84.31  45 ePc    00 15.49   0.2
                 ipP    00 26.92  37km
PV09   84.31  45 eP     00 15.85   0.5
                 epP    00 27.05  36km
ALQ    84.32  49 ePd    00 15.83   0.4
       1.1s    17.02nm          5.1mb
                 epP    00 27.52  38km
KGM    84.34 274 eP     00 17.00   1.3
DPW    84.37  34 (P)    00 14.69  -0.5
PTI    84.65  40 eP     00 15.49  -1.3
PV08   84.68  45 ePc    00 17.78   0.5
                 epP    00 28.89  36km
LRM    86.29  38 eP     00 24.70  -0.3
IPM    87.39 276 ePd    00 33.00   2.3
       0.8s    31.30nm          5.6mb
GLD    87.56  46 (P)    00 33.23   2.0
       1.5s    24.05nm          5.2mb
FBA    87.67  11 eP     00 29.39  -1.5
                 epP    00 40.32  35km
IMA    87.87   8 (P)    00 31.96  -0.1
       1.2s     6.53nm          4.8mb
BJI    89.09 314 eP     00 38.00  -0.2
       1.5s    42.00nm          5.5mb
     Z  18s     2.66um          5.7Msz
     E  17s     2.03um
MEO    89.98  53 iPc    00 43.10   0.5
ACO    90.39  51 iPd    00 44.50   0.0
RSSD   90.47  42 eP     00 43.68  -1.2
       1.2s    14.95nm          5.2mb
                 epP    00 55.28  37km
OCO    91.12  52 iPd    01 01.00  13.2X
UYO    92.84  55 iPc    00 58.20   2.5
BDT    93.73 287 eP     01 02.00   1.9
YKA    95.04  24 eP     01 04.90  -0.3
       1.0s     1.10nm          4.2mb
EKA   144.74  10 PKP    07 31.00  11.3X
       1.0s    14.90nm
OJC   148.79 343 ePKP   07 30.60   4.1X
                 e      07 35.00
KSP   149.02 348 ePKP   07 30.50   3.7X
CLL   149.11 352 iPKPd  07 31.40   4.5X
       2.1s    60.00nm
KAS   149.12 318 ePKP   07 32.50   5.1X
BRG   149.40 351 iPKP   07 31.80   4.4X
       2.2s   110.00nm
MOX   149.92 354 ePKP   07 34.30   6.1X
       2.2s    62.00nm
PRU   150.16 350 ePKP   07 34.50   6.0X
                 e      08 12.50
GRF   150.91 354 e(PKP) 07 37.00   7.3X
KHC   151.15 350 ePKP   07 36.00   5.9X
       1.4s    22.80nm
                 e      07 40.00
                 e      07 49.60
                 e      08 25.50
GEC2  151.41 350 PKP    07 34.10   3.5X
       1.0s     2.43nm
                 e      07 40.70
                 e      07 49.10
FLN   151.52  10 ePKP   07 38.20   7.6X
       0.9s    11.80nm
GRR   151.82  10 ePKP   07 40.30   9.2X
       1.1s    44.20nm
LPF   152.14  11 ePKP   07 40.00   8.5X
       0.9s    21.45nm
CDF   152.42 359 ePKP   07 39.30   7.2X
       0.9s     6.90nm
LOR   153.49   4 ePKP   07 44.30  10.8X
       1.2s    15.45nm
SSF   153.67   5 ePKP   07 44.70  11.0X
       1.2s    23.20nm
LBF   153.78   4 ePKP   07 45.00  11.0X
       1.1s    12.95nm
KIC   161.99 141 PKP    07 47.25   2.7
       1.0s    17.00nm
     S.D. = 1.1  on  58 of  81 obs.
-------------------------------------
& DEC  14, 1993  06h 52m 37.29s
  36.421 N              117.878 W
  DEPTH =   6.0km  (geophysicist)
 CALIFORNIA-NEVADA BORDER REGION ( 40)
        &lt;PAS-P&gt;. ML 2.8 (PAS).

WLHM    0.44 233 P      52 45.58  -0.6
VPEM    0.47 174 P      52 46.08  -0.7
RCWM    0.51 158 P      52 45.62  -1.8
WCHM    0.56 197 P      52 47.50  -1.1
NMC     0.58 182 P      52 47.88  -1.0
TOW     0.62 171 P      52 48.25  -1.4
WORM    0.78 202 P      52 51.56  -1.3
WSHM    0.85 158 P      52 53.30  -0.8
WASM    0.88 219 P      52 53.74  -0.9
ISA     0.90 213 ePd    52 53.68  -1.2
WBSM    0.91 194 P      52 54.09  -1.1
MTUM    1.08 330 eP     52 56.90  -1.2
                 eS     53 11.24
WOFM    1.11 218 P      52 58.04  -0.6
WJPM    1.12 206 P      52 57.80  -0.9
BCKR    1.33 343 P      53 02.11  -0.3
BMTC    1.41 205 P      53 02.87  -0.7
TPNV    1.41  68 eP     53 02.77  -0.9
GSC     1.42 142 eP     53 02.79  -0.9
                 eS     53 21.05
MCSM    1.48 327 P      53 04.49  -0.3
MMPM    1.50 323 (P)    53 04.27  -0.8
ARVC    1.51 211 P      53 05.17   0.3
MEMM    1.51 326 eP     53 03.90  -0.9
                 eS     53 24.71
BONR    1.57 348 eP     53 06.03   0.0
TNP     1.74  17 eP     53 08.98   0.6
PHBM    1.79 265 P      53 10.15   1.3
CRGC    1.91 232 P      53 12.27   1.5
ABL     1.91 215 (P)    53 10.36  -0.5
YEG     1.95 240 P      53 12.88   1.5
PDRM    2.01 268 P      53 13.85   1.7
PHAM    2.12 255 (P)    53 12.32  -1.5
BCH     2.18 236 eP     53 14.55  -0.1
SSK     2.21 176 ePn    53 14.95  -0.3
CMB     2.57 310 ePn    53 21.62   1.4
PEC     2.59 167 ePn    53 18.38  -2.1
ARN     3.07 289 (P)    53 29.06   1.7
PLM     3.17 164 eP     53 27.84  -1.0
ARUT    3.80  68 (Pn)   53 38.34   0.5
MSU     4.99  64 (Pn)   53 52.57  -2.2
      38 obs. associated
-------------------------------------
  DEC  14, 1993  07h 12m 14.75± 0.20s
  37.963 N ± 3.9km   72.732 E ± 3.6km
  DEPTH = 133.6km  (  9 depth phases)
  5.0mb ( 78 obs.)
 TAJIKISTAN                       (715)

FRU     5.07  16 iPnc   13 30.00   0.2
                 e      14 25.00
QUE     9.11 213 iPc    14 23.50  -1.1
                 eS     16 02.50
NDI     9.98 157 iPc    14 34.30  -1.7
       0.5s   140.85nm          5.9mb
MAIO   10.70 265 iPd    14 40.50  -5.0X
       0.8s    42.46nm          5.2mb
                 eS     16 30.00
ASH    11.36 274 P      14 49.50  -4.6X
       1.2s   300.00nm          5.8mb
GKN    14.07 131 P      15 24.80  -4.7X
KKN    14.62 130 P      15 31.50  -4.9X
DMN    14.64 131 P      15 32.60  -4.2X
GUN    14.90 128 P      15 35.40  -4.6X
BOM    19.00 180 iPd    16 28.00  -0.5
                 eS     19 47.00
POO    19.38 177 iPc    16 32.90   0.3
       1.0s    60.00nm          4.9mb
                 iS     19 27.00
SHL    20.39 122 iP     16 42.50  -0.5
       1.1s   189.87nm          5.4mb
                 iS     20 15.50
```

14d 07h

SVE 20.50 341 iPd 16 43.00 -0.7
1.1s 260.00nm 5.5mb
e 17 25.20
ARU 20.72 337 iPd 16 45.70 -0.2
1.0s 400.00nm 5.8mb
eS 20 31.00
e 20 50.00
KER 20.98 268 iPd 16 50.20 1.3
HYB 21.10 164 ePc 16 50.20 0.2
0.7s 214.30nm 5.7mb
e 17 22.50
eS 20 34.00
GRO 21.17 293 iPd- 16 51.50 1.0
1.5s 1920.00nm 6.3mb X
i 17 18.00 138km
i 20 46.00
MTA 21.73 289 iP 16 57.40 1.4
0.8s 210.00nm 5.6mb
e 21 00.00
ERE 22.00 285 iP 16 59.00 0.2
e 21 40.00
PYA 23.13 295 iPc 17 10.00 0.4
1.0s 150.00nm 5.4mb
i 17 34.00 115kmX
i 22 01.00
KIV 23.39 294 eP 17 13.70 1.4
e 17 40.20 129km
GBA 24.62 169 P 17 24.80 0.8
S 22 09.80
LZH 24.86 85 eP 17 27.00 0.6
1.4s 44.00nm 4.8mb
Z 18s 3.47um 4.9Msz
E 17s 1.80um
ZAK 24.99 50 eP 17 30.00 2.7
1.4s 21.00nm 4.4mb
ANN 27.29 296 eP 17 48.00 -0.3
e 18 12.00 110kmX
KOD 27.94 170 iPc 17 55.50 0.8
0.9s 113.45nm 5.6mb
OBN 29.75 317 iPd 18 10.00 -0.2
1.1s 60.00nm 5.2mb
epP 18 38.00 130km
esP 18 51.00
e 19 18.00
esS 24 48.00
CHTO 29.76 123 eP 18 10.00 -0.7
KAS 30.02 289 eP 18 13.50 0.7
BDT 30.93 125 eP 18 22.00 1.1
CIT 31.68 50 eP 18 31.00 3.7X
BOD 33.44 40 eP 18 40.20 -2.2
1.0s 8.00nm 4.4mb
CFR 33.77 297 ePd 18 46.50 1.1
MNK 34.55 312 eP 18 51.00 -0.9
VRI 34.73 298 iPd 18 55.00 1.4
MLR 35.30 297 iPd 19 01.00 2.4
KAF 37.17 326 iP 19 13.80 -0.1
0.4s 15.00nm 5.1mb
NUR 37.48 323 iP 19 16.40 0.0
0.5s 35.10nm 5.4mb
UZH 37.59 303 eP 19 19.00 1.4
1.0s 31.00nm 5.1mb
e 20 46.50 476kmX
VAY 38.34 291 iP 19 24.40 0.4
SPC 38.91 304 iPd 19 29.00 0.1
SKO 39.04 292 eP 19 29.50 -0.3
OJC 39.15 306 iPc 19 31.00 0.4
i 19 34.30 11kmX
SSE 40.14 85 P 19 41.00 2.1
SRO 40.31 302 iP 19 41.30 1.2
UPP 40.80 321 iP 19 43.70 -0.2
i 21 17.70 515kmX
ZST 41.08 303 eP 19 43.00 -3.4X
KSP 41.34 307 iP 19 49.20 0.6
e 21 23.60 516kmX
YAK 41.99 36 eP 19 53.50 -0.2
e 20 25.00 141km
PRU 42.54 306 iPd 19 58.90 0.5
1.2s 41.60nm 5.0mb
ePP 21 41.20
HFS 42.79 321 eP 20 00.80 0.6
0.5s 77.50nm 5.6mb
BRG 42.82 307 iPc 20 01.40 0.8
1.1s 52.00nm 5.1mb
i 20 20.40 78kmX
GEC2 43.23 304 P 20 04.70 0.6
0.8s 4.57nm 4.2mb
e 20 10.70 20kmX

e 20 34.30
e 21 33.90
e 21 40.90
e 21 43.80
e 21 48.30
e 35 25.80
e 35 30.40
KHC 43.27 305 Pd 20 05.30 0.9
1.0s 21.00nm 4.8mb
e 20 16.00 37kmX
e 20 36.00
e 21 40.00
CLL 43.37 308 iPd 20 05.20 0.2
1.3s 42.00nm 5.0mb
WET 43.72 305 eP 20 08.80 0.8
1.1s 25.00nm 4.8mb
KBA 43.76 302 iPd 20 08.70 0.2
0.7s 10.30nm 4.6mb
SGO 43.86 292 P 20 10.31 1.2
0.8s 20.70nm 4.9mb
TIK 43.90 22 iPc 20 09.00 0.0
0.8s 67.00nm 5.4mb
i 26 30.00
e 27 21.00
BHG 43.96 303 iPc 20 10.60 0.7
NB2 44.06 322 P 20 09.60 -1.0
0.7s 41.70nm 5.2mb
HOF 44.20 307 iPc 20 12.70 0.9
FVI 44.23 301 P 20 12.10 0.1
0.4s 6.50nm 4.7mb
MOX 44.32 307 iP 20 13.50 0.8
1.6s 39.00nm 4.9mb
GRF 44.71 306 iPd 20 17.50 1.6
1.3s 80.00nm 5.3mb
e(pP) 20 48.40 136km
e(sP) 21 04.60
FUR 44.94 304 iPc 20 19.00 1.3
0.8s 67.00nm 5.4mb
ASS 45.11 296 P 20 07.11 -12.0X
1.0s 78.90nm
CTI 45.11 301 P 20 19.47 0.3
0.7s 11.40nm 4.7mb
OGA 45.36 302 iPc 20 21.20 0.0
PGD 45.56 298 P 20 16.26 -6.6X
0.7s 33.90nm 5.2mb
OSS 45.99 302 iPd 20 26.10 -0.1
LLS 46.72 302 iPd 20 31.50 -0.5
BOB 46.92 299 P 20 34.75 1.3
0.8s 35.40nm 5.1mb
VAI 47.10 301 P 20 34.18 -0.6
0.7s 56.80nm 5.4mb
CDF 47.50 305 iPd 20 37.90 -0.1
0.8s 10.75nm 4.6mb
PCP 47.60 299 P 20 37.71 -1.0
ORX 47.70 301 P 20 37.57 -2.0
PGF 47.84 297 iPd 20 40.50 -0.2
0.7s 20.50nm 5.0mb
FIN 47.92 299 P 20 40.04 -1.1
BSF 47.95 304 iPd 20 41.30 -0.1
0.8s 34.80nm 5.2mb
DIX 47.97 302 iPd 20 41.70 -0.1
ROB 48.13 299 P 20 41.46 -1.4
HAU 48.20 304 iPd 20 43.20 -0.1
0.8s 20.55nm 4.9mb
IMI 48.23 299 P 20 43.98 0.4
EMS 48.29 302 iPd 20 44.30 0.1
LSD 48.30 301 P 20 44.44 0.1
RSP 48.32 300 P 20 42.19 -2.1
BHB 48.40 300 P 20 42.61 -2.2
ENR 48.46 299 P 20 43.38 -2.0
STV 48.52 299 P 20 44.76 -1.1
SBF 48.55 299 iPd 20 46.40 0.3
0.8s 48.50nm 5.3mb
LPG 48.57 301 iPd 20 46.90 0.4
0.7s 21.05nm 5.0mb
LPL 48.58 301 iPd 20 46.90 0.5
0.8s 34.00nm 5.2mb
PZZ 48.60 300 P 20 43.93 -2.6
RRL 48.70 300 P 20 47.00 -0.4
BNI 48.74 300 P 20 47.72 0.1
1.1s 23.80nm 4.9mb
DOU 48.84 307 P 20 48.90 0.8
0.8s 26.70nm 5.1mb
FRF 49.19 299 iPd 20 50.90 0.0
0.8s 34.00nm 5.2mb
LMR 49.35 298 iPd 20 52.00 -0.1
0.7s 11.00nm 4.8mb

LRG 49.42 299 iPd 20 52.60 0.0
0.7s 18.95nm 5.0mb
LBF 50.02 304 iPd 20 56.40 -0.8
0.5s 4.45nm 4.5mb
LOR 50.02 304 iPd 20 56.40 -0.8
0.8s 13.85nm 4.8mb
SMF 50.20 303 iPd 20 58.20 -0.4
0.7s 24.60nm 5.1mb
SSF 50.30 304 iPd 20 58.90 -0.4
0.8s 15.70nm 4.9mb
AVF 50.48 304 iPd 21 00.30 -0.4
0.5s 21.95nm 5.2mb
HYF 50.81 304 eP 21 03.30 0.1
BGF 50.88 303 iPd 21 03.30 -0.4
0.9s 19.00nm 4.9mb
MAF 51.17 303 iPd 21 06.00 0.1
0.8s 29.95nm 5.2mb
TCF 51.38 303 iPd 21 07.50 -0.1
0.7s 20.75nm 5.1mb
LSF 51.84 303 iPd 21 10.40 -0.6
0.6s 11.00nm 4.9mb
CAF 51.90 302 iPd 21 11.60 0.1
0.9s 21.15nm 5.0mb
RJF 52.15 302 iPd 21 13.40 0.1
0.9s 17.85nm 4.9mb
EKA 52.21 315 Pc 21 13.05 -0.5
LDF .52.21 307 iPd 21 13.00 -0.7
0.6s 24.90nm 5.2mb
MTHF 52.23 299 P 21 14.18 0.2
FLN 52.39 307 iPd 21 14.20 -0.8
0.9s 32.25nm 5.2mb
LPO 52.57 302 iPd 21 16.30 -0.1
0.7s 11.90nm 4.9mb
GRR 52.74 307 iPd 21 16.70 -0.8
0.8s 53.45nm 5.5mb
LFF 52.79 302 iPd 21 18.10 0.2
0.6s 18.05nm 5.1mb
MFF 52.83 304 iPd 21 17.50 -0.8
0.9s 29.65nm 5.2mb
GRBF 52.96 299 P 21 18.95 -0.4
LPF 52.96 306 iPd 21 18.20 -1.0
0.9s 20.15nm 5.0mb
EPF 53.71 300 eP 21 23.70 -1.2
0.9s 15.40nm 4.9mb
DAG 53.75 343 iPc 21 24.10 -0.5
0.7s 40.41nm 5.4mb
ipP 21 55.60 135km
ENSF 53.80 300 P 21 25.79 0.2
DCN 55.08 314 eP 21 34.30 -0.3
BRW 65.53 16 eP 22 45.20 0.0
IMA 70.31 18 eP 23 14.54 -0.7
0.6s 6.19nm 4.6mb
epP 23 47.49 134km
FBA 72.68 17 eP 23 29.05 -0.1
0.8s 12.34nm 4.7mb
epP 24 01.86 132km
CRP 74.59 21 (P) 23 39.70 -0.8
LKO 75.01 270 P 23 43.13 -0.3
0.6s 4.50nm 4.4mb
TOA 75.45 18 eP 23 46.10 0.9
KIC 76.24 267 P 23 50.68 0.3
0.6s 7.50nm 4.6mb
TIC 76.29 268 P 23 50.86 0.2
0.4s 1.50nm 4.1mb
LIC 76.55 267 P 23 52.28 0.2
0.6s 3.00nm 4.2mb
BALM 77.28 17 eP 23 54.75 -0.7
YKA 79.72 3 eP 24 08.40 -0.1
0.5s 4.80nm 4.5mb
WB2 81.62 123 eP 24 19.20 0.1
0.4s 34.00nm 5.5mb
i 24 51.90 129km
ASPA 83.97 126 eP 24 31.40 0.2
0.7s 4.70nm 4.5mb
S.D. = 0.9 on 129 of 139 obs.

DEC 14, 1993 07h 21m 56.89± 0.30s
9.941 N ± 4.1km 126.386 E ± 6.2km
DEPTH = 38.3km (3 depth phases)
5.1mb (30 obs.) 5.1Msz (3 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 1.71 185 eP 22 24.50 -0.2
eS 22 35.00
PLP 1.84 311 ePc 22 25.00 -1.7
MAP 2.40 279 iPc 22 36.00 1.4
iS 23 06.00

```
DAV      2.95 196 ePd    22 44.00    1.6
                  eS     23 21.60
CTB      3.48 219 ePd    22 50.00    0.1
                  eS     23 33.00
PGP      6.39 304 ePc    23 14.00 -17.1X
TGY      6.75 308 ePd    23 40.00    3.8X
QVP      7.02 312 eP     23 43.20    3.3X
TSM     10.14 237 eP     24 25.00    1.9
KKM     10.79 250 ePc    24 40.50    8.4X
QIZ     18.38 301 eP     26 10.70    0.1
SSE     21.60 348 Pd     26 46.00    0.5
        1.2s   120.00nm          5.2mb
      Z 16s     1.60um           4.5MszX
                  sP     26 58.80
NJ2     23.08 344 Pc     27 01.20    1.0
        0.8s    43.00nm          5.0mb
WHN     23.37 333 P      27 05.00    2.1
                  sP     27 18.00
KGM     24.24 253 eP     27 13.00    1.5
GYA     24.86 314 P      27 18.20    0.6
        1.0s    11.00nm          4.4mb
                  sP     27 34.80
IPM     25.70 260 ePd    27 28.40    2.9
        1.0s    66.50nm          5.2mb
NST     26.21 285 eP     27 31.00    0.8
TIA     27.47 344 Pd     27 41.70    0.2
BDT     27.56 288 eP     27 44.00    1.5
CHTO    27.97 291 eP     27 44.50   -1.8
XAN     28.84 329 P      27 52.00   -2.0
        0.8s    34.00nm          5.1mb
                  pP     28 03.50   44km
CD2     29.63 318 eP     28 00.70   -0.4
TIY     30.37 338 P      28 07.20   -0.5
WB2     30.71 165 eP     28 04.50   -6.2X
        1.2s     9.50nm          4.4mb
BJI     31.32 345 eP     28 16.00    0.2
        1.5s    42.00nm          5.0mb
      Z 18s     1.77um           4.8Msz
      E 17s     1.85um
MBL     31.57 192 eP     28 16.50   -1.7
SNY     31.86 356 Pd     28 21.20    0.7
        1.6s    78.00nm          5.3mb
LZH     33.11 325 Pd     28 30.50   -1.2
        1.2s    37.00nm          5.1mb
      Z 17s     1.77um           4.8MszX
      E 17s     1.24um
                  sP     28 41.50
HHC     33.46 339 P      28 34.20   -0.5
        1.0s    40.00nm          5.3mb
      Z 28s     1.79um           4.6MszX
CN2     33.74 359 eP     28 39.00    2.1
BTO     33.80 337 eP     28 37.00   -0.6
ASPA    34.20 168 eP     28 40.40   -0.7
        1.0s    17.40nm          4.9mb
                  e      28 50.40   35km
                  ePP    30 12.20
MDJ     34.66   4 eP     28 45.80    1.0
        1.4s    41.00nm          5.2mb
WARB    35.91 180 iPd    28 55.40   -0.2
        0.3s    17.00nm          5.5mb
MEEK    37.13 192 eP     29 05.00   -0.9
GTA     37.72 325 eP     29 10.00   -0.9
        1.5s    14.00nm          4.6mb
      Z 18s     2.28um           5.0Msz
      E 15s     1.12um
FORT    40.52 178 eP     29 33.50   -0.5
COOL    40.90 187 eP     29 36.00   -1.2
BAL     41.37 193 eP     29 40.50   -0.6
GUN     42.03 301 P      29 46.30   -0.7
PKI     42.33 300 P      29 48.50   -1.0
KKN     42.51 300 P      29 49.70   -1.1
DMN     42.60 300 P      29 51.00   -0.6
        0.8s    38.00nm          5.2mb
GKN     43.11 301 P      29 54.60   -1.0
STK     44.06 161 eP     30 01.70   -1.2
        3.1s     5.60nm          3.8mb X
RKG     45.15 191 iPd    30 12.40    0.7
        0.6s    37.00nm          5.4mb
IRK     45.87 341 eP     30 11.00   -6.2X
                  e      30 17.50   22kmX
                  e      30 44.80
ARMA    46.89 150 eP     30 35.20    9.5X
        1.1s    18.00nm          5.0mb
HYB     46.97 285 eP     30 26.00   -0.4
        1.0s    35.00nm          5.3mb
WMQ     47.55 322 eP     30 30.50   -0.2
GBA     48.00 279 Pd     30 34.00   -0.5

        0.8s    11.00nm          4.9mb
CNB     49.98 155 eP     30 48.60   -0.9
        0.9s    13.00nm          5.0mb
DZM     50.55 129 iPd    30 53.90   -0.2
YAK     52.04   2 iPc    31 04.20   -0.4
        1.2s    75.00nm          5.5mb
                  i      31 15.00   37km
MAIO    65.58 305 eP     32 38.00   -1.4
SVW     75.55  29 eP     33 40.82    1.6
        0.8s    12.20nm          4.9mb
BRW     76.44  19 eP     33 43.24   -0.7
IMA     76.89  24 eP     33 47.65    0.9
        0.9s     7.63nm          4.7mb
FBA     79.30  26 eP     33 59.35   -0.4
        0.7s     1.86nm          4.2mb
KLU     80.24  29 (P)    34 05.80    0.8
BALM    82.00  29 (P)    34 15.06    0.8
KAF     85.97 332 iP     34 34.40    0.2
        0.5s     5.90nm          5.1mb
NUR     87.14 331 iP     34 40.00    0.0
        0.4s     5.70nm          5.2mb
DAG     91.11 352 iPc+   34 58.40   -0.1
        0.9s    23.53nm          5.6mb
      Z 22s     4.89um           5.9Msz
      N 22s     2.07um
HFS     92.39 332 eP     35 03.50   -1.1
        0.4s     2.70nm          5.0mb
OJC     92.82 322 eP     35 04.50   -2.3
                  i      35 07.20   8kmX
                  i      35 19.30
NB2     93.10 334 P      35 06.60   -1.4
        0.9s     5.80nm          5.0mb
YKA     94.01  24 eP     35 12.30    0.2
        0.7s     6.50nm          5.2mb
UYO    121.47  39 iPKPd  40 58.10    9.7X
LKO    128.44 291 PKP    40 59.00   -3.4X
        1.2s     5.00nm
SDV    154.76  43 ePKP   41 49.70    1.9
MOCB   163.87 136 PKP    41 59.80    1.5
CNCB   164.45 118 PKP    42 04.80    5.8X
LPB    164.46 116 (PKP)  42 08.00    9.2X
LPAZ   164.52 116 PKP    42 01.10    1.9
SIV    170.57 130 PKP    42 03.20    0.6
    S.D. = 1.2  on  66 of  77 obs.
-------------------------------------
? DEC 14, 1993  07h 24m 00.32± 1.42s
  30.122 S ±17.5km  177.699 W ±31.4km
  DEPTH =  33.0km  (normal)
  4.7mb (  1 obs.)
 KERMADEC ISLANDS, NEW ZEALAND   (178)
      Felt on Raoul Island.

RAO      0.89 348 iP     24 16.40    0.0
                  S      24 25.60
DZM     16.33 296 iPc    28 00.40   11.6X
ASPA    43.39 267 eP     32 01.60    0.0
        0.5s     7.20nm          4.7mb
NB2    148.52 352 PKP    43 41.40    0.5
        0.6s     3.30nm
HFS    149.02 349 ePKP   43 41.10   -0.5
        0.5s     1.00nm
GEC2   159.38 338 PKP    44 00.80    4.7X
        1.3s     2.88nm
    S.D. = 0.7  on   4 of   6 obs.
-------------------------------------
* DEC 14, 1993  07h 42m 47.74± 1.34s
  5.773 S ±14.6km  146.352 E ±17.1km
  DEPTH =  33.0km  (normal)
  4.4mb (  1 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

MDG      0.77 312 eP     43 01.00   -1.1
LAT      1.10 144 eP     43 08.30    1.5
MNDI     2.71 262 eP     43 31.00    0.9
WWKK     3.46 308 eP     43 41.20    0.6
PMG      3.70 168 eP     43 43.00   -0.9
KDB      3.76 168 eP     43 44.00   -0.8
ASPA    21.45 213 eP     47 35.50    0.0
        0.7s    12.10nm          4.4mb
KIC    151.25 273 PKP    02 41.22    7.0X
        0.7s    10.50nm
TIC    151.53 273 PKP    02 41.78    7.1X
        0.7s     7.00nm
LIC    151.53 272 PKP    02 41.76    7.1X
        0.6s     6.50nm
LKO    151.95 279 PKP    02 42.89    7.6X
        0.9s     7.00nm

    S.D. = 1.2  on   7 of  11 obs.
-------------------------------------
  DEC 14, 1993  07h 49m 59.63± 0.21s
  13.624 S ± 5.3km  168.939 E ± 4.7km
  DEPTH =  21.3km  ( 27 depth phases)
  5.4mb ( 25 obs.)  5.4Msz ( 22 obs.)
 VANUATU ISLANDS                 (186)
      Mw 5.5 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 22S, 37C
      Centroid Location:
      Origin Time        07:50: 0.8 0.7
      Lat 13.70S 0.07 Lon 169.20E 0.05
      Dep  15.0 FIX Half-duration  1.2
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.34 0.06  Mtt= 0.65 0.14
        Mff=-0.32 0.15  Mrt=-0.45 0.19
        Mrf=-0.30 0.21  Mtf= 1.77 0.07
       Principal Axes:
        T  Val=  2.12   Plg=12  Azm=143
        N       -0.45     77        316
        P       -1.67      1         52
      Best Double Couple:Mo=1.9*10**17
        NP1:Strike=187 Dip=80 Slip= 172
        NP2:       278     82        10

BKM      4.08 189 iP     51 02.00   -0.3
                  iS     51 42.00
PVC      4.14 188 iP     51 05.00    1.9
DZM      8.73 195 iPc    52 03.00   -4.8X
                  iS     53 38.90
MBU     10.01 111 eP     52 23.20   -2.2
VUN     10.15 117 eP     52 26.90   -0.4
SVA     10.19 117 ePc    52 27.30   -0.5
KVG     21.01 300 eP     54 44.50    0.2
KDB     21.73 279 eP     54 53.00    1.4
PMG     21.74 279 eP     54 52.00    0.2
ARMA    23.12 221 iPc    55 06.50    1.1
        1.1s   147.00nm          5.4mb
                  ipP    55 19.70  55kmX
RIV     25.80 216 iPd    55 32.90    2.0
CNB     27.89 216 iPd    55 50.50    0.3
        0.9s    37.00nm          5.1mb
CAN     28.10 216 eP     55 52.00   -0.1
STK     30.94 229 eP     56 17.70    0.2
        1.0s    77.20nm          5.5mb
                  iPcP   59 19.90
TOO     31.70 217 iPc    56 24.30    0.2
        1.0s   105.00nm          5.7mb
WB2     33.66 254 eP     56 39.50   -1.8
        0.9s    39.60nm          5.3mb
ASPA    34.58 248 iPd    56 47.70   -1.6
        1.0s    71.00nm          5.5mb
                  i      57 01.00  51kmX
FORT    41.25 239 eP     57 45.00    0.0
WARB    41.51 246 eP     57 47.80    0.6
        1.0s   127.00nm          5.6mb
MBL     47.31 254 eP     58 34.00    0.1
HON     47.54  44 P      58 50.00   14.4X
      Z 21s     1.23um           4.8Msz
MEEK    48.70 246 eP     58 44.20   -0.6
        1.0s    71.00nm          5.7mb
KKM     55.87 287 ePd    59 44.00    5.4X
BAG     56.34 300 ePc    59 40.00   -2.0
MAT     57.70 331 eP     59 51.00   -0.2
        1.2s    25.00nm          5.1mb
SBA     64.24 181 iPc    00 35.50    0.6
SNG     70.90 283 eP     01 18.50    0.8
BJI     72.44 320 eP     01 27.50    1.1
        1.5s    42.00nm          5.3mb
      Z 20s     1.21um           5.2Msz
SDN     73.37  18 P      01 40.00    8.4X
      Z 20s     1.59um           5.3Msz
NST     73.99 291 eP     01 31.50   -4.4X
KMI     75.12 301 Pc     01 40.00   -2.7
        1.5s    90.00nm          5.6mb
CHTO    76.11 294 ePc    01 48.00   -0.1
        1.5s    44.48nm          5.3mb
SPA     76.46 180 ePd    01 48.30   -1.2
        0.9s    68.18nm          5.7mb
LZH     78.79 311 eP     02 04.00    1.2
        1.8s    50.00nm          5.2mb
      Z 25s     1.39um           5.2MszX
                  pP     02 10.00   19km
CP2     80.73  18 (P)    02 13.80    1.0
TTA     81.02  15 (P)    02 17.25    3.1X
```

14d 08h

2.2s 69.51nm 5.3mb
PMR 81.93 19 eP 02 19.76 1.0
1.2s 48.18nm 5.4mb
Z 18s 0.91um 5.2Msz
e 02 25.33 18km
BCH 82.80 51 eP 02 24.43 0.4
KLU 82.90 20 eP 02 24.28 0.4
WDC 83.14 46 P 02 40.00 14.5X
Z 20s 1.88um 5.5Msz
TOA 83.26 20 eP 02 24.90 -0.8
ORV 83.45 47 eP 02 28.30 1.2
ipP 02 34.13 18km
CMB 83.66 49 P 02 40.00 11.7X
Z 19s 1.23um 5.3Msz
BALM 83.81 22 eP 02 29.57 0.9
epP 02 35.31 18km
LBFM 83.90 45 eP 02 30.13 0.5
ipP 02 37.07 22km
IMA 84.18 14 (P) 02 33.16 2.8
2.0s 53.75nm 5.4mb
PEC 84.59 53 eP 02 32.50 -0.5
1.3s 37.67nm 5.5mb
ipP 02 39.35 22km
PLM 84.63 54 eP 02 33.66 0.2
ipP 02 40.61 22km
MTUM 84.74 50 (P) 02 34.57 0.7
ipP 02 41.23 21km
FBA 84.82 17 eP 02 33.91 0.5
1.1s 37.19nm 5.5mb
i 02 39.96 19km
BONR 85.16 49 (P) 02 36.62 0.5
epP 02 43.07 20km
GSC 85.35 52 (P) 02 35.24 -1.6
ipP 02 43.58 26km
TNP 86.00 49 eP 02 39.21 -1.0
1.2s 15.98nm 5.1mb
ipP 02 46.92 24km
GLA 86.14 55 (P) 02 41.68 0.9
ipP 02 48.04 20km
TPNV 86.33 51 eP 02 42.56 0.8
1.0s 13.04nm 5.1mb
Z 19s 2.22um 5.6Msz
ipP 02 48.51 19km
RMW 86.46 39 eP 02 42.37 0.3
ipP 02 49.00 21km
ARUT 88.72 51 ePc 02 53.60 0.3
epP 03 00.95 23km
TUC 89.17 57 ePc 02 56.95 1.5
1.1s 10.05nm 5.0mb
ipP 03 04.08 22km
MSU 89.89 50 ePc 02 59.56 0.7
ipP 03 06.95 23km
DUG 89.93 49 P 03 10.00 11.1X
Z 21s 1.22um 5.3Msz
GUN 90.29 299 P 03 01.40 0.3
HVU 90.44 47 eP 03 01.21 0.0
ipP 03 08.92 24km
PKI 90.60 298 P 03 02.20 -0.3
1.0s 26.00nm 5.5mb
KKN 90.77 298 P 03 03.50 0.4
DMN 90.87 298 P 03 02.40 -1.3
1.0s 37.00nm 5.7mb
PTI 91.06 46 eP 03 05.66 1.6
ipP 03 12.11 20km
EMUT 91.28 49 eP 03 05.95 0.7
ipP 03 12.67 21km
SRU 91.30 50 eP 03 05.31 0.0
epP 03 12.48 22km
GKN 91.37 298 P 03 04.30 -1.5
LRM 91.89 43 eP 03 07.60 -0.4
e 03 15.20 24km
PV09 92.18 51 eP 03 10.00 0.5
ipP 03 16.94 22km
PV10 92.21 51 (P) 03 08.93 -0.7
ipP 03 16.77 24km
PV08 92.56 51 eP 03 11.26 -0.1
ipP 03 18.51 23km
LTX 94.33 61 eP 03 19.12 -0.2
ipP 03 25.16 19km
GOL 95.31 51 P 03 30.00 6.2X
Z 19s 1.35um 5.4Msz
YKA 95.83 27 eP 03 23.70 -1.6
1.0s 5.20nm 4.9mb
WMOK 99.47 57 P 03 50.00 7.5X
Z 21s 1.04um 5.3Msz
MIAR 103.69 57 Pdiff 04 10.00 8.6X
Z 20s 0.93um 5.3Msz

OXF 107.11 58 PKP 08 40.00 13.9X
Z 20s 0.47um 5.0Msz
MYNC 111.48 57 PKP 08 40.00 5.5X
Z 20s 0.98um 5.4Msz
GOGA 111.97 59 PKP 08 50.00 14.6X
Z 20s 0.70um 5.2Msz
MCWV 114.86 52 PKP 08 50.00 9.2X
Z 20s 1.47um 5.6Msz
CEH 115.59 57 PKP 08 50.00 7.7X
Z 19s 0.58um 5.2Msz
YSNY 115.66 49 PKP 08 50.00 7.7X
Z 19s 1.82um 5.7Msz
BINY 117.57 49 PKP 09 00.00 14.1X
Z 19s 1.35um 5.6Msz
LSCT 119.68 50 PKP 09 00.00 10.1X
Z 21s 2.07um 5.7Msz
LBNH 120.20 47 PKP 09 00.00 9.2X
Z 21s 1.34um 5.6Msz
HRV 120.77 49 PKP 09 00.00 8.1X
Z 18s 1.34um 5.6Msz
CBM 122.19 43 PKP 09 00.00 5.5X
Z 20s 1.52um 5.6Msz
TAB 123.87 307 ePKP 09 05.00 6.8X
LBTB 127.53 223 ePKP 09 05.75 0.1
ipPKP 09 12.51
BUL 128.53 230 iPKPd 09 07.80 0.1
i 09 14.30
LDF 143.97 348 ePKP 09 35.00 -0.2
1.4s 34.85nm
LOR 144.21 343 ePKP 09 33.50 -2.2
1.3s 22.00nm
GRR 144.32 348 ePKP 09 35.30 -0.5
1.1s 29.80nm
LBF 144.43 342 ePKP 09 34.00 -2.1
1.5s 53.30nm
SSF 144.50 343 ePKP 09 34.50 -1.7
1.3s 57.05nm
LPF 144.70 348 ePKP 09 35.10 -1.3
1.2s 39.85nm
LPL 144.82 338 ePKP 09 37.90 0.8
1.3s 23.85nm
LPG 144.83 338 ePKP 09 38.10 0.9
1.2s 17.25nm
MAF 145.53 343 ePKP 09 38.50 0.5
1.2s 26.20nm
MFF 145.87 347 ePKP 09 37.80 -0.7
1.4s 51.85nm
KIC 170.47 221 PKP 10 14.95 7.1X
1.0s 24.00nm
LIC 170.55 220 PKP 10 14.95 7.1X
1.1s 13.50nm
TIC 170.87 221 PKP 10 15.27 7.3X
1.1s 14.00nm
LKO 173.28 233 PKP 10 12.07 3.1X
1.2s 8.00nm
S.D. = 1.1 on 78 of 106 obs.

% DEC 14, 1993 08h 15m 48.35± 0.47s
44.541 N ± 4.0km 7.264 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (GEN).

PZZ 0.12 253 P 15 51.71 0.2
S 15 53.59
STV 0.30 172 P 15 54.72 0.1
S 15 58.67
BHB 0.30 360 P 15 54.96 0.3
S 15 59.15
ENR 0.33 160 P 15 55.24 -0.1
S 15 59.72
ROB 0.50 119 P 15 58.64 0.1
S 16 05.43
RRL 0.51 318 P 15 58.48 -0.3
S 16 05.28
RSP 0.61 360 P 16 00.59 -0.2
S 16 08.42
FIN 0.75 116 P 16 03.06 -0.1
S 16 13.00
IMI 0.77 144 P 16 03.32 -0.2
S 16 13.21
S.D. = 0.2 on 9 of 9 obs.

% DEC 14, 1993 08h 16m 55.48± 0.44s
44.544 N ± 3.7km 7.263 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

PZZ 0.12 252 P 16 58.73 0.1
S 17 00.70
BHB 0.30 0 P 17 02.12 0.4
S 17 06.51
STV 0.30 172 P 17 01.94 0.1
S 17 05.92
ENR 0.34 160 P 17 02.40 -0.1
S 17 06.79
ROB 0.50 120 P 17 05.74 0.1
S 17 12.69
RRL 0.51 318 P 17 05.69 -0.1
S 17 12.78
RSP 0.61 360 P 17 07.51 -0.3
S 17 15.75
FIN 0.76 116 P 17 10.19 -0.1
S 17 20.02
IMI 0.78 144 P 17 10.60 -0.1
S 17 20.80
PCP 0.92 90 P 17 13.07 0.0
S.D. = 0.2 on 10 of 10 obs.

DEC 14, 1993 08h 47m 42.98± 0.86s
4.839 N ± 7.0km 127.628 E ±10.7km
DEPTH = 87.0 ± 8.5 km
4.9mb (9 obs.)
TALAUD ISLANDS, INDONESIA (263)

BIP 3.63 338 iPc 48 37.00 -1.1
iS 49 12.00
CTB 4.14 305 eP 48 45.00 -0.1
CGP 4.63 321 iPd 48 53.50 1.6
iS 49 55.00
MAP 6.54 327 eP 49 19.00 0.6
PLP 6.81 338 ePc 49 21.00 -1.2
eS 49 47.50
WB2 25.50 165 iPc 53 04.50 -0.5
0.4s 35.00nm 5.2mb
SNG 26.96 276 eP 53 19.00 0.6
ASPA 28.99 168 eP 53 36.30 -0.4
0.4s 15.40nm 5.0mb
WARB 30.85 182 eP 53 53.80 0.7
CHTO 31.25 299 eP 53 56.10 -0.6
XAN 33.85 331 P 54 18.70 -0.6
0.7s 9.90nm 4.8mb
CD2 34.31 322 eP 54 23.20 0.0
FORT 35.42 179 eP 54 32.50 0.0
TIY 35.54 339 eP 54 34.30 0.7
BJI 36.54 345 eP 54 42.50 0.7
LZH 38.02 328 eP 54 55.00 0.4
1.5s 16.00nm 4.7mb
Z 16s 0.49um 4.4MszX
STK 38.86 161 eP 55 01.10 -0.4
0.4s 5.60nm 4.8mb
ARMA 41.91 148 eP 55 27.40 0.7
0.7s 13.00nm 4.9mb
GTA 42.63 328 eP 55 33.50 1.0
1.0s 8.00nm 4.5mb
GUN 45.82 305 P 55 58.80 0.3
PKI 46.08 304 P 55 59.90 -0.7
KKN 46.26 304 P 56 01.70 -0.2
DMN 46.34 304 P 56 22.00 19.4X
0.8s 55.00nm
DZM 46.46 127 iPd 56 03.30 0.0
GKN 46.87 304 P 56 06.40 -0.2
0.6s 25.00nm 5.3mb
NDI 53.28 302 iPd 56 54.00 -1.2
0.6s 23.33nm 5.4mb
S.D. = 0.8 on 25 of 26 obs.

? DEC 14, 1993 09h 50m 34.04± 1.51s
9.907 N ±11.1km 126.438 E ±17.3km
DEPTH = 33.0km (normal)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 1.68 186 eP 51 01.00 -0.6
PLP 1.90 311 ePc 51 04.00 -0.8
iS 51 19.20
CGP 2.25 230 iP 51 08.00 -1.6
iS 51 36.50
MAP 2.46 280 iPd 51 13.50 0.8
iS 51 44.00
CTB 3.48 220 ePc 51 29.00 1.7
eS 52 18.00
YKA 94.02 24 eP 03 50.20 0.3
0.4s 0.20nm 3.9mb

S.D. = 1.6 on 6 of 6 obs.
----
* DEC 14, 1993 10h 10m 01.86± 0.88s
1.773 N ±12.0km 97.089 E ± 8.3km
DEPTH = 33.0km (normal)
4.8mb (8 obs.)
NORTHERN SUMATERA, INDONESIA (706)

IPM 4.82 55 ePc 11 14.80 0.8
0.4s 27.80nm
KGM 6.23 88 eP 11 34.50 0.5
SNG 6.42 33 eP 11 37.00 0.4
CHTO 17.03 6 eP 13 58.10 -1.2
GBA 22.72 302 P 15 10.00 7.8X
HYB 23.95 312 eP 15 16.00 1.8
PKI 27.98 337 P 15 51.80 -0.4
0.6s 12.00nm 4.8mb
GUN 28.12 339 P 15 53.60 0.2
0.5s 26.00nm 5.2mb
DMN 28.14 337 P 15 53.60 0.2
KKN 28.23 337 P 15 54.50 0.3
GKN 28.67 337 P 15 57.60 -0.5
LZH 34.71 10 eP 16 50.00 -1.1
1.4s 28.00nm 5.0mb
pP 16 56.00 21kmX
BJI 41.85 22 eP 17 51.50 1.1
1.0s 22.00nm 4.8mb
ASPA 43.83 127 eP 18 06.40 -0.4
1.3s 3.80nm 4.0mb
MAT 51.35 43 (P) 19 04.00 -1.4
0.8s 8.21nm 4.7mb
YAK 64.90 16 iPc 20 40.30 0.3
1.0s 70.00nm 5.7mb
NB2 86.45 331 P 22 41.70 -0.6
0.9s 2.80nm 4.5mb
S.D. = 0.9 on 16 of 17 obs.
----
* DEC 14, 1993 10h 12m 01.02± 1.17s
40.506 N ±14.3km 21.816 E ± 8.9km
DEPTH = 33.0km (normal)
GREECE (364)

FNA 0.43 310 ePg 12 09.28 -1.4
eSg 12 17.56
GRG 0.63 44 ePg 12 13.16 -0.4
eSg 12 26.76
LIT 0.66 128 ePg 12 13.72 -0.1
eSg 12 24.92
OHR 0.98 308 ePn 12 20.00 1.5
VAY 1.00 35 ePn 12 23.60 4.9X
KNT 1.05 51 ePb 12 19.72 0.2
eSb 12 36.00
SOH 1.21 74 ePb 12 22.00 0.2
eSb 12 41.04
S.D. = 1.2 on 6 of 7 obs.

DEC 14, 1993 11h 00m 23.49± 0.59s
43.910 N ± 6.9km 7.176 E ± 4.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.1 (LDG).

MVIF 0.02 230 Pg 00 24.56 -1.0
AURF 0.11 102 Pg 00 26.48 0.0
Sg 00 28.28
TOUF 0.12 27 Pg 00 26.57 0.0
SBF 0.19 104 Pg 00 28.20 0.4
Sg 00 31.70
AUTN 0.20 65 Pg 00 28.07 0.0
REVF 0.22 141 Pg 00 29.13 0.9
CALN 0.26 233 Pg 00 29.78 0.7
Sg 00 34.07
SAOF 0.28 74 Pg 00 29.67 0.2
Sg 00 34.34
FRF 0.52 228 Pg 00 34.00 0.0
Sg 00 41.20
LRG 0.75 233 Pg 00 38.30 0.2
Sg 00 48.60
LMR 0.75 220 Pg 00 38.20 0.0
Sg 00 48.30
LPG 1.62 349 Pg 00 54.80 2.4X
LPL 1.64 349 Pg 00 54.70 2.1X
PGF 1.91 135 Pn 00 54.80 -1.6
Sn 01 17.90
S.D. = 0.8 on 12 of 14 obs.

? DEC 14, 1993 11h 17m 24.63± 3.21s
31.743 S ±31.0km 69.527 W ±33.2km
DEPTH = 130.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.67 68 eP 17 44.70 -0.5
S 18 01.00
RTCV 0.85 98 eP 17 46.80 0.3
S 18 04.00
RTLL 0.99 66 eP 17 48.00 0.2
S 18 06.00
CFA 1.11 83 eP 18 09.20 20.3X
RTRS 1.57 2 iPc 17 53.90 0.1
S 18 16.50
MRA 3.31 103 ePd 18 15.90 0.0
TCA 4.23 86 eP 18 28.40 0.0
S 19 17.60
S.D. = 0.3 on 6 of 7 obs.

% DEC 14, 1993 11h 27m 03.47± 0.81s
43.832 N ± 8.5km 7.293 E ± 8.6km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 1.9 (LDG).

SBF 0.11 73 Pg 27 06.40 0.0
Sg 27 09.60
FRF 0.54 240 Pg 27 14.80 0.4
Sg 27 20.90
LMR 0.76 229 Pg 27 18.10 -0.1
Sg 27 27.90
LRG 0.77 241 Pg 27 18.30 -0.3
Sg 27 28.80
LPG 1.71 347 Pg 27 34.00 0.3
LPL 1.73 347 Pg 27 33.70 -0.3
S.D. = 0.4 on 6 of 6 obs.

% DEC 14, 1993 12h 40m 25.57± 0.64s
31.312 S ±11.5km 68.454 W ±11.9km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.02 216 ePc 40 39.50 -0.5
S 40 49.50
RTCB 0.34 239 ePc 40 40.50 -0.2
S 40 52.00
CFA 0.35 148 ePc 40 40.80 0.2
S 40 53.00
RTCV 0.55 187 iPd 40 42.30 0.3
S 40 55.00
RTRS 1.43 322 iPd 40 51.50 0.2
S 41 10.20
RTPR 1.95 59 eP 40 58.00 0.0
S 41 22.00
S.D. = 0.4 on 6 of 6 obs.
----
* DEC 14, 1993 13h 21m 25.01± 1.39s
23.359 S ±11.4km 179.509 E ±14.8km
DEPTH = 586.5 ± 24.1 km
4.8mb (6 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM 12.13 274 iPd 24 06.90 1.8
AFI 12.51 43 eP 24 07.00 -1.9
OUZ 12.89 202 P 24 15.00 2.5
KUZ 13.74 193 P 24 22.50 1.7
WLZ 14.85 192 P 24 33.40 1.7
URZ 14.99 187 P 24 31.30 -1.8
NOZ 15.26 184 eP 24 36.00 0.3
MOZ 15.62 194 eP 24 41.70 2.5
WAHZ 16.51 189 eP 24 46.00 -1.8
NRZ 16.62 195 eP 24 51.40 2.6
TEHZ 16.74 187 eP 24 48.70 -1.3
MNG 17.54 190 eP 24 56.10 -1.6
KIW 17.88 191 P 24 59.60 -1.3
DIW 18.02 194 P 25 02.40 0.2
MTW 18.07 190 P 25 01.20 -1.4
CAW 18.09 191 eP 25 02.00 -0.8
AMW 18.17 189 P 25 02.50 -1.1
MRW 18.27 192 eP 25 04.10 -0.5
BLW 18.27 190 eP 25 03.70 -0.9
TCW 18.34 193 eP 25 05.20 0.1
QRZ 18.38 197 P 25 06.80 1.2
THZ 19.17 195 eP 25 12.90 0.0
LTZ 20.28 196 eP 25 21.70 -1.5
MQZ 21.07 194 eP 25 29.60 -0.6
EWZ 21.33 198 eP 25 32.40 -0.2
MSZ 23.28 201 eP 25 50.40 0.2
TUZ 23.92 197 eP 25 55.60 -0.3
SIZ 25.19 199 eP 26 08.10 1.1
ARMA 25.80 248 iPc 26 12.10 -0.7
0.6s 22.00nm 5.0mb
CNB 28.74 239 iPc 26 38.10 -0.2
0.7s 51.00nm 5.3mb
CAN 29.03 239 eP 26 40.50 -0.2
STK 34.51 247 eP 27 26.10 -0.7
0.6s 7.80nm 4.5mb
ASPA 41.68 260 iPc 28 23.50 -1.6
0.3s 8.80nm 4.8mb
iS 33 56.40
FORT 46.08 249 eP 28 57.50 -1.6
0.6s 25.00nm 4.9mb
WARB 47.82 255 iPc 29 10.60 -1.8
0.2s 2.00nm 4.3mb
SLKM 87.13 14 eP 33 11.51 1.5
SRU 90.16 47 eP 33 28.52 3.9X
NB2 141.48 351 PKP 39 47.40 -3.6X
0.7s 3.60nm
HFS 141.93 349 ePKP 39 48.20 -3.5X
0.4s 3.60nm
OJC 148.86 334 ePKP 40 10.00 6.6X
KSP 149.62 339 iPKPd 40 12.20 7.7X
CLL 150.21 343 iPKPd 40 13.20 7.9X
1.0s 38.00nm
BRG 150.33 341 iPKP 40 12.50 6.9X
0.8s 20.00nm
PRU 150.93 340 ePKP 40 09.50 3.0
i 40 14.90
MOX 151.18 344 iPKP 40 15.60 8.7X
1.1s 9.40nm
KHC 151.98 340 ePKP 40 17.00 8.9X
e 40 30.00
GEC2 152.20 340 PKP 40 17.40 8.9X
0.8s 3.03nm
e 40 29.90
S.D. = 1.5 on 37 of 47 obs.

? DEC 14, 1993 15h 38m 33.86± 3.04s
37.354 N ±24.9km 20.931 E ±25.1km
DEPTH = 33.0km (normal)
IONIAN SEA (399)
MD 3.5 (ATH).

VLI 1.73 111 ePb 39 02.00 0.0
ATH 2.30 74 ePn 39 10.00 -0.1
SRN 2.63 344 ePn 39 16.10 1.3
LSK 2.80 355 ePn 39 24.00 6.6X
KZN 3.02 12 ePn 39 21.00 0.5
TPE 3.02 347 ePn 39 22.20 1.7
VLO 3.31 341 ePn 39 37.50 13.0X
OHR 3.75 358 ePn 39 29.50 -1.4
0.9s 110.00nm
i 39 41.00
i 40 13.50
i 40 37.50
Lg 40 49.50
VAY 4.16 17 iPn 39 38.00 1.4
LACI 4.38 348 ePn 39 37.60 -2.1
SKO 4.63 5 ePn 39 42.00 -1.3
S.D. = 1.6 on 9 of 11 obs.
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* DEC 14, 1993 17h 26m 56.10± 1.61s
44.132 N ± 6.0km 129.229 W ±13.7km
DEPTH = 10.0km (geophysicist)
3.1mb (1 obs.)
OFF COAST OF OREGON (30)

ONR 4.72 53 P 28 09.01 0.0
BMW 4.84 59 eP 28 09.73 -1.0
SSOR 4.90 79 Pd 28 12.66 1.0
BBOR 4.92 102 Pc 28 11.78 -0.3
OSR 4.99 46 P 28 12.22 -0.7
RVW 5.01 64 Pd 28 13.47 0.3
OOW 5.03 43 P 28 13.07 -0.4
MTMW 5.32 67 Pd 28 18.23 0.7
ERK 5.33 64 P 28 17.94 0.2
OSD 5.33 44 P 28 16.97 -0.9
SHW 5.36 65 eP 28 18.68 0.5
REMW 5.39 65 P 28 19.07 0.3
TDL 5.43 63 P 28 19.11 0.0
LMW 5.50 60 P 28 20.20 0.0
HDW 5.56 49 P 28 20.73 -0.3
STW 5.57 42 P 28 20.70 -0.4
RVC 5.82 59 Pd 28 24.73 0.1
LON 5.84 61 eP 28 24.63 -0.2

14d 17h

REMR 5.85 60 P 28 25.32 0.2
GLK 5.90 63 P 28 26.11 0.4
WPW 5.99 62 Pd 28 27.15 0.2
FMW 6.00 60 P 28 27.31 0.1
MCW 6.34 42 eP 28 31.31 -0.6
JCW 6.49 49 P 28 34.01 -0.1
TBM 6.77 60 Pd 28 38.21 0.2
RPW 6.87 48 Pd 28 39.26 -0.1
ORV 7.36 126 eP 28 45.29 -0.9
ARUT 13.50 113 (P) 30 10.46 0.2
YKA 20.27 20 eP 31 35.50 1.3
0.9s 0.80nm 3.1mb
S.D. = 0.6 on 29 of 29 obs.

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* DEC 14, 1993 17h 27m 11.32± 2.00s
36.619 N ±17.3km 21.018 E ±16.9km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)
SOUTHERN GREECE (368)
MD 3.7 (ATH).

VLI 1.55 86 ePn 27 35.50 -1.4
ATH 2.54 57 ePn 27 53.00 1.9
VAM 2.85 114 ePn 27 56.00 0.5
SRN 3.35 346 ePn 28 03.90 1.3
LSK 3.54 355 ePn 28 07.00 1.6
KZN 3.73 9 ePn 28 08.00 0.0
TPE 3.75 348 iPnd 28 09.00 0.7
OHR 4.49 358 iPn 28 18.00 -0.8
0.8s 60.00nm
i 28 29.20
i 29 08.00
i 29 33.20
Lg 29 50.50
TIR 4.81 350 ePn 28 23.00 -0.2
VAY 4.85 14 iPn 28 22.60 -1.2
LACI 5.11 349 ePn 28 27.00 -0.6
SKO 5.36 3 ePn 28 30.00 -1.0
HFS 24.00 351 eP 32 23.10 -0.5
0.4s 1.80nm 4.0mb
KAF 25.73 6 eP 32 39.60 -0.5
S.D. = 1.1 on 14 of 14 obs.

DEC 14, 1993 17h 34m 23.90± 0.91s
44.255 N ± 9.4km 12.140 E ± 6.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.0 (LDG). MD 2.8 (TRI).

TRI 1.86 38 e(Pn) 34 55.50 -0.5
e(Sg) 35 26.90
VOY 2.17 34 ePn 35 00.00 -0.6
e 35 27.30
e(Sn) 35 36.70
CEY 2.20 47 e(Pn) 35 10.50 9.5X
eSn 35 39.30
VBY 2.54 59 e(Pn) 35 05.00 -0.9
PGF 2.85 234 Pn 35 11.30 0.9
Sn 35 45.00
KBA 2.95 16 iPnc 35 13.20 1.4
0.5s 7.70nm
i 35 58.80
i 36 07.40
WTTA 3.03 353 iPnc 35 15.10 2.2
i 36 10.20
i 36 24.90
LPG 4.03 290 Pn 35 27.30 0.1
FRF 4.03 262 Pn 35 28.40 1.4
Sn 36 13.70
LPL 4.05 290 Pn 35 27.20 -0.2
LMR 4.18 259 Pn 35 29.00 -0.1
Sn 36 17.60
LRG 4.26 261 Pn 35 29.10 -1.1
Sn 36 19.00
BSF 5.16 316 Pn 35 43.10 0.0
Sn 36 41.70
CDF 5.35 323 Pn 35 45.40 -0.4
Sn 36 45.60
HAU 5.50 315 Pn 35 46.90 -1.0
Sn 36 49.20
LBF 6.34 298 Pn 35 58.80 -1.0
LOR 6.53 300 Pn 36 02.00 -0.4
S.D. = 1.1 on 16 of 17 obs.

& DEC 14, 1993 18h 04m 44.24s
36.077 N 117.720 W
DEPTH = 1.3km
CALIFORNIA-NEVADA BORDER REGION (40)
<PAS-P>. ML 3.2 (PAS), 3.3 (GS).

RCWM 0.14 155 P 04 47.08 0.1
TOW 0.27 188 P 04 50.06 0.4
NMC 0.28 213 P 04 49.79 0.0
WSHM 0.48 157 P 04 53.84 0.0
WLHM 0.48 279 P 04 53.56 -0.4
WBSM 0.64 212 P 04 56.49 -0.5
ISA 0.74 236 ePc 04 58.23 -0.7
eS 05 08.40
WASM 0.76 244 P 04 58.84 -0.6
WOFM 0.97 236 P 05 02.62 -1.0
GSC 1.07 136 eP 05 04.06 -1.3
BMTC 1.18 218 P 05 06.23 -0.9
BHPR 1.37 333 P 05 09.93 -0.5
MTUM 1.44 332 eP 05 10.52 -1.1
TPNV 1.47 53 eP 05 10.83 -1.2
HTCR 1.68 330 P 05 15.46 0.3
MARC 1.70 231 P 05 16.56 1.4
MRCM 1.71 339 eP 05 15.84 0.3
ABL 1.73 225 eP 05 14.92 -0.9
CLKR 1.75 330 P 05 16.95 0.8
MCSM 1.84 329 P 05 18.54 1.1
MMPM 1.86 326 eP 05 18.25 0.5
SSK 1.86 179 eP 05 16.99 -0.7
MEMM 1.86 329 eP 05 18.19 0.7
YEG 1.93 251 P 05 19.71 1.1
BONR 1.93 346 eP 05 18.43 -0.4
PKEM 1.94 270 eP 05 17.23 -1.4
TNP 2.04 11 ePn 05 19.54 -0.8
PARM 2.13 275 P 05 22.75 1.3
PDRM 2.16 278 P 05 23.20 1.4
PHAM 2.19 264 ePn 05 22.72 0.5
PEC 2.23 168 ePnd 05 21.83 -1.0
ePg 05 25.86
BRMM 2.61 288 P 05 30.51 2.2
LRC 2.69 275 P 05 30.90 1.4
PLM 2.81 165 ePnd 05 30.06 -1.2
ePg 05 36.11
CMB 2.89 313 ePn 05 31.66 -0.7
KVN 2.98 354 ePn 05 33.61 -0.2
ePg 05 40.67
MNHM 3.22 311 P 05 39.47 2.6
ARN 3.32 294 ePn 05 37.63 -0.7
ARUT 3.83 62 (Pn) 05 47.87 2.1
ePg 05 55.14
GLA 3.85 141 ePn 05 42.56 -3.4
ORV 4.58 320 (Pn) 05 57.50 1.2
MSU 5.05 60 (Pn) 06 02.67 -0.4
ePg 06 16.96
EMUT 6.61 54 (P) 06 24.73 -0.5
43 obs. associated

% DEC 14, 1993 18h 19m 55.10± 1.70s
41.630 N ±16.0km 24.217 E ± 7.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.5 (THE).

SRS 0.70 223 ePg 20 08.32 -0.5
eSg 20 17.92
SOH 1.04 219 ePg 20 14.80 0.1
eSg 20 27.68
KNT 1.10 245 iPg 20 15.12 -0.6
iSg 20 29.28
OUR 1.31 188 iPb 20 19.38 0.1
eSb 20 37.48
THE 1.37 224 ePb 20 20.48 0.2
eSb 20 38.56
GRG 1.52 244 ePb 20 23.16 0.7
eSb 20 42.28
ALN 1.56 117 ePb 20 22.72 -0.2
eSb 20 43.68
PAIG 1.75 194 ePb 20 25.80 0.2
eSb 20 50.12
S.D. = 0.5 on 8 of 8 obs.

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* DEC 14, 1993 19h 31m 20.19± 0.96s
16.457 S ± 9.6km 72.769 W ± 9.1km
DEPTH = 88.0 ± 9.4 km
4.5mb (4 obs.)
NEAR COAST OF PERU (115)
Felt (III) at Arequipa.

ARE 1.23 90 iPd 31 43.50 0.4
iS 32 01.50
LPAZ 4.46 88 P 32 26.20 -1.1
i 32 29.70
LPB 4.48 92 P 32 27.00 -0.5
CNCB 4.60 95 P 32 31.20 1.9
NNA 5.94 318 eP 32 46.50 -1.0
0.6s 2.00nm 3.6mb X
e 32 57.00
eS 33 52.00
SIV 11.24 89 P 33 55.90 -3.8X
RTLL 15.32 166 ePc 34 53.00 0.2
RTCB 15.39 167 ePc 34 53.50 -0.3
BAO 23.82 92 eP 36 26.10 -0.3
e 36 30.80
PV08 64.24 329 eP 41 48.72 0.2
SRU 65.58 328 eP 41 57.18 0.2
ULM 69.47 344 eP 42 23.00 2.2
LIC 70.67 77 P 42 28.06 -0.8
0.7s 3.50nm 4.4mb
KIC 70.98 77 Pc 42 30.18 -0.6
0.6s 13.00nm 5.0mb
LKO 71.30 74 Pc 42 32.15 -0.5
0.7s 7.00nm 4.6mb
YKA 85.26 342 eP 43 47.70 -0.2
0.7s 1.90nm 4.2mb
S.D. = 1.1 on 15 of 16 obs.

DEC 14, 1993 19h 42m 48.69± 0.78s
37.547 N ± 6.4km 141.346 E ± 7.5km
DEPTH = 67.3 ± 5.8 km
4.9mb (17 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

YAMJ 1.21 301 iPd 43 09.70 -0.4
eS 43 26.60
OFUJ 1.55 9 iPd 43 13.80 -0.9
eS 43 33.10
KAKJ 1.64 215 iPd 43 14.40 -1.4
S 43 32.70
NIIJ 1.89 261 iPd 43 19.40 0.0
CHJJ 2.41 232 iPd 43 25.90 -0.7
S 43 53.50
MAT 2.70 249 iPd 43 31.10 0.4
(S) 44 05.00
MTMJ 2.99 252 P 43 35.30 0.5
AOMJ 3.10 346 P 43 36.90 0.7
IIDJ 3.45 234 P 43 42.10 0.9
TSRJ 4.76 247 P 44 00.60 1.0
MRRJ 4.88 358 eP 44 01.80 0.6
eS 45 06.50
HOOJ 5.06 17 eP 44 02.30 -1.3
eS 44 58.80
WKYJ 5.73 236 P 44 13.50 0.3
KUSJ 6.11 24 eP 44 15.20 -3.2X
eS 45 19.90
ASAJ 6.64 8 eP 44 23.40 -2.3
YONJ 6.78 252 P 44 29.30 1.5
TKSJ 6.92 241 P 44 30.50 0.9
MDJ 11.33 312 eP 45 32.80 2.9
CN2 13.58 302 eP 46 00.00 0.4
0.8s 5.90nm 4.2mb
SNY 14.33 293 Pc 46 10.70 1.3
NJ2 19.25 260 Pc 47 10.60 0.2
TIA 19.41 273 eP 47 10.00 -2.2
BJI 19.76 285 eP 47 14.00 -1.7
TIY 22.86 279 eP 47 45.00 -2.1
HHC 23.26 287 P 47 49.60 -1.4
YAK 25.54 347 eP 48 13.30 1.0
1.0s 65.00nm 5.1mb
XAN 26.46 272 P 48 20.00 -1.2
0.6s 15.00nm 4.7mb
GYA 31.26 259 P 49 02.40 -1.9
1.0s 38.00nm 5.1mb
GTA 32.36 286 eP 49 12.60 -1.3
1.4s 6.00nm 4.2mb
KMI 34.99 261 eP 49 36.00 -0.8
0.8s 50.00nm 5.5mb
WMQ 40.56 296 P 50 24.00 1.0
0.8s 14.00nm 4.9mb
LSA 42.11 275 P 50 38.40 2.1
GUN 47.05 275 P 51 16.20 0.4
PKI 47.58 275 P 51 18.90 -1.1
KKN 47.58 275 P 51 20.20 0.4
0.7s 32.00nm 5.4mb
GKN 48.00 276 P 51 23.20 0.2
0.8s 27.00nm 5.3mb
INK 53.96 27 eP 52 08.00 0.8
WB2 57.56 188 eP 52 32.60 -1.0

0.5s 10.10nm 5.2mb
HYB 58.17 268 eP 52 37.50 -0.6
GBA 61.20 265 P 52 59.00 0.1
ASPA 61.29 188 eP 53 14.40 15.1X
1.3s 4.40nm
RES 62.12 14 eP 53 04.00 -0.3
1.0s 3.00nm 4.4mb
YKA 63.39 30 eP 53 12.10 -0.8
0.6s 1.30nm 4.1mb
KAF 67.83 333 iP 53 40.60 -0.7
0.4s 10.40nm 5.1mb
NUR 69.47 332 iP 53 50.90 -0.5
0.3s 6.40nm 5.0mb
HFS 73.60 336 eP 54 15.60 -0.4
0.4s 4.30nm 4.8mb
NB2 73.69 337 P 54 16.70 0.1
0.8s 6.40nm 4.6mb
LRM 73.82 44 ePc 54 18.90 1.0
PV10 80.48 49 eP 54 56.50 1.5
epP 55 12.36 56kmX
PV08 80.58 48 eP 54 56.77 1.1
GEC2 82.25 328 P 55 04.20 0.4
0.4s 1.02nm 4.1mb
GRF 82.60 330 eP 55 07.10 1.6
LPAZ 146.48 59 PKP 02 25.10 1.7
LPB 146.67 59 ePKP, 02 29.00 5.5X
CNCB 146.95 59 PKP 02 27.70 3.6X
SIV 150.79 49 PKP 02 35.40 6.0X
S.D. = 1.2 on 51 of 56 obs.

? DEC 14, 1993 20h 09m 36.58± 6.68s
12.232 S ±62.3km 120.037 E ±43.1km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
SOUTH OF SUMBA, INDONESIA (292)

MBL 8.88 181 eP 11 43.80 -1.9
0.2s 37.00nm 6.2mb X
e 11 46.60
eS 13 25.00
MTN 10.85 94 eP 12 12.00 -0.7
eS 14 11.00
MEEK 14.39 185 eP 13 01.00 1.0
0.3s 24.00nm 5.2mb X
eS 15 33.40
WARB 15.21 157 eP 13 14.00 3.3X
0.3s 4.00nm 4.2mb
eS 16 03.00
WB2 15.74 121 eP 13 18.60 1.0
eS 16 09.50
MRWA 17.32 192 eP 13 37.20 -0.3
0.3s 8.00nm 4.4mb
eS 16 39.00
ASPA 17.40 133 iPc 13 43.00 4.4X
eS 16 53.30
BAL 18.54 189 eP 13 53.50 0.9
COOL 18.59 177 eP 13 56.00 2.8X
KLB 19.38 186 eP 14 06.20 3.5X
eS 17 31.80
MUN 19.97 190 eP 14 12.50 3.5X
eS 17 41.20
NWAO 20.76 187 eP 14 22.80 5.6X
RKG 22.41 187 eP 14 45.80 12.1X
S.D. = 1.5 on 6 of 13 obs.

DEC 14, 1993 21h 07m 48.38± 0.49s
52.158 N ± 8.5km 159.488 E ± 7.6km
DEPTH = 33.0km (normal)
4.7mb (33 obs.)
OFF EAST COAST OF KAMCHATKA (219)

PET 1.00 330 iPnd 08 09.00 2.9
eS 08 24.00
SKR 2.59 236 ePn 08 29.50 0.6
iS 09 03.00
YAK 18.77 313 iPd 12 04.90 -1.9
0.8s 47.00nm 4.7mb
eS 15 43.00
MAT 21.68 232 iPd 12 39.80 1.8
0.9s 17.65nm 4.5mb
BOD 26.19 301 eP 13 22.70 1.4
0.7s 7.00nm 4.4mb
IMA 26.99 41 eP 13 28.70 0.0
1.1s 8.44nm 4.3mb
ZAK 34.46 290 eP 14 33.60 -1.1
1.0s 8.00nm 4.6mb
INK 34.84 37 eP 14 37.50 -0.3
LZH 41.97 270 P 15 37.60 -0.2
1.0s 24.00nm 4.9mb
NVS 43.35 305 iPc 15 45.80 -2.8
YKA 44.11 42 eP 15 53.70 -0.9
0.6s 1.10nm 3.8mb
RES 44.33 21 eP 15 56.50 0.2
DAG 51.34 359 iPc 16 50.50 -0.4
0.9s 13.45nm 4.9mb
CHTO 57.35 258 ePc 17 36.00 0.4
0.8s 10.98nm 4.9mb
GUN 58.63 276 P 17 44.20 -0.7
KKN 59.08 276 P 17 47.20 -0.7
0.5s 15.00nm 5.4mb
PKI 59.16 276 P 17 48.00 -0.6
DMN 59.32 276 P 17 49.20 -0.4
0.6s 24.00nm 5.5mb
GKN 59.32 277 P 17 48.70 -0.8
0.8s 26.00nm 5.4mb
KAF 60.20 337 iP 17 54.40 -0.5
0.5s 3.10nm 4.7mb
RSSD 60.24 56 eP 17 55.36 -0.3
0.7s 8.73nm 5.0mb
e 18 08.04 45kmX
SRU 60.33 64 eP 17 56.24 -0.1
e 18 09.41 47kmX
NUR 61.99 337 eP 18 05.90 -1.1
1.0s 21.60nm 5.2mb
UPP 64.18 340 iP 18 20.90 -0.5
NB2 64.34 344 P 18 21.50 -1.0
0.9s 6.20nm 4.7mb
HFS 64.73 342 eP 18 23.50 -1.5
0.8s 12.00nm 5.0mb
HYB 70.91 274 eP 19 03.50 -0.8
OJC 72.43 334 eP 19 13.00 0.2
CLL 73.09 339 iP 19 15.70 -1.0
1.5s 19.00nm 4.9mb
i 19 32.90 63kmX
PRU 73.97 337 eP 19 22.50 0.7
GBA 74.52 272 P 19 26.00 0.6
MLR 74.85 328 eP 19 28.00 0.9
ZST 75.00 335 e(P) 19 27.00 -0.7
KHC 75.00 338 eP 19 28.60 0.8
1.0s 5.40nm 4.5mb
e 19 44.50 57kmX
WB2 75.07 204 eP 19 28.10 -0.3
0.8s 11.80nm 4.9mb
GEC2 75.24 337 P 19 29.30 0.0
0.6s 1.10nm 4.1mb
e 19 37.50 26kmX
e 19 42.30
e 19 44.70
CDF 77.04 341 eP 19 39.40 0.0
0.9s 4.10nm 4.5mb
BSF 77.69 342 eP 19 42.70 -0.3
1.0s 6.00nm 4.6mb
LBF 79.03 343 eP 19 50.30 0.0
0.9s 4.40nm 4.5mb
SSF 79.04 344 eP 19 50.50 0.2
1.1s 8.80nm 4.7mb
AVF 79.33 344 eP 19 52.20 0.4
1.2s 14.30nm 4.8mb
VAY 79.68 328 eP 19 54.30 0.5
LPL 79.92 341 eP 19 56.50 1.2
0.9s 5.90nm 4.6mb
LPG 79.93 341 eP 19 56.70 1.2
1.1s 13.65nm 4.9mb
TCF 80.01 344 eP 19 56.10 0.5
1.0s 6.80nm 4.6mb
MAF 80.01 344 eP 19 56.40 0.8
1.1s 11.00nm 4.8mb
CAF 81.36 344 eP 20 04.10 1.4
0.7s 4.20nm 4.6mb
LPO 81.74 345 eP 20 05.70 1.1
1.3s 35.00nm 5.2mb
EPF 83.49 345 eP 20 15.10 1.3
1.0s 10.00nm 4.9mb
S.D. = 1.0 on 49 of 49 obs.

* DEC 14, 1993 21h 41m 51.14± 0.50s
0.504 N ±10.5km 126.271 E ±15.9km
DEPTH = 33.0km (normal)
4.9mb (10 obs.)
NORTHERN MOLUCCA SEA (266)

WB2 21.81 159 iPd 46 41.20 -1.3
0.6s 73.90nm 5.3mb
e 47 08.80
QIS 24.67 149 eP 47 11.80 1.4
ASPA 25.14 163 eP 47 14.50 -0.5
0.5s 38.30nm 5.3mb
Z 22s 0.20um 3.6Msz
eS 51 29.10
FORT 31.16 177 eP 48 08.50 -0.8
0.3s 13.00nm 5.2mb
STK 35.33 157 eP 48 44.30 -1.1
1.0s 7.00nm 4.5mb
MAT 37.53 16 eP 49 03.00 -1.0
0.8s 7.46nm 4.6mb
ARMA 39.09 144 eP 49 19.80 2.5
0.8s 9.00nm 4.6mb
BJI 40.41 348 eP 49 29.50 1.6
1.0s 6.00nm 4.3mb
LZH 41.08 332 eP 49 33.00 -0.6
1.5s 13.00nm 4.4mb
Z 22s 0.31um 4.1Msz
sP 49 40.00
GUN 47.31 309 P 50 23.20 -1.0
0.7s 12.00nm 5.0mb
PKI 47.52 308 P 50 26.20 0.3
KKN 47.72 308 P 50 26.90 -0.4
DMN 47.77 308 P 50 28.00 0.2
HYB 49.84 292 eP 50 44.50 0.9
GBA 50.06 287 P 50 46.00 0.8
YAK 61.41 2 iPc 52 05.50 -0.7
0.7s 32.00nm 5.6mb
LKO 131.05 283 PKP 01 01.93 -0.4
0.6s 1.50nm
S.D. = 1.2 on 17 of 17 obs.

& DEC 14, 1993 22h 26m 34.26s
63.425 N 151.157 W
DEPTH = 9.0km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC).

KTH 0.17 39 iP 26 37.83 -0.2
TRF 0.39 86 iP 26 41.89 -0.4
eS 26 47.57
HUR 0.82 122 eP 26 49.60 -0.7
RND 1.04 90 eP 26 53.21 -0.8
MCK 1.04 72 eP 26 53.21 -0.8
BWN 1.06 44 eP 26 54.64 0.3
eS 27 10.10
CUT 1.10 158 eP 26 55.00 0.0
SKT 1.46 187 eP 27 00.90 0.1
eS 27 20.08
NEA 1.48 37 eP 27 00.77 -0.2
MLY 1.62 6 eP 27 01.50 -1.7
eS 27 24.59
WRH 1.71 51 eP 27 02.48 -1.9
DHY 1.75 100 eP 27 04.93 -0.1
eS 27 28.88
PWA 1.88 161 P 27 07.00 0.2
CCB 1.92 49 eP 27 05.02 -2.3
GHO 1.95 147 eP 27 07.90 -0.1
eS 27 33.31
SUA 1.98 174 eP 27 08.24 -0.1
MDM 2.00 38 eP 27 08.59 -0.1
eS 27 35.08
PLRM 2.07 152 eP 27 09.93 0.4
NCG 2.08 193 eP 27 09.75 -0.1
SML 2.08 140 eP 27 09.58 -0.2
FBA 2.09 43 eP 27 10.64 0.8
HDA 2.10 60 eP 27 11.65 1.6
CGLM 2.16 191 eP 27 11.21 0.2
CRP 2.22 193 eP 27 11.84 0.0
CP2 2.23 194 eP 27 11.89 -0.2
BGL 2.24 195 eP 27 13.01 0.8
TTA 2.26 259 P 27 13.80 1.4
CKN 2.26 193 eP 27 12.63 0.2
eS 27 44.42
GLM 2.28 45 eP 27 11.84 -0.8
CKT 2.29 193 eP 27 13.47 0.7
SPU 2.29 191 eP 27 13.11 0.3
CKL 2.30 194 eP 27 14.12 1.0
PMS 2.31 160 P 27 13.80 0.7
KNK 2.38 147 eP 27 14.46 0.4
SCM 2.38 130 eP 27 15.62 1.4
DDM 2.39 79 eP 27 16.23 1.9
BKG 2.42 193 eP 27 14.78 0.1
DJE 2.51 74 eP 27 17.96 2.1
PAX 2.62 97 eP 27 18.94 1.4
TOA 2.65 118 P 27 18.20 0.3
IMA 2.87 339 eP 27 18.82 -2.3

14d 22h

DFR 2.93 195 eP 27 23.25 1.3
SLKM 2.96 171 eP 27 23.73 1.4
NCT 2.99 197 eP 27 25.28 2.5
REF 3.04 195 eP 27 25.34 1.8
RDW 3.05 196 eP 27 24.75 1.0
MPA 3.07 163 eP 27 25.25 1.5
KLU 3.11 126 eP 27 25.50 1.0
SVW 3.12 224 P 27 23.30 -1.3
PRP 3.22 47 eP 27 24.01 -2.1
50 obs. associated

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* DEC 14, 1993 23h 45m 30.72± 2.08s
31.837 S ± 8.7km 72.095 W ±18.1km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)
MD 4.2 (SAN).

ROCH 1.46 141 iP+ 45 54.92 -0.3
iS 46 14.74
JACH 1.53 124 iP+ 45 55.25 -0.8
iS 46 15.44
LCCH 1.69 165 iPd 45 58.59 0.2
PEL 1.77 138 iPd 45 59.39 -0.1
iS 46 23.73
SAN 2.01 144 eP 46 02.90 -0.2
TACH 2.06 152 iPd 46 04.14 0.5
iS 46 30.47
FCH 2.13 135 iPd 46 04.55 -0.4
iS 46 32.60
LNV 2.19 165 iP 46 05.02 -0.5
PCH 2.22 144 iP+ 46 05.97 -0.1
CACH 2.60 151 iP+ 46 12.48 1.0
iS 46 44.05
RTRS 2.81 54 e(P) 46 13.60 -0.6
RTCB 2.83 84 eP 46 15.00 0.3
S 46 57.20
RTCV 3.03 91 e(P) 46 17.50 0.0
RTLL 3.13 82 eP 46 19.50 0.5
S 46 57.20
CFA 3.29 87 eP 46 21.50 0.3
S 47 10.10
RTPR 5.03 74 eP 46 46.00 0.2
S.D. = 0.5 on 16 of 16 obs.

DEC 15, 1993 00h 23m 26.77± 0.31s
0.463 N ± 6.3km 126.211 E ± 7.1km
DEPTH = 45.4km (4 depth phases)
5.1mb (23 obs.) 4.6Msz (5 obs.)
NORTHERN MOLUCCA SEA (266)

AAI 4.57 154 eP 24 36.00 0.7
e(S) 25 21.00
eS 26 19.50
SWI 5.22 105 ePd 24 43.50 -0.8
DAV 6.61 355 eP 25 16.90 13.0X
CTB 6.99 343 ePd 25 11.00 1.8
BIP 7.71 0 ePc 25 28.40 9.1X
MKS 8.78 230 iPd 25 35.70 1.6
TSM 9.16 295 eP 25 40.50 1.2
BAG 16.79 341 ePc 27 21.00 0.4
WWKK 17.87 103 eP 27 35.50 1.6
WB2 21.79 159 iPc 28 15.20 -1.6
0.8s 48.00nm 5.0mb
ipP 28 26.60 46km
ePP 28 47.80
eScP 31 47.70
eS 32 16.00
MBL 22.38 196 eP 28 22.20 -0.4
PMG 23.05 116 eP 28 28.00 -1.2
QIS 24.66 149 iPc 28 44.80 -0.1
ASPA 25.12 163 iPd 28 48.50 -0.7
0.9s 141.00nm 5.5mb
Z 23s 0.40um 3.9MszX
eS 33 11.70
IPM 25.49 280 ePc 28 55.20 2.5
0.6s 176.60nm 5.8mb
NST 29.85 302 eP 29 29.00 -3.3X
FORT 31.12 177 eP 29 42.60 -0.7
0.5s 53.00nm 5.6mb
GYA 31.97 325 P 29 49.60 -1.4
0.8s 14.00nm 4.9mb
CHTO 32.38 306 eP 29 52.50 -2.0
KMI 33.40 319 eP 30 04.00 0.4
1.5s 50.00nm 5.2mb
STK 35.31 157 eP 30 18.30 -1.4
ipP 30 30.70 46km
CD2 37.02 327 eP 30 31.70 -2.5
Z 20s 0.94um 4.6Msz
XAN 37.12 336 P 30 33.00 -2.0
0.8s 14.00nm 4.9mb
MAT 37.58 16 eP 30 30.00 -8.8X
1.5s 47.22nm 5.2mb
ARMA 39.09 144 iPc 30 51.30 -0.3
0.9s 28.00nm 5.1mb
TIY 39.18 343 eP 30 51.20 -1.1
Z 32s 1.15um 4.5MszX
BJI 40.44 348 eP 31 03.50 1.1
1.0s 6.00nm 4.3mb
Z 20s 0.36um 4.2Msz
LZH 41.08 332 eP 31 12.50 4.5X
1.2s 32.00nm 4.9mb
Z 20s 0.79um 4.6Msz
pP 31 15.00 8kmX
CAN 41.47 151 eP 31 11.40 0.3
i 31 23.30 43km
HHC 42.34 343 P 31 21.40 3.2X
1.0s 68.00nm 5.3mb
LSA 44.27 314 P 31 35.50 1.1
0.8s 13.00nm 4.8mb
DZM 45.16 122 iPc 31 38.70 -2.6
GTA 45.65 331 eP 31 43.70 -1.3
1.0s [illegible]nm 4.7mb
Z 20s [illegible]um 4.8Msz
GUN 47.29 309 [illegible] 31 57.20 -1.1
0.8s 42.00nm 5.5mb
PKI 47.50 308 P 31 59.10 -0.9
KKN 47.70 308 P 31 59.90 -1.5
DMN 47.75 308 P 32 00.70 -1.2
GKN 48.30 308 P 32 04.80 -1.2
1.0s 32.00nm 5.3mb
HYB 49.80 293 eP 32 17.00 -0.6
1.0s 25.00nm 5.2mb
GBA 50.01 287 P 32 19.00 -0.1
POO 54.41 293 eP 32 45.00 -7.1X
POO 54.41 293 eP 33 05.50 13.4X
WMQ 55.12 327 Pd 32 55.50 -1.4
0.7s 21.00nm 5.3mb
Z 20s 0.80um 4.8Msz
ScP 37 55.00
ScS 42 41.00
MAIO 71.09 308 eP 34 42.00 -0.8
SDN 80.16 34 (P) 35 33.22 -0.4
0.9s 102.93nm 5.8mb
TAB 81.75 308 eP 35 43.00 0.4
TTA 84.03 27 eP 35 52.88 -0.8
1.1s 18.07nm 5.1mb
e 35 59.05 19kmX
IMA 85.56 24 eP 36 01.56 0.2
0.6s 2.74nm 4.6mb
SLKM 86.42 30 eP 36 05.95 0.4
PMR 87.04 28 (P) 36 09.33 0.8
FBA 87.88 25 eP 36 15.00 2.5
OBN 89.40 325 eP 36 19.00 -0.9
0.9s 18.00nm 5.4mb
e 36 33.00 47km
e 36 48.00
BALM 90.30 29 (P) 36 24.47 0.3
INK 93.37 21 eP 36 38.00 0.0
MBC 95.23 13 eP 36 47.50 1.0
RES 101.10 10 ePdiff37 13.50 0.6
YKA 102.67 25 ePdiff37 21.90 1.8
0.7s 0.50nm 4.3mb
KIC 130.58 279 PKP 42 37.80 2.3
0.6s 8.50nm
LIC 130.88 279 PKP 42 38.28 2.3
0.5s 1.50nm
LKO 131.00 283 PKP 42 37.53 1.3
0.8s 2.50nm
RTCB 146.03 157 ePKPd 43 04.50 1.3
RTLL 146.30 157 ePKPd 43 05.20 1.6
MOCB 156.32 152 PKP 43 32.20 13.1X
CNCB 158.57 140 ePKP 43 40.00 17.9X
LPB 158.70 139 (PKP) 43 36.00 14.0X
LPAZ 158.85 139 PKP 43 35.60 13.1X
SIV 162.98 155 PKP 43 27.20 1.3
S.D. = 1.4 on 55 of 67 obs.

? DEC 15, 1993 01h 02m 50.28± 1.02s
23.194 N ±32.6km 94.017 E ±26.4km
DEPTH = 130.9 ± 15.0 km
4.1mb (2 obs.)
MYANMAR-INDIA BORDER REGION (294)

SHL 3.06 321 iPn 03 37.70 -0.8
iSn 04 11.50
CHTO 6.34 133 eP 04 23.50 0.9
GUN 8.72 304 P 04 55.40 0.3
PKI 8.92 301 P 04 57.80 0.0
KKN 9.12 302 P 05 00.60 0.2
0.3s 15.00nm 5.2mb X
DMN 9.18 300 P 05 01.40 0.2
0.4s 20.00nm 5.2mb X
GKN 9.72 301 P 05 08.00 -0.4
WRA 58.18 134 P 12 31.40 -1.5
0.5s 0.60nm 3.8mb
HFS 65.39 327 eP 13 21.70 1.2
0.4s 1.80nm 4.4mb
S.D. = 1.1 on 9 of 9 obs.

DEC 15, 1993 01h 36m 56.80± 0.45s
49.154 N ± 3.8km 6.820 E ± 5.1km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.5 (STR).

RUP 0.57 16 ePg 37 07.70 -0.7
LANF 0.67 105 Pg 37 09.77 -0.4
WLF 0.67 320 iPd 37 10.00 -0.1
SRBF 0.72 109 Pg 37 11.47 0.5
HOFF 0.78 105 Pg 37 12.19 0.2
CDF 0.80 158 Pg 37 12.44 0.0
WLS 0.82 154 Pg 37 11.69 -1.0
ABH 0.87 33 ePg 37 12.80 -0.7
VITF 1.09 211 Pg 37 16.56 -0.7
Sg 37 31.51
MOF 1.32 171 Pg 37 21.62 0.4
Sg 37 39.29
BSF 1.32 181 Pg 37 21.32 0.0
Sg 37 39.36
FEL 1.50 148 Pg 37 25.18 1.2
Sg 37 44.70
ENN 1.72 341 ePg 37 28.50 1.7
0.7s 21.10nm
eSg 37 51.00
DOU 1.73 304 P 37 26.80 -0.2
i 37 29.00
iS 37 49.70
SNF 2.13 311 iP 37 36.40 3.5X
GRF 2.92 78 ePg 37 52.70 8.5X
eSg 38 30.50
S.D. = 0.8 on 14 of 16 obs.

DEC 15, 1993 01h 43m 55.88± 0.47s
49.137 N ± 4.0km 6.888 E ± 5.5km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.6 (STR).

RUP 0.58 11 ePg 44 06.80 -0.8
LANF 0.62 104 Pg 44 08.22 -0.2
SRBF 0.67 109 Pg 44 09.57 0.3
WLF 0.71 318 iPd 44 10.00 0.1
HOFF 0.73 105 Pg 44 10.22 -0.1
Sg 44 23.18
CDF 0.77 160 Pg 44 10.07 -0.9
WLS 0.79 157 Pg 44 10.38 -0.9
Sg 44 21.64
ABH 0.86 30 ePg 44 11.80 -0.7
VITF 1.10 213 Pg 44 15.47 -1.0
MOF 1.30 173 Pg 44 19.95 0.0
Sg 44 37.83
BSF 1.31 183 Pg 44 19.95 -0.2
FEL 1.47 149 Pg 44 23.35 0.9
Sg 44 42.72
SLE 1.74 141 P 44 25.90 -0.4
ENN 1.75 339 iPgc 44 28.50 2.1
0.5s 16.70nm
iSg 44 50.50
DOU 1.77 304 P 44 25.80 -1.0
ic 44 28.40
iS 44 47.60
LOMF 1.79 181 Pg 44 29.07 2.0
SNF 2.18 310 iP 44 37.40 4.8X
GRF 2.88 77 ePg 44 53.50 10.8X
eSg 45 26.60
VDL 3.17 146 iPc 44 47.80 0.8
S.D. = 1.0 on 17 of 19 obs.

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* DEC 15, 1993 02h 09m 57.68± 0.70s
23.389 N ± 8.0km 126.051 E ±10.8km
DEPTH = 34.9km (2 depth phases)

4.2mb (11 obs.)
SOUTHEAST OF RYUKYU ISLANDS (239)

CVP 6.90 216 eP 11 37.00 -2.2
DL2 15.92 347 eP 13 41.50 0.8
MAT 16.79 36 (P) 13 44.00 -7.8X
eS 17 03.00
GYA 17.85 284 P 14 05.00 -0.2
1.0s 13.00nm 4.0mb
XAN 18.37 309 P 14 11.00 -0.5
1.0s 15.00nm 4.1mb
Z 12s 1.01um 3.6Msz
TIY 18.44 324 eP 14 11.60 -0.8
Z 16s 1.07um
E 14s 1.60um
BJI 18.58 336 eP 14 12.50 -1.4
1.2s 8.00nm 3.8mb
Z 16s 1.46um 7.6MszX
E 14s 1.12um
CD2 21.18 296 eP 14 42.60 0.1
Z 14s 1.35um 4.5MszX
N 11s 1.16um
HHC 21.25 328 P 14 40.80 -2.3
1.0s 20.00nm 4.5mb
N 13s 0.67um
E 13s 1.37um
S 19 30.40
KMI 21.32 279 eP 14 46.00 1.9
1.5s 60.00nm 4.8mb
LZH 23.00 308 eP 14 59.50 -1.1
1.4s 18.00nm 4.4mb
Z 14s 0.54um 4.1MszX
sP 15 10.50
GUN 36.38 286 P 17 01.80 0.7
PKI 36.81 285 P 17 05.40 0.7
KKN 36.91 286 P 17 06.30 0.8
DMN 37.08 285 P 17 07.60 0.7
GKN 37.47 286 P 17 10.60 0.5
YAK 38.69 3 eP 17 19.00 -0.6
1.3s 26.00nm 4.9mb
Z 16s 0.50um 4.4MszX
e 17 30.00 39km
WRA 43.82 169 P 18 02.20 0.0
0.7s 3.50nm 4.2mb
WB2 43.82 169 iPc 18 02.20 0.0
1.0s 8.40nm 4.5mb
epP 18 11.40 31km
MAIO 58.13 299 eP 19 51.00 0.5
INK 72.27 23 eP 21 22.00 0.9
MBC 73.04 13 eP 21 38.00 12.5X
RES 78.69 10 eP 22 02.50 5.1X
NB2 80.97 333 P 22 12.20 2.3
0.4s 0.40nm 3.8mb
YKA 81.92 24 eP 22 14.00 -0.8
1.0s 0.80nm 3.7mb
S.D. = 1.2 on 22 of 25 obs.

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* DEC 15, 1993 02h 58m 36.24± 2.86s
33.356 S ±17.1km 68.119 W ±23.8km
DEPTH = 10.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)
MD 4.0 (SAN).

RTCV 1.53 347 eP 59 03.10 -0.6
CFA 1.75 357 ePd 59 07.00 0.2
S 59 31.60
FCH 1.82 270 iPd 59 07.97 -0.1
(S) 59 30.01
ZON 1.87 345 eP 59 08.00 -0.5
PCH 2.02 262 iPd 59 11.06 0.3
iS 59 36.86
PEL 2.16 275 iPd 59 12.73 -0.1
iS 59 40.23
JACH 2.18 287 iP+ 59 13.69 0.5
iS 59 40.29
CACH 2.20 249 iP 59 14.20 0.7
iS 59 42.88
TACH 2.37 262 eP 59 16.11 0.3
iS 59 47.41
ROCH 2.46 278 iP 59 17.26 0.1
iS 59 48.87
LNV 2.81 257 iP+ 59 21.40 -0.6
(S) 59 59.92
LCCH 2.89 267 iP+ 59 22.24 -0.9
(S) 00 02.54
RTPR 3.34 25 e(P) 59 38.00 8.5X
RTRS 3.38 340 eP 59 31.00 1.0

S.D. = 0.6 on 13 of 14 obs.

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* DEC 15, 1993 04h 01m 15.74± 1.28s
9.846 N ±10.3km 126.494 E ±14.9km
DEPTH = 33.0km (normal)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 1.63 189 ePc 01 43.00 0.5
eS 02 05.00
PLP 1.98 311 ePd 01 47.50 -0.2
eS 02 02.50
CGP 2.25 232 eP 01 50.50 -0.9
eS 02 18.00
MAP 2.52 281 ePc 01 56.00 0.7
iS 02 26.00
YKA 94.05 24 eP 14 31.50 -0.2
0.6s 0.30nm 3.9mb
S.D. = 0.9 on 5 of 5 obs.

DEC 15, 1993 04h 43m 30.60± 0.96s
17.888 S ± 8.5km 175.122 W ± 4.8km
DEPTH = 248.7 ± 9.5 km
5.1mb (19 obs.)
TONGA ISLANDS (173)

AFI 5.10 40 eP 44 49.00 0.8
DZM 17.82 253 iPc 47 23.50 -0.3
AFR 24.14 93 iPd 48 25.50 -0.3
1.1s 71.30nm 5.1mb
PAE 24.32 93 iPd 48 27.20 -0.2
1.3s 184.80nm 5.5mb
PPT 24.33 93 iPd 48 27.50 0.0
1.1s 168.50nm 5.5mb
PPN 24.47 93 iPd 48 28.60 -0.2
1.3s 111.90nm 5.2mb
TVO 24.62 94 iPd 48 30.30 0.0
1.3s 195.00nm 5.5mb
PMO 26.26 88 iPd 48 44.90 -0.2
1.6s 347.00nm 5.7mb
VAH 26.47 88 iPd 48 46.50 -0.5
1.2s 116.00nm 5.4mb
TPT 26.53 88 iPd 48 47.20 -0.3
1.5s 406.40nm 5.8mb
RUV 26.72 88 iPd 48 48.70 -0.5
1.0s 109.60nm 5.4mb
ARMA 32.68 241 iPc 49 42.10 0.3
0.6s 10.00nm 4.6mb
CNB 35.95 234 iPc 50 10.10 0.8
0.9s 23.00nm 4.7mb
CAN 36.23 234 iPd 50 12.20 0.5
TOO 39.63 232 iPc 50 40.30 0.4
0.7s 36.00nm 5.0mb
WB2 47.70 259 iPd 51 43.40 -1.1
1.0s 45.90nm 4.8mb
eS 57 49.30
WRA 47.71 259 P 51 43.70 -0.9
0.9s 14.50nm 4.3mb
ASPA 47.81 254 iPc 51 44.90 -0.4
0.8s 157.50nm 5.4mb
iS 58 17.80
WARB 54.24 250 iPc 52 32.20 -1.2
0.3s 3.00nm 4.4mb
LGPM 75.98 38 eP 54 52.42 0.4
RMW 80.69 33 eP 55 17.06 -0.2
CP2 80.98 11 eP 55 17.36 -1.3
CRP 81.00 11 (P) 55 16.71 -2.0
MSU 81.35 45 (P) 55 21.83 0.8
HVU 82.65 42 eP 55 27.77 0.1
SRU 82.76 45 ePd 55 28.71 0.4
BALM 82.93 15 (P) 55 27.54 -1.1
LTX 83.36 56 ePc 55 31.94 0.5
PV09 83.41 46 eP 55 32.62 0.9
PV10 83.41 46 ePd 55 31.92 0.2
PV08 83.78 46 eP 55 34.32 0.7
LRM 84.98 39 eP 55 39.70 0.4
FBA 85.14 11 ePc 55 38.38 -1.0
0.8s 19.01nm 5.0mb
BJI 85.99 314 eP 55 45.00 0.9
1.0s 7.00nm 4.4mb
INK 91.07 14 eP 56 07.00 -0.4
0.9s 2.00nm 4.1mb X
YKA 93.02 24 eP 56 15.40 -1.1
0.7s 1.10nm 4.0mb X
LZH 93.37 307 eP 56 20.00 1.1
1.6s 30.00nm 5.1mb
sP 56 32.00
OJC 145.59 343 ePKP 02 41.00 0.5
KSP 145.88 347 iPKPc 02 41.40 0.4
CLL 146.03 351 iPKPc 02 41.90 0.7
1.3s 46.00nm
BRG 146.30 350 iPKP 02 43.40 1.8
1.4s 36.00nm
SPC 146.39 342 ePKP 02 41.20 -0.9
VRI 146.72 332 ePKPd 02 45.00 2.5X
MOX 146.88 352 ePKP 02 45.00 2.4X
2.1s 59.00nm
PRU 147.05 349 PKPc 02 45.10 2.3X
MLR 147.36 332 ePKPd 02 46.50 2.8X
GRF 147.86 352 ePKP 02 47.80 3.6X
id 02 50.90
ZST 148.17 344 ePKP 02 47.80 3.1X
SRO 148.19 343 ePKP 02 45.80 1.1
GEC2 148.30 349 PKP 02 48.50 3.5X
1.0s 6.34nm
e 02 53.20
FLN 148.90 7 ePKP 02 49.70 3.9X
LDF 149.10 6 ePKP 02 50.30 4.2X
GRR 149.22 7 ePKP 02 50.80 4.5X
0.5s 10.50nm
CDF 149.49 357 ePKP 02 51.70 4.8X
LPF 149.55 8 ePKP 02 51.60 4.8X
HAU 149.94 358 ePKP 02 52.70 5.2X
0.4s 4.10nm
KBA 150.06 348 iPKPc 02 52.10 4.2X
0.9s 6.90nm
i 02 59.80
BSF 150.09 357 ePKP 02 52.80 5.0X
0.5s 2.50nm
WATA 150.12 351 iPKPc 02 52.60 4.7X
i 02 59.50
MOTA 150.18 351 iPKPc 02 52.80 4.8X
0.9s 12.60nm
i 02 59.80
WTTA 150.18 351 iPKPc 02 53.00 4.9X
0.4s 10.50nm
SQTA 150.29 351 iPKPc 02 53.10 5.0X
0.9s 12.20nm
LOR 150.69 1 ePKP 02 54.50 5.9X
0.4s 4.60nm
SSF 150.88 2 ePKP 02 55.00 6.1X
LBF 150.97 1 ePKP 02 55.10 6.0X
0.5s 3.85nm
MFF 151.07 7 ePKP 02 55.10 6.0X
AVF 151.15 2 ePKP 02 55.20 5.9X
SMF 151.31 1 ePKP 02 55.50 6.0X
BGF 151.36 3 ePKP 02 56.00 6.4X
0.5s 9.90nm
LSF 151.58 5 ePKP 02 56.00 6.0X
0.7s 9.50nm
TCF 151.59 4 ePKP 02 56.30 6.3X
0.4s 3.20nm
MAF 151.68 3 ePKP 02 56.90 6.8X
0.6s 6.50nm
LPL 152.41 357 ePKP 02 59.40 7.9X
0.6s 2.05nm
LPG 152.43 357 ePKP 02 59.50 7.9X
0.6s 2.05nm
S.D. = 0.8 on 43 of 74 obs.

DEC 15, 1993 05h 30m 22.39± 0.43s
2.347 S ± 7.4km 151.682 E ± 8.7km
DEPTH = 61.2km (2 depth phases)
4.7mb (5 obs.)
NEW IRELAND REGION, P.N.G. (190)

KVG 0.90 255 iPd 30 39.50 0.2
LAT 6.34 227 eP 32 00.00 4.6X
PMG 8.33 212 eP 32 25.00 2.0
MTN 22.86 242 eP 35 21.80 0.3
0.6s 109.00nm 5.5mb X
DZM 24.30 145 iPd 35 36.20 0.7
WB2 24.34 223 iPd 35 35.60 -0.3
0.4s 206.40nm 6.0mb X
ipP 35 51.30 67km
ASPA 27.30 218 iPc 36 01.80 -1.6
0.5s 9.10nm 4.6mb
Z 23s 0.20um 3.6MszX
ARMA 27.92 180 eP 36 08.80 -0.2
0.9s 15.00nm 4.6mb
WARB 33.77 223 iPc 36 59.40 -1.2
0.3s 13.00nm 5.4mb X
MBL 36.21 236 iPc 37 20.20 -1.2
0.3s 20.00nm 5.5mb X
GUN 69.91 301 P 41 30.50 0.7

15d 05h

PKI 70.23 300 P 41 31.40 -0.4
KKN 70.40 300 P 41 33.00 0.4
DMN 70.50 300 P 41 34.00 0.7
GKN 71.00 301 P 41 36.60 0.4
0.6s 10.00nm 4.9mb
HYB 74.65 289 eP 41 57.50 -0.1
SLKM 76.94 26 (P) 42 09.24 -0.5
FBA 80.04 22 eP 42 26.00 -0.6
1.0s 20.00nm 5.0mb
pP 42 41.60 55km
BALM 80.65 27 (P) 42 30.17 0.2
INK 86.58 21 eP 43 00.50 0.7
YKA 93.79 28 eP 43 33.50 -0.2
0.8s 1.80nm 4.6mb
RES 98.32 14 eP 44 11.00 16.9X
CNCB 136.47 117 ePKP 50 00.00 19.2X
LPB 136.47 117 (PKP) 50 03.00 22.3X
LPAZ 136.53 117 PKP 49 57.80 16.8X
i 50 38.70
S.D. = 0.9 on 20 of 25 obs.

DEC 15, 1993 08h 04m 02.20± 0.53s
38.895 N ± 4.3km 122.423 W ± 8.0km
DEPTH = 5.0km (geophysicist)
NORTHERN CALIFORNIA (36)
ML 2.8 (GS).

NTYM 0.54 200 eP 04 12.61 -0.4
HMR 0.89 146 (P) 04 20.23 0.6
ORV 0.97 47 eP 04 20.94 -0.2
ARN 1.70 155 eP 04 31.56 -1.1
COE 1.74 160 (P) 04 34.13 0.9
KMPM 2.01 320 eP 04 37.79 0.6
LGPM 2.04 351 eP 04 37.84 0.1
FHC 2.25 328 eP 04 40.32 -0.4
LBFM 2.48 9 (P) 04 44.01 -0.1
S.D. = 0.7 on 9 of 9 obs.

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* DEC 15, 1993 08h 29m 53.76± 0.89s
42.109 N ±10.3km 118.020 W ± 5.5km
DEPTH = 5.0km (geophysicist)
OREGON (32)
ML 3.3 (GS).

KVN 3.05 181 (Pn) 30 42.93 -0.9
eLg 31 25.19
LMEM 3.10 241 (P) 30 44.51 0.1
eS 31 15.85
ORV 3.67 227 eP 30 51.58 -0.8
LGPM 3.80 253 eP 30 54.94 0.5
HVU 3.93 93 (Pn) 30 56.82 0.6
ePg 31 23.07
VGB 3.95 331 (Pn) 31 05.25 8.9X
TNP 4.07 171 (Pn) 30 58.45 0.2
ePg 31 13.30
PTI 4.25 78 (Pn) 31 00.01 -0.7
DUG 4.37 114 ePn 31 02.70 0.2
ePg 31 28.93
eS 32 26.87
MEMM 4.49 189 (Pn) 31 04.88 0.9
BGMT 5.34 52 ePn 31 50.50 34.1X
ARUT 5.57 139 (Pn) 31 19.30 -0.2
MSU 5.73 127 (P) 31 40.45 18.6X
S.D. = 0.7 on 10 of 13 obs.

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* DEC 15, 1993 09h 08m 30.64± 1.38s
40.422 N ±10.7km 21.837 E ± 9.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.8 (THE).

FNA 0.50 316 ePg 08 40.96 0.1
eSg 08 49.28
LIT 0.59 122 ePg 08 42.50 -0.2
eSg 08 51.20
GRG 0.69 39 ePg 08 43.64 -0.6
eSg 08 53.76
VAY 1.06 32 ePn 08 50.70 0.2
SOH 1.22 70 ePb 08 53.96 0.5
eSb 09 10.00
S.D. = 0.6 on 5 of 5 obs.

? DEC 15, 1993 09h 30m 47.46± 2.44s
18.270 N ±14.6km 101.169 W ±22.5km
DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

MRX 1.43 359 iP 31 11.00 -0.2
iS 31 28.50
ACX 1.87 138 iP 31 18.00 0.2
iS 31 44.00
UNM 2.16 60 eP 31 24.00 1.9
PPM 2.54 71 iP 31 26.50 -1.2
IISM 3.67 78 eP 31 42.50 -0.7
OXX 4.40 105 (P) 31 58.50 4.6X
S.D. = 1.7 on 5 of 6 obs.

? DEC 15, 1993 09h 56m 55.12± 0.93s
39.665 N ± 7.8km 29.544 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

IZI 0.67 355 ePg 57 09.00 0.5
DST 0.71 266 ePg 57 09.00 -0.2
iSg 57 20.50
ALT 0.75 144 ePg 57 10.00 0.1
EYL 1.02 27 ePn 57 14.00 -0.4
S.D. = 0.6 on 4 of 4 obs.

? DEC 15, 1993 10h 08m 42.58± 0.92s
39.684 N ± 7.8km 29.505 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

IZI 0.65 358 ePg 08 56.00 0.3
DST 0.68 264 ePg 08 56.00 -0.1
iSg 09 07.50
ALT 0.78 143 ePg 08 58.00 0.1
EYL 1.01 29 ePn 09 01.50 -0.3
S.D. = 0.5 on 4 of 4 obs.

DEC 15, 1993 10h 20m 08.06± 0.70s
17.221 N ± 5.0km 61.114 W ± 5.8km
DEPTH = 17.5 ± 5.2 km
4.6mb (11 obs.)
LEEWARD ISLANDS (92)
MD 4.6 (TRN). ML 4.1 (FDF). Felt (IV) on Antigua and (III) on Guadeloupe.

ANG 0.69 265 iP 20 23.26 2.1
eS 20 37.46
BPA 0.73 256 eP 20 20.25 -1.7
CPB 0.80 302 iP 20 25.91 2.8X
eS 20 42.10
DEG 0.90 177 eP 20 22.90 -2.0
SFG 0.97 185 eP 20 23.75 -2.2
MBET 1.11 245 iP 20 29.28 0.8
MGH 1.17 245 iP 20 29.86 0.4
MGH 1.17 245 eP 20 21.70 -7.7X
DOG 1.28 202 eP 20 28.68 -2.4
S 20 44.49
PAG 1.30 205 eP 20 28.70 -2.8
NEV 1.40 267 iP 20 33.62 0.9
SKI 1.56 274 eP 20 36.48 1.5
MDN 1.91 188 eP 20 41.67 1.5
eS 21 06.39
DPMT 1.97 188 eP 20 41.91 0.9
eS 21 06.85
DSVT 2.00 187 eP 20 41.89 0.5
CRM 2.46 176 eP 20 48.72 0.7
FDF 2.47 181 eP 20 48.58 0.3
MVM 2.66 175 eP 20 51.82 0.9
BIM 2.69 179 eP 20 52.80 1.5
SLW 3.19 177 eP 20 59.52 1.1
eS 21 36.86
SLB 3.38 179 eP 21 01.95 0.9
eS 21 42.45
SVV 3.88 181 eP 21 09.08 0.9
SVB 3.93 182 eP 21 09.81 0.9
CPD 4.65 281 iP 21 20.00 0.8
LPR 4.66 284 iP 21 21.10 1.7
SJG 4.88 281 iP 21 23.50 1.0
GRW 5.06 186 eP 21 27.66 2.7X
CLLP 5.28 280 iP 21 28.80 0.8
MGP 5.75 279 iP 21 34.20 -0.5
LSP 5.77 280 iP 21 35.20 0.2
TCE 6.51 186 eP 21 46.46 0.9
TRN 6.54 182 eP 21 47.84 2.0
eS 22 59.58
TBH 6.70 180 eP 21 50.72 2.6X
TOV 11.21 230 eP 22 50.50 -0.2
SDV 12.43 229 eP 23 06.40 -0.9
PRM 25.39 315 (P) 25 34.48 -1.6
LSCT 26.50 339 (P) 25 45.71 -0.6
OXF 30.58 310 eP 26 22.76 -0.4
ELC 31.81 315 eP 26 31.89 -2.0
UYO 34.26 306 iPc 26 54.80 -0.5
TUL 35.92 308 iPd 27 09.30 -0.1
OCO 37.06 307 iPd 27 19.80 0.8
MEO 37.68 305 iPd 27 23.30 -1.0
WMOK 37.82 305 eP 27 23.65 -1.8
0.4s 4.84nm 4.7mb
ACO 38.73 308 iPd 27 33.30 0.2
LTX 40.70 295 eP 27 47.40 -2.1
ULM 43.14 328 eP 28 11.00 1.9
RSSD 44.91 316 (P) 28 24.18 0.3
0.5s 1.57nm 4.2mb
PV10 46.74 307 eP 28 37.38 -1.1
FRB 46.76 355 eP 28 39.00 1.1
1.0s 4.00nm 4.4mb
TUC 47.13 298 eP 28 42.25 0.8
DUG 49.99 308 eP 29 03.20 -0.4
1.0s 12.01nm 4.8mb
ARUT 50.04 305 eP 29 03.44 -0.5
HVU 50.30 310 eP 29 05.26 -0.7
LRM 51.11 315 ePc 29 12.50 0.4
e 29 23.90
PKEM 55.16 302 (P) 29 42.21 0.2
ORV 56.51 306 ePc 29 51.19 -0.6
YKA 58.36 334 eP 30 02.70 -1.7
0.6s 3.90nm 4.6mb
RES 60.35 350 eP 30 17.50 -0.4
DAG 63.32 10 iPd 30 38.40 0.5
1.0s 8.00nm 4.8mb
MBC 66.04 347 eP 30 57.00 1.5
1.0s 4.00nm 4.5mb
NB2 66.53 30 P 31 00.20 1.3
0.9s 6.30nm 4.8mb
GEC2 67.28 44 P 31 04.50 0.5
1.7s 6.74nm 4.5mb
INK 67.63 337 eP 31 05.00 -0.7
0.8s 3.00nm 4.5mb
FBA 73.16 334 eP 31 38.44 -0.8
1.0s 5.97nm 4.6mb
ADK 91.42 326 (P) 33 13.31 -1.1
S.D. = 1.2 on 62 of 66 obs.

DEC 15, 1993 10h 24m 13.00± 0.81s
35.717 N ± 7.1km 4.563 W ± 7.1km
DEPTH = 24.4 ± 6.3 km
STRAIT OF GIBRALTAR (385)
mbLg 3.2 (MDD). MD 3.0 (RBA).

NKM 0.74 249 iPg 24 28.00 0.8
iSg 24 37.00
i 24 39.00
BIT 0.95 266 iP 24 31.00 0.3
iS 24 41.00
TOU 1.00 138 iP 24 31.00 -0.4
eS 24 45.00
EJIF 1.04 315 eP 24 33.00 1.0
e 24 46.00
EMAL 1.05 6 eP 24 33.34 1.2
PLAT 1.05 293 iP 24 33.00 0.8
MOMI 1.12 303 eP 24 34.00 0.9
TSY 1.20 254 iP 24 33.00 -1.2
eS 24 46.00
ALJ 1.27 319 eP 24 36.00 0.6
EPRU 1.36 337 eP 24 36.65 0.1
e 24 54.40
EGUA 1.38 36 iPc 24 37.54 0.8
e 24 57.00
GIBL 1.58 315 eP 24 40.00 0.3
EHOR 2.17 346 eP 24 47.58 -0.7
e 25 13.50
IFR 2.24 192 iPg 24 43.00 -6.5X
iSg 25 06.00
EBAN 2.52 14 iPc 24 53.29 0.0
e 25 23.50
EVAL 2.56 317 iPd 24 51.13 -2.7
e 25 20.10
EVIA 3.35 29 iPc 25 05.26 0.2
e 25 43.60
AVE 3.37 225 eP 24 50.00 -15.3X
ePn 24 55.00
eSn 25 24.00
i 25 29.00
i 25 32.00

EDR No. 12-93
Part 2 of 2
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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.

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EPLA 4.50 345 eP 25 19.50 -1.9
S.D. = 1.2 on 17 of 19 obs.

DEC 15, 1993 10h 26m 21.99± 0.24s
36.202 N ± 2.5km 120.220 W ± 2.3km
DEPTH = 10.0km (geophysicist)
CENTRAL CALIFORNIA (39)
ML 2.9 (GS), 3.0 (PAS).

PKEM 0.17 147 eP 26 26.50 0.7
PCRM 0.20 238 P 26 26.68 0.2
PRCM 0.33 280 P 26 29.25 0.4
PHAM 0.39 202 eP 26 30.63 0.6
PTV 0.42 257 P 26 30.90 0.4
WKR 0.45 212 P 26 31.95 0.7
PMCM 0.49 194 P 26 32.47 0.5
LRC 0.67 274 P 26 35.38 0.1
PANM 0.70 233 P 26 35.86 0.0
YEG 0.79 164 P 26 37.90 0.4
FRI 0.89 27 P 26 38.97 -0.1
PAPM 0.97 253 P 26 40.25 -0.2
BCH 1.02 174 eP 26 40.83 -0.5
BSLM 1.08 302 P 26 43.20 1.0
BCWM 1.09 276 P 26 42.38 -0.3
SAO 1.14 300 eP 26 43.51 0.2
eS 26 58.48
SFL 1.23 310 P 26 45.38 0.5
BPRM 1.24 280 P 26 44.18 -0.8
WOFM 1.39 118 P 26 47.00 -0.6
ISA 1.52 110 ePd 26 48.44 -0.8
eS 27 07.01
WLHM 1.54 91 P 26 49.95 0.1
ARN 1.56 318 eP 26 49.46 -0.3
eS 27 10.14
COE 1.57 312 eP 26 49.09 -0.9
ABL 1.58 149 eP 26 48.45 -1.8
BMTC 1.70 128 P 26 51.72 -0.2
BHPR 1.77 51 P 26 54.27 1.2
MEMM 1.79 35 eP 26 54.17 1.1
CMB 1.83 356 eP 26 52.92 -0.9
eS 27 14.93
VPEM 1.96 97 P 26 57.14 1.3
MNHM 2.00 346 P 26 55.56 -0.6
BONR 2.33 41 (P) 27 02.02 0.8
SSK 2.87 133 ePn 27 06.61 -2.2
GSC 2.92 107 (Pn) 27 10.81 1.4
NTYM 2.93 319 (P) 27 08.23 -1.1
TNP 3.04 51 ePn 27 10.41 -0.9
ePg 27 16.67
TPNV 3.28 76 ePn 27 15.00 0.4
ePg 27 21.34
KVN 3.30 30 (Pn) 27 14.67 -0.3
ePg 27 23.41
ORV 3.50 344 ePn 27 18.00 0.5
SRU 8.22 66 (Pn) 28 26.93 2.6X
ePg 28 48.23
S.D. = 0.8 on 38 of 39 obs.

& DEC 15, 1993 10h 33m 32.01s
61.840 N 147.411 W
DEPTH = 33.8km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.1 (AEIC), 2.8 (PMR).

SCM 0.04 100 iPc 33 37.53 -0.3
SML 0.44 266 eP 33 40.61 -1.1
eS 33 48.37
TOA 0.64 65 P 33 44.00 -0.7
S 33 53.10
KNK 0.66 230 ePc 33 44.13 -0.7
eS 33 53.84
CFI 0.68 195 ePc 33 44.33 -0.8
GHO 0.72 265 eP 33 44.64 -1.2
eS 33 55.42
KLU 0.79 115 iPc 33 45.59 -1.2
eS 33 56.89
PLRM 0.86 254 eP 33 46.54 -1.1
PMR 0.86 254 ePc 33 46.60 -1.0
VLZ 0.88 143 iPc 33 46.29 -1.7
eS 33 59.08
VZW 0.89 152 eP 33 46.65 -1.5
TZL 0.96 77 iPc 33 48.70 -0.5
PWL 1.08 205 iPd 33 50.60 -0.3
eS 34 05.97
PWA 1.19 262 P 33 52.00 -0.4
PMS 1.19 241 P 33 52.50 0.0
DHY 1.24 1 ePd 33 51.95 -1.4
eS 34 07.06
PAX 1.45 38 eP 33 55.31 -1.0
eS 34 14.09
CUT 1.46 294 ePc 33 55.80 -0.5
HIN 1.51 163 eP 33 57.42 0.3
CVA 1.53 147 eP 33 56.99 -0.3
HUR 1.54 319 eP 33 56.93 -0.6
SUA 1.63 258 eP 33 58.91 -0.1
MPA 1.65 216 eP 33 58.85 -0.3
RND 1.71 338 eP 33 59.35 -0.7
THY 1.76 25 eP 34 00.90 0.2
GLB 1.76 102 eP 33 59.82 -1.0
eS 34 22.72
LTI 1.82 187 eP 34 01.01 -0.5
MTU 1.86 184 eP 34 02.52 0.4
SLKM 1.91 227 eP 34 02.87 0.0
SKT 1.95 276 ePc 34 03.21 -0.3
RAGM 1.97 136 eP 34 03.92 0.2
eS 34 26.17
SEW 2.01 211 eP 34 04.44 0.3
MCK 2.02 340 eP 34 04.70 0.2
eS 34 29.70
DDM 2.08 19 eP 34 06.29 1.0
TRF 2.09 322 eP 34 04.86 -0.7
eS 34 31.67
HMT 2.15 133 eP 34 06.17 -0.1
NKA 2.15 241 eP 34 07.91 1.7
CGLM 2.26 258 ePc 34 07.87 -0.1
NCG 2.31 261 ePc 34 08.62 0.0
SPU 2.32 256 eP 34 08.46 -0.3
CRQM 2.33 116 eP 34 08.75 -0.3
DJE 2.33 19 eP 34 08.83 -0.1
CRP 2.34 258 eP 34 08.44 -0.7
KTH 2.36 318 eP 34 08.85 -0.5
eS 34 38.50
CKN 2.37 257 eP 34 09.56 0.2
DOT 2.38 39 eP 34 09.46 -0.1
CP2 2.38 258 eP 34 09.88 0.1
CKT 2.39 257 eP 34 09.30 -0.4
CKL 2.45 257 eP 34 08.57 -2.0
BGL 2.45 259 eP 34 10.40 -0.2
BKG 2.45 254 eP 34 10.22 -0.4
TGL 2.46 114 eP 34 09.77 -1.0
BWN 2.52 339 eP 34 10.77 -0.7
BALM 2.56 106 eP 34 11.22 -1.0
HDA 2.58 4 eP 34 11.98 -0.4
WAX 2.61 120 eP 34 12.27 -0.6
WRH 2.66 354 eP 34 12.88 -0.5
BRLK 2.69 221 eP 34 13.99 0.1
CCB 2.82 357 eP 34 14.99 -0.8
DFR 2.84 246 eP 34 15.42 -0.7
NEA 2.85 345 eP 34 15.10 -1.1
REF 2.90 244 eP 34 16.51 -0.6
RS2 2.94 244 eP 34 17.35 -0.3
RDW 2.95 245 eP 34 17.78 0.0
NCT 2.96 247 eP 34 17.08 -0.8
RED 2.97 244 eP 34 17.75 -0.2
CNPM 2.99 221 eP 34 17.43 -0.7
HOM 3.02 225 eP 34 18.99 0.5
CTGM 3.05 104 eP 34 18.68 -0.5
FBA 3.08 357 eP 34 18.02 -1.3
YAH 3.12 116 eP 34 19.79 -0.5
MDM 3.15 354 eP 34 19.55 -0.9
GLM 3.16 0 eP 34 19.85 -0.8
ILIM 3.23 239 eP 34 21.00 -0.6
MLY 3.53 336 eP 34 24.65 -1.3
PRP 3.79 12 eP 34 29.32 -0.3
SVW 4.01 263 eP 34 30.12 -2.5
TTA 4.15 289 eP 34 33.40 -1.3
IMA 5.06 330 eP 34 45.90 -1.8
79 obs. associated

? DEC 15, 1993 12h 26m 28.73± 2.09s
27.032 S ±25.1km 26.822 E ±34.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

SLR 1.84 46 iPd 27 00.60 -0.8
S 27 22.70
BLF 2.14 195 iPd 27 06.50 0.7
S 27 33.50
FRS 3.01 206 iPc 27 18.20 0.2
S 27 54.60
BFT 3.19 66 eP 27 21.50 0.9
S 27 55.00
GRM 6.26 182 eP 28 03.00 -1.1
S 29 10.50
S.D. = 1.3 on 5 of 5 obs.

? DEC 15, 1993 13h 21m 33.68± 3.21s
42.548 N ±27.3km 23.986 E ±13.2km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 3.2 (THE).

SRS 1.46 192 ePb 21 58.38 -1.7
eSb 22 18.18
KNT 1.61 211 ePb 22 01.46 -0.7
eSb 22 24.62
VAY 1.62 221 iPn 22 01.80 -0.5
SOH 1.79 196 ePb 22 04.26 -0.6
eSb 22 28.50
SKO 1.98 254 ePn 22 06.50 -1.0
THE 2.06 202 ePb 22 09.86 1.1
eSb 22 36.22
OUR 2.21 180 ePn 22 11.18 0.3
eSn 22 37.98
ALN 2.26 136 ePn 22 11.86 0.3
eSn 22 39.46
PAIG 2.63 185 ePn 22 17.22 0.4
eSn 22 49.66
FNA 2.63 229 ePn 22 19.54 2.5
eSn 22 49.34
S.D. = 1.4 on 10 of 10 obs.

? DEC 15, 1993 14h 47m 36.07± 0.98s
35.658 N ±12.7km 25.269 E ± 8.0km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 3.4 (ATH).

NPS 0.48 145 ePg 47 45.50 -0.4
VAM 0.91 254 ePb 47 54.00 0.6
VLI 2.16 300 ePn 48 12.00 -0.6
KSL 3.53 81 ePn 48 32.50 0.4
S.D. = 1.0 on 4 of 4 obs.

DEC 15, 1993 14h 56m 43.99± 0.86s
10.528 N ± 9.6km 69.488 W ± 8.4km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
VENEZUELA (101)

TOV 0.79 202 iPgc 56 57.30 -1.5
iSg 57 08.80
CANV 0.82 52 iPd 56 59.60 0.4
MORO 1.20 73 iPd 57 04.00 -0.6
CEOS 1.87 142 iPd 57 14.20 -0.2
iS 57 37.60
SDV 1.98 215 iPnc 57 17.70 1.6
iSn 57 45.00
GUAC 2.21 98 iPd 57 19.20 0.0
iS 57 47.40
CAR 2.52 90 eP 57 28.00 4.4X
LLAV 2.64 91 eP 57 25.60 0.4
iS 57 58.90
OLLA 2.69 101 eP 57 26.30 0.3
iS 57 59.10
YKA 61.12 338 eP 06 56.70 -0.4
0.7s 0.50nm 3.8mb
S.D. = 1.0 on 9 of 10 obs.

? DEC 15, 1993 17h 08m 34.24± 4.65s
38.916 N ±32.9km 23.752 E ±24.1km
DEPTH = 19.2 ± 7.0 km
GREECE (364)
ML 2.6 (THE).

PAIG 1.01 357 ePgc 08 53.10 0.2
eSg 09 05.98
AGG 1.11 276 ePg 08 54.82 0.1
eSg 09 09.06
OUR 1.43 7 ePbc 08 59.26 0.1
LIT 1.53 321 ePb 09 00.57 -0.2
eSb 09 20.50
THE 1.82 341 ePb 09 04.90 0.1
SOH 1.93 351 ePb 09 06.50 0.0
SRS 2.20 357 ePn 09 10.06 -0.4
eSn 09 35.82
GRG 2.29 333 ePn 09 12.06 0.4
KNT 2.34 344 ePn 09 12.62 0.3
FNA 2.61 316 ePn 09 16.02 -0.3
S.D. = 0.3 on 10 of 10 obs.

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* DEC 15, 1993  17h 51m 28.88± 1.54s
  37.307 N ±11.0km   20.898 E ±13.2km
  DEPTH =  33.0km  (normal)
 IONIAN SEA                     (399)
      MD 3.8 (ATH). ML 3.7 (THE).

VLS      0.90 344 ePn   51 43.50  -1.7
VLI      1.73 109 ePn   51 59.00   1.8
AGG      2.05  33 ePb   52 03.92   2.2
                  eSb   52 27.80
IGT      2.27 349 ePn   52 06.92   2.2
SRN      2.66 345 ePn   52 16.20   5.8X
LSK      2.85 355 ePn   52 23.10  10.0X
LIT      3.06  24 ePn   52 15.88  -0.1
                  eSn   52 50.80
TPE      3.06 347 ePn   52 16.00  -0.1
KZN      3.07  13 ePn   52 19.00   2.7
VAM      3.27 124 ePn   52 18.00  -1.0
VLO      3.34 341 ePn   52 30.30  10.3X
PAIG     3.40  39 ePn   52 20.44  -0.5
                  eSn   52 55.84
FNA      3.49   6 ePn   52 22.24   0.0
                  eSn   53 00.80
THE      3.69  25 ePn   52 24.52  -0.4
OHR      3.80 359 iPn   52 26.20  -0.3
     1.3s   180.00nm
                  i     52 43.50
                  i     53 23.50
                  i     53 30.50
                  i     53 43.10
                  Lg    54 05.00
GRG      3.83  17 ePn   52 26.48  -0.4
                  eSn   53 06.12
OUR      3.87  38 ePn   52 26.80  -0.6
SOH      4.00  28 ePn   52 29.24  -0.1
TIR      4.11 349 ePn   52 31.50   0.5
KNT      4.15  21 ePn   52 31.16  -0.4
VAY      4.21  17 iPn   52 31.70  -0.7
SRS      4.34  28 ePn   52 32.88  -1.4
LACI     4.42 348 ePn   52 34.40  -0.9
SKO      4.68   5 iPn   52 38.00  -1.0
KSL      7.08  97 ePn   53 12.00  -0.8
    S.D. = 1.3  on  22 of  25 obs.
-------------------------------------
  DEC 15, 1993  18h 17m 06.59± 1.01s
  43.008 N ± 7.0km   21.616 E ±10.0km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION     (383)
     ML 3.2 (THE).

SKO      1.04 187 iPg   17 27.50   1.2
     0.3s   100.00nm
                  iSg   17 37.40
                  Lg    17 42.50
VTS      1.24 109 iPg   17 29.00  -0.8
KKB      1.57 136 iPg   17 35.00   0.4
VAY      1.83 157 iPn   17 38.00  -0.3
PGB      1.93 103 iP    17 42.00   2.1
KNT      2.08 152 ePb   17 42.10   0.2
                  eSb   18 05.98
GRG      2.13 164 ePb   17 42.82   0.1
FNA      2.23 185 ePn   17 45.06   0.9
                  eSn   18 10.54
SRS      2.39 141 ePn   17 45.58  -0.9
                  eSn   18 16.54
SOH      2.54 149 ePn   17 49.54   1.0
                  eSn   18 17.90
THE      2.58 157 ePn   17 48.02  -1.0
BZS      2.61   0 eP    17 49.00  -0.5
RZN      2.65 119 iP    17 51.00   0.7
LIT      2.98 167 ePn   17 53.90  -0.9
OUR      3.21 146 ePn   17 56.78  -1.2
                  eSn   18 33.46
PAIG     3.45 153 ePn   18 00.34  -1.0
    S.D. = 1.1  on  16 of  16 obs.
-------------------------------------
  DEC 15, 1993  19h 57m 31.86± 0.49s
  41.311 N ± 5.2km   22.056 E ± 3.5km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION     (383)
     ML 2.3 (SKO), 2.3 (THE).

VAY      0.39  88 iPg   57 39.60  -0.2
     0.2s   110.00nm
                  iSg   57 45.20
GRG      0.44 143 ePgc  57 41.25   0.4
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                  eSg   57 47.40
KNT      0.65 103 ePgc  57 44.70  -0.2
                  eSg   57 53.36
FNA      0.74 225 ePg   57 46.44   0.1
                  eSg   57 56.52
SKO      0.81 325 iPg   57 47.50   0.0
     0.4s    40.00nm
                  iSg   57 59.00
                  iLg   58 03.50
THE      0.97 134 ePg   57 49.84  -0.4
                  eSg   58 02.44
OHR      0.97 259 ePg   57 50.30   0.0
SOH      1.10 116 ePg   57 52.61   0.1
                  eSg   58 06.84
SRS      1.18  99 ePg   57 53.84   0.0
                  eSg   58 08.52
LIT      1.25 165 ePb   57 54.56  -0.6
                  eSb   58 12.80
OUR      1.76 123 ePb   58 02.92   0.4
PAIG     1.85 138 ePb   58 04.20   0.3
    S.D. = 0.3  on  12 of  12 obs.
-------------------------------------
* DEC 15, 1993  20h 03m 53.17± 0.77s
  16.263 S ±16.0km  177.818 W ±13.2km
  DEPTH = 467.9 ±  9.5 km
  4.3mb (  3 obs.)
 FIJI ISLANDS REGION            (181)

SVA      4.01 242 iPc   05 09.70  -0.5
AFI      6.29  69 eP    05 33.00   0.9
DZM     15.95 246 iPc   07 14.10  -0.5
WCZ     20.81 198 P     08 06.80   5.1X
URZ     22.36 191 eP    08 15.60  -0.4
LTZ     27.76 196 eP    09 04.20  -0.2
ASPA    45.80 253 iPd   11 34.30   0.8
     0.9s    36.30nm          4.8mb
                  eS    17 46.20
WARB    52.37 249 eP    12 23.80   1.1
MTUM    77.11  45 (P)   14 58.26  -0.7
TUC     80.25  52 eP    15 16.77   1.2
     1.0s     8.59nm          4.3mb
RMW     80.80  35 eP    15 16.97  -1.1
MSU     82.06  46 eP    15 24.63  -0.3
INK     90.16  15 eP    15 52.00 -10.8X
YKA     92.61  25 eP    16 12.80  -1.4
     0.6s     1.30nm          4.1mb
PRU    144.90 346 ePKP  22 36.50  -0.8
KHC    145.93 347 ePKP  22 40.00   0.9
GEC2   146.17 346 PKP   22 40.50   0.9
     0.6s     1.11nm
    S.D. = 1.0  on  15 of  17 obs.
-------------------------------------
? DEC 15, 1993  20h 07m 19.28± 5.25s
  51.257 N ±37.9km   16.101 E ±34.9km
  DEPTH =  10.0km  (geophysicist)
 POLAND                         (548)

KSP      0.43 164 iPd   07 28.00  -0.1
                  iS    07 36.50
BRG      1.41 255 iPg   07 44.40  -0.6
                  iSg   08 04.60
PRU      1.61 219 Pg    07 48.20   0.4
     0.5s    20.60nm
                  Sn    08 05.70
                  Sg    08 12.20
CLL      1.95 273 ePg   07 53.00   0.3
                  eSg   08 19.00
KHC      2.68 218 Pn    08 08.90   5.7X
                  e     08 36.50
                  eSg   08 46.50
MOX      2.90 260 ePg   08 12.70   6.4X
                  iSg   08 52.20
VKA      3.00 177 i(Pg) 08 16.10   8.4X
                  e     09 00.00
    S.D. = 0.8  on   4 of   7 obs.
-------------------------------------
  DEC 15, 1993  20h 17m 41.46± 0.23s
  0.513 N ± 4.2km  126.010 E ± 5.1km
  DEPTH =  30.7km  (  2 depth phases)
  5.0mb ( 20 obs.)
 NORTHERN MOLUCCA SEA           (266)

DAV      6.55 356 eP    19 26.90   8.7X
CTB      6.88 345 ePd   19 28.00   5.1X
BIP      7.66   2 ePd   19 38.50   4.6X
CGP      8.00 351 eP    19 40.00   1.5
MKS      8.66 229 iPc   19 50.50   2.7
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KKM     11.21 300 ePc   20 33.00  10.1X
WWKK    18.08 103 eP    21 51.50  -0.6
MDG     20.56 106 eP    22 19.80  -0.6
LAT     22.13 109 eP    22 36.50   0.2
MBL     22.37 195 eP    22 38.20  -0.5
     0.5s     6.00nm          4.3mb
PMG     23.25 116 eP    22 47.00  -0.3
QIS     24.81 148 eP    23 03.00   0.6
ASPA    25.23 163 eP    23 05.60  -0.8
     0.4s    73.00nm          5.6mb
   Z  19s     0.20um          3.6Msz
                  ipP   23 07.40   6kmX
                  ePP   23 20.40
                  eS    27 27.00
IPM     25.28 280 ePd   23 07.00   0.0
     0.7s    24.60nm          4.9mb
WARB    26.55 179 eP    23 19.00   0.4
KHT     30.58 299 eP    23 54.10  -1.0
FORT    31.18 177 eP    23 59.00  -1.1
     0.7s    49.00nm          5.4mb
CHTO    32.19 306 eP    24 09.00  -0.1
TKSJ    34.14  12 P     24 27.40   1.5
WKYJ    34.71  14 P     24 31.00   0.1
YONJ    35.19  11 P     24 35.20   0.3
STK     35.44 157 eP    24 35.40  -1.6
TSRJ    36.06  14 P     24 42.30   0.1
IIDJ    36.51  16 P     24 46.60   0.5
CD2     36.87 327 eP    24 50.00   0.8
CHJJ    37.36  17 P     24 50.90  -2.2
MTMJ    37.52  16 P     24 54.40  -0.2
MAT     37.59  16 eP    24 54.00  -1.1
     0.7s    17.12nm          5.0mb
TIY     39.08 343 eP    25 07.20  -0.5
   Z  20s     0.62um          4.4Msz
   N  20s     1.21um
ARMA    39.25 144 iPc   25 09.30   0.1
     0.9s    17.00nm          4.8mb
YAMJ    39.64  17 eP    25 12.80   0.6
BJI     40.35 348 eP    25 17.00  -1.0
BWA     40.61 151 eP    25 21.40   1.1
LZH     40.95 332 eP    25 20.50  -2.7
     1.8s    18.00nm          4.5mb
   Z  20s     0.40um          4.3Msz
                  pP    25 27.00  22km
OFUJ    40.97  19 eP    25 23.80   0.6
SNY     41.18 357 Pc    25 25.00   0.2
     2.0s   220.00nm          5.5mb
SHL     41.28 310 eP    25 25.50  -0.6
CAN     41.61 151 eP    25 28.90   0.4
HHC     42.24 344 P     25 34.60   1.0
CN2     43.10 359 eP    25 40.00  -0.5
     0.8s     5.90nm          4.4mb
MDJ     44.03   4 eP    25 48.50   0.5
     1.0s    19.00nm          4.9mb
LSA     44.09 314 P     25 50.00   0.7
DZM     45.36 122 iPc   25 58.10  -1.1
GTA     45.51 331 eP    25 59.50  -0.7
     1.5s     6.00nm          4.3mb
GUN     47.10 309 P     26 12.60  -0.6
     0.6s    29.00nm          5.5mb
PKI     47.31 308 P     26 14.80   0.0
KKN     47.51 308 P     26 16.40   0.1
DMN     47.56 308 P     26 17.20   0.4
GKN     48.11 308 P     26 20.80  -0.1
HYB     49.60 293 eP    26 32.00  -0.3
GBA     49.81 287 P     26 31.00  -2.9
WMQ     54.97 327 P     27 11.50  -0.7
     1.0s     9.80nm          4.8mb
                  pP    27 23.00  40km
                  sP    27 31.00
                  PcP   28 13.00
YAK     61.41   2 iPc   27 57.50   0.7
     1.3s    50.00nm          5.5mb
QUE     63.28 304 eP    28 10.50   0.3
MAIO    70.90 308 eP    28 59.00   0.9
SDN     80.23  34 eP    29 50.55   0.0
     0.6s    74.77nm          5.9mb
SVW     83.93  29 eP    30 10.79   1.1
     0.7s    22.98nm          5.5mb
TTA     84.08  27 eP    30 10.67   0.2
     0.8s     7.69nm          4.9mb
IMA     85.60  24 eP    30 18.18   0.1
     0.6s     3.89nm          4.8mb
OBN     89.24 325 eP    30 35.00  -0.7
     1.0s    70.00nm          5.9mb
INK     93.40  21 eP    30 54.50  -0.2
MBC     95.23  13 eP    31 04.00   1.0
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RES    101.08  10 ePdiff31 29.50   0.2
YKA    102.70  25 ePdiff31 37.70   0.9
     0.9s    1.10nm            4.6mb
LIC    130.67 279 PKP   36 50.62  -1.6
     1.5s   61.00nm
LKO    130.80 283 PKP   36 52.90   0.4
     0.7s    3.00nm
CNCB   158.73 140 PKP   37 41.00   2.1
LPB    158.86 140 (PKP) 37 43.00   4.2X
LPAZ   159.02 139 PKP   37 40.10   0.8
SIV    163.11 156 PKP   37 43.70   1.0
     S.D. = 1.0  on  65 of  70 obs.
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% DEC 15, 1993  20h 36m 01.87± 0.85s
  31.246 S ±11.8km   68.885 W ±14.4km
  DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA    (137)

RTCB     0.25 163 iPd   36 16.20  -0.6
RTLL     0.37 103 iPd   36 17.00  -0.1
CFA      0.66 123 iPd   36 19.80   0.6
RTCV     0.68 154 eP    36 19.50   0.1
RTRS     1.18 335 iPc   36 24.80   0.2
RTPR     2.25  66 eP    36 38.00  -0.2
                  S     37 06.00
     S.D. = 0.5  on • 6 of   6 obs.
--------------------------------------
* DEC 15, 1993  20h 40m 29.08± 0.85s
  20.285 S ±15.6km  168.632 E ±19.1km
  DEPTH =  33.0km  (normal)
  4.6mb (  5 obs.)  4.7Msz (  2 obs.)
 LOYALTY ISLANDS                 (188)

BKM      2.63 352 iPd   41 09.60  -0.5
                  iS    41 41.50
DZM      2.71 229 iPd   41 08.90  -2.4
                  iS    41 39.60
ARMA    18.36 233 eP    44 44.20   1.1
     1.0s   10.00nm            3.9mb
CNB     22.63 225 eP    45 31.20   2.7
     1.0s   40.00nm            4.8mb
PMG     23.37 294 eP    45 37.00   1.2
ASPA    32.34 258 eP    46 56.10  -1.6
     0.7s   11.10nm            4.9mb
   Z  19s    1.20um            4.6Msz
                  i     47 09.00
                  eS    52 02.30
MEEK    46.09 252 eP    48 51.50  -0.5
YAK     87.67 343 iPd   53 17.00   1.9
     1.8s   40.00nm            5.4mb
                  i     53 27.00
YKA    101.85  28 ePdiff54 19.20  -0.9
     0.9s    0.50nm            4.1mb
MEO    103.49  58 iPdiff54 28.20   0.1
FVM    110.61  56 (PKP) 59 03.98   3.8X
VAY    144.42 314 ePKP  00 04.60   0.9
MOX    144.68 335 ePKP  00 02.60  -1.3
     1.9s   45.00nm
                  e     00 13.10
SKO    144.88 315 iPKPd 00 03.80  -0.7
                  i     00 15.30
KHC    144.98 331 ePKP  00 03.40  -1.1
     1.3s   15.10nm
                  e     00 14.00
GEC2   145.13 331 PKP   00 03.50  -1.3
     0.6s    1.04nm
                  e     00 10.00
GRF    145.58 334 ePKP  00 05.50   0.0
   Z  20s    0.20um            4.9Msz
                  e     00 16.50
WLF    147.53 339 PKP   00 13.00   4.5X
DOU    147.66 341 PKP   00 12.10   3.3X
CDF    148.17 336 ePKP  00 12.20   2.4
     1.1s   12.70nm
LPL    150.74 333 ePKP  00 19.40   5.4X
LPG    150.75 333 ePKP  00 20.30   6.2X
     S.D. = 1.6  on  17 of  22 obs.
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% DEC 15, 1993  20h 46m 44.37± 0.74s
  31.208 S ±12.5km   68.338 W ±12.1km
  DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA    (137)

RTLL     0.16 223 iPd   46 58.80  -0.2
                  S     47 07.50
RTCB     0.48 235 iPd   47 00.30  -0.1
                  S     47 11.20
RTCV     0.67 195 eP    47 02.00   0.2
                  S     47 15.00
RTRS     1.42 317 iPd   47 10.00   0.1
                  S     47 29.50
RTPR     1.81  61 eP    47 15.00   0.0
                  S     47 39.00
     S.D. = 0.2  on   5 of   5 obs.
--------------------------------------
  DEC 15, 1993  21h 31m 37.32± 0.65s
  42.998 N ± 5.7km   18.765 E ± 4.3km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
          MD 3.0 (TTG).

BRY      0.19 239 iPgd  31 41.22  -0.4
                  iSg   31 44.04
NKY      0.25 137 iPgd  31 43.09   0.4
                  iSg   31 47.68
PLE      0.57  54 iPgd  31 48.34  -0.6
                  iSg   31 56.87
HCY      0.58 200 iPgc  31 48.63  -0.5
                  iSg   31 57.69
TTG      0.68 147 iPgd  31 50.06  -0.6
                  iSg   32 01.27
BDV      0.72 176 iPgd  31 51.46   0.0
                  iSg   32 02.46
IVA      0.84  98 iPgd  31 53.75   0.1
                  iSg   32 06.74
PVY      0.98 114 iPgc  31 56.31   0.4
                  iSg   32 11.48
ULC      1.09 161 iPgc  31 58.45   0.6
                  iSg   32 15.22
HVAR     1.71 277 iPn   32 08.00   0.7
                  iSn   32 32.70
SKO      2.23 116 ePn   32 20.00   5.2X
OHR      2.42 141 ePn   32 17.50  -0.1
TRI      4.50 309 e(Pg) 33 42.30  55.3X
                  e(Sg) 34 07.10
     S.D. = 0.5  on  11 of  13 obs.
--------------------------------------
  DEC 15, 1993  21h 49m 42.27± 0.16s
  23.184 N ± 2.7km  120.574 E ± 3.1km
  DEPTH =  17.0km  ( 16 depth phases)
  5.5mb ( 89 obs.)  5.2Msz ( 22 obs.)
 TAIWAN                          (244)
        Mw 5.4 (HRV). ML 5.5 (BJI). Some
        damage (VI JMA) in the Ta-pu
        area. Felt (IV JMA) at Chia-i
        and Tai-nan; (III JMA) at
        Kao-hsiung and Peng-hu; (II JMA)
        at Hua-lien, Tai-chung and
        Tai-tung.
        CENTROID, MOMENT TENSOR    (HRV)
        Data Used: GDSN
        L.P.B.: 20S, 30C
        Centroid Location:
        Origin Time       21:49:44.9 0.3
        Lat 23.00N 0.05 Lon 120.22E 0.06
        Dep  21.4 3.0 Half-duration  1.4
        Moment Tensor;   Scale 10**17 Nm
          Mrr= 1.45 0.06  Mtt=-0.11 0.09
          Mff=-1.33 0.10  Mrt=-0.51 0.15
          Mrf=-0.14 0.19  Mtf=-0.36 0.05
         Principal Axes:
          T  Val=  1.60  Plg=74  Azm=178
          N       -0.14      15       19
          P       -1.46       6      287
        Best Double Couple:Mo=1.5*10**17
         NP1:Strike=  1 Dip=42 Slip=  66
         NP2:        211     53      110

CHY      0.34 336 P     49 50.50   1.0
ALS      0.39  33 P     49 52.02   1.5
TAI      0.39 242 P     49 51.65   1.2
TCU      0.96   6 P     50 01.46   1.3
TATO     1.97  25 eP    50 16.32   1.1
QZH      2.52 314 Pn    50 22.40  -0.7
      Z  10s  106.00um
      E  10s   77.00um
                  Pg    50 29.50
                  Sn    50 52.50
                  Sg    50 59.50
PIP      4.83 179 iPc   50 56.20   0.2
CVP      5.58 168 eP    51 06.00  -0.5
                  eS    52 08.50
SZP      5.60 181 eP    51 13.00   6.1X
HKC      5.97 263 iP    51 11.00  -1.0
                  S     52 34.00
MCO      6.57 262 eP    51 17.80  -2.7
GZH      6.66 271 Pc    51 19.60  -2.1
   E  11s   40.00um
                  S     52 40.00
BCP      6.73 180 eP    51 34.00  11.0X
BAG      6.74 180 ePd   51 24.20   1.1
SSE      7.90   4 Pc    51 36.40  -2.7
   Z  20s   13.70um
   N  12s   27.40um
   E  10s   23.00um
                  sP    51 43.50
QVP      8.53 177 eP    52 03.50  15.6X
NJ2      8.96 351 Pd    51 50.30  -3.6X
     1.0s  120.00nm            6.1mb
   Z  12s   22.20um            4.4MszX
   E  12s   23.70um
                  pP    51 57.60
                  sP    52 05.80
WHN      9.20 324 P     51 54.50  -2.6
   Z  12s   47.50um
   E  10s   25.30um
                  S     53 38.70
QIZ     10.83 250 eP    52 19.60  -0.1
   N  17s   16.40um
   E  13s   23.80um
                  eS    54 26.80
PLP     12.67 160 ePc   52 48.00   3.5X
GYA     13.05 287 P     52 47.60  -2.0
     1.0s   36.00nm            5.5mb
   Z  18s   30.30um            4.3Msz
   N  10s   18.10um
   E  18s   24.60um
                  pP    52 55.00
MAP     13.20 165 eP    52 53.00   1.5
TIA     13.32 348 eP    52 50.50  -2.6
   Z  12s   18.50um
                  sP    53 03.50
XAN     14.88 319 P     53 13.50   0.0
     1.6s  110.00nm            5.0mb
   Z  15s   31.60um            4.3Msz
   N  10s   17.40um
   E  11s   17.30um
                  pP    53 18.00
                  PP    53 25.00
CGP     15.17 164 eP    53 19.00   1.6
DL2     15.70   3 eP    53 26.00   1.8
     1.0s  150.00nm            5.2mb
   Z  11s   20.10um            4.8Msz
   N  12s   33.70um
                  sP    53 33.00
TIY     16.08 336 eP    53 31.60   2.4
     0.9s   87.00nm            4.9mb
   Z  20s   58.10um            4.2Msz
   N  11s   28.60um
   E  10s   20.50um
CTB     16.27 167 ePd   53 37.00   5.4X
KMI     16.39 280 eP    53 33.00  -0.4
     1.5s   90.00nm            4.7mb
   Z  12s   18.70um            4.8MszX
                  pP    53 38.00
DAV     16.71 162 eP+   53 40.00   2.8X
CD2     16.83 301 iPc   53 40.00   1.3
     1.4s 1300.00nm            5.9mb
   Z  12s   43.80um            4.4Msz
   N  12s   24.30um
                  iS    56 50.00
BJI     17.21 349 eP    53 44.00   0.6
     1.0s   33.00nm            4.4mb X
   Z  14s   11.80um            4.6Msz
   N  13s    8.14um
                  eS    56 57.00
KKM     17.55 195 eP    53 52.50   4.6X
LOE     18.58 255 eP    54 02.00   1.5
                  e     59 56.80
SNY     18.76   7 iPc   54 03.00   0.5
     1.0s   83.00nm            4.9mb
   Z  10s   20.50um            4.7Msz
   E  13s   11.30um
                  sP    54 13.40
                  S     57 30.00
                  sS    57 38.00
TSM     18.96 188 eP    54 06.00   0.8
HHC     19.18 339 P     54 08.00   0.2
     1.4s   24.00nm            4.3mb X
   Z  13s   19.60um            5.2Msz
   N  10s   13.00um
```

15d 21h

E 10s 2.87um
LZH 19.37 315 eP 54 10.50 0.2
2.0s 700.00nm 5.6mb
Z 12s 19.20um 5.1MszX
E 11s 13.00um
pP 54 15.50 19km
sP 54 18.00
S 57 48.00
BTO 19.51 335 P 54 11.00 -0.7
0.8s 13.00nm 4.3mb X
N 10s 10.90um
E 11s 8.19um
sP 54 20.00
PP 54 31.00
MAJO 20.23 45 eP 54 16.69 -2.6
0.8s 50.14nm 4.9mb
MAT 20.23 45 eP 54 17.00 -2.3
1.1s 60.76nm 4.9mb
Z 20s 2.84um 4.6Msz
eS 58 02.00
CHTO 20.65 262 ePc 54 24.00 0.2
1.4s 270.67nm 5.4mb
eS 58 19.60
NST 20.66 252 eP 54 25.50 1.7
CN2 20.95 10 Pc 54 25.30 -1.4
0.8s 85.00nm 5.2mb
Z 12s 13.20um 5.5MszX
N 11s 8.70um
E 11s 8.13um
epP 54 33.00 28kmX
eS 58 10.60
VLA 21.98 23 iPc 54 38.00 0.9
2.2s 221.00nm 5.2mb
N 16s 7.00um
E 12s 10.50um
i 54 59.00 99kmX
iPPP 55 07.00
eS 58 38.00
iSS 59 26.00
KHT 22.38 252 eP 54 43.00 1.8
NNT 22.43 246 iPc 54 48.20 6.5X
NNT 22.43 246 iPc 54 28.20 -13.5X
MDJ 22.62 17 eP 54 42.80 -0.6
1.1s 100.00nm 5.2mb
N 13s 9.39um
GTA 23.92 317 Pc 54 56.50 0.2
2.0s 140.00nm 5.2mb
Z 16s 12.60um 5.5MszX
N 11s 5.11um
pP 55 02.00 20km
sP 55 04.00
PP 55 31.50
GUMO 24.92 108 eP 55 05.10 -0.8
1.2s 696.97nm 6.2mb
PJG 24.92 108 eP 55 06.10 0.2
GUA 24.98 108 eP 55 07.10 0.6
1.1s 475.95nm 6.1mb
SHL 26.22 281 iP 55 18.00 -0.3
1.5s 506.94nm 6.0mb
eS 59 52.00
IPM 26.43 229 ePc 55 21.00 0.9
KGM 26.88 221 ePc 55 25.10 0.9
LSA 27.09 290 P 55 27.80 1.2
0.8s 13.00nm 4.7mb
Z 12s 29.30um 6.1MszX
E 10s 5.29um
CIT 29.27 351 eP 55 44.30 -1.3
YSS 29.70 31 eP 55 48.20 -1.2
0.9s 50.00nm 5.3mb
Z 15s 6.00um 5.3MszX
N 15s 3.50um
E 15s 4.20um
e 55 57.00 30kmX
e 02 30.00
ZAK 30.32 338 iPc 55 52.70 -2.2
1.7s 40.00nm 5.0mb
Z 11s 13.72um 5.9MszX
N 11s 8.45um
E 11s 6.14um
GUN 31.59 286 P 56 07.00 0.2
IRK 31.61 341 eP 56 03.50 -2.7
Z 12s 12.01um 5.8MszX
N 12s 8.74um
i 56 10.40 24kmX
eS 01 10.00
PKI 32.00 285 P 56 09.80 -0.6
KKN 32.12 286 P 56 10.50 -0.7
DMN 32.27 285 P 56 12.30 -0.3
GKN 32.69 286 P 56 15.50 -0.6
WMQ 33.96 315 P 56 27.40 0.5
1.5s 32.00nm 5.0mb
Z 10s 7.24um 5.7MszX
E 10s .3.61um
ScS 06 46.00
BOD 34.94 354 eP 56 31.90 -3.1X
0.9s 13.00nm 4.8mb
SKR 38.87 36 eP 57 06.00 -2.3
0.6s 80.00nm 5.6mb
Z 20s 6.30um 5.4Msz
N 20s 7.20um
E 20s 4.70um
NDI 39.22 287 eP 57 11.00 -0.4
eS 03 07.00
YAK 39.31 7 iPc 57 12.80 1.0
Z 14s 7.00um 5.6MszX
N 11s 5.30um
E 14s 2.80um
e 58 50.00 546kmX
e 59 25.00
eS 03 06.00
HYB 39.73 270 eP 57 14.40 -1.4
1.6s 200.00nm 5.6mb
KSH 40.97 304 P 57 28.30 2.4
1.0s 36.00nm 5.1mb
Z 14s 6.55um 5.6MszX
N 12s 5.60um
E 12s 5.57um
pP 57 38.00 33kmX
PP 59 10.00
ScS 07 24.00
PMG 41.55 138 eP 57 29.21 -1.4
1.0s 72.15nm 5.4mb
GBA 41.89 265 P 57 41.00 7.4X
FRU 42.63 309 eP 57 39.50 0.1
1.6s 80.00nm 5.2mb
Z 14s 3.50um 5.4MszX
N 11s 3.30um
E 12s 4.40um
e 59 31.00 664kmX
KOD 43.08 260 eP 57 49.80 6.1X
POO 43.77 273 eP 57 47.00 -1.9
MBL 44.08 181 eP 57 49.00 -2.2
BOM 44.63 274 eP 58 00.10 4.3X
eS 04 31.00
QIS 47.27 155 eP 58 15.80 -0.9
QUE 48.06 290 eP 58 24.50 1.4
ASPA 48.34 164 iPc 58 23.30 -1.7
0.9s 34.70nm 5.4mb
Z 22s 0.60um 4.5Msz
ipP 58 29.10 19km
ePP 59 43.80
eS 05 20.70
WARB 49.43 173 eP 58 32.50 -0.8
MEEK 49.56 182 eP 58 33.00 -1.4
CTAO 49.77 148 eP 58 35.07 -1.0
1.0s 56.53nm 5.5mb
SMY 49.96 40 P 58 50.00 12.9X
Z 19s 2.04um 5.1Msz
MRWA 52.28 185 eP 58 54.50 -0.5
COOL 53.76 179 eP 59 04.00 -1.9
MAIO 53.83 299 iPc 59 07.00 0.4
1.1s 32.39nm 5.3mb
eS 06 56.00
SVE 54.52 324 iPc 59 11.00 -0.2
1.8s 340.00nm 6.1mb
Z 13s 4.00um 5.7MszX
N 13s 1.00um
E 13s 2.50um
e 00 16.00 300kmX
eS 06 51.00
e 08 55.00
KLB 54.53 183 eP 59 10.00 -1.5
ASH 54.64 301 eP 59 13.00 0.6
1.4s 260.00nm 6.1mb
ARU 55.54 323 iPc 59 18.70 0.0
Z 12s 2.50um 5.5MszX
i 59 27.50 29kmX
e 59 35.50
NWAO 55.89 183 eP 59 13.20 -8.1X
STK 58.33 159 eP 59 37.30 -1.4
ePP 01 23.00
ADE 60.34 163 eP 59 52.00 -0.6
ARMA 61.07 149 eP 59 57.20 -0.5
1.0s 21.00nm 5.2mb
BWA 63.11 154 eP 00 11.70 0.5
i 00 18.10 21kmX
DZM 63.38 132 iPc 00 11.60 -1.7
GRO 63.72 308 eP 00 12.00 -3.2X
2.0s 240.00nm 6.0mb
Z 14s 9.00um 6.1MszX
N 16s 5.00um
E 18s 4.50um
TAB 64.05 302 eP 00 18.00 0.3
CAN 64.12 154 eP 00 18.60 0.7
CNB 64.26 154 eP 00 22.60 3.8X
0.9s 14.00nm 5.1mb
MTA 64.61 307 eP 00 22.00 1.0
TOO 64.82 158 iPd 00 22.50 0.1
0.7s 74.00nm 6.0mb
SDN 65.02 38 eP 00 20.48 -3.0X
0.8s 25.66nm 5.4mb
ERE 65.09 305 iP+ 00 24.80 0.5
PYA 65.51 309 iP 00 26.00 -0.8
1.3s 220.00nm 6.2mb
Z 14s 1.50um 5.3MszX
N 14s 1.50um
E 14s 1.50um
eS 09 14.00
KIV 65.78 309 iPc 00 28.90 0.2
Z 11s 0.70um 5.1MszX
e 00 54.30 101kmX
eS 09 14.10
e 13 32.80
BRW 65.90 21 (P) 00 28.66 -0.2
TTA 66.65 30 eP 00 32.53 -1.4
1.6s 38.51nm 5.3mb
SVW 67.02 32 eP 00 35.69 -0.6
0.8s 23.22nm 5.4mb
e 00 57.32 83kmX
MOS 67.25 323 eP 00 38.00 0.3
e 00 48.00 32kmX
e 01 02.00
OBN 67.92 322 iPc 00 41.00 -1.0
1.0s 70.00nm 5.8mb
Z 14s 1.90um 5.5MszX
iPcP 00 46.00
epP 01 05.00 94kmX
e 01 31.00
ePP 03 15.00
eSS 14 56.00
LQ 22 30.00
SOC 67.97 309 eP 00 42.00 -0.5
2.2s 160.00nm 5.8mb
Z 14s 1.40um 5.3MszX
N 16s 0.50um
E 12s 1.00um
CP2 68.62 31 eP 00 46.09 -0.4
CRP 68.66 31 eP 00 45.52 -1.2
FBA 69.95 27 eP 00 52.64 -1.6
0.9s 11.13nm 5.0mb
PMR 70.03 31 P 01 00.00 5.2X
Z 17s 0.40um 4.7MszX
KVT 71.18 307 iP 01 01.00 -1.3
KLU 71.55 30 eP 01 02.90 -1.3
SIM 71.58 312 eP 01 04.00 -0.5
Z 18s 0.70um 5.0Msz
KAF 71.74 330 iP 01 04.60 -0.6
0.9s 48.40nm 5.6mb
CTK 72.18 307 eP 01 09.00 0.6
NUR 72.95 329 iP 01 12.20 -0.1
0.9s 49.90nm 5.6mb
MNK 73.32 322 eP 01 12.00 -2.6
MBC 74.35 12 eP 01 20.50 0.2
1.0s 9.00nm 4.8mb
INK 74.36 22 eP 01 20.00 -0.4
1.0s 23.00nm 5.2mb
HON 74.37 73 P 01 30.00 8.8X
Z 20s 0.73um 5.0Msz
KIS 74.53 315 iP+ 01 27.00 5.2X
Z 16s 1.50um 5.4MszX
eS 11 27.00
NAL 74.89 308 eP 01 24.50 0.3
CSS 74.95 302 eP 01 24.00 -0.5
EYL 75.61 308 eP 01 28.50 0.2
PPCY 75.74 302 eP 01 29.00 0.0
ALT 76.12 307 eP 01 30.50 -0.7
IZI 76.18 308 iP 01 31.50 0.0
VRI 76.30 314 ePc 01 32.50 0.6
UPP 76.47 330 iPd 01 32.50 0.0
LVV 76.68 319 eP 01 35.00 1.0
MLR 76.94 314 ePd 01 36.00 0.3

ELL 77.02 304 eP 01 36.00 -0.3
DAG 77.28 351 iPd 01 36.10 -0.7
0.7s 21.92nm 5.3mb
ipP 01 41.20 16km
SIT 78.15 33 P 01 50.00 8.2X
Z 19s 1.20um 5.2Msz
HFS 78.16 331 eP 01 41.50 -0.4
0.9s 26.50nm 5.3mb
Z 16s 0.86um 5.2MszX
LR 32 35.00
UZH 78.17 318 eP 01 43.00 0.9
i 01 49.50 21kmX
e 01 57.80
NB2 78.84 332 P 01 45.20 -0.5
1.0s 16.20nm 5.0mb
NRA0 78.84 332 P 01 46.30 0.7
NRE0 78.84 332 P 01 48.20 2.6
SS 17 50.50
SSS 21 08.90
PLD 78.96 311 iP 01 47.00 0.3
OJC 79.08 320 eP 01 47.30 0.2
1.4s 144.00nm 5.8mb
i 01 52.10 15km
i 01 56.30
RZN 79.10 311 iP 01 48.00 0.3
PGB 79.17 312 iP 01 52.00 4.1X
SPC 79.21 319 eP 01 47.20 -0.9
RES 79.73 9 eP 01 50.00 -0.2
1.0s 14.00nm 4.9mb
VTS 79.81 312 iP 01 52.00 0.5
SRS 80.10 310 eP 01 51.64 -1.2
OUR 80.12 310 eP 01 53.32 0.4
KKB 80.17 311 iP 01 53.00 -0.2
SOH 80.38 310 eP 01 54.04 -0.4
PAIG 80.49 309 eP 01 54.36 -0.5
KNT 80.57 311 eP 01 54.80 -0.6
VAY 80.74 311 iP 01 55.60 -0.6
1.0s 50.00nm 5.5mb
i 02 01.40 18km
KSP 80.86 322 iPd 01 57.50 0.8
1.3s 99.00nm 5.7mb
i 02 02.90 17km
SRO 80.94 318 iP 01 56.00 -1.1
GRG 80.99 311 eP 01 56.52 -1.1
LIT 81.26 310 eP 01 58.12 -0.9
SKO 81.26 312 iPc 01 59.00 0.0
1.3s 180.00nm 5.9mb
i 02 04.80 18km
UZD 81.28 317 eP 01 59.80 0.9
ZST 81.52 319 eP 02 01.00 0.9
e 14 09.80
FNA 81.78 311 eP 02 00.76 -1.0
AGG 81.80 309 eP 02 00.44 -1.4
VKA 81.96 319 eP 02 04.00 1.5
i 02 09.00 16km
OHR 82.05 311 eP 02 01.50 -1.6
1.0s 90.00nm 5.8mb
BRG 82.18 322 eP 02 04.30 0.8
2.0s 130.00nm 5.7mb
PRU 82.25 321 eP 02 04.70 0.8
1.4s 78.40nm 5.6mb
pP 02 09.00 14km
CLL 82.51 323 iPd 02 05.90 0.7
2.8s 220.00nm 5.8mb
KHC 83.20 321 eP 02 09.50 0.6
1.4s 55.10nm 5.5mb
ipP 02 14.50 16km
e 02 24.40
e 03 21.50
e 04 23.50
PTJ 83.22 317 eP 02 09.10 -0.1
GEC2 83.26 320 P 02 09.90 0.6
1.2s 29.42nm 5.3mb
e 02 15.80 19km
e 02 26.50
GEC2 83.26 320 e(P) 02 14.20 4.9X
1.2s 27.90nm 5.3mb
WET 83.59 321 iPc 02 17.40 6.5X
1.6s 106.00nm 5.8mb
MOX 83.60 323 eP 02 11.10 0.2
1.8s 87.00nm 5.7mb
Z 18s 2.60um 5.7Msz
e 02 27.60 58kmX
LJU 84.04 318 iPc 02 13.30 0.1
ipP 02 19.00 18km
LJU 84.04 318 iPc 02 19.00 5.8X
1.6s 220.00nm 6.1mb

YKA 84.10 23 P 02 13.30 0.1
0.7s 25.00nm 5.6mb
BHG 84.27 320 iPd 02 15.60 1.3
GRF 84.28 322 iPc 02 15.70 1.3
1.4s 91.00nm 5.8mb
KBA 84.29 319 iPd 02 15.10 0.4
1.3s 59.40nm 5.7mb
i 02 24.70 30kmX
VOY 84.44 318 eP 02 13.40 -2.0
epP 02 20.80 23kmX
FVI 84.86 319 P 02 17.30 0.0
1.4s 56.40nm 5.6mb
FUR 85.00 321 eP 02 18.90 0.9
ePcP 02 23.90
WATA 85.23 320 iPd 02 19.40 0.1
i 02 24.80 17km
WTTA 85.23 320 iPd 02 19.80 0.4
1.3s 64.00nm 5.7mb
i 02 24.60 15km
SQTA 85.50 320 iPd 02 20.90 0.2
1.2s 50.30nm 5.6mb
i 02 26.00 16km
OGA 85.78 320 eP 02 22.60 0.4
CTI 85.81 319 P 02 23.36 1.1
1.6s 68.00nm 5.6mb
GRI 86.07 311 P 02 26.30 2.8X
1.4s 105.10nm 5.8mb
ARV 86.24 316 P 02 25.46 1.2
1.5s 233.10nm 6.2mb
AQU 86.48 315 P 02 27.68 2.1
1.4s 299.10nm 6.3mb
SDI 86.52 314 P 02 31.54 5.8X
1.7s 128.00nm 5.9mb
SOI 86.66 310 P 02 29.12 2.8X
1.5s 73.00nm 5.7mb
CRE 86.80 316 P 02 33.79 6.6X
1.6s 85.70nm 5.7mb
WLF 87.12 324 Pc 02 32.00 3.7X
FIR 87.17 317 eP 02 30.00 1.3
DOU 87.72 325 P 02 37.10 5.8X
MCW 88.85 36 P 02 37.92 1.1
LPG 89.03 320 eP 02 38.40 0.3
0.9s 20.15nm 5.4mb
LPL 89.04 320 eP 02 38.40 0.4
1.1s 19.05nm 5.3mb
CSY 89.52 184 eP 02 39.00 -0.2
0.9s 12.60nm 5.2mb
JCW 89.62 36 P 02 41.40 0.9
LBF 89.81 322 eP 02 43.50 2.1
1.2s 32.15nm 5.4mb
BMW 89.88 38 P 02 42.77 1.0
SMF 90.08 322 eP 02 43.10 0.5
1.2s 33.30nm 5.5mb
RMW 90.11 37 eP 02 43.61 0.8
FMW 90.49 37 P 02 45.52 0.8
WTV 90.99 36 P 02 47.24 0.4
ASR 90.99 38 P 02 47.81 0.9
EBG 91.12 37 P 02 48.36 0.9
SAW 91.28 36 P 02 48.63 0.5
WAH2 91.76 37 P 02 51.20 0.9
DPW 91.82 35 eP 02 51.21 0.6
NEW 92.14 34 eP 02 52.33 0.2
0.7s 15.54nm 5.5mb
VIPM 92.51 39 P 02 54.92 0.9
FHC 92.60 43 (P) 02 55.38 1.0
LNOR 93.01 37 P 02 56.96 0.8
FRB 93.07 4 eP 02 55.50 -0.4
0.9s 5.00nm 4.9mb
ORV 94.87 43 eP 03 04.19 -0.6
LRM 96.16 34 eP 03 11.50 0.6
DUG 99.72 39 eP 03 27.53 0.6
0.8s 2.84nm 4.9mb
Z 21s 0.36um 4.9Msz
MAW 99.97 199 iPDIF 03 31.70 4.6X
1.3s 6.10nm 5.0mb
MSU 101.20 40 (Pdiff03 38.54 4.9X
GOL 104.16 35 Pdiff 04 00.00 13.2X
Z 21s 0.76um 5.2Msz
TUC 106.16 44 ePKP 08 10.73 3.1X
Z 20s 0.35um 4.9Msz
CBM 109.77 6 PKP 08 20.00 6.1X
Z 21s 0.63um 5.2Msz
WMOK 111.34 34 PKP 08 30.00 12.7X
Z 19s 0.87um 5.4Msz
YSNY 112.33 15 PKP 08 30.00 11.1X
Z 20s 0.94um 5.4Msz
BINY 113.17 13 PKP 08 30.00 9.5X

Z 20s 0.94um 5.4Msz
HRV 113.69 10 PKP 08 30.00 8.5X
Z 20s 0.49um 5.1Msz
MIAR 114.06 30 PKP 08 30.00 7.5X
Z 19s 0.57um 5.2Msz
LSCT 114.21 11 PKP 08 30.00 7.4X
Z 19s 1.11um 5.5Msz
MCWV 114.64 17 PKP 08 30.00 6.5X
Z 18s 0.71um 5.3Msz
OXF 115.94 27 PKP 08 40.00 13.9X
Z 19s 0.30um 4.9Msz
MYNC 117.50 23 PKP 08 40.00 10.9X
Z 19s 0.88um 5.4Msz
LKO 118.11 295 PKP 08 30.79 0.0
1.2s 7.00nm
KIC 119.05 292 ePKP 08 31.94 -0.6
0.8s 13.50nm
GOGA 119.24 23 PKP 08 40.00 7.6X
Z 18s 0.52um 5.2Msz
LIC 119.37 292 PKP 08 31.94 -1.2
0.8s 13.50nm
TOV 145.70 18 ePKP 09 23.00 0.7
OLLA 146.22 13 ePKP 09 23.70 0.5
SDV 146.29 20 iPKPd 09 23.40 -0.1
LPAZ 169.32 52 PKP 09 52.50 1.5
LR 28 48.00
LPB 169.50 53 PKPd 09 52.80 2.0
1.5s 777.78nm
i 14 33.40
LPB 169.50 53 PKP 09 59.00 8.2X
PP 11 09.00
CNCB 169.76 53 PKP 09 53.10 2.0
TCA 170.67 152 ePKPc 09 52.60 1.9
SIV 172.68 13 PKP 09 52.70 0.9
YJA 174.30 81 ePKP 09 55.00 2.2
S.D. = 1.1 on 209 of 258 obs.

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* DEC 15, 1993 21h 54m 33.41± 1.13s
30.058 S ±12.9km 177.567 W ±22.1km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
KERMADEC ISLANDS, NEW ZEALAND (178)

RAO 0.86 339 iPc 54 50.00 0.9
S 55 01.00
PUZ 8.71 202 eP 56 28.30 -11.8X
eS 58 02.50
WCZ 8.97 227 eP 56 45.30 1.6
OUZ 9.05 233 eP 56 44.60 -0.2
THZ 13.99 211 eP 57 51.30 -0.2
DZM 16.41 295 iPc 58 27.50 4.6X
WRA 44.46 272 P 02 41.20 -2.2
0.6s 2.00nm 4.1mb
KAF 144.35 341 ePKP 14 07.90 0.9
NUR 146.12 340 ePKP 14 08.50 -1.5
NB2 148.47 352 PKP 14 14.50 0.6
0.8s 2.70nm
HFS 148.98 349 ePKP 14 14.70 0.0
0.4s 0.90nm
S.D. = 1.4 on 9 of 11 obs.

? DEC 16, 1993 00h 13m 31.10± 2.75s
20.232 S ±15.7km 168.946 E ±32.1km
DEPTH = 51.7 ± 14.1 km
4.2mb (3 obs.)
LOYALTY ISLANDS (188)

PVC 2.55 346 iPd 14 11.00 0.2
iS 14 42.50
BKM 2.64 345 iPd 14 11.90 -0.2
iS 14 43.00
DZM 2.97 231 iPd 14 16.90 0.0
iS 14 50.70
WB2 32.46 264 eP 19 58.30 -0.5
1.1s 2.60nm 4.0mb
WRA 32.47 264 P 19 59.20 0.3
0.5s 1.50nm 4.1mb
ASPA 32.63 257 iPc 20 00.70 0.3
0.5s 11.10nm 4.9mb
GEC2 145.23 331 PKP 33 04.60 0.0
0.6s 1.26nm
e 33 16.50
S.D. = 0.4 on 7 of 7 obs.

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* DEC 16, 1993 00h 14m 01.44± 0.66s
15.630 S ±21.3km 71.090 W ±12.8km
DEPTH = 192.3 ± 10.3 km

4.2mb (3 obs.)
SOUTHERN PERU (117)

ARE 0.91 205 iPd 14 30.50 0.0
iS 14 51.50
LPAZ 2.92 103 P 14 50.40 -0.5
S 15 25.90
LPB 3.01 108 P 14 52.20 0.5
S 15 28.00
CNCB 3.21 112 iPc 14 54.60 0.3
S 15 33.00
CCH 5.06 111 Pd 15 17.00 -0.5
NNA 6.66 302 iPc 15 37.80 -0.2
0.3s 116.88nm 5.6mb X
eS 16 51.80
MOCB 7.62 138 P 15 51.80 0.6
RSTA 22.54 117 (P) 18 45.00 -1.0
FVM 56.34 342 iPc 23 24.22 -0.3
0.8s 19.62nm 4.9mb
ALQ 60.47 327 ePd 23 51.60 -1.8
1.0s 3.75nm 4.1mb
GOL 63.65 331 eP 24 14.00 -0.5
ULM 69.13 343 eP 24 51.00 2.5
YKA 84.99 341 eP 26 16.70 0.9
0.8s 1.80nm 3.9mb
S.D. = 1.2 on ,13 of 13 obs.

& DEC 16, 1993 00h 42m 19.03s
63.506 N 150.806 W
DEPTH = 6.8km
CENTRAL ALASKA (1)
<AEIC>. ML 2.5 (AEIC).

KTH 0.07 312 iP 42 20.89 -0.2
TRF 0.24 103 iP 42 23.86 -0.2
HUR 0.75 135 eP 42 32.87 -1.1
eS 42 43.58
MCK 0.87 74 eP 42 35.18 -0.8
eS 42 47.53
RND 0.88 96 eP 42 34.96 -1.4
BWN 0.89 41 eP 42 37.10 0.6
CUT 1.13 167 eP 42 40.07 -0.4
eS 42 57.63
NEA 1.32 35 eP 42 43.27 -0.4
MLY 1.53 1 eP 42 47.11 0.2
WRH 1.54 50 eP 42 46.38 -0.6
SKT 1.57 193 eP 42 47.31 -0.1
eS 43 08.60
DHY 1.61 104 eP 42 48.22 0.1
eS 43 10.25
CCB 1.75 48 eP 42 49.86 -0.1
eS 43 12.59
MDM 1.84 37 eP 42 51.55 0.2
eS 43 15.09
PWA 1.91 167 eP 42 52.32 0.0
FBA 1.92 42 eP 42 53.68 1.2
HDA 1.93 60 eP 42 53.78 1.2
GHO 1.95 153 eP 42 52.37 -0.5
SUA 2.05 179 eP 42 55.30 0.8
SML 2.05 145 eP 42 53.22 -1.2
PLRM 2.07 157 eP 42 54.47 -0.2
GLM 2.11 44 eP 42 55.92 0.7
NCG 2.20 197 eP 42 56.56 -0.1
CGLM 2.28 195 eP 42 57.40 -0.3
CRP 2.33 196 eP 42 59.07 0.5
PMS 2.34 165 eP 42 59.54 0.9
CP2 2.35 197 eP 42 59.42 0.6
KNK 2.37 151 eP 42 59.11 0.1
BGL 2.37 199 eP 43 00.10 1.1
CKN 2.38 196 eP 43 00.48 1.4
SPU 2.40 195 eP 42 59.28 -0.2
CKL 2.43 198 eP 43 00.45 0.6
PAX 2.47 100 eP 43 00.80 0.3
BKG 2.54 196 eP 43 01.15 -0.2
TOA 2.55 121 eP 43 01.57 0.0
CFI 2.73 147 eP 43 04.21 0.2
IMA 2.85 336 eP 43 04.75 -1.2
TZL 2.88 118 eP 43 07.84 1.7
PWL 2.90 155 eP 43 07.07 0.6
SLKM 3.02 175 eP 43 08.55 0.3
KLU 3.04 130 eP 43 08.88 0.4
PRP 3.05 46 eP 43 07.62 -1.1
DFR 3.06 198 eP 43 09.86 1.1
43 obs. associated

DEC 16, 1993 00h 43m 57.69± 0.27s
38.600 N ± 2.9km 119.458 W ± 2.2km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 3.8 (GS), 3.9 (BRK). Felt
(IV) at Coleville, California.

CMB 0.92 233 ePd 44 13.63 -2.2
eS 44 24.85
ASMM 0.98 284 P 44 15.50 -1.4
MEMM 1.02 156 iPc 44 16.76 -0.6
MMPM 1.04 161 eP 44 16.80 -1.3
eS 44 30.06
BONR 1.11 125 iPc 44 19.27 0.0
MOYM 1.12 232 P 44 17.26 -1.9
AFHM 1.13 293 P 44 18.53 -0.9
MNHM 1.16 247 P 44 18.12 -1.7
MRCM 1.19 141 iPc 44 20.10 -0.4
eS 44 37.21
AHRM 1.29 282 P 44 20.77 -1.2
APRM 1.40 282 P 44 22.79 -1.1
MTUM 1.43 150 iPc 44 24.36 -0.2
AVRM 1.48 287 P 44 24.01 -0.9
BHPR 1.51 149 P 44 25.94 0.3
FRI 1.62 187 iPd 44 26.44 -0.5
iS 44 46.54
ABRM 1.67 289 P 44 27.54 -0.2
KPK 1.74 305 P 44 29.43 0.6
TNP 1.84 106 iPc 44 30.08 -0.3
ORV 1.85 302 iPc 44 30.44 0.0
eS 44 54.27
CSTL 1.87 240 P 44 31.09 0.4
HMR 1.89 257 eP 44 31.79 0.9
OGOM 1.98 303 P 44 32.97 0.8
CDAL 1.99 245 P 44 33.59 1.3
MNR 1.99 240 P 44 32.86 0.5
ARN 2.06 233 eP 44 33.36 -0.1
eS 44 59.97
CVAL 2.06 242 P 44 34.29 0.9
DUC 2.08 255 P 44 34.47 0.8
MHC 2.13 235 ePd 44 34.77 0.2
eS 45 01.70
CVR 2.18 239 P 44 36.54 1.5X
GHS 2.18 227 P 44 35.43 0.3
BGC 2.20 250 P 44 36.50 1.1
COE 2.20 233 eP 44 35.94 0.4
eS 45 04.96
GARM 2.21 280 P 44 37.04 1.4X
LCMM 2.22 315 P 44 38.41 2.5X
ZSP 2.30 254 iPd 44 36.91 0.1
BKS 2.30 253 ePc 44 36.75 -0.2
eS 45 06.12
JSTM 2.31 234 P 44 39.22 2.2X
NMTM 2.35 276 P 44 37.86 0.3
CSR 2.35 226 P 44 37.72 0.1
BSLM 2.36 220 P 44 39.86 2.2X
EKH 2.36 216 P 44 38.84 1.1
MIN 2.41 317 eP 44 41.02 2.5X
eS 45 12.30
GWKM 2.41 282 P 44 40.18 1.7X
SAO 2.42 221 ePn 44 38.30 -0.2
EUC 2.42 231 P 44 38.34 -0.3
SOS 2.42 235 P 44 41.43 2.8X
PARM 2.45 197 P 44 40.65 1.6X
PRCM 2.52 202 P 44 42.18 2.2X
NTYM 2.52 266 eP 44 39.97 0.0
eS 45 11.01
JHPM 2.52 244 P 44 41.54 1.5X
GBGM 2.53 276 P 44 40.86 0.7
LMEM 2.53 321 (Pn) 44 43.14 2.8X
SAC 2.55 247 P 44 41.29 1.0
LDBM 2.57 316 P 44 44.31 3.6X
PKEM 2.59 192 (P) 44 42.66 1.8X
JEGM 2.61 246 ePn 44 41.17 0.0
WLHM 2.61 159 P 44 45.30 3.8X
PRI 2.64 202 iP 44 42.69 1.0
GGPM 2.66 275 P 44 43.68 1.7X
PHAM 2.86 196 ePn 44 46.10 1.3
BAPM 2.98 216 P 44 48.16 1.5X
TPNV 3.03 122 ePn 44 47.01 -0.4
ePg 44 53.41
eS 45 38.87
ISA 3.03 165 ePn 44 48.74 1.4
eS 45 29.86
WDC 3.10 311 ePn 44 47.79 -0.3
eS 45 32.83
WJPM 3.28 166 P 44 58.38 7.5X
BCH 3.44 189 ePn 44 53.66 0.4
LGPM 3.48 313 ePn 44 53.28 -0.4
eS 45 44.09
LBKM 3.50 316 P 44 58.43 4.4X
ABL 3.75 177 (Pn) 44 57.29 -0.3
GSC 3.92 146 ePn 44 59.43 -0.5
eS 46 04.61
YBH 4.00 322 ePc 45 02.08 1.0
eS 46 05.16
FHC 4.13 304 (P) 45 03.15 0.4
ARUT 4.81 98 ePn 45 12.19 -0.5
ePg 45 29.31
eS 46 30.28
PEC 5.05 158 (Pn) 45 17.67 1.7X
eS 46 37.54
DUG 5.39 71 ePn 45 20.75 -0.1
MSU 5.71 89 ePn 45 25.58 0.1
ePg 45 46.55
SRU 6.99 83 ePn 45 44.16 0.7
eS 47 36.55
PV09 8.09 88 ePg 46 28.23 29.2X
PV10 8.18 88 ePg 46 29.32 29.2X
LRM 8.89 34 eP 46 24.10 14.1X
S.D. = 0.8 on 57 of 80 obs.

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* DEC 16, 1993 00h 44m 55.74± 1.11s
34.313 N ±15.0km 26.633 E ± 7.0km
DEPTH = 33.0km (normal)
CRETE (370)
MD 3.8 (ATH).

NPS 1.27 319 ePn 45 16.50 -0.7
VAM 2.28 299 ePn 45 33.00 1.2
KSL 3.01 52 ePn 45 43.00 0.8
ELL 3.61 47 ePn 45 52.00 1.2
VLI 3.85 310 ePn 45 53.00 -1.1
BCK 4.49 45 ePn 46 03.00 -0.3
CSS 5.56 81 eP 46 17.00 -1.3
eS 47 20.50
KIC 40.17 233 P 52 31.00 0.4
S.D. = 1.2 on 8 of 8 obs.

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* DEC 16, 1993 01h 05m 32.78± 1.84s
0.872 S ±11.9km 124.177 E ±13.9km
DEPTH = 91.6 ± 16.3 km
4.8mb (8 obs.)
SOUTHERN MOLUCCA SEA (269)

DAV 8.03 10 eP 07 28.50 -0.1
TSM 8.12 309 iPd 07 29.90 0.0
BIP 9.27 13 eP 07 35.50 -10.1X
CGP 9.28 3 iPd 07 46.00 0.3
KKM 10.51 311 eP 08 09.00 6.6X
BAG 17.54 348 eP 09 33.50 0.4
WB2 21.41 153 iPd 10 14.60 -0.3
0.7s 27.10nm 4.7mb
e 10 17.90
ASPA 24.54 158 eP 10 51.60 6.2X
0.4s 18.30nm 4.9mb
FORT 29.97 173 eP 11 40.40 5.8X
0.6s 20.00nm 5.0mb
STK 34.96 154 eP 12 23.90 5.9X
1.2s 3.90nm 4.2mb
BJI 41.37 351 eP 13 09.50 -1.8
1.0s 6.00nm 4.4mb
GUN 46.57 311 P 13 53.80 0.0
0.5s 9.00nm 4.9mb
GKN 47.56 310 P 14 02.10 0.7
YAK 62.86 3 eP 15 50.00 -0.9
0.9s 73.00nm 5.7mb
IMA 87.60 24 eP 18 13.00 1.2
1.1s 8.13nm 4.7mb
e 18 37.00
SLKM 88.58 30 eP 18 17.00 0.6
S.D. = 1.0 on 11 of 16 obs.

DEC 16, 1993 01h 07m 23.76± 0.56s
44.049 N ± 4.7km 9.828 E ± 4.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.0 (GEN), 3.0 (LDG), 2.6
(STR). MD 3.0 (TRI).

BORS 0.20 360 P 07 27.32 -0.5
PCP 1.04 299 P 07 44.43 0.5
S 07 58.09
FIN 1.18 278 P 07 46.26 0.0
S 08 02.48
IMI 1.41 265 P 07 49.53 -0.6

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                S     08 07.66
ROB     1.43 281 P     07 50.24  -0.2
                S     08 09.23
PGF     1.62 202 Pn    07 53.70   0.6
                Sn    08 12.00
SAOF    1.64 269 Pn    07 53.37   0.0
                Sg    08 21.17
AUTN    1.73 269 Pn    07 54.91   0.0
SBF     1.74 265 Pn    07 54.90   0.1
                Sn    08 17.30
ENR     1.74 277 P     07 55.52   0.6
                S     08 17.00
AURF    1.81 266 Pn    07 56.94   1.0
STV     1.81 277 P     07 56.02   0.1
TOUF    1.86 270 Pn    07 56.53  -0.2
                Sg    08 29.74
MVIF    1.94 266 Pn    07 58.32   0.5
BHB     2.00 294 P     07 58.21  -0.4
PZZ     2.01 284 P     07 58.81  -0.1
ORX     2.06 321 P     07 57.48  -2.0
                S     08 20.06
RSP     2.14 302 P     08 00.28  -0.5
TMA     2.17 342 iPd   08 01.80   0.7
FRF     2.35 259 Pn    08 03.10  -0.6
                Sn    08 31.20
LSD     2.37 307 P     08 03.07  -1.1
VDL     2.45 354 iPd   08 06.00   0.8
LMR     2.51 255 Pn    08 05.10  -0.8
                Sn    08 34.40
LRG     2.58 258 Pn    08 07.20   0.3
                Sn    08 36.90
LPG     2.63 305 Pn    08 09.30   1.5
                Sn    08 39.50
OSS     2.65   5 iPd   08 08.90   0.9
LPL     2.65 305 Pn    08 08.90   0.8
                Sn    08 39.90
LLS     2.88 349 eP    08 11.40   0.0
TRI     3.25  58 e(Pn) 08 14.40  -2.0
                e(Sg) 08 50.90
SQTA    3.32  16 iPnc  08 17.90   0.4
                i     08 19.00
                iSn   09 00.30
MOTA    3.42  15 iPnd  08 19.90   1.0
                iSn   09 03.70
WTTA    3.46  21 iPnc  08 20.10   0.6
                i     08 21.00
                iSn   09 03.80
WATA    3.51  20 iPnc  08 20.80   0.6
                iSn   09 04.80
KBA     3.91  38 iPnc  08 26.00   0.1
                i     09 10.20
                i     09 12.20
                i     09 29.20
BSF     4.34 332 Pn    08 31.80  -0.1
                Sn    09 19.90
HAU     4.64 330 Pn    08 35.10  -1.0
                Sn    09 26.50
CDF     4.71 339 Pn    08 36.30  -0.9
                Sn    09 28.10
    S.D. = 0.8  on  37 of  37 obs.
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* DEC  16, 1993  02h 08m 21.19± 1.59s
  26.764 N ± 8.6km  140.434 E ± 9.8km
  DEPTH = 387.1 ± 16.5 km
  4.2mb ( 11 obs.)
 BONIN ISLANDS REGION             (212)

MAT     9.93 350 (P)   10 39.00  -0.3
     1.0s    15.00nm          4.3mb
                eS    12 29.00
WB2    46.80 188 eP    16 14.90  -0.6
     0.4s     5.30nm          4.2mb
WRA    46.80 188 P     16 15.40  -0.1
     0.5s     1.70nm          3.6mb
GUN    48.13 284 P     16 27.10   0.9
PKI    48.61 284 P     16 29.90   0.1
KKN    48.68 284 P     16 30.60   0.5
DMN    48.87 284 P     16 31.90   0.3
GKN    49.19 285 P     16 34.20   0.3
DZM    54.69 150 iPc   17 14.10   0.0
IMA    56.09  27 eP    17 24.30   0.8
     1.0s     1.90nm          3.4mb
FBA    58.37  28 eP    17 39.20   0.1
YKA    73.17  28 eP    19 10.50  -1.4
     0.5s     2.40nm          4.1mb
KAF    77.09 334 iP    19 33.40  -0.4
     0.4s     6.60nm          4.7mb
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NEW    78.20  42 ePd   19 41.20   1.0
     1.0s     5.50nm          4.3mb
NUR    78.65 333 iP    19 42.20   0.0
     0.2s     2.20nm          4.6mb
LRM    82.17  42 eP    20 02.80   1.5
HFS    83.10 336 eP    20 04.00  -1.3
     0.3s     3.10nm          4.5mb
NB2    83.33 338 P     20 06.00  -0.5
     0.4s     2.70nm          4.4mb
GEC2   90.97 328 P     20 42.60  -0.7
     0.9s     0.83nm          3.7mb
    S.D. = 0.8  on  19 of  19 obs.
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? DEC  16, 1993  03h 04m 13.38± 2.14s
  31.968 S ±38.3km  68.520 W ±38.6km
  DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTCV    0.11 352 iPd   04 27.80   0.0
                S     04 39.00
CFA     0.43  34 ePd   04 29.00   0.0
                S     04 41.90
RTCB    0.54 334 ePd   04 29.80   0.0
                S     04 43.50
RTLL    0.64   4 ePd   04 30.50   0.0
                S     04 44.00
    S.D. = 0.1  on   4 of   4 obs.
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* DEC  16, 1993  03h 12m 01.24± 0.55s
  9.183 S ± 8.0km  127.618 E ± 9.3km
  DEPTH =  33.0km  (normal)
  5.0mb (  8 obs.)
 TIMOR SEA                        (290)

MTN     5.01 137 eP    13 18.00   1.8
WB2    12.52 149 eP    14 56.20  -3.8X
                eS    17 13.90
MBL    14.07 211 iPd   15 16.50  -4.0X
     0.3s    20.00nm          5.3mb
                iS    17 47.00
ASPA   15.61 158 iPc   15 37.80  -2.7
     Z  22s   1.40um
                e     15 40.40
                eS    18 16.90
QIS    16.18 136 iPd   15 47.00  -0.8
                eS    18 36.00
WARB   16.93 183 eP    15 55.80  -1.6
     0.5s    52.00nm          4.9mb
                eS    19 02.50
NANU   17.65 220 eP    16 06.20  -0.1
                eS    19 17.00
KKM    18.92 323 eP    16 20.50  -1.6
PMG    19.29  92 eP    16 25.00  -1.3
MEEK   19.34 205 eP    16 29.50   2.5X
                eS    19 55.00
FORT   21.49 179 eP    16 50.20   0.9
COOL   22.42 195 eP    16 59.00   0.4
MRWA   22.72 207 eP    17 01.50   0.0
     0.5s    17.00nm          4.8mb
                eS    21 10.50
BAL    23.62 204 eP    17 10.60   0.3
     0.5s    30.00nm          5.1mb
                eS    21 30.00
KLB    24.11 201 eP    17 15.40   0.4
                eS    21 43.80
MUN    25.03 203 eP    17 24.50   0.6
     0.9s    48.00nm          5.1mb
                eS    22 04.00
NWAO   25.50 201 iPd   17 28.20  -0.1
STK    26.05 152 eP    17 33.80   0.4
     0.8s    11.60nm          4.5mb
                ipP   17 39.80  21kmX
                eS    22 22.00
ADE    27.60 160 eP    17 51.60   4.0X
ARMA   30.80 137 eP    18 20.00   3.6X
TOO    32.55 153 eP    18 34.10   2.5X
     0.8s    22.00nm          5.1mb
DZM    39.40 114 iPc   19 30.90   0.9
LZH    50.29 335 eP    20 57.50   0.6
     1.4s    39.00nm          5.2mb
HYB    55.22 299 eP    21 28.00  -5.8X
SYO    80.82 201 ePc   24 11.60  -1.2
MSU   119.21  51 (PKP) 30 47.93  -1.4
PV10  121.64  50 (PKP) 30 44.15  -9.8X
RSSD  123.45  43 ePKP  30 52.89  -4.3X
KIC   132.74 270 PKP   31 16.43   0.9
LKO   133.86 274 PKP   31 16.92  -0.8
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     0.9s     8.50nm
RSTA  146.21 185 ePKP  31 40.90   1.3
MOCB  147.07 157 PKP   31 43.30   1.7
CNCB  149.91 149 PKP   31 51.60   5.3X
LPB   150.09 149 ePKP  31 51.00   4.6X
LPAZ  150.28 148 PKP   31 48.70   1.7
CCH   150.31 153 PKP   31 52.20   5.6X
    S.D. = 1.3  on  24 of  36 obs.
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* DEC  16, 1993  03h 12m 13.43± 1.49s
  4.060 N ± 9.6km  126.682 E ±14.2km
  DEPTH =  91.5 ±  9.7 km
  5.0mb ( 18 obs.)
 TALAUD ISLANDS, INDONESIA        (263)

MNI     3.18 215 eP    13 01.00  -1.4
DAV     3.20 340 ePc+  13 02.90   0.3
CTB     3.98 322 ePd   13 15.00   1.7
                eS    14 35.00
BIP     4.16 354 eP    13 10.00  -5.9X
CGP     4.79 336 eP    13 25.50   0.9
MAP     6.77 337 eP    13 53.00   0.9
PLP     7.26 347 ePc   13 57.30  -1.4
BAG    13.66 334 eP    15 30.60   5.9X
SSE    27.39 350 eP    17 52.80   0.7
     Z  20s   0.90um          4.3Msz
     N  10s   0.40um
NST    28.54 296 eP    18 02.50  -0.2
BDT    30.13 298 eP    18 17.00   0.1
                e     19 16.00
CHTO   30.81 301 ePd   18 23.40   0.5
     1.0s    23.00nm          4.9mb
KMI    31.11 315 Pd    18 26.00   0.2
     1.5s    50.00nm          5.0mb
     Z  20s   0.70um          4.3Msz
XAN    34.10 333 P     18 49.40  -2.0
     0.6s    28.00nm          5.3mb
                pP    18 56.80  25kmX
                sP    19 00.50
CD2    34.35 324 P     18 53.00  -0.6
TIY    35.94 341 eP    19 02.00  -5.0X
     Z  22s   0.65um          4.4Msz
BJI    37.06 347 eP    19 15.50  -0.7
     1.0s    13.00nm          4.8mb
     Z  20s   0.60um          4.4Msz
LZH    38.20 329 eP    19 25.00  -1.1
     1.5s    40.00nm          5.1mb
     Z  16s   0.74um          4.6MszX
     N  14s   0.63um
                pP    19 37.50  47kmX
                sP    19 42.50
HHC    39.07 342 eP    19 33.00  -0.3
     1.0s     9.00nm          4.6mb
GTA    42.79 329 eP    20 04.00   0.2
                sP    20 17.50
GUN    45.49 306 P     20 26.00   0.0
     0.6s    26.00nm          5.3mb
PKI    45.74 305 P     20 26.90  -1.0
KKN    45.93 305 P     20 29.00  -0.3
DMN    46.00 305 P     20 29.40  -0.5
GKN    46.54 305 P     20 33.80  -0.2
     0.6s    10.00nm          4.9mb
HYB    48.96 290 eP    20 53.60   0.8
CIT    49.01 349 eP    20 54.80   2.1
KOD    49.17 280 eP    20 55.50   0.7
ZAK    50.20 341 eP    20 57.80  -3.9X
     2.2s    34.00nm          5.0mb
WMQ    52.43 325 P     21 17.00  -1.8
     1.5s     8.00nm          4.5mb
     Z  20s   0.75um          4.7Msz
                pP    21 23.00  20kmX
POO    53.56 290 eP    21 15.50 -11.9X
BOD    54.54 352 eP    21 31.20  -2.8
     1.0s    12.00nm          4.9mb
KSH    57.75 315 eP    21 55.00  -2.4
YAK    57.87   2 eP    21 57.00  -0.6
     1.1s    45.00nm          5.4mb
QUE    61.93 302 eP    22 22.50  -3.8X
TIK    67.50   1 eP    23 00.00  -1.2
     1.4s    11.00nm          4.6mb
                e     27 09.00
MAIO   69.27 307 eP    23 14.00   0.9
SVE    73.65 328 ePd   23 39.50   0.9
     3.0s   140.00nm          5.3mb
                e     24 35.00
IMA    82.10  24 eP    24 25.10   0.1
     0.8s     4.33nm          4.4mb
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16d 03h

FBA 84.44 25 ePc 24 37.00 0.2
OBN 86.75 325 eP 24 49.80 1.4
1.0s 46.00nm 5.5mb
UZH 96.42 320 ePd 25 35.50 2.1
1.0s 31.00nm 5.8mb
DAG 96.94 352 eP 25 35.00 -0.3
GEC2 101.80 322 Pdiff 25 59.90 2.1
1.1s 1.59nm 4.7mb
e 26 04.20
ARE 158.31 126 ePKP 32 04.00 1.7
SIV 165.90 148 PKP 32 12.70 3.3X
S.D. = 1.3 on 39 of 46 obs.

? DEC 16, 1993 03h 47m 00.63± 3.69s
36.552 N ±30.4km 28.137 E ±19.6km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
ML 3.3 (ISK).

ELL 1.44 82 iPn 47 27.00 0.2
IZM 1.97 340 iPn 47 34.40 0.0
KHL 2.08 32 ePn 47 36.40 0.3
BCK 2.16 64 ePn 47 37.00 -0.3
ALT 2.95 31 ePn 47 48.30 -0.1
S.D. = 0.3 on 5 of 5 obs.

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* DEC 16, 1993 04h 18m 19.23± 0.30s
20.473 S ±12.2km 173.884 W ± 8.7km
DEPTH = 24.2km (2 depth phases)
5.1mb (24 obs.) 4.4Msz (1 obs.)
TONGA ISLANDS (173)

AFI 6.83 17 eP 19 54.00 -6.6X
eS 21 00.00
SVA 7.60 287 eP 20 17.80 6.5X
BKM 17.12 276 iPd 22 23.80 5.2X
DZM 18.40 262 iPc 22 36.80 2.2
ARMA 32.57 245 eP 24 51.20 0.1
1.0s 16.00nm 4.9mb
CNB 35.47 238 eP 25 16.20 0.2
1.0s 86.00nm 5.6mb
CAN 35.76 238 eP 25 18.40 0.0
BWA 36.01 239 eP 25 17.80 -2.7
TOO 39.05 235 eP 25 46.20 0.1
1.0s 85.00nm 5.4mb
PMG 39.12 280 eP 25 46.00 -0.7
STK 41.28 245 eP 26 04.10 -0.3
0.9s 13.20nm 4.7mb
ASPA 48.28 256 iPc 26 59.40 -1.3
1.1s 41.20nm 5.4mb
Z 20s 0.40um 4.4Msz
iPcP 28 28.40
eS 33 56.00
WRA 48.42 261 P 27 00.50 -1.3
1.1s 10.70nm 4.8mb
FORT 52.84 246 eP 27 34.60 -0.7
WARB 54.51 252 eP 27 46.20 -1.5
1.0s 55.00nm 5.5mb
MBL 61.52 256 eP 28 35.40 -1.6
KLB 61.55 244 eP 28 36.80 -0.2
NWAO 61.82 243 iPc 28 39.30 0.4
BAL 62.58 245 iPd 28 43.80 -0.2
0.3s 6.00nm 5.2mb
MUN 62.81 244 iPd 28 45.80 0.4
1.0s 70.00nm 5.7mb
MRWA 63.41 247 iPd 28 49.30 -0.1
1.0s 48.00nm 5.6mb
NANU 65.12 254 iPd 29 00.80 0.2
CSY 65.65 205 iPc 29 04.10 0.8
0.9s 18.00nm 5.2mb
ipP 29 12.90 28km
SPA 69.65 180 iPd 29 29.90 1.3
0.9s 45.45nm 5.6mb
MAT 72.54 321 eP 29 46.00 -0.2
1.1s 12.66nm 4.9mb
LGPM 77.30 37 eP 30 12.47 -1.1
GLA 77.52 48 eP 30 14.54 -0.3
BONR 78.11 42 eP 30 17.87 -0.5
TPNV 78.81 44 (P) 30 21.68 -0.4
0.8s 7.10nm 4.7mb
TNP 78.87 42 eP 30 21.83 -0.5
0.7s 7.23nm 4.8mb
TUC 79.96 50 eP 30 28.59 0.3
1.2s 15.76nm 4.9mb
ARUT 81.13 44 eP 30 34.75 0.4
RMW 82.21 33 eP 30 39.68 0.0
MSU 82.36 44 eP 30 41.73 0.9
DUG 82.88 43 (P) 30 43.73 0.3
1.0s 5.79nm 4.7mb
CP2 83.29 10 eP 30 43.93 -1.2
CRP 83.31 10 eP 30 44.03 -1.2
SRU 83.76 44 eP 30 48.39 0.4
LTX 83.82 56 eP 30 47.15 -1.3
EMUT 83.95 44 eP 30 50.00 1.0
PV10 84.36 46 eP 30 50.91 -0.2
PV09 84.36 45 eP 30 51.15 0.0
ALQ 84.41 50 eP 30 51.51 0.1
1.4s 30.61nm 5.3mb
PTI 84.66 40 (P) 30 51.66 -0.7
PV08 84.73 46 eP 30 53.30 0.2
LRM 86.27 38 eP 31 00.50 0.0
IPM 87.00 276 ePd 31 06.50 2.1
FBA 87.44 11 eP 31 04.77 -0.6
0.9s 10.01nm 5.1mb
IMA 87.62 8 eP 31 06.53 0.1
1.3s 7.45nm 4.8mb
BJI 88.62 314 eP 31 13.50 2.0
1.5s 28.00nm 5.4mb
ACO 90.49 51 iPc 31 20.50 0.0
RSSD 90.49 43 eP 31 20.25 -0.3
1.4s 18.06nm 5.2mb
TUL 92.64 53 iPc 31 32.50 2.2
BDT 93.29 287 eP 31 36.00 2.4
YKA 94.91 24 eP 31 39.60 -0.5
1.1s 1.30nm 4.3mb
LZH 95.84 306 eP 31 47.50 2.2
1.2s 25.00nm 5.5mb
pP 31 54.00 20km
EKA 144.50 9 PKP 37 54.00 -0.9
1.0s 15.90nm
OJC 148.40 343 ePKP 38 05.20 3.7X
i 38 09.10
KSP 148.65 348 ePKP 38 06.30 4.4X
KAS 148.65 318 ePKP 38 04.00 1.7
CLL 148.75 352 ePKP 38 06.00 4.0X
1.7s 69.00nm
i 38 34.80
BRG 149.04 350 iPKP 38 07.40 4.9X
1.1s 20.00nm
UZH 149.04 339 ePKPc 38 08.00 5.5X
e 38 32.80
VRI 149.53 331 ePKP 38 09.00 5.6X
MOX 149.58 353 ePKP 38 08.90 5.6X
1.7s 43.00nm
PRU 149.80 349 ePKP 38 09.00 5.4X
e 38 18.00
GRF 150.56 353 ePKP 38 12.00 7.2X
KHC 150.79 350 PKP 38 12.00 6.8X
1.0s 12.50nm
e 38 30.00
e 39 19.50
ZST 150.96 345 ePKP 38 11.80 6.4X
SRO 150.99 343 ePKP 38 12.60 7.1X
GEC2 151.05 350 PKP 38 12.00 6.3X
0.8s 2.64nm
e 38 14.80
e 38 21.10
BZS 151.86 337 ePKP 38 07.00 0.2
LJU 153.58 347 ePKP 38 07.50 -1.8
KIC 162.46 142 PKP 38 21.16 0.5
1.2s 24.00nm
LKO 164.33 132 PKPc 38 22.28 -0.2
1.3s 7.50nm
S.D. = 1.1 on 59 of 75 obs.

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* DEC 16, 1993 05h 30m 26.98± 1.29s
23.567 S ± 7.1km 65.016 W ±16.8km
DEPTH = 60.4 ± 18.1 km
4.3mb (4 obs.)
JUJUY PROVINCE, ARGENTINA (128)

MOCB 2.38 346 P 31 06.20 1.5
CCH 6.24 350 P 32 00.80 1.9
RTPR 6.84 191 e(P) 32 03.00 -3.9X
CNCB 7.27 337 Pc 32 13.50 0.0
LPB 7.57 337 P 32 17.00 -0.6
e 34 46.00
RTRS 7.68 210 eP 32 20.00 1.4
LPAZ 7.81 337 P 32 18.20 -2.8
i 34 48.00
RTLL 8.32 201 iPc 32 27.70 0.3
SIV 8.40 27 P 32 24.50 -4.1X
RTCB 8.57 202 iPc 32 32.00 1.0
RTCV 8.83 200 eP 32 32.00 -2.5
ARE 9.33 318 eP 32 44.00 2.4X
RSTA 14.64 97 eP 34 02.10 10.0X
VAO 16.59 92 eP 34 24.70 7.5X
BAO 17.86 67 (P) 34 32.40 -0.7
e 39 29.30
i 39 59.50
i 40 06.60
e 40 49.10
i 41 17.90
KIC 65.89 71 P 41 08.92 0.0
0.7s 10.50nm 4.9mb
LKO 66.74 68 P 41 14.74 0.3
0.8s 2.50nm 4.3mb
ALQ 70.22 325 eP 41 35.00 -0.8
1.0s 2.00nm 4.0mb
RSSD 76.25 332 (P) 42 14.68 3.8X
YKA 94.35 339 eP 43 42.20 1.6
0.9s 1.30nm 4.4mb
S.D. = 1.6 on 14 of 20 obs.

DEC 16, 1993 08h 55m 09.22± 0.48s
49.173 N ± 4.0km 6.914 E ± 6.3km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.8 (STR).

RUP 0.54 10 ePg 55 19.70 -0.4
LANF 0.62 108 Pg 55 21.75 0.1
WLF 0.70 315 iPd 55 22.00 -1.0
CDF 0.80 162 Pg 55 23.83 -1.0
Sg 55 34.64
WLS 0.81 159 Pg 55 24.47 -0.6
ABH 0.82 30 ePg 55 24.40 -0.7
ECH 0.97 170 Pg 55 27.75 0.0
Sg 55 40.93
VITF 1.14 213 Pg 55 30.06 -0.5
Sg 55 44.97
MOF 1.33 174 Pg 55 34.28 0.4
Sg 55 52.17
FEL 1.49 150 Pg 55 37.62 1.5
Sg 55 56.81
ENN 1.72 339 ePg 55 41.00 1.7
0.5s 15.60nm
eS 56 05.00
DOU 1.77 302 iP 55 39.60 -0.4
i 55 41.90
iS 55 59.80
LOMF 1.82 182 Pg 55 43.58 2.6X
SNF 2.17 309 P 55 46.70 0.9
S.D. = 1.0 on 13 of 14 obs.

DEC 16, 1993 09h 10m 42.86± 0.47s
40.518 N ± 4.2km 29.693 E ± 4.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

IZI 0.25 223 iPg 10 48.10 -0.1
HRT 0.30 356 ePg 10 49.00 -0.2
GBZT 0.33 325 ePg 10 50.20 0.5
iSg 10 55.30
EYL 0.36 82 iPg 10 50.20 -0.1
GPA 0.52 116 iPg 10 53.50 0.0
iSg 11 02.50
ISK 0.73 319 iPg 10 57.10 0.0
iSg 11 07.10
DST 1.22 222 iPn 11 05.90 0.2
EDC 1.41 264 ePn 11 08.00 -0.5
ALT 1.50 167 ePn 11 10.00 0.1
S.D. = 0.3 on 9 of 9 obs.

? DEC 16, 1993 09h 11m 32.56± 5.78s
41.589 N ±41.2km 23.023 E ±12.2km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.1 (THE).

KNT 0.44 192 ePgc 11 41.66 0.2
eSg 11 46.04
SRS 0.64 138 ePgc 11 45.53 0.2
eSg 11 52.72
GRG 0.79 217 ePg 11 47.84 0.0
eSg 11 58.40
SOH 0.81 162 ePg 11 47.92 -0.3
eSg 11 54.84
S.D. = 0.4 on 4 of 4 obs.

DEC 16, 1993 09h 22m 15.63± 0.23s
41.473 N ± 2.6km 23.079 E ± 2.3km
DEPTH = 10.0km (geophysicist)
4.5mb (14 obs.)
GREECE-BULGARIA BORDER REGION (363)
ML 4.2 (THE), 4.1 (TIR). Felt (V) in southwestern Bulgaria and (IV) in the southeastern part of the Former Yugoslav Republic of Macedonia.

KNT 0.34 204 ePgc 22 22.74 0.1
eSg 22 27.18
KKB 0.39 0 iPgc 22 23.00 -0.7
VAY 0.41 249 iPg 22 24.00 0.0
0.3s *******nm
iSg 22 29.40
MMB 0.50 76 iPg 22 26.00 0.2
SRS 0.52 132 ePgc 22 26.46 0.2
eSg 22 34.82
SOH 0.68 162 ePgc 22 29.46 0.3
GRG 0.73 225 ePgc 22 29.50 -0.4
eSg 22 41.58
THE 0.84 186 ePgd 22 31.98 0.1
eSg 22 42.38
VTS 1.12 5 iPg 22 37.00 0.2
RZN 1.25 80 iPgc 22 40.00 1.1
SKO 1.33 293 iPg 22 39.90 -0.2
0.8s 6010.00nm
i 22 41.20
i 22 43.50
iSg 22 58.00
Lg 23 03.50
OUR 1.33 149 ePbc 22 40.78 0.7
PGB 1.35 37 iPg 22 41.00 0.5
LIT 1.44 198 ePbd 22 41.66 -0.1
eSb 22 59.62
FNA 1.46 242 ePbd 22 42.66 0.6
eSb 23 01.54
PAIG 1.61 163 ePbc 22 44.70 0.6
eSb 23 05.70
OHR 1.76 259 iPnd 22 46.60 0.3
1.1s 1900.00nm
i 22 48.90
i 23 07.00
i 23 11.50
Lg 23 19.00
DIM 1.92 72 iP 22 50.00 1.3
LSK 2.30 236 ePn 22 48.60 -5.7X
ALN 2.31 103 ePnc 22 54.66 0.3
PVL 2.41 43 iP 22 55.00 -0.7
TIR 2.42 268 iPnd 23 00.00 4.1X
iSn 23 33.50
AGG 2.51 193 ePnd 22 57.46 0.2
eSn 23 29.30
LACI 2.53 275 iPnd 23 00.50 3.1X
iSn 23 36.50
TPE 2.61 244 ePn 22 58.60 0.1
iSn 23 30.00
SDA 2.74 283 iPnd 23 07.20 6.8X
SRN 2.83 237 iPnd 23 03.60 1.9
VLO 2.89 251 ePn 23 00.00 -2.6
DMK 3.52 83 iPn 23 11.00 -0.5
BUC1 3.60 36 ePd 23 26.00 13.5X
BUC 3.68 36 iPd 23 24.50 10.8X
EDC 3.80 106 ePn 23 15.00 -0.4
BNT 3.83 105 ePn 23 14.50 -1.5
GZR 3.93 357 iPc 23 17.00 -0.3
TNR 4.27 11 ePc 23 28.00 5.9X
BZS 4.28 346 ePc 23 12.50 -9.7X
DEV 4.41 358 ePc 23 24.00 -0.1
IZM 4.45 132 ePn 23 25.70 1.0
ISR 4.45 33 ePd 23 25.50 0.8
ITU 4.49 93 ePn 23 42.00 16.8X
iSg 24 40.00
ISK 4.53 93 ePn 23 29.00 3.3X
MLR 4.53 26 ePc 23 26.00 0.2
DST 4.62 112 iPn 23 27.40 0.2
IZI 4.98 101 iP 23 47.10 14.9X
HRT 5.02 95 ePn 23 32.00 -0.8
VRI 5.13 30 ePd 23 34.50 0.2
HVAR 5.20 291 iPn 23 34.60 -0.8
CFR 5.24 43 ePd 23 38.00 2.2
EYL 5.43 97 ePn 23 34.00 -4.7X
EYL 5.43 97 ePn 23 37.20 -1.5
GPA 5.61 100 ePn 23 31.00 -10.1X
MGR 5.86 259 P 23 45.59 0.9
ALT 5.89 112 ePn 23 45.00 -0.2
UZD 6.06 329 ePn 23 45.90 -1.4
SOI 6.39 240 P 23 50.38 -1.7
PTJ 6.80 313 eP 23 58.10 0.2
SDI 6.95 275 P 24 03.14 3.1X
SRO 7.19 333 i(Pn) 24 04.20 0.9
i 24 06.10
LJU 7.69 309 e(Pn) 24 10.00 -0.3
eSn 25 43.50
PZI 7.73 238 P 24 06.00 -5.0X
ARV 7.76 288 P 24 12.10 0.7
MNS 7.81 280 P 24 14.53 2.5
ZST 7.95 330 i(Pn) 24 11.10 -2.8
i 24 15.70
SPC 7.97 346 eP 24 14.90 0.5
TRI 7.98 305 eP 24 15.30 1.0
VKA 8.31 327 i(Pn) 24 18.50 -0.5
i 24 21.00
i 24 53.90
CRE 8.49 288 P 24 22.02 0.3
KBA 8.95 312 iPnc 24 28.40 0.4
0.6s 12.50nm 5.4mb X
i 25 35.00
i 26 01.80
i 26 05.70
FVI 9.01 308 P 24 28.29 -0.3
CTI 9.45 303 P 24 36.45 1.6
WTTA 10.03 309 iPnc 24 43.30 0.4
i 24 46.10
WATA 10.10 309 iPnc 24 43.50 -0.4
i 24 47.30
i 25 48.30
KHC 10.16 322 P 24 46.50 1.9
0.9s 6.50nm 5.1mb X
e 24 50.00
e 25 07.00
e 25 19.50
SQTA 10.26 308 iPnd 24 45.70 -0.3
i 24 49.40
MOTA 10.38 308 iPnc 24 50.00 2.3
PRU 10.39 328 eP 24 55.30 7.6X
eS 26 59.40
KSP 10.48 336 eP 24 51.80 2.9X
LPG 12.52 294 eP 25 15.10 -1.8
0.5s 8.75nm 5.3mb
LPL 12.54 294 eP 25 14.70 -2.4
1.2s 39.00nm 5.5mb X
CDF 13.16 307 eP 25 27.50 2.4
BSF 13.21 304 eP 25 26.90 1.0
HAU 13.56 304 eP 25 31.20 0.9
LBF 14.75 298 eP 25 45.90 -0.1
1.1s 23.95nm 4.6mb
SMF 14.76 297 eP 25 47.10 1.0
1.0s 29.60nm 4.8mb
LOR 14.90 299 eP 25 48.30 0.3
0.6s 8.05nm 4.4mb
SSF 15.08 298 eP 25 50.40 0.1
1.1s 32.50nm 4.7mb
AVF 15.12 297 eP 25 50.10 -0.7
0.8s 14.90nm 4.5mb
BGF 15.41 296 eP 25 54.50 -0.1
MAF 15.53 295 eP 25 56.20 0.0
1.3s 80.50nm 4.8mb
TCF 15.79 295 eP 25 59.50 0.0
0.8s 11.80nm 4.1mb
HFS 19.57 346 eP 26 43.70 -2.6
0.4s 1.80nm 3.7mb
KAF 20.76 4 eP 27 02.30 3.5X
NB2 20.89 344 P 26 58.20 -2.0
0.6s 1.80nm 3.6mb
LKO 40.62 227 P 29 56.34 -1.0
0.9s 6.00nm 4.3mb
KIC 42.85 223 Pd 30 14.72 -0.9
0.6s 7.50nm 4.6mb
LIC 43.11 223 Pd 30 16.88 -0.8
0.6s 5.00nm 4.4mb
YKA 70.95 341 eP 33 32.80 -1.9
0.7s 1.60nm 4.3mb
S.D. = 1.1 on 79 of 97 obs.

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* DEC 16, 1993 09h 32m 03.03± 0.74s
41.459 N ± 6.5km 23.066 E ± 4.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.9 (SKO), 2.8 (THE).

KNT 0.32 203 ePgc 32 09.86 0.1
eSg 32 13.78
VAY 0.40 250 iPg 32 10.70 -0.5
0.2s 180.00nm
i 32 14.70
iSg 32 16.40
SRS 0.52 131 ePgc 32 13.46 -0.2
eSg 32 20.74
SOH 0.67 161 ePgc 32 16.38 0.0
eSg 32 25.54
GRG 0.71 225 ePgd 32 16.78 -0.3
eSg 32 26.42
THE 0.83 185 ePg 32 19.02 0.0
eSg 32 30.10
OUR 1.32 148 ePb 32 27.66 0.3
eSb 32 45.06
SKO 1.32 293 iPg 32 27.00 -0.4
iSg 32 45.00
LIT 1.43 198 ePb 32 28.54 -0.4
eSb 32 47.98
FNA 1.44 243 ePb 32 29.14 -0.1
eSb 32 47.26
PAIG 1.60 163 ePb 32 31.90 0.5
eSb 32 53.30
OHR 1.74 259 ePn 32 35.00 1.4
ALN 2.32 103 ePn 32 41.62 -0.2
AGG 2.50 193 ePn 32 44.14 -0.2
S.D. = 0.5 on 14 of 14 obs.

% DEC 16, 1993 09h 36m 09.80± 2.34s
41.385 N ±19.2km 23.048 E ± 7.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.1 (THE).

KNT 0.25 207 ePg 36 14.66 -0.4
eSg 36 20.02
SRS 0.49 123 ePg 36 19.38 -0.4
eSg 36 26.90
SOH 0.61 158 ePg 36 22.66 0.6
eSg 36 29.98
GRG 0.65 229 ePgc 36 22.62 -0.2
eSg 36 31.94
THE 0.75 185 ePg 36 24.66 0.1
eSg 36 33.90
FNA 1.40 245 ePb 36 35.70 0.3
eSb 36 52.74
S.D. = 0.5 on 6 of 6 obs.

& DEC 16, 1993 10h 23m 44.72s
37.633 N 118.820 W
DEPTH = 3.3km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.2 (GM). ML 3.2 (GS), 3.1 (BRK).

CLKR 0.04 184 P 23 46.10 0.1
MCSM 0.07 288 P 23 46.68 0.3
MEMM 0.10 289 iPd 23 47.26 0.5
ORC 0.13 89 P 23 47.77 0.3
MMPM 0.17 262 ePc 23 48.31 0.1
CASR 0.22 105 P 23 54.25 5.0
MRCM 0.25 81 eP 23 50.11 0.3
MTUM 0.35 144 iPd 23 51.68 0.0
BCKR 0.36 80 P 23 52.36 0.4
BHPR 0.43 141 P 23 53.38 0.1
BONR 0.52 52 iPc 23 55.18 0.0
MSTM 1.28 283 P 24 08.56 -0.6
CMB 1.30 288 iPd 24 08.67 -0.8
eS 24 25.73
TNP 1.34 70 eP 24 10.48 0.2
PHBM 1.71 217 P 24 17.07 1.5
WASM 1.90 174 P 24 20.14 1.6
ISA 1.99 172 ePc 24 21.18 1.6
WORM 1.99 166 P 24 21.36 1.7
HVC 2.04 232 P 24 20.70 0.4
WOFM 2.09 178 P 24 23.42 2.2
EKH 2.11 244 P 24 23.64 2.2
LTR 2.12 250 P 24 22.79 1.3
CSTL 2.13 271 P 24 23.79 2.2
TPNV 2.16 108 eP 24 22.53 0.3
WBSM 2.16 165 P 24 24.53 2.2
ARN 2.18 263 eP 24 23.01 0.7
PHAM 2.20 216 eP 24 23.22 0.6
WJPM 2.23 173 P 24 25.89 2.6
BVYM 2.25 248 P 24 26.46 3.0
LRC 2.26 233 P 24 25.75 2.3
MHC 2.26 263 eP 24 25.33 1.6

```
                  eS      24 53.81
WSHM    2.26 151 P        24 27.53    3.9
SAO     2.27 248 eP       24 25.15    1.5
                 eS       24 54.16
HMR     2.41 283 (P)      24 27.22    1.5
MARC    2.66 189 P        24 33.02    3.8
ABL     2.80 187 eP       24 32.49    1.1
GSC     2.84 144 ePn      24 32.28    0.4
ORV     2.85 313 eP       24 34.55    2.7
                 iS       25 11.25
NTYM    3.13 285 (P)      24 36.22    0.5
MIN     3.47 322 eP       24 48.08    7.2
PEC     3.97 160 (Pn)     24 49.03    1.2
ARUT    4.27  86 (Pn)     24 52.11   -0.1
PLM     4.56 159 (Pn)     24 57.93    1.6
       43 obs. associated
--------------------------------------
& DEC 16, 1993  10h 35m 05.87s
  37.630 N           118.819 W
   DEPTH =   2.2km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
     <GM-P>. MD 2.9 (GM). ML 3.0
     (BRK), 2.9 (GS). Double event.

CLKR    0.04 186 P        35 06.59   -0.4
MCSM    0.07 290 P        35 08.01    0.5
MEMM    0.10 291 iPd      35 08.45    0.5
HTCR    0.11 159 P        35 08.31    0.2
ORC     0.13  88 P        35 08.96    0.4
MMPM    0.17 263 ePc      35 09.46    0.2
CASR    0.22 104 P        35 11.43    1.1
MRCM    0.25  80 eP       35 11.31    0.4
MTUM    0.34 144 ePd      35 12.79    0.0
BCKR    0.36  79 P        35 13.67    0.6
BHPR    0.42 141 P        35 14.64    0.3
BONR    0.52  51 eP       35 16.40    0.1
CMB     1.30 289 iPd      35 29.95   -0.8
                 iS       35 47.03
TNP     1.35  70 eP       35 31.89    0.3
WLHM    1.53 164 P        35 34.80    0.3
MNHM    1.66 289 P        35 36.38    0.3
BAVM    1.76 271 P        35 42.91    5.4
BMSM    1.85 239 P        35 40.93    2.0
ISA     1.98 172 eP       35 41.79    0.9
TOW     2.01 155 P        35 44.09    2.9
TPNV    2.16 108 ePn      35 44.55    1.0
ARN     2.18 263 eP       35 43.02   -0.6
PHAM    2.19 216 (Pn)     35 45.74    1.9
WJPM    2.23 173 P        35 47.27    2.8
BVYM    2.25 248 P        35 46.64    1.9
MHC     2.26 264 eP       35 46.51    1.5
                 eS       36 16.06
COE     2.30 262 eP       35 47.43    2.0
ABL     2.79 187 ePn      35 54.56    1.9
GSC     2.83 144 (Pn)     35 54.52    1.4
ORV     2.85 313 ePc      35 56.78    3.6
                 eS       36 33.33
NTYM    3.13 285 (Pn)     36 00.24    3.2
ARUT    4.27  86 (Pn)     36 13.59    0.1
       32 obs. associated
--------------------------------------
* DEC 16, 1993  10h 52m 27.26± 2.29s
  41.475 N ±17.8km   23.059 E ± 6.9km
  DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION   (363)
     ML 2.4 (THE).

KNT     0.34 201 ePgc  52 34.37    0.2
                 eSg   52 38.76
VAY     0.40 247 iPg   52 35.40    0.0
       0.3s   100.00nm
                 iSg   52 40.70
SRS     0.54 132 ePg   52 38.21    0.1
                 eSg   52 45.80
SOH     0.69 161 ePg   52 40.68   -0.3
                 eSg   52 50.44
GRG     0.72 224 ePgc  52 41.10   -0.3
                 eSg   52 51.12
THE     0.85 185 ePg   52 43.76    0.2
                 eSg   52 55.16
FNA     1.45 242 ePb   52 53.72    0.2
    S.D. = 0.3  on    7 of    7 obs.
--------------------------------------
  DEC 16, 1993  10h 57m 16.07± 0.47s
  43.325 N ± 4.0km    0.562 W ± 3.3km
  DEPTH =  10.0km  (geophysicist)
 PYRENEES                        (378)
     ML 3.3 (LDG). mbLg 2.9 (MDD). MD
     2.8 (BTH).

OGE     0.17 157 Pg       57 20.16    0.2
ESCF    0.25 182 Pg       57 21.50    0.2
ATE     0.26 203 Pg       57 21.74    0.2
                 Sg       57 27.70
MADF    0.26 226 Pg       57 21.56    0.0
                 Sg       57 27.33
JAU     0.32 154 Pg       57 22.78    0.0
BTH     0.33 128 iPd      57 22.65   -0.2
                 i        57 24.00
                 iS       57 31.00
ISSF    0.34 210 Pg       57 23.32    0.1
ELYF    0.35 244 Pg       57 23.15   -0.2
BOH     0.40 236 Pg       57 24.08   -0.2
                 Sg       57 30.62
LHE     0.41 186 Pg       57 24.45   -0.1
EPF     0.72 114 Pg       57 29.70   -0.6
                 Sg       57 40.30
ELIZ    0.72 257 iPd      57 29.04   -1.3
                 e        57 39.40
EGRA    1.14 171 iPc      57 41.97    4.5X
                 e        57 58.00
ECRI    1.60 244 iPc      57 45.72    1.2
                 e        58 04.60
LPO     1.85  42 Pg       57 48.30    0.2
                 Sg       58 12.20
LFF     1.87  30 Pg       57 48.60    0.3
                 Sg       58 10.40
ETOR    2.74 204 eP       58 01.16    0.2
                 e        58 33.80
    S.D. = 0.5  on   16 of   17 obs.
--------------------------------------
? DEC 16, 1993  11h 03m 41.17± 0.96s
  39.605 N ± 8.4km   29.388 E ± 8.6km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
     ML 2.5 (ISK).

DST     0.59 270 ePg      03 53.00   -0.1
                 iSg      04 03.30
IZI     0.73   5 ePg      03 56.00    0.4
ALT     0.78 134 ePg      03 56.60    0.1
EYL     1.13  31 ePn      04 02.00   -0.4
    S.D. = 0.5  on    4 of    4 obs.
--------------------------------------
  DEC 16, 1993  11h 48m 18.15± 0.39s
  37.422 N ± 4.4km   20.806 E ± 3.2km
  DEPTH =  33.0km  (normal)
  4.4mb ( 18 obs.)
 IONIAN SEA                      (399)
     ML 4.7 (ROM), 4.3 (THE). MD 4.2
     (TTG), 4.1 (ATH).

VLS     0.77 347 ePg      48 32.00   -0.6
VLI     1.84 112 ePb      48 49.00    1.0
AGG     2.00  36 ePnc     48 53.24    3.0
                 eSn      49 18.52
ATH     2.37  76 ePn      48 56.00    0.4
KZN     2.98  14 ePn      49 05.00    0.8
LIT     2.98  26 ePnc     49 05.44    1.2
                 eSn      49 42.88
PAIG    3.36  41 ePn      49 09.50   -0.1
                 eSn      49 51.64
FNA     3.39   7 ePnc     49 11.78    1.8
                 eSn      49 50.24
VAM     3.40 125 ePn      49 09.00   -1.1
THE     3.62  27 ePnc     49 13.96    0.8
                 eSn      49 58.52
OHR     3.68 360 iPn      49 15.70    1.5
       1.4s   920.00nm
                 i        49 26.00
                 i        49 40.70
                 i        49 59.40
                 i        50 14.00
                 i        50 24.50
                 Lg       50 48.00
GRI     3.73 293 P        49 17.26    2.4
GRG     3.74  19 ePn      49 15.04    0.1
                 eSn      49 59.80
OUR     3.82  39 ePn      49 16.52    0.5
SOI     3.82 281 P        49 17.18    1.1
SOH     3.93  29 ePnc     49 18.72    1.0
KNT     4.07  23 ePnc     49 20.32    0.6
                 eSn      50 10.48
VAY     4.13  19 iPn      49 21.30    0.9
       1.0s   300.00nm
                 i        49 34.00
                 i        50 36.70
                 Lg       50 38.00
SRS     4.28  30 ePn      49 23.08    0.5
                 eSn      50 14.80
ORI     4.31 309 P        49 24.89    1.8
NPS     4.44 118 ePn      49 25.00    0.1
BRT     4.44 322 P        49 26.23    1.2
SKO     4.57   6 iPnc     49 27.40    0.6
     Z  10s     2.88um
                 i        49 36.00
                 i        49 43.00
                 iSn      50 25.00
                 i        50 33.50
                 iSb      50 41.00
                 LR       51 26.00
ULC     4.69 346 iPnd     49 28.04   -0.4
                 iSn      50 13.78
MEU     4.70 268 P        49 27.84   -0.8
PZI     4.72 267 P        49 28.57   -0.3
MNO     4.87 278 P        49 32.36    1.1
MGR     4.92 305 P        49 33.93    2.2
BDV     5.09 343 iPnc     49 32.59   -1.5
                 iSn      50 21.71
TTG     5.14 347 iPnc     49 34.33   -0.5
                 iSn      50 24.88
IZM     5.20  77 eP       49 34.00   -1.7
PVY     5.21 353 iPnd     49 37.07    1.2
                 iSn      50 29.72
RDO     5.22  43 ePn      49 35.00   -1.0
SGO     5.31 308 P        49 39.70    2.6
HCY     5.32 341 iPnd     49 35.16   -2.2
                 iSn      50 26.24
ALN     5.35  48 ePn      49 37.36   -0.4
GIB     5.41 278 P        49 39.59    0.9
IVA     5.49 353 iPnd     49 40.75    1.0
                 iSn      50 36.10
NKY     5.56 346 iPnc     49 39.69   -1.1
                 iSn      50 34.18
FAI     5.68 271 P        49 43.91    1.4
BRY     5.74 343 iPnd     49 41.25   -2.1
                 iSn      50 36.98
PLE     6.00 350 iPnc     49 46.75   -0.3
                 iSn      50 46.65
DST     6.51  68 eP       49 54.30    0.1
HVAR    6.64 331 iPn      49 53.60   -2.3
ELL     7.31  93 eP       50 07.00    1.6
IZI     7.36  64 eP       50 10.10    4.0X
BCK     7.78  87 eP       50 11.00   -1.0
EYL     7.93  64 eP       50 16.00    1.9
MLR     8.93  24 eP       50 38.50   10.5X
PTJ     9.21 338 iP       50 29.40   -2.4
LJU     9.80 333 e(P)     50 38.00   -1.8
                 eS       52 28.00
KBA    11.12 333 iPc      50 56.40   -1.5
                 i        50 57.60
                 i        51 24.10
                 iS       52 57.40
WTTA   11.94 328 iPd      51 09.40    0.3
                 i        53 16.60
SQTA   12.09 327 iPd      51 12.40    1.4
KHC    12.83 338 eP       51 19.50   -1.3
                 e        51 32.00
                 e        52 03.50
LPG    13.26 312 eP       51 25.70   -1.1
LPL    13.28 312 eP       51 25.90   -1.1
PRU    13.35 342 P        51 26.00   -1.6
                 e        51 40.50
KSP    13.80 348 eP       51 43.00    9.4X
BRG    14.31 342 iP       51 48.50    8.2X
                 e        52 08.20
BSF    14.63 320 eP       51 44.40   -0.1
       0.6s    11.10nm           4.5mb
MOX    14.76 336 e(P)     51 47.70    1.5
CDF    14.77 322 eP       51 46.40    0.0
       0.8s    10.50nm           4.3mb
CLL    14.95 341 iPd      51 55.90    7.3X
       1.4s    33.00nm           4.5mb
                 eSg      56 27.00
HAU    14.97 320 eP       51 48.50   -0.4
       0.7s    16.85nm           4.5mb
SMF    15.59 312 eP       51 56.10   -0.9
BGF    16.14 310 eP       52 02.80   -1.3
       1.0s    20.80nm           4.2mb
KIV    17.81  62 (P)      52 31.60    6.5X
       1.2s     9.00nm           3.8mb
```

LDF 18.88 313 eP 52 37.40 -0.7
0.5s 7.95nm 4.2mb
FLN 19.17 313 eP 52 40.50 -1.0
LPF 19.17 310 eP 52 40.60 -0.9
UPP 22.55 356 iP 53 15.40 -0.9
HFS 23.18 351 eP 53 21.40 -1.1
0.5s 10.60nm 4.6mb
NUR 23.24 5 eP 53 21.50 -1.5
EKA 24.18 325 P 53 34.00 1.8
NB2 24.40 349 P 53 34.50 0.1
0.8s 6.50nm 4.2mb
KAF 24.95 6 iP 53 39.00 -0.6
0.5s 7.60nm 4.5mb
SVE 32.69 41 ePd 54 49.50 0.3
LKO 36.57 227 Pd 55 22.26 -0.7
0.7s 4.00nm 4.4mb
TIC 38.61 224 P 55 39.47 -0.5
0.9s 3.00nm 4.1mb
KIC 38.69 223 P 55 40.47 -0.2
0.5s 7.00nm 4.7mb
LIC 38.96 224 P 55 42.77 -0.2
0.5s 1.50nm 4.0mb
GKN 53.62 80 P 57 36.00 -2.8
0.6s 13.00nm 5.1mb
GUN 54.64 80 P 57 44.20 -2.3
0.5s 12.00nm 5.2mb
ZAK 57.89 49 eP 58 17.00 8.1X
0.7s 6.00nm 4.8mb
BOD 60.91 38 eP 58 25.80 -3.9X
PV09 91.49 323 eP 01 24.30 1.4
PV10 91.54 323 eP 01 24.21 1.1
ALQ 92.93 319 eP 01 30.81 1.4
1.1s 1.82nm 4.4mb
WRA 120.28 93 PKP 07 07.80 0.0
0.7s 0.40nm
S.D. = 1.3 on 82 of 90 obs.

DEC 16, 1993 12h 17m 21.89± 0.85s
3.774 N ± 3.3km 127.888 E ± 6.9km
DEPTH = 96.9 ± 8.2 km
5.0mb (23 obs.)
TALAUD ISLANDS, INDONESIA (263)

DAV 4.02 325 ePd 18 24.00 1.6X
BIP 4.71 340 ePd 18 30.00 -2.0
iS 19 20.00
CTB 5.01 313 ePd 18 37.00 1.0
eS 19 43.00
MAP 7.57 329 ePd 19 13.00 1.6
PLP 7.89 339 ePd 19 16.00 0.3
KKM 11.85 281 eP 20 16.50 7.4X
MTN 16.82 169 iPc 21 12.60 -0.3
MBL 26.01 197 eP 22 48.00 0.4
0.3s 3.00nm 4.3mb
ASPA 27.90 168 iPc 23 04.30 -0.5
0.3s 19.00nm 5.2mb
NANU 28.83 204 eP 23 13.00 -0.1
WHN 29.54 336 eP 23 19.10 -0.3
WARB 29.80 182 iPc 23 22.10 0.2
0.3s 11.00nm 5.0mb
MEEK 31.54 196 iPc 23 36.20 -0.9
0.3s 9.00nm 5.0mb
CHTO 31.99 300 ePc 23 42.00 0.8
1.0s 21.00nm 4.8mb
KMI 32.18 314 eP 23 42.00 -1.0
1.8s 50.00nm 5.0mb
pP 23 50.00 28kmX
MAT 33.97 15 eP 23 50.00 -8.1X
0.5s 5.63nm 4.7mb
MRWA 34.73 198 iPc 24 04.00 -0.7
0.3s 5.00nm 5.0mb
XAN 34.91 332 P 24 05.30 -0.9
0.8s 14.00nm 4.9mb
COOL 35.06 190 eP 24 06.60 -0.9
BAL 35.82 197 eP 24 13.20 -0.7
0.3s 12.00nm 5.3mb
YAMJ 35.99 16 eP 24 15.00 -0.2
KLB 36.47 195 eP 24 18.60 -0.7
MUN 37.25 197 eP 24 25.50 -0.4
OFUJ 37.31 18 eP 24 26.50 0.2
BJI 37.62 345 eP 24 28.00 -0.9
1.0s 7.00nm 4.5mb
STK 37.78 161 eP 24 30.00 -0.3
0.4s 30.50nm 5.6mb
NWAO 37.87 195 eP 24 31.30 0.2
LZH 39.06 328 eP 24 42.50 1.3
1.0s 24.00nm 5.0mb
HHC 39.73 341 eP 24 45.00 -1.6
ADE 39.86 166 iPc 24 49.00 1.4
HOOJ 40.83 18 eP 24 56.10 0.7
ARMA 40.88 148 eP 24 56.00 -0.1
0.6s 13.00nm 4.9mb
KUSJ 41.91 19 eP 25 04.40 0.1
ASAJ 42.24 16 eP 25 07.20 0.2
GTA 43.66 328 Pd 25 18.50 -0.3
1.0s 8.00nm 4.5mb
TOO 44.27 160 iPd 25 25.30 1.7
0.5s 20.00nm 5.2mb
DZM 45.62 126 iPc 25 35.50 0.9
GUN 46.64 305 P 25 43.40 0.5
0.7s 25.00nm 5.2mb
PKI 46.89 305 P 25 44.80 -0.1
KKN 47.08 305 P 25 46.20 -0.1
DMN 47.15 305 P 25 47.20 0.3
GKN 47.69 305 P 25 51.00 0.1
WMQ 53.36 324 P 26 33.00 -0.5
0.7s 9.70nm 4.9mb
YAK 58.12 1 eP 27 07.00 -0.3
0.9s 26.00nm 5.3mb
e 27 32.00
KSH 58.80 315 eP 27 13.50 0.9
0.8s 16.00nm 5.2mb
ADK 66.28 34 eP 27 59.84 -1.9
0.5s 5.94nm 4.8mb
CSY 71.01 187 eP 28 30.80 0.1
0.6s 19.60nm 5.1mb
IMA 81.88 24 ePc 29 33.00 1.3
0.8s 4.14nm 4.3mb
FBA 84.19 25 (P) 29 43.42 0.1
KLU 84.88 29 iP 29 46.71 -0.3
KIC 131.64 282 PKP 36 26.63 0.5
0.5s 7.00nm
LKO 131.79 286 PKPc 36 26.61 0.2
0.7s 3.00nm
LIC 131.95 282 PKP 36 27.15 0.5
0.4s 1.00nm
S.D. = 0.8 on 50 of 53 obs.

& DEC 16, 1993 12h 21m 34.50s
45.196 N 120.090 W
DEPTH = 6.7km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 3.0 (SEA). ML 2.8
(GS).

JBO 0.32 34 Pc 21 40.69 -0.3
VTHM 0.33 268 P 21 41.00 -0.3
VGB 0.58 304 eP 21 45.54 -0.6
CROR 0.67 252 P 21 47.26 -0.7
PATW 0.72 19 P 21 48.96 0.0
VIPM 0.78 209 P 21 49.20 -1.0
GL2 0.92 326 P 21 51.72 -0.7
VFP 0.98 278 P 21 52.88 -0.6
PRW 1.06 15 P 21 54.06 -0.7
RSW 1.25 16 P 21 57.00 -1.0
BPO 1.26 245 P 21 58.02 -0.3
GULW 1.28 305 P 21 57.76 -0.9
BRVW 1.29 3 P 21 57.84 -0.9
WIW 1.36 24 Pd 21 58.85 -0.9
YAKW 1.36 347 P 21 59.01 -0.9
MXC 1.39 354 P 21 59.46 -0.9
ASR 1.42 313 P 22 00.28 -0.6
MDW 1.44 9 Pd 21 59.95 -1.1
LNOR 1.44 61 Pd 21 59.94 -1.1
MJ2 1.45 20 P 22 00.37 -0.8
GBL 1.47 17 P 22 00.80 -0.6
TCO 1.53 225 P 22 02.80 0.3
ET3 1.60 30 P 22 02.21 -1.1
WAH2 1.60 13 P 22 02.83 -0.5
BVW 1.62 5 P 22 03.05 -0.6
NAC 1.62 342 P 22 02.51 -1.1
CDFW 1.65 305 P 22 03.66 -0.5
PGO 1.69 280 P 22 05.27 0.7
CRF 1.70 16 P 22 04.60 -0.1
S 22 29.96
MTMW 1.70 300 P 22 04.87 0.0
SSOR 1.72 259 Pd 22 05.07 0.0
EBG 1.75 349 P 22 04.73 -0.7
ESD 1.76 305 Pd 22 08.48 2.7
SOSW 1.77 307 P 22 06.51 0.6
SHW 1.80 304 eP 22 06.42 0.0
WPW 1.81 326 Pc 22 06.31 -0.2
TDL 1.88 309 P 22 07.64 0.1
LON 1.96 323 eP 22 08.18 -0.5
TBM 2.01 350 P 22 09.39 0.1
FMW 2.06 328 P 22 09.81 -0.3
EPH 2.19 9 P 22 11.72 -0.1
ETW 2.42 356 P 22 15.50 0.3
BMW 2.54 301 (P) 22 17.30 0.4
RMW 2.56 333 (P) 22 14.51 -2.6
DPW 2.98 25 (P) 22 19.98 -3.1
NEW 3.69 33 (P) 22 42.72 9.5
46 obs. associated

% DEC 16, 1993 12h 21m 43.00± 2.81s
41.564 N ±21.0km 23.025 E ±10.4km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.3 (THE).

KNT 0.41 193 ePgc 21 51.74 0.3
eSg 21 55.90
SRS 0.62 136 ePgc 21 55.50 0.0
eSg 22 02.14
SOH 0.78 161 ePg 21 58.38 0.1
eSg 22 07.54
THE 0.93 183 ePg 22 00.30 -0.5
eSg 22 12.62
FNA 1.47 238 ePb 22 09.60 0.0
eSb 22 29.50
S.D. = 0.4 on 5 of 5 obs.

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* DEC 16, 1993 13h 03m 14.56± 0.87s
51.687 N ±16.9km 174.198 W ± 8.2km
DEPTH = 33.0km (normal)
4.1mb (6 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK 1.56 278 eP 03 40.09 -0.1
KDC 13.90 56 eP 06 30.31 -0.9
SLKM 15.94 47 eP 06 58.68 0.9
IMA 17.76 28 (P) 07 21.12 0.5
0.7s 1.98nm 3.4mb
KLU 18.26 47 eP 07 26.44 -0.3
FBA 18.97 36 eP 07 34.36 -1.0
0.3s 2.23nm 3.9mb
NEW 36.07 72 (P) 10 13.00 -1.7
MSU 44.41 82 (P) 11 24.40 0.5
SRU 45.05 80 (P) 11 28.02 -1.0
PV09 46.28 80 (P) 11 40.00 1.1
ULM 47.08 59 eP 11 46.50 1.8
GOL 47.83 76 (P) 11 51.00 0.0
0.8s 2.38nm 4.3mb
LTX 55.76 85 (P) 12 57.00 6.5X
NB2 67.54 357 P 14 09.20 0.1
0.9s 3.60nm 4.5mb
HFS 68.35 356 eP 14 13.40 -0.7
0.4s 1.40nm 4.4mb
NDI 78.50 302 eP 15 12.00 -1.8
0.8s 22.39nm 5.2mb X
GEC2 79.62 355 P 15 20.90 1.2
0.7s 1.19nm 4.0mb
QUE 82.45 310 eP 15 36.50 1.5
ePP 16 07.50
S.D. = 1.2 on 17 of 18 obs.

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* DEC 16, 1993 13h 03m 33.35± 0.82s
51.545 N ± 6.7km 7.066 E ±10.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)

WTS 0.48 341 ePg 03 43.00 -0.1
0.5s 43.70nm
ENN 1.06 223 ePg 03 53.50 0.2
0.4s 14.60nm
eSg 04 07.50
ABH 1.69 169 ePn 04 03.00 -0.1
RUP 1.85 180 ePn 04 05.20 -0.2
GEC2 5.05 120 Pn 04 51.10 0.2
0.6s 0.61nm 3.4mb
S.D. = 0.2 on 5 of 5 obs.

DEC 16, 1993 13h 04m 35.05± 0.20s
13.444 N ± 4.2km 145.945 E ± 3.9km
DEPTH = 53.2km (9 depth phases)
5.1mb (46 obs.)
MARIANA ISLANDS (216)
Mw 5.1 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 22C

16d 13h

Centroid Location:
Origin Time 13:04:39.7 0.5
Lat 13.55N 0.10 Lon 146.34E 0.08
Dep 36.4 6.5 Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr= 4.24 0.46 Mtt=-0.52 0.65
Mff=-3.72 0.64 Mrt=-0.52 1.27
Mrf= 2.18 1.33 Mtf=-3.74 0.50
Principal Axes:
T Val= 5.25 Plg=62 Azm=228
N 1.17 27 27
P -6.42 8 122
Best Double Couple:Mo=5.8*10**16
NP1:Strike=240 Dip=43 Slip= 131
NP2: 10 59 58

GUA 1.01 276 eP 04 53.20 0.1
GUMO 1.06 278 eP 04 54.30 0.5
eS 05 12.80
PJG 1.06 278 eP 04 54.40 0.6
DAV 21.01 255 eP 09 17.00 0.5
CGP 21.44 259 ePc 09 20.50 -0.3
CTB 22.26 256 ePc 09 31.00 2.0
KAGJ 22.44 324 P 09 31.80 1.1
WKYJ 22.72 337 P 09 32.60 -0.8
PMG 22.73 177 eP 09 32.00 -1.6
IIDJ 23.11 343 P 09 37.70 0.5
TKSJ 23.13 334 P 09 38.30 1.0
CHJJ 23.36 346 P 09 40.60 1.0
KUMJ 23.50 326 P 09 41.60 0.6
TSRJ 23.76 340 P 09 43.40 -0.1
MAT 24.02 345 eP 09 44.00 -2.1
1.2s 31.25nm 4.7mb
Z 20s 2.13um 4.6Msz
eS 14 10.00
MTMJ 24.17 344 P 09 46.90 -0.7
SHK 24.19 332 eP 09 48.10 0.4
YONJ 24.41 335 P 09 50.00 0.2
NIIJ 24.50 347 P 09 49.10 -1.5
SHNJ 24.60 329 eP 09 51.90 0.3
BAG 24.68 280 eP 09 49.10 -3.6X
eS 14 31.00
SSE 28.76 312 Pd 10 30.50 0.6
Z 20s 1.40um 4.6Msz
N 14s 1.30um
E 14s 1.00um
pP 10 40.50 36kmX
sS 15 42.00
PcS 17 16.00
CN2 34.99 334 eP 11 24.60 0.3
1.0s 14.00nm 4.8mb
Z 18s 1.33um 4.7Msz
N 14s 5.54um
E 14s 7.55um
WB2 35.08 199 iPd 11 23.90 -1.4
1.2s 16.50nm 4.8mb
BJI 37.21 321 eP 11 43.00 0.0
1.5s 42.00nm 5.1mb
Z 20s 1.81um 4.9Msz
N 18s 1.71um
ePP 13 14.00
eS 17 28.00
TIY 38.36 315 eP 11 54.40 1.5
Z 20s 2.49um 5.0Msz
E 15s 1.50um
sP 12 14.00
PP 13 26.00
S 17 36.00
sS 18 09.00
ASPA 38.72 198 eP 11 55.90 0.0
1.2s 12.00nm 4.6mb
Z 23s 0.90um 4.5MszX
ePP 13 28.20
eS 16 59.00
GYA 38.97 296 P 11 59.40 1.3
1.0s 36.00nm 5.2mb
Z 18s 2.08um 5.0Msz
N 16s 1.56um
E 16s 0.85um
XAN 39.31 308 P 12 00.00 -0.8
0.7s 9.90nm 4.8mb
Z 18s 1.55um 4.9Msz
N 14s 1.23um
E 14s 0.82um
pP 12 14.00 54km
HHC 40.57 319 eP 12 11.00 -0.1
1.1s 21.00nm 4.8mb

Z 20s 2.12um 5.0Msz
N 17s 0.87um
E 15s 0.80um
pP 12 25.00 54km
PP 13 49.00
S 18 20.00
sS 18 36.00
DZM 40.62 150 iPc 12 09.80 -1.9
BTO 41.44 318 eP 12 18.00 -0.3
N 15s 0.69um
E 17s 1.14um
sP 12 39.00
KMI 42.23 293 Pd 12 26.00 0.9
1.4s 60.00nm 5.1mb
Z 20s 1.00um 4.7Msz
pP 12 34.50 29kmX
sP 12 40.00
ScS 22 17.00
CD2 42.46 301 iPd 12 27.90 1.2
1.0s 28.00nm 5.0mb
Z 18s 1.10um 4.8Msz
S 18 40.00
WARB 43.64 205 eP 12 36.00 -0.2
LZH 43.93 308 eP 12 39.50 0.8
1.6s 76.00nm 5.2mb
Z 19s 0.99um 4.7Msz
N 14s 0.97um
pP 12 54.50 58km
sP 13 02.50
ARMA 43.95 173 eP 12 37.50 -1.3
NST 44.33 279 eP 12 42.50 0.5
SMY 45.17 24 P 13 00.00 11.8X
Z 19s 2.04um 5.1Msz
STK 45.26 185 eP 12 49.20 0.1
0.5s 2.20nm 4.3mb
CIT 46.39 333 eP 12 58.50 0.6
NANU 46.57 220 eP 13 00.00 0.4
ADE 48.63 188 e(P) 13 18.20 2.6
YAK 49.88 350 eP 13 24.00 -0.8
1.5s 55.00nm 5.4mb
Z 17s 1.90um 5.2MszX
N 17s 1.50um
i 13 35.00
BOD 50.39 339 eP 13 26.20 -2.6
ZAK 50.54 326 eP 13 29.00 -1.0
1.0s 20.00nm 5.1mb
Z 19s 0.74um 4.7Msz
N 16s 0.78um
E 16s 0.97um
e 14 47.00
e 16 29.50
TOO 50.74 180 eP 13 34.40 2.7
IRK 51.02 328 eP 13 32.00 -1.7
Z 15s 1.09um 5.0MszX
N 16s 0.42um
E 15s 0.67um
e 13 42.50
eS 20 50.00
MRWA 51.34 214 eP 13 34.50 -1.8
BAL 52.05 212 eP 13 40.20 -1.5
KLB 52.31 211 eP 13 42.00 -1.6
LSA 52.99 297 Pc 13 49.60 0.2
1.2s 43.00nm 5.4mb
MUN 53.40 212 eP 13 51.00 -0.7
HON 53.84 73 P 14 10.00 14.9X
Z 19s 0.71um 4.7Msz
GUN 57.50 295 P 14 21.80 -0.2
PKI 57.91 294 P 14 23.60 -1.2
WMQ 58.00 313 P 14 24.60 -0.2
1.5s 22.00nm 5.1mb
Z 16s 1.03um 5.0MszX
pP 14 43.00 71kmX
PcP 15 14.00
ScP 19 06.00
PcS 19 10.00
sS 22 45.50
KKN 58.03 294 P 14 24.80 -0.7
0.9s 38.00nm 5.5mb
DMN 58.18 294 P 14 26.00 -0.6
1.0s 71.00nm 5.8mb
GKN 58.61 295 P 14 28.80 -0.6
SDN 58.68 33 P 14 40.00 10.8X
Z 19s 1.56um 5.1Msz
TIK 59.07 354 eP 14 30.00 -1.8
1.2s 10.00nm 4.8mb
e 14 43.00
e 15 19.00

SVW 63.30 28 eP 14 59.74 -0.8
1.3s 19.34nm 5.0mb
TTA 63.83 26 eP 15 02.72 -1.3
0.7s 4.90nm 4.6mb
HYB 64.80 283 eP 15 11.00 0.0
CP2 64.89 28 eP 15 09.64 -1.4
SLKM 65.60 29 eP 15 13.28 -2.1
KSH 66.15 307 eP 15 20.00 0.5
Z 16s 0.71um 5.0MszX
E 18s 1.81um
sP 15 40.00
PMR 66.42 28 eP 15 19.72 -0.8
0.8s 7.56nm 4.8mb
Z 19s 0.66um 4.9Msz
FRU 67.32 311 eP 15 28.00 1.3
KLU 67.88 29 (P) 15 29.49 -0.4
POO 69.10 285 eP 15 35.40 -2.7
SIT 72.70 34 P 16 10.00 10.9X
Z 20s 1.84um 5.3Msz
INK 74.10 22 eP 16 07.00 0.0
1.0s 7.00nm 4.5mb
SVE 76.31 326 ePc 16 20.00 0.1
2.9s 80.00nm 5.2mb
Z 16s 1.00um 5.2MszX
N 16s 0.50um
E 16s 0.70um
ARU 77.46 325 eP 16 25.00 -1.3
MBC 78.16 14 eP 16 30.00 0.2
1.0s 8.00nm 4.7mb
MAIO 79.35 305 eP 16 39.00 1.8
ASH 79.99 307 eP 16 42.40 1.9
BMW 80.95 44 eP 16 45.78 0.3
GMW 81.06 43 eP 16 46.48 0.5
JCW 81.52 43 P 16 48.87 0.6
LMW 81.55 44 P 16 49.34 0.7
TDL 81.66 44 P 16 49.79 0.6
SHW 81.68 45 eP 16 50.64 1.3
RMW 81.73 43 eP 16 49.85 0.3
LON 81.86 44 eP 16 50.15 0.0
FMW 81.92 44 P 16 50.87 0.2
WPW 82.05 44 P 16 51.51 0.3
YBH 82.18 49 eP 16 53.16 1.2
1.6s 80.00nm 5.5mb
LGPM 82.25 50 eP 16 53.20 0.8
YKA 82.51 28 eP 16 51.50 -1.6
1.4s 10.10nm 4.6mb
WDC 82.52 50 P 17 00.00 6.3X
Z 20s 1.03um 5.2Msz
WDC 82.52 50 eP 16 54.35 0.7
1.5s 40.00nm 5.2mb
NAC 82.53 44 P 16 54.02 0.4
ETW 82.69 43 P 16 54.54 0.0
CROR 82.77 46 P 16 55.32 0.3
VGB 82.81 45 eP 16 55.35 0.2
WTV 82.92 43 P 16 55.51 -0.1
VIPM 83.13 46 P 16 57.25 0.3
MIN 83.27 50 eP 16 57.45 -0.3
2.0s 70.00nm 5.3mb
ORV 83.51 51 ePc 16 58.99 0.2
1.4s 50.00nm 5.4mb
MHC 83.86 53 eP 17 00.69 -0.1
2.6s 460.00nm 6.0mb
ARN 83.95 53 eP 17 00.66 -0.4
DPW 84.03 42 eP 17 01.29 0.0
SAO 84.14 54 P 17 10.00 8.0X
Z 21s 0.88um 5.1Msz
RES 84.45 13 eP 17 03.50 0.7
1.0s 5.00nm 4.5mb
NEW 84.64 42 eP 17 04.41 0.1
1.2s 34.33nm 5.3mb
Z 19s 0.31um 4.7Msz
CMB 84.69 52 eP 17 05.20 0.4
1.6s 60.00nm 5.4mb
MEMM 85.89 52 eP 17 11.82 1.2
ISA 86.73 54 P 17 30.00 15.0X
Z 18s 0.51um 5.0Msz
TNP 87.11 52 eP 17 16.94 0.0
1.4s 38.42nm 5.4mb
GSC 88.14 54 eP 17 21.70 -0.1
TPNV 88.14 53 eP 17 22.26 0.4
1.2s 27.89nm 5.4mb
PEC 88.22 56 eP 17 21.42 -0.7
1.3s 52.53nm 5.6mb
LRM 88.38 43 eP 17 22.60 -0.3
PTI 89.33 46 (P) 17 28.52 1.1
HVU 89.37 47 eP 17 28.14 0.5
DAG 89.51 357 iPc 17 26.60 -0.7

0.9s 5.88nm 4.9mb
OBN 89.78 327 eP 17 28.00 -1.0
1.5s 63.00nm 5.7mb
e 17 43.00
PYA 89.80 315 eP 17 29.00 -0.4
1.3s 150.00nm 6.1mb X
DUG 89.82 49 eP 17 29.26 -0.5
1.2s 38.44nm 5.6mb
Z 20s 0.70um 5.1Msz
epP 17 42.40 44km
ERE 89.97 311 iP 17 32.00 1.7
ARUT 90.06 51 eP 17 31.57 0.6
pP 17 46.45 51km
KIV 90.08 315 iPc 17 31.10 0.3
1.2s 32.00nm 5.5mb
e 28 25.00
GLA 90.32 56 eP 17 32.02 0.0
DAU 90.88 48 eP 17 34.93 0.1
pP 17 51.06 56km
KAF 91.28 336 iP 17 34.20 -1.6
0.5s 6.20nm 5.3mb
SRU 91.83 49 eP 17 38.33 -0.8
PV09 93.06 49 eP 17 44.86 0.0
pP 18 01.53 58km
PV10 93.17 49 eP 17 45.40 0.0
pP 18 00.05 50km
TUC 93.80 56 eP 17 50.90 2.8
1.3s 10.96nm 5.1mb
RSSD 94.57 43 eP 17 49.98 -1.6
1.4s 21.47nm 5.4mb
pP 18 06.11 56km
GOL 95.36 47 P 18 10.00 14.6X
Z 19s 1.11um 5.3Msz
GLD 95.45 47 P 18 10.00 14.3X
Z 20s 1.13um 5.3Msz
ALQ 96.31 52 P 18 10.00 10.2X
Z 19s 0.41um 4.9Msz
ULM 96.77 35 eP 18 04.00 2.8
HFS 97.32 338 eP 18 02.40 -1.1
0.4s 1.00nm 4.7mb
NB2 97.55 340 P 18 03.80 -0.9
0.9s 3.90nm 4.9mb
WMOK 102.18 50 Pdiff 18 40.00 14.1X
Z 20s 0.62um 5.1Msz
MIAR 106.08 48 PKP 23 00.00 4.7X
Z 19s 0.78um 5.3Msz
OXF 109.05 46 PKP 23 10.00 9.1X
Z 19s 0.71um 5.3Msz
YSNY 110.99 34 PKP 23 10.00 5.7X
Z 19s 0.71um 5.3Msz
MCWV 112.14 37 PKP 23 20.00 13.4X
Z 19s 0.87um 5.4Msz
MYNC 112.34 43 PKP 23 20.00 12.9X
Z 19s 0.43um 5.1Msz
BINY 112.53 33 PKP 23 20.00 12.7X
Z 19s 0.86um 5.4Msz
CBM 112.59 25 PKP 23 20.00 12.8X
Z 19s 0.48um 5.1Msz
LBNH 113.04 29 PKP 23 20.00 11.9X
Z 18s 0.50um 5.1Msz
GOGA 113.76 44 PKP 23 20.00 10.1X
Z 20s 0.32um 4.9Msz
LSCT 114.33 31 PKP 23 20.00 9.2X
Z 19s 0.58um 5.2Msz
HRV 114.53 30 PKP 23 20.00 8.9X
Z 20s 0.47um 5.1Msz
CEH 115.05 39 PKP 23 20.00 7.7X
Z 21s 0.50um 5.1Msz
LKO 143.67 307 PKP 24 04.85 -1.9
1.0s 9.50nm
KIC 144.86 302 PKP 24 08.14 -0.6
0.6s 11.00nm
TIC 144.93 303 PKP 24 08.28 -0.6
0.4s 3.00nm
LIC 145.18 302 PKP 24 08.90 -0.4
0.5s 6.00nm
KDS 146.28 319 iPKPd 24 13.30 2.2
LPAZ 146.97 99 PKP 24 13.70 0.7
LR 12 51.00
LPB 146.99 100 PKP 24 15.50 2.8
Z 20s 0.71um 5.4Msz
LR 12 48.00
CCH 148.85 101 ePKP 24 20.00 4.4X
MOCB 148.91 109 PKP 24 16.60 0.8
S.D. = 1.1 on 136 of 161 obs.

DEC 16, 1993 14h 11m 28.88± 0.23s
13.431 N ± 4.8km 145.977 E ± 4.5km
DEPTH = 56.9km (2 depth phases)
4.8mb (30 obs.)
MARIANA ISLANDS (216)

GUA 1.04 276 ePc 11 48.20 0.7
GUMO 1.09 278 iPc 11 48.70 0.5
iS 12 06.70
PJG 1.09 278 eP 11 48.70 0.5
DAV 21.03 255 eP 16 11.00 0.8
CGP 21.47 259 eP 16 15.50 0.9
KAGJ 22.47 324 P 16 25.60 1.1
PMG 22.72 177 eP 16 27.00 0.0
WKYJ 22.74 337 P 16 27.80 0.7
TKSJ 23.15 334 P 16 32.40 1.3
CHJJ 23.38 346 P 16 30.80 -2.5
KUMJ 23.53 326 P 16 35.70 1.0
MAT 24.05 345 eP 16 38.00 -1.7
1.1s 18.99nm 4.5mb
Z 20s 1.42um 4.4Msz
MTMJ 24.19 344 P 16 39.80 -1.5
YONJ 24.43 335 P 16 23.50 -20.0X
NIIJ 24.52 346 P 16 42.20 -2.0
CN2 35.02 334 eP 18 17.00 -0.9
0.8s 7.10nm 4.6mb
Z 18s 0.72um 4.5Msz
WB2 35.08 199 iPc 18 17.70 -1.0
1.0s 12.50nm 4.8mb
BJI 37.24 321 eP 18 35.50 -1.2
1.5s 25.00nm 4.9mb
Z 18s 0.77um 4.5Msz
N 17s 0.66um
eS 24 12.00
TIY 38.40 315 eP 18 46.50 -0.1
Z 20s 1.50um 4.8Msz
E 26s 1.06um
ASPA 38.71 198 iPd 18 49.20 -0.1
1.0s 9.60nm 4.6mb
Z 21s 0.70um 4.5Msz
iPP 20 21.80
eS 24 40.80
GYA 39.00 296 P 18 52.80 1.0
1.0s 24.00nm 5.0mb
XAN 39.34 308 P 18 54.20 -0.3
0.6s 10.00nm 4.8mb
Z 16s 0.89um 4.7MszX
DZM 40.59 150 iPc 19 04.50 -0.4
HHC 40.60 319 P 19 05.00 0.2
1.2s 16.00nm 4.7mb
Z 18s 1.33um 4.8Msz
BTO 41.47 318 eP 19 13.00 1.1
N 16s 0.90um
E 16s 0.49um
KMI 42.27 293 Pd 19 20.00 1.2
1.8s 50.00nm 5.0mb
Z 20s 0.70um 4.5Msz
CD2 42.50 301 iPd 19 21.00 0.6
WARB 43.64 206 eP 19 30.20 0.6
LZH 43.96 308 eP 19 32.00 -0.4
1.5s 45.00nm 5.0mb
Z 19s 1.24um 4.8Msz
N 10s 0.27um
pP 19 47.50 61km
STK 45.25 185 eP 19 40.50 -2.0
0.8s 3.10nm 4.2mb
GTA 48.09 311 eP 20 05.00 0.0
1.5s 14.00nm 4.7mb
Z 20s 0.81um 4.7Msz
sP 20 26.50
PcP 21 33.50
ADK 48.65 30 (P) 20 08.05 -0.9
YAK 49.90 350 eP 20 16.80 -1.6
1.5s 33.00nm 5.1mb
Z 16s 0.90um 4.9MszX
N 19s 0.80um
e 20 31.00 53km
TOO 50.73 180 eP 20 24.40 -0.6
MRWA 51.34 214 iPd 20 29.20 -0.6
0.5s 5.00nm 4.8mb
BAL 52.06 212 eP 20 34.20 -1.0
KLB 52.31 211 eP 20 35.80 -1.3
LSA 53.03 297 Pc 20 43.80 0.7
0.8s 13.00nm 5.0mb
GUN 57.54 295 P 21 11.54 -4.1X
0.8s 45.00nm 5.6mb
PKI 57.95 294 P 21 17.90 -0.5
WMQ 58.03 313 P 21 17.50 -0.9
1.5s 16.00nm 4.9mb
Z 18s 0.52um 4.7Msz
PcP 22 08.00
PP 23 26.00
eS 29 18.00
KKN 58.07 294 P 21 18.90 -0.2
DMN 58.22 294 P 21 20.10 -0.1
0.8s 40.00nm 5.6mb
GKN 58.64 295 P 21 22.30 -0.8
0.9s 57.00nm 5.7mb
SVW 63.30 28 (P) 21 50.09 -3.8X
HYB 64.83 283 eP 22 04.50 -0.1
NDI 65.17 296 eP 22 06.00 -0.6
SLKM 65.60 29 eP 22 07.12 -1.7
FBA 67.91 25 eP 22 21.02 -2.3
1.1s 7.14nm 4.6mb
POO 69.13 285 eP 22 30.00 -1.7
BALM 69.48 30 (P) 22 32.67 -0.6
QUE 73.99 298 eP 23 02.50 1.7
INK 74.10 22 eP 23 00.50 0.1
1.0s 3.00nm 4.2mb
MBC 78.16 14 eP 23 24.50 1.3
1.0s 6.00nm 4.5mb
MAIO 79.38 305 eP 23 33.00 2.3
GMW 81.05 43 eP 23 39.92 0.7
SHW 81.67 45 eP 23 44.13 1.5
RMW 81.72 43 (P) 23 44.24 1.4
LON 81.85 44 eP 23 44.31 0.8
LGPM 82.23 50 eP 23 46.27 0.6
YKA 82.50 28 eP 23 46.00 -0.4
0.9s 4.60nm 4.5mb
VGB 82.80 45 eP 23 48.73 0.3
LBFM 82.84 49 eP 23 48.13 -0.8
ORV 83.50 51 ePc 23 53.17 1.1
ARN 83.93 53 eP 23 53.12 -1.2
RES 84.45 13 eP 23 57.00 0.8
1.0s 5.00nm 4.5mb
NEW 84.63 42 eP 23 57.52 -0.1
1.1s 12.45nm 4.9mb
CMB 84.67 52 eP 23 58.76 0.7
1.2s 2.52nm 4.2mb
LRM 88.37 43 eP 24 16.20 -0.1
HVU 89.36 47 eP 24 21.90 1.0
DAG 89.52 357 iPc 24 20.10 -0.7
0.9s 5.04nm 4.8mb
DUG 89.80 49 eP 24 23.60 0.6
1.1s 20.92nm 5.4mb
ARUT 90.04 51 eP 24 25.46 1.2
MSU 90.78 50 eP 24 28.97 1.3
DAU 90.87 48 eP 24 28.61 0.5
KAF 91.31 336 iP 24 28.10 -1.2
0.5s 6.40nm 5.3mb
EMUT 91.38 49 eP 24 31.82 1.4
PV09 93.04 49 eP 24 39.40 1.2
RSSD 94.55 43 eP 24 44.55 -0.4
1.0s 7.36nm 5.1mb
LKO 143.70 308 PKP 30 59.50 -0.7
1.0s 5.50nm
KIC 144.90 302 PKPc 31 02.60 0.4
0.8s 15.00nm
TIC 144.97 303 PKPc 31 02.18 -0.1
0.7s 407.50nm
LIC 145.21 302 PKPc 31 02.80 0.1
0.6s 12.50nm
KDS 146.31 319 iPKP 31 08.50 4.0X
LPAZ 146.93 99 PKP 31 07.30 1.0
LPB 146.96 100 PKP 31 06.00 0.0
CCH 148.82 101 ePKP 31 12.00 3.1X
MOCB 148.88 109 PKP 31 10.00 0.9
STV 153.72 99 PKP 31 23.10 7.4X
S.D. = 1.0 on 83 of 89 obs.

? DEC 16, 1993 14h 34m 17.58± 0.95s
39.640 N ± 8.2km 29.414 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

DST 0.61 267 ePg 34 30.00 0.1
iSg 34 40.00
IZI 0.70 4 ePg 34 31.00 -0.4
ALT 0.80 137 ePg 34 33.00 -0.1
EYL 1.09 31 ePn 34 38.50 0.4
S.D. = 0.6 on 4 of 4 obs.

DEC 16, 1993 14h 59m 56.96± 0.37s
41.452 N ± 3.2km 23.053 E ± 3.7km

16d 14h

DEPTH = 8.1 ± 3.5 km
GREECE-BULGARIA BORDER REGION (363)
ML 2.9 (THE), 2.3 (SKO).

KNT 0.31 202 ePgc 00 03.53 0.2
eSg 00 07.20
VAY 0.39 250 iPg 00 05.00 0.2
0.2s 300.00nm
iSg 00 10.30
KKB 0.42 3 iPg 00 04.00 -1.4
MMB 0.52 75 iPg 00 07.00 -0.5
SRS 0.53 129 ePgc 00 07.04 -0.5
eSg 00 14.68
SOH 0.67 160 ePg 00 10.05 -0.4
eSg 00 18.32
THE 0.82 185 ePgc 00 12.98 0.0
eSg 00 24.28
VTS 1.15 6 iPg 00 18.00 -0.7
RZN 1.27 79 iPg 00 20.00 -0.8
SKO 1.32 294 ePg 00 21.00 -0.5
iSg 00 38.00
OUR 1.32 147 ePb 00 21.64 0.1
eSb 00 39.52
PGB 1.38 37 iPg 00 22.00 -0.5
PLD 1.40 62 iPg 00 23.00 0.3
LIT 1.42 198 ePb 00 22.88 -0.1
eSb 00 42.28
FNA 1.43 243 ePb 00 23.48 0.2
eSb 00 43.44
PAIG 1.60 162 ePbc 00 25.44 -0.1
eSb 00 46.28
ALN 2.33 103 ePn 00 36.32 0.2
eSn 01 04.04
PVL 2.44 43 iPg 00 39.00 1.3
AGG 2.49 193 ePn 00 38.04 -0.4
BZS 4.29 346 ePc 00 53.00 -11.0X
MLR 4.55 27 eP 01 10.00 2.2
S.D. = 0.8 on 20 of 21 obs.

? DEC 16, 1993 16h 36m 27.57± 4.92s
15.859 N ±43.2km 97.411 W ±20.2km
DEPTH = 33.0km (normal)
NEAR COAST OF OAXACA, MEXICO (66)
Felt at Mexico City.

OXX 1.38 28 iP 36 50.90 0.0
iS 37 08.83
ACX 2.56 293 iP 37 07.63 0.0
iS 37 34.18
IISM 3.11 1 iP 37 15.57 0.1
iS 37 50.70
PPM 3.39 340 eP 37 19.90 -0.1
iS 37 58.61
IIA 3.48 340 (P) 37 23.17 2.4X
S.D. = 0.2 on 4 of 5 obs.

& DEC 16, 1993 17h 01m 39.64s
37.285 N 121.652 W
DEPTH = 10.2km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.6 (GM). ML 3.7
(BRK). Felt (III) at Mt.
Hamilton and San Jose. Felt in
the Santa Clara Valley.

COE 0.03 211 iPc 01 41.85 0.1
MHC 0.06 8 ePd 01 41.96 -0.1
eS 01 43.65
ARN 0.11 56 iPc 01 42.58 0.0
ADR 0.12 170 P 01 43.09 0.4
JNAM 0.19 235 P 01 44.22 0.4
HSPM 0.20 147 P 01 44.16 0.0
GHS 0.25 139 P 01 44.81 -0.2
HGWM 0.27 180 P 01 45.34 0.0
CDVM 0.28 355 P 01 45.74 0.2
JTGM 0.31 215 P 01 46.64 0.5
COSM 0.31 45 P 01 46.32 0.1
CBC 0.35 181 P 01 47.20 0.3
PCL 0.37 129 P 01 47.06 -0.2
OCR 0.38 163 P 01 47.56 0.0
CSAM 0.39 354 P 01 48.02 0.4
JSMM 0.42 260 P 01 48.40 0.2
CPLM 0.43 325 P 01 48.04 -0.4
STAN 0.43 286 ePc 01 48.42 -0.1
SFT 0.43 286 P 01 48.47 0.0
HBTM 0.44 169 P 01 49.06 0.4
JJRM 0.44 278 P 01 48.62 0.0
CGPM 0.46 322 P 01 49.06 0.1
HJGM 0.49 173 P 01 49.68 0.1
SAO 0.54 162 eP 01 50.38 -0.3
S 01 59.48
FRP 0.55 166 P 01 50.75 0.1
BGH 0.55 276 P 01 50.68 -0.1
CSLM 0.57 320 P 01 50.95 -0.3
JCHM 0.62 292 P 01 51.47 -0.7
BSRM 0.63 170 P 01 52.04 -0.2
BHRM 0.64 151 P 01 52.22 -0.2
CSVM 0.64 334 P 01 53.29 0.8
CMCM 0.65 320 P 01 52.63 0.1
CRPM 0.66 342 P 01 52.68 -0.1
JEGM 0.68 290 eP 01 52.32 -0.9
EKH 0.73 148 P 01 53.75 -0.2
CVPM 0.75 323 P 01 54.61 0.3
BKS 0.75 322 eP 01 54.11 -0.2
eS 02 05.54
CYBM 0.77 313 P 01 54.41 -0.2
AGC 0.84 313 P 01 55.52 -0.4
HMR 0.88 352 eP 01 56.58 0.2
BPRM 0.88 184 P 01 56.16 -0.4
CPMM 0.89 318 P 01 56.54 -0.2
SHG 0.93 160 P 01 56.88 -0.4
MOYM 1.06 54 P 01 59.22 -0.3
BAPM 1.11 180 P 02 00.08 -0.4
BBR 1.21 324 P 02 01.98 -0.1
AASM 1.22 20 P 02 01.33 -1.0
CMB 1.25 53 ePc 02 02.58 -0.4
eS 02 19.18
MOP 1.27 147 P 02 02.36 -0.9
PRCM 1.32 141 P 02 03.53 -0.5
NTYM 1.36 324 eP 02 02.46 -2.1
NCFM 1.38 319 P 02 03.52 -1.3
PAPM 1.39 170 P 02 04.05 -1.1
PTV 1.39 147 P 02 04.01 -1.1
NTBM 1.40 314 P 02 03.53 -1.6
PSAM 1.40 154 P 02 04.11 -1.0
PSMM 1.48 145 P 02 06.17 -0.2
ARJM 1.50 21 P 02 05.23 -1.4
AODM 1.52 29 P 02 06.42 -0.4
MAC 1.52 326 P 02 06.13 -0.7
PCRM 1.54 140 P 02 06.36 -0.8
PANM 1.62 158 P 02 07.65 -0.6
PHBM 1.63 129 P 02 09.96 1.5
PSTM 1.64 145 P 02 07.52 -1.1
GAXM 1.67 329 P 02 07.05 -2.0
ASMM 1.72 26 P 02 10.02 0.2
FTR 1.72 316 P 02 08.34 -1.4
WKR 1.73 148 P 02 08.89 -1.1
GARM 1.73 344 P 02 09.22 -0.7
PKEM 1.74 134 eP 02 08.65 -1.4
PADM 1.76 159 P 02 09.09 -1.3
PHAM 1.76 145 eP 02 08.94 -1.5
GHCM 1.80 318 P 02 13.57 2.7
AFHM 1.88 21 P 02 13.42 1.2
GDCM 1.94 320 P 02 17.12 4.1
PMGM 2.06 153 P 02 17.04 2.3
MMPM 2.11 80 eP 02 15.08 -0.7
ORAM 2.19 5 P 02 16.70 0.1
MEMM 2.19 79 eP 02 17.22 0.7
ORV 2.27 3 eP 02 18.01 0.3
BCH 2.45 148 eP 02 18.19 -2.2
MTUM 2.46 87 eP 02 21.02 0.4
GNAM 2.46 321 P 02 18.71 -1.8
BONR 2.74 75 eP 02 25.23 0.5
ISA 3.03 121 ePn 02 27.03 -1.5
ABL 3.13 140 eP 02 27.11 -3.0
LMEM 3.25 1 (P) 02 32.06 0.3
TNP 3.61 76 eP 02 37.58 0.7
KMPM 3.67 329 (P) 02 37.45 -0.3
LGPM 3.74 346 (P) 02 37.19 -1.5
LBFM 4.06 357 eP 02 43.04 -0.3
TPNV 4.33 93 eP 02 47.14 0.0
GSC 4.39 115 eP 02 44.62 -3.3
SSK 4.45 132 eP 02 47.32 -1.5
PEC 4.99 131 (P) 02 56.47 0.2
ARUT 6.54 83 (P) 03 19.42 0.9
GLA 7.00 125 (P) 03 21.55 -3.2
PV10 10.04 80 (P) 04 12.21 5.1
98 obs. associated

DEC 16, 1993 17h 35m 27.92± 0.56s
18.020 S ± 9.3km 178.052 W ± 7.6km
DEPTH = 634.6 ± 6.6 km
4.7mb (30 obs.)
FIJI ISLANDS REGION (181)

MBU 3.25 288 eP 36 24.10 -27.6X
SVA 3.32 268 ePc 36 50.20 -1.8
eS 38 11.40
BKM 13.06 269 iPc 38 18.50 1.7
DZM 15.11 252 iPc 38 37.10 0.4
ARMA 30.18 240 iPd 40 52.00 0.7
0.6s 40.00nm 5.2mb
RIV 31.70 234 eP 41 05.10 1.3
1.0s 1680.00nm 6.6mb X
CNB 33.63 233 iPd 41 21.20 1.2
0.9s 200.00nm 5.7mb X
CAN 33.91 233 iPd 41 23.00 0.7
i 41 31.20
e 43 03.80
BWA 34.03 235 iPd 41 21.90 -1.5
TOO 37.36 231 iPd 41 51.40 0.8
0.8s 163.00nm 5.6mb
MDG 37.54 285 eP 41 54.00 1.8
STK 38.88 241 iPd 42 03.70 0.8
0.9s 46.60nm 5.0mb
ADE 41.86 237 iPd 42 27.10 0.5
WB2 44.93 260 iPc 42 50.00 -0.6
0.4s 13.10nm 4.7mb
ePcP 44 17.90
WRA 44.95 260 P 42 50.30 -0.3
0.6s 12.60nm 4.6mb
ASPA 45.09 254 iPd 42 51.80 0.1
0.8s 125.50nm 5.4mb
iPcP 44 18.50
iS 48 47.10
iScS 51 43.10
MTN 49.14 268 eP 43 21.00 -1.2
FORT 50.27 245 iPd 43 29.40 -0.9
WARB 51.56 251 iPd 43 39.30 -0.5
0.3s 20.00nm 5.0mb
COOL 56.21 245 iPd 44 10.90 -1.4
0.3s 10.00nm 4.6mb
MBL 58.28 256 iPd 44 25.80 -0.5
0.3s 27.00nm 5.0mb
MEEK 58.71 249 iPd 44 28.20 -0.9
KLB 59.08 244 iPd 44 30.80 -0.7
0.9s 81.00nm 5.0mb
NWAO 59.46 242 eP 44 33.60 -0.4
BAL 60.04 245 iPd 44 37.10 -0.7
0.6s 32.00nm 4.7mb
MUN 60.38 243 eP 44 40.00 0.0
0.9s 48.00nm 4.7mb
MRWA 60.77 246 eP 44 42.00 -0.6
NANU 62.02 254 iPd 44 50.90 0.2
0.3s 8.00nm 4.5mb
CSY 66.18 205 eP 45 14.90 -1.2
0.8s 23.50nm 4.7mb
MAT 68.20 323 eP 45 28.00 -0.7
1.0s 15.00nm 4.4mb
ADK 69.61 1 (P) 45 34.94 -1.7
SPA 72.09 180 iPd 45 51.10 -0.1
0.8s 83.33nm 5.3mb
SAO 76.27 44 iPc 46 15.38 0.7
1.1s 40.00nm 4.8mb
MHC 76.47 43 ePc 46 16.79 0.9
1.0s 20.00nm 4.6mb
ARN 76.55 43 ePc 46 16.48 0.3
ABL 76.69 46 eP 46 17.64 0.3
PLM 77.55 49 eP 46 21.74 -0.1
ISA 77.65 46 eP 46 21.66 -0.5
1.0s 22.64nm 4.6mb
CMB 77.69 43 ePc 46 22.15 -0.2
0.9s 10.00nm 4.3mb
WDC 77.81 40 ePc 46 23.50 0.7
1.6s 40.00nm 4.7mb
LGPM 77.83 40 eP 46 23.06 0.0
ORV 77.85 41 ePc 46 23.44 0.4
1.4s 20.00nm 4.4mb
MIN 78.25 41 eP 46 24.85 -0.5
0.2s 50.00nm 5.6mb
YBH 78.40 39 ePc 46 26.51 0.5
1.0s 20.00nm 4.6mb
LBFM 78.66 40 eP 46 27.09 -0.5
GLA 78.87 50 eP 46 28.93 0.4
BONR 79.01 44 eP 46 29.61 0.1
TPNV 79.85 46 eP 46 34.09 0.3
0.5s 5.38nm 4.3mb
KMOR 80.33 35 P 46 35.82 -0.1
BMW 80.99 35 eP 46 39.52 0.3
VIPM 81.27 38 P 46 40.76 -0.1
CROR 81.34 37 P 46 40.87 -0.2
SHW 81.36 36 eP 46 41.90 0.7

TUC 81.50 52 eP 46 44.16 2.0
0.8s 15.19nm 4.6mb
ASR 81.69 36 P 46 42.81 -0.1
CRP 81.69 12 eP 46 40.68 -1.9
GMW 81.89 34 eP 46 44.49 0.8
FMW 82.12 35 P 46 45.04 0.0
ARUT 82.20 46 eP 46 46.47 0.8
JBO 82.28 37 P 46 45.56 -0.1
RMW 82.36 35 eP 46 45.95 -0.2
TTA 82.52 10 eP 46 46.05 -0.6
0.9s 5.77nm 4.1mb
KLU 83.29 15 eP 46 49.72 -0.8
MSU 83.43 46 eP 46 52.33 0.5
WTV 83.51 35 P 46 51.47 -0.4
BALM 83.83 17 ePd 46 52.20 -1.0
DPW 84.58 36 eP 46 56.46 -0.6
HVU 84.63 43 eP 46 57.61 0.1
SRU 84.85 46 ePc 46 58.82 0.1
PV09 85.53 47 eP 47 01.64 -0.5
PV10 85.54 47 eP 47 02.23 0.1
LTX 85.77 57 eP 47 02.50 -0.7
IMA 85.82 10 eP 47 01.47 -1.2
0.8s 2.35nm 4.0mb
PV08 85.90 47 eP 47 03.82 -0.1
LRM 86.84 40 eP 47 07.90 -0.2
SYO 89.14 193 ePd. 47 17.30 -0.8
CHTO 89.36 290 eP 47 21.90 1.9
INK 91.90 15 eP 47 30.00 -0.6
0.8s 2.00nm 4.2mb
YKA 94.29 25 eP 47 40.40 -1.2
0.7s 2.40nm 4.5mb
MBC 100.38 12 ePdiff48 09.50 0.7
KAF 132.76 345 ePKP 53 30.00 -3.2X
NUR 134.55 344 ePKP 53 31.00 -5.6X
NB2 136.52 353 PKP 53 30.80 -9.7X
0.8s 1.50nm
HFS 137.09 351 ePKP 53 28.00 -13.5X
0.3s 1.40nm
DCN 144.02 9 ePKP 53 52.90 -1.0
DLF 144.18 9 ePKP 53 53.40 -0.7
KAS 144.19 317 ePKP 53 50.50 -4.2X
OJC 144.83 340 ePKP 53 56.00 0.6
KSP 145.31 344 iPKP 53 57.00 0.8
0.7s 38.00nm
SPC 145.57 339 ePKP 53 58.70 1.8
CLL 145.64 348 iPKP 53 58.30 1.6
0.8s 41.00nm
BRG 145.85 346 iPKP 53 59.10 2.1
0.6s 28.00nm
BHL 146.01 304 PKP 54 00.00 2.1
PRU 146.54 345 iPKPd 54 00.90 2.8X
0.7s 20.20nm
MOX 146.54 349 ePKP 54 00.70 2.5X
2.2s 115.00nm
SRO 147.41 339 iPKP 54 02.40 2.8X
ZST 147.46 341 e(PKP)54 03.40 3.7X
SNF 147.53 357 PKP 54 03.80 4.1X
GRF 147.53 349 ePKP 54 03.70 3.9X
KHC 147.57 346 PKP 54 04.00 4.1X
0.6s 9.50nm
GEC2 147.81 345 PKP 54 04.30 3.9X
0.5s 11.01nm
DOU 147.93 357 PKP 54 04.90 4.5X
WLF 148.25 355 iPKP 54 06.00 5.2X
FUR 148.98 348 iPKPc 54 07.60 5.5X
0.7s 39.00nm
BHG 149.05 346 iPKPc 54 07.50 5.3X
FLN 149.27 3 ePKP 54 07.30 4.9X
0.5s 18.65nm
CDF 149.38 353 ePKP 54 08.10 5.3X
0.7s 19.05nm
LDF 149.46 3 ePKP 54 07.70 5.0X
0.6s 13.80nm
KBA 149.54 345 iPKPd 54 07.70 4.5X
0.8s 14.20nm
i 54 15.80
i 54 17.70
GRR 149.62 4 ePKP 54 08.40 5.4X
0.5s 17.35nm
WATA 149.71 347 iPKPd 54 08.60 5.2X
i 54 16.40
WTTA 149.77 347 iPKPd 54 09.10 5.6X
0.8s 34.40nm
i 54 13.80
MOTA 149.80 348 iPKPd 54 08.70 5.2X
0.7s 11.60nm
i 54 15.40

HAU 149.88 354 ePKP 54 09.10 5.7X
0.6s 16.25nm
SQTA 149.90 347 iPKPd 54 09.20 5.6X
0.7s 20.10nm
LPF 149.97 4 ePKP 54 09.20 5.7X
0.4s 19.75nm
BSF 150.00 353 ePKP 54 09.30 5.6X
0.7s 17.55nm
LOR 150.79 357 ePKP 54 11.30 6.5X
0.5s 12.10nm
SSF 151.01 358 ePKP 54 11.80 6.7X
0.8s 18.25nm
LBF 151.07 357 ePKP 54 11.70 6.4X
0.5s 7.75nm
AVF 151.29 358 ePKP 54 12.00 6.5X
0.7s 6.50nm
MFF 151.44 3 ePKP 54 12.50 6.7X
0.4s 6.65nm
BGF 151.53 359 ePKP 54 12.80 6.9X
0.4s 5.55nm
TCF 151.81 360 ePKP 54 13.30 7.0X
0.8s 11.80nm
LSF 151.85 1 ePKP 54 13.20 6.8X
0.7s 13.10nm
MAF 151.87 359 ePKP 54 13.60 7.2X
0.6s 5.30nm
LPL 152.29 353 ePKP 54 15.60 8.3X
LPG 152.31 353 ePKP 54 15.70 8.3X
RJF 152.79 1 ePKP 54 15.60 7.9X
CAF 153.17 360 ePKP 54 16.60 8.3X
LPO 153.41 1 ePKP 54 17.20 8.6X
0.4s 4.95nm
LIC 166.44 149 PKP 54 22.70 -0.7
0.7s 2.50nm
KIC 166.70 150 PKPc 54 23.50 -0.1
0.7s 10.00nm
LKO 168.84 138 PKP 54 24.42 -0.6
0.7s 3.50nm
S.D. = 0.9 on 90 of 134 obs.

? DEC 16, 1993 19h 19m 06.96± 1.81s
51.592 N ±37.2km 174.396 W ±13.5km
DEPTH = 33.0km (normal)
4.3mb (4 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK 1.45 283 eP 19 32.06 0.9
SDN 9.10 60 (P) 21 19.16 0.3
KDC 14.06 55 (P) 22 27.08 1.5
TTA 15.03 34 (P) 22 39.71 1.3
SLKM 16.10 47 eP 22 50.54 -1.6
KLU 18.41 46 eP 23 18.11 -2.9X
NB2 67.63 357 P 30 01.80 -0.3
0.6s 1.30nm 4.2mb
HFS 68.44 356 eP 30 05.00 -2.1
0.4s 1.10nm 4.3mb
GUN 74.30 295 P 30 43.30 0.2
KKN 74.73 295 P 30 45.50 0.1
PKI 74.82 295 P 30 46.00 -0.1
GKN 74.92 296 P 30 46.10 -0.4
0.6s 14.00nm 5.1mb
DMN 74.96 295 P 30 47.40 0.6
GEC2 79.70 355 P 31 12.10 -0.4
0.7s 1.03nm 3.9mb
S.D. = 1.1 on 13 of 14 obs.

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* DEC 16, 1993 19h 21m 17.20± 2.22s
41.144 N ±19.1km 19.502 E ±13.1km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (TTG).

ULC 0.84 347 iPgc 21 32.54 -0.9
iSg 21 42.94
OHR 0.98 91 iPg 21 36.00 0.1
0.5s 110.00nm
iSg 21 50.70
BDV 1.25 336 iPgd 21 39.63 -0.7
iSg 21 56.59
TTG 1.30 352 iPgc 21 40.28 -0.9
iSg 21 57.40
PVY 1.49 13 iPgd 21 44.25 0.1
iSg 22 04.60
HCY 1.50 330 iPgc 21 43.94 -0.2
iSg 22 04.42
SKO 1.67 60 iPn 21 46.60 -0.1
NKY 1.71 347 iPgc 21 47.97 0.7
iSg 22 10.69
IVA 1.75 10 iPnc 21 48.71 0.8
iSn 22 12.56
BRY 1.89 338 iPnd 21 50.90 0.9
iSn 22 16.22
PLE 2.19 358 iPnc 21 54.92 0.7
iSn 22 22.36
VAY 2.32 85 ePn 21 55.40 -0.6
S.D. = 0.8 on 12 of 12 obs.

DEC 16, 1993 19h 38m 48.51± 0.43s
6.536 N ± 4.8km 125.891 E ± 7.6km
DEPTH = 147.4 ± 4.5 km
4.7mb (7 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV 0.63 330 iPd 39 10.90 0.4
iS 39 28.00
BIP 1.72 12 iPd 39 19.50 -1.1
iS 39 43.50
CTB 1.80 292 iPd 39 22.00 0.4
iS 39 46.00
CGP 2.25 328 iPc 39 26.30 -0.5
eS 39 55.60
MAP 4.21 333 eP 39 53.00 0.8
PLP 4.69 349 ePd 39 59.00 0.4
MTN 19.95 165 eP 43 10.70 -0.5
LAT 24.81 122 eP 43 58.50 -0.1
WB2 27.60 163 iPd 44 22.80 -1.2
0.6s 10.10nm 4.7mb
ASPA 31.02 166 iPd 44 53.40 -1.0
0.4s 13.60nm 5.0mb
eS 49 45.30
WARB 32.53 179 eP 45 08.50 1.0
0.4s 4.00nm 4.5mb
BJI 34.48 347 eP 45 23.00 -1.1
1.5s 17.00nm 4.6mb
MRWA 36.80 195 eP 45 43.50 -0.3
BAL 37.96 193 eP 45 53.30 -0.2
MUN 39.40 193 eP 46 05.80 0.4
NWAO 40.10 191 eP 46 12.00 0.9
STK 41.04 159 eP 46 18.40 -0.4
0.8s 7.50nm 4.4mb
ADE 43.01 165 eP 46 36.40 1.4
GUN 43.44 304 P 46 38.90 -0.1
0.8s 24.00nm 4.9mb
KKN 43.89 304 P 46 42.20 -0.3
DMN 43.97 303 P 46 43.40 0.2
GKN 44.50 304 P 46 46.40 -0.8
DZM 48.85 127 iPc 47 21.50 0.2
CRP 80.43 29 eP 50 44.79 -0.3
FBA 82.56 25 eP 50 57.20 1.3
BALM 85.19 29 (P) 51 10.26 0.9
DAG 94.40 352 iPc 51 51.80 -0.4
0.8s 8.96nm 5.1mb
CBM 125.33 12 (Pdiff54 11.65 1.0
LKO 129.09 288 PKP 57 41.15 -0.5
0.8s 4.00nm
KIC 129.10 284 PKP 57 41.28 -0.3
1.0s 20.00nm
LIC 129.41 284 PKP 57 41.84 -0.4
0.7s 3.00nm
S.D. = 0.8 on 31 of 31 obs.

DEC 16, 1993 20h 11m 21.99± 0.12s
53.804 N ± 3.2km 171.382 E ± 1.9km
DEPTH = 9.1km (geophysicist)
5.8mb (170 obs.) 5.7Msz (56 obs.)
NEAR ISLANDS, ALEUTIAN ISLANDS (5)
Mw 6.1 (GS), 5.9 (HRV).
Mo=1.6*10**18 Nm (PPT). Felt
slightly on Attu. Depth from
broadband displacement
seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=113 Dip=90 Slip=-180
NP2: 203 90 0
Principal Axes:
T Plg= 0 Azm= 68
P 0 158
Comment: The focal mechanism is
moderately well controlled
and corresponds to strike-
slip faulting. The preferred
fault plane is not
determined.
RADIATED ENERGY

16d 20h

No. of sta: 17 Focal mech. F
Energy 8.0±1.3*10**13 Nm
MOMENT TENSOR SOLUTION
Dep 30 No. of sta: 13
Moment Tensor; Scale 10**18 Nm
Mrr= 0.12 Mtt=-0.80
Mff= 0.67 Mrt=-0.19
Mrf=-0.13 Mtf=-1.41
Principal axes:
T Val= 1.53 Plg= 0 Azm= 59
N 0.15 83 152
P -1.68 7 329
Best Double Couple:Mo=1.6*10**18
NP1:Strike=104 Dip=85 Slip=-175
NP2: 14 85 -5
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 38S, 92C
Centroid Location:
Origin Time 20:11:26.7 0.1
Lat 54.01N 0.02 Lon 171.45E 0.03
Dep 15.0 BDY Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr= 1.75 0.11 Mtt=-8.97 0.15
Mff= 7.22 0.10 Mrt=-2.32 0.38
Mrf=-1.14 0.41 Mtf=-3.01 0.12
Principal Axes:
T Val= 7.85 Plg= 7 Azm= 81
N 2.18 76 201
P -10.03 12 349
Best Double Couple:Mo=8.9*10**17
NP1:Strike=125 Dip=77 Slip=-177
NP2: 35 87 -13

SMY 1.96 122 eP 11 53.86 -1.8
ADK 7.48 100 eP 13 09.85 -3.9X
0.9s 288.02nm 6.5mb
eS 14 32.14
PET 7.65 269 iPd 13 14.50 -1.7
1.5s 1120.00nm 6.8mb X
Z 20s 43.20um 3.6Msz
N 16s 38.70um
E 16s 29.60um
eS 14 37.00
SKR 9.89 258 eP 13 42.80 -4.4X
0.6s 950.00nm 7.4mb X
Z 14s 22.50um 3.7Msz
N 12s 23.90um
E 14s 24.60um
SDN 16.33 73 eP 15 11.49 -1.3
1.2s 1050.69nm 5.8mb
e 15 27.20
KUR 17.45 250 iPc+ 15 27.00 0.2
0.8s 430.00nm 5.6mb
Z 14s 6.80um 4.6Msz
N 14s 12.20um
E 14s 16.28um
SVW 19.02 54 eP 15 45.72 -0.6
0.8s 308.69nm 5.6mb
TTA 19.18 49 eP 15 48.34 0.2
1.0s 32.23nm 4.5mb X
YSS 19.40 261 ePc 15 51.00 0.1
2.4s 1800.00nm 5.9mb
Z 14s 15.30um 4.1Msz
N 14s 13.00um
E 16s 7.40um
iS 19 26.00
AUP 19.99 60 eP 15 57.01 -0.3
KDC 20.53 64 eP 16 02.14 -0.7
0.8s 232.42nm 5.6mb
KUSJ 20.56 249 eP 16 00.70 -2.5
CP2 20.67 54 eP 16 04.38 -0.1
CRP 20.71 54 eP 16 04.65 -0.3
IMA 21.03 41 eP 16 06.90 -1.2
1.1s 280.52nm 5.5mb
ASAJ 21.08 254 P 16 08.90 0.3
SLKM 21.62 57 eP 16 11.61 -2.4
HOOJ 21.82 250 eP 16 15.30 -0.7
ERM 22.13 249 ePc 16 18.36 -0.8
PMR 22.18 54 eP 16 18.55 -1.0
0.8s 79.50nm 5.2mb
Z 19s 11.29um 5.3Msz
BRW 22.40 27 eP 16 22.01 0.4
SAP 22.48 254 eP 16 24.00 1.3
MRRJ 23.03 253 eP 16 29.70 1.6
COL 23.13 45 eP 16 29.30 0.5
0.8s 194.28nm 5.7mb

FBA 23.13 45 eP 16 28.84 0.0
YAK 23.23 307 iPd- 16 38.50 8.6X
ipP 16 44.00 20kmX
i 16 55.00
iPPP 17 09.00
iS 20 40.00
e 21 27.00
TOA 23.60 52 ePc 16 35.50 1.9
KLU 23.72 54 eP 16 34.45 -0.3
eS 20 48.08
AOMJ 24.66 250 P 16 46.60 2.7
OFUJ 24.98 246 P 16 49.60 2.6
BALM 25.46 55 eP 16 51.15 -0.4
TIK 25.55 330 iPc 16 52.00 -0.1
2.0s 530.00nm 5.9mb
i 17 05.00
i 17 32.00
i 20 25.00
eS 21 18.00
YAMJ 26.52 247 eP 17 02.30 0.9
VLA 27.93 264 eP 17 13.50 -0.7
2.0s 133.00nm 5.4mb
Z 11s 2.50um 5.1MszX
N 16s 4.50um
E 14s 11.50um
i 17 58.00
iPPP 18 13.00
i 23 40.00
MDJ 28.43 268 eP 17 17.70 -1.0
1.2s 81.00nm 5.4mb
Z 14s 17.50um 5.8MszX
N 13s 4.59um
E 14s 12.10um
S 22 06.00
MAJO 28.71 247 eP 17 20.29 -1.0
1.2s 176.93nm 5.7mb
epP 17 30.20 35kmX
MAT 28.71 247 eP 17 21.00 -0.3
Z 19s 6.94um 5.3Msz
eS 22 09.00
MTMJ 28.89 247 eP 17 24.20 1.2
INK 29.12 39 eP 17 25.00 0.3
1.0s 47.00nm 5.2mb
IIDJ 29.65 245 eP 17 30.30 0.5
SIT 29.77 62 eP 17 32.70 2.1
1.6s 398.70nm 6.0mb
Z 18s 14.30um 5.6Msz
CN2 31.35 270 eP 17 42.20 -2.5
1.0s 110.00nm 5.7mb
Z 20s 9.05um 5.4Msz
N 14s 8.69um
E 14s 3.83um
epP 17 53.00 40kmX
eS 22 42.00
BOD 31.55 301 iPc 17 45.00 -1.3
1.3s 470.00nm 6.2mb
HIA 31.85 283 (P) 17 48.55 -0.5
WKYJ 31.86 247 eP 17 48.20 -1.1
YONJ 32.31 250 eP 17 54.40 1.2
TKSJ 32.88 248 eP 17 58.40 0.3
SNY 33.63 269 Pc 18 03.80 -0.7
Z 22s 16.10um 5.7Msz
N 13s 3.98um
E 15s 7.52um
MBC 33.70 24 eP 18 03.50 -1.3
1.0s 40.00nm 5.3mb
CIT 34.08 291 eP 18 08.50 0.1
Z 16s 13.59um 5.8MszX
N 14s 18.21um
E 16s 19.46um
eS 23 32.00
DL2 36.62 267 eP 18 29.00 -1.1
1.0s 100.00nm 5.6mb
Z 25s 8.33um 5.4MszX
N 17s 13.60um
E 15s 3.73um
PP 19 58.00
YKA 37.92 47 eP 18 41.50 0.8
1.0s 69.00nm 5.4mb
IRK 39.00 296 eP 18 49.80 -0.2
2.6s 523.00nm 5.7mb
Z 13s 7.88um 5.7MszX
N 15s 7.51um
E 14s 7.33um
e 18 57.80
e 20 50.00
eS 24 39.00

e 27 38.00
BJI 39.13 272 eP 18 51.00 -0.1
2.0s 100.00nm 5.1mb
Z 24s 10.90um 5.6MszX
E 18s 10.90um
esP 19 08.00
ePP 20 18.00
esS 24 59.00
OPA 39.59 132 eP 18 53.23 -1.9
HON 39.92 132 P 18 54.70 -3.1X
Z 21s 5.03um 5.3Msz
S 25 08.96
STW 39.99 71 P 18 59.88 1.6
RES 40.01 24 eP 18 58.50 0.5
1.0s 34.00nm 5.0mb
DHH 40.05 132 eP 18 59.78 0.8
MCW 40.17 70 eP 19 01.07 1.3
ZAK 40.52 294 iPd 19 02.00 -0.5
2.2s 560.00nm 5.9mb
Z 13s 13.16um 6.0MszX
N 16s 11.60um
E 14s 10.06um
e 21 13.00
ONR 40.65 72 P 19 05.38 1.8
GMW 40.82 71 eP 19 06.02 0.9
JCW 40.94 70 P 19 07.06 1.0
TIA 41.08 267 eP 19 07.50 0.2
Z 26s 8.95um 5.5MszX
N 16s 3.54um
E 14s 4.94um
BMW 41.18 73 eP 19 09.08 1.0
ALE 41.23 9 (P) 19 07.94 -0.1
HHC 41.34 277 eP 19 09.80 0.3
1.0s 18.00nm 4.8mb X
Z 20s 9.98um 5.7Msz
N 17s 5.39um
E 18s 12.20um
sP 19 19.00
PP 20 46.00
PcS 24 58.00
S 25 15.00
RMW 41.42 71 eP 19 10.91 0.8
KMOR 41.52 74 P 19 12.08 1.2
FMW 41.80 71 P 19 14.45 1.1
LON 41.83 71 eP 19 13.68 0.3
e 19 56.88
S 25 48.19
SHW 41.91 72 eP 19 15.38 1.2
COR 42.25 75 ePc 19 18.60 1.9
ASR 42.30 72 P 19 18.20 0.9
SSE 42.31 258 eP 19 17.08 -0.3
1.5s 88.00nm 5.3mb
Z 20s 3.20um 5.2Msz
N 12s 3.20um
E 12s 3.90um
esPd 19 21.06
PP 20 57.00
WTV 42.32 69 P 19 18.11 0.7
RNO 42.40 76 P 19 19.46 1.3
BTO 42.41 278 P 19 19.00 0.7
1.6s 70.00nm 5.1mb
N 13s 2.76um
E 13s 5.27um
pP 19 29.50 36kmX
S 25 33.00
EBG 42.43 70 P 19 19.18 0.9
SSOR 42.57 74 P 19 20.43 0.9
SAW 42.62 69 P 19 20.29 0.4
TIY 42.86 273 ePd 19 23.00 1.1
Z 19s 12.10um 5.8Msz
E 16s 7.60um
PP 21 10.00
S 25 46.00
VBEM 42.94 73 P 19 23.25 0.6
NJ2 42.98 261 Pd 19 23.00 0.2
1.0s 39.00nm 5.1mb
Z 14s 3.61um 5.4MszX
N 14s 7.82um
E 13s 3.46um
S 25 45.00
WAH2 43.08 70 P 19 24.17 0.6
VGB 43.13 72 eP 19 24.40 0.4
DBO 43.17 77 P 19 25.78 1.3
DPW 43.19 68 eP 19 23.99 -0.5
CROR 43.33 73 P 19 26.26 0.5
NEW 43.55 67 eP 19 27.38 0.0
0.9s 242.03nm 6.0mb

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     Z  22s      6.62um              5.5Msz
                 S        25 49.15
JBO     43.69  72 P       19 29.10    0.5
VIPM    43.83  73 P       19 30.25    0.4
ARC     44.10  80 ePd     19 33.26    1.5
        1.1s   650.00nm            6.4mb
FHC     44.20  80 eP      19 33.92    1.2
        0.8s   596.92nm            6.5mb
LNOR    44.32  70 P       19 34.30    0.6
YBH     44.35  78 ePd     19 35.16    1.2
        1.1s   470.00nm            6.3mb
                 ePPc     21 18.56
KMPM    44.36  80 eP      19 35.16    1.0
                 epP      19 43.99  30kmX
                 ePcP     21 22.03
UER     44.73 300 iP      19 34.00   -2.8
        1.2s   140.00nm            5.7mb
                 eS       26 06.00
                 e        29 30.00
LGPM    44.80  79 eP      19 38.07    0.4
                 ePP      21 19.67
LBFM    45.07  78 eP      19 40.22    0.3
                 ePP      21 27.01
WDC     45.18  79 ePc     19 41.89    1.3
        0.9s   245.90nm            6.1mb
     Z  21s      4.65um              5.4Msz
                 ed       19 46.36
                 ed       19 48.10
                 S        26 26.50
GUMO    45.25 218 eP      19 54.00   12.7X
     Z  22s      1.83um              5.0Msz
PJG     45.25 218 eP      19 54.70   13.4X
GUA     45.28 218 eP      19 53.20   11.7X
        0.8s   119.40nm
LMEM    45.77  78 eP      19 46.47    1.0
                 epP      19 55.29  29kmX
MIN     45.88  79 ePd     19 46.20   -0.1
        1.1s   360.00nm            6.3mb
                 ePPc     21 33.75
ORV     46.45  79 ePd     19 50.24   -0.4
        1.0s   300.00nm            6.3mb
                 ePPc     21 39.29
NTYM    46.54  81 eP      19 50.95   -0.4
WHN     46.72 264 P       19 53.50    0.7
        1.0s   150.00nm            6.0mb
     Z  16s      4.74um              5.5MszX
     E  12s      3.72um
                 pP       20 00.50  23kmX
                 S        26 44.00
KBS     46.97 355 eP      19 54.50    0.3
BKS     47.14  82 ePd     19 56.04    0.0
        1.2s   360.00nm            6.3mb
                 iPPc     21 46.49
HMR     47.20  81 eP      19 58.37    1.8
XAN     47.44 272 ePc     19 57.69   -0.9
        1.5s    63.00nm            5.5mb
     Z  16s      7.93um              5.8MszX
     N  14s      5.00um
     E  14s      6.85um
                 epPd     20 00.34   9kmX
                 PcP      21 28.00
                 PP       21 49.00
                 S        26 48.00
                 sS       27 04.00
                 SS       30 08.00
STAN    47.49  82 eP      19 58.58   -0.3
        1.1s   680.00nm            6.6mb
                 ePPc     21 49.63
HBMT    47.50  67 ePd     19 58.10   -1.1
                 e        20 08.80
LRM     47.57  67 ePd     19 57.90   -1.8
                 i        20 08.20
MHC     47.84  82 ePd     20 01.74   -0.1
        1.3s   400.00nm            6.4mb
                 ePPc     21 53.39
COE     47.88  82 eP      20 01.98    0.0
                 ePP      21 53.64
ARN     47.90  82 ePc     20 01.62   -0.6
                 ePP      21 53.10
MCMT    47.98  68 eP      20 01.50   -1.5
CMB     48.11  80 ePc     20 02.82   -1.0
        1.3s   350.00nm            6.3mb
                 ed       20 06.46
                 esPd     20 07.12
                 ePPc     21 55.75
BGMT    48.17  67 eP      20 03.10   -1.3
SAO     48.35  82 eP      20 05.65    0.0

        0.8s    66.53nm            5.8mb
     Z  18s      4.22um              5.5Msz
                 S        27 06.80
LZH     49.03 278 ePc     20 11.35    0.3
        2.0s   390.00nm            6.1mb
     Z  13s      7.54um              5.9MszX
     N  15s      9.01um
                 ed       20 13.42
                 epPd     20 14.09   9kmX
                 PcP      21 59.00
                 PP       22 03.00
                 ScP      25 26.50
                 PcS      25 30.00
                 S        27 12.00
                 ScS      30 00.00
GTA     49.13 284 eP      20 10.00   -1.7
        1.0s    48.00nm            5.5mb
     Z  18s     18.40um              6.1Msz
     E  15s      8.91um
                 pP       20 21.50  41kmX
                 sP       20 28.00
                 PP       22 09.50
                 ScP      25 27.50
MMPM    49.19  80 eP      20 13.22    0.7
MEMM    49.21  79 eP      20 12.98    0.9
                 epP      20 21.99  30kmX
BONR    49.38  79 eP      20 13.80   -0.1
PTI     49.50  70 eP      20 15.36    0.7
DAG     49.54   3 iPc     20 13.70   -0.5
        1.0s    46.00nm            5.4mb
     Z  17s      6.67um              5.7MszX
     N  17s      3.27um
     E  18s      9.62um
                 ipP      20 22.50  29kmX
PHAM    49.60  82 eP      20 15.39    0.1
MTUM    49.64  79 eP      20 16.43    0.7
TNP     49.92  78 eP      20 17.34   -0.6
                 ePP      22 13.06
HVU     49.99  71 eP      20 18.05   -0.3
                 epP      20 27.35  31kmX
BCH     50.24  83 eP      20 19.65   -0.6
ISA     50.85  81 ePc     20 24.53   -0.3
        0.9s   139.07nm            5.9mb
     Z  19s      4.97um              5.6Msz
                 esPd     20 28.91
                 ePP      22 20.83
                 PPP      24 22.83
                 S        27 37.45
ABL     50.98  82 eP      20 25.27   -0.7
DUG     51.03  73 ePc     20 26.72    0.5
        0.9s   207.39nm            6.1mb
     Z  20s      4.84um              5.5Msz
                 ed       20 31.85
                 S        27 47.56
TPNV    51.26  78 eP      20 28.05    0.0
        0.8s   483.80nm            6.5mb
     Z  21s      8.13um              5.7Msz
DAU     51.76  72 eP      20 32.43    0.4
GSC     52.08  80 eP      20 33.93   -0.3
                 ePP      22 32.56
ARUT    52.30  75 eP      20 35.12   -0.9
CVP     52.40 246 eP      20 37.00    0.3
EMUT    52.41  72 eP      20 36.29   -0.6
MSU     52.53  74 eP      20 37.51   -0.3
CD2     52.73 273 iPd     20 39.40    0.3
        1.4s   350.00nm            6.1mb
     Z  20s      6.94um              5.7Msz
                 S        28 04.00
                 SS       31 36.00
PEC     52.86  82 eP      20 39.57   -0.5
        0.9s   118.82nm            5.8mb
GZH     52.91 258 P       20 41.80    1.4
     Z  40s      5.04um              5.3MszX
                 S        28 06.00
WMQ     52.94 296 iPd     20 38.80   -1.7
        1.5s   140.00nm            5.7mb
     Z  20s     15.50um              6.1Msz
     N  20s     24.70um
     E  20s     33.50um
                 pP       20 49.00  34kmX
                 sP       20 52.90
                 PP       22 40.00
                 ScP      25 40.00
                 S        28 04.00
                 sS       28 18.50
                 ScS      30 24.00
                 SS       31 44.00

SRU     53.06  72 eP      20 40.86   -0.8
ULM     53.20  53 eP      20 44.50    2.2
                 pP       20 53.00  28kmX
RSSD    53.21  64 eP      20 41.24   -1.5
        0.7s   165.84nm            6.1mb
                 epP      20 50.33  30kmX
PLM     53.42  82 eP      20 43.22   -1.1
PFO     53.47  81 ePc     20 44.42   -0.2
                 epPd     20 47.07   9kmX
FRB     53.92  28 eP      20 46.00   -1.3
        1.0s    46.00nm            5.5mb
BAG     54.14 247 eP      20 49.00   -0.7
PV09    54.26  72 eP      20 50.13   -0.5
                 epP      20 59.27  30kmX
GYA     54.28 267 iPc     20 50.60    0.0
        1.0s   200.00nm            6.1mb
     Z  22s      5.59um              5.6Msz
     N  18s      6.54um
     E  18s      5.90um
                 PP       22 56.00
                 S        28 26.00
PV10    54.40  72 ePd     20 51.43   -0.2
PV08    54.48  71 eP      20 51.74   -0.6
GLA     54.82  81 eP      20 54.21   -0.3
TRO     55.25 349 eP      20 56.00   -1.0
KTK1    55.28 347 eP      20 43.06  -14.3X
GOL     55.53  68 ePc     21 00.80    1.0
        1.2s   503.17nm            6.4mb
     Z  19s      6.41um              5.7Msz
                 epPd     21 03.61   9kmX
                 esPd     21 05.68
                 S        28 49.76
GLD     55.57  68 eP      21 00.23    0.2
        1.4s   520.60nm            6.4mb
     Z  20s      4.39um              5.5Msz
SVE     56.16 322 ePd     21 03.00   -0.8
        3.0s   560.00nm            6.1mb
     Z  18s      6.00um              5.7Msz
     N  15s      8.50um
     E  15s     10.50um
                 e        22 05.00
                 e        23 07.00
                 ePPP     24 24.00
                 eS       28 48.00
SDF     56.29 345 iP      21 03.10   -1.5
PGP     56.34 244 eP      21 07.00    1.5
ARU     57.21 322 eP      21 10.50   -0.8
        2.0s   300.00nm            6.0mb
     Z  16s      7.00um              5.9MszX
     N  14s      5.50um
     E  14s      7.50um
                 e        21 18.00
                 e        23 18.00
                 eS       29 04.00
                 eSS      32 49.00
KMI     57.61 269 ePc     21 13.97   -0.8
        1.6s   380.00nm            6.2mb
     Z  25s     13.30um              5.9MszX
     N  15s      4.70um
     E  15s      4.20um
                 epPd     21 16.62   9kmX
                 PcP      22 07.00
                 S        29 03.00
                 SS       32 54.00
TUC     57.72  78 ePc     21 16.72    1.5
        0.9s   138.06nm            6.0mb
                 epPd     21 19.37   9kmX
                 S        29 21.03
BIP     58.09 236 eP      21 17.00   -0.9
QIZ     58.11 258 eP      21 18.80    0.8
ANMO    58.30  73 ePc     21 20.07    0.7
                 epPd     21 23.46  11kmX
ALQ     58.30  73 eP      21 18.09   -1.4
        1.1s   122.19nm            5.9mb
     Z  19s      4.55um              5.6Msz
                 e        21 19.73
                 ipP      21 28.28  34kmX
                 e        21 38.15
                 ScP      25 51.77
                 S        29 21.26
CGP     58.66 237 iP      21 21.00   -0.9
JAQ     59.25  39 eP      21 21.50   -4.1X
DAV     59.40 236 eP      21 26.10   -0.9
CTB     59.98 237 iPd     21 31.00    0.0
FRU     60.40 303 eP      21 32.00   -1.7
        2.7s   900.00nm            6.4mb
     Z  18s      7.00um              5.8Msz
```

16d 20h

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               eS    29 46.00
AKU   60.62   4 iP    21 33.60  -1.1
      1.0s   60.00nm         5.7mb
LSA   61.03 281 ePc   21 38.59   0.0
      0.8s   47.00nm         5.7mb
    Z 26s    16.70um         6.1MszX
    E 16s     4.83um
               epPd  21 41.24   9kmX
               S     29 55.00
               sS    30 11.00
ACO   61.09  67 iPd   21 37.20  -1.2
KAF   61.19 342 iP    21 37.10  -1.6
      0.4s   24.20nm         5.7mb
KSH   62.20 299 P     21 45.30  -0.8
      1.3s  120.00nm         5.9mb
    Z 20s     8.18um         5.9Msz
    N 16s    14.30um
    E 16s    19.50um
               pP    21 59.00  49kmX
               PcP   22 25.50
               PP    24 04.50
               ScP   26 20.00
               PcS   26 26.00
               S     30 06.00
               sS    30 18.00
               ScS   31 30.00
               SS    34 11.00
PUL   62.55 339 ePc   21 47.00  -0.9
      2.0s  440.00nm         6.3mb
    Z 19s     6.30um         5.8Msz
    N 19s     6.70um
    E 19s     2.00um
               i     21 57.00
               e     22 22.00
               e     25 43.00
               iS    30 12.00
               eSS   34 20.00
MDG   62.64 209 eP    21 48.00  -0.9
WMOK  62.74  68 ePc   21 49.07  -0.4
      1.0s  208.94nm         6.3mb
    Z 20s     5.45um         5.7Msz
               epPd  21 51.97   9kmX
               esPd  21 53.87
               S     30 26.69
               SS    34 55.36
MEO   62.81  68 iPd   21 49.50  -0.5
OCO   62.87  66 iPd   21 50.90   0.6
NUR   62.98 342 iP    21 49.00  -1.7
      0.6s   34.90nm         5.7mb
               eS    30 16.00
MOL   63.27 352 eP    21 51.54  -1.0
               ePP   21 57.22
TUL   63.49  65 iPc   21 54.10  -0.3
LAT   63.65 207 eP    21 56.50   1.0
LTX   64.02  75 eP    21 55.88  -2.2
LOE   64.13 264 eP    21 58.00  -0.8
CCM   64.27  60 ePc   21 58.76  -0.7
SLM   64.35  59 P     22 10.00  10.0X
    Z 20s     5.57um         5.7Msz
MOS   64.41 333 eP    22 01.00   0.9
      2.4s  660.00nm         6.4mb
    Z 18s     7.20um         5.9Msz
    N 17s     9.10um
    E 17s     8.50um
               e     22 08.00
               e     22 28.00
               e     24 20.00
               ePPP  25 55.00
               eS    30 36.00
               ePPS  30 53.00
NB2   64.42 349 P     21 58.40  -1.8
      0.6s   23.20nm         5.6mb
NAO   64.67 350 P     21 58.18  -3.6X
NRA0  64.68 349 P     22 00.40  -1.4
NRE0  64.68 349 P     22 04.70   2.9
               PPP   26 06.40
               S     30 39.50
               ScS   31 51.80
               SS    35 17.70
               SSS   38 17.80
CHTO  64.68 267 ePc   22 01.57  -0.8
      1.0s  100.00nm         6.0mb
               epPd  22 04.05   8kmX
               eS    30 40.20
FVM   64.75  60 eP    22 00.72  -1.9
      0.7s   75.07nm         6.0mb
    Z 21s    19.41um         6.3Msz
UPP   64.75 346 eP    22 00.00  -2.2
               iS    30 38.00
HFS   65.02 348 eP    22 01.90  -2.1
      0.4s   44.90nm         6.0mb
    Z 24s     4.18um         5.6MszX
               LR    43 06.00
KKM   65.09 244 ePc   22 11.00   5.8X
ELF   65.16  50 P     22 04.70  -0.5
OBN   65.25 333 iPc   22 05.40  -0.1
    Z 18s     8.40um         6.0Msz
    N 18s     7.20um
    E 16s     4.30um
               e     22 17.00
               e     24 24.00
               ePPP  26 04.00
               eS    30 44.00
               e     34 54.00
               eSSS  37 56.00
DLA   65.30  51 P     22 05.70  -0.4
LDN   65.34  50 P     22 05.40  -0.9
ACTO  65.40  49 P     22 05.40  -1.3
GUN   65.42 284 P     22 05.70  -1.8
UYO   65.52  65 iPc   22 06.50  -1.1
MIAR  65.71  64 ePc   22 08.03  -0.7
      0.7s   41.26nm         5.7mb
    Z 19s     5.37um         5.8Msz
               epP   22 16.22  26kmX
               e     22 26.59
               ePcP  22 42.30
               S     30 54.78
               SS    35 42.59
GAC   65.73  45 ePd   22 06.50  -2.3
KKN   65.85 284 P     22 08.40  -1.7
BDT   65.87 266 eP    22 10.00   0.0
      0.8s   51.90nm         5.8mb
ELC   65.89  60 eP    22 07.28  -2.6
TYNO  65.89  49 P     22 08.35  -1.5
WLVO  65.90  48 P     22 08.20  -1.6
PKI   65.94 284 P     22 09.00  -1.8
KONO  65.96 350 eP    22 10.80   0.8
GKN   66.06 285 P     22 09.50  -1.8
DMN   66.09 284 P     22 10.00  -1.6
LST   66.22  60 eP    22 12.04   0.0
PMG   66.23 206 ePc   22 11.90  -0.3
               epPd  22 14.38   8kmX
               ed    22 15.21
NST   66.43 264 eP    22 14.00   0.4
YSNY  66.98  49 eP    22 15.59  -1.3
      0.9s  111.07nm         6.1mb
    Z 19s     4.99um         5.8Msz
OXF   67.93  62 eP    22 21.41  -1.5
      0.7s 1512.00nm         7.3mb X
    Z 19s     2.36um         5.4Msz
NIL   68.03 297 iPd   22 25.20   1.6
      0.3s    0.02nm         2.8mb X
               iS    31 20.88
KHT   68.04 265 eP    22 23.50  -0.3
BINY  68.33  48 eP    22 24.12  -1.2
      1.0s   62.88nm         5.8mb
    Z 20s     7.49um         5.9Msz
               ipP   22 32.72  28kmX
LBNH  68.39  44 eP    22 24.09  -1.6
      1.2s   73.37nm         5.7mb
    Z 19s     4.25um         5.7Msz
MNK   68.55 338 eP    22 23.00  -3.4X
      1.5s  323.00nm         6.3mb
    Z 18s     5.50um         5.8Msz
    N 18s     7.80um
               eS    31 16.00
               eSS   35 36.00
MCWV  68.63  52 eP    22 25.11  -2.1
      0.9s  134.38nm         6.1mb
    Z 19s     5.91um         5.8Msz
MUD   69.14 350 iP    22 29.90  -0.1
      1.0s   54.00nm         5.7mb
NDI   69.72 291 iPc   22 32.50  -1.5
               eS    31 35.00
LMN   69.81  38 eP    22 38.00   3.7X
LSCT  69.95  46 P     22 40.00   4.8X
    Z 21s     5.92um         5.8Msz
HRV   69.97  44 P     22 40.00   4.7X
    Z 18s     5.22um         5.8Msz
NAV   70.05  54 eP    22 34.70  -1.2
MYNC  70.20  58 ePc   22 36.23  -0.6
      0.6s   52.09nm         5.8mb
    Z 20s     9.37um         6.0Msz
               epPd  22 38.54   7kmX
               esP   22 40.45
PAL   70.21  47 eP    22 34.29  -2.5
BLA   70.31  54 eP    22 36.86  -0.7
      0.7s   46.30nm         5.7mb
               epP   22 45.37  27kmX
CVL   70.62  52 eP    22 38.78  -0.5
CBN   70.94  51 eP    22 41.00  -0.3
EKA   71.14 357 Pd    22 46.20   4.0X
GOGA  71.85  58 P     23 00.00  13.2X
    Z 20s     9.40um         6.1Msz
PRM   71.86  57 eP    22 46.39  -0.5
ASH   71.97 310 eP    22 47.00  -0.5
               e     23 05.00
               e     25 26.00
               e     32 10.00
               e     32 37.00
               e     33 00.00
CEH   72.01  54 eP    22 47.01  -0.7
      0.7s  109.17nm         6.1mb
    Z 20s     3.44um         5.6Msz
               ipP   22 55.61  28kmX
JSC   72.25  56 eP    22 48.01  -1.2
               epP   22 56.88  28kmX
LHS   72.31  56 eP    22 48.71  -0.8
               epP   22 57.06  27kmX
GRO   72.65 322 iPc+  22 53.00   1.6
      2.0s  240.00nm         5.9mb
    Z 16s    14.00um         6.3MszX
    N 14s     5.00um
    E 22s    10.00um
               i     25 28.00
               iPPP  27 16.00
MAIO  72.79 308 eP    22 53.00   0.5
               eS    32 16.00
PYA   73.00 324 iPc   22 54.00   0.5
      1.0s  250.00nm         6.3mb
    Z 16s     5.00um         5.9MszX
    N 16s     5.00um
    E 16s     4.00um
               e     23 08.00
               eS    32 20.00
               eSS   37 05.00
LVV   73.15 339 iP    22 55.00   0.8
    Z 18s     8.10um         6.0Msz
    N 18s     5.90um
               e     23 09.00
               iS    32 21.00
               iPS   32 50.00
KIV   73.20 324 eP    22 55.30   0.5
    Z 14s     3.30um         5.7MszX
               eS    32 20.60
               ePS   33 00.40
DCN   73.22 359 eP    22 55.30   0.8
DCN   73.22 359 eP    23 03.80   9.3X
      1.1s  189.00nm         6.1mb
DLF   73.26 359 eP    22 55.50   0.8
      1.0s  128.00nm         6.0mb
DLF   73.26 359 eP    23 04.10   9.4X
      1.0s  209.00nm         6.2mb
SGS   73.49  56 eP    22 56.07  -0.4
BAK   73.56 317 iPc   23 01.00   4.3X
    Z 16s    16.83um         6.4MszX
    N 14s    17.52um
OJC   73.63 341 eP    22 57.10   0.1
      1.2s  165.00nm         6.0mb
               i     23 20.00
KSP   73.65 344 eP    22 56.00  -1.1
      1.0s   42.00nm         5.4mb
               ePP   25 23.20
CLL   73.70 346 iP    22 56.50  -0.9
      1.7s   61.00nm         5.4mb
               i     23 04.80
HBF   73.77  56 eP    22 57.35  -0.7
               epP   23 07.83  34kmX
BRG   73.99 345 iP    22 58.70  -0.4
QUE   74.05 299 eP    22 59.80  -0.2
               eS    32 29.50
ECP   74.37 359 eP    23 02.00   0.8
MTA   74.40 321 eP    23 00.00  -1.6
      0.8s   60.00nm         5.7mb
    E 19s     8.00um
               i     23 11.80
               eS    32 35.00
SPC   74.53 341 eP    23 03.20   0.7
SOC   74.54 326 eP    23 02.00  -0.4
      3.0s  700.00nm         6.2mb
    Z 16s     3.50um         5.7MszX
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N 15s 2.60um
E 14s 2.60um
ePPP 27 35.00
eS 32 33.00
ePS 33 10.00
MOX 74.54 347 eP 23 02.20 -0.1
1.6s 78.00nm 5.5mb
Z 21s 2.20um 5.4Msz
e 24 05.40
eS 32 41.00
KIS 74.63 334 iP+ 23 03.00 0.2
Z 16s 8.40um 6.1MszX
i 23 18.50
iS 32 36.50
UZH 74.64 339 eP 23 04.50 1.6
Z 17s 8.00um 6.1MszX
N 17s 7.00um
e 23 17.70
eS 32 33.00
ePS 33 14.00
eSS 37 30.00
MTN 74.71 221 iPd 23 02.90 -0.7
0.6s 122.00nm 6.1mb
PRU 74.76 345 iPd 23 03.40 -0.1
1.4s 49.10nm 5.3mb
i 23 06.90
e 23 10.70
PP 25 51.80
IPM 74.77 257 ePd 23 04.40 0.3
SIM 75.08 330 eP 23 08.00 2.5
Z 20s 4.50um 5.8Msz
eS 32 42.00
ENN 75.09 351 eP 23 05.00 -0.4
1.0s 68.00nm 5.6mb
SNF 75.49 352 P 23 07.80 0.1
GRA1 75.53 347 eP 23 08.10 0.1
1.4s 60.00nm 5.5mb
GRF 75.53 347 eP 23 08.10 0.1
1.4s 60.00nm 5.5mb
Z 20s 4.10um 5.7Msz
KGM 75.55 253 ePd 23 09.00 0.5
DZM 75.68 185 iPc 23 10.00 0.9
KHC 75.74 345 P 23 10.00 0.8
1.2s 75.00nm 5.6mb
Z 18s 3.60um 5.7Msz
N 18s 3.30um
E 20s 2.00um
e 23 14.00
i 23 28.00
e 23 38.00
e 23 49.90
PSZ 75.81 341 iP 23 10.30 0.6
WET 75.83 346 iPc 23 10.60 0.9
1.3s 51.00nm 5.4mb
ERE 75.84 321 iP 23 11.00 1.0
eS 32 53.00
DOU 75.88 351 Pc 23 10.20 0.3
e 23 19.20
GEC2 76.00 345 e(P) 23 10.20 -0.6
0.6s 7.90nm 5.0mb X
GEC2 76.00 345 e(P) 23 20.70 9.9X
0.8s 24.40nm 5.3mb
ZST 76.07 343 iP 23 11.30 0.3
VKA 76.14 343 eP 23 12.00 0.5
WLF 76.16 350 P 23 15.00 3.5X
SRO 76.21 342 iP 23 13.70 1.8
VRI 76.24 335 eP 23 12.00 0.0
CFR 76.51 334 eP 23 14.50 1.0
MLR 76.78 336 ePd 23 16.00 0.7
PMO 76.86 140 iPc 23 16.40 0.6
1.8s 504.10nm 6.3mb
TPT 76.95 139 iPc 23 17.00 0.7
0.9s 178.20nm 6.2mb
TAB 76.97 318 eP 23 17.00 0.5
FUR 77.02 346 eP 23 20.10 3.7X
VAH 77.18 140 iPc 23 18.10 0.6
1.3s 249.10nm 6.1mb
BHG 77.22 345 iPc 23 18.50 1.0
RUV 77.23 139 iPc 23 18.50 0.7
1.1s 254.90nm 6.2mb
CDF 77.27 349 eP 23 17.00 -0.9
1.0s 23.40nm 5.2mb
UZD 77.34 341 eP 23 19.00 0.9
FLN 77.58 354 eP 23 18.40 -1.0
1.1s 100.10nm 5.8mb
Z 23s 2.03um 5.4MszX
LDF 77.73 354 eP 23 19.20 -1.0
1.1s 64.95nm 5.6mb
KBA 77.78 345 iPd 23 21.30 0.5
1.0s 130.00nm 6.0mb
i 23 22.30
i 23 25.50
HAU 77.78 350 eP 23 19.80 -0.8
1.1s 42.00nm 5.4mb
Z 22s 1.90um 5.4Msz
HYB 77.79 283 eP 23 21.00 -0.1
1.0s 120.00nm 5.9mb
eS 33 08.00
WATA 77.79 346 iPd 23 21.00 0.2
i 23 30.10
MOTA 77.84 346 iPd 23 21.40 0.3
1.1s 51.40nm 5.5mb
WTTA 77.85 346 iPd 23 21.70 0.5
1.2s 78.70nm 5.7mb
i 23 25.70
BSF 77.90 349 eP 23 20.30 -1.1
1.2s 41.35nm 5.4mb
SQTA 77.95 346 i(P) 23 22.50 0.8
1.2s 65.60nm 5.6mb
i 23 26.40
i 23 31.10
GRR 77.97 355 eP 23 20.90 -0.7
1.1s 136.25nm 6.0mb
KVT 77.99 327 iP 23 22.00 0.1
OGA 78.32 346 eP 23 25.00 1.2
FVI 78.33 345 P 23 25.18 1.6
1.6s 97.70nm 5.6mb
LPF 78.34 355 eP 23 23.00 -0.6
1.1s 83.05nm 5.7mb
KAS 78.44 329 eP 23 26.00 1.6
AFR 78.48 142 iPc 23 25.20 0.5
0.8s 298.70nm 6.4mb
PTJ 78.49 343 iP 23 25.30 0.7
PPT 78.58 142 iPc 23 25.70 0.4
1.2s 397.50nm 6.3mb
Z 34s 8650.00um 8.9MszX
LLS 78.59 348 P 23 30.36 5.1X
LJU 78.59 344 iPc 23 28.70 3.6X
i 23 35.00
e 25 46.40
e 43 44.40
PPN 78.60 142 iPc 23 25.80 0.5
OSS 78.62 347 P 23 26.53 1.1
PAE 78.67 142 iPc 23 26.10 0.4
1.2s 289.20nm 6.2mb
CTK 78.73 328 eP 23 28.70 2.6
LOR 78.75 351 eP 23 25.10 -0.8
1.2s 76.15nm 5.6mb
Z 23s 4.57um 5.7MszX
HYF 78.85 352 eP 23 26.50 0.0
VDL 78.91 347 P 23 28.79 1.7
QIS 78.96 210 eP 23 27.00 -0.3
SSF 78.98 352 eP 23 26.60 -0.6
0.9s 29.65nm 5.3mb
VBY 78.99 343 eP 23 27.50 0.3
i 23 32.10
LBF 79.02 351 eP 23 26.50 -0.9
0.6s 7.50nm 4.9mb
CTI 79.04 346 P 23 27.95 0.3
0.9s 39.50nm 5.4mb
TRI 79.04 344 eP 23 33.40 5.9X
e 29 36.00
e 33 56.00
eLR 49 12.00
AVF 79.27 352 eP 23 28.10 -0.6
1.2s 81.20nm 5.6mb
MRFT 79.33 329 eP 23 31.70 2.3
TMA 79.36 348 P 23 30.11 0.6
SMF 79.37 351 eP 23 28.70 -0.6
0.9s 53.25nm 5.5mb
MMK 79.52 348 P 23 35.16 4.7X
BGF 79.54 352 eP 23 29.70 -0.5
1.4s 70.15nm 5.5mb
MDI 79.57 347 P 23 30.55 0.2
1.0s 22.50nm 5.1mb
VAI 79.61 348 P 23 31.39 0.9
1.1s 152.40nm 5.9mb
EMS 79.62 349 P 23 42.59 11.7X
SGKT 79.69 330 eP 23 32.00 0.6
MFF 79.71 354 eP 23 30.70 -0.4
1.3s 79.40nm 5.5mb
TCF 79.86 352 eP 23 31.50 -0.5
1.1s 38.10nm 5.3mb
KER 79.87 316 eP 23 32.00 -0.4
BOM 79.89 288 eP 23 31.80 -0.7
eS 33 26.30
MAF 79.90 352 eP 23 32.00 -0.1
1.0s 31.60nm 5.2mb
LSF 79.95 353 eP 23 32.00 -0.4
1.0s 36.00nm 5.3mb
WB2 80.07 215 iPc 23 32.90 -0.4
0.7s 98.20nm 5.9mb
WRA 80.07 215 P 23 32.30 -1.0
0.7s 27.50nm 5.3mb
LPL 80.19 349 eP 23 34.30 0.3
0.9s 29.65nm 5.3mb
LPG 80.21 349 eP 23 34.60 0.4
1.3s 79.40nm 5.5mb
EYL 80.26 331 eP 23 35.00 0.7
NAL 80.26 330 eP 23 35.10 0.8
GPA 80.47 331 eP 23 35.00 -0.3
BOB 80.60 347 P 23 38.18 2.2
1.0s 211.70nm 6.1mb
BNI 80.66 349 P 23 38.58 2.2
1.4s 133.70nm 5.8mb
IZI 80.66 331 eP 23 38.00 1.6
RJF 80.89 353 eP 23 37.00 -0.4
1.4s 71.45nm 5.5mb
Z 20s 2.28um 5.5Msz
RSM 80.99 345 P 23 40.45 2.6
1.3s 462.30nm 6.4mb
MME 80.99 346 P 23 40.56 2.3
1.2s 255.70nm 6.1mb
HVAR 81.03 342 iP 23 38.30 0.1
SFI 81.09 345 P 23 40.91 2.5
1.3s 211.00nm 6.0mb
BDI 81.13 346 P 23 40.45 1.6
1.0s 23.70nm 5.2mb
PGD 81.15 345 P 23 41.00 2.0
1.1s 236.50nm 6.1mb
SKO 81.17 338 iP 23 40.00 1.1
Z 18s 4.01um 5.8Msz
i 23 54.00
LR 04 44.00
CAF 81.22 352 eP 23 39.40 0.2
1.1s 54.95nm 5.5mb
LFF 81.31 353 eP 23 39.70 0.1
1.5s 189.10nm 5.9mb
FIR 81.31 346 eP 23 41.00 1.4
ARV 81.33 344 P 23 41.56 1.8
1.2s 355.90nm 6.3mb
CRE 81.36 345 P 23 43.58 3.5X
1.7s 241.10nm 6.0mb
PII 81.48 346 P 23 42.58 2.1
1.3s 192.90nm 6.0mb
VAY 81.53 337 iP 23 42.30 1.5
LPO 81.53 353 eP 23 40.70 -0.1
1.2s 83.60nm 5.7mb
SHI 81.55 310 eP 23 41.00 -0.3
ALT 81.67 331 eP 23 41.00 -0.7
SBF 81.74 348 eP 23 41.80 -0.2
1.0s 102.00nm 5.9mb
ASS 81.79 344 P 23 44.65 2.4
1.8s 213.70nm 5.9mb
OHR 82.13 338 eP 23 41.20 -2.8
FRF 82.13 349 eP 23 43.90 0.0
1.0s 75.40nm 5.8mb
LRG 82.27 349 eP 23 44.70 0.1
1.1s 72.75nm 5.7mb
Z 22s 2.30um 5.5Msz
AQU 82.37 344 P 23 47.41 2.2
1.2s 357.30nm 6.4mb
LMR 82.37 349 eP 23 45.20 0.0
1.3s 129.25nm 5.9mb
PGF 82.84 347 eP 23 47.80 0.0
1.4s 142.90nm 6.0mb
SDI 82.93 343 P 23 49.65 1.5
0.9s 62.80nm 5.8mb
EMON 83.13 359 eP 23 46.30 -2.9
ELIZ 83.22 355 eP 23 47.99 -1.6
EPF 83.24 353 eP 23 48.90 -0.8
1.1s 25.90nm 5.3mb
ASPA 83.67 214 iPd 23 51.60 -0.4
0.6s 77.60nm 6.1mb
Z 23s 2.90um 5.6MszX
eS 34 13.90
ELL 83.86 330 eP 23 54.00 0.9
ORI 84.04 341 P 23 56.06 2.2
EGRA 84.11 354 eP 23 55.22 1.1
ERUA 84.17 359 eP 23 51.24 -3.2X
CSS 84.44 327 eP 23 56.50 0.6

16d 20h

BHL 84.62 324 P 23 56.00 -0.9
SKS 34 16.00
EBR 85.42 353 eP 24 02.00 1.3
EROQ 85.43 353 eP 24 01.70 1.0
ETOR 85.58 355 eP 24 02.60 1.0
ARMA 85.61 197 iPd 24 03.50 1.8
0.8s 28.00nm 5.5mb
GUD 85.85 357 eP 24 03.14 0.1
EPLA 86.48 358 eP 24 05.60 -0.4
ECHE 86.74 354 eP 24 09.65 2.3
MBL 86.83 227 eP 24 07.00 -0.7
PAB 86.95 357 iPc 24 10.80 2.4
eS 34 43.00
EVIA 87.78 355 eP 24 12.13 -0.3
WARB 88.55 219 eP 24 16.20 0.2
0.7s 31.00nm 5.7mb
EHUE 88.60 355 eP 24 16.09 -0.3
EHOR 88.70 357 eP 24 16.59 -0.1
RIV 89.02 197 eP 24 20.70 2.8
STK 89.15 205 eP 24 18.60 0.0
0.7s 21.00nm 5.5mb
ECOG 89.18 356 eP 24 20.16 1.0
EPRU 89.55 357 eP 24 19.19 -1.6
EGUA 89.63 356 eP 24 20.94 -0.2
ALJ 89.85 358 eP 24 26.00 3.7X
EJIF 90.07 357 eP 24 23.85 0.6
BWA 90.09 199 eP 24 24.30 1.2
e 24 35.60
e 24 45.50
i 24 54.40
PLAT 90.41 358 eP 24 27.00 2.2
CNB 90.78 198 eP 24 27.00 0.8
0.9s 12.00nm 5.2mb
CAN 90.85 198 eP 24 27.40 0.9
e 24 42.10
i 24 58.90
PUZ 91.70 175 eP 24 29.30 -1.0
TOO 93.72 200 eP 24 44.60 5.0X
0.6s 9.00nm 5.3mb
LKO 116.85 357 PKP 30 08.05 -0.5
0.9s 5.00nm
TIC 119.70 356 PKP 30 13.03 -0.9
0.8s 3.00nm
KIC 119.97 356 ePKP 30 13.51 -0.9
0.7s 11.00nm
LIC 120.12 356 PKP 30 13.75 -1.0
0.6s 3.50nm
Z 20s 1.65um 5.7Msz
LPAZ 120.89 75 PKP 30 15.10 -1.8
LR 56 23.00
LPB 121.10 75 PKP 30 15.00 -2.0
Z 20s 2.13um 5.8Msz
eLR 56 16.00
SIV 124.62 68 PKP 30 22.20 -1.1
MOCB 126.25 76 PKP 30 26.80 -0.2
SOB1 128.54 42 ePKP 30 26.40 -4.6X
BAO 131.10 54 ePKP 30 38.20 2.3
e 30 46.70
e 30 51.90
BDF 131.17 54 ePKP 30 36.20 0.2
1.3s 0.85nm
RTCB 132.10 87 ePKPd 30 37.70 0.3
RTLL 132.18 87 ePKPd 30 37.30 -0.2
TCA 134.48 84 ePKPd 30 41.80 -0.1
RSTA 138.15 62 (PKP) 30 41.00 -7.9X
BFT 139.90 299 e(PKP)30 56.00 3.7X
SLR 140.85 301 ePKP 30 41.50 -12.4X
1.5s 41.67nm
Z 20s 3.90um 6.2Msz
e 34 27.00
SEK 143.30 299 ePKP 31 04.00 5.9X
1.0s 25.00nm
SPA 143.62 180 iPKPd 30 53.80 -3.6X
0.7s 70.31nm
MAW 144.67 219 ePKP 30 58.30 -0.7
1.0s 118.33nm
BLF 144.67 300 ePKP 30 57.60 -2.8
0.5s 16.22nm
GRM 147.78 295 iPKPc 31 07.00 1.7
1.0s 36.00nm
CER 151.56 305 iPKPc 31 08.50 -2.6
1.2s 200.00nm
SYO 153.34 217 ePKPc 31 19.50 7.1X
S.D. = 1.1 on 420 of 460 obs.

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* DEC 16, 1993 20h 14m 03.58± 2.26s
41.927 N ±16.4km 19.404 E ± 8.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.2 (TTG).

ULC 0.12 288 iPgc 14 06.80 0.2
iSg 14 09.47
TTG 0.51 348 iPgc 14 13.87 -0.1
iSg 14 21.90
BDV 0.56 310 iPgc 14 14.46 -0.4
iSg 14 23.52
PVY 0.79 32 iPgc 14 18.55 -0.5
iSg 14 30.38
HCY 0.85 308 iPgc 14 19.73 -0.2
iSg 14 33.06
NKY 0.94 341 iPgc 14 21.37 -0.1
iSg 14 35.90
IVA 1.01 21 iPgc 14 22.93 0.1
iSg 14 38.21
BRY 1.16 327 iPgc 14 25.85 0.4
iSg 14 43.56
PLE 1.40 360 iPgd 14 29.91 0.6
iSg 14 51.23
SKO 1.52 88 ePn 14 33.30 2.5X
iSn 14 53.30
S.D. = 0.4 on 9 of 10 obs.

DEC 16, 1993 20h 27m 32.79± 0.75s
41.247 N ± 8.3km 22.694 E ± 5.5km
DEPTH = 5.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (THE), 1.7 (SKO).

VAY 0.12 309 iPg 27 35.30 0.0
0.1s 190.00nm
iSg 27 37.50
KNT 0.18 119 ePgc 27 36.89 0.5
eSg 27 40.00
THE 0.65 161 ePg 27 45.32 -0.4
eSg 27 55.40
SOH 0.66 130 ePg 27 45.80 -0.1
eSg 27 55.60
SRS 0.69 101 ePg 27 46.28 -0.3
eSg 27 55.24
FNA 1.10 246 ePg 27 53.84 -0.1
eSg 28 10.88
OUR 1.34 133 ePb 27 57.40 -0.5
eSb 28 17.72
PAIG 1.52 150 ePb 28 01.60 1.0
S.D. = 0.6 on 8 of 8 obs.

? DEC 16, 1993 22h 10m 11.71± 2.80s
38.716 N ±21.0km 24.954 E ±13.8km
DEPTH = 5.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (THE).

PAIG 1.56 321 ePb 10 40.56 0.4
eSb 11 02.72
OUR 1.78 335 ePb 10 43.36 0.0
eSb 11 09.42
IZM 1.84 99 ePn 10 47.70 3.5X
AGG 2.07 279 ePn 10 47.60 0.0
eSn 11 17.08
ALN 2.34 21 ePn 10 51.24 -0.1
eSn 11 22.90
LIT 2.36 307 ePn 10 51.72 0.0
eSn 11 23.84
SOH 2.44 330 ePnc 10 52.93 0.1
eSn 11 27.40
THE 2.45 322 ePn 10 52.80 -0.2
eSn 11 25.56
SRS 2.62 337 ePn 10 54.52 -0.8
eSn 11 29.08
KNT 2.91 328 ePnc 10 59.64 0.1
eSn 11 38.16
DST 2.99 72 ePn 11 10.80 10.1X
VAY 3.18 326 ePn 11 03.50 0.2
FNA 3.45 308 ePn 11 06.24 -1.0
IZI 3.85 64 ePn 11 28.00 15.0X
S.D. = 0.5 on 11 of 14 obs.

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* DEC 16, 1993 22h 32m 10.10± 2.82s
41.751 N ±21.4km 22.675 E ± 9.2km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.6 (THE), 2.4 (SKO).

VAY 0.44 190 iPg 32 19.40 0.4
0.2s 60.00nm
iSg 32 26.40
KNT 0.61 164 ePgc 32 21.93 -0.5
eSg 32 30.36
SRS 0.94 132 ePgc 32 27.21 -0.8
eSg 32 40.00
SOH 1.06 151 ePg 32 30.08 0.0
eSg 32 44.52
THE 1.14 169 ePg 32 31.00 -0.4
eSg 32 46.84
FNA 1.38 226 ePb 32 35.04 -0.3
eSb 32 54.40
OUR 1.73 145 ePb 32 41.28 1.0
eSb 33 05.28
PAIG 1.97 157 ePb 32 44.56 0.6
S.D. = 0.7 on 8 of 8 obs.

% DEC 16, 1993 22h 52m 40.81± 1.29s
42.106 N ± 8.9km 19.549 E ± 8.2km
DEPTH = 11.2 ± 7.2 km
NORTHWESTERN BALKAN REGION (383)
ML 2.2 (TTG).

ULC 0.26 238 iPgc 52 46.73 0.2
iSg 52 51.51
TTG 0.39 327 iPgd 52 48.66 -0.2
iSg 52 55.28
BDV 0.56 289 iPgc 52 51.89 -0.3
iSg 53 01.13
PVY 0.58 33 iPgc 52 52.14 -0.4
iSg 53 01.20
IVA 0.81 19 iPgc 52 56.39 0.0
iSg 53 08.86
NKY 0.82 330 iPgd 52 56.13 -0.4
iSg 53 08.86
HCY 0.85 294 iPgd 52 56.81 -0.3
iSg 53 09.92
BRY 1.09 317 iPgd 53 01.72 0.5
iSg 53 17.93
PLE 1.23 355 iPgd 53 04.55 0.9
iSg 53 22.49
S.D. = 0.6 on 9 of 9 obs.

DEC 16, 1993 23h 41m 11.23± 0.19s
15.458 S ± 7.9km 173.360 W ± 6.0km
DEPTH = 33.0km (normal)
5.2mb (27 obs.) 5.1Msz (2 obs.)
TONGA ISLANDS (173)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 26C
Centroid Location:
Origin Time 23:41:21.3 0.6
Lat 15.55S 0.09 Lon 173.63W 0.08
Dep 114.0 FIX Half-duration 1.2
Moment Tensor; Scale 10**17 Nm
Mrr= 0.19 0.07 Mtt=-0.27 0.13
Mff= 0.08 0.12 Mrt=-1.19 0.06
Mrf= 0.60 0.07 Mtf= 0.04 0.12
Principal Axes:
T Val= 1.33 Plg=49 Azm=212
N 0.04 5 116
P -1.37 40 22
Best Double Couple:Mo=1.4*10**17
NP1:Strike= 69 Dip= 7 Slip= 43
NP2: 297 85 95

AFI 2.17 45 iPd 41 41.00 -4.8X
SVA 8.27 250 eP 43 21.60 9.7X
PMO 24.57 92 eP 46 29.60 0.1
1.1s 123.10nm 5.4mb
VAH 24.81 93 eP 46 31.40 -0.4
1.2s 160.70nm 5.5mb
TPT 24.84 92 eP 46 32.20 0.1
1.1s 123.10nm 5.4mb
RUV 25.05 93 eP 46 33.60 -0.6
1.2s 73.80nm 5.2mb
ARMA 35.35 239 iPd 48 05.40 -0.5
0.6s 30.00nm 5.4mb
CNB 38.74 232 iPc 48 34.40 0.0
1.1s 88.00nm 5.5mb
CAN 39.03 232 iPc 48 35.50 -1.2
TOO 42.46 231 eP 49 04.90 0.0
1.0s 137.00nm 5.6mb
ADE 47.02 236 iPc 49 41.50 0.0

WB2 49.86 257 eP 50 02.30 -1.4
0.5s 39.90nm 5.7mb
WRA 49.87 257 P 50 02.70 -1.1
0.6s 8.90nm 5.0mb
ASPA 50.13 252 iPc 50 04.60 -1.2
1.4s 88.70nm 5.6mb
ipP 50 19.00 54kmX
iPcP 51 13.50
eS 57 09.50
FORT 55.42 243 eP 50 43.90 -1.1
0.5s 30.00nm 5.6mb
WARB 56.67 249 eP 50 52.80 -1.3
CSY 70.38 205 eP 52 23.20 -0.3
0.8s 16.30nm 5.1mb
CMB 72.78 41 eP 52 37.44 -1.1
0.6s 3.33nm 4.5mb
ORV 73.00 39 eP 52 38.98 -0.7
WDC 73.00 38 eP 52 39.27 -0.4
1.7s 43.96nm 5.2mb
LGPM 73.04 38 eP 52 39.22 -0.8
GSC 73.60 45 eP 52 42.82 -0.5
GLA 73.80 48 (P) 52 44.49 0.0
LBFM 73.86 38 eP 52 44.55 -0.4
SPA 74.64 180 iPc 52 50.90 1.9
1.1s 178.57nm 6.0mb
TNP 74.85 43 eP 52 50.29 -0.4
1.2s 16.70nm 4.9mb
BMW 76.36 33 eP 52 58.50 -0.4
TUC 76.40 51 eP 53 00.21 0.7
1.0s 11.27nm 4.8mb
SHW 76.71 34 eP 53 00.45 -0.5
VGB 77.08 35 eP 53 02.64 -0.3
ARUT 77.21 45 eP 53 04.20 0.2
RMW 77.74 33 eP 53 06.00 -0.6
CP2 78.30 10 eP 53 08.58 -0.9
MSU 78.44 45 eP 53 11.09 0.2
DUG 78.88 43 eP 53 13.17 0.1
1.6s 24.74nm 5.0mb
HVU 79.72 41 eP 53 16.90 -0.7
BALM 80.16 15 eP 53 18.40 -1.1
PV10 80.52 46 eP 53 21.71 -0.4
PTI 80.55 41 (P) 53 21.94 -0.1
LTX 80.61 56 eP 53 21.99 -0.6
PV08 80.89 46 eP 53 24.87 0.7
CN2 81.15 320 eP 53 26.00 1.1
1.0s 14.00nm 4.9mb
LRM 82.04 38 eP 53 29.10 -0.7
e 53 41.20
FBA 82.45 11 eP 53 29.60 -1.6
0.6s 12.05nm 5.1mb
IMA 82.61 8 eP 53 32.10 -0.1
1.4s 12.65nm 4.8mb
GLD 83.79 46 eP 53 39.73 0.8
1.7s 60.57nm 5.5mb
BJI 85.54 313 eP 53 48.50 1.1
1.0s 6.00nm 4.8mb
Z 24s 0.32um 4.6MszX
RSSD 86.48 42 eP 53 52.49 0.2
1.4s 22.38nm 5.2mb
MEO 86.67 53 iPc 53 53.60 0.4
TIY 87.32 310 eP 53 58.00 1.7
Z 22s 0.65um 5.0Msz
E 16s 0.76um
INK 88.32 14 eP 54 00.50 0.2
1.0s 3.00nm 4.6mb
HHC 89.09 313 P 54 06.10 1.3
1.1s 14.00nm 5.2mb
YKA 90.13 23 eP 54 02.20 -6.8X
0.8s 3.80nm 4.7mb
SYO 92.57 191 ePc 54 20.50 0.2
SOB1 126.92 114 (PKP) 00 14.00 -0.4
MAIO 128.79 304 ePKP 00 18.00 0.5
KAF 131.35 348 iPKP 00 20.90 -0.5
0.4s 2.60nm
NUR 133.15 348 iPKP 00 24.10 -0.7
0.6s 4.50nm
OBN 134.18 336 ePKP 00 21.00 -5.9X
HFS 135.09 355 ePKP 00 29.10 0.6
0.5s 1.20nm
KSP 143.86 350 ePKP 00 38.70 -6.0X
CLL 143.87 353 ePKP 00 42.00 -2.7
BRG 144.19 352 e(PKP) 00 47.80 2.5X
SPC 144.57 345 ePKP 00 44.00 -2.2
i 01 54.70
MOX 144.67 355 e(PKP) 00 45.10 -1.0
1.8s 54.00nm
CTK 144.92 321 ePKP 00 47.00 0.0

PRU 144.97 351 PKP 00 45.60 -1.0
1.9s 89.50nm
SNF 144.98 3 PKP 00 46.40 -0.2
CFR 145.26 333 ePKP 00 47.50 0.3
VRI 145.31 335 ePKP 00 47.00 -0.4
DOU 145.41 2 PKP 00 47.80 0.4
GRF 145.65 355 iPKPc 00 48.30 0.5
PSZ 145.83 344 iPKPc 00 48.90 0.6
NAI 145.86 244 iPKPd 00 51.00 1.5
1.0s 50.00nm
Z 24s 2.48um 5.9MszX
WLF 145.88 1 PKPd 00 50.00 1.9
MLR 145.94 335 ePKPc 00 49.00 0.4
KHC 145.94 352 PKP 00 49.00 0.6
1.3s 48.00nm
e 01 02.00
e 01 11.00
WET 146.02 353 iPKPc 00 49.60 1.1
1.5s 71.00nm
GEC2 146.20 352 PKP 00 48.70 -0.2
1.2s 21.54nm
e 00 51.70
e 01 03.90
e 01 11.80
e 01 17.90
ZST 146.23 347 ePKP 00 48.30 -0.5
FLN 146.28 8 ePKP 00 49.30 0.4
Z 22s 0.50um 5.3Msz
SRO 146.32 346 ePKP 00 49.50 0.6
LDF 146.49 8 ePKP 00 49.20 0.0
GRR 146.59 9 ePKP 00 49.80 0.4
0.8s 14.90nm
SGKT 146.62 324 ePKP 00 52.00 2.0
LPF 146.91 9 ePKP 00 50.90 1.0
0.4s 5.10nm
CDF 147.13 359 ePKP 00 52.00 1.6
0.8s 17.85nm
NAL 147.29 324 ePKP 00 53.50 2.5X
HAU 147.54 0 ePKP 00 53.00 2.0
1.2s 33.05nm
BSF 147.72 360 ePKP 00 53.40 2.0
WATA 147.95 354 iPKPd 00 55.10 3.3x
KBA 147.98 351 iPKPd 00 54.70 2.8X
0.5s 7.60nm
i 00 59.10
WTTA 148.02 354 iPKPd 00 55.50 3.5X
0.6s 18.40nm
i 01 08.80
BHL 148.04 310 PKP 00 54.00 1.7
SQTA 148.10 354 iPKPd 00 55.60 3.6X
1.2s 29.30nm
LOR 148.20 4 ePKP 00 54.70 2.7X
Z 23s 0.50um 5.2MszX
SSF 148.38 4 ePKP 00 55.40 3.1X
1.2s 32.45nm
MFF 148.44 9 ePKP 00 55.00 2.6X
LBF 148.49 3 ePKP 00 55.50 3.0X
0.6s 7.95nm
AVF 148.64 4 ePKP 00 55.70 3.0X
0.6s 3.70nm
LJU 148.80 349 ePKP 00 53.00 0.0
iPKPab00 56.50
SMF 148.82 4 ePKP 00 56.20 3.2X
BGF 148.83 5 ePKP 00 55.80 2.8X
0.7s 10.05nm
LSF 149.00 7 ePKP 00 56.60 3.3X
0.9s 16.70nm
TCF 149.04 6 ePKP 00 57.10 3.7x
MAF 149.14 6 ePKP 00 57.40 3.8X
RJF 149.94 7 ePKP 00 59.20 4.4X
Z 23s 0.45um 5.2MszX
LPL 150.04 360 ePKP 01 00.60 5.4X
0.9s 12.60nm
LPG 150.05 360 ePKP 01 00.90 5.6X
1.3s 42.95nm
SKO 150.66 337 iPKP 01 01.50 5.6X
1.4s 80.00nm
i 01 09.00
i 01 24.50
VAY 150.77 335 iPKP 01 01.50 5.4X
LIC 165.33 127 PKP 01 14.16 0.1
0.8s 5.50nm
TIC 165.60 126 PKP 01 14.22 -0.1
1.0s 8.50nm
KIC 165.63 128 PKP 01 14.38 0.0
1.1s 28.50nm
LKO 166.70 115 PKPc 01 14.82 -0.4

1.8s 40.50nm
S.D. = 0.9 on 89 of 115 obs.

? DEC 17, 1993 00h 20m 09.26± 3.91s
10.597 N ±30.9km 60.767 W ±34.1km
DEPTH = 33.0km (normal)
TRINIDAD (98)
MD 3.0 (TRN).

TBH 0.32 249 eP 20 17.39 0.2
eS 20 29.94
BOT 0.57 5 eP 20 20.08 -0.7
TPR 0.58 359 eP 20 21.88 0.8
eS 20 30.29
TRN 0.63 275 eP 20 20.64 -1.0
eS 20 28.80
TCE 0.97 276 eP 20 27.43 0.8
eS 20 44.69
GRW 1.78 331 eP 20 45.37 7.0X
eS 21 03.74
S.D. = 1.2 on 5 of 6 obs.

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* DEC 17, 1993 00h 37m 25.69± 0.37s
5.311 N ± 7.0km 61.523 E ± 5.1km
DEPTH = 10.0km (geophysicist)
5.1mb (28 obs.) 4.7Msz (5 obs.)
CARLSBERG RIDGE (421)

BOM 17.43 38 iP 41 26.40 -4.2X
eS 44 05.60
GBA 17.72 61 P 41 34.70 0.5
1.1s 4.00nm 3.5mb X
POO 17.82 41 eP 41 34.80 -0.7
ARO 19.47 290 eP 41 57.30 1.4
HYB 20.55 53 ePc 42 06.00 -1.3
eS 46 02.00
AAE 22.88 281 eP 42 34.50 3.5X
QUE 25.27 11 eP 42 57.50 3.6X
eS 47 40.50
NDI 27.60 31 eP 43 20.50 5.3X
MAIO 30.90 357 iPc 43 45.00 0.2
eS 48 52.00
GKN 31.49 42 P 43 51.70 1.5
DMN 31.54 43 P 43 51.20 0.4
1.0s 59.00nm 5.5mb
PKI 31.73 43 P 43 53.30 0.8
1.1s 27.00nm 5.1mb
KKN 31.78 43 P 43 54.00 1.2
GUN 32.26 43 P 43 57.60 0.4
1.0s 62.00nm 5.5mb
TAB 35.42 339 iP 44 25.00 0.9
ERE 37.95 339 iP 44 46.00 0.7
FRU 39.13 15 eP 44 57.00 1.9
2.8s 160.00nm 5.2mb
Z 16s 1.50um 4.9MszX
GRO 40.39 342 eP 45 07.00 1.6
Z 12s 1.00um 4.9MszX
N 16s 1.00um
E 16s 2.00um
KIV 41.91 340 P 45 19.10 1.0
2.6s 118.00nm 5.2mb
e 45 26.10
e 47 05.40
KAS 43.63 329 eP 45 33.50 1.3
KMI 44.13 59 Pd- 45 37.50 0.9
2.0s 30.00nm 4.8mb
Z 30s 1.50um 4.7MszX
pP 45 44.00 22kmX
sP 45 48.00
eS 52 02.00
sS 52 14.00
SLR 44.65 225 eP 45 40.50 -0.2
Z 18s 3.44um 5.3Msz
SEK 46.74 222 eP 46 07.00 9.7X
0.8s 14.93nm 5.1mb
BOSA 48.43 224 (P) 46 12.07 1.8
0.9s 6.61nm 4.7mb
FRS 49.20 223 eP 46 09.00 -7.2X
LZH 49.44 46 eP 46 10.50 -7.7X
1.6s 27.00nm 5.0mb
VAY 49.93 322 eP 46 21.40 -0.3
MLR 50.58 328 ePc 46 28.00 1.3
SKO 50.99 322 iP 46 29.00 -0.8
i 46 36.00
ARU 51.00 358 eP 46 31.00 1.5
Z 18s 0.50um 4.6Msz
N 20s 0.50um

E 20s 0.50um
SVE 51.36 359 ePd 46 30.00 -2.3
3.9s 380.00nm 5.7mb X
Z 21s 0.50um 4.5Msz
N 21s 0.50um
E 21s 0.50um
eS 53 52.00
eSSS 59 17.00
NVS 52.40 16 eP 46 38.80 -1.4
2.4s 75.00nm 5.2mb
UER 53.44 25 eP 46 47.00 -0.9
UZH 54.51 329 eP 46 57.00 1.1
e 47 05.50
ZAK 56.90 31 eP 47 07.60 -5.5X
1.8s 17.00nm 4.8mb
Z 15s 0.78um 4.9MszX
E 15s 0.77um
eS 55 10.00
e 59 00.00
KSP 58.95 328 eP 47 26.40 -1.2
KHC 59.51 326 eP 47 24.00 -7.5X
BJI 59.92 46 eP 47 34.00 -0.4
2.0s 32.00nm 5.1mb
Z 22s 1.24um 5.0Msz
eS 55 48.00
CLL 60.95 327 eP 47 40.00 -1.2
2.5s 100.00nm 5.5mb
LPG 62.01 319 eP 47 47.80 -1.1
LPL 62.03 319 eP 47 48.00 -1.0
CDF 62.86 323 eP 47 53.80 -0.4
BSF 62.91 322 eP 47 54.00 -0.6
HAU 63.26 322 eP 47 56.00 -0.8
BIP 64.29 83 iP 48 08.00 3.9X
SMF 64.32 320 eP 48 02.90 -0.8
LBF 64.35 320 eP 48 03.50 -0.5
LOR 64.53 320 eP 48 04.60 -0.5
Z 22s 0.15um 4.1Msz
SSF 64.68 320 eP 48 05.60 -0.5
0.9s 13.60nm 5.1mb
BGF 64.93 319 eP 48 07.70 0.0
0.7s 12.55nm 5.2mb
LPO 65.42 317 eP 48 11.20 0.3
1.0s 29.40nm 5.4mb
HFS 65.53 336 eP 48 08.90 -2.4
0.6s 3.90nm 4.8mb
LFF 65.80 317 eP 48 13.70 0.4
0.6s 14.80nm 5.4mb
KIC 65.89 275 P 48 14.68 0.3
1.4s 57.00nm 5.6mb
TIC 66.15 275 P 48 16.18 0.1
1.1s 15.00nm 5.1mb
LIC 66.18 274 P 48 16.50 0.2
1.2s 13.50nm 5.0mb
BOD 66.38 28 eP 48 13.20 -3.6X
LKO 66.60 278 P 48 19.04 0.0
1.5s 41.50nm 5.4mb
LDF 67.50 321 eP 48 23.70 -0.4
1.0s 25.40nm 5.4mb
GRR 67.90 320 eP 48 26.20 -0.4
LPF 67.91 320 eP 48 26.40 -0.2
0.9s 34.25nm 5.5mb
PAB 68.10 310 eP 48 28.20 0.1
SYO 75.70 188 ePd 49 12.90 0.2
WRA 75.78 112 P 49 14.10 0.0
0.7s 5.70nm 4.8mb
WB2 75.79 112 eP 49 13.30 -0.9
0.8s 7.80nm 4.8mb
i 49 20.90
e 51 22.60
ASPA 76.13 116 eP 49 15.60 -0.5
0.9s 8.00nm 4.8mb
DAG 82.64 347 iPd 49 50.00 -0.2
0.7s 5.48nm 4.8mb
INK 105.79 6 ePKP 55 32.00 -18.6X
YKA 112.32 358 ePKP 56 03.00 -0.1
0.6s 0.30nm
S.D. = 1.0 on 57 of 69 obs.

? DEC 17, 1993 00h 37m 53.70±18.04s
41.439 N ±123.km 23.074 E ±26.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.1 (THE).

KNT 0.31 206 ePgc 37 59.97 -0.1
eSg 38 04.58
SRS 0.51 129 ePg 38 03.79 -0.2
eSg 38 11.62
SOH 0.65 161 ePgc 38 06.54 -0.2
eSg 38 16.34
THE 0.81 186 ePg 38 09.50 0.1
eSg 38 20.98
OUR 1.30 148 ePb 38 18.10 0.3
eSb 38 36.90
S.D. = 0.3 on 5 of 5 obs.

DEC 17, 1993 00h 49m 33.63± 0.26s
45.670 N ± 5.3km 151.292 E ± 4.2km
DEPTH = 43.2km (9 depth phases)
5.0mb (55 obs.) 4.8Msz (7 obs.)
KURIL ISLANDS (221)

KUR 2.45 261 iPnd 50 13.00 1.0
KUSJ 5.37 244 P 50 51.70 -1.7
eS 51 50.90
SKR 5.94 31 ePn 51 01.30 -0.1
Z 14s 3.30um
E 14s 2.70um
YSS 6.09 286 iPnc 51 04.70 1.3
Z 14s 2.30um
E 13s 1.00um
ASAJ 6.34 259 eP 51 10.60 3.7X
HOOJ 6.64 243 eP 51 11.20 0.1
eS 52 24.60
MRRJ 8.04 250 eP 51 29.90 -0.8
eS 52 57.70
OFUJ 9.69 231 eP 51 51.80 -1.7
S 53 33.10
MAT 13.42 232 eP 52 42.00 -1.6
0.7s 7.53nm 4.7mb
MGD 14.46 359 eP 52 57.00 -0.1
MDJ 15.35 274 eP 53 12.40 3.7X
1.1s 32.00nm 4.4mb
CN2 18.43 273 Pd 53 47.80 0.4
0.6s 14.00nm 4.3mb
Z 16s 0.89um 4.4Msz
SNY 20.34 269 eP 54 08.60 -0.1
Z 20s 1.09um 4.2Msz
YAK 20.57 330 eP 54 09.00 -1.9
1.2s 120.00nm · 5.1mb
BOD 25.64 312 eP 55 11.10 10.5X
1.1s 10.00nm
BJI 26.21 270 eP 55 07.50 1.6
0.8s 7.00nm 4.3mb
Z 18s 0.59um 4.2Msz
pP 55 20.50 52km
HHC 29.12 275 eP 55 32.30 -0.1
1.0s 10.00nm 4.4mb
Z 22s 1.55um 4.6Msz
N 13s 0.49um
E 14s 0.74um
TIY 29.85 268 eP 55 34.80 -4.2X
XAN 34.16 265 P 56 16.00 -0.7
1.0s 14.00nm 4.8mb
sP 56 31.50
IMA 35.42 35 eP 56 26.38 -0.8
0.8s 5.84nm 4.6mb
BRW 35.49 26 eP 56 27.10 -0.4
LZH 36.66 272 eP 56 37.50 -0.5
1.2s 30.00nm 5.1mb
Z 26s 1.31um 4.6MszX
E 13s 0.59um
FBA 37.79 37 eP 56 46.80 -0.2
0.9s 10.08nm 4.7mb
GTA 37.89 279 eP 56 48.00 -0.3
1.0s 8.00nm 4.6mb
Z 20s 4.22um 5.2Msz
E 20s 2.53um
CD2 39.53 265 P 57 02.40 0.5
1.2s 72.00nm 5.4mb
Z 20s 1.97um 4.9Msz
GYA 40.24 257 iPc 57 08.20 0.3
0.8s 24.00nm 5.0mb
Z 20s 1.22um 4.7Msz
INK 43.24 32 eP 57 32.50 0.7
1.0s 6.00nm 4.3mb
KMI 43.80 259 Pd 57 38.00 0.9
2.0s 120.00nm 5.3mb
Z 15s 0.70um 4.7MszX
pP 57 45.50 25kmX
sP 57 49.50
WMQ 44.14 291 P 57 42.00 2.5
0.5s 7.00nm 4.7mb
MBC 46.04 19 eP 57 55.00 0.9
LSA 49.07 273 iPc 58 20.00 1.0
0.8s 15.00nm 5.1mb
CHTO 50.63 256 iPc 58 31.10 0.6
1.0s 25.00nm 5.2mb
RES 52.26 18 eP 58 41.00 -1.1
1.0s 4.00nm 4.4mb
YKA 52.54 36 eP 58 43.30 -1.1
0.9s 5.20nm 4.5mb
DAG 57.67 357 iPc 59 19.60 -1.8
0.7s 6.85nm 4.8mb
NEW 58.84 51 eP 59 30.00 0.0
NDI 59.37 281 iP 59 32.70 -1.1
LRM 62.86 51 eP 59 57.60 0.1
e 00 11.30 49km
BONR 64.36 61 eP 00 07.60 0.1
e 00 19.34 40km
HYB 65.75 270 eP 00 15.00 -1.3
FRB 66.48 18 eP 00 18.50 -1.8
1.0s 10.00nm 4.8mb
WB2 67.09 197 iPc 00 24.60 0.0
0.8s 9.40nm 4.9mb
i 00 36.50 40km
WRA 67.09 197 P 00 24.90 0.2
0.7s 3.70nm 4.6mb
PEC 67.67 64 (P) 00 28.48 0.1
0.8s 6.97nm 4.8mb
ULM 68.16 40 eP 00 33.00 1.9
RSSD 68.49 48 eP 00 32.82 -0.7
1.1s 10.02nm 4.8mb
DZM 68.81 165 iPc 00 40.20 4.7X
NB2 68.83 340 P 00 33.70 -1.5
0.7s 7.60nm 4.8mb
HFS 69.02 339 eP 00 34.00 -2.2
0.5s 5.90nm 4.8mb
GBA 69.13 268 P 00 38.00 0.4
PV10 69.62 56 eP 00 40.56 -0.1
e 00 52.34 40km
PV08 69.71 55 eP 00 41.33 0.0
e 00 52.93 39km
e 00 59.91
ASPA 70.80 197 eP 00 48.40 0.9
0.6s 7.40nm 4.8mb
Z 23s 0.50um 4.7MszX
i 01 00.70 42km
ERE 72.36 310 iP 00 58.00 1.1
ALQ 73.48 57 eP 01 04.50 0.8
0.9s 0.74nm 3.6mb X
OJC 75.64 330 eP 01 15.30 -0.3
KSP 76.29 333 iPd 01 19.00 -0.2
CLL 76.91 335 iP 01 21.70 -0.9
1.3s 31.00nm 5.2mb
BRG 77.01 334 e(P) 01 22.40 -0.8
EKA 77.08 345 P 01 24.00 0.5
MLR 77.21 324 ePd 01 24.50 -0.1
e 17 30.00
PRU 77.59 333 Pc 01 26.00 -0.4
MOX 77.91 335 eP 01 28.10 -0.1
SRO 78.20 330 iP 01 30.20 0.4
e 17 40.00
ZST 78.30 331 i(P) 01 30.70 0.4
KHC 78.65 333 P 01 32.50 0.2
1.0s 17.50nm 5.0mb
e 01 46.00 46km
e 02 16.00
GEC2 78.86 333 P 01 32.70 -0.8
0.9s 6.26nm 4.6mb
GRF 78.87 335 eP 01 33.90 0.4
1.1s 26.00nm 5.1mb
LTX 79.13 59 eP 01 35.02 -0.3
e 01 47.56 42km
GAC 80.09 31 eP 01 40.00 -0.1
KBA 80.52 332 iPd 01 42.60 0.0
1.1s 36.40nm 5.2mb
i 02 00.30 64kmX
WTTA 80.91 333 iPd 01 44.40 -0.2
0.9s 24.40nm 5.1mb
MOTA 81.00 334 iPc 01 44.80 -0.3
0.9s 22.10nm 5.1mb
SQTA 81.08 334 iPd 01 45.20 -0.3
1.0s 21.60nm 5.1mb
CDF 81.16 337 eP 01 45.60 -0.2
1.1s 24.40nm 5.1mb
HAU 81.79 337 eP 01 48.70 -0.3
1.1s 16.85nm 5.0mb
BSF 81.82 337 eP 01 48.90 -0.4
0.9s 7.35nm 4.7mb
SKO 81.95 325 iP 01 50.50 0.5

```
VAY    82.03 324 iP     01 50.60   0.3
FLN    82.77 342 eP     01 53.90  -0.2
       0.9s    20.15nm          5.2mb
LDF    82.85 341 eP     01 54.30  -0.2
       1.4s    53.15nm          5.4mb
LOR    83.13 338 eP     01 55.90  -0.1
       0.9s    17.05nm          5.1mb
     Z  23s     0.20um          4.4MszX
GRR    83.21 342 eP     01 56.50   0.2
       1.2s    44.05nm          5.4mb
LBF    83.36 338 eP     01 56.90  -0.3
       1.2s    14.90nm          4.9mb
SSF    83.41 338 eP     01 57.40   0.0
       1.1s    22.95nm          5.2mb
HYF    83.44 339 eP     01 58.00   0.4
LPF    83.59 342 eP     01 58.70   0.4
AVF    83.70 338 eP     01 59.10   0.2
       1.1s    23.95nm          5.2mb
SMF    83.71 338 eP     01 59.10   0.1
       1.1s    41.25nm          5.4mb
LPL    83.95 336 eP     02 01.00   0.5
       1.0s    15.00nm          5.0mb
LPG    83.97 336 eP     02 01.20   0.6
       1.2s    23.80nm          5.2mb
BGF    84.05 339 eP     02 00.80   0.1
MAF    84.43 339 eP     02 03.50   0.9
       1.1s    56.90nm          5.6mb
TCF    84.46 339 eP     02 03.30   0.5
       1.1s    22.20nm          5.2mb
LSF    84.67 339 eP     02 04.30   0.5
       1.0s    32.40nm          5.4mb
RJF    85.55 339 eP     02 08.90   0.7
FRF    85.76 335 eP     02 10.40   1.1
CAF    85.77 339 eP     02 10.40   1.1
       1.2s    28.85nm          5.4mb
LMR    86.01 335 eP     02 11.70   1.2
       0.9s    18.35nm          5.3mb
TIC   123.77 331 PKP    08 28.40  -0.2
KIC   123.94 331 PKP    08 28.50  -0.4
LIC   124.17 331 PKP    08 29.00  -0.3
LPAZ  135.97  61 PKP    08 52.50   0.0
                 LR     38 34.00
LPB   136.17  62 PKP    08 55.00   2.3
                 LR     38 32.00
NVL   148.13 204 iPKPc  09 15.00   3.6X
       1.0s    21.00nm
     Z  21s     1.00um          5.6Msz
     N  21s     0.50um
     E  21s     0.50um
     S.D. = 0.9  on  99 of 105 obs.
-------------------------------------
? DEC  17, 1993  00h 58m 04.49± 3.65s
   17.337 S ±66.0km  174.379 W ±44.3km
   DEPTH = 164.5 ± 21.6 km
   4.2mb (  6 obs.)
 TONGA ISLANDS                   (173)

AFI     4.23  37 eP     59 08.00  -0.9
SVA     6.87 262 eP     59 45.90   2.1
DZM    18.65 252 iPc    02 11.90  -0.6
STK    42.28 242 eP     05 43.50   0.1
       4.1s     1.70nm          3.0mb X
WB2    48.50 258 eP     06 31.30  -1.5
       0.5s     9.30nm          4.7mb
WRA    48.51 258 P      06 32.00  -0.8
       0.8s     1.60nm          3.7mb
ASPA   48.64 254 iPd    06 32.00  -1.8
       0.8s    25.10nm          4.9mb
                 ipP    06 42.50  36kmX
FBA    84.46  11 eP     10 17.90  -1.4
       1.0s     6.72nm          4.4mb
IMA    84.60   8 eP     10 21.00   0.9
       1.0s     3.50nm          4.1mb
YKA    92.24  24 eP     11 03.90   7.6X
       1.0s     0.50nm          3.6mb
KSP   145.50 348 ePKP   17 25.80   1.5
                 e      17 37.60
CLL   145.60 352 iPKP   17 25.10   0.7
BRG   145.89 351 iPKP   17 26.70   1.8
KAS   145.98 321 ePKP   17 28.50   3.0X
SPC   146.08 343 ePKP   17 27.80   2.2X
PRU   146.64 350 ePKP   17 42.10  15.9X
KHC   147.64 350 ePKP   17 31.50   3.6X
       1.1s     6.30nm
                 e      17 43.00
ZST   147.82 346 ePKP   17 32.50   4.4X
GEC2  147.89 350 PKP    17 32.00   3.6X
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       0.9s     2.09nm
                 e      17 44.50
GRB5  147.93 352 ePKP   17 33.30   5.0X
       0.9s     8.00nm
FLN   148.26   8 ePKP   17 32.80   4.0X
       1.1s    30.50nm
GRR   148.58   8 ePKP   17 33.40   4.1X
CDF   148.98 358 ePKP   17 34.60   4.5X
HAU   149.41 359 ePKP   17 35.50   4.8X
SSF   150.31   3 ePKP   17 37.60   5.6X
       1.2s    19.05nm
     S.D. = 1.6  on  12 of  25 obs.
-------------------------------------
? DEC 17, 1993  01h 04m 51.04± 0.64s
   32.985 N ±11.7km   47.943 E ± 8.5km
   DEPTH =  33.0km  (normal)
 IRAN-IRAQ BORDER REGION         (346)
      Felt at Dehloran, Iran.

KER     1.53 333 iPd    05 06.60  -9.9X
SHI     5.14 129 eP     06 08.00   0.0
TAB     5.24 346 eP     06 09.00  -0.3
MAIO   10.07  68 eP     07 31.00  14.4X
BHL    10.31 278 Pn     07 20.00   0.2
                 Sn     09 14.50
OBN    23.50 344 eP     09 44.00 -14.6X
                 e      09 50.00
                 e      10 30.00
HYB    31.59 112 eP     11 12.00  -1.0
GKN    31.90  89 P      11 16.20   0.4
DMN    32.42  90 P      11 20.80   0.3
KKN    32.51  89 P      11 21.20   0.0
PKI    32.68  89 P      11 22.80  -0.1
GUN    32.97  89 P      11 25.90   0.5
     S.D. = 0.5  on   9 of  12 obs.
-------------------------------------
* DEC 17, 1993  01h 11m 12.44± 1.76s
   41.394 N ±14.9km   23.092 E ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION   (363)
     ML 2.3 (THE).

KNT     0.27 212 ePgc   11 17.96  -0.3
                 eSg    11 22.24
VAY     0.40 260 iPg    11 20.60   0.0
       0.2s    60.00nm
                 iSg    11 24.70
SRS     0.47 126 ePgc   11 21.45  -0.5
                 eSg    11 29.56
SOH     0.60 161 ePgc   11 24.50  -0.2
                 eSg    11 33.52
THE     0.77 187 ePg    11 27.44   0.0
                 eSg    11 38.20
OUR     1.26 147 ePb    11 36.56   0.8
                 eSb    11 55.16
FNA     1.43 245 ePb    11 38.60   0.1
PAIG    1.53 163 ePb    11 39.84   0.0
                 eSb    12 00.96
     S.D. = 0.5  on   8 of   8 obs.
-------------------------------------
% DEC 17, 1993  02h 14m 53.38± 0.94s
   43.010 N ± 6.4km   18.774 E ± 5.6km
   DEPTH =   5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
     ML 2.0 (TTG).

BRY     0.20 237 iPgd   14 57.63   0.1
                 iSg    15 00.45
NKY     0.26 140 iPgc   14 59.42   0.8
                 iSg    15 03.96
PLE     0.56  55 iPgd   15 04.48   0.0
                 iSg    15 13.16
HCY     0.60 200 iPgc   15 05.33   0.0
                 iSg    15 14.13
TTG     0.68 148 iPgc   15 06.25  -0.8
                 iSg    15 17.20
BDV     0.73 177 iPgc   15 07.75  -0.2
                 iSg    15 18.29
IVA     0.84  99 iPgc   15 09.79  -0.3
                 iSg    15 23.05
PVY     0.98 115 iPgd   15 12.75   0.3
                 iSg    15 27.51
ULC     1.10 161 iPgc   15 14.72   0.1
                 iSg    15 31.29
     S.D. = 0.5  on   9 of   9 obs.
-------------------------------------
* DEC  17, 1993  02h 22m 08.06± 0.80s
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   31.766 N ±18.5km  129.270 E ± 9.3km
   DEPTH =  33.0km  (normal)
 KYUSHU, JAPAN                   (235)

KAGJ    1.50 112 P      22 32.30  -0.6
KUMJ    1.53  59 P      22 31.10  -2.2
                 S      22 52.00
TKSJ    4.59  60 eP     23 19.50   2.6
YONJ    4.89  45 eP     23 27.10   5.9X
GUN    37.65 276 P      29 22.60   0.3
PKI    38.15 275 P      29 26.00  -0.5
KKN    38.20 276 P      29 26.80   0.1
DMN    38.40 275 P      29 28.20  -0.3
WRA    51.64 174 P      31 14.40   0.7
       0.8s     0.50nm          3.5mb
     S.D. = 1.6  on   8 of   9 obs.
-------------------------------------
? DEC  17, 1993  02h 46m 53.75± 2.87s
   14.230 N ±37.4km   93.806 W ±13.7km
   DEPTH =  33.0km  (normal)
   4.3mb (  2 obs.)
 NEAR COAST OF CHIAPAS, MEXICO   ( 69)
     Felt at Mexico City.

TPX     1.64  66 iPd    47 19.35  -1.3
                 iS     47 40.00
SCX     2.74  24 iP     47 36.97   0.7
                 iS     48 06.42
OXX     3.99 316 iP     47 52.41  -2.0
PPM     6.67 317 eP     48 35.00   2.5X
ALQ    23.57 333 eP     52 03.00   0.5
PV08   27.57 334 eP     52 41.86   1.6
LRM    35.20 337 eP     53 48.00   0.8
YKA    50.41 348 eP     55 48.30  -1.5
       0.6s     1.70nm          4.2mb
NB2    84.78  28 P      59 26.90   1.0
       0.8s     2.40nm          4.4mb
     S.D. = 1.6  on   8 of   9 obs.
-------------------------------------
% DEC  17, 1993  03h 02m 19.34± 0.65s
   31.691 S ±11.8km   67.084 W ± 6.2km
   DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA    (137)

CFA     0.99 275 iPc    02 44.00   4.0X
RTLL    1.24 287 iPc    02 42.70  -0.1
                 S..    03 02.00
RTCV    1.25 262 iPc    02 43.00   0.0
MRA     1.37 122 ePc    02 44.80   0.5
                 S      03 04.20
RTPR    1.47  20 iPd    02 46.00   0.4
RTCB    1.48 277 iPc    02 45.70  -0.1
                 S      03 06.00
TCA     2.16  81 eP     02 53.90  -0.7
                 S      03 20.00
RTRS    2.54 306 eP     02 59.60   0.0
                 S      03 30.00
     S.D. = 0.5  on   7 of   8 obs.
-------------------------------------
  DEC  17, 1993  03h 19m 03.88± 0.15s
   39.186 N ± 3.2km  142.182 E ± 2.6km
   DEPTH =  54.4km  (  8 depth phases)
   5.4mb (113 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)
      Mw 5.4 (HRV). Felt (IV JMA) at
      Ofunato; (III JMA) at Ishinomaki
      and Miyako; (II JMA) at
      Hachinohe and Morioka.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 16C
      Centroid Location:
      Origin Time        03:19: 4.3 0.6
      Lat 39.24N 0.10 Lon 141.93E 0.07
      Dep  52.510.2 Half-duration  1.0
      Moment Tensor;    Scale 10**16 Nm
        Mrr= 3.64 0.79  Mtt= 1.54 1.61
        Mff=-5.18 0.99  Mrt= 8.97 2.18
        Mrf= 7.96 1.85  Mtf=-1.08 0.61
       Principal Axes:
        T  Val= 13.27  Plg=50  Azm=332
        N       -0.79      15      223
        P      -12.47      35      121
      Best Double Couple:Mo=1.3*10**17
       NP1:Strike=161 Dip=17 Slip=  27
       NP2:        45     82       105
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17d 03h

OFUJ 0.41 255 P 19 17.00 2.4
AOMJ 1.95 315 P 19 37.50 2.3
eS 20 02.70
YAMJ 1.96 240 P 19 37.50 2.2
NIIJ 3.17 233 iPd 19 54.50 2.1
HOOJ 3.30 14 iPd 19 54.90 0.6
eS 20 31.40
MRRJ 3.34 346 eP 19 55.80 1.0
eS 20 32.30
KAKJ 3.38 209 P 19 54.80 -0.5
MAT 4.10 231 iPd 20 08.10 2.5
eS 20 59.00
MTMJ 4.33 234 iPd 20 11.40 2.6
KUSJ 4.35 25 P 20 07.60 -1.4
eS 20 53.90
ASAJ 4.94 4 P 20 17.00 -0.4
IIDJ 5.03 224 P 20 20.40 1.8
TSRJ 6.13 235 iP+ 20 37.00 2.9X
WKYJ 7.25 229 eP 20 49.00 -0.7
KUR 7.37 33 iPc 20 50.00 -1.3
0.4s 240.00nm 6.3mb
iS 22 06.00
YSS 7.84 3 iPc 20 56.00 -1.7
0.8s 310.00nm 6.2mb
Z 17s 1.30um 4.2Msz
E 17s 1.30um
eS 22 21.60
YONJ 8.02 243 P 21 02.60 2.3
TKSJ 8.35 234 eP 21 05.10 0.2
MDJ 10.84 304 eP 21 40.40 1.5
1.4s 210.00nm 6.0mb
CN2 13.36 296 eP 22 12.00 -0.5
1.2s 60.00nm 5.3mb
Z 20s 0.93um 5.3Msz
esP 22 25.00
SNY 14.40 286 Pc 22 27.60 1.5
Z 30s 2.06um
SSE 18.94 251 P 23 22.00 -1.2
1.0s 120.00nm 5.1mb
Z 20s 0.90um 4.6MszX
PP 23 42.50
TIA 20.03 269 Pc 23 31.70 -3.2X
1.2s 300.00nm 5.5mb
Z 22s 0.98um 4.1Msz
eS 27 12.00
BJI 20.04 281 eP 23 31.50 -3.4X
1.4s 64.00nm 4.8mb
Z 12s 0.60um 4.2MszX
E 12s 0.67um
epP 23 47.50 79kmX
ePP 23 54.00
eS 27 07.00
eSS 27 42.00
NJ2 20.22 257 Pd 23 36.50 -0.4
1.1s 76.00nm 4.9mb
Z 22s 0.91um 4.1Msz
TIY 23.30 276 eP 24 09.50 1.8
Z 24s 1.49um 4.4MszX
E 15s 0.64um
sS 28 30.00
HHC 23.45 284 P 24 07.20 -2.0
0.8s 24.00nm 4.7mb
Z 39s 1.96um 4.3MszX
E 16s 0.61um
CIT 23.58 312 eP 24 08.20 -2.0
YAK 24.10 346 iPc 24 14.50 -0.6
1.1s 350.00nm 5.8mb
pP 24 44.00 145kmX
eS 28 28.00
WHN 24.34 258 P 24 18.00 0.4
BTO 24.65 284 eP 24 19.50 -1.2
N 11s 0.48um
E 14s 0.63um
ePP 24 54.50
eS 28 35.00
BOD 26.01 325 iPc 24 32.80 -0.4
0.7s 52.00nm 5.2mb
XAN 27.09 270 P 24 41.90 -1.5
0.6s 36.00nm 5.2mb
Z 20s 0.73um 4.2Msz
pP 24 53.70 46km
S 29 18.00
IRK 29.14 309 ePc 25 20.50 18.9X
1.5s 44.00nm
e 25 33.00 49km
ZAK 29.47 305 iPc 25 04.00 -0.5
1.1s 38.00nm 5.0mb
Z 12s 0.59um 4.4MszX
eS 29 49.00
BAG 29.52 226 eP 25 09.00 3.5X
LZH 30.37 276 eP 25 11.00 -1.9
1.2s 25.00nm 4.8mb
Z 20s 0.79um 4.4Msz
E 12s 0.46um
pP 25 24.50 53km
sP 25 32.50
PP 26 12.50
S 30 07.50
GYA 32.23 258 iPd 25 28.20 -1.0
1.0s 100.00nm 5.6mb
Z 20s 1.22um 4.6Msz
S 30 35.00
CD2 32.33 267 eP 25 29.00 -1.0
0.6s 25.00nm 5.2mb
GTA 32.57 284 eP 25 31.00 -1.1
1.2s 11.00nm 4.6mb
Z 26s 1.86um 4.7MszX
E 16s 0.67um
PcP 28 16.60
eS 30 38.00
PcS 32 02.00
TIK 33.22 352 iPd 25 36.00 -1.2
1.2s 20.00nm 4.8mb
Z 17s 0.40um 4.2MszX
e 26 46.00 367kmX
eS 31 01.00
KMI 35.93 259 eP 26 00.50 -0.7
2.0s 190.00nm 5.7mb
Z 20s 0.70um 4.4Msz
pP 26 11.70 40kmX
PP 27 28.00
WMQ 40.45 295 iPc 26 39.40 0.8
1.0s 51.00nm 5.3mb
Z 26s 0.65um 4.4MszX
pP 26 50.00 37kmX
sP 26 56.00
PP 28 18.00
PcS 32 31.50
S 32 43.00
sS 33 05.00
eSS 35 36.00
eScS 36 39.00
LSA 42.65 273 Pd 26 58.40 1.1
1.0s 18.00nm 4.8mb
Z 32s 3.90um 5.1MszX
S 33 12.00
TTA 43.32 36 eP 27 02.55 0.8
1.8s 62.75nm 5.1mb
SVW 43.44 39 eP 27 04.19 1.5
0.8s 69.67nm 5.5mb
NST 43.54 249 eP 27 03.00 -1.0
SHL 44.07 268 eP 27 08.00 -0.5
eS 33 34.50
BRW 44.20 24 ePc 27 09.50 0.8
IMA 44.54 32 eP 27 11.91 0.3
1.0s 20.83nm 4.9mb
CP2 45.07 38 eP 27 17.42 1.3
CRP 45.11 38 eP 27 17.06 0.7
KDC 45.16 43 ePc 27 16.30 -0.2
PMR 46.55 38 eP 27 27.40 0.0
1.4s 171.95nm 5.8mb
FBA 46.97 33 iPc 27 31.24 0.5
1.3s 35.67nm 5.1mb
GUN 47.58 274 P 27 36.50 0.0
TOA 47.90 37 ePc 27 39.10 0.9
KLU 48.09 38 iPc 27 39.67 0.0
KKN 48.10 274 P 27 40.20 -0.2
PKI 48.11 274 P 27 40.20 -0.4
0.8s 35.00nm 5.4mb
DMN 48.32 274 P 27 42.10 0.0
GKN 48.49 275 P 27 43.10 -0.2
BALM 49.87 38 eP 27 53.28 -0.1
FRU 49.88 297 iPc 27 53.00 -0.6
1.6s 80.00nm 5.5mb
e 35 02.00
KSH 50.13 293 P 27 56.50 0.8
0.8s 16.00nm 5.1mb
Z 12s 0.73um 4.9MszX
E 16s 3.10um
pP 28 10.20 51km
sP 28 15.00
INK 52.20 28 ePc 28 11.00 0.2
1.0s 17.00nm 5.0mb
KHKI 53.36 213 ePc 28 18.90 -1.0
e 29 31.40 344kmX
NDI 53.88 280 iP 28 22.00 -1.8
SVE 53.96 318 iPc 28 24.00 0.1
1.0s 220.00nm 6.1mb
Z 16s 1.00um 5.0MszX
N 16s 0.30um
E 16s 0.50um
MBC 54.29 17 ePc 28 26.80 0.6
1.0s 18.00nm 5.1mb
NIL 54.54 287 iPc 28 31.60 3.0X
0.7s 0.04nm 2.6mb X
iS 36 06.50
ARU 55.16 318 iPc 28 32.60 -0.1
1.0s 180.00nm 6.1mb
Z 16s 1.00um 5.0MszX
N 16s 0.20um
E 16s 0.50um
iS 36 11.00
HYB 58.88 268 eP 28 58.00 -1.7
1.0s 35.00nm 5.4mb
WB5 59.21 189 iPc 28 59.60 -2.1
iPcP 29 49.20
WB2 59.27 189 eP 28 59.90 -2.2
0.7s 23.00nm 5.4mb
WRA 59.27 189 P 29 00.40 -1.7
0.7s 14.50nm 5.2mb
RES 60.37 15 ePc 29 08.20 -0.9
1.0s 22.00nm 5.2mb
POO 61.90 272 eP 29 15.50 -4.8X
GBA 62.00 265 Pc 29 20.00 -0.9
ASPA 63.00 189 eP 29 25.10 -2.2
0.8s 17.00nm 5.2mb
MAIO 63.20 296 iPc 29 28.00 -0.7
eS 38 06.00
SDF 63.26 337 iP 29 28.00 -0.6
DAG 63.69 355 iPd 29 30.00 -1.3
0.6s 42.67nm 5.7mb
TRO 63.88 341 eP 29 31.50 -1.1
KOD 64.04 262 eP 29 34.00 -0.7
STW 64.55 48 P 29 36.68 -0.6
DZM 65.03 155 iPc 29 40.90 0.3
GMW 65.37 48 eP 29 43.14 0.5
JCW 65.52 47 P 29 43.16 -0.4
BMW 65.68 49 eP 29 45.09 0.4
MOS 65.89 323 eP 29 46.00 0.3
1.9s 280.00nm 6.0mb
RMW 65.99 48 eP 29 46.84 0.2
FMW 66.34 48 P 29 48.38 -0.7
LON 66.36 48 eP 29 49.00 0.0
SHW 66.41 49 eP 29 50.59 1.2
WARB 66.63 195 eP 29 50.20 -0.5
0.6s 15.00nm 5.2mb
PUL 66.65 329 (P) 29 50.00 -0.5
1.4s 130.00nm 5.8mb
Z 20s 0.40um 4.6Msz
e 30 22.00 131kmX
KAF 66.68 333 iP 29 49.50 -1.2
0.8s 44.30nm 5.5mb
OBN 66.74 323 iPc 29 50.20 -0.9
1.2s 110.00nm 5.7mb
ASR 66.81 49 P 29 51.05 -0.9
WTV 66.91 47 P 29 51.67 -0.8
EBG 66.99 48 P 29 52.64 -0.4
SSOR 67.00 50 P 29 53.02 -0.2
SAW 67.22 46 P 29 53.17 -1.3
VBEM 67.41 50 P 29 55.30 -0.5
VGB 67.64 49 eP 29 57.47 0.4
WAH2 67.65 47 P 29 56.53 -0.5
DPW 67.80 46 iPc 29 57.87 -0.2
CROR 67.81 50 P 29 57.71 -0.5
NEW 68.18 45 ePd 30 00.29 -0.1
1.0s 29.43nm 5.2mb
VIPM 68.29 50 P 30 00.32 -1.0
NUR 68.34 332 iP 30 00.10 -1.0
0.5s 31.50nm 5.6mb
KMPM 68.40 55 iPd 30 03.31 1.3
GRO 68.51 309 eP 30 02.00 -0.5
2.0s 120.00nm 5.5mb
YBH 68.56 53 eP 30 03.76 0.8
1.1s 20.00nm 5.0mb
LNOR 68.88 48 P 30 04.34 -0.5
LGPM 68.94 54 eP 30 06.00 0.6
LBFM 69.29 53 eP 30 07.92 0.4
WDC 69.31 54 ePc 30 07.56 0.1
0.9s 15.63nm 4.9mb
PYA 69.70 311 eP 30 09.00 -0.8
i 30 31.00 84kmX

KIV 69.96 311 iPc 30 11.50 0.0
1.4s 266.00nm 6.0mb
Z 14s 0.10um 4.2MszX
(S) 39 50.20
MIN 70.03 54 eP 30 11.70 -0.3
1.1s 20.00nm 5.0mb
ORV 70.55 55 eP 30 14.74 -0.3
1.0s 20.00nm 5.0mb
STK 70.71 181 eP 30 14.60 -1.2
0.7s 1.80nm 4.1mb X
ERE 71.04 307 iPc 30 18.00 -0.1
TAB 71.11 304 eP 30 18.00 -0.6
UPP 71.29 334 iP 30 18.00 -1.1
ARN 71.80 56 eP 30 22.44 -0.2
CMB 72.14 55 eP 30 24.75 0.1
1.1s 20.00nm 5.0mb
LRM 72.19 45 iPc 30 25.20 0.1
HFS 72.38 336 eP 30 24.50 -1.1
0.3s 6.50nm 5.0mb
NB2 72.44 337 P 30 25.40 -0.6
0.9s 36.00nm 5.3mb
NRA0 72.58 337 P 30 25.60 -1.2
NAO 72.72 337 P 30 24.87 -2.7
KVN 72.98 53 eP 30 30.55 0.8
BONR 73.51 54 ePc 30 33.17 0.2
AKU 74.34 352 iP 30 37.10 0.2
1.0s 28.00nm 5.1mb
HVU 74.52 49 ePc 30 39.31 0.7
FRB 74.54 14 ePc 30 37.50 -0.6
1.0s 22.00nm 5.0mb
TPNV 75.42 54 iPd 30 44.45 0.6
0.8s 17.34nm 5.0mb
DUG 75.50 50 ePc 30 44.75 0.5
0.9s 19.65nm 5.0mb
GSC 76.08 56 (P) 30 48.07 0.6
DAU 76.28 49 ePc 30 49.36 0.5
ARUT 76.64 52 ePc 30 51.24 0.5
KAS 76.73 313 iPc 30 52.20 1.2
EMUT 76.92 49 ePc 30 52.85 0.5
MSU 76.95 51 ePc 30 53.43 0.9
CFR 77.23 319 ePd 30 54.00 0.5
ULM 77.38 34 eP 30 56.00 1.7
VRI 77.48 320 ePc 30 55.00 0.0
SRU 77.55 50 iPc 30 56.10 0.4
OJC 77.59 326 eP 30 55.60 0.1
1.1s 108.00nm 5.8mb
UZH 77.64 324 eP 30 57.50 1.7
0.7s 20.00nm 5.2mb
e 31 13.80 58km
RSSD 77.83 42 ePc 30 56.96 -0.2
0.9s 23.52nm 5.2mb
MLR 78.14 320 eP 30 59.00 0.3
SPC 78.16 325 eP 31 00.40 1.5
KSP 78.59 328 iPc 31 01.30 0.3
1.0s 58.00nm 5.5mb
PV09 78.77 49 ePc 31 03.00 0.4
PV10 78.91 49 ePc 31 04.27 1.0
PV08 79.01 49 ePc 31 04.27 0.4
PSZ 79.26 325 ePc 31 05.20 0.4
BRG 79.51 330 iPd 31 05.80 -0.1
1.0s 40.00nm 5.3mb
CLL 79.53 330 iPc 31 05.90 -0.1
1.1s 74.00nm 5.5mb
i 31 23.10 62km
PRU 79.96 329 iPc 31 08.50 0.1
0.9s 52.50nm 5.5mb
SRO 80.04 325 iPc 31 10.10 1.3
GLD 80.18 46 ePc 31 11.30 1.3
1.2s 32.51nm 5.1mb
ZST 80.28 326 iPc 31 10.60 0.5
MOX 80.59 331 eP 31 12.00 0.3
1.4s 64.00nm 5.4mb
HOF 80.76 330 iPc 31 12.80 0.2
0.9s 40.00nm 5.3mb
KHC 81.03 329 Pc 31 14.80 0.7
1.0s 32.00nm 5.2mb
e 31 38.00 87kmX
e 33 56.30
BCK 81.17 312 eP 31 12.00 -3.1
GEC2 81.20 328 P 31 15.00 -0.1
0.7s 9.47nm 4.9mb
WET 81.30 329 iPc 31 16.10 0.6
1.0s 38.00nm 5.3mb
EKA 81.31 341 P 31 17.00 1.6
1.0s 18.80nm 5.0mb
GRA1 81.51 330 iPc 31 17.50 0.9
1.1s 66.00nm 5.5mb

GRF 81.51 330 iPc 31 17.50 0.9
1.1s 66.00nm 5.5mb
JAQ 81.79 22 eP 31 17.00 -0.9
TUC 81.84 55 ePd 31 20.76 2.1
1.3s 14.09nm 4.8mb
epP 31 39.41 68km
ELL 82.05 311 eP 31 20.00 0.2
BHG 82.43 328 iPc 31 21.90 0.5
1.0s 88.00nm 5.7mb
SRS 82.46 318 ePc 31 21.58 -0.1
FUR 82.72 329 iPc 31 23.40 0.5
0.9s 80.00nm 5.7mb
KBA 82.75 328 iPc 31 23.20 -0.1
0.9s 31.40nm 5.3mb
i 31 24.50 4kmX
ALQ 82.75 50 ePc 31 24.41 0.9
1.1s 19.40nm 5.0mb
KNT 82.79 318 ePc 31 23.32 0.0
OUR 82.82 317 eP 31 22.80 -0.7
VAY 82.84 319 iP 31 24.00 0.4
1.0s 70.00nm 5.6mb
SKO 82.93 320 iPc 31 25.00 0.9
1.2s 100.00nm 5.7mb
LJU 83.06 326 iP 31 24.60 -0.1
e 31 38.80 49km
WATA 83.27 329 iPc 31 25.80 -0.1
WTTA 83.30 329 iPc 31 25.90 -0.2
0.9s 26.00nm 5.2mb
i 31 32.70 21kmX
MOTA 83.45 329 iPc 31 26.80 0.0
1.0s 60.10nm 5.6mb
SQTA 83.51 329 iPc 31 26.80 -0.3
1.0s 31.70nm 5.3mb
LIT 83.77 318 ePc 31 27.88 -0.6
OGA 83.87 329 eP 31 29.50 0.5
1.1s 26.00nm 5.2mb
DLF 84.00 342 iPd 31 30.10 0.9
1.0s 151.00nm 6.0mb
WLS 84.02 332 P 31 29.45 -0.1
CDF 84.05 332 eP 31 29.80 0.0
1.4s 77.55nm 5.5mb
SLE 84.13 331 iPc 31 30.00 -0.1
DCN 84.13 342 iPd 31 30.80 0.9
1.0s 139.00nm 6.0mb
LIBD 84.14 331 P 31 30.76 0.7
FEL 84.22 331 P 31 30.65 0.0
ECH 84.25 332 P 31 30.65 -0.1
OSS 84.37 329 iPc 31 31.80 0.3
ZLA 84.40 331 iP+ 31 31.50 0.0
MOF 84.57 331 P 31 32.18 -0.2
AGG 84.65 317 eP 31 31.28 -1.6
LLS 84.67 330 iPc 31 33.10 0.1
VITF 84.68 332 P 31 32.08 -0.7
BSF 84.71 332 eP 31 32.90 -0.2
1.4s 47.05nm 5.4mb
HAU 84.73 332 eP 31 33.00 -0.1
0.9s 15.90nm 5.1mb
Z 21s 0.15um 4.4Msz
BBS 84.75 331 P 31 33.28 0.1
VDL 84.80 329 iPc 31 33.90 0.2
LOMF 85.10 331 P 31 34.93 -0.1
TMA 85.35 329 iPc 31 36.00 -0.4
ACO 85.71 45 iPc 31 38.90 0.7
MMK 85.75 330 iPc 31 38.70 0.2
DIX 85.94 330 iPc 31 39.60 0.1
LOR 86.25 333 eP 31 40.60 -0.1
1.2s 100.85nm 5.9mb
Z 21s 0.10um 4.2Msz
FLN 86.39 336 eP 31 41.30 0.0
1.0s 39.60nm 5.6mb
Z 22s 0.30um 4.6Msz
LDF 86.43 336 eP 31 41.50 0.0
0.7s 14.45nm 5.3mb
LBF 86.45 333 eP 31 41.50 -0.2
1.1s 52.75nm 5.7mb
SSF 86.55 333 eP 31 42.20 0.1
1.1s 58.10nm 5.7mb
HYF 86.67 334 eP 31 43.30 0.6
LPL 86.67 330 eP 31 43.20 0.2
1.0s 40.00nm 5.6mb
LPG 86.68 330 eP 31 43.30 0.1
0.8s 23.25nm 5.4mb
SMF 86.79 333 eP 31 43.50 0.2
1.3s 77.25nm 5.8mb
AVF 86.83 333 eP 31 43.70 0.2
1.0s 80.40nm 5.9mb
GRR 86.84 336 eP 31 43.80 0.3

1.1s 78.15nm 5.8mb
LPF 87.21 336 eP 31 45.80 0.5
1.1s 75.20nm 5.8mb
BGF 87.21 333 eP 31 45.50 0.1
MEO 87.42 46 iPd 31 46.20 -0.4
MAF 87.60 333 eP 31 47.90 0.7
1.3s 78.00nm 5.8mb
TCF 87.67 333 eP 31 48.00 0.4
1.0s 22.20nm 5.3mb
LSF 87.94 334 eP 31 49.10 0.3
1.3s 79.05nm 5.8mb
TUL 88.12 44 iPd 31 50.70 0.8
MFF 88.19 335 eP 31 50.60 0.6
1.0s 58.20nm 5.8mb
LTX 88.34 53 ePc 31 50.56 -0.6
LMR 88.59 329 eP 31 52.10 0.1
0.7s 8.50nm 5.1mb
RJF 88.76 333 eP 31 53.40 0.6
1.0s 25.60nm 5.5mb
Z 22s 0.13um 4.3Msz
CAF 88.90 333 eP 31 54.30 0.8
0.8s 20.40nm 5.5mb
GAC 88.98 25 eP 31 53.50 -0.3
FVM 89.27 39 eP 31 54.81 -0.5
0.9s 17.18nm 5.4mb
LFF 89.35 334 eP 31 56.30 0.7
0.8s 27.25nm 5.6mb
LPO 89.42 333 eP 31 56.50 0.6
0.8s 17.20nm 5.4mb
MIAR 90.33 43 ePc 32 00.68 0.4
1.2s 27.38nm 5.5mb
e 32 31.86 119kmX
LKO 123.01 321 PKPc 37 54.79 -1.3
0.9s 13.50nm
KDS 123.24 330 ePKP 37 55.50 -0.9
TIC 125.21 319 PKP 37 59.08 -1.3
0.9s 8.50nm
KIC 125.31 318 ePKP 37 59.42 -1.1
0.9s 16.50nm
LIC 125.58 319 PKP 37 59.90 -1.2
1.0s 16.50nm
LPAZ 145.06 58 ePKP 38 36.53 -1.3
LPB 145.26 58 PKPd 38 36.00 -1.9
0.8s 122.39nm
LQ 22 32.70
LR 29 08.70
CCH 147.16 57 PKP 38 42.70 1.8
SIV 149.21 48 PKP 38 44.00 0.2
SOB1 150.02 6 ePKP 38 45.90 0.8
MOCB 150.22 61 PKP 38 46.80 1.1
S.D. = 1.0 on 250 of 257 obs.

& DEC 17, 1993 03h 40m 37.82s
63.056 N 148.496 W
DEPTH = 74.7km
2.8mb (1 obs.)
CENTRAL ALASKA (1)
<AEIC>.

RND 0.39 335 ePc 40 50.38 0.0
eS 40 59.93
DHY 0.51 87 ePd 40 51.24 -0.3
eS 41 01.91
HUR 0.53 262 iPd 40 51.22 -0.3
eS 41 01.55
MCK 0.71 344 iPc 40 53.39 0.0
eS 41 04.75
TRF 0.90 297 iPd 40 55.77 0.0
eS 41 09.17
CUT 1.05 232 ePd 40 57.05 -0.3
BWN 1.20 339 iPc 40 58.75 -0.6
eS 41 14.44
KTH 1.20 296 ePd 40 59.49 0.0
eS 41 15.77
SML 1.25 176 iPc 40 59.98 -0.2
THY 1.29 73 eP 41 01.30 0.7
eS 41 18.93
GHO 1.30 189 ePc 41 00.73 -0.1
SCM 1.34 156 ePc 41 01.25 -0.1
eS 41 20.63
PAX 1.38 92 eP 41 01.97 0.1
eS 41 20.18
DDM 1.39 57 eP 41 02.79 0.8
WRH 1.43 7 iPc 41 01.74 -0.7
eS 41 19.79
TOA 1.44 131 P 41 03.40 0.8
S 41 22.40

17d 03h

PLRM 1.50 192 ePc 41 03.59 0.3
eS 41 23.76
PMR 1.50 192 ePc 41 03.90 0.6
HDA 1.52 26 iPc 41 03.15 -0.5
eS 41 21.63
NEA 1.55 351 iPc 41 03.08 -0.9
eS 41 22.07
PWA 1.55 205 P 41 04.40 0.4
DJE 1.59 51 eP 41 04.56 -0.1
CCB 1.63 11 iPc 41 04.16 -0.9
KNK 1.65 179 ePc 41 05.75 0.4
TZL 1.75 124 eP 41 07.17 0.5
SKT 1.77 234 iPd 41 06.73 -0.3
eS 41 29.69
FBA 1.88 9 P 41 07.80 -0.6
S 41 28.80
PMS 1.89 196 P 41 07.90 -0.7
CFI 1.91 169 eP 41 08.52 -0.4
SUA 1.91 214 eP 41 09.94 0.9
MDM 1.91 3 iPc 41 08.28 -0.7
KLU 1.98 141 ePc 41 09.42 -0.5
eS 41 34.05
GLM 2.00 14 ePc 41 09.39 -0.8
DOT 2.09 71 eP 41 10.75 -0.6
eS 41 37.41
VLZ 2.18 151 eP 41 11.40 -1.2
eS 41 38.32
VZW 2.20 155 eP 41 12.13 -0.9
PWL 2.21 178 eP 41 12.66 -0.3
MLY 2.21 335 iPc 41 12.42 -0.7
NCG 2.38 228 eP 41 15.63 0.1
CGLM 2.41 225 eP 41 15.86 0.0
CRP 2.48 225 eP 41 17.98 1.0
FID 2.50 157 eP 41 16.38 -0.7
TMW 2.51 81 eP 41 16.47 -0.7
CP2 2.51 226 eP 41 18.01 0.6
SPU 2.52 223 eP 41 18.13 0.8
CKN 2.52 225 eP 41 19.16 1.7
CKT 2.55 225 eP 41 19.12 1.3
BGL 2.56 227 eP 41 19.15 1.1
CKL 2.60 226 eP 41 19.52 1.0
MPA 2.61 189 eP 41 19.23 0.7
BKG 2.67 223 eP 41 19.99 0.5
SLKM 2.69 199 eP 41 20.22 0.6
GLB 2.73 124 eP 41 19.93 -0.3
eS 41 51.24
PRP 2.79 26 eP 41 20.47 -0.8
SEW 3.00 189 eP 41 23.11 -0.8
MTU 3.11 172 eP 41 25.82 0.3
DFR 3.17 221 eP 41 26.77 0.3
REF 3.26 220 eP 41 28.94 1.1
NCT 3.27 222 P 41 29.80 1.9
RDW 3.30 220 eP 41 29.47 1.2
TTA 3.43 271 P 41 29.00 -1.1
BALM 3.54 122 eP 41 30.09 -1.5
TGL 3.54 128 eP 41 30.43 -1.2
WAX 3.75 132 eP 41 33.49 -1.0
IMA 3.76 326 eP 41 34.10 -0.6
CNPM 3.78 202 eP 41 34.57 -0.3
FYU 3.79 20 eP 41 34.00 -1.0
SVW 3.88 243 eP 41 35.80 -0.5
CTGM 3.97 119 eP 41 37.32 -0.4
YAH 4.20 127 eP 41 40.80 -0.2
YKA 15.42 77 eP 44 13.10 1.2
0.3s 0.20nm 2.8mb
71 obs. associated

% DEC 17, 1993 04h 10m 39.56± 4.17s
44.431 N ±11.4km 6.748 E ±27.9km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 2.1 (GEN).

PZZ 0.26 74 P 10 44.99 0.1
S 10 47.28
STV 0.45 114 P 10 48.79 0.1
S 10 53.73
ENR 0.52 113 P 10 49.99 -0.1
S 10 55.65
BHB 0.55 42 P 10 50.56 0.0
S 10 55.97
RSP 0.81 27 P 10 55.79 0.0
ROB 0.82 99 P 10 55.88 0.0
S 11 05.08
S.D. = 0.1 on 6 of 6 obs.

& DEC 17, 1993 04h 12m 37.05s
36.602 N 121.202 W
DEPTH = 7.9km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.8 (GM).

BCGM 0.16 313 P 12 40.56 0.1
BSLM 0.21 326 P 12 42.47 1.0
SAO 0.25 310 eP 12 42.05 -0.3
BSRM 0.26 284 P 12 42.20 -0.3
LTR 0.29 343 P 12 43.77 0.7
BMSM 0.33 80 P 12 44.77 0.9
BRMM 0.38 53 P 12 46.22 1.4
SFL 0.41 337 P 12 45.95 0.5
MOP 0.51 139 P 12 47.12 -0.2
GHS 0.53 338 P 12 48.13 0.4
HGWM 0.55 319 P 12 48.20 0.1
JRRM 0.62 317 P 12 49.29 -0.2
PAPM 0.70 191 P 12 50.54 -0.6
JHLM 0.72 315 P 12 51.16 -0.3
COE 0.76 330 eP 12 52.43 0.4
eS 13 04.99
PARM 0.78 117 P 12 53.47 1.0
ARN 0.79 341 eP 12 52.72 0.1
eS 13 04.71
SOS 0.81 314 P 12 52.16 -0.9
PHCM 0.92 177 P 12 54.36 -0.5
CVR 0.97 331 P 12 55.84 0.1
PHAM 1.00 139 eP 12 55.26 -1.0
MSJ 1.06 330 P 12 56.86 -0.4
PSD 1.10 303 P 12 57.54 -0.3
PAGM 1.16 138 P 12 58.82 -0.1
CMB 1.57 24 eP 13 04.74 -0.6
BCH 1.68 147 eP 13 05.23 -1.7
MMPM 2.01 59 eP 13 12.88 0.9
MEMM 2.10 59 eP 13 13.95 1.1
MTUM 2.24 70 eP 13 15.73 0.5
BONR 2.68 59 eP 13 23.08 1.5
ORV 2.96 356 eP 13 24.42 -0.8
31 obs. associated

DEC 17, 1993 05h 08m 01.46± 0.40s
2.687 N ± 6.8km 79.644 W ± 9.2km
DEPTH = 10.2km (3 depth phases)
4.7mb (9 obs.)
SOUTH OF PANAMA (83)

UPA 6.25 1 eP 09 37.27 1.2
eS 10 45.01
ECO 6.63 360 eP 09 46.11 4.6X
eS 10 54.15
SDV 10.87 55 eP 10 40.60 0.2
TOV 12.06 54 eP 10 57.40 0.9
ARE 20.66 157 eP 12 46.00 1.5
LPAZ 22.02 149 P 12 57.30 -1.3
LR 19 03.00
LPB 22.24 150 P 13 02.30 1.7
CCH 23.99 147 eP 13 17.00 -0.6
MOCB 27.46 151 P 13 50.10 -0.2
FVM 36.49 346 eP 15 09.72 1.0
0.6s 9.52nm 4.8mb
pP 15 17.20 25kmX
ALQ 40.63 325 eP 15 43.24 -0.3
0.9s 10.62nm 4.5mb
e 15 46.60 11km
PV10 44.53 327 eP 16 14.55 -0.9
e 16 17.23 9km
MSU 46.40 324 (P) 16 31.22 0.9
RSSD 46.57 336 eP 16 30.59 -0.9
1.0s 11.61nm 4.9mb
pP 16 40.58 33kmX
DAU 47.19 327 eP 16 35.97 -0.6
e 16 39.05 10km
LRM 51.65 331 ePd 17 12.30 1.5
YKA 65.08 343 eP 18 41.50 -2.6
0.9s 1.80nm 4.3mb
LKO 73.84 81 P 19 37.71 -1.1
0.9s 10.50nm 4.9mb
LIC 74.43 84 P 19 41.34 -0.9
0.9s 7.00nm 4.7mb
TIC 74.43 84 P 19 41.22 -1.0
1.1s 9.00nm 4.7mb
KIC 74.71 84 Pd 19 43.18 -0.7
0.8s 13.50nm 5.0mb
INK 74.80 342 eP 19 43.00 -0.4
MBC 76.75 351 eP 19 54.00 -0.3
NB2 88.09 29 P 20 53.80 0.5
0.8s 3.10nm 4.7mb
WRA 142.66 240 PKP 27 31.20 -6.4X
0.6s 0.40nm
WRA 142.66 240 PKP 27 38.80 1.2
0.7s 0.80nm
GKN 145.94 25 PKP 27 42.60 -0.6
1.2s 55.00nm
KKN 146.40 25 PKP 27 44.40 0.4
DMN 146.49 25 PKP 27 44.60 0.4
GUN 146.54 24 PKP 27 45.40 1.0
0.8s 23.00nm
PKI 146.65 25 PKP 27 44.60 0.1
S.D. = 1.1 on 29 of 31 obs.

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* DEC 17, 1993 05h 17m 19.24± 0.82s
47.187 N ± 8.1km 11.503 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 0.7 (VIE).

WTTA 0.12 50 iPgc 17 22.40 0.0
iSg 17 24.70
WATA 0.16 18 iPgd 17 23.00 0.0
iSg 17 25.50
SQTA 0.20 280 iPgc 17 23.90 0.1
iSg 17 27.10
SCE 0.20 136 iPgd 17 23.80 0.0
iSg 17 27.00
MOTA 0.31 300 iPgd 17 25.70 -0.1
iSg 17 30.50
S.D. = 0.1 on 5 of 5 obs.

DEC 17, 1993 05h 59m 16.78± 0.45s
44.181 N ± 4.3km 12.229 E ± 4.1km
DEPTH = 24.5 ± 4.2 km
NORTHERN ITALY (545)
MD 3.6 (FIR), 3.5 (TRI), 3.1
(ROM). ML 3.5 (LDG), 3.4 (VIE).

RSM 0.30 148 P 59 24.07 0.3
SFI 0.38 226 P 59 24.04 -0.9
PGD 0.48 230 P 59 25.45 -1.3
CRE 0.59 200 P 59 27.78 -0.7
FIR 0.81 240 ePg 59 32.50 0.4
iSg 59 43.00
ARV 0.86 143 P 59 33.18 0.2
MME 1.10 271 P 59 38.84 2.0
BDI 1.18 265 P 59 38.81 0.9
VVI 1.81 4 P 59 47.58 0.8
TRI 1.88 35 e(Pn) 59 47.50 -0.3
e 59 53.40
e(PgPg59 57.30
e 00 11.30
i(Sg) 00 20.50
CTI 1.91 348 P 59 49.06 0.7
RIY 1.93 52 iPnc 59 48.50 0.0
iSn 00 14.20
VOY 2.19 32 ePnc 59 52.30 -0.2
eSn 00 20.40
CEY 2.20 44 ePn 59 53.70 1.2
eSn 00 22.90
eSg 00 33.40
MDI 2.40 313 P 59 56.02 0.8
FVI 2.44 9 P 59 56.93 1.1
VBY 2.53 57 ePn 59 57.70 0.6
iPg 00 05.10
iSn 00 30.00
i(Sg) 00 42.90
PCP 2.67 279 P 00 01.11 2.0
OGA 2.82 343 ePn 00 02.30 0.9
CKI 2.85 276 P 00 04.00 2.4
PGF 2.87 236 Pn 00 02.30 0.3
Sn 00 37.20
SCE 2.88 353 ePn 00 04.00 1.8
FIN 2.89 272 P 00 03.30 1.0
VAI 2.98 306 P 00 04.48 1.1
KBA 3.00 15 iPnc 00 05.00 1.0
iPg 00 17.40
iSn 00 41.00
iSg 01 00.10
WTTA 3.11 353 iPnc 00 07.60 2.0
iPg 00 17.60
iSn 00 47.10
iSg 01 00.40
SQTA 3.12 347 iPnc 00 08.00 2.3
iPg 00 17.10
iSn 00 47.30
iSg 00 59.50

```
ROB     3.13 274 P       00 08.09   2.3
IMI     3.14 267 P       00 07.27   1.4
PTJ     3.15  56 iP      00 17.70  11.6X
WATA    3.19 352 iPnc    00 07.90   1.3
                 iPg     00 18.40
                 iSn     00 47.80
                 iSg     01 01.20
MOTA    3.26 346 iPnc    00 09.60   2.0
                 iSn     00 49.50
                 iSg     01 04.90
ORX     3.35 297 P       00 09.01   0.2
ENR     3.46 272 P       00 11.99   1.6
SBF     3.47 266 Pn      00 11.40   0.8
                 Sn      00 50.70
STV     3.53 273 P       00 13.58   2.2
BHB     3.61 282 P       00 12.74   0.2
RSP     3.68 287 P       00 15.69   2.1
PZZ     3.69 277 P       00 13.96   0.2
LSD     3.83 291 P       00 19.12   3.3X
RRL     3.96 283 P       00 17.34  -0.3
FRF     4.08 263 Pn      00 19.30   0.1
                 Sn      01 05.50
LPG     4.11 291 Pn      00 19.50  -0.4
                 Sn      01 04.30
LPL     4.13 291 Pn      00 19.30  -0.8
                 Sn      01 05.20
LMR     4.23 260 Pn      00 21.70   0.5
                 Sn      01 08.80
LRG     4.31 262 Pn      00 22.70   0.4
                 Sn      01 10.80
KHC     5.04  10 eP      00 32.50  -0.2
                 e       00 53.40
                 e       01 14.00
                 e       01 30.70
                 e       02 15.50
BSF     5.26 316 Pn      00 35.50  -0.5
                 Sn      01 31.80
CDF     5.45 323 Pn      00 37.60  -1.0
                 Sn      01 37.20
GRF     5.56 353 e(Pn)   01 04.90  24.9X
HAU     5.60 315 Pn      00 39.50  -1.2
                 Sn      01 40.70
PRU     6.02  14 eP      00 45.00  -1.5
                 e       01 51.00
                 e       02 42.00
SMF     6.40 296 Pn      00 49.60  -2.3
                 Sn      01 59.10
LBF     6.43 299 Pn      00 50.90  -1.6
                 Sn      02 01.30
LOR     6.62 301 Pn      00 53.10  -2.0
                 Sn      02 05.30
SSF     6.76 298 Pn      00 55.30  -1.7
                 Sn      02 08.10
AVF     6.76 296 Pn      00 55.60  -1.4
BGF     7.02 293 Pn      00 59.10  -1.6
                 Sn      02 14.30
    S.D. = 1.3  on  55 of  58 obs.
--------------------------------------
* DEC 17, 1993  06h 08m 43.06± 1.58s
  14.372 N ±20.9km   93.605 W ±10.2km
  DEPTH =  33.0km  (normal)
  4.5mb (  9 obs.)
 NEAR COAST OF CHIAPAS, MEXICO    ( 69)
     Felt at Mexico City.

TPX     1.40  68 iPd     09 07.91   1.4
                 iS      09 30.00
SCX     2.53  22 iP      09 25.46   2.8
                 iS      09 55.96
OXX     4.03 312 iP      09 44.30   0.0
PPM     6.70 315 iP      10 23.50   1.2
MRX     8.99 307 iP      10 54.50   0.9
LTX    17.56 330 eP      12 47.67   0.6
UYO    19.72 358 iPd     13 10.60  -2.3
MIAR   20.09   0 eP      13 13.68  -3.0
        0.8s     7.60nm             4.1mb
OXF    20.41  10 (P)     13 21.03   1.0
        0.9s   187.84nm             5.4mb
WMOK   20.81 348 eP      13 23.42  -0.8
        0.9s    10.36nm             4.2mb
MEO    20.81 348 iPd     13 23.00  -1.3
TUL    21.54 355 iPc     13 33.00   1.5
ACO    22.78 348 iPc     13 44.40   0.5
ELC    23.15   9 eP      13 46.61  -0.8
ALQ    23.53 333 eP      13 49.50  -1.9
        0.9s     5.04nm             4.0mb
TUC    23.76 322 eP      13 55.70   2.1

        0.9s     9.33nm             4.3mb
PV08   27.53 334 eP      14 29.83   0.7
                 e       14 38.84
PV10   27.54 333 eP      14 28.76  -0.3
ARUT   29.22 327 eP      14 45.58   1.4
                 e       14 51.40
LRM    35.15 337 ePc     15 36.30   0.3
                 e       15 49.30
ULM    35.83 358 eP      15 41.00  -0.4
YKA    50.32 348 eP      17 36.90  -1.5
        0.7s     5.40nm             4.7mb
FRB    52.31  14 eP      17 52.00  -1.5
INK    59.65 344 eP      18 45.00  -1.1
RES    60.31 360 eP      18 49.50  -1.0
MBC    63.36 353 eP      19 11.50   0.6
        1.0s     3.00nm             4.4mb
DAG    72.64  13 iPc     20 08.10  -0.7
        0.6s     6.00nm             4.8mb
NB2    84.56  28 P       21 15.70   1.6
        0.8s     4.50nm             4.7mb
KIC    87.35  84 P       21 28.60  -0.1
GBA   150.82  18 PKP     28 35.00   6.3X
    S.D. = 1.4  on  29 of  30 obs.
--------------------------------------
% DEC 17, 1993  06h 49m 06.63± 0.91s
  44.259 N ± 6.1km    8.246 E ± 6.9km
  DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                   (545)
     ML 2.0 (GEN).

FIN     0.06 209 P       49 08.62   0.4
                 S       49 09.75
ROB     0.27 278 P       49 12.46   0.3
                 S       49 16.10
PCP     0.36  37 P       49 13.93   0.1
                 S       49 18.18
IMI     0.43 217 P       49 14.73  -0.6
                 S       49 20.88
ENR     0.59 267 P       49 19.05   0.5
                 S       49 26.38
PZZ     0.86 287 P       49 23.31  -0.4
                 S       49 34.16
BHB     0.91 310 P       49 24.22  -0.4
                 S       49 36.47
    S.D. = 0.5  on   7 of   7 obs.
--------------------------------------
* DEC 17, 1993  07h 03m 40.01± 1.14s
  31.393 S ±15.5km   69.107 W ±13.6km
  DEPTH = 120.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTCB    0.28 110 iPc     03 57.50   0.0
ZON     0.40 113 iPd     03 57.60  -0.1
                 eS      04 10.50
RTLL    0.55  84 iPc     03 58.50  -0.1
RTRS    1.26 346 eP      04 05.00   0.0
                 S       04 24.00
RTPR    2.48  65 eP      04 20.40   0.3
                 S       04 51.70
MRA     3.06 110 iPc     04 28.20   0.4
                 S       05 04.80
TCA     3.86  90 iPc     04 38.10  -0.6
                 S       05 22.00
    S.D. = 0.4  on   7 of   7 obs.
--------------------------------------
% DEC 17, 1993  07h 14m 10.43± 1.04s
  43.023 N ± 7.6km   18.725 E ± 6.3km
  DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
     ML 1.9 (TTG).

BRY     0.18 228 iPgd    14 14.88   0.3
                 iSg     14 17.87
NKY     0.29 136 iPgc    14 16.67   0.1
                 iSg     14 21.17
PLE     0.58  58 iPgd    14 21.96  -0.3
                 iSg     14 30.90
HCY     0.60 196 iPgd    14 22.20  -0.3
                 iSg     14 31.31
TTG     0.71 146 iPgd    14 23.79  -0.7
                 iSg     14 34.46
BDV     0.74 174 iPgc    14 24.93  -0.1
                 iSg     14 35.85
IVA     0.87 100 iPgc    14 27.63   0.3
                 iSg     14 40.25
PVY     1.01 115 iPgd    14 29.92   0.2
                 iSg     14 45.04
ULC     1.13 160 iPgc    14 31.92   0.3
                 iSg     14 48.52
    S.D. = 0.4  on   9 of   9 obs.
--------------------------------------
? DEC 17, 1993  07h 36m 09.06± 1.93s
  11.896 N ±10.9km   60.568 W ±45.4km
  DEPTH = 180.0km  (geophysicist)
 WINDWARD ISLANDS                 ( 95)
     MD 3.5 (TRN).

TPR     0.73 196 eP      36 36.46   1.2
                 eS      36 54.87
GRW     1.10 284 iP      36 37.77  -0.1
                 eS      36 59.47
TBH     1.49 199 eP      36 39.52  -1.7
                 eS      37 00.04
TRN     1.49 214 eP      36 40.60  -0.6
                 eS      37 01.11
SVB     1.52 334 iP      36 40.49  -1.1
                 eS      37 04.22
SVV     1.55 336 iP      36 40.51  -1.3
                 eS      37 04.47
TCE     1.66 224 eP      36 44.80   1.8
                 eS      37 08.05
SLB     1.97 347 iP      36 45.56  -0.7
                 eS      37 11.03
FDF     2.88 349 eP      36 59.10   2.4
                 S       37 32.30
    S.D. = 1.7  on   9 of   9 obs.
--------------------------------------
  DEC 17, 1993  07h 44m 14.99± 0.48s
  38.843 N ± 3.6km    6.238 W ± 5.8km
  DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
     mbLg 3.3 (MDD). Felt (III) in
     the Alange area.

EPLA    1.23   6 iPc     44 38.48   0.7
                 e       44 55.30
EHOR    1.28 142 iPc     44 38.51  -0.2
                 e       44 55.50
EVAL    1.32 198 iPc     44 39.72   0.4
                 e       44 56.60
PAB     1.63  64 ePn     44 43.30  -0.6
EPRU    2.04 157 eP      44 49.84   0.1
                 e       45 16.20
EBAN    2.04 109 eP      44 50.14   0.3
                 e       45 16.50
GUD     2.41  41 eP      44 55.43   0.2
                 e       45 26.00
EJIF    2.46 165 eP      44 55.45  -0.4
                 e       45 24.10
EVIA    2.93  93 eP      45 02.86   0.3
                 e       45 37.10
ERUA    3.61 349 eP      45 11.76  -0.4
                 e       45 53.40
ETOR    3.78  57 iPc     45 14.40  -0.2
                 e       45 58.40
EZAM    3.80 331 eP      45 14.57  -0.2
                 e       45 56.70
    S.D. = 0.4  on  12 of  12 obs.
--------------------------------------
& DEC 17, 1993  07h 52m 36.59s
  66.249 N            150.066 W
  DEPTH =   0.0km
 NORTHERN ALASKA                  (676)
     <AEIC>. ML 2.7 (AEIC).

MLY     1.26 193 eP      52 59.75  -1.1
                 eS      53 18.76
IMA     1.48 265 eP      53 03.65  -1.0
                 eS      53 27.53
MDM     1.50 149 eP      53 03.84  -1.1
                 eS      53 26.17
FBA     1.65 144 eP      53 06.28  -0.7
                 eS      53 30.93
GLM     1.69 138 eP      53 06.92  -0.6
NEA     1.73 166 eP      53 08.60   0.5
                 eS      53 32.19
CCB     1.87 149 eP      53 10.39   0.3
WRH     1.97 154 eP      53 12.81   1.3
                 eS      53 40.03
FYU     1.97  78 eP      53 11.45  -0.1
PRP     2.01 109 eP      53 12.41   0.2
                 eS      53 40.54
HDA     2.27 143 eP      53 17.25   1.4
     11 obs. associated
```

DEC 17, 1993 08h 38m 24.74± 0.61s
44.257 N ± 3.2km 8.244 E ± 4.8km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.0 (GEN), 2.5 (LDG).

FIN 0.05 208 P 38 26.85 0.5
S 38 28.13
ROB 0.27 278 P 38 30.69 0.4
S 38 34.44
PCP 0.36 37 P 38 32.20 0.3
S 38 37.24
IMI 0.43 217 P 38 33.00 -0.4
S 38 38.43
SAOF 0.57 242 Pg 38 36.31 0.2
ENR 0.59 267 P 38 36.79 0.2
S 38 44.28
AUTN 0.64 246 Pg 38 37.96 0.3
STV 0.66 269 P 38 38.21 0.2
S 38 46.23
SBF 0.70 236 Pg 38 38.80 0.0
Sg 38 48.20
AURF 0.76 241 Pg 38 40.13 0.1
TOUF 0.76 252 Pg 38 40.02 0.0
Sg 38 51.57
PZZ 0.86 287 P 38 41.56 -0.2
S 38 52.61
MVIF 0.87 246 Pg 38 42.10 0.1
BHB 0.91 310 P 38 42.54 -0.1
CALN 1.10 243 Pg 38 46.76 0.8
Sg 39 02.77
RSP 1.14 322 P 38 46.18 -0.4
RRL 1.24 303 P 38 47.99 -0.4
FRF 1.35 239 Pn 38 49.00 -1.1
Pg 38 50.30
Sg 39 07.00
LMR 1.56 234 Pn 38 51.80 -1.3
Pg 38 53.60
Sg 39 13.40
LRG 1.58 240 Pg 38 53.80 0.3
Sg 39 15.10
LPG 1.63 320 Pg 38 54.50 0.0
Sg 39 13.30
LPL 1.66 320 Pg 38 55.10 0.3
Sg 39 13.80
S.D. = 0.5 on 22 of 22 obs.

DEC 17, 1993 08h 38m 43.64± 0.70s
44.254 N ± 4.5km 8.245 E ± 5.6km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.0 (GEN), 2.8 (LDG).

FIN 0.05 211 P 38 45.57 0.4
S 38 46.80
ROB 0.27 279 P 38 49.23 0.1
S 38 52.89
PCP 0.36 37 P 38 51.06 0.2
S 38 55.92
IMI 0.43 217 P 38 51.69 -0.6
S 38 57.58
ENR 0.59 268 P 38 55.87 0.3
S 39 02.96
STV 0.66 269 P 38 57.30 0.4
S 39 05.08
SBF 0.70 236 Pg 38 57.60 -0.1
Sg 39 06.50
BHB 0.92 310 P 39 01.25 -0.4
S 39 12.98
FRF 1.35 240 Pg 39 08.40 -0.6
Sg 39 25.30
LMR 1.56 234 Pg 39 12.10 0.1
Sg 39 32.20
LRG 1.58 240 Pg 39 12.80 0.5
Sg 39 32.90
LPL 1.66 320 Pg 39 13.40 -0.3
S.D. = 0.4 on 12 of 12 obs.

% DEC 17, 1993 08h 40m 44.06± 1.14s
44.223 N ± 7.7km 8.279 E ± 7.4km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

FIN 0.05 255 P 40 45.09 -0.5
S 40 46.25
ROB 0.30 284 P 40 50.27 0.1
S 40 53.84
PCP 0.37 31 P 40 51.69 0.1
S 40 56.40
IMI 0.42 222 P 40 52.65 0.1
ENR 0.62 271 P 40 56.86 0.4
S 41 03.95
STV 0.69 272 P 40 57.96 0.2
PZZ 0.89 289 P 41 01.75 0.0
BHB 0.95 311 P 41 02.17 -0.5
S.D. = 0.4 on 8 of 8 obs.

% DEC 17, 1993 08h 41m 46.93± 0.82s
44.259 N ± 5.5km 8.237 E ± 6.0km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

FIN 0.05 203 P 41 48.94 0.4
S 41 50.18
ROB 0.27 278 P 41 52.79 0.5
S 41 56.27
PCP 0.36 38 P 41 54.25 0.1
S 41 59.10
IMI 0.43 216 P 41 55.08 -0.5
S 42 01.35
ENR 0.59 267 P 41 58.60 -0.1
S 42 06.43
STV 0.66 269 P 42 00.16 0.1
S 42 08.30
PZZ 0.85 287 P 42 03.59 -0.3
S 42 14.43
BHB 0.91 310 P 42 04.50 -0.3
S.D. = 0.4 on 8 of 8 obs.

DEC 17, 1993 08h 49m 03.95± 0.32s
15.037 S ± 7.4km 74.265 W ± 7.1km
DEPTH = 81.6km (16 depth phases)
4.8mb (12 obs.)
NEAR COAST OF PERU (115)
Felt (IV) at Nazca and (III) at
Palpa.

PT03 1.81 305 eP 49 34.20 0.3
PT06 2.33 301 eP 49 41.90 0.9
ARE 3.02 118 iPd 49 51.50 0.7
NNA 3.93 320 eP 50 03.30 0.1
0.3s 155.84nm
eS 50 48.00
PT10 3.95 318 eP 50 17.30 13.9X
eS 50 51.20
LPAZ 6.04 103 P 50 35.20 2.0
i 50 52.00
i 51 20.00
LPB 6.12 105 P 50 38.80 4.7X
1.0s 620.00nm 5.9mb X
MOCB 10.27 128 P 51 30.70 -0.3
PSO 16.41 349 eP 52 55.50 4.5X
RTLL 17.06 163 iPc 53 00.20 1.4
RTCB 17.12 164 iPc 53 00.00 0.5
BOG 19.53 1 eP 53 34.00 5.9X
eS 57 18.00
BMG 22.00 3 eP 53 54.00 1.1
SDV 24.04 9 eP 54 13.90 1.1
TOV 25.06 10 eP 54 24.20 1.8
BAO 25.34 95 eP 54 27.20 2.0
RSTA 25.55 116 eP 54 25.50 -1.4
CACB 26.93 108 eP 54 39.30 -0.4
e 55 01.30 99kmX
SOB1 33.11 84 (P) 55 34.00 -0.5
LTX 52.46 327 eP 58 09.59 -1.2
epP 58 30.17 83km
UYO 52.57 339 iPc 58 10.90 -0.5
TUL 54.61 339 iPd 58 25.80 -0.6
ACO 56.56 336 iPc 58 38.90 -1.5
ALQ 58.35 329 eP 58 52.68 -0.5
0.8s 6.31nm 4.8mb
epP 59 13.15 80km
TUC 58.64 324 (P) 58 55.14 0.0
1.2s 9.14nm 4.8mb
epP 59 15.61 80km
GAC 60.46 359 eP 59 07.00 -0.2
PV08 62.30 330 eP 59 19.86 -0.3
epP 59 40.90 82km
PV10 62.33 330 eP 59 19.32 -1.0
epP 59 40.56 83km
PLM 62.98 321 eP 59 25.66 1.0
epP 59 45.98 79km
SRU 63.63 329 eP 59 28.21 -0.6
epP 59 49.59 83km
MSU 64.01 328 eP 59 31.59 0.2
epP 59 52.83 82km
GSC 64.28 322 (P) 59 34.28 1.3
RSSD 64.84 337 (P) 59 36.38 -0.2
1.8s 27.26nm 4.9mb
epP 59 57.21 80km
DAU 64.99 330 eP 59 37.47 -0.3
epP 59 58.86 83km
DUG 65.60 328 eP 59 41.34 -0.1
0.8s 10.21nm 4.8mb
epP 00 02.37 81km
BCH 66.19 320 (P) 59 46.35 1.0
TNP 66.44 324 eP 59 47.39 0.4
1.1s 15.91nm 4.9mb
HVU 66.77 330 eP 59 48.64 -0.3
epP 00 09.67 81km
ULM 67.73 345 eP 59 56.00 1.4
pP 00 18.00 85km
JAQ 68.57 359 eP 59 59.00 -0.7
LRM 69.71 333 eP 00 06.90 -0.3
ORV 69.90 323 eP 00 08.37 0.2
epP 00 29.89 82km
LBPM 71.30 324 eP 00 17.51 0.6
LGPM 71.55 323 eP 00 18.45 0.1
epP 00 39.46 80km
LIC 71.77 78 P 00 17.12 -2.9
0.7s 5.00nm 4.5mb
Z 22s 0.13um 4.1Msz
TIC 71.91 78 P 00 17.30 -3.5X
0.7s 1.00nm 3.8mb
KIC 72.09 78 P 00 18.76 -3.1
0.8s 16.50nm 5.0mb
LKO 72.30 75 P 00 22.36 -0.8
0.9s 7.00nm 4.6mb
NVL 74.63 160 iPd 00 36.00 0.3
1.0s 58.00nm 5.4mb
e 01 06.00 119kmX
GMW 75.88 328 (P) 00 43.53 0.4
epP 01 05.26 82km
FRB 78.66 3 eP 01 21.00 22.9X
YKA 83.48 342 eP 01 22.40 -1.1
0.9s 1.60nm 4.0mb
SYO 84.25 161 ePd 01 27.40 0.0
PAB 84.66 47 eP 01 32.30 2.2
e(S) 12 01.00
RES 90.47 355 eP 02 21.00 23.9X
BOSA 91.15 120 eP 02 00.02 -1.3
1.0s 5.67nm 4.8mb
WB2 135.28 220 ePKP 08 16.10 -0.6
0.3s 2.10nm
e 08 38.60
WRA 135.28 220 PKP 08 16.60 -0.1
0.7s 0.90nm
POO 149.30 79 ePKP 08 45.50 4.3X
GBA 152.55 89 PKP 08 52.00 6.1X
S.D. = 1.1 on 51 of 60 obs.

& DEC 17, 1993 08h 50m 22.68s
42.340 N 122.066 W
DEPTH = 6.1km
OREGON (32)
<SEA-P>. MD 2.6 (SEA).

LAB 0.07 179 Pd 50 24.73 0.0
VRC 0.11 268 Pc 50 25.59 0.4
S 50 27.57
HAMO 0.28 165 P 50 28.67 0.2
S 50 33.31
BBOR 0.71 321 Pd 50 35.76 -1.1
DBO 1.17 312 Pd 50 44.17 -0.7
HSO 1.40 328 P 50 48.00 -0.9
HBO 1.52 353 P 50 50.49 0.0
NCOR 1.52 26 P 50 50.83 0.2
8 obs. associated

% DEC 17, 1993 08h 51m 22.32± 0.84s
44.281 N ± 6.7km 8.229 E ± 5.8km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

FIN 0.07 192 P 51 24.08 -0.1
S 51 25.36
ROB 0.26 273 P 51 28.01 0.4

S 51 31.54
PCP 0.35 41 P 51 29.39 0.1
S 51 34.47
ENR 0.58 265 P 51 34.19 0.2
S 51 41.79
STV 0.65 267 P 51 35.29 -0.1
S 51 43.67
PZZ 0.84 286 P 51 38.63 -0.5
S 51 49.43
BHB 0.89 309 P 51 39.82 0.0
S.D. = 0.3 on 7 of 7 obs.

% DEC 17, 1993 09h 35m 12.82± 0.83s
44.259 N ± 5.8km 8.233 E ± 6.2km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (GEN).

FIN 0.05 200 P 35 14.83 0.5
S 35 16.02
ROB 0.26 278 P 35 18.49 0.3
S 35 22.20
PCP 0.36 38 P 35 20.05 0.0
S 35 25.18
IMI 0.43 215 P 35 20.92 -0.5
S 35 26.82
ENR 0.59 267 P 35 24.44 -0.1
S 35 32.13
STV 0.65 269 P 35 25.86 0.0
S 35 34.24
BHB 0.91 310 P 35 30.53 -0.1
S.D. = 0.4 on 7 of 7 obs.

% DEC 17, 1993 11h 18m 23.74± 0.72s
31.436 S ±12.3km 68.663 W ±13.0km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.13 247 ePd 18 38.00 -0.3
S 18 49.70
RTLL 0.20 57 ePd 18 38.30 -0.1
S 18 50.00
CFA 0.40 115 ePc 18 39.20 0.1
RTCV 0.44 166 iPd 18 39.60 0.2
S 18 51.50
RTRS 1.44 331 iPd 18 49.70 0.2
S 19 09.00
RTPR 2.17 59 eP 18 59.00 0.0
S 19 25.00
S.D. = 0.3 on 6 of 6 obs.

? DEC 17, 1993 11h 33m 52.00± 0.95s
27.344 N ±11.4km 100.711 E ±11.4km
DEPTH = 33.0km (normal)
YUNNAN, CHINA (318)
ML 3.8 (BJI).

KMI 2.87 140 Pnd 34 38.00 1.4
Pg 34 41.00
Sn 35 15.00
Sg 35 20.00
CD2 4.44 36 Pn 34 57.80 -1.1
Pg 35 06.00
Sg 36 04.00
GYA 5.39 98 Pn 35 13.00 0.7
Pg 35 23.60
Sn 36 13.80
SHL 8.11 259 eP 36 12.50 22.0X
eS 38 14.50
XAN 9.72 45 P 36 08.20 -4.4X
sP 36 19.50
GUN 13.16 276 P 37 00.20 0.6
HHC 16.17 31 eP 37 39.60 1.1
WRA 57.19 142 P 43 37.20 -1.1
0.5s 3.70nm 4.7mb
WB2 57.19 142 iPc 43 36.70 -1.7
0.4s 4.70nm 4.9mb
YKA 86.12 16 eP 46 33.50 2.9X
1.1s 0.40nm 3.6mb
S.D. = 1.5 on 7 of 10 obs.

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* DEC 17, 1993 11h 35m 23.03± 1.49s
44.027 N ±14.7km 12.471 E ±10.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.1 (VIE). MD 3.0 (TRI), 2.7
(FIR).

FIR 0.91 255 ePg 35 40.50 0.0
iSg 35 51.00
RIY 1.90 45 ePn 35 54.30 -1.4
TRI 1.92 28 e(Pn) 35 56.00 0.0
e 36 20.70
e(Sg) 36 27.40
CEY 2.21 38 ePn 36 02.00 1.8
eSg 36 39.60
VOY 2.24 26 ePnc 36 00.60 -0.3
eSn 36 28.40
e(Sg) 36 37.70
VBY 2.47 52 e(Pn) 36 08.40 4.4X
KBA 3.11 11 iPnc 36 13.30 0.1
i 36 30.20
iSn 36 50.80
iSg 37 09.90
WTTA 3.29 350 iPnc 36 15.70 -0.1
i 36 26.10
iSn 36 54.70
SQTA 3.31 345 iPnc 36 15.80 -0.3
i 36 28.40
iSn 36 55.10
WATA 3.37 350 iPnc 36 17.00 0.1
i 36 34.00
i 37 09.30
GEC2 4.89 10 Pn 36 54.80 16.3X
S.D. = 0.9 on 9 of 11 obs.

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* DEC 17, 1993 11h 42m 24.68± 1.38s
43.896 N ±13.4km 12.233 E ± 8.2km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
ML 3.2 (VIE). MD 3.1 (TRI), 2.9
(FIR).

FIR 0.72 261 ePg 42 38.50 -0.3
iSg 42 51.00
RIY 2.11 46 i(Pn) 43 00.40 -0.1
iSn 43 25.70
TRI 2.12 30 e(Pn) 43 00.20 -0.3
e 43 05.00
e(Sn) 43 24.00
e(Sg) 43 32.00
CEY 2.42 40 ePn 43 05.50 0.6
eSg 43 42.10
VOY 2.44 28 iPnc 43 04.40 -0.9
e(Sn) 43 32.00
e(Sg) 43 41.20
VBY 2.69 52 ePn 43 09.60 0.8
e 43 34.10
e(Sn) 43 40.70
SCE 3.16 354 ePn 43 15.90 0.3
KBA 3.28 13 iPnc 43 17.00 -0.3
i 43 28.50
iSn 43 54.70
iSg 44 12.50
WTTA 3.39 353 iPnd 43 19.40 0.5
iSn 43 57.50
SQTA 3.40 348 iPnc 43 19.80 0.8
iSn 43 58.80
WATA 3.47 353 iPnd 43 20.60 0.7
i 44 05.00
KHC 5.32 10 ePn 43 44.00 -2.1
e 44 18.50
eSg 44 41.50
S.D. = 0.9 on 12 of 12 obs.

% DEC 17, 1993 11h 47m 20.79± 0.91s
44.307 N ± 6.7km 8.282 E ± 7.4km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (GEN).

FIN 0.11 208 P 47 23.50 0.3
S 47 25.15
ROB 0.30 268 P 47 27.21 0.4
S 47 31.28
PCP 0.30 39 P 47 26.89 0.0
S 47 31.01
IMI 0.49 216 P 47 30.23 -0.3
ENR 0.62 263 P 47 32.98 -0.3
S 47 41.40
BHB 0.90 307 P 47 38.47 -0.1
S.D. = 0.4 on 6 of 6 obs.

& DEC 17, 1993 12h 18m 25.10s
68.406 N 148.077 W
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
NORTHERN ALASKA (676)
<AEIC>. ML 3.1 (AEIC), 3.5
(PMR).

FYU 2.15 148 eP 19 01.73 0.3
eS 19 29.53
PRP 3.07 160 eP 19 14.21 -0.4
eS 19 50.98
IMA 3.20 225 ePn 19 16.22 -0.3
GLM 3.45 175 eP 19 19.30 -0.6
MDM 3.46 181 eP 19 19.51 -0.6
FBA 3.52 178 eP 19 19.95 -1.0
MLY 3.55 199 eP 19 21.87 0.5
CCB 3.78 178 eP 19 24.00 -0.6
WRH 3.95 180 eP 19 26.41 -0.6
HDA 4.04 173 eP 19 27.56 -0.8
BRW 4.18 318 P 19 29.20 -1.0
BWN 4.29 188 eP 19 32.29 0.4
DJE 4.50 166 eP 19 34.12 -0.7
DDM 4.73 168 eP 19 37.54 -0.6
DHY 5.36 177 eP 19 46.83 -0.4
INK 5.39 84 eP 19 45.00 -2.4
0.5s 3.00nm 4.2mb X
PAX 5.56 168 eP 19 49.88 -0.1
TOA 6.38 172 eP 20 03.30 1.8
PMR 6.86 184 eP 20 08.80 0.7
KLU 7.00 171 (P) 20 11.10 0.9
MBC 11.57 35 eP 21 09.00 -4.1
YKA 14.96 97 eP 21 54.20 -3.7
0.5s 1.00nm 3.5mb
22 obs. associated

% DEC 17, 1993 13h 31m 12.95± 0.96s
44.298 N ± 6.8km 8.312 E ± 7.2km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

FIN 0.12 220 P 31 15.74 0.3
S 31 17.43
PCP 0.30 34 P 31 18.99 0.0
S 31 22.93
ROB 0.32 270 P 31 19.45 0.1
S 31 23.57
IMI 0.49 218 P 31 22.47 -0.4
S 31 29.52
ENR 0.64 264 P 31 25.58 -0.3
S 31 33.77
STV 0.71 266 P 31 27.59 0.4
S 31 35.88
BHB 0.93 306 P 31 30.89 -0.2
S.D. = 0.4 on 7 of 7 obs.

? DEC 17, 1993 13h 33m 00.05± 1.01s
39.655 N ± 9.8km 29.511 E ±10.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZI 0.68 358 ePg 33 13.30 -0.3
eSg 33 24.30
DST 0.68 266 iPg 33 13.10 -0.5
iSg 33 24.10
ALT 0.76 142 ePg 33 15.00 0.1
eSg 33 27.00
EDC 1.44 299 ePn 33 27.00 0.8
S.D. = 1.0 on 4 of 4 obs.

& DEC 17, 1993 14h 28m 21.44s
33.233 N 118.024 W
DEPTH = 6.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS), 3.1 (GS).

PEC 0.98 47 iPd 28 39.04 -1.3
eS 28 51.52
PLM 0.98 83 ePn 28 38.54 -2.0
eS 28 50.16
SSK 1.01 16 eP 28 39.61 -1.5
eS 28 54.66
ABL 1.90 329 eP 28 52.07 -2.8
GSC 2.30 26 ePn 28 58.69 -1.8
ISA 2.45 351 ePn 29 00.22 -2.5
BCH 2.59 319 eP 29 01.72 -3.0
GLA 2.69 93 ePn 29 04.52 -1.5

17d 14h

TPNV 3.98 21 ePn 29 22.32 -2.2
BONR 4.72 357 (Pn) 29 32.83 -2.3
10 obs. associated

DEC 17, 1993 14h 31m 05.84± 0.70s
42.088 N ± 5.7km 143.989 E ± 8.1km
DEPTH = 49.0 ± 6.4 km
4.3mb (12 obs.)
HOKKAIDO, JAPAN REGION (224)

HOOJ 0.60 300 iPd 31 18.10 -0.2
S 31 27.00
KUSJ 1.14 28 iPd 31 25.80 0.1
eS 31 40.50
MRRJ 2.19 280 P 31 41.40 0.9
eS 32 08.10
ASAJ 2.26 335 iPd 31 41.50 0.1
AOMJ 3.12 242 P 31 54.30 0.6
S 32 30.00
OFUJ 3.49 211 P 31 58.80 -0.1
S 32 38.30
YAMJ 4.95 219 P 32 19.30 -0.2
NIIJ 6.18 220 eP 32 37.10 0.2
KAKJ 6.58 208 eP 32 39.70 -2.7
eS 33 50.90
MAT 7.12 221 eP . 32 50.00 0.0
0.7s 8.22nm 4.6mb X
eS 34 23.00
CHJJ 7.17 214 eP 32 51.40 0.7
eS 34 05.10
MTMJ 7.29 223 eP 32 52.60 0.1
IIDJ 8.13 218 eP 33 04.30 0.3
YAK 21.71 342 eP 35 50.70 -3.4X
0.8s 26.00nm 4.7mb
KMI 37.88 257 eP 38 21.00 0.9
2.0s 80.00nm 5.3mb
pP 38 26.00 17kmX
IMA 41.35 33 eP 38 49.47 1.2
0.9s 1.95nm 3.8mb
FBA 43.80 35 (P) 39 08.52 0.5
1.2s 4.97nm 4.1mb
GUN 48.78 273 P 39 48.60 0.3
0.6s 17.00nm 5.3mb
INK 49.00 29 eP 39 49.50 0.5
KKN 49.29 273 P 39 52.40 0.3
PKI 49.31 273 P 39 52.40 0.0
DMN 49.52 273 P 39 54.30 0.4
GKN 49.65 274 P 39 54.80 0.0
RES 57.21 16 eP 40 49.50 -0.3
0.8s 2.00nm 4.2mb
YKA 58.46 32 eP 40 57.00 -1.6
0.9s 0.90nm 3.9mb
GBA 63.64 265 P 41 35.00 0.8
KAF 64.74 333 iP 41 39.00 -1.8
0.6s 3.50nm 4.6mb
NUR 66.43 332 iP 41 50.10 -1.5
0.4s 6.00nm 5.0mb
NB2 70.29 338 P 42 14.60 -1.0
0.7s 1.70nm 4.1mb
HFS 70.29 336 eP 42 14.20 -1.4
0.4s 1.60nm 4.3mb
PV10 75.99 51 eP 42 51.38 1.7
GEC2 79.43 329 P 43 08.40 0.1
0.5s 0.79nm 3.9mb
e 43 09.20
SIV 146.24 47 PKP 50 42.90 1.3
S.D. = 1.0 on 32 of 33 obs.

& DEC 17, 1993 14h 42m 00.34s
63.148 N 151.230 W
DEPTH = 11.8km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC).

KTH 0.43 19 eP 42 08.70 -0.5
eS 42 14.72
TRF 0.52 54 eP 42 10.38 -0.6
HUR 0.75 103 eP 42 14.50 -0.3
eS 42 25.56
CUT 0.87 149 iP 42 16.92 0.1
eS 42 28.65
RND 1.11 75 eP 42 20.81 -0.2
eS 42 36.30
SKT 1.18 187 eP 42 21.81 -0.4
eS 42 37.50
MCK 1.19 59 eP 42 22.26 -0.1
eS 42 39.17
BWN 1.29 37 eP 42 25.27 1.1
PWA 1.63 157 P 42 28.80 -0.1
SUA 1.71 172 eP 42 30.54 0.4
NEA 1.72 33 eP 42 30.05 -0.2
eS 42 54.76
GHO 1.75 141 eP 42 31.00 0.3
eS 42 53.68
DHY 1.75 91 eP 42 31.20 0.3
eS 42 55.24
NCG 1.80 194 eP 42 31.33 -0.2
PLRM 1.84 147 eP 42 31.93 -0.1
eS 42 57.03
PMR 1.84 147 eP 42 31.90 -0.1
eS 42 56.04
CGLM 1.88 191 eP 42 33.25 0.5
SML 1.90 134 eP 42 32.75 -0.2
MLY 1.90 6 eP 42 33.05 0.1
WRH 1.93 45 eP 42 33.23 0.0
CRP 1.94 193 ePd 42 32.89 -0.7
CP2 1.95 195 eP 42 33.92 0.1
eS 42 59.98
BGL 1.97 197 eP 42 34.46 0.5
CKN 1.98 193 eP 42 34.53 0.4
CKT 2.01 194 eP 42 34.83 0.3
SPU 2.01 191 eP 42 34.92 0.4
CKL 2.03 195 eP 42 35.41 0.6
CCB 2.13 44 eP 42 35.95 -0.3
BKG 2.14 194 eP 42 36.46 0.0
KNK 2.17 142 eP 42 37.10 0.3
TTA 2.19 266 eP 42 38.32 1.2
eS 43 07.13
SCM 2.24 124 eP 42 38.42 0.5
MDM 2.25 35 eP 42 37.07 -0.8
HDA 2.28 54 eP 42 37.84 -0.5
FBA 2.32 39 eP 42 38.12 -0.8
eS 43 08.50
CFI 2.56 139 eP 42 42.82 0.6
TOA 2.56 112 P 42 43.00 0.6
PAX 2.63 91 eP 42 43.81 0.4
DFR 2.66 196 eP 42 44.50 0.7
PWL 2.67 148 eP 42 44.26 0.3
SLKM 2.69 169 eP 42 45.86 1.6
RDW 2.78 196 eP 42 47.22 1.6
TZL 2.90 110 eP 42 48.56 1.4
SVW 2.91 227 eP 42 46.73 -0.5
KLU 2.98 121 eP 42 49.17 0.8
eS 43 27.00
VLZ 3.06 129 eP 42 48.96 -0.4
IMA 3.12 341 eP 42 49.39 -0.9
GLB 3.86 113 eP 43 01.55 0.7
48 obs. associated

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* DEC 17, 1993 15h 25m 07.22± 0.96s
51.357 N ± 7.1km 15.901 E ± 8.9km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.2 (VIE), 2.6 (CLL).

KSP 0.57 154 iPd 25 18.50 -0.3
0.3s 116.00nm
iS 25 27.40
i 25 34.40
BRG 1.32 249 iPn 25 32.60 0.9
iPg 25 33.10
iSg 25 52.50
PRU 1.62 213 Pn 25 35.40 -0.5
i 25 36.50
PRU 1.62 213 Pg 25 38.20 2.3X
0.4s 44.40nm
Sn 25 55.30
Sg 26 01.80
CLL 1.82 270 iPn 25 37.40 -1.4
iPg 25 40.80
eSg 26 06.00
KHC 2.68 215 Pn 25 51.40 0.2
ePg 25 57.50
eSn 26 26.00
eSg 26 33.50
HOF 2.76 249 eP 25 52.00 -0.3
MOX 2.80 257 ePg 26 00.40 7.5X
iSg 26 39.50
WET 2.94 222 eP 25 55.50 0.6
VKA 3.11 175 iPgc 26 06.80 9.6X
iSg 26 50.20
KBA 4.60 202 iPnc 26 18.80 0.3
i 26 27.50
i 27 31.10
iSg 27 36.80
HFS 8.89 353 eP 27 18.90 0.4
0.4s 1.10nm 4.6mb
S.D. = 0.8 on 9 of 12 obs.

% DEC 17, 1993 15h 35m 21.41± 1.79s
45.500 N ± 8.9km 0.048 E ±13.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (LDG).

RJF 1.05 100 Pg 35 42.10 0.8
Sg 35 57.00
MFF 1.11 353 Pg 35 42.60 0.4
Sg 35 58.20
LPO 1.15 135 Pg 35 42.80 -0.1
Sg 35 58.60
LSF 1.28 54 Pn 35 46.40 1.3
Pg 35 47.20
Sg 36 05.60
TCF 1.70 62 Pn 35 51.90 0.6
Pg 35 54.90
Sg 36 18.50
MAF 1.90 67 Pn 35 54.10 -0.1
Pg 35 58.10
Sg 36 24.00
BGF 2.22 61 Pn 35 58.70 -0.1
Pg 36 04.50
Sg 36 34.30
EPF 2.48 175 Pg 36 04.80 2.3X
Sg 36 35.90
AVF 2.63 59 Pn 36 03.90 -0.8
Sg 36 47.20
SSF 2.86 56 Pn 36 07.20 -0.7
Pg 36 15.80
Sn 36 41.10
Sg 36 54.80
SMF 2.88 65 Pn 36 07.50 -0.7
Sg 36 54.00
LBF 3.10 60 Pn 36 10.70 -0.7
Sn 36 46.50
Sg 37 01.80
LOR 3.18 55 Pg 36 21.60 9.2X
Sg 37 04.00
S.D. = 0.8 on 11 of 13 obs.

? DEC 17, 1993 16h 33m 23.97± 1.90s
11.512 N ±11.5km 61.219 W ±30.5km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
MD 3.0 (TRN).

GRW 0.78 326 eP 33 38.55 0.0
eS 33 49.95
TRN 0.88 192 eP 33 40.65 0.7
eS 33 52.79
TCE 0.96 213 eP 33 40.77 -0.4
eS 33 52.77
TBH 1.03 172 eP 33 41.79 -0.4
S.D. = 0.9 on 4 of 4 obs.

DEC 17, 1993 16h 43m 50.34± 0.48s
17.134 N ± 7.0km 94.722 W ± 5.6km
DEPTH = 70.4km (4 depth phases)
4.7mb (18 obs.)
CHIAPAS, MEXICO (61)

OXX 1.91 269 iP 44 23.50 1.9
iS 44 44.00
SCX 2.04 101 iP 44 34.50 11.4X
iS 45 02.00
LVVM 3.06 328 iP 44 38.00 0.6
iS 45 10.00
IISM 3.13 307 iP 44 39.50 1.2
TPX 3.24 133 iP 44 49.00 9.1X
iS 45 28.00
PPM 4.18 298 iP 44 55.50 1.9
iS 45 41.00
UNM 4.77 298 iP 45 02.00 0.4
iS 45 55.00
ACX 4.92 268 iP 45 01.00 -2.5
iS 45 58.00
CRX 5.22 296 iP 45 07.50 -0.6
(S) 46 05.00
LTX 14.65 328 eP 47 16.25 0.9
UYO 16.96 1 iPc 47 35.00 -9.5X
MIAR 17.37 3 eP 47 50.75 1.2

0.6s 39.24nm 4.8mb
eS 50 59.35
WMOK 17.90 349 iP 47 56.59 0.4
0.5s 14.97nm 4.5mb
eS 51 00.76
MEO 17.91 350 iPc 47 56.60 0.3
TUL 18.73 357 iPc 48 05.50 -0.6
GOGA 19.11 30 eP 48 10.52 0.1
0.4s 5.70nm 4.2mb
i 48 22.35 52kmX
eS 51 38.73
ACO 19.88 349 iPc 48 17.80 -0.8
PRM 20.19 31 eP 48 21.62 -0.2
i 48 35.46 64km
MYNC 20.21 26 ePc 48 21.96 -0.1
0.6s 93.89nm 5.3mb
e 48 36.92 71km
ALQ 20.60 332 eP 48 26.95 0.7
0.7s 7.62nm 4.1mb
i 49 00.84
JSC 20.91 33 eP 48 29.32 0.3
e 48 44.68 70km
TUC 20.96 319 eP 48 30.80 1.0
0.8s 7.44nm 4.1mb
FVM 21.11 9 eP 48 29.96 -1.2
0.5s 32.31nm 4.9mb
LHS 21.30 33 eP 48 33.17 0.2
i 48 49.99 77km
CEH 23.28 34 eP 48 52.88 0.4
0.6s 40.69nm 5.0mb
NAV 23.56 29 eP 48 55.31 0.1
GOL 24.32 340 eP 49 02.82 -0.1
1.0s 12.60nm 4.3mb
PV08 24.60 333 (P) 49 10.25 4.6X
PV10 24.60 332 eP 49 05.74 0.1
DAU 27.26 332 eP 49 33.02 2.8X
BONR 29.30 320 eP 49 48.19 -0.5
LRM 32.20 336 eP 50 12.80 -1.2
e 50 39.50 122kmX
ULM 33.05 359 eP 50 21.50 0.5
LPAZ 42.31 140 P 51 40.70 1.0
LPB 42.52 141 P 51 39.00 -2.2
SIV 46.73 133 P 52 14.90 0.4
YKA 47.40 348 eP 52 16.60 -2.6
0.6s 2.40nm 4.3mb
FRB 49.92 15 eP 52 37.00 -1.5
0.8s 11.00nm 4.9mb
INK 56.71 344 eP 53 27.00 -1.7
RES 57.56 360 eP 53 32.50 -2.0
MBC 60.51 353 eP 53 54.00 -0.9
DAG 70.22 14 eP 54 50.00 -7.3X
0.4s 2.54nm 4.5mb
ipP 55 35.20 190kmX
EKA 76.97 36 P 55 37.00 0.2
1.0s 13.50nm 4.8mb
PAB 79.58 52 iPd 55 52.10 0.5
NB2 82.65 28 P 56 07.60 0.4
0.9s 2.50nm 4.2mb
LKO 86.42 81 P 56 28.46 1.5
0.6s 19.50nm 5.4mb
TIC 87.79 84 P 56 34.71 1.2
0.9s 8.00nm 4.9mb
LIC 87.90 84 P 56 35.63 1.6
0.4s 2.50nm 4.7mb
KIC 88.14 84 Pc 56 36.81 1.6
0.6s 12.50nm 5.3mb
WRA 133.53 259 PKP 02 59.00 -2.1
0.7s 1.10nm
S.D. = 1.2 on 44 of 50 obs.

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* DEC 17, 1993 17h 03m 18.64± 0.54s
20.691 S ±15.7km 173.560 W ± 9.4km
DEPTH = 33.0km (normal)
4.8mb (8 obs.)
TONGA ISLANDS (173)

AFI 6.96 14 eP 04 50.00 -11.0X
SVA 7.96 287 eP 05 16.80 1.9
VUN 7.99 288 eP 05 16.30 0.9
BKM 17.45 277 iP 07 25.00 3.8X
DZM 18.67 262 iPc 07 36.90 0.5
ARMA 32.76 246 eP 09 51.40 0.5
CNB 35.61 238 eP 10 17.20 1.8
CAN 35.90 238 eP 10 18.30 0.5
BWA 36.16 240 eP 10 21.30 1.3
TOO 39.18 236 eP 10 45.50 0.2
0.8s 17.00nm 4.9mb
STK 41.47 245 eP 11 03.80 -0.4
0.7s 2.60nm 4.1mb
ASPA 48.52 256 eP 11 58.70 -2.1
0.7s 8.00nm 4.9mb
WB2 48.68 261 eP 11 59.60 -2.4
0.4s 10.30nm 5.2mb
WRA 48.69 261 P 12 00.40 -1.7
0.4s 1.90nm 4.5mb
MBL 61.77 256 eP 13 35.20 -1.6
NANU 65.35 254 eP 14 00.50 0.2
0.6s 8.00nm 5.0mb
MAT 72.90 321 (P) 14 45.00 -1.5
BONR 78.07 42 eP 15 16.40 0.2
ARUT 81.07 44 eP 15 33.27 1.1
MSU 82.30 44 eP 15 39.79 1.1
LTX 83.69 56 eP 15 45.95 0.1
SRU 83.71 44 eP 15 46.67 0.8
PV10 84.29 45 eP 15 49.45 0.5
e 16 01.28
LRM 86.26 38 eP 15 57.30 -1.2
FBA 87.59 11 eP 16 03.15 -1.1
0.8s 5.68nm 4.9mb
YKA 94.98 24 eP 16 37.70 -0.9
0.8s 0.60nm 4.1mb
CBM 115.25 47 (PKP) 21 59.92 1.6
HFS 140.26 354 ePKP 22 36.60 -8.8X
0.4s 1.10nm
EKA 144.66 9 PKP 22 53.00 -0.2
1.0s 37.60nm
KSP 148.92 348 ePKP 23 05.30 4.9X
CLL 149.01 352 iPKPd 23 04.90 4.5X
PRU 150.07 349 ePKP 23 08.30 6.2X
e 23 21.00
KHC 151.05 350 ePKP 23 10.50 6.8X
1.2s 8.00nm
e 23 16.50
e 23 44.00
GEC2 151.31 350 PKP 23 10.90 6.8X
1.1s 3.35nm
S.D. = 1.3 on 26 of 34 obs.

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* DEC 17, 1993 17h 42m 28.69± 1.53s
36.669 N ±15.4km 71.053 E ±12.3km
DEPTH = 204.1 ± 18.1 km
4.1mb (10 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

MAIO 9.32 271 eP 44 39.00 -1.0
eS 46 12.00
NDI 9.50 145 iPc 44 42.50 0.2
0.5s 40.85nm 5.0mb
eS 46 20.00
GKN 14.36 123 P 45 44.00 -0.2
DMN 14.93 123 P 45 51.50 0.2
KKN 14.93 122 P 45 50.80 -0.5
PKI 15.16 123 P 45 53.80 -0.4
GUN 15.27 121 P 45 55.60 0.1
HYB 20.29 159 eP 46 53.00 2.8
SHL 20.94 116 eP 47 00.50 3.7X
eS 50 36.50
GBA 23.67 164 P 47 24.00 1.0
HFS 42.96 322 ePKP 50 08.70 0.0
0.5s 2.80nm 4.0mb
NB2 44.27 323 P 50 19.20 -0.1
0.7s 2.20nm 3.8mb
MBC 67.17 3 eP 53 03.50 1.6
0.9s 4.00nm 4.1mb
INK 73.73 9 eP 53 42.00 0.7
0.6s 2.00nm 4.0mb
FBA 74.29 16 eP 53 45.80 1.1
1.0s 9.50nm 4.5mb
YKA 81.08 3 eP 54 21.30 -0.3
0.6s 1.30nm 3.8mb
WRA 82.04 122 P 54 26.50 -0.9
0.6s 0.90nm 3.7mb
WB2 82.05 122 eP 54 24.50 -2.9
1.0s 4.40nm 4.1mb
ASPA 84.31 125 eP 54 37.30 -1.5
0.8s 4.20nm 4.2mb
S.D. = 1.4 on 18 of 19 obs.

% DEC 17, 1993 18h 02m 01.24± 4.07s
41.476 N ±30.4km 23.062 E ± 6.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.4 (THE).

KNT 0.34 201 ePgc 02 07.89 -0.3
eSg 02 12.32
SRS 0.54 132 ePgc 02 11.37 -0.7
eSg 02 19.76
SOH 0.69 161 ePgc 02 14.24 -0.7
eSg 02 23.76
GRG 0.72 224 ePgc 02 14.78 -0.6
eSg 02 24.48
THE 0.85 185 ePg 02 17.20 -0.3
eSg 02 28.40
OUR 1.34 148 ePb 02 25.80 -0.1
eSb 02 42.96
LIT 1.44 198 ePb 02 27.16 -0.2
eSb 02 46.08
PAIG 1.62 163 ePb 02 29.80 -0.1
S.D. = 0.3 on 8 of 8 obs.

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* DEC 17, 1993 18h 52m 02.38± 1.08s
6.516 S ± 8.8km 154.846 E ± 7.9km
DEPTH = 94.8 ± 10.4 km
4.5mb (7 obs.)
SOLOMON ISLANDS (193)

RAB 3.53 311 eP 52 58.00 1.9
iS 53 45.00
HNR 5.82 120 P 53 28.00 0.1
LAT 7.80 268 eP 53 53.40 -1.6
PMG 8.14 249 eP 53 58.00 -1.6
DZM 19.09 145 iPd 56 19.70 -0.8
WB2 23.96 234 eP 57 10.30 1.1
0.7s 17.60nm 4.6mb
ARMA 23.97 187 iPd 57 11.00 1.7
0.7s 12.00nm 4.4mb
ASPA 26.38 228 eP 57 31.90 0.1
0.4s 4.60nm 4.4mb
Z 23s 0.10um 3.3MszX
epP 57 49.20 75kmX
eS 02 02.30
STK 28.11 204 eP 57 46.70 -0.6
3.5s 1.20nm 2.9mb X
WARB 33.25 231 eP 58 33.20 0.5
MEEK 39.86 236 eP 59 29.20 0.8
KMI 59.63 304 eP 02 12.00 12.7X
1.0s 40.00nm
pP 02 19.00 23kmX
GUN 74.75 301 P 03 34.40 -0.2
0.5s 13.00nm 5.0mb
PKI 75.05 301 P 03 36.30 0.0
KKN 75.22 301 P 03 37.40 0.3
0.5s 12.00nm 5.0mb
DMN 75.32 301 P 03 37.60 -0.2
GKN 75.83 301 P 03 40.30 -0.2
FBA 82.72 21 eP 04 15.88 -0.7
0.6s 1.82nm 4.2mb
YKA 95.98 28 eP 05 19.00 -0.7
0.5s 0.80nm 4.5mb
LPAZ 131.82 119 PKP 11 01.60 -6.3X
S.D. = 1.1 on 18 of 20 obs.

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* DEC 17, 1993 19h 14m 09.42± 1.35s
32.376 S ± 9.0km 69.437 W ±16.7km
DEPTH = 120.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)

RTCV 0.92 56 eP 14 31.00 0.0
ZON 1.05 38 eP 14 21.50 -10.8X
CFA 1.27 53 iPd 14 35.00 0.3
S 14 54.90
RTRS 2.20 359 iPd 14 46.00 0.2
S 15 13.50
RFA 2.52 162 iPc 14 50.00 -0.1
S 15 19.50
MRA 3.15 92 iPc 14 58.80 0.4
S 15 31.90
RTPR 3.25 51 eP 14 59.00 -0.7
S.D. = 0.5 on 6 of 7 obs.

& DEC 17, 1993 19h 22m 17.89s
34.148 N 116.430 W
DEPTH = 3.4km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.7 (PAS).

PEC 0.66 247 iPd 22 30.12 -0.9
eS 22 39.04
PLM 0.87 205 eP 22 34.05 -1.3
eS 22 46.54

17d 19h

SSK 1.05 274 eP 22 37.37 -1.0
eS 22 51.51
GSC 1.19 345 eP 22 39.07 -1.7
eS 22 56.73
GLA 1.73 129 eP 22 46.72 -2.3
eS 23 13.74
ISA 2.26 313 eP 22 54.61 -2.1
ABL 2.41 288 eP 22 57.91 -1.1
7 obs. associated

% DEC 17, 1993 20h 55m 06.00± 0.64s
43.087 N ± 7.7km 0.662 W ± 5.4km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.0 (STR).

ATE 0.03 268 Pg 55 08.01 0.0
Sg 55 09.62
ESCF 0.06 97 Pg 55 08.32 0.0
Sg 55 10.09
ISSF 0.11 239 Pg 55 09.10 0.1
Sg 55 11.57
MADF 0.13 297 Pg 55 09.10 -0.1
Sg 55 11.63
OGE 0.16 59 Pg 55 09.77 0.0
LHE 0.18 170 Pg 55 10.01 0.0
Sg 55 12.93
S.D. = 0.1 on 6 of 6 obs.

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* DEC 17, 1993 21h 07m 19.68± 0.90s
36.845 N ±13.0km 71.041 E ± 9.2km
DEPTH = 150.0km (geophysicist)
3.8mb (1 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

QUE 7.47 208 eP 09 07.30 0.0
eS 10 24.30
GKN 14.46 124 P 10 38.40 -0.2
KKN 15.03 123 P 10 45.60 -0.2
DMN 15.03 124 P 10 46.00 0.1
PKI 15.26 123 P 10 48.40 -0.4
GUN 15.36 121 P 10 50.80 0.7
NB2 44.13 323 P 15 14.40 0.0
0.7s 1.90nm 3.8mb
S.D. = 0.4 on 7 of 7 obs.

DEC 17, 1993 22h 06m 07.77± 9.06s
51.650 N ±50.4km 16.389 E ±56.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.6 (GRF), 3.3 (VIE).

KSP 0.81 184 iPd 06 23.60 0.1
iS 06 33.40
e 06 39.00
BRG 1.72 244 iPn 06 38.70 0.8
iPg 06 38.90
iSg 06 58.80
PRU 2.04 216 ePn 06 42.40 -0.1
i 06 43.40
PRU 2.04 216 ePg 06 45.50 3.0X
0.4s 24.90nm
eSn 07 00.80
eSg 07 08.20
CLL 2.14 262 iPn 06 43.90 -0.1
iPg 06 46.30
eSg 07 14.00
KHC 3.10 217 Pn 06 57.50 -0.1
Pg 07 06.00
e 07 11.00
eSn 07 29.50
eSg 07 40.50
e 07 43.00
MOX 3.17 253 ePg 07 06.50 7.9X
iSg 07 46.10
WET 3.37 223 eP 07 01.10 -0.4
VKA 3.39 181 iPgd 07 11.60 9.8X
iSg 07 54.10
GRF 3.83 241 ePn 07 07.70 -0.3
ePg 07 21.50
eSg 08 05.60
S.D. = 0.5 on 7 of 10 obs.

DEC 17, 1993 22h 41m 13.67± 0.27s
0.369 N ± 5.4km 125.698 E ± 5.8km
DEPTH = 16.8km (2 depth phases)
4.9mb (18 obs.)
NORTHERN MOLUCCA SEA (266)

MNI 1.37 321 ePd 41 40.50 2.5
eS 42 03.50
TNE 1.69 75 eP 41 42.10 -0.5
iS 42 05.50
DAV 6.68 359 eP 43 01.10 7.7X
BIP 7.82 4 eP 42 12.00 -57.5X
TSM 8.74 297 ePc 43 23.50 1.3
KKM 11.02 301 ePd 44 03.50 9.8X
KHKI 13.28 229 eP 44 35.40 11.3X
e 46 53.10
MTN 14.19 158 eP 44 35.00 -1.1
TRT 15.30 238 ePc 44 58.50 8.0X
0.8s 5.00nm 3.9mb
SJI 16.06 240 iPd 45 07.60 7.2X
1.2s 5.70nm 3.6mb X
BAG 16.72 343 eP 45 13.30 4.3X
CVP 17.64 348 eP 45 25.00 4.6X
WWKK 18.35 103 e(P) 45 33.00 3.8X
MDG 20.82 106 eP 45 56.00 -1.0
WB2 21.89 158 iPd 46 06.20 -1.7
0.9s 40.90nm 4.9mb
ipP 46 09.80 13km
eS 50 05.20
MBL 22.15 195 eP 46 10.50 0.1
LAT 22.38 109 eP 46 13.00 0.3
GUMO 23.09 55 eP 46 19.40 -0.3
1.1s 144.40nm 5.4mb
PJG 23.09 55 eP 46 20.40 0.7
GUA 23.10 55 eP 46 19.30 -0.5
PMG 23.47 115 eP 46 21.00 -2.4
NANU 24.85 203 eP 46 38.00 1.2
0.7s 33.00nm 5.1mb
ASPA 25.19 162 eP 46 40.60 0.6
0.3s 38.20nm 5.5mb
Z 23s 0.30um 3.7MszX
epP 46 55.70 64kmX
eS 51 01.80
WARB 26.41 178 eP 46 52.50 1.1
MEEK 27.70 194 eP 47 02.20 -1.0
NST 29.46 302 eP 47 17.50 -1.6
CHTO 32.02 306 eP 47 41.50 -0.2
0.9s 14.92nm 4.9mb
KMI 33.14 320 eP 47 51.50 -0.1
1.8s 100.00nm 5.4mb
pP 47 57.50 21km
STK 35.43 156 eP 48 10.30 -0.7
0.9s 7.20nm 4.6mb
e 48 29.30
ADE 37.20 162 e(P) 48 07.40 -18.6X
MAT 37.82 17 (P) 48 30.00 -1.1
ARMA 39.32 143 eP 48 43.40 -0.5
0.8s 11.00nm 4.6mb
BJI 40.43 349 eP 48 52.50 -0.2
1.4s 12.00nm 4.4mb
Z 24s 0.64um 4.4MszX
BWA 40.63 151 eP 48 56.00 1.4
LZH 40.93 333 eP 48 57.50 0.4
1.4s 54.00nm 5.1mb
Z 26s 1.19um 4.6MszX
pP 49 11.00 51kmX
SHL 41.14 310 eP 48 58.00 -1.0
eS 54 22.00
CAN 41.64 151 eP 49 03.30 0.5
TOO 41.95 156 eP 49 08.20 2.9
DZM 45.55 122 iPc 49 39.60 4.8X
GUN 46.95 309 P 49 45.20 -0.9
PKI 47.15 308 P 49 47.00 -0.7
KKN 47.35 309 P 49 48.30 -0.9
DMN 47.41 308 P 49 49.70 0.1
GKN 47.96 309 P 49 53.00 -0.8
0.8s 28.00nm 5.4mb
HYB 49.36 293 eP 50 02.00 -2.7
GBA 49.55 288 P 50 04.00 -2.1
POO 53.98 293 eP 50 38.50 -0.9
NDI 54.16 306 eP 50 40.00 -0.6
IRK 54.74 344 eP 50 47.00 2.5
1.5s 18.00nm 4.9mb
YAK 61.57 2 iPd 51 32.50 0.5
0.8s 99.00nm 6.0mb X
i 52 11.00
QUE 63.10 304 eP 51 43.50 0.3
MAIO 70.75 308 eP 52 32.00 0.6
TAB 81.40 308 eP 53 32.00 0.5
SVW 84.21 29 eP 53 45.96 0.6
0.8s 17.17nm 5.3mb
TTA 84.34 27 eP 53 47.06 1.0
1.2s 10.04nm 4.9mb
IMA 85.85 24 ePc 53 53.43 -0.2
0.7s 2.40nm 4.5mb
SLKM 86.76 30 (P) 53 57.37 -0.6
INK 93.65 21 eP 54 29.50 -0.6
1.0s 2.00nm 4.5mb
MBC 95.44 13 eP 54 40.00 1.8
RES 101.28 10 ePdiff55 04.00 -0.5
YKA 102.96 24 ePdiff55 12.10 -0.1
0.9s 0.80nm 4.4mb
LTX 124.44 53 (PKP) 00 14.44 0.1
KIC 130.09 279 PKP 00 24.63 -0.9
LKO 130.52 283 PKP 00 27.06 0.7
0.7s 2.00nm
RTCB 146.14 157 ePKPc 00 55.70 1.3
RTLL 146.41 158 ePKPc 00 56.00 1.2
LPAZ 159.12 140 PKP 01 16.20 2.5
S.D. = 1.2 on 56 of 67 obs.

& DEC 17, 1993 22h 44m 03.50s
37.547 N 118.825 W
DEPTH = 5.4km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.9 (GM).

CLKR 0.04 1 P 44 04.94 -0.2
HTCR 0.05 112 P 44 04.90 -0.3
MCSM 0.12 330 P 44 06.61 0.3
MEMM 0.15 323 ePc 44 06.98 0.4
ORC 0.16 57 P 44 07.05 0.1
MMPM 0.17 291 iPc 44 07.19 0.0
MRCM 0.28 64 ePc 44 09.27 0.0
MTUM 0.28 133 ePc 44 09.18 -0.1
BHPR 0.37 132 P 44 10.89 0.0
BCKR 0.39 67 P 44 11.51 0.1
CWCR 0.42 97 P 44 11.88 0.0
BONR 0.58 45 ePc 44 14.77 -0.4
FRI 0.90 232 P 44 20.36 -0.7
MSTM 1.30 286 P 44 27.63 -0.4
CMB 1.33 292 eP 44 27.71 -0.8
MNHM 1.68 291 P 44 34.97 1.3
BRMM 1.75 247 P 44 36.06 1.4
BAVM 1.75 274 P 44 39.32 4.6
BMSM 1.81 241 P 44 37.49 2.0
WOFM 2.01 177 P 44 40.50 2.0
PHAM 2.12 217 (P) 44 42.02 1.9
BSLM 2.16 250 P 44 39.97 -0.6
ARN 2.16 266 eP 44 41.98 1.3
BCH 2.57 204 eP 44 46.84 0.3
24 obs. associated

% DEC 17, 1993 23h 11m 20.90± 2.83s
40.084 N ±12.3km 23.986 E ±20.8km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 2.1 (THE).

OUR 0.25 359 ePgc 11 25.70 -0.3
eSg 11 29.42
PAIG 0.28 237 ePgc 11 26.66 0.0
eSg 11 31.78
SOH 0.88 327 ePg 11 38.70 0.4
eSg 11 49.34
THE 0.95 305 ePg 11 38.82 -0.7
SRS 1.08 344 ePg 11 41.26 -0.3
eSg 11 55.18
LIT 1.15 271 ePg 11 42.54 -0.3
KNT 1.36 323 ePb 11 47.18 0.7
eSb 12 05.78
GRG 1.49 306 ePb 11 48.78 0.4
eSb 12 07.30
S.D. = 0.6 on 8 of 8 obs.

? DEC 18, 1993 00h 46m 29.29± 1.32s
11.072 N ±13.1km 61.752 W ±31.0km
DEPTH = 80.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.0 (TRN).

TCE 0.37 180 eP 46 42.34 0.1
eS 46 50.50
TRN 0.54 141 eP 46 43.15 -0.4
eS 46 55.92
TBH 0.89 131 eP 46 47.57 0.3
eS 47 04.47
GRW 1.08 5 eP 46 49.73 0.0

eS 47 07.62
S.D. = 0.5 on 4 of 4 obs.
----
* DEC 18, 1993 01h 11m 26.41± 0.57s
11.594 S ± 7.3km 117.332 E ±12.6km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
SOUTH OF SUMBAWA, INDONESIA (291)

KHKI 3.63 332 ePd 12 22.10 0.4
eS 12 59.90
e 16 50.30
MBL 9.81 166 eP 13 46.00 -2.3
0.3s 40.00nm 6.2mb X
eS 15 26.00
NANU 11.04 189 iPd 14 05.00 -0.2
iS 15 58.80
MEEK 15.01 176 eP 14 58.00 0.0
0.3s 16.00nm 4.9mb
eS 17 32.00
WARB 16.96 150 iPc 15 22.80 -0.1
0.2s 6.00nm 4.4mb
iS 18 20.50
MRWA 17.58 184 iPc 15 30.70 0.1
eS 18 32.00
WB2 18.35 119 eP 15 40.10 -0.1
eS 18 49.20
BAL 18.93 182 eP 15 48.30 1.1
eS 19 04.00
COOL 19.52 170 eP 15 55.50 1.4
eS 19 15.00
ASPA 19.81 130 eP 15 57.90 0.6
eS 19 27.00
KLB 19.91 179 eP 16 02.50 4.3X
eS 19 28.00
MUN 20.31 183 eP 16 07.50 5.1X
eS 19 35.00
GUN 49.70 323 P 20 17.80 -0.1
0.6s 10.00nm 5.0mb
DMN 49.94 322 P 20 19.50 -0.2
GKN 50.51 322 P 20 23.20 -0.7
S.D. = 1.0 on 13 of 15 obs.

? DEC 18, 1993 02h 21m 56.29± 2.46s
31.153 S ±42.2km 68.644 W ±38.7km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.23 140 iPd 22 11.00 -0.1
(S) 22 21.00
RTCB 0.36 202 iPd 22 11.60 0.1
(S) 22 22.80
CFA 0.57 143 ePc 22 13.00 0.1
S 22 24.80
RTCV 0.71 173 eP 22 14.00 -0.1
S 22 25.00
S.D. = 0.2 on 4 of 4 obs.

& DEC 18, 1993 03h 22m 12.62s
38.841 N 122.784 W
DEPTH = 3.0km
NORTHERN CALIFORNIA (36)
<GM-P>. MD 3.1 (GM). ML 3.1
(GS), 3.1 (BRK).

GACM 0.07 298 P 22 14.11 -0.1
GBGM 0.09 108 P 22 14.81 0.3
GCVM 0.19 248 P 22 16.94 0.4
GHLM 0.27 317 P 22 18.31 0.2
GHGM 0.29 354 P 22 18.60 0.2
GSNM 0.33 287 P 22 19.70 0.4
GARM 0.43 74 P 22 23.14 1.9
FTR 0.43 223 P 22 21.94 0.6
NTYM 0.46 168 eP 22 22.07 0.2
BBR 0.61 162 P 22 25.04 0.3
GHOM 0.62 289 P 22 25.52 0.4
GNAM 0.75 299 P 22 29.38 1.8
GCBM 0.79 314 P 22 28.52 0.1
CPIM 0.96 152 P 22 31.71 0.2
ZSP 0.99 155 iP 22 31.63 -0.3
DUC 1.02 143 P 22 33.50 1.0
HMR 1.03 131 eP 22 32.49 -0.3
CVPM 1.05 155 P 22 33.54 0.4
BKS 1.06 156 iP 22 32.99 -0.2
eS 22 48.25
CSVM 1.15 148 P 22 35.36 0.5
JSBM 1.20 165 P 22 36.11 0.5
ORV 1.23 54 eP 22 35.12 -1.0
KBSM 1.25 330 P 22 38.75 2.3
JCPM 1.30 164 P 22 38.08 0.7
ARJM 1.44 96 P 22 37.68 -1.9
STAN 1.51 161 eP 22 40.56 -0.1
MHC 1.75 149 eP 22 43.36 -0.8
ARN 1.79 146 eP 22 42.85 -1.8
COE 1.81 151 eP 22 43.04 -1.9
KMPM 1.88 327 (P) 22 48.06 2.0
CMB 2.05 112 eP 22 47.21 -1.2
LGPM 2.07 359 (P) 22 49.77 1.0
SAO 2.33 152 eP 22 50.20 -2.3
LBFM 2.60 15 (P) 22 57.58 1.2
FRI 3.05 126 iP 23 03.22 0.5
MMPM 3.20 111 eP 23 05.05 -0.1
MEMM 3.25 110 eP 23 05.30 -0.1
eS 23 50.21
BONR 3.63 103 eP 23 10.23 -1.0
MTUM 3.65 113 eP 23 11.83 0.5
KVN 3.66 85 (P) 23 11.31 -0.2
40 obs. associated

? DEC 18, 1993 03h 27m 55.75± 1.39s
31.610 S ±24.4km 68.818 W ±31.2km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.12 7 iPd 28 10.20 -0.1
S 28 21.80
RTCV 0.35 136 iPd 28 10.80 0.0
S 28 22.90
RTLL 0.41 47 iPd 28 10.70 -0.5
S 28 22.00
CFA 0.49 90 iPd 28 12.20 0.4
S 28 24.00
RTRS 1.54 339 eP 28 23.00 0.2
S 28 44.00
S.D. = 0.5 on 5 of 5 obs.

% DEC 18, 1993 03h 29m 47.07± 0.79s
39.132 N ± 6.9km 28.049 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.0 (ISK).

DST 0.65 43 iPg 29 58.40 -1.7
iSg 30 09.00
IZM 0.96 220 ePg 30 05.10 -0.2
eSg 30 19.30
EDC 1.22 353 iPn 30 10.00 0.2
KHL 1.41 125 ePn 30 12.80 0.0
ALT 1.61 92 ePn 30 16.00 0.4
IZI 1.63 42 ePn 30 16.80 0.8
HRT 2.10 36 ePn 30 23.00 0.3
EYL 2.16 48 ePn 30 24.00 0.2
S.D. = 0.9 on 8 of 8 obs.
----
* DEC 18, 1993 05h 12m 34.74± 0.50s
23.636 S ±19.0km 179.741 W ± 8.9km
DEPTH = 500.0km (geophysicist)
4.4mb (8 obs.)
SOUTH OF FIJI ISLANDS (171)

BKM 12.71 296 iPc 15 22.80 0.9
DZM 12.83 274 iPc 15 25.00 1.8
PMG 34.63 289 eP 18 41.00 -1.8
STK 35.04 248 eP 18 47.40 1.3
0.5s 3.20nm 4.1mb
ASPA 42.31 260 iPd 19 45.00 -0.4
0.5s 23.60nm 5.0mb
iScP 24 28.10
iS 25 23.90
WB2 42.65 266 iPc 19 46.90 -1.1
0.6s 27.90nm 5.0mb
eS 24 29.30
WRA 42.66 266 P 19 47.30 -0.8
0.7s 9.20nm 4.4mb
FORT 46.63 249 eP 20 18.50 -0.3
0.6s 13.00nm 4.6mb
PEC 82.53 48 eP 24 05.34 -0.2
0.7s 5.51nm 4.2mb
SYO 83.34 193 ePc 24 09.30 0.3
GSC 83.57 47 eP 24 11.11 0.3
BONR 84.12 44 eP 24 13.67 -0.1
TUC 86.17 52 eP 24 25.57 2.0
0.8s 4.92nm 4.3mb
SRU 89.84 47 eP 24 40.60 -0.1
LTX 90.09 58 eP 24 42.00 0.1
ALQ 90.61 52 eP 24 44.29 0.0
0.8s 1.68nm 4.0mb
PV08 90.84 48 eP 24 44.58 -0.9
GOL 93.61 48 eP 24 57.70 -0.4
NB2 141.86 351 PKP 31 02.70 -7.2X
0.7s 1.90nm
HFS 142.33 349 ePKP 31 03.90 -6.8X
0.3s 5.70nm
CLL 150.67 344 iPKP 31 28.80 4.4X
1.0s 19.00nm
BRG 150.81 342 iPKP 31 29.40 4.8X
0.7s 14.00nm
GEC2 152.69 340 PKP 31 33.00 5.4X
0.9s 1.12nm
e 33 44.80
e 33 50.50
KIC 162.16 164 PKP 31 39.10 -0.6
S.D. = 1.0 on 19 of 24 obs.

? DEC 18, 1993 06h 00m 54.46± 0.67s
31.623 N ±10.0km 139.829 E ± 8.0km
DEPTH = 33.0km (normal)
4.3mb (11 obs.)
SOUTH OF HONSHU, JAPAN (211)

WKYJ 4.40 307 P 01 59.70 -1.1
S 02 17.90
CHJJ 4.47 351 P 02 02.80 1.2
MAT 5.09 345 eP 02 13.00 2.6
eS 04 12.00
MTMJ 5.23 342 P 02 16.30 3.8X
TKSJ 5.41 297 P 02 13.00 -1.9
YONJ 6.40 305 P 02 28.20 -0.7
NJ2 17.83 277 Pc 05 07.80 6.2X
0.8s 21.00nm 4.3mb
TIA 19.38 290 P 05 21.30 0.9
1.2s 47.00nm 4.6mb
BJI 20.89 300 eP 05 37.00 0.8
1.2s 24.00nm 4.5mb
Z 20s 0.30um 3.7Msz
sP 05 51.50
TIY 23.29 293 Pd 06 04.70 4.5X
HHC 24.50 300 eP 06 12.80 0.8
1.2s 16.00nm 4.5mb
LOE 37.24 257 eP 08 04.00 -0.9
CHTO 38.91 261 eP 08 19.00 0.1
e 10 08.50
BDT 39.59 259 eP 08 25.00 0.4
0.5s 26.90nm 5.3mb
WRA 51.54 187 P 10 01.10 1.7
0.8s 1.10nm 3.9mb
IMA 52.03 28 (P) 10 04.50 1.7
CP2 52.29 34 eP 10 03.88 -1.0
CRP 52.33 34 eP 10 03.70 -1.4
FBA 54.40 30 eP 10 20.00 -0.2
INK 59.81 25 eP 10 57.00 -1.4
0.8s 1.00nm 4.0mb
MBC 62.08 15 eP 11 13.00 -0.7
1.0s 3.00nm 4.4mb
RES 68.16 14 eP 11 52.50 -0.4
1.0s 2.00nm 4.2mb
YKA 69.16 29 eP 11 50.70 -8.6X
0.8s 1.70nm 4.2mb
NB2 78.66 337 P 12 54.00 -0.4
0.8s 2.30nm 4.2mb
LRM 78.97 43 eP 12 56.50 -0.2
e 13 44.80
FRB 82.33 12 eP 13 14.00 0.2
LPAZ 150.35 66 PKPc 20 44.50 4.7X
S.D. = 1.2 on 22 of 27 obs.

? DEC 18, 1993 08h 15m 36.71± 1.49s
31.790 S ±18.9km 69.069 W ±18.2km
DEPTH = 120.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.38 37 ePc 15 54.00 -0.4
ZON 0.41 54 iPd 15 54.00 -0.5
eS 16 07.00
RTCV 0.46 99 iPd 15 55.00 0.3
RTLL 0.69 48 ePc 15 56.30 0.0
CFA 0.73 76 ePc 15 57.00 0.4
RTRS 1.65 348 eP 16 06.50 0.3
S 16 28.00
RTPR 2.65 57 eP 16 18.90 -0.1
S.D. = 0.4 on 7 of 7 obs.

? DEC 18, 1993 08h 48m 38.71± 2.57s
18.667 N ±39.1km 66.905 W ±14.1km
DEPTH = 100.0km (geophysicist)
PUERTO RICO REGION (90)

APR 0.27 142 iP 48 53.90 -0.3
S 49 05.90
LSP 0.52 199 iP 48 54.80 -0.1
S 49 05.80
CLLP 0.66 152 iP 48 55.70 -0.3
S 49 07.10
MGP 0.68 195 iP 48 56.00 -0.1
SJG 0.91 127 iP 48 58.10 -0.3
LPR 1.05 110 iP 49 00.00 0.0
CPD 1.13 123 iP 49 01.00 0.1
S 49 16.30
S.D. = 0.2 on 7 of 7 obs.

% DEC 18, 1993 08h 51m 42.27± 0.61s
44.726 N ± 4.8km 7.543 E ± 4.9km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

BHB 0.23 300 P 51 47.93 1.0
S 51 51.50
PZZ 0.39 235 P 51 50.36 0.3
S 51 54.79
RSP 0.47 335 P 51 51.13 -0.6
S 51 56.95
ROB 0.49 151 P 51 53.10 1.0
S 52 00.56
ENR 0.51 190 P 51 52.60 0.2
S 51 59.28
STV 0.51 198 P 51 52.00 -0.4
S 51 58.82
RRL 0.57 290 P 51 53.38 -0.4
S 52 00.65
FIN 0.70 137 P 51 56.03 -0.3
PCP 0.74 104 P 51 57.40 0.4
IMI 0.85 163 P 51 58.18 -1.0
S.D. = 0.8 on 10 of 10 obs.

* DEC 18, 1993 09h 18m 11.14± 0.73s
41.418 N ±14.9km 142.257 E ±14.6km
DEPTH = 33.0km (normal)
4.2mb (9 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT 5.80 214 (P) 19 42.00 4.8X
0.9s 10.92nm 4.4mb
FBA 45.08 34 eP 26 27.80 2.4
1.0s 8.00nm 4.6mb
GUN 47.51 272 P 26 45.50 0.0
0.4s 18.00nm 5.4mb X
KKN 48.03 272 P 26 50.60 1.2
PKI 48.05 272 P 26 49.00 -0.7
DMN 48.25 272 P 26 52.40 1.2
GKN 48.40 273 P 26 52.80 0.6
INK 50.21 29 eP 27 06.00 0.7
0.6s 1.00nm 4.0mb
MBC 52.15 17 eP 27 21.00 1.1
RES 58.20 15 eP 28 02.50 -1.3
0.7s 3.00nm 4.5mb
YKA 59.71 32 eP 28 13.80 -0.6
0.6s 0.40nm 3.7mb
WB2 61.48 188 eP 28 26.00 -0.9
0.9s 1.70nm 4.2mb
WRA 61.49 188 P 28 27.00 0.1
0.7s 0.70nm 3.9mb
HFS 70.37 335 eP 29 21.70 -1.6
0.4s 1.50nm 4.5mb
NB2 70.41 337 P 29 21.90 -1.6
0.6s 0.90nm 4.0mb
FRB 72.36 14 eP 29 34.50 -0.6
S.D. = 1.3 on 15 of 16 obs.

DEC 18, 1993 09h 22m 44.07± 0.73s
40.466 N ± 5.2km 21.861 E ± 5.8km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

FNA 0.49 311 iPg 22 53.82 0.0
eSg 23 01.88
LIT 0.60 127 iPg 22 55.33 -0.8
eSg 23 05.12
GRG 0.64 40 ePg 22 56.44 -0.4
eSg 23 06.20
THE 0.86 78 ePg 23 00.90 -0.1
VAY 1.01 32 eP 23 03.00 -0.6
KNT 1.05 48 ePg 23 04.36 0.0
eSg 23 19.48
SOH 1.19 72 ePb 23 07.08 0.3
SRS 1.47 63 ePb 23 12.28 1.1
eSb 23 31.80
AGG 1.49 166 ePb 23 11.72 0.2
PAIG 1.49 111 ePb 23 11.20 -0.4
OUR 1.63 94 ePb 23 14.24 0.8
eSb 23 35.28
S.D. = 0.6 on 11 of 11 obs.

? DEC 18, 1993 09h 43m 44.73± 1.26s
39.127 N ±12.3km 27.592 E ±19.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

IZM 0.77 200 ePg 43 59.90 0.1
eSg 44 11.70
DST 0.93 59 iPn 44 03.60 1.0
EDC 1.24 10 ePn 44 08.00 0.3
IZI 1.89 50 ePn 44 16.00 -1.4
S.D. = 1.7 on 4 of 4 obs.

% DEC 18, 1993 09h 53m 01.68± 1.20s
41.193 N ±13.9km 24.643 E ± 6.3km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.6 (THE).

SRS 0.80 265 ePg 53 17.26 0.1
eSg 53 27.10
OUR 0.99 211 ePg 53 20.02 -0.5
iSg 53 34.26
SOH 1.04 250 ePg 53 21.14 -0.3
ALN 1.10 105 ePg 53 22.26 -0.1
eSg 53 38.90
KNT 1.32 269 ePb 53 26.06 0.0
eSb 53 43.42
PAIG 1.46 210 ePb 53 28.82 0.7
S.D. = 0.5 on 6 of 6 obs.

& DEC 18, 1993 10h 24m 01.67s
45.250 N 120.112 W
DEPTH = 0.1km
WASHINGTON-OREGON BORDER REGION (28)
<SEA-P>. MD 3.1 (SEA). ML 2.7
(GS).

JBO 0.29 42 Pc 24 07.53 0.1
VGB 0.54 300 iPd 24 12.41 0.0
PATW 0.68 21 P 24 15.06 -0.1
GL2 0.87 325 P 24 18.59 -0.4
PRW 1.01 17 P 24 20.59 -1.1
S 24 36.03
VBEM 1.06 260 P 24 21.70 -1.0
RSW 1.20 18 P 24 23.85 -1.1
S 24 41.69
BRVW 1.24 4 P 24 25.59 -0.1
S 24 46.72
GULW 1.24 303 P 24 24.91 -0.8
S 24 43.10
WIW 1.32 26 P 24 25.69 -1.2
MXC 1.33 355 P 24 26.43 -0.8
S 24 46.22
ASR 1.37 311 P 24 27.21 -0.8
MDW 1.39 10 P 24 27.03 -1.1
VLMM 1.39 283 P 24 28.15 -0.1
MJ2 1.41 22 P 24 27.18 -1.3
GBL 1.42 18 P 24 27.66 -1.1
LNOR 1.43 64 P 24 26.97 -1.8
WAH2 1.55 14 P 24 29.71 -0.9
NAC 1.57 342 P 24 29.31 -1.5
BVW 1.57 6 P 24 29.83 -1.1
OT2 1.59 22 P 24 30.73 -0.5
CDFW 1.61 303 P 24 30.69 -0.8
CRF 1.65 17 P 24 31.05 -1.0
MTMW 1.66 299 P 24 31.58 -0.7
EBG 1.69 349 P 24 31.51 -1.1
SSOR 1.71 258 P 24 32.94 -0.1
S 24 57.12
SOSW 1.73 306 P 24 35.59 2.3
WPW 1.76 326 P 24 32.59 -1.1
SHW 1.76 303 eP 24 32.60 -1.2
TDL 1.84 308 P 24 33.86 -1.0
LON 1.91 322 eP 24 34.71 -1.1
eS 25 03.20
TBM 1.95 350 P 24 35.57 -0.9
FMW 2.00 328 P 24 36.85 -0.5
RVC 2.13 323 P 24 39.72 0.7
S 25 07.49
GSM 2.28 330 P 24 40.47 -0.7
ETW 2.36 356 P 24 42.73 0.3
BMW 2.50 300 eP 24 45.44 1.1
eS 25 20.39
RMW 2.50 333 eP 24 45.31 0.9
DPW 2.93 26 (P) 24 49.54 -1.0
eS 25 33.50
GMW 2.95 322 (P) 24 51.80 1.1
NEW 3.65 33 eP 24 57.51 -3.1
eS 25 53.90
41 obs. associated

? DEC 18, 1993 10h 39m 35.95± 0.98s
60.711 N ± 7.4km 5.512 E ± 8.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 0.8 (BER).

ASK 0.28 214 iP 39 41.85 0.1
eS 39 45.80
EGD 0.46 198 eP 39 45.28 -0.1
SUE 0.51 314 eP 39 46.17 0.0
eS 39 53.64
NRA0 2.96 87 Pn 40 23.87 0.0
Pg 40 27.52
Lg 41 06.94
S.D. = 0.1 on 4 of 4 obs.

% DEC 18, 1993 11h 09m 52.67± 0.64s
31.210 S ±11.0km 68.422 W ±11.5km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.13 199 iPd 10 07.00 -0.2
S 10 17.50
RTCB 0.43 229 iPd 10 08.00 -0.3
S 10 19.50
CFA 0.43 159 iPd 10 08.60 0.4
S 10 20.50
RTCV 0.66 189 eP 10 10.00 0.0
S 10 23.00
RTRS 1.37 319 eP 10 17.80 0.2
S 10 37.00
RTPR 1.88 62 iPc 10 24.00 -0.1
S.D. = 0.3 on 6 of 6 obs.

% DEC 18, 1993 11h 10m 24.90± 2.05s
44.695 N ± 5.4km 6.694 E ±16.5km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN).

RRL 0.23 16 P 10 30.47 0.7
S 10 33.26
PZZ 0.35 123 P 10 32.94 1.0
S 10 37.65
BHB 0.43 70 P 10 33.95 0.4
S 10 39.48
RSP 0.61 41 P 10 36.95 -0.1
S 10 44.98
STV 0.64 135 P 10 38.10 0.4
S 10 46.62
ENR 0.70 132 P 10 39.44 0.5
S 10 48.45
LSD 0.83 23 P 10 41.04 -0.6
S 10 51.06
ROB 0.93 115 P 10 43.19 0.0
S 10 54.86
IMI 1.16 132 P 10 46.28 -0.9
FIN 1.19 114 P 10 46.56 -1.0
PCP 1.33 96 P 10 49.43 -0.6
S.D. = 0.8 on 11 of 11 obs.

DEC 18, 1993 11h 23m 02.35± 0.67s
43.114 N ± 7.1km 0.430 W ± 4.7km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.0 (STR).

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OGE     0.06 330 Pg     23 05.06   0.4
                 Sg     23 07.14
JAU     0.09 150 Pg     23 05.45   0.4
ESCF    0.11 252 Pg     23 05.43   0.2
                 Sg     23 07.81
ATE     0.20 262 Pg     23 06.64  -0.1
                 Sg     23 09.31
LHE     0.24 215 Pg     23 07.62   0.0
ISSF    0.28 252 Pg     23 08.33   0.0
                 Sg     23 12.60
MADF    0.29 277 Pg     23 07.96  -0.4
                 Sg     23 11.97
EPF     0.57  98 Pg     23 13.50  -0.5
                 Sg     23 21.50
      S.D. = 0.4  on   8 of   8 obs.
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* DEC 18, 1993  11h 41m 26.18± 1.50s
  32.794 S ±13.0km   72.270 W ±15.6km
  DEPTH =  33.0km  (normal)
  4.8mb (  1 obs.)
 OFF COAST OF CENTRAL CHILE       (134)
     Felt (V) at Valparaiso. Also
     felt at Vina del Mar.

IHA     0.58 114 iPc    41 38.50   0.6
                 iS     41 44.30
ZON     3.29  69 eP     42 17.00   0.3
                 eS     42 54.00
RTCV    3.29  75 eP     42 17.00   0.3
RTRS    3.55  43 iPd    42 21.50   1.2
RTPR    5.51  65 eP     42 46.00  -2.0
LPAZ   16.86  14 P      45 22.00   0.1
SIV    19.57  34 P      45 50.40  -4.0X
LIC    74.58  72 P      53 03.40  -0.6
TIC    74.83  72 P      53 05.80   0.3
KIC    74.89  72 P      53 05.50  -0.3
LKO    76.11  69 Pc     53 12.74   0.0
       0.8s       8.50nm          4.8mb
GBA   146.42 118 PKP    01 08.00   3.4X
      S.D. = 1.0  on  10 of  12 obs.
--------------------------------------
% DEC 18, 1993  11h 50m 33.71± 0.76s
  40.479 N ± 6.6km   21.935 E ± 6.5km
  DEPTH =   5.0km  (geophysicist)
 GREECE                           (364)
     ML 1.7 (THE).

FNA     0.52 306 iPg    50 43.44  -0.8
                 iSg    50 51.20
LIT     0.57 132 ePg    50 44.32  -0.8
                 eSg    50 53.04
GRG     0.59  36 iPg    50 45.89   0.3
                 eSg    50 54.32
KNT     1.00  47 ePg    50 53.12   0.0
OHR     1.07 307 eP     50 54.80   0.5
AGG     1.49 168 ePb    51 01.92   0.8
                 eSb    51 23.08
      S.D. = 0.8  on   6 of   6 obs.
--------------------------------------
? DEC 18, 1993  12h 08m 00.85± 6.72s
  40.269 N ±20.5km   27.280 E ±47.9km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
     ML 2.8 (ISK).

EDC     0.45  80 ePg    08 10.00  -0.1
                 eSg    08 20.00
DST     1.23 122 iPn    08 23.50  -0.3
IZI     1.68  87 iPn    08 31.50   1.0
HRT     1.90  72 ePn    08 33.00  -0.7
      S.D. = 1.3  on   4 of   4 obs.
--------------------------------------
  DEC 18, 1993  12h 14m 30.98± 0.45s
  40.931 N ± 4.9km  116.620 W ± 4.8km
  DEPTH =   5.0km  (geophysicist)
 NEVADA                           ( 37)
     ML 3.8 (GS).

KVN     2.20 212 eP     15 08.33  -0.5
TNP     2.88 189 ePn    15 19.43   0.8
                 ePg    15 27.00
DUG     2.99 103 ePn    15 19.16  -0.9
                 eS     16 02.16
HVU     3.02  72 eP     15 18.44  -2.0
                 eS     16 04.72
BONR    3.24 204 ePn    15 24.76   0.9
PTI     3.72  57 eP     15 28.56  -1.9
MEMM    3.72 210 (Pn)   15 29.65  -0.7
                 eS     16 33.23
MMPM    3.81 210 (P)    15 31.70  -0.2
MTUM    3.88 204 (Pn)   15 32.20  -0.6
ORV     3.98 251 (P)    15 33.10  -0.9
TPNV    3.99 176 eP     15 34.57   0.3
ARUT    3.99 141 ePn    15 35.22   0.9
                 e      15 48.53
LBFM    4.00 278 (Pn)   15 36.19   1.7
CMB     4.10 226 eP     15 35.15  -0.6
DAU     4.11  95 (Pn)   15 35.52  -0.6
MSU     4.19 124 eP     15 36.97  -0.3
MCMT    4.78  34 ePn    15 46.50   0.9
LTMT    4.89  41 ePn    15 51.60   4.4X
SRU     5.02 109 (Pn)   15 48.50  -0.5
TPMT    5.26  42 ePn    15 54.90   2.5
BGMT    5.45  36 ePn    15 55.60   0.5
VGB     5.50 328 (Pn)   15 53.46  -2.1
GSC     5.62 182 (Pn)   15 58.41   1.0
HBMT    5.67  30 ePn    15 59.60   1.4
LRM     5.76  30 ePn    16 04.70   5.4X
PV09    6.26 110 ePn    16 06.51  -0.1
PV10    6.38 111 (P)    16 09.27   1.0
PV08    6.58 108 (P)    16 13.84   2.7X
YKA    21.63   3 eP     19 29.30   5.5X
       0.9s       0.70nm          3.1mb
      S.D. = 1.2  on  25 of  29 obs.
--------------------------------------
* DEC 18, 1993  12h 18m 34.16± 0.79s
  30.608 S ± 7.2km   69.184 W ±13.3km
  DEPTH =  33.0km  (normal)
 CHILE-ARGENTINA BORDER REGION    (127)

RTRS    0.50 331 iPc    18 45.00   0.3
                 S      18 54.00
RTCB    0.94 159 iPc    18 52.00   0.9
                 S      19 02.00
RTLL    0.95 140 iPc    18 52.00   0.8
                 S      19 02.00
ZON     1.03 155 iPc    18 52.10  -0.3
                 eS     19 05.10
CFA     1.28 141 iPc    18 55.60  -0.3
                 S      19 12.00
RTCV    1.37 156 iPc    18 56.00  -1.1
RTPR    2.33  83 iPd    19 11.00   0.1
                 S      19 39.00
LPAZ   14.29   4 P      21 56.40  -0.4
      S.D. = 0.8  on   8 of   8 obs.
--------------------------------------
? DEC 18, 1993  12h 31m 15.92± 3.75s
  41.666 N ±23.1km   23.953 E ±16.9km
  DEPTH =   5.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)
     ML 2.4 (THE).

SRS     0.61 206 iPg    31 28.30   0.1
                 eSg    31 37.00
KNT     0.94 238 ePg    31 33.96  -0.4
SOH     0.96 208 ePg    31 34.40  -0.2
                 eSg    31 47.44
THE     1.27 216 ePb    31 40.12   0.1
OUR     1.33 179 ePb    31 40.76  -0.2
                 eSb    31 59.12
GRG     1.37 239 iPb    31 41.88   0.2
                 iSb    32 00.53
PAIG    1.75 187 ePb    31 47.32   0.2
      S.D. = 0.3  on   7 of   7 obs.
--------------------------------------
? DEC 18, 1993  14h 04m 15.62± 0.94s
  39.628 N ± 8.1km   29.409 E ± 8.6km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
     ML 2.5 (ISK).

DST     0.60 268 ePg    04 27.90   0.1
IZI     0.71   4 iPg    04 29.50  -0.2
                 iSg    04 40.00
ALT     0.79 136 ePg    04 31.00   0.0
EYL     1.10  31 ePn    04 36.50   0.2
      S.D. = 0.2  on   4 of   4 obs.
--------------------------------------
  DEC 18, 1993  14h 06m 20.93± 0.46s
  40.524 N ± 4.1km   23.720 E ± 4.4km
  DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)
     ML 2.8 (THE).

OUR     0.28 133 iPg    06 26.94   0.2
                 eSg    06 30.90
SOH     0.41 317 ePg    06 29.38   0.1
                 eSg    06 35.21
THE     0.59 281 ePg    06 32.30  -0.5
                 eSg    06 40.18
PAIG    0.60 183 ePg    06 32.42  -0.6
                 eSg    06 40.22
SRS     0.60 351 iPgc   06 32.85  -0.2
                 eSg    06 42.30
KNT     0.89 316 iPg    06 37.89  -0.1
                 eSg    06 50.50
LIT     1.03 246 iPg    06 40.42   0.0
                 eSg    06 55.02
GRG     1.09 294 ePg    06 41.62   0.2
                 eSg    06 56.38
VAY     1.18 313 iPn    06 43.30   0.4
ALN     1.81  77 ePb    06 52.26   0.0
                 eSb    07 15.86
AGG     1.84 216 iPb    06 53.46   0.6
                 eSb    07 17.14
      S.D. = 0.4  on  11 of  11 obs.
--------------------------------------
? DEC 18, 1993  14h 12m 50.46± 8.11s
  41.270 N ±43.3km   24.339 E ±42.2km
  DEPTH =   5.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)
     ML 1.8 (THE).

SRS     0.58 255 ePg    13 01.76  -0.4
                 eSg    13 10.48
SOH     0.87 239 ePg    13 08.16   0.5
OUR     0.97 196 ePg    13 08.80  -0.6
KNT     1.09 265 ePg    13 11.04  -0.4
                 eSg    13 26.88
LIT     1.83 231 ePb    13 23.68   0.9
      S.D. = 0.9  on   5 of   5 obs.
--------------------------------------
? DEC 18, 1993  14h 12m 58.66± 1.49s
  28.659 N ± 7.9km   34.973 E ±16.5km
  DEPTH =  10.0km  (geophysicist)
 EGYPT                            (553)

BADA    0.14 169 eP     13 02.00   0.1
SRFA    0.33  35 iPc    13 06.00   0.5
HQL     0.61   6 iPc    13 10.67  -0.3
                 eS     13 22.00
AYN     0.93  77 eP     13 16.00  -0.3
                 eS     13 32.67
      S.D. = 0.7  on   4 of   4 obs.
--------------------------------------
% DEC 18, 1993  14h 59m 11.30± 0.97s
  30.737 S ±13.7km   67.474 W ±11.1km
  DEPTH =  33.0km  (normal)
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTPR    0.94  63 iPd    59 28.00  -0.1
RTLL    1.04 235 iPd    59 28.20  -1.4
                 S      59 41.50
CFA     1.09 217 iPd    59 30.20  -0.1
                 S      59 41.50
RTCB    1.36 236 iPd    59 34.50   0.2
                 S      59 48.50
RTCV    1.44 219 iP     59 36.50   1.1
                 S      59 55.50
RTRS    1.81 288 iPd    59 40.90   0.3
                 S      00 03.50
      S.D. = 1.1  on   6 of   6 obs.
--------------------------------------
  DEC 18, 1993  15h 14m 04.79± 0.83s
  38.405 N ± 7.4km   21.926 E ± 8.4km
  DEPTH =  33.0km  (normal)
 GREECE                           (364)
     MD 3.1 (ATH). ML 2.8 (THE).

AGG     0.69  27 ePg    14 16.20  -1.9
                 eSg    14 26.40
VLS     1.08 258 ePg    14 21.50  -2.1
                 eSg    14 38.50
ATH     1.48 106 ePb    14 31.00   1.7
LIT     1.75  14 ePb    14 33.84   0.5
                 eSb    14 58.20
VLI     1.87 154 ePb    14 35.00   0.0
KZN     1.90 356 ePb    14 36.80   1.2
PAIG    2.04  41 ePn    14 36.60  -0.9
                 iSn    15 04.16
KEK     2.11 309 ePn    14 40.80   2.3
```

18d 15h

THE 2.37 20 ePn 14 42.32 0.2
eSn 15 13.08
FNA 2.41 350 ePn 14 43.64 0.8
eSn 15 15.56
OUR 2.50 39 ePn 14 43.04 -1.0
GRG 2.58 8 ePn 14 45.36 0.3
SOH 2.65 24 ePn 14 46.64 0.4
eSn 15 20.40
OHR 2.84 343 ePn 14 53.50 4.7X
KNT 2.85 15 iPn 14 49.28 0.3
eSn 15 25.12
VAY 2.95 9 ePn 14 43.40 -7.0X
SRS 3.00 25 ePn 14 50.44 -0.6
eSn 15 28.64
SKO 3.58 354 ePn 14 58.00 -1.4
S.D. = 1.3 on 16 of 18 obs.

& DEC 18, 1993 15h 40m 09.13s
32.336 N 115.346 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.8 (PAS).

GLA 0.84 31 eP 40 23.76 -2.0
PLM 1.63 309 eP 40 36.03 -2.6
PEC 2.17 316 (P) 40 44.61 -1.8
SSK 2.71 314 (P) 40 51.89 -2.3
GSC 3.20 338 (P) 41 00.49 -0.5
5 obs. associated

& DEC 18, 1993 15h 44m 44.14s
32.366 N 115.363 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.2 (PAS).

PLM 1.60 308 ePn 45 10.77 -2.4
PEC 2.14 316 ePn 45 17.88 -3.1
SSK 2.68 314 eP 45 26.32 -2.5
GSC 3.16 338 (Pn) 45 36.47 1.0
TUC 3.88 90 ePn 45 40.83 -4.8
ABL 4.06 309 ePn 45 46.49 -1.9
ISA 4.18 323 ePn 45 48.04 -1.9
TPNV 4.63 351 ePn 45 53.82 -2.6
ARUT 5.63 16 ePn 46 09.50 -1.2
MEMM 6.05 332 (Pn) 46 16.71 0.5
BONR 6.07 337 (Pn) 46 18.47 1.6
MSU 6.66 22 (Pn) 46 25.06 -0.2
SRU 7.79 29 (Pn) 46 40.49 -0.5
PV10 7.91 39 (Pn) 46 43.37 0.6
PV09 7.95 38 (Pn) 46 42.78 -0.6
PV08 8.27 40 (Pn) 46 45.11 -2.7
16 obs. associated

& DEC 18, 1993 15h 59m 44.62s
32.316 N 115.350 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.3 (PAS). Double event.

GLA 0.86 31 eP 59 59.43 -2.1
PLM 1.64 310 ePn 00 11.78 -2.5
PEC 2.19 316 ePn 00 17.83 -4.2
SSK 2.72 315 ePn 00 27.44 -2.5
GSC 3.21 338 (Pn) 00 35.08 -1.6
5 obs. associated

& DEC 18, 1993 16h 12m 08.00s
32.339 N 115.352 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 3.1 (PAS).

GLA 0.84 32 eP 12 22.46 -2.1
PLM 1.62 309 ePn 12 35.02 -2.4
eS 12 57.85
PEC 2.17 316 ePn 12 42.76 -2.4
SSK 2.71 314 ePn 12 50.61 -2.4
ePg 12 56.75
GSC 3.19 338 ePn 12 55.08 -4.7
TUC 3.87 89 (Pn) 13 06.25 -3.1
BONR 6.10 337 (Pn) 13 40.38 -0.8
7 obs. associated

DEC 18, 1993 16h 15m 56.22± 1.21s
36.450 N ±10.4km 2.880 E ± 8.8km
DEPTH = 10.0km (geophysicist)
3.8mb (2 obs.)
NORTHERN ALGERIA (396)

ESEL 3.31 0 iPc 16 49.50 0.4
e 17 29.00
ACU 3.33 309 eP 16 50.00 0.6
e 17 28.00
ENIJ 4.12 279 eP 17 02.00 1.4
e 17 45.70
ECHE 4.37 317 eP 17 04.90 0.8
e 17 53.80
TAF 4.61 251 iPd 17 06.00 -1.6
i 18 37.00
EROQ 4.78 337 iPc 17 09.50 -0.4
e 18 02.90
EVIA 4.80 299 eP 17 10.50 0.1
e 18 03.50
EGUA 5.20 276 eP 17 15.00 -0.9
e 18 12.00
ECOG 5.23 281 eP 17 15.50 -1.0
e 18 14.50
EBAN 5.58 290 eP 17 20.90 -0.5
e 18 23.00
ETOR 5.83 320 eP 17 24.80 0.0
e 18 27.50
ETER 5.84 360 eP 17 24.90 0.0
e 18 28.50
EGRA 6.25 338 eP 17 28.50 -2.1
e 18 34.00
EPRU 6.54 277 eP 17 34.00 -0.8
e 18 44.00
EJIF 6.73 272 eP 17 36.70 -0.8
NKM 6.80 264 eP 17 41.00 2.6
e 17 48.00
EPF 6.86 344 Pn 17 40.60 1.3
Sn 18 54.60
GUD 6.92 309 eP 17 40.00 -0.3
IFR 7.19 248 eP 17 46.00 1.8
i 17 53.00
i 19 21.00
i 19 54.00
CAF 8.49 356 Pn 18 03.40 1.3
RJF 8.91 354 Pn 18 08.00 0.2
AVE 9.02 253 eP 17 57.00 -12.5X
e 20 06.00
i 20 45.00
LPG 9.50 17 Pn 18 17.80 1.5
LPL 9.51 17 Pn 18 18.20 1.8
MAF 9.77 359 Pn 18 19.80 0.1
SMF 10.21 4 Pn 18 25.70 -0.1
AVF 10.34 2 Pn 18 27.30 -0.2
BSF 11.74 13 Pn 18 45.60 -1.1
HAU 11.83 11 Pn 18 47.90 0.0
CDF 12.38 14 Pn 18 54.20 -1.2
GEC2 14.71 29 P 19 25.90 -0.2
0.9s 0.36nm 2.9mb X
e 19 29.20
e 19 32.20
e 19 33.70
APO 25.12 13 eP 21 21.30 -1.1
0.5s 0.80nm 3.7mb
YKA 69.44 334 eP 27 05.00 -1.2
0.5s 0.40nm 3.8mb
S.D. = 1.1 on 32 of 33 obs.

& DEC 18, 1993 16h 24m 38.65s
59.887 N 147.403 W
DEPTH = 16.4km
GULF OF ALASKA (15)
<AEIC>. ML 2.6 (AEIC).

MTU 0.16 309 eP 24 43.47 0.5
HIN 0.68 41 eP 24 50.98 -0.8
MID 0.71 130 P 24 52.20 0.0
FID 0.98 28 eP 24 54.74 -2.1
SEW 1.05 283 eP 24 56.46 -1.5
CVA 1.06 51 eP 24 56.66 -1.4
eS 25 11.13
PWL 1.08 335 eP 24 56.31 -2.2
eS 25 11.37
MPA 1.15 303 eP 24 57.75 -1.9
VZW 1.25 19 eP 24 59.35 -2.0
eS 25 15.88
CFI 1.31 352 eP 25 00.12 -2.1
eS 25 17.66
VLZ 1.36 23 eP 25 01.01 -1.8
eS 25 18.60
RAGM 1.45 69 eP 25 02.81 -1.4
SLKM 1.54 295 eP 25 03.47 -2.0
KNK 1.62 342 eP 25 05.06 -1.5
eS 25 25.94
HMT 1.64 73 eP 25 05.39 -1.5
PMS 1.73 323 P 25 07.40 -0.8
KLU 1.77 24 eP 25 06.96 -1.9
eS 25 29.91
PLRM 1.91 334 eP 25 09.62 -1.2
SCM 1.95 1 eP 25 10.73 -0.8
SML 1.98 347 eP 25 11.04 -0.8
GHO 2.03 339 eP 25 11.73 -0.9
PWA 2.15 327 P 25 13.80 -0.4
CRQM 2.29 66 eP 25 14.41 -2.1
WAX 2.34 74 eP 25 14.64 -2.5
GLB 2.36 47 eP 25 15.49 -1.8
TZL 2.37 23 eP 25 16.82 -0.6
TGL 2.44 67 eP 25 16.21 -2.2
CGLM 2.68 304 eP 25 19.78 -2.2
BALM 2.76 63 eP 25 20.66 -2.4
NCT 2.84 286 eP 25 21.68 -2.5
CTGM 3.20 68 eP 25 27.25 -2.1
DHY 3.20 0 eP 25 28.12 -1.3
32 obs. associated
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* DEC 18, 1993 17h 16m 36.93± 0.59s
6.622 S ± 3.1km 130.454 E ± 5.3km
DEPTH = 50.3 ± 5.4 km
5.0mb (30 obs.)
BANDA SEA (280)

MTN 6.22 174 iPc 18 08.50 0.0
WB2 13.77 164 iPc 19 46.50 -4.9X
i 19 59.40
iS 22 08.20
BIP 15.33 344 ePd 20 17.20 5.4X
CGP 16.04 339 ePd 20 21.80 1.0
eS 20 48.00
QIS 16.45 148 eP 20 22.40 -3.6X
iS 23 14.20
PMG 16.77 101 eP 20 30.00 0.0
ASPA 17.27 169 iPd 20 33.30 -2.9
0.5s 424.00nm 5.8mb
Z 18s 0.20um 3.6MszX
eS 23 32.10
MBL 17.74 214 eP 20 41.40 -0.6
0.3s 12.00nm 4.5mb
eS 23 41.60
KKM 18.98 311 ePc 21 05.00 7.6X
WARB 19.79 190 iPd 21 06.70 0.6
0.3s 15.00nm 4.8mb
iS 24 37.50
NANU 21.41 221 eP 21 23.50 0.9
eS 25 14.50
PGP 22.11 335 ePd 21 32.00 2.3
MEEK 22.88 208 eP 21 38.50 1.3
eS 25 48.00
FORT 24.14 185 eP 21 50.50 1.2
MRWA 26.29 210 iPd 22 10.30 0.6
0.5s 16.00nm 4.8mb
eS 27 06.00
BAL 27.13 207 eP 22 17.50 0.2
eS 27 24.00
STK 27.20 159 eP 22 16.80 -1.1
0.8s 4.70nm 4.2mb
epP 22 28.60 46kmX
eS 27 21.40
MUN 28.52 206 eP 22 30.00 0.1
eS 27 57.00
ADE 29.22 166 iPc 22 36.90 0.7
ARMA 30.92 143 eP 22 52.00 0.6
CNB 33.43 151 eP 23 14.10 0.8
TOO 33.71 158 iPc 23 16.90 1.3
0.4s 10.00nm 5.1mb
LOE 37.09 310 eP 23 46.80 2.4
KAGJ 37.60 1 eP 23 49.30 0.8
DZM 37.96 118 iPd 23 53.40 1.5
KHT 38.08 304 iPc 23 52.00 -0.8
SSE 38.54 347 P 23 56.00 -0.4
1.0s 12.00nm 4.7mb
KUMJ 38.94 1 P 24 00.00 0.2
BDT 39.10 308 eP 23 59.00 -2.3
0.5s 32.90nm 5.4mb
NJ2 40.02 345 Pd 24 10.00 1.3
1.0s 26.00nm 5.0mb
CHTO 40.05 310 ePc 24 09.90 0.7

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      1.0s    37.00nm          5.2mb
WHN   40.05 338 Pd     24 10.50   1.5
      1.0s    30.00nm          5.1mb
                pP     24 35.50 108kmX
GYA   40.17 326 iPd    24 10.80   0.6
      0.8s    13.00nm          4.8mb
                pP     24 36.00 109kmX
                PcP    26 14.40
TKSJ  40.53   5 P      24 13.50   0.7
TKSJ  40.53   5 P      24 13.60   0.8
SHNJ  40.53   1 eP     24 13.10   0.3
WKYJ  40.91   7 P      24 16.60   0.5
KMI   41.51 320 Pd     24 22.50   1.2
      1.5s    70.00nm          5.2mb
YONJ  41.68   4 P      24 23.50   1.2
TSRJ  42.25   7 P      24 27.60   0.6
IIDJ  42.46   9 P      24 28.30  -0.5
CHJJ  43.19  10 P      24 33.40  -1.3
MTMJ  43.53   9 P      24 37.10  -0.4
MAT   43.55   9 iPc    24 36.30  -1.3
      0.9s     8.40nm          4.5mb
KAKJ  43.57  11 P      24 36.20  -1.5
NIIJ  44.36  10 eP     24 43.50  -0.6
TIA   44.41 345 Pd     24 44.50   0.0
CD2   45.23 327 iPd    24 51.20   0.0
XAN   45.29 335 P      24 51.00  -0.7
      1.0s    13.00nm          4.7mb
                pP     25 16.00 107kmX
TIY   47.20 340 eP     25 06.70   0.0
BJI   48.26 345 eP     25 15.00   0.1
      1.0s    17.00nm          5.0mb
                pP     25 40.50 108kmX
LZH   49.29 331 eP     25 23.80   0.7
      1.5s    50.00nm          5.3mb
                pP     25 49.00 106kmX
HHC   50.33 341 Pd     25 31.80   0.9
      1.2s    23.00nm          5.1mb
CN2   50.39 355 Pd     25 30.30  -0.8
      0.6s    28.00nm          5.5mb
MDJ   51.01 359 eP     25 36.00   0.2
LSA   52.24 316 iPc    25 46.40   0.4
      1.0s    27.00nm          5.2mb
GTA   53.86 331 eP     25 57.30  -0.1
      1.5s    28.00nm          5.1mb
                pP     26 22.00 102kmX
GUN   55.05 311 Pc     26 06.20  -0.4
PKI   55.23 310 Pc     26 07.00  -0.9
KKN   55.44 310 Pc     26 08.60  -0.6
DMN   55.48 310 Pc     26 09.10  -0.5
GKN   56.03 310 Pc     26 12.80  -0.6
GBA   56.34 291 P      26 16.00   0.4
HYB   56.56 296 eP     26 15.70  -1.5
POO   61.14 295 eP     26 48.00  -1.0
NDI   62.11 307 iPc    26 53.50  -1.9
      0.6s    40.00nm          5.7mb
WMQ   63.33 327 Pc     27 03.00  -0.2
      1.0s    14.00nm          5.0mb
KSH   68.01 317 eP     27 35.00   1.6
      0.7s    12.00nm          5.0mb
YAK   68.44 360 iPc    27 35.10  -0.3
      0.8s   157.00nm          6.0mb X
               e(S)    36 25.00
MAIO  78.80 309 eP     28 37.00   0.6
SPA   83.42 180 iPc    29 00.00  -0.2
      0.7s     7.81nm          4.8mb
SDN   83.75  32 eP     29 01.60  -0.2
SYO   84.21 201 ePc    29 04.40   0.5
SVW   88.08  28 eP     29 24.20   1.1
TTA   88.45  26 eP     29 25.60   0.7
KDC   88.70  32 e(P)   29 26.40   0.4
IMA   90.32  23 eP     29 33.01  -0.7
      0.4s     2.60nm          4.9mb
                epP    29 59.76 100kmX
PMR   91.23  28 eP     29 37.90   0.2
      0.6s     5.90nm          5.2mb
FBA   92.45  25 eP     29 41.64  -1.7
      0.8s     3.42nm          4.8mb
                epP    30 09.40 104kmX
INK   98.34  22 eP     30 09.50  -0.6
      1.0s     2.00nm          4.6mb
YKA  107.21  26 ePdiff30 49.20  -0.7
      0.8s     0.80nm          4.9mb
YKA  107.21  26 ePKP   34 57.60  -1.2
      0.5s     0.50nm
GEC2 112.42 320 PKP    35 08.60  -0.7
      0.5s     1.96nm
KBA  113.14 319 iPKPc  35 11.90   1.1
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      0.6s     3.60nm
WTTA 114.21 319 iPKPc  35 12.20  -0.7
      0.6s    17.30nm
WATA 114.22 319 iPKPc  35 11.60  -1.3
MOTA 114.53 319 iPKPc  35 12.50  -1.0
      0.6s     5.00nm
BSF  117.11 321 ePKP   35 17.40  -0.9
      0.7s     7.05nm
HAU  117.32 321 ePKP   35 17.90  -0.7
      0.5s     2.85nm
LPG  117.98 319 ePKP   35 19.80  -0.5
      0.6s     4.25nm
LPL  117.98 319 ePKP   35 19.80  -0.4
      0.5s     6.25nm
LOR  119.16 321 ePKP   35 21.60  -0.5
      0.5s     1.95nm
LBF  119.20 321 ePKP   35 21.70  -0.5
      0.6s     4.25nm
SMF  119.42 321 ePKP   35 22.00  -0.6
      0.4s     1.25nm
SSF  119.46 321 ePKP   35 22.40  -0.3
      0.6s     6.95nm
AVF  119.67 321 ePKP   35 22.40  -0.7
      0.3s     1.20nm
RSSD 119.67  42 ePKP   35 22.73  -0.7
BGF  120.08 321 ePKP   35 23.70  -0.2
      0.6s    10.30nm
TCF  120.60 321 ePKP   35 24.80  -0.1
      0.6s     4.80nm
LDF  120.98 324 ePKP   35 25.10  -0.4
LSF  121.04 321 ePKP   35 25.30  -0.4
      0.5s     2.85nm
FLN  121.10 324 ePKP   35 25.30  -0.4
      0.4s     3.30nm
CAF  121.26 319 ePKP   35 26.40   0.2
LPF  121.78 324 ePKP   35 26.90  -0.1
ULM  121.88  33 ePKP   35 29.00   1.8
MFF  121.92 322 ePKP   35 27.10  -0.2
      0.6s    13.70nm
LPO  121.93 319 ePKP   35 27.60   0.2
LFF  122.10 320 ePKP   35 28.00   0.3
      0.5s     3.85nm
EPF  123.18 318 ePKP   35 30.40   0.4
      0.5s     2.40nm
KIC  135.49 272 PKP    35 42.03 -12.3X
LIC  135.77 272 PKP    35 43.41 -11.4X
TIC  135.78 273 PKP    35 42.93 -11.9X
      0.5s     1.50nm
LKO  136.40 277 PKP    35 44.93 -11.1X
      0.7s    14.00nm
NNA  147.16 124 ePKP   36 15.00   0.1
      0.5s    11.27nm
LPAZ 150.74 141 ePKP   36 22.33   1.2
                iPKPbc36 27.76
LPAZ 150.74 141 iPKPc  36 27.70   6.6X
CCH  151.06 146 PKP    36 28.70   7.5X
      S.D. = 0.9  on 107 of 117 obs.
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* DEC 18, 1993  18h 11m 06.39± 1.11s
  32.002 S ±12.3km  179.734 E ± 9.2km
  DEPTH = 375.9 ± 11.7 km
  4.9mb ( 18 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

RAO     3.41  37 ePd   12 10.40  -1.3
                 eS    12 49.50
SNZO   10.13 202 eP    13 27.00   0.3
                 e     13 37.00
                 S     15 19.70
DZM    15.41 307 iPc   14 26.50  -0.2
BKM    17.65 321 iP    14 51.50   1.9
RIV    24.03 258 iPc   15 53.20   2.7
       0.7s  1369.86nm         6.4mb X
ARMA   24.07 266 iPc   15 53.30   2.2
       0.8s    97.00nm         5.2mb
CNB    25.45 254 iPc   16 05.90   2.4
       0.7s    77.00nm         5.2mb
CAN    25.74 254 iPc   16 08.10   2.0
BWA    26.26 256 iPc   16 10.30  -0.5
TOO    28.56 249 iPc   16 33.00   1.9
       0.7s    60.00nm         5.0mb
ADE    34.18 254 eP    17 20.60   1.2
QIS    37.55 278 eP    17 47.00  -0.6
ASPA   41.12 270 iPc   18 16.10  -0.8
       0.5s    95.00nm         5.3mb
                 eScP  23 19.10
                 eS    23 56.70
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                 eScS  27 05.50
WB2    42.25 275 iPd   18 24.90  -1.1
       0.4s   289.90nm         5.9mb
                 epP   18 57.10 144kmX
                 iScP  23 24.40
                 eS    24 16.60
WRA    42.26 275 P     18 14.60 -11.5X
       0.7s     0.50nm
WRA    42.26 275 P     18 25.10  -1.0
       0.7s    61.20nm         5.0mb
WARB   46.38 263 eP    18 57.00  -1.4
       0.3s    15.00nm         4.8mb
MTN    48.36 282 iPd   19 16.70   3.1X
       0.4s    51.00nm         5.2mb
COOL   49.45 255 iPd   19 20.80  -1.1
CSY    52.82 208 iPd   19 45.40  -0.8
       0.6s    36.50nm         4.9mb
                 ipP   19 55.20  32kmX
MEEK   52.95 259 eP    19 45.80  -2.0
       0.3s    16.00nm         4.8mb
MUN    53.14 252 iPd   19 48.10  -0.9
MBL    54.06 266 eP    19 53.40  -2.4
MRWA   54.22 255 iPd   19 55.30  -1.5
       0.6s    15.00nm         4.5mb
NANU   57.12 262 iPc   20 15.20  -2.1
       0.2s     5.00nm         4.6mb
SPA    58.17 180 iPc   20 35.50  11.3X
       0.8s   137.50nm
SYO    75.13 194 iPc   22 08.20  -1.0
SNA    77.97 179 iPc   22 25.70   1.1
       0.9s    57.14nm         5.4mb
PLM    88.29  48 ePd   23 17.99   0.6
PEC    88.45  48 ePd   23 18.45   0.5
       0.8s    13.94nm         4.9mb
ISA    88.80  46 eP    23 19.78   0.2
       1.0s    17.10nm         4.9mb
CMB    89.25  43 ePc   23 21.68   0.1
       1.0s    16.58nm         4.9mb
GSC    89.59  47 ePd   23 23.85   0.6
ORV    89.65  41 eP    23 23.48   0.2
TNP    91.15  45 eP    23 30.85   0.3
       0.7s     8.31nm         4.8mb
TUC    91.62  53 eP    23 34.80   2.1
       0.7s     5.78nm         4.6mb
                 pP    25 02.22 373kmX
RMW    94.92  35 eP    23 46.24  -1.2
SRU    95.88  47 èP    23 51.66  -0.5
YKA   107.73  26 ePKP  29 14.80  24.9X
       1.1s     1.30nm
QUE   123.28 287 ePKP  29 20.80  -0.1
BHL   149.89 283 PKP   30 12.00   3.3X
KAS   151.30 299 iPKPc 30 16.40   5.8X
LKO   157.11 166 PKP   30 30.30  11.1X
       0.5s     2.00nm
CLL   158.37 337 iPKPd 30 54.90  35.4X
       1.3s    21.00nm
BRG   158.41 335 iPKP  30 55.20  35.7X
       0.9s    12.00nm
GEC2  160.15 332 PKP   31 02.10  40.5X
       1.0s     1.99nm
                 e     31 06.10
                 e     45 48.90
                 e     45 50.90
                 e     02 27.80
                 e     02 31.30
                 e     02 38.40
GRF   160.35 337 ePKP  31 04.60  42.9X
       1.0s     9.00nm
       S.D. = 1.4  on  36 of  47 obs.
--------------------------------------
? DEC 18, 1993  18h 58m 39.10± 2.67s
  44.321 N ± 7.1km    7.503 E ±23.2km
  DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                   (545)
      ML 1.6 (GEN).

ENR      0.11 212 P    58 41.64   0.1
                  S    58 43.06
STV      0.15 239 P    58 42.12  -0.1
                  S    58 43.64
PZZ      0.34 303 P    58 46.09   0.1
                  S    58 50.41
BHB      0.55 342 P    58 49.93  -0.1
                  S    58 57.07
       S.D. = 0.2  on   4 of   4 obs.
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? DEC 18, 1993  19h 27m 30.88± 0.94s
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18d 19h

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    11.871 S ±10.1km  133.841 E ±14.0km
    DEPTH =  19.3km  ( 2 depth phases)
    4.6mb ( 3 obs.)
  NORTHERN TERRITORY, AUSTRALIA    (591)

MTN       2.82 250 eP     28 17.30   1.5
WB2       8.04 177 eP     29 28.80  -0.8
                   eS     30 55.00
QIS      10.26 148 iPd    30 00.60   0.4
                   eS     31 54.30
                   e      32 07.00
ASPA     11.73 180 eP     30 18.40  -1.9
    Z  19s     0.30um
                   eS     32 21.90
WARB     15.77 204 eP     31 11.20  -2.5
      0.2s      8.00nm            4.6mb
                   eS     33 56.20
MBL      16.29 234 eP     31 20.50   0.2
                   eS     34 06.00
NANU     20.44 236 eP     32 16.00   6.0X
                   eS     35 45.00
MEEK     20.52 222 eP     32 14.50   3.7X
                   eS     35 50.00
STK      21.16 161 ePc    32 18.10   0.8
      0.6s     14.90nm            4.6mb
                   epP    32 23.80  21km
                   eS     36 13.40
ADE      23.41 170 iPc    32 42.20   2.5
MRWA     23.96 221 eP     32 46.50   1.5
                   e      32 51.50  18km
                   eS     37 05.00
TOO      27.64 160 eP     33 22.50   3.1X
GUN      60.99 311 P      37 46.00   0.0
      0.7s      9.00nm            5.0mb
PKI      61.15 311 P      37 46.60  -0.5
KKN      61.37 311 P      37 48.10  -0.3
DMN      61.40 311 P      37 48.10  -0.6
GKN      61.96 311 P      37 51.90  -0.5
        S.D. = 1.4  on  14 of  17 obs.
-----------------------------------------
? DEC 18, 1993  19h 57m 49.57± 1.98s
    17.103 N ±19.7km  101.831 W ±12.7km
    DEPTH =  33.0km  (normal)
    4.0mb ( 1 obs.)
  NEAR COAST OF GUERRERO, MEXICO  ( 58)

ACX       1.90  97 iP     58 20.50   0.2
                   iS     58 38.00
CRX       3.07  41 iP     58 37.00  -0.2
                   iS     59 08.00
UNM       3.35  48 eP     58 41.50   0.3
                   iS     59 14.00
PPM       3.62  57 iP     58 45.00  -0.2
                   (S)    59 25.00
IISM      4.63  65 eP     58 59.00  -0.1
                   iS     59 45.00
OXX       4.89  89 (P)    59 10.00   7.1X
                   (S)    59 59.00
GOL      22.73 353 (P)    02 51.00   0.9
      1.0s      6.00nm            4.0mb
YKA      46.22 352 eP     06 12.20  -0.8
      0.5s      0.10nm            3.0mb X
        S.D. = 0.6  on   7 of   8 obs.
-----------------------------------------
    DEC 18, 1993  20h 24m 45.71± 1.08s
    41.425 N ± 9.0km   23.022 E ± 4.0km
    DEPTH =   5.0km  (geophysicist)
  GREECE-BULGARIA BORDER REGION    (363)
    ML 2.7 (THE), 2.0 (SKO).

KNT       0.28 200 iPg    24 51.89   0.5
                   eSg    24 56.50
VAY       0.36 253 iPg    24 52.80  -0.1
      0.2s     70.00nm
                   iSg    24 58.20
SRS       0.53 125 ePg    24 55.74  -0.6
                   eSg    25 04.34
SOH       0.65 157 iPg    24 58.61  -0.2
                   eSg    25 08.54
GRG       0.66 225 iPg    24 58.85  -0.1
                   iSg    25 08.50
THE       0.79 183 ePg    25 01.42  -0.1
                   eSg    25 13.02
OUR       1.31 146 ePb    25 11.02   0.6
                   eSb    25 29.26
LIT       1.38 197 ePb    25 11.74   0.1
FNA       1.40 243 ePb    25 11.82  -0.1
PAIG      1.58 161 ePb    25 13.94  -0.4
                   eSb    25 36.62
ALN       2.34 102 iPn    25 25.86   0.4
        S.D. = 0.4  on  11 of  11 obs.
-----------------------------------------
& DEC 18, 1993  20h 53m 56.92s
    63.341 N            149.716 W
    DEPTH = 110.4km
    4.2mb ( 11 obs.)
  CENTRAL ALASKA                   ( 1)
          <AEIC>. Felt (III) at Chickaloon
          and Skwentna.

TRF       0.28 293 iPd    54 12.78   1.5
HUR       0.37 174 iPd    54 12.78  -0.5
RND       0.39  80 ePd    54 13.10  -0.4
MCK       0.53  41 ePc    54 13.93  -0.3
KTH       0.58 292 ePc    54 14.38  -0.3
BWN       0.84   7 iPc    54 16.73  -0.1
CUT       0.97 195 iPd    54 17.73  -0.4
DHY       1.09 103 ePc    54 19.28  -0.3
                   eS     54 36.53
NEA       1.27  13 ePc    54 20.68  -0.8
                   eS     54 38.34
WRH       1.34  32 eP     54 21.67  -0.6
CCB       1.56  32 ePd    54 24.17  -0.6
SKT       1.60 212 eP     54 24.73  -0.7
                   eS     54 45.64
GHO       1.62 167 eP     54 25.69   0.0
HDA       1.62  48 eP     54 25.16  -0.5
SML       1.67 157 iPc    54 25.94  -0.3
PWA       1.70 183 P      54 26.30  -0.2
MDM       1.75  21 ePc    54 26.80  -0.5
                   eS     54 49.08
MLY       1.75 346 ePc    54 26.71  -0.6
PLRM      1.78 171 ePc    54 27.19  -0.3
                   eS     54 49.89
PMR       1.78 171 iPc    54 26.93  -0.6
FBA       1.78  27 iPd    54 26.77  -0.8
DDM       1.78  74 eP     54 27.75   0.1
THY       1.79  86 eP     54 28.70   1.0
                   eS     54 52.60
SCM       1.87 143 ePc    54 28.47  -0.4
DJE       1.93  67 eP     54 28.90  -0.6
GLM       1.94  31 ePd    54 29.07  -0.6
SUA       1.94 195 ePd    54 29.63  -0.2
PAX       1.96  99 iPc    54 30.16   0.1
KNK       2.02 163 eP     54 30.57  -0.2
TOA       2.05 126 P      54 31.20   0.1
PMS       2.11 178 P      54 31.70  -0.1
NCG       2.25 211 eP     54 33.02  -0.8
CGLM      2.30 209 eP     54 33.57  -0.9
CFI       2.35 156 ePc    54 34.16  -0.8
TZL       2.37 121 ePc    54 35.13  -0.1
CRP       2.37 210 eP     54 33.83  -1.6
CP2       2.40 211 iPd    54 34.93  -0.8
CKN       2.42 210 eP     54 35.54  -0.4
SPU       2.43 208 eP     54 35.34  -0.7
BGL       2.43 212 eP     54 35.88  -0.3
CKT       2.44 210 ePd    54 35.59  -0.7
CKL       2.48 211 eP     54 36.35  -0.4
DOT       2.55  81 eP     54 37.05  -0.7
KLU       2.56 135 ePc    54 36.66  -1.2
BKG       2.57 209 eP     54 37.53  -0.5
PWL       2.57 165 ePc    54 37.32  -0.6
NKA       2.70 196 eP     54 41.98   2.3
VLZ       2.73 143 eP     54 38.32  -1.6
VZW       2.73 146 ePc    54 38.61  -1.4
PRP       2.84  38 eP     54 40.71  -1.0
SLKM      2.85 185 eP     54 41.56  -0.2
MPA       2.87 176 eP     54 41.00  -0.8
TTA       2.89 265 ePc    54 40.87  -1.3
FID       3.01 148 eP     54 42.57  -1.3
TMW       3.03  87 eP     54 43.16  -0.9
DFR       3.09 208 eP     54 44.82  -0.2
NCT       3.18 210 eP     54 46.13   0.0
REF       3.19 208 eP     54 46.35  -0.1
RDW       3.22 208 eP     54 46.74  -0.1
IMA       3.22 330 iPc    54 45.65  -1.1
                   eS     55 22.58
RS2       3.23 208 eP     54 47.29   0.4
SEW       3.25 178 eP     54 45.79  -1.2
                   eS     55 22.78
RED       3.27 208 eP     54 48.11   0.7
HIN       3.32 151 ePc    54 46.81  -1.2
GLB       3.35 122 iPc    54 47.48  -0.9
CVA       3.37 144 eP     54 47.78  -0.9
MTU       3.51 163 eP     54 49.00  -1.5
SVW       3.56 234 P      54 50.50  -0.7
ILIM      3.62 207 eP     54 51.88  -0.2
BRLK      3.63 189 eP     54 51.72  -0.5
INE       3.66 207 eP     54 52.42  -0.3
INW       3.67 208 eP     54 52.78   0.0
FYU       3.76  29 eP     54 53.21  -0.7
HOM       3.81 195 eP     54 54.35  -0.2
CNPM      3.90 191 eP     54 54.97  -0.9
HMT       3.97 137 eP     54 55.66  -1.2
XLV       4.02 195 P      54 58.20   0.8
CRQM      4.04 127 eP     54 56.53  -1.4
OPT       4.07 206 eP     54 58.10   0.0
TGL       4.15 126 eP     54 57.61  -1.8
BALM      4.16 120 ePc    54 57.87  -1.6
PDB       4.16 213 eP     54 59.02  -0.3
MID       4.25 156 P      55 00.60   0.0
WAX       4.35 129 eP     55 01.16  -0.9
AUL       4.36 206 eP     55 02.99   0.9
AUE       4.37 205 eP     55 02.29   0.1
AUP       4.37 206 eP     55 02.04  -0.3
AUH       4.38 206 eP     55 02.38   0.0
AUW       4.38 206 eP     55 02.53   0.2
AGU       4.38 206 eP     55 03.03   0.6
AUI       4.40 206 eP     55 03.01   0.4
CTGM      4.60 117 eP     55 04.29  -1.2
CYK       4.74 130 eP     55 06.26  -1.1
YAH       4.81 125 eP     55 07.04  -1.5
CDD       4.82 205 eP     55 07.47  -0.9
SYI       4.92 197 eP     55 08.40  -1.4
CHX       5.25 125 eP     55 13.44  -0.9
PCA       5.55 122 eP     55 16.69  -1.8
KDC       5.78 195 eP     55 19.25  -2.3
BCPM      5.88 121 eP     55 20.71  -2.3
YKU       6.11 124 P      55 25.80  -0.3
PNL       6.16 122 eP     55 24.70  -2.1
INK       8.29  46 ePc    55 54.30  -1.5
      1.0s     61.00nm            5.2mb X
SIT       9.52 125 eP     56 10.40  -2.1
SDN       9.72 219 eP     56 12.98  -2.1
YKA      15.89  77 eP     57 36.20   1.1
      0.9s     10.50nm            4.1mb
MBC      16.32  25 eP     57 41.50   1.1
      0.9s      6.00nm            3.8mb
MCW      20.78 122 (P)    58 31.86   1.4
RES      21.65  36 eP     58 36.50  -2.4
      0.6s      3.00nm            3.8mb
GMW      21.73 124 eP     58 40.52   0.6
LON      22.76 124 eP     58 52.37   2.3
NEW      23.37 115 eP     58 57.42   1.4
      0.5s      4.06nm            4.1mb
VGB      24.19 124 eP     59 05.19   1.3
LGPM     27.48 132 eP     59 35.77   1.4
ULM      31.22  89 eP     00 10.00   2.6
BONR     31.69 128 eP     00 12.71   0.8
RSSD     32.21 105 eP     00 16.45   0.2
      0.5s      5.94nm            4.6mb
DAU      32.22 117 (P)    00 17.11   0.6
MSU      33.48 120 eP     00 28.34   0.9
SRU      33.62 117 eP     00 29.29   0.7
ARUT     33.63 122 eP     00 29.89   1.3
FRB      33.89  52 eP     00 29.00  -1.3
GSC      34.59 128 eP     00 37.70   0.9
PV09     34.71 116 eP     00 38.09   0.1
PV08     34.84 116 eP     00 39.58   0.5
PV10     34.85 116 eP     00 40.27   1.1
                   epP    01 03.50 102kmX
PEC      35.74 130 eP     00 46.77   0.3
      0.5s      7.72nm            4.8mb
PLM      36.34 130 eP     00 52.24   0.7
DAG      36.83  17 iPc    00 53.90  -1.2
      0.7s      8.22nm            4.7mb
WMOK     42.24 108 eP     01 40.40   0.2
      0.9s      4.95nm            4.3mb
LTX      44.90 117 eP     02 01.71  -0.1
OXF      46.54  99 eP     02 14.46  -0.1
MYNC     48.44  93 (P)    02 29.84   0.4
      0.7s      3.08nm            4.3mb
SDF      49.50   2 eP     02 36.00  -1.2
HFS      56.20  10 eP     03 23.40  -3.5
      0.4s      1.40nm            4.3mb
GEC2     67.39  12 P      04 37.90  -4.0
      1.5s      2.57nm            3.9mb
GUN      79.05 312 PKP    05 51.00   0.7
KKN      79.36 312 PKP    05 51.20  -0.6
GKN      79.38 313 PKP    05 50.90  -1.0
PKI      79.52 312 PKP    05 51.80  -1.0
```

DMN 79.58 312 PKP 05 52.20 -0.9
141 obs. associated

& DEC 18, 1993 21h 10m 31.59s
62.920 N 150.676 W
DEPTH = 100.4km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.48 83 iPc 10 47.22 -0.3
eS 10 59.54
CUT 0.55 160 iPc 10 47.77 -0.2
TRF 0.56 18 iPd 10 48.05 -0.3
eS 11 00.53
KTH 0.65 350 iPd 10 48.47 -0.4
eS 11 01.71
RND 0.96 59 iPc 10 51.59 -0.4
eS 11 06.78
SKT 1.02 203 eP 10 52.39 -0.2
eS 11 07.61
MCK 1.13 43 eP 10 53.44 -0.4
eS 11 09.83
PWA 1.33 163 eP 10 56.00 -0.1
BWN 1.37 23 iPd 10 56.56 -0.1
GHO 1.41 144 ePc 10 56.80 -0.5
eS 11 16.97
SUA 1.46 181 eP 10 57.21 -0.7
eS 11 18.30
DHY 1.52 83 ePc 10 57.81 -0.8
eS 11 18.90
PLRM 1.52 151 ePc 10 57.38 -1.0
PMR 1.52 151 ePc 10 57.18 -1.2
eS 11 17.88
SML 1.56 135 iPc 10 58.23 -0.8
eS 11 20.02
NCG 1.67 205 eP 10 59.13 -1.4
CGLM 1.74 202 eP 11 00.31 -1.0
PMS 1.76 162 P 11 00.60 -1.0
S 11 21.30
CRP 1.80 203 eP 11 00.54 -1.7
NEA 1.81 22 iPd 11 01.13 -1.1
CP2 1.82 205 ePd 11 00.99 -1.5
KNK 1.84 144 eP 11 01.67 -0.9
eS 11 25.21
CKN 1.84 203 eP 11 01.93 -0.8
BGL 1.85 207 eP 11 02.20 -0.6
SPU 1.86 201 eP 11 02.64 -0.3
CKT 1.87 203 eP 11 01.92 -1.1
CKL 1.90 205 eP 11 02.35 -1.1
SCM 1.90 123 ePc 11 02.20 -1.3
WRH 1.94 35 iPd 11 02.90 -0.9
MLY 2.12 359 iPd 11 05.30 -1.0
CCB 2.15 35 ePd 11 05.56 -1.1
NKA 2.20 187 eP 11 08.97 1.7
CFI 2.22 141 eP 11 06.11 -1.4
eS 11 34.44
HDA 2.23 46 eP 11 06.63 -1.1
TOA 2.24 109 P 11 07.10 -0.9
THY 2.29 75 eP 11 07.01 -1.5
MDM 2.31 27 iPd 11 07.79 -1.1
DDM 2.34 66 eP 11 09.01 -0.2
PWL 2.35 151 ePc 11 07.63 -1.7
FBA 2.36 31 ePd 11 08.13 -1.3
PAX 2.38 86 eP 11 09.21 -0.6
eS 11 37.99
SLKM 2.43 175 eP 11 09.33 -1.1
TTA 2.44 273 eP 11 08.82 -1.8
ILB 2.50 40 ePd 11 10.07 -1.3
eS 11 38.67
IL1 2.50 40 ePd 11 10.05 -1.4
MPA 2.52 165 eP 11 10.25 -1.3
DFR 2.52 203 eP 11 10.76 -1.0
GLM 2.53 33 iPd 11 10.78 -1.0
TZL 2.59 107 eP 11 11.94 -0.6
NCT 2.60 205 eP 11 12.03 -0.7
REF 2.62 202 eP 11 11.83 -1.4
KLU 2.65 121 eP 11 11.15 -2.3
RS2 2.66 203 eP 11 13.12 -0.6
VZW 2.70 132 eP 11 11.80 -2.2
VLZ 2.72 129 eP 11 11.81 -2.5
SEW 2.89 168 eP 11 15.20 -1.3
FID 2.95 136 eP 11 15.09 -2.3
SVW 2.96 234 eP 11 15.70 -1.9
ILIM 3.05 202 eP 11 18.65 -0.2
DOT 3.08 73 eP 11 19.11 -0.1
INE 3.09 203 eP 11 20.34 0.9
INW 3.10 203 eP 11 19.39 -0.1
BRLK 3.17 182 eP 11 19.24 -1.2
HIN 3.22 140 eP 11 18.90 -2.2
HOM 3.31 189 eP 11 21.77 -0.5
CVA 3.34 133 eP 11 20.85 -1.9
IM3 3.35 338 ePd 11 21.30 -1.6
CNPM 3.42 185 eP 11 22.61 -1.2
IMA 3.42 339 ePd 11 21.82 -2.1
PRP 3.45 39 eP 11 22.79 -1.5
OPT 3.50 202 eP 11 24.99 0.0
TMW 3.51 80 eP 11 23.27 -1.8
GLB 3.54 112 eP 11 23.56 -2.0
PDB 3.57 210 eP 11 24.89 -1.0
AUL 3.79 202 eP 11 29.17 0.2
AUE 3.80 201 eP 11 28.74 -0.3
AUP 3.81 202 (P) 11 28.83 -0.4
AUW 3.81 202 eP 11 28.83 -0.4
AUH 3.81 202 eP 11 29.28 0.0
HMT 4.01 127 eP 11 30.51 -1.5
CRQM 4.18 118 eP 11 32.51 -1.9
CDD 4.26 201 eP 11 34.46 -0.9
TGL 4.31 117 eP 11 33.57 -2.5
FYU 4.34 30 eP 11 34.86 -1.6
BALM 4.36 112 eP 11 34.00 -2.9
SYI 4.41 192 eP 11 35.68 -1.7
WAX 4.47 120 eP 11 37.99 -0.4
CTGM 4.83 110 eP 11 41.15 -2.2
YAH 4.97 117 eP 11 42.79 -2.6
BM3 5.19 27 eP 11 46.04 -2.2
KDC 5.27 191 eP 11 45.51 -3.7
INK 8.90 45 eP 12 38.00 -0.9
0.8s 3.00nm 4.2mb X
YKA 16.42 75 eP 14 14.60 -2.2
0.6s 0.20nm 2.5mb
93 obs. associated

? DEC 18, 1993 22h 18m 14.97± 2.78s
14.366 N ± 6.0km 60.362 W ±50.6km
DEPTH = 68.4 ± 30.2 km
WINDWARD ISLANDS (95)
MD 3.6 (TRN).

MVM 0.55 290 iPc 18 28.46 0.1
SLW 0.65 238 eP 18 29.13 -0.3
iS 18 39.50
CRM 0.66 306 eP 18 29.69 0.2
S 18 40.60
FDF 0.85 296 iPc 18 31.89 0.1
S 18 44.40
SLB 0.85 231 iPd 18 31.71 -0.1
iS 18 41.09
SVV 1.33 219 eP 18 38.06 0.0
SVB 1.39 219 iPd 18 38.73 -0.1
eS 18 57.42
MGG 1.80 329 eP 18 44.00 -0.3
S 19 04.00
DEG 2.05 341 eP 18 48.00 0.1
S 19 11.00
GRW 2.53 210 iPd 18 54.89 0.2
eS 19 26.37
S.D. = 0.3 on 10 of 10 obs.

DEC 18, 1993 22h 44m 20.04± 0.15s
20.477 S ± 4.4km 173.883 W ± 4.6km
DEPTH = 33.0km (normal)
5.7mb (61 obs.) 5.7Msz (56 obs.)
TONGA ISLANDS (173)
Mw 5.7 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 35S, 60C
Centroid Location:
Origin Time 22:44:22.8 0.3
Lat 20.52S 0.04 Lon 172.96W 0.03
Dep 15.0 BDY Half-duration 1.6
Moment Tensor; Scale 10**17 Nm
Mrr= 2.61 0.06 Mtt=-0.50 0.10
Mff=-2.11 0.08 Mrt= 1.34 0.21
Mrf= 2.01 0.22 Mtf=-1.29 0.05
Principal Axes:
T Val= 3.53 Plg=69 Azm=308
N 0.21 3 211
P -3.74 21 120
Best Double Couple:Mo=3.6*10**17
NP1:Strike=205 Dip=24 Slip= 84
NP2: 32 66 93

AFI 6.83 17 eP 45 55.00 -5.7X
eS 47 24.00
SVA 7.60 287 ePc 46 16.20 4.8X
VUN 7.64 287 eP 46 16.10 4.3X
MBU 7.83 295 eP 46 13.80 -0.8
PVC 17.05 276 iPd 48 22.40 4.9X
BKM 17.12 276 iPd 48 22.90 4.3X
DZM 18.40 262 iPc 48 35.30 0.8
WCZ 18.55 211 eP 48 37.70 1.6
KUZ 18.58 207 eP 48 37.20 0.7
PUZ 18.81 200 eP 48 38.80 -0.6
URZ 19.36 202 P 48 44.70 -1.1
NOZ 19.38 199 eP 48 47.00 1.0
WLZ 19.59 206 eP 48 48.40 0.0
MOZ 20.46 206 eP 48 58.10 0.7
PGZ 21.76 201 eP 49 11.10 0.4
MNG 22.03 202 eP 49 11.60 -1.8
SNZO 22.92 203 P 49 28.00 5.9X
S 53 30.00
PPT 23.16 87 P 49 22.80 -1.8
THZ 23.99 205 eP 49 31.70 -0.9
KHZ 24.31 203 eP 49 36.40 0.8
LTZ 25.10 205 eP 49 42.30 -1.0
EWZ 26.28 206 eP 49 53.20 -0.9
BWZ 27.51 206 eP 50 06.70 1.3
ODZ 27.64 204 eP 50 06.60 0.0
CMCZ 28.27 206 eP 50 13.30 0.9
ARMA 32.57 245 iPd 50 50.20 -0.5
0.9s 26.00nm 5.1mb
CNB 35.46 238 iPc 51 14.30 -1.3
1.0s 138.00nm 5.8mb
CAN 35.75 238 iPc 51 17.00 -1.0
BWA 36.01 239 iPc 51 16.80 -3.4X
CTAO 37.33 263 eP 51 27.23 -4.1X
0.8s 45.85nm 5.4mb
i 51 30.63
TOO 39.05 235 iPc 51 45.20 -0.5
0.9s 191.00nm 5.9mb
PMG 39.12 280 eP 51 45.00 -1.4
ADE 43.98 241 iPc 52 25.60 -0.5
HON 44.35 21 P 52 34.61 5.6X
Z 19s 1.78um 5.0Msz
PP 53 07.65
S 59 25.83
ASPA 48.28 256 iPc 52 58.10 -2.2
0.9s 83.00nm 5.8mb
Z 20s 5.70um 5.5Msz
ePP 54 27.40
iPcS 58 21.60
iS 59 55.30
iScS 02 55.60
WB5 48.41 261 iPc 52 58.90 -2.4
iPcP 54 28.00
i 54 33.20
WB2 48.41 261 eP 52 57.30 -4.0X
0.9s 62.00nm 5.6mb
WRA 48.42 261 P 52 59.20 -2.2
0.9s 23.80nm 5.2mb
GUA 52.76 306 eP 53 33.70 -0.7
0.9s 235.29nm 6.1mb
GUMO 52.82 306 eP 53 33.40 -1.5
1.0s 237.80nm 6.1mb
eS 01 07.90
FORT 52.84 246 eP 53 33.40 -1.5
0.7s 34.00nm 5.4mb
MTN 53.02 269 eP 53 34.00 -2.4
0.7s 137.00nm 6.0mb
WARB 54.51 252 eP 53 45.00 -2.3
0.9s 71.00nm 5.7mb
DRV 54.70 201 iP 53 48.00 0.0
S 01 42.00
SBA 58.18 185 eP 54 17.80 5.1X
COOL 58.76 246 iPd 54 14.50 -3.0
MBL 61.52 256 iPc 54 34.30 -2.2
0.8s 81.00nm 5.9mb
KLB 61.55 244 iPd 54 35.70 -0.9
0.8s 45.00nm 5.7mb
MEEK 61.56 250 iPd 54 35.00 -1.8
1.0s 71.00nm 5.8mb
RKG 61.81 241 iPc 54 38.50 0.1
0.8s 44.00nm 5.6mb
NWAO 61.82 243 eP 54 39.00 0.6
BAL 62.58 245 iPd 54 42.80 -0.7
0.8s 91.00nm 6.0mb
MUN 62.81 244 iPd 54 44.80 -0.2
MRWA 63.41 247 iPd 54 48.20 -0.8
0.9s 111.00nm 6.0mb
NANU 65.12 254 eP 54 59.00 -1.2

18d 22h

```
     1.0s   202.00nm            6.2mb
DAV  65.48 288 eP    55 02.00  -0.6
CSY  65.64 205 eP    55 02.80   0.0
     0.9s    30.70nm            5.4mb
           e         55 21.70
SPA  69.65 180 ePc   55 28.80   0.6
     1.0s   125.00nm            5.9mb
KAKJ 71.17 322 P     55 31.70  -5.8X
CHJJ 71.74 321 P     55 41.20   0.2
IIDJ 72.00 320 P     55 42.70   0.1
ADK  72.09 358 (P)   55 41.64  -1.0
     1.4s    78.13nm            5.5mb
           ePcP      55 59.37
MAT  72.54 321 iPd   55 45.40  -0.4
     1.2s    54.69nm            5.4mb
   Z 20s      1.42um            5.2Msz
           eS        05 03.00
NIIJ 72.56 322 P     55 45.30  -0.5
WKYJ 72.59 318 P     55 47.00   0.8
MTMJ 72.81 321 P     55 47.60   0.1
TSRJ 73.21 319 P     55 46.50  -3.2X
TKSJ 73.42 317 P     55 51.60   0.7
KKM  73.50 283 ePd   55 58.00   6.1X
SMY  73.64 352 P     56 00.00   8.2X
   Z 19s      4.60um            5.8Msz
KAGJ 73.80 313 eP    55 55.00   1.8
BAG  74.04 295 eP    55 54.60  -0.5
YONJ 74.55 318 P     55 58.60   1.1
BCH  75.28  43 eP    56 01.82   0.0
           i         56 04.36
SAO  75.42  41 P     56 10.00   7.5X
   Z 19s      4.64um            5.8Msz
ABL  75.63  44 eP    56 04.01   0.0
ARN  75.74  41 eP    56 04.37   0.0
           e         56 06.65
KMPM 76.24  37 eP    56 05.57  -1.6
SSK  76.25  45 (P)   56 07.76   0.3
PLM  76.30  46 eP    56 06.97  -0.8
SDN  76.37   8 P     56 20.00  12.6X
   Z 21s      2.56um            5.5Msz
PEC  76.41  46 eP    56 06.46  -1.7
           e         56 18.11
ISA  76.61  44 eP    56 09.00  -0.3
     1.0s    32.74nm            5.3mb
   Z 19s      3.15um            5.6Msz
           e         56 11.96
           S         06 02.15
CMB  76.88  41 ePc   56 10.26  -0.5
     1.0s    23.39nm            5.2mb
   Z 19s      3.92um            5.7Msz
           e         56 13.17
           e         56 25.83
ORV  77.18  39 eP    56 11.80  -0.5
WDC  77.25  38 eP    56 12.77   0.1
     2.0s   158.53nm            5.7mb
   Z 20s      4.22um            5.8Msz
           e         56 27.74
LGPM 77.30  37 eP    56 11.28  -1.8
GSC  77.48  45 eP    56 13.68  -0.5
GLA  77.52  48 eP    56 12.74  -1.6
           e         56 15.25
MEMM 77.54  42 (P)   56 15.59   1.3
           e         56 17.43
MTUM 77.58  42 eP    56 14.88   0.1
YSS  77.73 331 iPc   56 16.00   0.9
     1.0s    50.00nm            5.5mb
           e         06 19.00
BONR 78.12  42 eP    56 17.13  -0.7
LBFM 78.12  37 ePc   56 16.13  -1.6
TPNV 78.82  44 eP    56 21.67   0.1
     0.8s    22.20nm            5.2mb
   Z 19s      4.86um            5.8Msz
           e         56 24.27
TNP  78.87  42 eP    56 21.33  -0.6
     1.0s    48.11nm            5.5mb
           e         56 24.33
KVN  78.91  41 eP    56 22.19   0.1
KDC  79.95  11 e(P)  56 27.30   0.4
TUC  79.97  50 eP    56 27.69  -0.1
     1.1s    37.68nm            5.3mb
   Z 18s      3.82um            5.8Msz
           e         08 03.88
SSE  80.67 308 Pc    56 31.00  -0.4
   Z 20s      0.90um            5.1Msz
   N 12s      0.50um
   E 12s      0.50um
           sS        06 40.00
BMW  80.82  33 eP    56 30.28  -1.7
           e         57 06.73
ARUT 81.13  44 eP    56 33.76  -0.2
           e         56 46.66
SHW  81.14  33 eP    56 33.42  -0.3
VGB  81.46  35 eP    56 35.20  -0.1
LON  81.73  33 eP    56 35.47  -1.2
GMW  81.77  32 eP    56 36.56  -0.3
HKC  82.07 297 P     56 41.50   2.6X
           S         06 58.00
RMW  82.21  33 eP    56 38.34  -0.8
MSU  82.36  44 eP    56 40.91   0.5
MCW  82.52  31 eP    56 38.29  -2.4
MDJ  82.77 323 eP    56 44.20   2.2
   Z 20s      1.48um            5.4Msz
MAW  82.86 199 eP    56 42.60   0.4
     1.0s    26.15nm            5.3mb
   Z 19s      4.98um            5.9Msz
           eS        07 07.30
NJ2  82.87 308 Pc    56 45.00   2.2
     1.0s    22.00nm            5.2mb
   Z 22s      0.97um            5.1Msz
DUG  82.89  43 eP    56 40.49  -2.5
     2.2s   164.58nm            5.7mb
   Z 20s      2.21um            5.5Msz
           S         07 42.49
SLKM 82.95  12 (P)   56 41.60  -1.1
GZH  83.10 298 Pc    56 46.60   2.4X
     1.0s    58.00nm            5.6mb
CP2  83.30  10 eP    56 44.25  -0.4
SIT  83.72  20 P     57 00.00  13.4X
   Z 19s      2.41um            5.6Msz
SRU  83.77  44 eP    56 46.73  -0.8
HVU  83.80  41 eP    56 47.40  -0.2
           e         57 40.62
LTX  83.82  56 eP    56 46.58  -1.3
           S         07 14.01
KGM  83.95 274 eP    56 50.50   1.7
EMUT 83.95  44 eP    56 48.77   0.2
DAU  84.00  43 ePc   56 49.19   0.3
PMR  84.16  12 eP    56 48.40  -0.3
     2.2s   294.80nm            6.1mb
TTA  84.32   8 (P)   56 49.18  -0.4
     1.2s    25.56nm            5.3mb
DPW  84.33  34 eP    56 49.30  -0.7
PV09 84.36  45 eP    56 51.26   0.6
PV10 84.36  46 eP    56 50.14  -0.5
DL2  84.40 315 P     56 50.00  -0.4
   Z 15s      0.71um            5.2MszX
           S         07 14.00
ALQ  84.41  50 eP    56 49.87  -1.0
     1.8s   213.39nm            6.0mb
   Z 19s      2.39um            5.6Msz
           S         07 28.42
PTI  84.66  40 eP    56 52.42   0.5
CN2  84.68 321 Pc    56 53.40   1.7
     1.2s    40.00nm            5.5mb
   Z 22s      0.96um            5.1Msz
SNY  84.72 318 Pd    56 50.50  -1.4
   Z 21s      1.35um            5.3Msz
           pP        57 02.00  37kmX
PV08 84.73  46 eP    56 52.42  -0.2
           e         57 45.81
NEW  85.14  34 P     57 00.00   6.0X
   Z 19s      7.43um            6.1Msz
WHN  85.57 305 eP    56 58.00   1.5
     2.0s   390.00nm            6.3mb
   Z 16s      1.18um            5.4MszX
TIA  86.14 311 P     57 00.60   1.4
     1.0s   130.00nm            6.1mb
   Z 18s      1.24um            5.4Msz
           eS        07 28.00
LRM  86.28  38 eP    57 00.60   0.6
IPM  87.00 276 ePc   57 04.80   0.9
     0.9s   102.70nm            6.1mb
FBA  87.44  11 eP    57 04.07  -0.8
GOL  87.49  46 eP    57 05.87  -0.2
     1.2s    22.19nm            5.3mb
   Z 18s      1.96um            5.6Msz
           S         07 38.75
SYO  87.58 191 ePc+  57 06.00   0.3
GLD  87.62  46 eP    57 06.37  -0.2
     1.3s    37.88nm            5.5mb
   Z 20s      1.76um            5.5Msz
IMA  87.63   8 eP    57 05.36  -0.6
     2.9s   306.26nm            6.1mb
BJI  88.62 314 eP    57 13.00   1.9
     1.5s    42.00nm            5.5mb
   Z 18s      1.48um            5.4Msz
           esP       57 25.00
           eSKS      07 40.00
NVL  88.91 182 eP    57 14.00   2.0
   Z 18s      1.50um            5.5Msz
   N 18s      1.00um
   E 18s      0.50um
           ePP       00 38.00
           e         02 15.00
           ePPP      02 40.00
           eSKS      07 32.00
           eS        07 48.00
           ePS       08 50.00
           eSS       13 20.00
           eSSS      17 20.00
SNA  89.26 177 e(P)  57 18.40   4.7X
     1.1s    63.29nm            5.8mb
WMOK 89.93  53 P     57 30.00  12.6X
   Z 20s      3.05um            5.7Msz
GYA  90.02 298 iPc   57 20.00   1.9
     1.4s   100.00nm            5.9mb
   Z 36s      1.26um            5.1MszX
           sP        57 30.00
           SKS       07 52.00
MEO  90.09  53 iPd   57 19.20   1.0
TIY  90.17 310 eP    57 18.40  -0.1
   Z 20s      1.74um            5.5Msz
           SKS       07 52.00
ACO  90.49  51 iPc   57 22.20   2.2
RSSD 90.49  43 eP    57 18.89  -1.2
     1.3s    37.20nm            5.5mb
           e         57 35.09
LOE  90.91 288 iPd   57 24.90   2.7X
XAN  91.22 306 P     57 25.80   2.4X
     1.0s    31.00nm            5.6mb
   Z 18s      0.89um            5.2Msz
           sP        57 37.00
           SKS       07 52.00
           SS        14 20.00
RTCB 91.59 124 eP    57 23.50  -1.9
NST  91.73 286 eP    57 28.50   2.5X
RTLL 91.91 124 eP    57 27.20   0.4
HHC  92.13 313 Pd    57 29.60   2.1
     1.4s    88.00nm            6.0mb
   Z 24s      1.48um            5.4MszX
           sP        57 42.00
           SKS       08 00.00
TUL  92.64  53 iPd   57 30.40   0.6
KMI  92.80 296 Pc    57 33.00   1.9
     2.0s   280.00nm            6.3mb
   Z 20s      1.90um            5.5Msz
           sP        57 44.00
           SKS       08 04.00
           S         08 37.00
UYO  92.96  55 iPd   57 32.40   1.0
BTO  93.09 312 P     57 34.00   2.1
   E 11s      1.00um
INK  93.28  14 eP    57 32.00  -0.1
     1.0s     3.00nm            4.7mb
BDT  93.29 287 eP    57 35.00   1.9
     1.0s    41.40nm            5.8mb
YAK  93.55 337 eP    57 34.70   1.3
     2.5s   132.00nm            5.9mb
MIAR 93.78  55 eP    57 32.87  -2.3
     1.1s     8.17nm            5.1mb
   Z 19s      2.58um            5.7Msz
CHTO 93.88 289 ePc   57 38.30   2.4X
     1.2s    31.25nm            5.6mb
CD2  94.05 301 iPc   57 40.80   4.3X
   Z 22s      1.07um            5.3Msz
           SKS       08 12.00
YKA  94.91  24 eP    57 38.40  -1.3
     0.8s     2.00nm            4.6mb X
LZH  95.84 306 eP    57 46.50   1.7
     2.0s   100.00nm            5.9mb
   Z 17s      1.23um            5.4MszX
   E 13s      0.59um
           PP        01 40.00
           SKS       08 23.00
OXF  96.98  56 P     58 00.00  10.3X
   Z 19s      2.39um            5.7Msz
FVM  97.39  52 P     58 00.00   8.5X
   Z 20s      7.05um            6.1Msz
SLM  97.76  52 P     58 00.00   6.9X
   Z 19s      2.42um            5.7Msz
BOD  97.96 329 eP    57 52.70  -0.8
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LPA     98.00 132 eP+    57 56.00    1.6
                  ePP    02 06.00
ULM     98.14  39 eP     57 58.00    3.4X
LPB     98.41 111 Pc     57 59.90    2.8X
        1.2s   121.88nm          6.3mb
                  PP     01 54.40
                  S      08 42.80
                  SP     11 01.30
                  SS     16 25.30
                  LQ     26 27.10
                  LR     30 36.10
LPAZ    98.48 111 P      57 59.90    2.2
                  LR     30 32.00
LPAZ    98.48 111 eP     57 54.02   -3.7X
        1.1s     3.70nm          4.8mb
                  e      57 58.59
                  ePP    01 56.25
TIK     99.73 344 eP     58 02.00    0.6
       2.0s    41.00nm           5.6mb
     Z  18s     1.40um           5.5Msz
                  i      02 04.00
                  iPS    10 56.00
GTA     99.97 308 eP     58 04.20    0.9
       1.5s    14.00nm           5.3mb
     Z  28s     1.73um           5.4MszX
                  PP     02 08.00
MYNC   101.28  57 Pdiff  58 20.00   10.7X
     Z  19s     2.75um           5.8Msz
GOGA   101.32  59 Pdiff  58 20.00   10.6X
     Z  19s     2.78um           5.8Msz
CEH    105.46  57 PKP    02 50.00    8.5X
     Z  19s     1.48um           5.5Msz
MCWV   105.78  53 PKP    02 50.00    8.0X
     Z  19s     4.05um           6.0Msz
YSNY   107.37  51 PKP    02 50.00    5.0X
     Z  19s     2.72um           5.8Msz
BINY   109.17  51 PKP    03 00.00   11.6X
     Z  19s     3.06um           5.9Msz
WMQ    109.84 310 ePKP   02 51.50    1.9
     Z  21s     1.14um           5.4Msz
LSCT   111.12  52 PKP    03 00.00    8.0X
     Z  18s     2.13um           5.8Msz
LBNH   112.42  50 PKP    03 00.00    5.6X
     Z  19s     3.07um           5.9Msz
HRV    112.46  51 PKP    03 00.00    5.5X
     Z  18s     2.81um           5.9Msz
CBM    115.33  47 PKP    03 10.00   10.1X
     Z  19s     3.83um           6.0Msz
NDI    115.65 293 ePKP   03 03.50    2.4X
KSH    118.03 305 ePKP   03 03.00   -2.5
     Z  24s     0.95um           5.3MszX
     N  16s     1.00um
                  PP     04 20.00
                  PKS    06 37.00
FRU    119.23 308 ePKP   03 08.30    0.8
     Z  24s     0.90um           5.3MszX
     E  24s     0.90um
                  e      04 25.00
                  e      14 14.00
QUE    124.72 293 ePKP   03 20.50    1.8
FRS    126.75 201 ePKP   03 25.70    3.4X
       1.5s    41.67nm
ARU    127.34 326 ePKP   03 24.00    1.4
     Z  18s     1.50um           5.7Msz
     N  16s     0.50um
     E  20s     1.50um
                  e      05 21.00
SLR    129.27 206 e(PKP)03 34.00    6.5X
       1.5s    69.44nm
     Z  18s     3.78um           6.1Msz
MAIO   131.06 301 iPKPd  03 32.00    1.5
                  i      05 46.00
ASH    131.83 303 ePKP   03 32.60    0.8
OBN    138.50 334 iPKP   03 49.00    5.2X
       1.2s    44.00nm
                  e      04 04.00
OBN    138.50 334 ePKP   03 42.50   -1.3
OBN    138.50 334 ePKP   04 04.00   20.2X
                  e      04 21.00
                  e      06 28.00
                  eSKP   07 17.00
NRAO   139.60 356 PKPd   03 42.90   -2.7
NREO   139.60 356 PKPd   03 58.70   13.1X
                  PP     06 43.00
                  SS     25 05.60
                  SSS    30 34.20
GRO    139.92 314 ePKP   03 28.00  -18.7X
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HFS    140.02 354 ePKP   03 38.30   -8.1X
        0.5s     1.70nm
     Z  20s     0.47um           5.2Msz
                  LR     51 09.00
MTA    141.13 312 ePKP   03 40.00   -8.9X
TAB    141.14 306 ePKP   03 44.00   -5.3X
PYA    141.39 316 ePKP   03 32.00  -17.4X
KIV    141.66 316 ePKP   03 49.00   -1.1
MNK    142.82 339 ePKP   03 48.00   -3.5X
MJMA   143.68 286 ePKP   03 52.67   -1.3
SOC    143.75 317 ePKP   03 53.00   -0.5
EDI    143.93   9 ePKP   03 54.80    1.5
KMSA   144.09 277 iPKPd  03 53.67   -1.1
EKA    144.50   9 PKP    03 53.00   -1.4
        2.0s    23.10nm
ANN    144.57 321 ePKP   03 51.00   -3.8X
DHJN   144.62 272 iPKPd  03 57.00    0.9
KMTA   145.29 273 iPKPd  03 58.33    1.2
ABHA   145.41 273 ePKP   03 59.70    2.3
AFIF   145.58 283 ePKP   03 59.00    1.7
DCN    145.61  14 ePKP   03 56.90    0.6
DLF    145.82  14 ePKP   03 57.40    0.8
        1.2s   323.00nm
UQSK   146.33 286 ePKP   04 01.00    2.5X
AAE    146.51 255 PKP    04 03.00    3.6X
KVT    147.34 316 iPKP   04 02.50    2.9X
KIS    147.70 330 iPKP+  04 03.00    3.1X
        6.0s     1.00nm
     Z  20s     1.80um           5.9Msz
     N  20s     1.80um
     E  20s     1.30um
                  i      07 37.00
                  ePPS   20 12.00
WIT    147.72 359 ePKP   04 06.00    6.3X
TAIF   148.04 278 ePKP   04 06.00    4.5X
CTK    148.34 316 ePKP   04 05.00    3.7X
OJC    148.40 343 ePKP   04 04.00    3.1X
                  i      04 09.00
WTS    148.54 359 ePKP   04 05.00    4.0X
        1.0s    51.30nm
KSP    148.65 348 ePKP   04 01.90    0.6
        1.5s   124.00nm
                  i      04 06.20
KAS    148.66 318 iPKPc  04 07.30    5.6X
CLL    148.76 352 iPKP   04 05.60    4.1X
        1.9s   210.00nm
UZH    149.04 339 iPKPc+04 07.00    5.0X
        1.0s    95.00nm
BRG    149.04 350 iPKP   04 07.20    5.3X
     Z  18s     2.20um           6.0Msz
                  e      05 48.00
SPC    149.20 342 ePKP   04 04.00    1.5
CFR    149.37 329 ePKP   04 09.00    6.4X
VRI    149.54 331 ePKPc  04 08.50    5.6X
BNS    149.56 359 ePKPd  04 08.50    5.8X
MOX    149.58 353 ePKP   04 07.50    4.7X
        2.1s   230.00nm
ENN    149.77   0 ePKP   04 10.00    7.0X
        1.2s    58.60nm
PRU    149.80 349 PKP    04 04.10    1.0
                  e      04 07.80
                  i      04 15.40
                  ePP    07 43.90
SNF    149.99   2 PKP    04 08.20    4.9X
ISR    150.17 330 ePKPc  04 10.50    6.6X
SGKT   150.18 318 ePKP   04 08.00    3.7X
MLR    150.18 331 ePKP   04 04.00    0.0X
DOU    150.42   2 PKPc   04 10.10    6.1X
PSZ    150.44 341 ePKP   04 10.50    6.3X
GRA1   150.57 353 ePKP   04 03.00   -1.3
                  e      04 11.30
                  ePP    07 46.00
GRF    150.57 353 ePKP   04 03.00   -1.3
                  e      04 11.30
                  ePP    07 46.00
GRF    150.57 353 ePKP   04 11.30    7.0X
     Z  20s     1.20um           5.7Msz
                  e      04 29.60
BHL    150.64 303 PKP    04 04.00   -1.0
KHC    150.79 350 ePKP   04 06.00    1.3
        1.1s    46.00nm
     Z  20s     1.10um           5.7Msz
     N  20s     0.80um
     E  20s     0.80um
                  e      04 12.00
                  e      04 25.00
NAL    150.86 318 ePKP   04 10.70    5.5X
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WLF    150.88 360 PKPd   04 12.00    7.3X
BUC    150.93 330 ePKPd  04 10.00    5.1X
ZST    150.96 345 ePKP   04 05.30    0.4
SRO    151.00 343 ePKP   04 05.70    0.8
GEC2   151.05 350 PKP    04 05.30    0.2
        1.1s     1.91nm
                  e      04 09.60
                  e      04 16.20
                  e      04 25.10
                  e      04 31.20
VKA    151.08 346 ePKP   04 07.00    1.9
FLN    151.29   9 ePKP   04 03.80   -1.5
        1.2s    95.20nm
     Z  21s     1.25um           5.7Msz
LDF    151.50   9 ePKP   04 04.20   -1.5
        1.9s   284.85nm
GRR    151.59  10 ePKP   04 04.60   -1.2
        0.7s    25.45nm
AYN    151.65 293 ePKP   04 08.00    1.5
LPF    151.91  10 ePKP   04 05.30   -1.0
        1.0s    63.40nm
UZD    152.03 341 ePKP   04 07.00    0.5
FUR    152.06 353 ePKP   04 13.70    7.1X
CDF    152.11 358 ePKP   04 06.10   -0.6
        1.4s    52.30nm
BHG    152.27 350 ePKP   04 14.30    7.4X
SRFA   152.34 293 ePKP   04 10.33    2.8X
HAU    152.54 360 ePKP   04 07.00   -0.2
        2.0s   179.60nm
     Z  23s     1.10um           5.6MszX
BSF    152.71 359 ePKP   04 07.50   -0.1
        1.3s    39.35nm
KBA    152.82 349 iPKPc  04 09.50    1.6
        2.0s    33.00nm
                  i      04 21.50
                  i      04 28.70
WTTA   152.90 352 iPKPc  04 09.60    1.6
                  i      04 15.70
                  i      04 19.60
HYF    153.13   5 ePKP   04 08.70    0.6
LOR    153.21   3 ePKP   04 08.60    0.4
        1.4s    47.50nm
     Z  20s     1.55um           5.8Msz
FVI    153.39 350 PKP    04 11.50    3.1X
SSF    153.40   4 ePKP   04 09.10    0.7
        1.1s    43.45nm
MFF    153.44  10 ePKP   04 08.80    0.3
        1.7s   143.35nm
ZAG    153.46 344 iPKPd  04 10.00    1.5
LBF    153.50   3 ePKP   04 09.10    0.4
        1.5s    51.20nm
LJU    153.58 347 ePKP   04 12.00    3.2X
                  i      04 15.60
                  i      04 19.90
                  e      04 40.60
                  i      04 51.00
AVF    153.66   4 ePKP   04 09.20    0.4
        1.5s    35.00nm
VOY    153.72 348 ePKP   04 11.70    2.6X
                  e      04 30.70
BGF    153.85   5 ePKP   04 09.80    0.7
        1.5s    52.25nm
LSF    154.02   7 ePKP   04 10.00    0.6
        1.6s   124.40nm
TCF    154.06   6 ePKP   04 10.10    0.7
TRI    154.06 348 ePKP   04 09.80    0.4
CTI    154.09 351 PKP    04 18.30    8.7X
MAF    154.16   6 ePKP   04 10.60    1.1
        1.7s   102.20nm
RIY    154.28 346 ePKP   04 09.90    0.2
KNT    154.93 329 i(PKP)04 26.10   15.4X
SKO    154.96 332 ePKP   04 09.50   -1.2
                  i      04 38.00
                  i      08 12.00
VAY    154.96 330 ePKP   04 13.00    2.3
OHR    155.94 332 ePKP   04 06.00   -6.2X
LIT    155.94 328 i(PKP)04 12.10   -0.1
SFI    156.14 350 PKP    04 24.73   12.5X
        2.3s   178.30nm
FIR    156.37 351 ePKP   04 16.00    3.5X
EGRA   157.68  13 ePKP   04 19.00    4.8X
EPLA   157.86  25 ePKP   04 19.00    4.4X
GUD    158.07  21 ePKP   04 19.30    4.4X
PAB    158.98  23 ePKP   04 19.00    3.1X
                  ePP    09 02.00
EVAL   159.61  31 ePKP   04 20.50    3.9X
EBAN   160.40  24 ePKP   04 21.00    3.6X
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18d 23h

EVIA 160.43 21 ePKP 04 19.50 2.0
EPRU 160.82 29 ePKP 04 21.00 3.1X
CNIL 160.92 31 ePKP 04 25.00 7.1X
MOMI 161.12 31 ePKP 04 27.00 8.8X
EJIF 161.13 30 ePKP 04 21.80 3.6X
ELOJ 161.13 26 ePKP 04 20.00 1.7
PLAT 161.26 31 iPKP 04 24.00 5.7X
EGUA 161.64 25 ePKP 04 20.60 1.9
LIC 162.18 141 PKP 04 19.39 -0.4
1.0s 17.00nm
AVE 162.45 41 ePKP 04 21.00 1.4
i 05 09.50
KIC 162.45 142 e(PKP)04 20.29 0.2
1.0s 25.50nm
TIC 162.52 140 PKP 04 20.39 0.2
0.9s 11.50nm
TAF 163.85 26 ePKP 04 16.50 -4.5X
i 04 19.00
LKO 164.33 132 PKP 04 21.91 -0.1
0.9s 9.00nm
S.D. = 1.2 on 217 of 324 obs.

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* DEC 18, 1993 23h 34m 59.10± 0.78s
54.305 N ± 9.4km 164.209 W ±10.3km
DEPTH = 33.0km (normal)
4.4mb (6 obs.) .
UNIMAK ISLAND REGION (10)
ML 4.4 (PMR).

SDN 2.39 63 eP 35 36.59 -0.1
KDC 7.42 58 eP 36 44.99 -2.7X
ADK 7.89 257 eP 36 54.50 0.2
SVW 8.22 30 eP 36 59.84 0.9
TTA 9.64 23 (P) 37 17.86 -0.7
PMS 10.45 42 eP 37 30.10 0.5
PWA 10.57 40 eP 37 33.00 1.8
KLU 12.07 46 eP 37 49.33 -2.3
TOA 12.27 43 eP 37 54.60 0.3
IMA 12.88 20 eP 38 04.00 1.5
0.4s 0.80nm 4.1mb
FBA 13.43 31 (P) 38 13.38 3.8X
0.9s 8.19nm 4.7mb
BALM 13.46 51 eP 38 06.95 -3.1X
INK 20.02 34 eP 39 29.50 -1.9
YKA 26.62 52 eP 40 35.50 -0.4
0.6s 1.80nm 3.9mb
BONR 35.05 99 eP 41 51.68 0.7
TPNV 36.93 98 eP 42 07.26 0.6
0.5s 3.58nm 4.5mb
GSC 37.76 100 eP 42 14.47 0.9
PLM 39.13 103 eP 42 25.77 0.6
RSSD 39.46 79 eP 42 27.82 -0.1
0.7s 3.43nm 4.2mb
PV08 40.28 90 (P) 42 34.20 -0.6
ULM 40.52 67 eP 42 39.00 2.7
FRB 45.57 38 eP 43 17.00 0.0
WMOK 48.68 86 eP 43 40.80 -1.0
0.8s 5.21nm 4.6mb
LTX 49.72 95 eP 43 48.99 -1.0
GAC 54.05 60 eP 44 21.00 -1.1
LMN 59.17 53 eP 44 57.50 -1.2
S.D. = 1.2 on 23 of 26 obs.

DEC 18, 1993 23h 48m 09.93± 0.45s
41.111 N ± 5.5km 20.785 E ± 3.9km
DEPTH = 9.4 ± 3.5 km
ALBANIA (391)
ML 3.0 (SKO), 3.0 (THE), 2.7
(TIR). Felt (IV) at Ohrid,
Former Yugoslav Republic of
Macedonia.

OHR 0.01 90 iPgc 48 12.00 0.2
0.4s *******nm
iSg 48 13.50
FNA 0.55 126 iPg 48 20.65 -0.5
eSg 48 28.82
TIR 0.73 289 ePg 48 23.60 -0.8
iSg 48 37.00
SKO 0.99 30 iPg 48 27.80 -1.0
0.5s 276.00nm
iSg 48 41.00
Lg 48 44.60
VLO 1.17 237 ePn 48 31.40 -0.4
GRG 1.23 97 ePb 48 32.34 -0.6
eSb 48 49.90
VAY 1.36 81 iPg 48 34.60 -0.4
0.4s 200.00nm
iSg 48 53.00
Lg 48 55.50
BCI 1.36 337 ePn 48 36.40 1.3
iSn 48 55.30
SRN 1.37 206 ePn 48 38.10 3.0X
iSn 49 00.10
KNT 1.60 87 iPb 48 38.54 0.2
eSb 49 00.50
LIT 1.64 127 ePb 48 39.18 0.1
THE 1.72 105 iPb 48 40.34 0.2
eSb 49 03.82
SOH 1.97 98 ePb 48 44.06 0.3
eSb 49 11.14
SRS 2.12 89 ePn 48 45.66 -0.3
eSn 49 14.54
AGG 2.40 150 ePn 48 50.54 0.6
eSn 49 21.30
PAIG 2.50 117 ePn 48 50.94 -0.4
eSn 49 23.46
OUR 2.55 107 ePn 48 52.18 0.1
S.D. = 0.6 on 16 of 17 obs.

DEC 18, 1993 23h 51m 16.10± 0.38s
41.153 N ± 4.6km 20.841 E ± 3.3km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 3.0 (SKO), 3.0 (THE), 2.8
(TIR). Felt (IV) at Ohrid,
Former Yugoslav Republic of
Macedonia.

OHR 0.05 217 iPgc 51 17.70 -0.6
0.4s 6040.00nm
iSg 51 19.20
FNA 0.55 132 iPg 51 26.50 -0.7
eSg 51 34.70
TIR 0.76 285 ePg 51 30.00 -1.0
iSg 51 42.60
SKO 0.93 29 iPg 51 33.50 -0.4
0.2s 415.00nm
iSg 51 46.80
Lg 51 47.50
LACI 0.98 300 ePg 51 34.00 -0.7
iSg 51 49.00
GRG 1.20 99 ePb 51 38.10 -0.3
eSb 51 55.62
VLO 1.23 237 ePn 51 40.00 1.1
VAY 1.32 82 iPg 51 40.00 -0.4
0.6s 140.00nm
iSg 51 59.60
Lg 52 02.50
BCI 1.34 335 ePn 51 42.20 1.3
iSn 52 00.30
SRN 1.42 207 ePn 51 45.60 3.6X
iSn 52 05.60
KNT 1.55 89 ePb 51 44.02 0.2
eSb 52 06.22
LIT 1.64 129 ePb 51 45.82 0.8
eSb 52 07.38
THE 1.69 107 ePb 51 45.86 0.0
iSb 52 08.46
SOH 1.93 99 ePb 51 49.98 0.6
eSb 52 16.02
SRS 2.08 90 ePn 51 51.26 -0.2
eSn 52 20.18
AGG 2.42 151 ePn 51 56.54 0.2
eSn 52 27.26
PAIG 2.49 119 ePn 51 57.02 -0.2
eSn 52 29.38
OUR 2.52 108 ePn 51 57.90 0.2
eSn 52 29.74
S.D. = 0.7 on 17 of 18 obs.

? DEC 19, 1993 00h 37m 35.84± 1.09s
20.692 S ±26.2km 173.800 W ±21.7km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)
TONGA ISLANDS (173)

AFI 7.02 16 eP 39 20.00 1.0
DZM 18.45 262 iPc 41 52.60 1.7
TOO 38.99 235 eP 45 02.50 1.5
STK 41.26 245 eP 45 19.90 0.2
1.1s 2.20nm 3.8mb
ASPA 48.30 256 iPd 46 16.00 -0.3
1.0s 6.60nm 4.6mb
WB2 48.45 261 eP 46 14.90 -2.6
0.6s 5.80nm 4.8mb
i 46 16.30
WRA 48.47 261 P 46 17.00 -0.5
0.7s 1.50nm 4.1mb
TNP 78.98 42 eP 49 38.13 -0.2
0.7s 2.72nm 4.4mb
MSU 82.46 44 eP 49 57.70 1.0
PV09 84.46 45 eP 50 07.52 0.5
FBA 87.64 11 (P) 50 19.00 -2.6
YKA 95.08 24 eP 50 56.50 0.3
0.9s 0.60nm 4.0mb
KSP 148.88 348 ePKP 57 24.00 6.5X
CLL 148.98 352 e(PKP)57 32.00 14.4X
PRU 150.03 349 ePKP 57 35.00 15.8X
KHC 151.02 350 ePKP 57 27.50 6.7X
1.3s 6.00nm
e 57 38.50
e 58 06.00
GEC2 151.27 350 PKP 57 29.50 8.2X
1.1s 0.89nm
e 57 31.90
e 57 36.20
e 57 46.80
S.D. = 1.5 on 12 of 17 obs.

% DEC 19, 1993 00h 53m 05.76± 0.94s
28.887 S ±12.9km 67.029 W ±25.7km
DEPTH = 150.0km (geophysicist)
LA RIOJA PROVINCE, ARGENTINA (138)

RTRS 2.47 238 iPd 53 47.00 0.0
S 54 17.50
RTLL 2.74 207 iPc 53 50.00 -0.3
CFA 2.91 201 ePc 53 52.50 0.0
S 54 28.00
FSA 2.94 18 ePc 53 52.80 0.0
(S) 54 22.00
RTCB 3.01 210 iPc 53 54.00 0.1
RTCV 3.24 203 iPc 53 57.00 0.2
S.D. = 0.2 on 6 of 6 obs.

? DEC 19, 1993 02h 31m 10.34± 6.07s
41.778 N ±43.0km 22.880 E ±12.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.1 (THE), 2.0 (SKO).

VAY 0.51 207 iPg 31 21.20 0.5
0.2s 40.00nm
iSg 31 27.70
KNT 0.62 179 iPgc 31 22.29 -0.5
eSg 31 31.36
SRS 0.85 141 ePg 31 26.58 -0.2
eSg 31 39.60
GRG 0.90 204 ePg 31 27.12 -0.4
eSg 31 39.82
SOH 1.02 159 iPg 31 29.88 0.2
eSg 31 44.68
THE 1.15 177 ePg 31 31.88 0.1
OUR 1.67 150 ePb 31 39.96 0.3
eSb 32 02.84
PAIG 1.95 162 ePb 31 43.68 -0.1
eSb 32 10.44
S.D. = 0.4 on 8 of 8 obs.

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* DEC 19, 1993 02h 35m 28.76± 0.67s
22.417 N ±13.7km 145.477 E ±14.8km
DEPTH = 33.0km (normal)
4.5mb (9 obs.)
NORTH PACIFIC OCEAN (611)

WB2 43.48 195 eP 43 29.20 -1.6
0.5s 4.10nm 4.4mb
i 43 31.20
WRA 43.48 195 P 43 31.80 1.0
0.7s 1.70nm 3.9mb
ASPA 47.17 195 eP 44 03.70 3.5X
0.9s 4.00nm 4.4mb
GUN 53.77 289 Pc 44 51.80 0.9
PKI 54.24 289 Pc 44 54.40 0.1
KKN 54.32 289 Pc 44 55.30 0.6
0.7s 10.00nm 5.0mb
DMN 54.50 289 Pc 44 56.30 0.2
GKN 54.85 289 Pc 44 58.80 0.2
1.0s 22.00nm 5.1mb
YKA 74.82 28 eP 47 06.50 -0.8

```
        0.6s       0.90nm           3.9mb
NEW     78.32  43 ePd    47 28.10   0.8
        0.9s       3.95nm           4.4mb
SDF     79.86 340 iP     47 36.10   0.9
KAF     82.96 336 eP     47 50.00  -1.5
PV09    87.57  49 eP     48 17.00   1.6
HFS     88.87 338 eP     48 19.60  -1.2
        0.4s       1.20nm           4.5mb
NAO     89.32 340 P      48 21.80  -1.1
        0.8s       3.20nm           4.7mb
LPAZ   147.76  85 iPKPc  55 14.60   4.2X
       S.D. = 1.1  on  14 of  16 obs.
--------------------------------------
% DEC 19, 1993  04h 51m 21.58± 0.74s
  39.285 N ± 5.9km    27.911 E ± 7.7km
  DEPTH =   5.0km  (geophysicist)
 TURKEY                          (366)
       ML 3.1 (ISK).

DST      0.64  60 iPg    51 33.70  -0.7
                  iSg    51 43.20
IZM      1.02 210 ePg    51 41.20  -0.2
                  eSg    51 56.20
EDC      1.06 358 iPg    51 42.00   0.0
                  eSg    51 56.00
KHL      1.58 127 ePn    51 50.50   0.1
IZI      1.60  48 iPn    51 51.00   0.4
ALT      1.73  97 ePn    51 52.70   0.2
HRT      2.04  41 ePn    51 57.00  -0.1
EYL      2.15  53 ePn    51 59.00   0.3
       S.D. = 0.4  on   8 of   8 obs.
--------------------------------------
? DEC 19, 1993  05h 00m 04.01± 1.81s
   6.413 S ±18.3km  130.450 E ±32.8km
  DEPTH = 127.1 ± 21.3 km
  3.8mb (  1 obs.)
 BANDA SEA                       (280)

SLKI     1.77 152 iPd    00 36.00   0.6
                  iS     00 57.00
MTN      6.43 174 eP     01 39.00   1.4X
                  eS     02 46.00
WB2     13.97 165 iPd    03 15.60  -2.1
                  i      03 17.60
                  eS     05 44.00
QIS     16.63 149 eP     03 54.30   3.3X
ASPA    17.47 169 eP     04 01.70   0.3
                  eS     07 07.40
NANU    21.56 220 eP     04 45.00   0.5
STK     27.39 159 eP     05 40.60   1.2
        0.8s       2.10nm           3.8mb
PKI     55.09 310 P      09 24.60  -1.1
KKN     55.30 310 P      09 27.40   0.4
DMN     55.34 310 P      09 27.60   0.2
       S.D. = 1.4  on   8 of  10 obs.
--------------------------------------
% DEC 19, 1993  06h 34m 25.28± 1.04s
  31.003 S ±10.4km    68.218 W ±12.0km
  DEPTH =  33.0km  (normal)
 SAN JUAN PROVINCE, ARGENTINA    (137)

RTLL     0.39 213 iPd    34 36.20   1.9
CFA      0.60 182 iPd    34 37.90   0.5
                  S      34 39.20
RTCB     0.69 226 iPd    34 38.00  -0.7
RTCV     0.90 198 iPc    34 39.90  -1.7
RTRS     1.36 307 iPd    34 48.00   0.0
                  S      35 06.00
RTPR     1.63  65 eP     34 52.00   0.0
                  S      35 16.00
       S.D. = 1.5  on   6 of   6 obs.
--------------------------------------
% DEC 19, 1993  07h 16m 04.95± 0.56s
  40.104 N ± 4.4km    23.565 E ± 5.2km
  DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)
       ML 2.1 (THE).

PAIG     0.20 153 iPg    16 09.30   0.0
                  eSg    16 12.86
OUR      0.39  54 ePg    16 12.78  -0.2
                  eSg    16 18.02
THE      0.70 319 ePg    16 19.26   0.5
SOH      0.73 347 iPg    16 19.54   0.1
                  eSg    16 28.20
LIT      0.82 270 ePg    16 20.46  -0.5
                  eSg    16 31.74
SRS      1.01   1 ePg    16 24.34   0.2
                  eSg    16 37.06
KNT      1.17 335 ePg    16 26.54  -0.3
                  eSg    16 42.44
GRG      1.23 314 ePb    16 27.62  -0.2
                  eSb    16 44.96
AGG      1.44 222 ePb    16 31.42   0.3
       S.D. = 0.4  on   9 of   9 obs.
--------------------------------------
* DEC 19, 1993  07h 21m 40.64± 0.64s
  14.946 N ±10.1km    94.238 W ± 7.7km
  DEPTH =  33.0km  (normal)
  4.2mb (  9 obs.)
 OFF COAST OF CHIAPAS, MEXICO    ( 68)

TPX      1.91  91 (P)    22 09.00  -2.5
                  (S)    22 21.00
SCX      2.36  41 iP     22 18.00   0.2
                  iS     22 52.00
OXX      3.20 312 iP     22 23.00  -6.9X
                  (S)    23 02.00
IISM     5.02 324 eP     22 13.00 -42.6X
ACX      5.74 290 (P)    23 05.00  -0.8
PPM      5.87 315 iP     22 27.00 -41.1X
UNM      6.43 313 (P)    22 39.50 -36.3X
CRX      6.84 311 (P)    22 43.00 -38.5X
MRX      8.15 306 (P)    23 37.50  -2.1
MIAR    19.52   2 (P)    26 06.38  -1.9
        0.7s       6.30nm           4.0mb
WMOK    20.13 349 eP     26 13.19  -1.6
        1.2s      16.22nm           4.2mb
OCO     20.70 353 iPc    26 20.60   0.0
GOGA    20.82  26 (P)    26 22.54   0.7
        1.0s      11.52nm           4.2mb
MYNC    22.01  23 eP     26 33.57  -0.3
        0.7s       6.12nm           4.1mb
ALQ     22.75 333 eP     26 42.06   0.7
        0.9s       2.81nm           3.7mb
TUC     22.94 322 eP     26 42.81  -0.3
        1.7s      29.73nm           4.5mb
PV08    26.75 334 eP     27 20.45   0.8
PV09    26.89 334 eP     27 21.34   0.5
PLM     27.50 316 eP     27 26.66   0.4
ARUT    28.41 327 eP     27 35.36   0.9
DAU     29.40 333 eP     27 43.97   0.4
HVU     31.18 333 eP     27 59.00  -0.1
BONR    31.28 322 eP     27 59.71  -0.5
LRM     34.38 337 ePc    28 27.30   0.3
ULM     35.24 358 eP     28 35.00   1.1
LPAZ    40.35 139 P      29 18.40   0.6
SIV     44.92 132 P      29 52.20  -2.3
FRB     51.91  14 eP     30 47.00  -1.0
        1.0s       6.00nm           4.5mb
INK     58.93 344 eP     31 38.00  -0.7
MBC     62.72 353 eP     32 05.00   0.7
EKA     78.47  36 P      33 42.00   2.2
        1.0s      12.50nm           4.9mb
LKO     86.29  81 P      34 22.38   1.2
        1.3s      24.50nm           5.3mb X
KIC     87.90  84 P      34 30.00   1.1
GEC2    90.25  39 P      34 40.90   1.4
        0.8s       0.80nm           4.0mb
WRA    133.51 257 PKP    40 57.20   1.0
        0.6s       0.40nm
       S.D. = 1.2  on  30 of  35 obs.
--------------------------------------
% DEC 19, 1993  07h 51m 29.58± 0.56s
  40.104 N ± 4.5km    23.550 E ± 5.2km
  DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)
       ML 2.2 (THE).

PAIG     0.20 150 iPg    51 34.17   0.2
                  iSg    51 37.42
OUR      0.40  55 iPg    51 37.61  -0.2
                  eSg    51 43.50
THE      0.69 320 ePg    51 42.82  -0.4
                  eSg    51 51.74
SOH      0.73 348 ePg    51 43.50  -0.5
                  eSg    51 53.18
LIT      0.81 270 ePg    51 45.50   0.1
                  iSg    51 56.66
SRS      1.01   2 ePg    51 49.30   0.5
                  eSg    52 01.94
KNT      1.17 335 ePg    51 51.69   0.3
                  eSg    52 06.86
GRG      1.22 315 ePb    51 52.50   0.2
                  eSb    52 09.86
AGG      1.43 222 ePb    51 55.42  -0.2
       S.D. = 0.4  on   9 of   9 obs.
--------------------------------------
& DEC 19, 1993  08h 03m 15.94s
  63.292 N            151.208 W
  DEPTH =  14.6km
  4.1mb (  4 obs.)
 CENTRAL ALASKA                  (  1)
       <AEIC>. ML 4.1 (AEIC), 4.8
       (PMR).

KTH      0.29  26 iPc    03 22.37   0.0
TRF      0.44  69 iPc    03 24.75  -0.4
HUR      0.78 113 iPd    03 30.39  -0.3
CUT      0.99 154 iPd    03 34.54   0.3
RND      1.07  83 ePc    03 35.35  -0.3
MCK      1.11  66 ePc    03 36.06  -0.3
BWN      1.18  41 ePd    03 37.82   0.4
SKT      1.33 187 iPc    03 40.16   0.3
                  eS     03 57.31
NEA      1.60  35 ePd    03 42.45  -1.3
                  eS     04 02.87
DHY      1.75  95 ePd    03 45.84  -0.3
                  eS     04 09.86
MLY      1.76   6 iPd    03 45.73  -0.4
PWA      1.76 159 P      03 45.50  -0.5
WRH      1.82  48 eP     03 45.63  -1.3
SUA      1.85 173 ePc    03 47.51   0.0
                  eS     04 12.45
GHO      1.86 144 eP     03 47.13  -0.4
NCG      1.95 194 ePc    03 48.93   0.0
PLRM     1.96 150 eP     03 48.78  -0.2
PMR      1.96 150 ePd    03 48.47  -0.5
SML      2.00 137 eP     03 48.82  -0.8
CCB      2.03  46 ePd    03 48.46  -1.4
CGLM     2.03 191 ePc    03 49.94  -0.1
CRP      2.08 193 iPc    03 50.49  -0.4
CP2      2.09 194 iPc    03 51.02  -0.1
BGL      2.11 196 ePc    03 51.77   0.5
MDM      2.12  37 ePd    03 50.00  -1.4
CKN      2.13 193 ePc    03 51.88   0.5
CKT      2.15 193 ePc    03 51.96   0.1
SPU      2.16 191 ePc    03 51.79  -0.1
CKL      2.17 195 eP     03 52.94   0.8
HDA      2.19  57 eP     03 50.95  -1.4
PMS      2.19 159 P      03 52.70   0.3
FBA      2.20  41 eP     03 50.76  -1.7
TTA      2.21 263 eP     03 50.98  -1.8
KNK      2.28 145 eP     03 53.68   0.0
                  eS     04 23.46
BKG      2.28 193 ePc    03 53.77   0.0
SCM      2.32 127 eP     03 53.38  -0.8
GLM      2.39  43 ePd    03 53.76  -1.4
DDM      2.44  76 eP     03 56.03   0.0
THY      2.46  85 eP     03 57.56   1.4
NKA      2.56 180 eP     03 59.76   2.2
DJE      2.57  71 eP     03 59.06   1.3
TOA      2.61 115 P      03 58.20  -0.1
PAX      2.63  94 ePd    03 58.45  -0.2
CFI      2.66 141 eP     03 59.95   1.0
PWL      2.79 150 ePc    04 01.40   0.5
DFR      2.80 195 ePc    04 01.10   0.0
SLKM     2.83 170 ePc    04 01.77   0.3
NCT      2.86 197 ePc    04 02.02   0.1
REF      2.90 195 ePc    04 02.74   0.2
RDW      2.92 196 eP     04 02.64  -0.2
RS2      2.93 195 eP     04 03.27   0.2
MPA      2.95 162 eP     04 03.62   0.6
TZL      2.95 113 eP     04 03.96   0.9
RED      2.98 195 eP     04 03.92   0.4
IMA      2.98 340 iPd    04 02.88  -0.8
SVW      3.01 225 eP     04 02.62  -1.4
KLU      3.05 124 eP     04 04.64   0.0
VZW      3.13 134 eP     04 06.10   0.4
VLZ      3.15 131 eP     04 05.85   0.0
DOT      3.23  80 eP     04 07.13   0.1
SEW      3.31 165 eP     04 09.38   1.2
PRP      3.33  45 eP     04 07.02  -1.6
ILIM     3.33 195 eP     04 08.80   0.2
INE      3.36 196 eP     04 09.28   0.2
INW      3.36 197 eP     04 09.75   0.7
BRLK     3.54 177 eP     04 12.12   0.6
HOM      3.65 183 eP     04 14.16   1.1
HIN      3.66 140 eP     04 13.82   0.5
TMW      3.71  86 eP     04 13.66  -0.2
CVA      3.77 134 eP     04 15.44   0.7
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19d 08h

OPT 3.78 196 eP 04 15.61 0.7
CNPM 3.78 180 eP 04 15.22 0.3
PDB 3.80 203 ePc 04 14.84 -0.3
GLB 3.91 115 eP 04 17.15 0.3
AUE 4.08 196 eP 04 19.29 0.2
AUW 4.08 196 eP 04 20.10 1.0
AUP 4.09 196 eP 04 19.70 0.4
AUH 4.09 196 eP 04 20.02 0.8
FYU 4.16 35 eP 04 19.13 -1.0
CDD 4.53 196 eP 04 25.52 -0.1
CRQM 4.57 120 eP 04 26.84 0.5
TGL 4.69 119 eP 04 27.54 -0.5
BALM 4.73 115 eP 04 27.74 -0.8
SYI 4.73 188 eP 04 28.57 0.1
WAX 4.87 122 eP 04 30.16 -0.3
CTGM 5.19 112 eP 04 34.80 -0.2
YAH 5.36 119 eP 04 37.06 -0.4
KDC 5.60 187 eP 04 38.73 -1.9
ANM 6.37 288 eP 04 50.20 -1.3
BRW 8.32 348 (P) 05 15.45 -3.3
INK 8.81 48 eP 05 24.00 -1.5
0.6s 14.00nm 5.4mb X
SDN 9.27 215 eP 05 31.27 -0.6
SIT 10.06 121 e(P) 05 40.30 -2.5
0.6s 19.70nm 5.7mb X
YKA 16.56 76 eP 07 14.80 6.1
0.7s 5.60nm 3.8mb
MBC 16.66 26 eP 07 18.00 8.1
MCW 21.33 120 eP 08 03.06 -1.1
NEW 23.97 113 eP 08 30.00 -0.2
VGB 24.73 122 eP 08 37.73 0.1
ULM 31.90 88 eP 09 44.50 2.1
RSSD 32.85 103 (P) 09 50.00 -1.0
1.0s 2.71nm 4.1mb
MSU 34.05 118 eP 10 00.72 -0.8
FRB 34.44 51 eP 10 08.00 3.7
1.0s 8.00nm 4.6mb
GOL 35.86 109 (P) 10 16.00 -1.0
0.8s 1.93nm 4.0mb
103 obs. associated

? DEC 19, 1993 08h 08m 19.56± 2.05s
23.829 S ±32.3km 178.785 W ±31.4km
DEPTH = 500.0km (geophysicist)
4.6mb (8 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM 13.72 274 iPc 11 19.90 2.7
ARMA 27.09 249 iPc 13 23.40 0.3
0.7s 8.00nm 4.4mb
CNB 29.85 240 eP 13 48.10 1.0
0.9s 12.00nm 4.4mb
TOO 33.42 237 iPc 14 18.50 1.2
0.5s 11.00nm 4.6mb
PMG 35.53 288 eP 14 35.00 0.0
STK 35.78 248 eP 14 37.00 0.0
0.5s 1.20nm 3.7mb
ASPA 43.15 260 iPd 15 36.10 -0.7
0.7s 22.10nm 4.8mb
WB2 43.51 266 iPc 15 38.20 -1.5
0.4s 36.40nm 5.3mb
e 16 43.30
WRA 43.52 266 P 15 38.50 -1.3
0.9s 10.80nm 4.4mb
FORT 47.38 249 iPc 16 09.00 -0.4
0.6s 20.00nm 4.8mb
MBL 56.39 260 eP 17 13.00 -1.9
NANU 59.88 257 eP 17 38.00 -0.5
HFS 142.68 350 ePKP 26 57.20 1.1
0.3s 1.60nm
S.D. = 1.4 on 13 of 13 obs.

& DEC 19, 1993 08h 38m 55.28s
37.575 N 118.844 W
DEPTH = 8.4km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.3 (GM). ML 3.6
(BRK), 3.4 (GS).

HTCR 0.07 128 P 38 57.41 -0.3
MEMM 0.12 320 iPd 38 58.23 0.2
MMPM 0.15 283 iPd 38 58.61 -0.2
MRCM 0.28 70 eP 39 01.14 -0.1
MTUM 0.31 135 ePc 39 04.10 2.3
BHPR 0.40 134 P 39 03.18 -0.2
BONR 0.57 48 iPc 39 06.39 -0.5
FRI 0.90 230 iP 39 12.12 -0.6
MSTM 1.28 285 P 39 18.64 -0.5
CMB 1.30 291 ePd 39 19.05 -0.6
eS 39 36.27
TNP 1.38 68 eP 39 20.86 -0.1
KVN 1.59 21 eP 39 24.72 0.9
PHBM 1.65 217 P 39 26.14 1.5
WCHM 1.80 160 P 39 28.25 1.2
PKEM 1.82 214 eP 39 28.27 1.2
RCWM 1.88 149 P 39 30.09 2.0
ISA 1.93 171 ePd 39 30.30 1.6
eS 39 54.97
PRCM 1.94 228 P 39 30.22 1.4
TOW 1.96 153 P 39 31.87 2.7
COSM 2.01 269 P 39 31.55 1.6
WOFM 2.04 177 P 39 32.41 2.0
PRI 2.04 226 iP 39 31.40 1.0
HJSM 2.10 250 P 39 32.58 1.4
WBSM 2.11 164 P 39 33.82 2.3
GHS 2.13 258 P 39 33.22 1.6
PHAM 2.14 216 ePn 39 31.91 0.2
ARN 2.15 265 eP 39 33.18 1.3
eS 40 01.94
TPNV 2.16 106 ePn 39 31.99 -0.2
WJPM 2.18 172 P 39 35.18 2.8
LRC 2.21 234 P 39 34.22 1.6
SAO 2.23 250 ePn 39 33.56 0.5
MHC 2.24 265 eP 39 34.70 1.4
eS 40 03.33
FRP 2.27 250 P 39 34.45 0.8
COE 2.27 263 ePn 39 35.52 1.8
YEG 2.32 203 P 39 36.64 2.3
HMR 2.41 285 ePn 39 38.30 2.7
CRGC 2.43 197 P 39 38.93 2.9
BMTC 2.44 175 P 39 39.84 3.7
ARVC 2.44 180 P 39 39.30 3.3
BCH 2.59 203 ePn 39 38.43 0.2
ABL 2.74 187 ePn 39 41.55 1.1
eS 40 16.78
GSC 2.80 143 ePn 39 41.30 0.0
ORV 2.87 314 ePn 39 42.95 0.8
SSK 3.48 164 ePn 39 53.22 2.2
ARUT 4.29 86 ePg 40 16.25 13.8
eS 41 14.16
MSU 5.35 78 ePg 40 37.04 19.5
DUG 5.38 59 ePg 40 37.12 19.2
eS 41 45.79
47 obs. associated

? DEC 19, 1993 08h 56m 11.94± 2.15s
29.734 S ±13.0km 179.187 W ±23.7km
DEPTH = 280.5 ± 20.1 km
KERMADEC ISLANDS REGION (177)

VUN 11.87 349 ePd 58 53.60 -0.7
MRW 12.50 202 P 59 02.00 0.0
S 01 17.00
DZM 15.00 297 iPc 59 33.90 1.4
WB2 43.03 272 eP 03 44.70 -1.4
0.4s 1.90nm 3.7mb
e 04 21.50
WRA 43.04 272 P 03 46.00 -0.2
0.5s 0.50nm 3.0mb X
NAO 148.20 351 PKP 15 22.80 1.1
0.7s 3.20nm
HFS 148.38 348 ePKP 15 21.80 -0.2
0.4s 1.20nm
S.D. = 1.4 on 7 of 7 obs.

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* DEC 19, 1993 10h 27m 12.09± 1.22s
7.156 S ± 7.7km 129.380 E ±12.4km
DEPTH = 127.8 ± 14.5 km
4.9mb (7 obs.)
BANDA SEA (280)

SLKI 2.07 113 iPc 27 48.00 0.7
MTN 5.91 163 eP 28 38.00 -0.6
WB2 13.60 160 eP 30 16.40 -4.5X
i 30 17.30
iS 32 37.40
QIS 16.60 144 eP 30 59.50 0.8
eS 33 49.30
MBL 16.71 213 eP 30 59.50 -0.5
0.3s 20.00nm 5.0mb
ASPA 16.98 166 eP 31 00.90 -2.5
epP 31 04.20
iPP 31 15.30
eS 33 53.90
WARB 19.10 188 eP 31 27.60 0.0
0.5s 22.00nm 4.7mb
eS 34 55.00
NANU 20.31 220 eP 31 40.60 0.6
MEEK 21.92 207 eP 31 57.00 1.0
e 32 11.00
eS 36 01.00
FORT 23.53 183 eP 32 13.00 1.3
MRWA 25.31 208 eP 32 29.00 0.5
epPP 32 57.50
eS 37 16.50
STK 27.11 157 eP 32 44.40 -0.5
1.5s 1.00nm 3.2mb X
e 33 09.80
eS 37 55.60
CHTO 39.58 311 ePc 34 33.50 0.9
1.0s 14.75nm 4.7mb
GUN 54.59 312 P 36 30.00 -0.1
0.5s 25.00nm 5.4mb
PKI 54.76 311 P 36 30.60 -0.7
0.6s 6.00nm 4.7mb
KKN 54.97 311 P 36 32.20 -0.5
0.6s 14.00nm 5.1mb
DMN 55.01 311 P 36 32.70 -0.3
GKN 55.57 311 P 36 36.40 -0.5
0.5s 24.00nm 5.4mb
LPAZ 150.97 143 (PKP) 46 47.09 0.2
PKPbc 46 54.03
S.D. = 1.0 on 18 of 19 obs.

DEC 19, 1993 10h 31m 28.64± 0.15s
5.746 N ± 2.9km 127.004 E ± 3.9km
DEPTH = 43.0km (10 depth phases)
5.5mb (78 obs.)
PHILIPPINE ISLANDS REGION (248)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 23C
Centroid Location:
Origin Time 10:31:33.0 0.4
Lat 5.67N 0.07 Lon 127.06E 0.04
Dep 64.1 4.5 Half-duration 1.1
Moment Tensor; Scale 10**16 Nm
Mrr= 8.01 0.47 Mtt= 1.50 0.64
Mff=-9.52 0.71 Mrt= 8.03 0.92
Mrf=-0.39 0.89 Mtf=-3.75 0.66
Principal Axes:
T Val= 13.68 Plg=55 Azm= 11
N -2.73 34 208
P -10.94 8 112
Best Double Couple:Mo=1.2*10**17
NP1:Strike=169 Dip=47 Slip= 40
NP2: 49 62 130

DAV 1.95 313 iPc+ 32 05.00 5.2X
BIP 2.57 343 iPc 32 11.00 2.2
iS 32 33.00
CTB 3.14 298 ePd 32 21.00 4.2X
eS 33 00.00
CGP 3.54 320 iPc 32 05.50 -17.0X
iS 32 52.00
MAP 5.44 327 iPc 32 53.00 3.5X
iS 33 30.00
PLP 5.74 340 ePd 32 58.30 4.6X
PGP 9.74 323 ePc 33 57.00 7.7X
TGY 10.23 325 eP 34 06.00 10.0X
KKM 10.74 272 ePc 34 14.50 11.5X
BAG 12.33 330 ePd 34 31.00 6.5X
CVP 12.92 337 ePc 34 40.00 7.8X
KHKI 18.05 219 iPd 35 38.00 0.0
e 41 56.60
MTN 18.92 168 eP 35 37.80 -10.9X
GUMO 19.25 65 eP 35 53.20 0.7
HKC 20.61 324 iP 36 11.00 4.1X
S 39 56.00
QZH 20.72 338 P 36 09.30 1.3
0.8s 210.00nm 5.5mb
Z 18s 1.93um 4.5Msz
S 40 02.00
QIZ 21.31 310 eP 36 15.10 1.1
GZH 21.70 324 iPc 36 19.50 1.6
Z 30s 2.34um 4.4MszX
S 40 16.00
KGM 23.92 262 ePc 36 40.80 1.1
0.7s 176.00nm 5.7mb
SSE 25.80 348 Pc 36 56.00 -1.5

1.2s 83.00nm 5.2mb
Z 20s 1.40um 4.5Msz
S 41 28.00
IPM 25.90 269 ePc 36 58.00 -0.6
0.7s 56.90nm 5.2mb
WB5 26.47 164 eP 37 03.20 -0.6
i 37 06.20 11kmX
iPcP 40 38.50
e 41 28.10
i 41 48.00
i 42 03.30
iScP 44 02.50
WB2 26.53 164 eP 37 04.50 0.1
0.5s 57.00nm 5.4mb
eS 41 55.90
NJ2 27.26 345 Pc 37 12.00 1.1
Z 22s 0.73um 4.2Msz
sP 37 32.80
LOE 27.29 297 iPc 37 10.00 -1.4
WHN 27.39 336 Pd 37 14.20 2.1
1.0s 45.00nm 5.1mb
Z 24s 2.42um 4.7MszX
MBL 27.65 195 eP 37 14.50 0.0
0.5s 54.00nm 5.5mb
NST 28.15 293 eP 37 19.00 -0.1
GYA 28.30 319 P 37 21.40 0.8
1.2s 26.00nm 4.8mb
Z 24s 1.99um 4.6MszX
N 14s 1.11um
E 14s 0.85um
pP 37 37.60 69kmX
TKSJ 28.85 12 P 37 24.60 -0.6
QIS 28.92 155 eP 37 25.50 -0.5
KHT 29.33 290 iPc 37 28.40 -1.4
WKYJ 29.43 15 P 37 29.70 -0.9
BDT 29.67 295 eP 37 32.00 -0.8
1.0s 41.40nm 5.1mb
YONJ 29.90 11 P 37 34.00 -0.7
ASPA 30.00 167 eP 37 35.90 0.2
0.6s 21.70nm 5.1mb
ipP 37 53.40 74kmX
eS 42 26.50
KMI 30.20 312 Pc 37 38.50 0.8
1.4s 180.00nm 5.6mb
Z 26s 2.10um 4.7MszX
N 10s 0.30um
E 10s 0.40um
pP 37 51.00 48km
sP 37 57.50
CHTO 30.27 298 ePc 37 37.90 -0.3
0.9s 28.13nm 5.0mb
e 40 38.00
NANU 30.29 201 eP 37 37.80 -0.4
0.6s 48.00nm 5.4mb
TSRJ 30.78 14 P 37 41.20 -1.2
IIDJ 31.25 17 P 37 46.00 -0.6
TIA 31.65 345 eP 37 49.20 -0.9
1.0s 76.00nm 5.5mb
Z 25s 0.84um 4.3MszX
eS 43 00.00
WARB 31.74 181 eP 37 52.50 1.5
CHJJ 32.11 18 P 37 52.30 -1.8
MTMJ 32.25 16 P 37 55.00 -0.4
KAKJ 32.64 20 P 37 56.70 -1.9
XAN 32.77 332 P 37 59.50 -0.4
Z 26s 2.03um 4.7MszX
S 43 12.00
NIIJ 33.21 18 P 38 03.80 0.2
CD2 33.21 322 iPc 38 03.80 0.0
1.2s 150.00nm 5.7mb
DL2 33.37 352 eP 38 05.50 0.5
YAMJ 34.38 18 eP 38 13.40 -0.4
TIY 34.48 339 eP 38 14.50 -0.2
1.0s 48.00nm 5.4mb
Z 20s 1.00um 4.6Msz
E 14s 0.46um
S 43 42.00
sS 44 06.00
BJI 35.51 346 eP 38 23.00 -0.3
1.0s 67.00nm 5.5mb
Z 20s 0.66um 4.4Msz
N 15s 0.47um
eS 44 01.00
esS 44 18.00
eSS 46 24.00
OFUJ 35.74 20 eP 38 25.50 0.2
SNY 36.06 356 Pd 38 27.80 -0.1

1.0s 34.00nm 5.2mb
Z 22s 1.00um 4.5Msz
pP 38 40.00 45km
sP 38 44.70
eS 44 06.00
MRWA 36.34 196 eP 38 30.80 0.3
e 40 53.50
AOMJ 36.68 17 eP 38 36.00 2.8
LZH 36.93 328 Pc 38 36.50 0.9
1.5s 360.00nm 6.1mb
Z 26s 3.15um 5.0MszX
E 20s 1.81um
PcP 40 58.50
S 44 19.50
PcS 44 45.00
BAL 37.47 195 eP 38 39.80 -0.1
HHC 37.59 341 Pc 38 41.40 0.4
1.0s 54.00nm 5.4mb
Z 30s 0.94um 4.4MszX
eS 44 29.00
BTO 37.90 339 eP 38 44.00 0.4
CN2 37.93 358 P 38 43.40 -0.2
0.6s 17.00nm 5.1mb
epP 39 03.50 84kmX
MRRJ 38.60 17 eP 38 50.50 1.2
MDJ 38.78 3 eP 38 50.90 0.1
0.8s 17.00nm 4.9mb
HOOJ 39.24 19 P 38 56.60 1.9
NWAO 39.56 193 iPd 38 57.80 0.3
STK 39.92 160 eP 38 59.90 -0.5
0.8s 17.00nm 4.9mb
eS 44 50.10
KUSJ 40.36 20 P 39 05.20 1.4
ASAJ 40.61 17 P 39 07.20 1.3
LSA 41.35 310 iPc 39 14.20 1.5
0.8s 34.00nm 5.1mb
Z 30s 5.93um 5.3MszX
eS 45 34.00
GTA 41.53 328 iPc 39 14.50 0.8
1.0s 92.00nm 5.5mb
Z 22s 3.69um 5.2Msz
E 20s 1.27um
pP 39 30.00 61kmX
sP 39 36.50
PcP 41 11.00
ScP 44 56.80
eS 45 25.00
sS 45 51.00
eSS 48 28.00
ScS 49 10.00
ADE 41.97 166 eP 39 18.10 0.8
ARMA 43.01 148 eP 39 25.30 -0.6
0.7s 27.00nm 5.1mb
e 45 08.10
YSS 43.29 16 eP 39 27.80 0.0
0.7s 70.00nm 5.5mb
BWA 44.78 155 eP 39 41.20 1.1
ipP 39 50.50 31km
GUN 44.79 304 P 39 41.60 0.9
PKI 45.06 304 P 39 42.80 0.0
KKN 45.24 304 P 39 44.40 0.2
DMN 45.32 304 P 39 45.00 0.2
CAN 45.79 155 eP 39 50.10 2.0
ipP 39 59.50 31km
GKN 45.85 304 P 39 49.00 0.1
CNB 45.94 154 eP 39 50.10 0.8
0.9s 20.00nm 5.0mb
TOO 46.41 160 eP 39 52.30 -0.7
0.5s 18.00nm 5.3mb
e 45 17.10
CIT 47.42 349 eP 40 00.50 -0.3
DZM 47.49 127 iPc 40 00.50 -1.3
HYB 48.72 288 eP 40 10.40 -1.0
1.0s 60.00nm 5.6mb
eS 47 08.00
ZAK 48.73 340 eP 40 09.70 -1.1
1.5s 38.00nm 5.2mb
e 41 35.00 431kmX
KOD 49.22 279 eP 40 15.50 -0.1
GBA 49.41 283 P 40 15.30 -1.3
0.8s 18.00nm 5.2mb
GBA 49.41 283 P 40 31.50 14.9X
0.9s 22.00nm
IRK 50.02 342 eP 40 21.30 0.5
1.6s 58.00nm 5.4mb
WMQ 51.25 324 iPc 40 30.50 0.1
1.0s 56.00nm 5.5mb

Z 25s 2.27um 5.1MszX
E 17s 0.26um
pP 40 47.00 64kmX
sP 40 51.80
ScS 50 15.20
NDI 52.27 302 iPc 40 36.50 -1.7
0.6s 180.00nm 6.2mb
BOD 52.93 351 eP 40 31.40 -11.2X
1.2s 54.00nm
UER 53.20 335 iP 40 44.00 -0.7
1.4s 97.00nm 5.6mb
eS 48 15.50
YAK 56.18 2 iPc 41 04.80 -1.5
1.0s 247.00nm 6.2mb
eS 48 59.00
KSH 56.80 314 P 41 12.00 0.7
0.8s 70.00nm 5.7mb
Z 24s 1.35um 5.0MszX
N 16s 1.15um
pP 41 25.00 46km
sP 41 30.00
NIL 56.93 307 iPc 41 14.58 2.4
0.5s 0.09nm 3.0mb X
iS 49 03.70
FRU 59.06 317 iPc 41 27.00 0.0
2.0s 60.00nm 5.4mb
e 41 40.20 47km
e 42 15.00
QUE 61.33 301 eP 41 42.50 -0.4
ADK 65.16 35 (P) 42 06.38 -1.0
0.8s 19.83nm 5.2mb
TIK 65.82 1 iPc 42 10.00 -1.3
1.0s 90.00nm 5.8mb
Z 18s 0.40um 4.7Msz
i 44 33.00 767kmX
ePPP 46 10.00
iS 50 51.00
MAIO 68.52 307 iPc 42 29.00 -0.2
0.7s 24.78nm 5.3mb
eS 51 39.00
ASH 69.68 308 P 42 37.00 0.9
SVE 72.40 328 iPc 42 53.00 0.9
CSY 72.85 187 eP 42 55.00 0.5
0.7s 46.60nm 5.6mb
e 43 12.60 65kmX
ARU 73.36 327 iPc 42 57.40 -0.4
0.8s 100.00nm 5.8mb
e 43 05.00 24kmX
e 43 18.00
eS 52 20.00
HON 73.97 70 P 43 10.00 8.1X
Z 20s 0.36um 4.7Msz
ANM 75.33 24 eP 43 08.96 -0.1
SDN 75.37 34 eP 43 09.20 -0.2
KER 78.45 304 eP 43 26.50 -0.7
SVW 78.90 29 eP 43 29.79 0.8
0.7s 21.28nm 5.2mb
TTA 78.99 27 eP 43 30.17 0.7
0.9s 8.78nm 4.7mb
GRO 79.77 313 iPc+ 43 34.00 0.0
1.0s 440.00nm 6.4mb
MJMA 80.08 295 ePc 43 29.50 -6.5X
KDC 80.10 32 eP 43 36.00 0.6
BRW 80.19 19 eP 43 36.25 0.6
MTA 80.39 311 iPc 43 38.20 0.9
0.8s 530.00nm 6.5mb X
i 43 51.40 45km
IMA 80.44 24 eP 43 37.06 -0.2
0.7s 16.28nm 5.1mb
CP2 80.54 29 eP 43 37.82 -0.2
SLKM 81.47 30 eP 43 41.34 -1.3
PYA 81.69 314 iPc+ 43 44.00 -0.1
i 43 59.00 52km
KIV 81.95 313 iPc 43 46.00 0.4
0.9s 204.00nm 6.2mb
Z 28s 1.60um 5.2MszX
e 43 58.90 43km
eS 53 57.10
PMR 82.06 29 eP 43 45.27 -0.3
0.8s 34.03nm 5.4mb
Z 21s 0.26um 4.6Msz
UQSK 82.72 295 ePc 43 51.00 1.1
FBA 82.79 25 eP 43 48.80 -0.6
0.8s 9.45nm 4.9mb
TOA 83.47 28 eP 43 54.10 1.1
KLU 83.59 29 eP 43 53.44 -0.2
MOS 84.94 325 eP 44 00.00 -0.4

19d 10h

1.5s 340.00nm 6.3mb
e 44 17.00 60kmX
BALM 85.33 29 eP 44 02.90 0.5
OBN 85.56 325 iPc 44 04.00 0.5
1.2s 330.00nm 6.4mb
Z 22s 0.70um 5.0Msz
E 22s 0.60um
i 44 20.40 58kmX
MAW 85.73 200 eP 44 05.90 1.8
1.1s 16.77nm 5.2mb
ANN 85.78 315 eP 44 04.50 -0.3
1.2s 80.00nm 5.8mb
e 44 17.00 41km
KVT 86.99 311 iP 44 10.50 -0.4
BNN 87.32 309 iP 44 13.00 0.3
CTK 87.95 311 eP 44 15.80 0.2
AYN 88.14 299 ePc 44 17.30 0.7
INK 88.20 22 eP 44 16.00 -0.1
1.0s 5.00nm 4.7mb
KAS 88.67 311 iPc 44 19.80 0.8
SDF 88.80 338 iP 44 18.70 -0.3
BADA 89.05 298 ePc 44 22.00 1.1
CSS 89.75 305 eP 44 24.50 0.3
MBC 89.94 13 eP 44 27.00 2.7
0.6s 4.00nm 4.9mb
KAF 89.95 332 iP 44 23.70 -0.8
0.5s 54.70nm 6.1mb
SGKT 90.05 311 eP 44 25.00 -0.7
PPCY 90.56 305 eP 44 27.50 -0.4
NAL 90.67 310 eP 44 27.80 -0.7
MNK 90.94 324 eP 44 27.00 -2.2
NUR 91.08 331 iP 44 29.20 -0.5
0.6s 40.90nm 6.0mb
CFR 92.18 316 eP 44 34.00 -1.1
ELL 92.26 307 eP 44 45.00 9.1X
VRI 93.03 316 eP 44 39.00 -0.1
ISR 93.30 316 eP 44 42.00 1.6
MLR 93.65 316 ePc 44 42.00 -0.1
SYO 94.42 201 ePc 44 45.20 0.3
UPP 94.63 331 iP 44 44.70 -1.4
DAG 95.32 353 iPc 44 48.20 -0.8
0.5s 12.68nm 5.6mb
UZH 95.34 320 iPd 44 50.00 0.4
0.8s 50.00nm 6.0mb
e 45 06.80 59kmX
SPA 95.70 180 iPc 44 51.20 0.1
0.9s 31.82nm 5.8mb
OUR 96.16 311 e(P)c 44 52.00 -1.5
SRS 96.27 312 e(P)c 44 52.60 -1.5
HFS 96.37 332 eP 44 52.70 -1.4
0.5s 15.60nm 5.8mb
Z 18s 0.26um 4.7Msz
LR 24 16.00
PAIG 96.48 311 e(P)c 44 53.85 -1.1
OJC 96.48 322 eP 44 55.30 0.5
SOH 96.51 312 e(P)c 44 53.84 -1.4
KNT 96.77 312 e(P)c 44 55.05 -1.2
VAY 96.97 313 iP 44 56.40 -0.8
1.0s 70.00nm 6.1mb
PSZ 97.08 320 e(P) 44 57.80 0.1
NRAO 97.10 333 P 44 57.50 0.1
GRG 97.18 312 e(P)c 44 56.85 -1.3
LIT 97.32 312 e(P)c 44 57.17 -1.7
NAO 97.37 334 P 44 57.00 -1.6
0.7s 5.60nm 5.2mb
YKA 97.56 24 eP 44 58.00 -1.4
1.0s 1.80nm 4.6mb
SKO 97.63 314 iP 44 59.80 -0.4
AGG 97.70 310 e(P)c 44 57.88 -2.7
OHR 98.32 313 eP 45 01.70 -1.6
KSP 98.41 323 iP 45 03.90 0.5
0.9s 39.00nm 5.9mb
i 45 05.30 4kmX
e 49 01.00
PRU 99.76 323 P 45 09.90 0.3
0.8s 16.00nm 5.6mb
BRG 99.79 324 iPd 45 10.90 1.2
0.8s 45.00nm 6.1mb
e 45 31.00 72kmX
CLL 100.17 324 iPdiff45 13.00 1.6
1.3s 38.00nm 5.8mb
KHC 100.65 322 ePdiff45 14.00 0.3
1.0s 8.90nm 5.3mb
e 45 27.50
e 47 57.00
GEC2 100.68 322 e(Pdif45 17.00 3.1X
0.9s 7.60nm 5.3mb

LJU 101.16 319 ePdiff45 15.70 -0.3
ePP 49 13.00
e 49 27.00
MOX 101.24 324 iPdiff45 18.20 2.0
1.5s 34.00nm 5.7mb
GRA1 101.86 323 ePdiff45 19.50 0.5
GRF 101.86 323 ePdiff45 19.50 0.5
OSS 103.73 321 Pdiff 45 28.15 0.5
LLS 104.37 321 Pdiff 45 34.13 3.6X
CDF 104.75 323 ePdiff45 31.40 -0.6
1.2s 17.25nm 5.8mb
TMA 104.77 321 Pdiff 45 33.43 1.2
BSF 105.30 323 ePdiff45 34.80 0.3
HAU 105.49 323 ePdiff45 35.60 0.4
Z 23s 0.25um 4.7MszX
PGF 106.16 317 ePdiff45 38.00 -0.4
1.1s 15.15nm 6.0mb
LPG 106.37 321 ePdiff45 39.50 -0.1
LPL 106.38 321 ePdiff45 39.20 -0.3
LOR 107.32 323 ePdiff45 42.80 -0.6
1.1s 11.70nm 5.9mb
Z 23s 0.25um 4.7MszX
LMR 107.48 319 ePdiff45 44.00 -0.1
LRG 107.53 319 ePdiff45 44.00 -0.3
Z 23s 0.35um 4.9MszX
SSF 107.63 323 ePdiff45 45.10 0.4
AVF 107.86 323 ePdiff45 46.00 0.3
1.1s 11.70nm 5.9mb
MAF 108.61 323 ePdiff45 50.00 0.9
1.3s 18.05nm 6.1mb
RSSD 112.43 37 ePKP 50 01.20 -1.1
ULM 113.07 28 ePKP 50 05.00 2.0
GOL 113.92 42 PKP 50 10.00 4.6X
Z 21s 0.57um 5.1Msz
TUL 122.32 41 iPKPc 50 15.80 -5.3X
FVM 124.29 36 ePKP 50 23.82 -1.1
MIAR 124.59 41 ePKP 50 24.06 -1.5
Z 19s 0.25um 4.9Msz
GAC 124.98 19 ePKP 50 25.50 -0.4
YSNY 126.68 23 ePKP 50 28.37 -1.1
Z 21s 0.31um 5.0Msz
OXF 127.24 38 ePKP 50 30.29 -0.4
LMN 127.56 10 ePKP 50 33.50 2.6
BINY 127.89 22 PKP 50 40.00 8.3X
Z 19s 0.28um 5.0Msz
MYNC 129.92 34 ePKP 50 36.11 0.3
KIC 130.36 283 e(PKP)50 33.26 -3.9X
0.7s 13.50nm
LKO 130.38 288 PKP 50 37.81 0.6
0.7s 14.00nm
TIC 130.56 284 PKP 50 33.72 -3.9X
0.8s 9.50nm
LIC 130.67 283 PKP 50 33.90 -3.9X
0.6s 4.50nm
CEH 131.88 29 ePKP 50 39.19 -0.2
RTCB 150.42 152 ePKPd 51 18.50 6.2X
RTLL 150.70 152 ePKPd 51 18.70 6.1X
LPAZ 161.84 126 ePKP 51 27.65 -0.1
SIV 167.10 143 PKP 51 30.90 -0.8
S.D. = 1.0 on 195 of 222 obs.

DEC 19, 1993 11h 45m 30.73± 0.24s
25.210 N ± 5.2km 62.603 E ± 3.0km
DEPTH = 24.4km (12 depth phases)
5.1mb (85 obs.) 5.0Msz (30 obs.)
SOUTHWESTERN PAKISTAN (354)

QUE 6.28 37 eP 47 04.50 0.1
e(S) 49 40.00
MAIO 11.37 347 iPc 48 12.00 -2.8
1.2s 34.72nm 5.5mb
eS 51 09.00
POO 12.37 120 eP 48 27.50 -0.8
iS 50 38.50
ASH 13.20 345 eP 48 33.00 -6.3X
NDI 13.49 72 iP 48 37.50 -5.5X
0.5s 56.34nm 5.8mb
eS 50 53.00
MJMA 15.64 276 eP 49 14.80 3.5X
eS 51 50.00
KER 16.23 308 eP 49 15.00 -3.9X
HYB 16.75 114 eP 49 23.50 -2.0
1.4s 142.50nm 4.9mb
GBA 18.12 127 P 49 40.80 -1.7
1.1s 8.00nm 3.8mb X
UQSK 18.28 276 eP 49 44.00 -0.6
TAB 18.84 317 iP+ 49 50.00 -1.4

GKN 19.90 77 P 50 03.00 -0.6
FRU 20.16 26 iPc 50 06.20 0.1
2.0s 260.00nm 5.2mb
DMN 20.29 78 P 50 08.00 0.1
KKN 20.45 78 P 50 09.30 -0.2
KOD 20.52 134 eP 50 10.80 0.5
eS 54 00.00
PKI 20.56 78 P 50 10.30 -0.4
TAIF 20.81 264 ePc 50 14.80 1.7
GUN 20.99 78 P 50 15.80 0.7
MAK 21.69 329 eP 50 22.00 0.3
3.0s 1.00nm 2.7mb X
Z 16s 5.00um 5.0MszX
N 16s 2.50um
E 16s 2.50um
e 50 46.00 119kmX
ePPP 50 56.00
iS 54 16.00
MTA 22.09 322 eP 50 26.00 0.4
0.8s 100.00nm 5.3mb
eSSS 54 56.00
GRO 22.79 327 iPc+ 50 34.00 1.5
1.0s 440.00nm 5.9mb
AYN 23.95 285 ePc 50 46.30 2.3
PYA 24.62 325 iPc+ 50 52.00 1.7
i 51 04.00 48kmX
eS 55 14.00
KIV 24.76 324 eP 50 54.70 2.9X
2.0s 1049.00nm 6.1mb
e 51 01.10 23km
e 51 26.50
eS 55 15.60
BADA 24.82 284 ePc 50 55.80 3.4X
BHL 24.94 297 P 50 54.00 0.4
S 55 20.00
SOC 26.18 320 eP 51 08.00 3.0X
1.2s 100.00nm 5.3mb
Z 14s 1.40um 4.7MszX
N 16s 0.90um
E 13s 1.00um
eS 55 38.00
ELL 30.16 300 eP 51 50.00 8.7X
ALT 30.60 305 eP 51 44.00 -1.2
KHL 30.84 303 iP 51 46.70 -0.5
ARU 31.30 356 eP 51 50.00 -0.9
e 52 06.00 66kmX
SVE 31.60 358 ePc 51 54.00 0.4
2.2s 60.00nm 5.1mb
Z 15s 6.00um 5.4MszX
N 14s 4.50um
E 14s 2.00um
e 52 08.00 56kmX
ePPP 53 18.00
eSSS 59 11.00
CHTO 34.21 93 eP 52 18.00 1.3
1.5s 61.94nm 5.3mb
VRI 35.33 315 eP 52 24.00 -2.0
OBN 35.45 334 iPc 52 27.00 0.1
1.6s 256.00nm 5.9mb
Z 16s 1.90um 4.9MszX
N 16s 1.30um
E 16s 1.20um
i 52 44.60 71kmX
e 55 04.00
MOS 35.54 336 iPc 52 28.00 0.4
2.0s 400.00nm 6.0mb
Z 16s 1.70um 4.9MszX
MLR 35.68 314 ePd 52 31.00 1.8
e 21 03.50
KMI 36.23 81 Pd 52 34.50 0.3
2.0s 100.00nm 5.4mb
Z 20s 1.10um 4.6Msz
pP 52 42.00 25km
VAY 36.77 306 iP 52 38.40 0.2
SKO 37.74 307 iPc 52 46.00 -0.4
OHR 38.03 305 iP 52 48.70 -0.2
0.7s 40.00nm 5.4mb
i 52 56.00 25km
i 53 05.50
MNK 38.70 327 eP 52 56.00 1.8
UZH 39.17 317 eP 53 00.00 1.8
1.0s 31.00nm 5.0mb
Z 15s 1.50um 4.9MszX
E 15s 1.00um
ZAK 40.08 40 iPc 53 06.80 1.1
1.5s 48.00nm 5.0mb
Z 11s 0.98um 4.9MszX

N 16s 1.53um
e 54 41.50 523kmX
GRI 41.03 301 P 53 15.26 1.5
0.5s 9.90nm 4.8mb
ORI 41.14 303 P 53 15.81 1.2
0.8s 53.90nm 5.3mb
PUL 41.16 336 eP 53 15.00 0.6
Z 16s 1.00um 4.8MszX
E 16s 1.00um
e 54 51.00 529kmX
OJC 41.27 319 eP 53 15.90 0.3
i 53 23.70 26km
SRO 41.41 315 e(P) 53 17.90 1.2
MGR 41.83 303 P 53 21.12 0.9
1.3s 111.60nm 5.4mb
SGO 42.06 303 P 53 23.56 1.5
1.5s 61.10nm 5.1mb
IPM 42.18 113 ePd 53 33.00 9.6X
1.1s 61.80nm 5.2mb
SDI 43.31 305 P 53 32.72 0.3
0.8s 13.50nm 4.8mb
LJU 43.48 311 eP 53 34.40 0.7
e 53 52.00 71kmX
KSP 43.59 318 iPd 53 35.50 1.0
e 53 41.60 20km
AQU 43.69 306 P 53 37.11 1.6
1.0s 52.60nm 5.3mb
NUR 43.82 334 eP 53 36.10 0.0
TRI 43.95 311 eP 53 37.00 -0.4
e 15 24.00
ARV 44.17 307 P 53 39.88 0.5
1.7s 106.40nm 5.4mb
KAF 44.18 336 iP 53 38.80 -0.3
0.5s 4.70nm 4.6mb
MNS 44.23 306 P 53 40.29 0.5
1.8s 105.30nm 5.4mb
ASS 44.32 307 P 53 41.90 1.3
1.1s 18.50nm 4.9mb
PRU 44.41 317 eP 53 48.50 7.3X
KBA 44.50 312 iPc 53 41.90 -0.2
1.3s 20.10nm 4.9mb
i 53 51.40 32km
RSM 44.58 308 P 53 43.91 1.3
1.4s 137.50nm 5.7mb
GEC2 44.65 315 e(P) 54 02.70 19.5X
1.1s 10.90nm
GEC2 44.65 315 P 53 42.90 -0.3
0.8s 7.80nm 4.7mb
e 53 47.70 16km
e 53 51.20
e 53 53.90
e 54 01.90
GEC2 44.65 315 e(P) 53 54.80 11.6X
0.9s 10.10nm
GEC2 44.65 315 e(P) 53 46.10 2.9X
0.7s 1.90nm 4.1mb X
FVI 44.78 312 P 53 44.34 0.2
1.1s 10.30nm 4.6mb
KHC 44.80 315 Pc 53 44.40 0.0
1.4s 33.00nm 5.1mb
i 54 02.90 75kmX
CRE 44.90 307 P 53 45.50 0.2
1.2s 15.70nm 4.8mb
BHG 44.94 313 iPc 53 45.50 0.0
0.7s 57.00nm 5.6mb
SFI 45.01 308 P 53 47.47 1.4
1.6s 148.30nm 5.7mb
PGD 45.10 308 P 53 48.36 1.4
0.8s 32.60nm 5.3mb
CTI 45.46 311 P 53 49.47 -0.3
1.4s 26.40nm 5.0mb
WTTA 45.68 312 iPc 53 50.90 -0.6
1.2s 46.00nm 5.3mb
i 53 58.70 26km
i 54 03.50
CLL 45.71 318 iPc 53 52.20 0.7
1.6s 260.00nm 5.9mb
i 53 58.90 22km
WATA 45.73 312 iPc 53 50.90 -1.0
SQTA 45.96 312 iPc 53 52.80 -0.8
1.1s 29.60nm 5.1mb
OGA 46.02 312 iPc 53 54.10 -0.2
MOTA 46.05 312 iPc 53 53.30 -1.1
1.1s 38.20nm 5.2mb
i 54 00.20 23km
MOX 46.39 317 eP 53 57.40 0.5
1.8s 47.00nm 5.2mb

Z 18s 0.60um 4.6Msz
GRF 46.43 316 iPc 53 57.80 0.6
1.7s 88.00nm 5.5mb
Z 22s 0.40um 4.3Msz
OSS 46.59 311 iPc 53 58.80 0.1
CIT 46.73 41 eP 54 00.50 0.9
BJI 46.81 58 eP 54 01.50 1.2
1.5s 42.00nm 5.2mb
Z 20s 1.21um 4.9Msz
E 16s 1.11um
epP 54 09.50 27km
esP 54 13.50
PcP 55 35.00
eScP 59 26.00
eS 00 50.00
eSS 04 08.00
BOB 46.82 309 P 54 00.76 0.3
1.4s 74.00nm 5.5mb
PGF 46.95 306 eP 54 00.70 -0.9
0.9s 12.60nm 4.9mb
VDL 47.02 311 P 54 02.50 0.3
TMA 47.38 310 P 54 04.30 -0.7
LLS 47.40 311 iPc 54 04.30 -0.8
SLE 47.86 313 P 54 07.80 -0.8
MMK 48.00 310 P 54 08.80 -1.2
SBF 48.18 307 eP 54 10.60 -0.6
0.7s 30.30nm 5.4mb
HFS 48.34 330 eP 54 10.80 -1.2
0.5s 4.00nm 4.7mb
Z 18s 0.99um 4.8Msz
LR 13 32.00
DIX 48.39 310 iPc 54 12.10 -0.9
EMS 48.72 310 P 54 15.60 0.2
FRF 48.74 307 eP 54 14.50 -0.8
0.9s 8.70nm 4.8mb
CDF 48.76 313 eP 54 14.50 -1.1
0.7s 6.05nm 4.7mb
BOD 48.78 34 iPc 54 15.40 0.0
LPG 48.79 309 eP 54 15.30 -0.8
1.0s 25.40nm 5.2mb
LPL 48.81 309 eP 54 15.40 -0.8
0.7s 13.25nm 5.1mb
BNI 48.81 309 P 54 14.64 -1.4
0.7s 16.30nm 5.2mb
LMR 48.82 306 eP 54 15.20 -0.8
BSF 49.01 312 eP 54 16.50 -1.0
0.6s 8.55nm 5.0mb
HAU 49.32 313 eP 54 18.80 -1.0
0.6s 7.95nm 4.9mb
Z 22s 0.57um 4.5Msz
WLF 49.66 315 Pc 54 22.00 -0.3
NAO 49.91 330 P 54 23.20 -0.9
0.8s 12.70nm 5.0mb
DOU 50.72 315 Pd 54 31.20 0.8
LBF 50.83 311 eP 54 30.50 -0.9
0.7s 9.50nm 4.8mb
SMF 50.90 311 eP 54 31.20 -0.7
0.8s 26.85nm 5.2mb
LOR 50.93 311 eP 54 31.10 -1.0
0.6s 4.80nm 4.6mb
Z 20s 0.38um 4.4Msz
SSF 51.16 311 eP 54 33.10 -0.7
0.8s 16.10nm 5.0mb
AVF 51.24 311 eP 54 33.50 -0.9
0.7s 7.40nm 4.7mb
SSE 51.48 69 eP 54 37.00 0.5
Z 20s 0.90um 4.8Msz
S 01 56.00
sS 02 18.00
MTHF 51.72 306 P 54 38.09 -0.1
MAF 51.76 310 eP 54 37.90 -0.5
0.7s 9.50nm 4.8mb
TCF 52.01 310 eP 54 39.70 -0.6
0.7s 11.35nm 4.9mb
CAF 52.07 308 eP 54 40.50 -0.3
0.8s 16.10nm 5.0mb
TRGS 52.15 305 P 54 41.47 -0.1
PAND 52.46 305 P 54 44.00 0.0
RJF 52.47 309 eP 54 43.60 -0.2
0.7s 20.30nm 5.2mb
Z 23s 0.40um 4.4MszX
LSF 52.48 310 eP 54 42.90 -0.9
0.7s 8.25nm 4.8mb
LPO 52.70 308 eP 54 45.10 -0.4
1.1s 26.35nm 5.1mb
LFF 53.02 308 eP 54 47.70 -0.1
0.7s 26.90nm 5.3mb

LDF 53.67 313 eP 54 51.50 -1.1
0.6s 14.05nm 5.1mb
EGRA 53.85 305 iPc 54 50.40 -3.5X
FLN 53.92 313 eP 54 53.40 -0.9
Z 23s 0.57um 4.6MszX
GRR 54.16 313 eP 54 55.40 -0.7
LPF 54.27 312 eP 54 56.40 -0.6
ETOR 55.24 303 eP 55 12.10 7.8X
GUD 56.85 303 eP 55 23.30 7.4X
EBAN 56.86 300 eP 55 15.20 -0.7
EGUA 56.87 299 eP 55 14.50 -1.5
PAB 57.12 302 eP 55 25.30 7.5X
eS 03 12.00
YAK 57.34 31 eP 55 18.00 -0.9
1.1s 55.00nm 5.5mb
TIK 58.85 20 iPd 55 29.00 -0.3
2.0s 102.00nm 5.6mb
Z 18s 1.50um 5.2Msz
i 55 40.00 37kmX
i 57 39.00
SEK 62.97 215 iPd 56 07.00 9.0X
0.7s 17.12nm 5.3mb
DAG 63.67 345 iPd 56 01.10 -0.7
0.8s 20.15nm 5.3mb
BOSA 64.36 216 eP 56 16.69 9.8X
0.8s 9.37nm 5.0mb
FRS 65.31 215 eP 56 12.30 -0.7
LKO 66.31 270 Pc 56 20.10 0.2
0.8s 6.50nm 4.8mb
KIC 66.83 266 P 56 24.21 1.1
1.0s 23.00nm 5.3mb
TIC 66.97 267 P 56 24.85 0.8
1.1s 16.00nm 5.1mb
LIC 67.15 266 P 56 25.95 0.8
1.0s 13.00nm 5.0mb
Z 20s 0.22um 4.4Msz
GDH 75.31 341 ePd 57 10.00 -3.2X
1.2s 37.50nm 5.3mb
MBC 78.78 0 eP 57 34.00 1.6
1.0s 5.00nm 4.5mb
WRA 82.91 116 P 57 55.50 0.3
0.8s 1.10nm 4.0mb X
WB2 82.92 116 eP 57 54.90 -0.3
0.8s 3.10nm 4.5mb
i 58 03.60 28km
ANM 83.10 19 eP 57 56.23 0.8
FRB 83.44 340 eP 57 58.00 0.9
IMA 84.90 14 iPc 58 05.17 0.5
0.6s 6.10nm 5.0mb
INK 86.00 6 eP 58 10.50 0.6
1.0s 3.00nm 4.5mb
TTA 86.97 17 e(P) 58 15.80 0.9
FBA 87.14 12 eP 58 15.85 0.2
1.3s 17.12nm 5.1mb
PWA 89.57 15 eP 58 27.60 0.3
1.0s 40.50nm 5.6mb
PMR 89.80 15 eP 58 29.70 1.4
Z 20s 0.76um 5.1Msz
YKA 92.57 359 eP 58 51.50 10.4X
0.9s 2.00nm
CBM 95.54 329 P 59 10.00 15.0X
Z 19s 0.37um 4.9Msz
HRV 100.46 327 Pdiff 59 30.00 12.8X
Z 19s 0.37um 4.9Msz
LSCT 101.89 328 Pdiff 59 40.00 16.3X
Z 20s 0.58um 5.1Msz
BINY 102.79 330 Pdiff 59 40.00 12.3X
Z 19s 0.31um 4.8Msz
YSNY 103.70 331 Pdiff 59 40.00 8.2X
Z 19s 0.57um 5.1Msz
MCWV 106.57 331 PKP 04 10.00 14.6X
Z 21s 0.60um 5.1Msz
NEW 106.87 360 PKP 04 10.00 14.3X
Z 20s 0.56um 5.1Msz
MYNC 112.27 331 PKP 04 20.00 13.7X
Z 21s 0.42um 5.0Msz
GOGA 113.36 329 PKP 04 20.00 11.6X
Z 21s 0.34um 4.9Msz
GOL 114.46 350 PKP 04 20.00 9.2X
Z 19s 0.46um 5.1Msz
DUG 114.79 356 PKP 04 20.00 8.8X
Z 19s 0.44um 5.1Msz
MIAR 116.42 338 PKP 04 30.00 15.7X
Z 21s 0.45um 5.1Msz
CMB 117.03 3 PKP 04 30.00 14.6X
Z 19s 0.61um 5.2Msz
WMOK 117.82 343 PKP 04 30.00 13.0X

19d 12h

Z 21s 0.66um 5.2Msz
SAO 118.24 4 PKP 04 30.00 12.3X
Z 20s 0.49um 5.1Msz
HON 119.22 44 PKP 04 30.00 10.1X
Z 21s 0.13um 4.5Msz
ALQ 119.28 350 PKP 04 30.00 10.0X
Z 19s 0.51um 5.2Msz
ISA 119.45 1 PKP 04 30.00 9.9X
Z 20s 0.42um 5.1Msz
TUC 122.46 353 PKP 04 40.00 14.1X
Z 19s 0.43um 5.1Msz
S.D. = 0.9 on 139 of 179 obs.

% DEC 19, 1993 11h 46m 15.10± 0.52s
40.703 N ± 4.7km 23.096 E ± 4.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

THE 0.12 234 iPg 46 18.53 0.4
eSg 46 20.52
SOH 0.23 59 iPg 46 20.53 0.5
iSg 46 23.56
KNT 0.48 342 iPg 46 25.00 0.1
eSg 46 31.32
SRS 0.56 42 iPg 46 26.10 -0.4
eSg 46 33.68
GRG 0.58 296 ePg 46 26.60 -0.4
eSg 46 35.28
LIT 0.76 218 ePg 46 30.00 0.0
eSg 46 40.92
OUR 0.77 118 ePg 46 30.08 0.0
PAIG 0.89 150 ePg 46 31.92 -0.3
eSg 46 45.40
S.D. = 0.4 on 8 of 8 obs.

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* DEC 19, 1993 13h 12m 04.13± 0.78s
41.995 N ± 6.4km 2.011 E ± 5.2km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.8 (MDD).

TRGS 0.51 356 Pg 12 14.61 0.1
PAND 0.63 327 Pg 12 16.49 -0.4
VDCF 0.65 24 Pg 12 17.27 0.1
ETER 0.70 64 iPc 12 17.79 -0.1
e 12 27.20
PERF 0.81 52 Pg 12 19.87 0.1
GRBF 0.92 338 Pg 12 21.76 0.1
SALF 0.98 322 Pg 12 22.45 -0.3
EPF 1.61 311 Pg 12 33.30 0.6
Sg 12 54.50
EROQ 1.68 226 eP 12 33.65 0.0
e 12 55.00
EGRA 1.74 277 iPd 12 27.31 -7.3X
e 12 43.90
LPO 2.75 348 Pg 12 54.30 5.2X
Sg 13 30.90
LFF 3.09 343 Pg 12 59.50 5.8X
Sg 13 40.90
S.D. = 0.3 on 9 of 12 obs.

% DEC 19, 1993 15h 08m 40.42± 2.85s
41.347 N ±21.0km 23.107 E ± 6.0km
DEPTH = 5.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.3 (THE).

KNT 0.24 220 iPgc 08 45.00 -0.4
eSg 08 49.28
SRS 0.43 122 iPg 08 48.57 -0.5
iSg 08 54.37
SOH 0.56 160 ePg 08 51.69 0.1
eSg 09 01.36
GRG 0.66 234 ePg 08 53.92 0.3
iSg 09 02.64
THE 0.72 189 ePg 08 54.56 -0.3
eSg 09 06.68
OUR 1.21 146 iPb 09 04.21 0.8
iSb 09 22.56
PAIG 1.48 163 ePb 09 07.72 0.0
S.D. = 0.6 on 7 of 7 obs.

% DEC 19, 1993 15h 13m 26.17± 0.94s
30.965 S ±12.0km 68.916 W ±14.8km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.53 134 iPd 13 42.50 0.1
S 13 54.50
CFA 0.86 138 iPd 13 45.90 0.4
S 14 21.00
RTRS 0.92 329 iPc 13 46.00 0.0
S 13 57.50
RTCV 0.95 160 iPc 13 46.00 -0.4
S 14 02.00
RTPR 2.18 73 eP 14 01.40 -0.1
S 14 30.00
S.D. = 0.4 on 5 of 5 obs.

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* DEC 19, 1993 15h 50m 14.34± 1.19s
36.886 N ± 9.2km 21.626 E ± 9.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.6 (ATH). ML 3.4 (THE).

VLI 1.07 99 ePg 50 33.10 -1.3
eSg 50 53.10
VLS 1.53 328 ePb 50 41.50 -0.2
ATH 1.99 56 ePn 50 50.10 1.8
AGG 2.20 14 ePn 50 53.01 1.5
eSn 51 21.78
VAM 2.55 125 ePn 50 57.00 0.6
KEK 3.17 334 ePn 51 05.20 0.0
LIT 3.28 12 ePn 51 06.78 0.0
eSn 51 47.33
KZN 3.42 2 ePn 51 09.50 0.7
PAIG 3.44 27 iPn 51 08.94 0.0
eSn 51 52.26
FNA 3.90 357 ePn 51 15.70 0.1
eSn 52 02.46
OUR 3.91 27 ePn 51 15.26 -0.4
GRG 4.11 8 ePn 51 17.69 -0.8
eSn 52 07.14
SOH 4.15 18 ePn 51 18.78 -0.4
iSn 52 08.94
OHR 4.27 352 ePn 51 21.00 0.1
KNT 4.38 13 ePn 51 21.94 -0.5
eSn 52 14.82
VAY 4.49 9 ePn 51 23.60 -0.3
SRS 4.49 19 ePn 51 23.18 -0.8
SKO 5.08 358 ePn 51 42.00 9.7X
S.D. = 0.8 on 17 of 18 obs.

? DEC 19, 1993 16h 23m 54.57± 3.53s
29.779 S ±31.7km 66.847 W ±15.8km
DEPTH = 33.0km (normal)
LA RIOJA PROVINCE, ARGENTINA (138)

RTPR 0.60 151 iPc 24 06.50 0.0
RTLL 2.08 222 ePd 24 27.00 -0.9
S 24 52.00
CFA 2.18 213 ePd 24 29.90 0.6
S 24 55.00
RTRS 2.30 260 eP 24 31.00 0.1
S 25 00.00
RTCB 2.39 224 ePd 24 32.70 0.3
S 25 01.00
S.D. = 0.8 on 5 of 5 obs.

DEC 19, 1993 17h 09m 37.53± 0.70s
41.160 N ± 5.9km 22.655 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.3 (THE), 2.2 (SKO).

VAY 0.17 338 iPg 09 41.50 0.1
0.2s 860.00nm
iSg 09 44.30
KNT 0.18 89 iPgd 09 41.69 0.0
eSg 09 44.50
GRG 0.28 223 iPg 09 43.30 -0.1
iSg 09 47.94
THE 0.58 156 iPg 09 48.89 -0.3
eSg 09 57.05
SOH 0.63 122 ePg 09 49.54 -0.7
eSg 09 58.10
SRS 0.71 93 ePg 09 51.30 -0.2
eSg 10 00.82
OUR 1.30 129 ePb 10 02.46 0.8
eSb 10 21.02
PAIG 1.46 147 ePb 10 04.26 0.4
S.D. = 0.5 on 8 of 8 obs.

% DEC 19, 1993 17h 25m 28.83± 1.49s
44.540 N ± 6.0km 6.863 E ±12.4km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 2.4 (GEN).

PZZ 0.17 102 P 25 33.96 1.5
S 25 36.75
RRL 0.38 352 P 25 37.44 0.9
S 25 42.64
BHB 0.42 43 P 25 37.80 0.6
S 25 43.25
STV 0.44 132 P 25 38.35 0.6
S 25 44.13
ENR 0.51 128 P 25 39.54 0.5
S 25 46.36
RSP 0.67 24 P 25 42.59 0.3
S 25 51.35
ROB 0.76 108 P 25 44.44 0.3
IMI 0.97 130 P 25 48.42 0.6
FIN 1.02 108 P 25 48.74 0.1
S.D. = 0.5 on 9 of 9 obs.

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* DEC 19, 1993 17h 53m 13.51± 0.64s
36.532 N ±15.3km 71.421 E ±10.8km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

QUE 7.35 212 eP 55 25.00 23.6X
eS 56 21.50
MAIO 9.62 272 iPc 55 32.30 -0.5
0.9s 11.08nm 5.1mb
eS 57 13.00
GKN 14.04 124 P 56 32.60 0.3
DMN 14.61 124 P 56 40.20 0.3
KKN 14.61 123 P 56 39.60 -0.3
PKI 14.84 123 P 56 42.80 -0.2
GUN 14.94 121 P 56 44.00 -0.3
HYB 20.06 160 eP 57 45.00 -1.9
GBA 23.46 165 P 58 22.00 1.1
MLR 35.06 299 eP 00 07.00 1.6
HFS 43.25 322 ePKP 01 12.30 -0.8
0.4s 2.60nm 4.3mb
YKA 81.20 3 eP 05 25.80 -1.1
0.6s 1.30nm 4.1mb
WRA 81.72 122 P 05 31.90 1.6
0.5s 0.30nm 3.6mb
S.D. = 1.2 on 12 of 13 obs.

& DEC 19, 1993 18h 36m 25.74s
63.275 N 151.041 W
DEPTH = 10.8km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC), 3.1
(PMR).

KTH 0.28 11 iP 36 31.32 -0.5
TRF 0.38 62 iP 36 33.60 -0.1
HUR 0.70 114 iP 36 39.28 -0.3
eS 36 48.97
CUT 0.94 158 eP 36 43.57 0.0
RND 1.00 81 eP 36 44.28 -0.3
eS 36 57.95
MCK 1.05 63 eP 36 45.51 0.0
eS 37 00.31
BWN 1.14 37 eP 36 46.79 -0.2
SKT 1.32 190 eP 36 49.50 -0.5
eS 37 06.53
NEA 1.57 33 eP 36 54.43 0.9
eS 37 15.82
DHY 1.68 95 eP 36 55.82 0.5
eS 37 18.95
PWA 1.72 161 P 36 55.70 0.0
MLY 1.77 4 eP 36 56.11 -0.4
eS 37 20.46
WRH 1.77 46 eP 36 56.24 -0.3
GHO 1.80 146 eP 36 56.56 -0.5
eS 37 20.52
SUA 1.82 176 eP 36 57.21 -0.2
eS 37 22.90
PLRM 1.91 151 eP 36 57.90 -0.6
PMR 1.91 151 eP 36 57.85 -0.6
eS 37 26.99
SML 1.93 138 eP 36 58.45 -0.5
NCG 1.95 196 eP 36 58.73 -0.5
CCB 1.98 45 eP 36 58.15 -1.4
CGLM 2.03 193 eP 36 59.58 -0.7

CRP 2.08 195 eP 37 00.94 -0.2
eS 37 28.94
MDM 2.09 35 eP 37 00.06 -1.1
CP2 2.10 196 eP 37 01.22 -0.2
BGL 2.12 198 eP 37 01.62 0.0
CKN 2.13 195 eP 37 01.73 0.0
HDA 2.14 56 eP 36 59.02 -2.8
CKT 2.15 195 eP 37 02.17 0.0
PMS 2.15 161 eP 37 03.70 1.6
SPU 2.15 193 eP 37 01.77 -0.4
FBA 2.17 40 eP 37 01.00 -1.3
eS 37 33.32
KNK 2.22 146 eP 37 03.11 0.0
eS 37 32.40
SCM 2.25 128 eP 37 03.36 -0.2
BKG 2.29 195 eP 37 03.73 -0.3
TTA 2.29 264 eP 37 04.72 0.7
DDM 2.38 75 eP 37 04.74 -0.6
TOA 2.53 115 P 37 06.30 -1.2
PAX 2.55 94 eP 37 08.36 0.6
CFI 2.60 142 eP 37 09.45 1.1
PWL 2.74 151 eP 37 10.88 0.4
DFR 2.80 197 eP 37 10.99 -0.4
SLKM 2.80 172 eP 37 11.74 0.4
NCT 2.87 199 eP 37 14.06 1.8
REF 2.90 196 eP 37 12.77 -0.1
KLU 2.98 125 eP 37 14.43 0.5
eS 37 53.26
IMA 3.03 339 eP 37 12.55 -2.0
SVW 3.06 227 eP 37 13.78 -1.1
VLZ 3.08 132 eP 37 14.83 -0.3
FID 3.32 138 eP 37 19.05 0.3
ILIM 3.33 197 eP 37 19.77 0.9
CNPM 3.76 182 eP 37 26.02 1.0
GLB 3.84 115 eP 37 26.19 0.1
52 obs. associated

? DEC 19, 1993 18h 38m 21.83± 1.15s
10.367 N ±25.5km 84.759 W ±19.7km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
COSTA RICA (78)
MD 4.5 (UPA).

BRU 2.67 125 iP 39 04.71 0.9
eS 39 28.97
DVD 2.98 130 iP 39 07.76 -0.1
eS 39 37.58
ECO 5.09 101 eP 39 36.95 -1.0
eS 40 29.72
UPA 5.33 105 eP 39 41.63 0.4
eS 40 32.83
LTX 25.86 320 eP 44 01.00 8.6X
e 44 15.80
ULM 40.81 349 eP 46 07.00 5.2X
YKA 56.32 344 eP 48 02.00 0.4
0.4s 0.50nm 3.9mb
LKO 77.77 82 P 50 16.95 -1.1
0.9s 5.00nm 4.5mb
WRA 141.16 251 PKP 57 50.00 -1.7
0.7s 0.80nm
HYB 147.84 31 ePKP 58 05.00 2.0
S.D. = 1.4 on 8 of 10 obs.

DEC 19, 1993 18h 56m 04.79± 0.81s
17.226 N ± 9.7km 97.329 W ± 6.9km
DEPTH = 59.2km (6 depth phases)
4.2mb (8 obs.)
OAXACA, MEXICO (60)

OXX 0.60 104 iP 56 19.50 1.4
iS 56 32.00
IISM 1.75 359 iP 56 36.50 3.2X
PPM 2.21 326 iP 56 43.20 3.0X
(S) 57 17.00
ACX 2.45 262 iP 56 40.50 -2.5
iS 57 15.00
LVVM 2.63 18 iP 56 46.00 0.3
iS 57 16.00
UNM 2.74 320 iP 56 49.50 2.1
CRX 3.11 315 iP 56 53.00 0.2
(S) 57 40.00
MRX 4.42 305 (P) 57 09.00 -1.8
(S) 58 10.00
SCX 4.52 96 (P) 57 13.00 0.8
(S) 57 55.00
TPX 5.39 115 (P) 57 25.00 0.4
LTX 13.38 335 P 59 15.39 1.7
UYO 17.07 8 iPd 00 00.00 -0.8
WMOK 17.49 356 eP 00 05.33 -0.8
0.8s 9.09nm 4.0mb
MEO 17.52 357 iPc 00 06.10 -0.4
MIAR 17.57 10 eP 00 06.73 -0.4
0.7s 15.67nm 4.3mb
OCO 18.22 360 iPc 00 16.60 1.4
OXF 18.62 21 eP 00 19.05 -0.9
0.6s 317.01nm 5.7mb X
TUL 18.66 4 iPd 00 20.00 -0.5
TUC 19.33 323 eP 00 30.28 2.1
1.0s 8.15nm 3.9mb
e 00 43.18 58km
ALQ 19.44 337 eP 00 29.76 0.3
0.9s 8.14nm 4.0mb
e 00 44.01 65km
ACO 19.46 356 iPd 00 28.80 -0.8
FVM 21.55 15 eP 00 47.97 -3.0
0.6s 9.52nm 4.4mb
JSC 22.26 37 eP 00 56.92 -1.1
e 01 10.54 58km
LHS 22.66 38 eP 01 01.56 -0.4
e 01 15.90 61km
SRU 24.66 335 eP 01 23.03 1.5
ARUT 24.90 329 eP 01 26.21 2.4
CVL 26.49 35 eP 01 37.90 -0.5
e 01 50.80 52km
YSNY 29.84 29 eP 02 07.88 -0.8
0.8s 12.19nm 4.7mb
LRM 31.18 339 ePc 02 21.50 0.9
e 02 36.60 62km
ULM 32.96 2 eP 02 37.50 1.7
RSNY 33.31 30 eP 02 38.22 -0.7
0.8s 15.20nm 4.9mb
LMN 39.31 36 eP 03 30.50 0.8
JAQ 40.18 20 eP 03 36.00 -0.7
YKA 46.81 349 eP 04 28.70 -1.4
0.6s 1.60nm 4.1mb
FRB 50.49 16 eP 04 58.00 -0.5
INK 55.94 345 eP 05 39.00 0.2
MBC 60.14 354 eP 06 25.50 17.4X
S.D. = 1.4 on 34 of 37 obs.

% DEC 19, 1993 20h 35m 10.86± 1.00s
43.020 N ± 7.4km 18.743 E ± 6.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.9 (TTG).

BRY 0.19 231 iPgd 35 15.23 0.1
iSg 35 18.16
NKY 0.28 138 iPgc 35 16.96 0.2
iSg 35 21.38
PLE 0.57 57 iPgd 35 22.35 -0.1
iSg 35 30.78
HCY 0.60 198 iPgd 35 22.93 0.0
iSg 35 31.70
TTG 0.70 147 iPgc 35 23.88 -0.8
iSg 35 35.25
BDV 0.74 175 iPgd 35 25.25 -0.1
iSg 35 36.32
IVA 0.86 100 iPgd 35 27.64 0.1
iSg 35 40.57
PVY 1.00 115 iPgc 35 30.10 0.2
iSg 35 45.02
ULC 1.12 160 iPgc 35 32.35 0.5
iSg 35 48.99
S.D. = 0.4 on 9 of 9 obs.

DEC 19, 1993 21h 00m 07.61± 0.22s
44.491 N ± 1.6km 7.141 E ± 2.6km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.6 (GEN), 2.3 (LDG).

PZZ 0.03 296 Pc 00 09.48 0.5
S 00 10.24
STV 0.28 152 P 00 13.45 0.2
S 00 17.20
ENR 0.33 143 P 00 14.44 0.1
S 00 18.68
BHB 0.36 14 P 00 15.20 0.3
S 00 19.97
TOUF 0.48 171 Pg 00 17.46 0.1
Sg 00 24.90
RRL 0.50 329 P 00 17.61 0.0
S 00 24.70
AUTN 0.54 157 Pg 00 18.34 -0.1
ROB 0.56 110 P 00 19.04 0.2
S 00 27.28
SAOF 0.59 149 Pg 00 19.32 0.0
Sg 00 27.13
MVIF 0.59 179 Pg 00 19.53 0.0
AURF 0.62 167 Pg 00 19.98 0.0
SBF 0.66 161 Pg 00 20.90 0.0
Sg 00 30.40
RSP 0.67 7 P 00 20.48 -0.5
S 00 28.82
CALN 0.76 194 Pg 00 22.86 -0.1
IMI 0.79 137 P 00 23.31 -0.2
S 00 33.65
FIN 0.82 110 P 00 23.50 -0.4
S 00 34.37
LSD 0.97 1 P 00 26.36 -0.3
S 00 38.65
FRF 1.00 201 Pg 00 26.80 -0.2
Sg 00 39.20
PCP 1.01 87 P 00 27.60 0.4
S 00 40.24
LPG 1.04 345 Pg 00 28.00 0.0
Sg 00 41.60
LPL 1.07 344 Pg 00 28.20 -0.1
Sg 00 41.80
LRG 1.18 209 Pg 00 29.90 -0.2
Sg 00 45.80
LMR 1.24 202 Pg 00 31.20 0.0
Sg 00 46.80
S.D. = 0.3 on 23 of 23 obs.

DEC 19, 1993 21h 04m 58.29± 0.33s
14.793 N ± 5.2km 144.413 E ± 7.2km
DEPTH = 26.7km (7 depth phases)
5.1mb (23 obs.) 4.8Msz (8 obs.)
MARIANA ISLANDS (216)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 21C
Centroid Location:
Origin Time 21:04:59.8 0.6
Lat 14.91N 0.08 Lon 144.68E 0.07
Dep 15.0 FIX Half-duration 1.2
Moment Tensor;. Scale 10**17 Nm
Mrr=-0.87 0.09 Mtt= 0.34 0.11
Mff= 0.53 0.09 Mrt= 0.74 0.44
Mrf= 1.01 0.35 Mtf= 0.82 0.10
Principal Axes:
T Val= 1.84 Plg=25 Azm=310
N -0.38 5 218
P -1.46 65 118
Best Double Couple:Mo=1.6*10**17
NP1:Strike= 51 Dip=21 Slip= -76
NP2: 216 70 -95

GUMO 1.28 160 eP 05 20.20 -0.2
eS 05 36.10
PJG 1.27 160 eP 05 20.20 -0.2
GUA 1.34 159 eP 05 21.20 -0.1
eS 05 37.20
DAV 20.01 250 ePc 09 32.00 0.1
CGP 20.31 254 eP 09 35.50 0.4
MAP 20.43 260 ePc 09 36.00 -0.4
WKYJ 20.92 339 P 09 41.50 0.1
CTB 21.21 251 ePc 09 30.00 -14.4X
TKSJ 21.28 336 P 09 48.10 3.1X
IIDJ 21.41 345 eP 09 48.90 2.6
CHJJ 21.72 348 eP 09 53.80 4.5X
MTMJ 22.49 346 P 09 58.40 1.2
YONJ 22.57 336 P 09 58.70 0.9
NIIJ 22.87 349 eP 10 01.80 1.1
BCP 22.98 277 eP 10 06.00 3.8X
BAG 23.01 277 ePc 10 03.00 0.5
0.9s 33.61nm 4.9mb
eS 14 16.00
YAMJ 23.61 351 eP 10 09.70 1.8
SSE 26.76 311 Pc 10 36.00 -1.8
Z 20s 1.80um 4.6Msz
N 12s 0.60um
E 12s 0.50um
pP 10 44.00 28km
S 15 14.00
sS 15 27.00
GZH 30.47 290 eP 11 16.00 4.7X

Z 22s 1.94um 4.7Msz
S 16 16.00
BJI 35.23 321 eP 11 52.00 -0.5
2.0s 51.00nm 5.1mb
Z 20s 0.91um 4.5Msz
N 16s 1.00um
ePP 13 08.00
eS 17 20.00
WB2 35.91 196 eP 11 57.80 -0.6
0.9s 19.60nm 5.0mb
i 12 01.90 14kmX
TIY 36.37 315 eP 12 03.00 0.7
Z 19s 3.20um 5.1Msz
E 15s 1.18um
PP 13 31.00
S 17 47.00
GYA 37.06 294 Pd 12 09.40 1.2
1.0s 13.00nm 4.7mb
Z 26s 1.66um 4.7MszX
pP 12 18.00 29km
PP 13 36.00
S 17 56.00
XAN 37.31 307 P 12 09.50 -0.7
1.0s 8.00nm 4.5mb
Z 16s 1.25um 4.8MszX
pP 12 17.50 27km
sP 12 23.50
PP 13 36.00
S 17 52.00
HHC 38.58 319 eP 12 19.60 -1.3
1.0s 28.00nm 5.0mb
Z 36s 2.91um 4.8MszX
N 15s 0.31um
E 21s 1.92um
PP 13 58.00
eS 18 12.00
BTO 39.45 317 P 12 28.00 -0.1
N 14s 0.32um
E 14s 0.42um
ASPA 39.58 195 eP 12 29.80 0.6
0.7s 7.70nm 4.5mb
Z 19s 0.50um 4.4Msz
iPP 14 03.40
KMI 40.35 291 Pd 12 37.00 1.1
1.2s 70.00nm 5.3mb
Z 30s 1.50um 4.7MszX
N 16s 0.90um
E 16s 0.80um
pP 12 45.00 27km
eS 18 49.00
sS 19 01.00
ScS 22 38.00
CD2 40.50 300 P 12 36.80 0.0
1.0s 22.00nm 4.8mb
Z 21s 1.72um 4.9Msz
S 18 49.00
LZH 41.93 308 eP 12 49.50 0.8
1.8s 86.00nm 5.2mb
Z 26s 0.86um 4.5MszX
N 10s 0.40um
pP 12 57.50 27km
sP 13 01.00
PP 14 30.00
S 19 06.00
DZM 42.53 149 iPd 12 55.90 2.4
NST 42.68 277 eP 12 55.00 0.2
CHTO 43.62 282 eP 13 02.10 -0.4
eSg 45 50.90
WARB 44.25 203 eP 13 08.50 1.1
CIT 44.52 333 eP 13 11.00 1.6
ARMA 45.48 171 eP 13 21.50 4.2X
GTA 46.05 311 eP 13 22.00 0.2
1.5s 26.00nm 4.9mb
Z 24s 1.80um 4.9MszX
E 20s 0.90um
pP 13 28.50 22km
YAK 48.31 351 iPd 13 43.00 3.9X
1.8s 120.00nm 5.6mb
Z 18s 0.90um 4.8Msz
N 16s 0.40um
E 16s 0.40um
ZAK 48.60 326 iPc 13 41.80 0.4
1.7s 46.00nm 5.2mb
Z 13s 0.69um 4.8MszX
eS 20 37.00
BOD 48.60 339 eP 13 40.10 -1.3
LSA 51.06 296 Pc 14 02.00 0.8

1.2s 28.00nm 5.1mb
S 21 18.00
TOO 52.09 179 eP 14 09.20 1.0
1.0s 36.00nm 5.3mb
GUN 55.60 294 P 14 34.00 -0.7
WMQ 55.99 313 P 14 36.50 -0.5
1.5s 16.00nm 4.8mb
Z 26s 1.78um 5.0MszX
pP 14 45.00 28km
sP 14 51.00
PcP 15 32.00
ePP 16 43.00
ScP 19 28.00
PcS 19 32.00
S 22 25.50
ScS 24 20.00
SS 26 12.00
PKI 56.01 293 P 14 36.40 -1.3
0.5s 9.00nm 5.1mb
KKN 56.13 294 P 14 37.50 -0.9
0.9s 21.00nm 5.2mb
DMN 56.28 293 P 14 38.60 -1.0
1.0s 37.00nm 5.4mb
GKN 56.70 294 P 14 41.40 -1.0
0.9s 35.00nm 5.4mb
TIK 57.58 354 eP 14 46.00 -1.8
2.0s 41.00nm 5.1mb
NDI 63.22 295 eP 15 26.00 -0.9
KSH 64.16 307 eP 15 33.00 -0.1
Z 24s 1.35um 5.1MszX
QUE 72.02 297 eP 16 22.50 0.1
INK 73.43 23 eP 16 29.00 -0.7
SVE 74.36 325 ePd 16 36.00 0.7
3.2s 350.00nm 5.8mb X
Z 19s 0.60um 4.9Msz
N 19s 0.50um
E 19s 1.00um
ARU 75.51 325 eP 16 43.00 1.1
MBC 77.22 14 eP 16 52.00 0.8
MAIO 77.36 304 eP 16 54.00 1.1
eS 26 48.00
ASH 78.00 306 eP 16 57.00 0.8
YKA 82.00 27 eP 17 15.10 -1.9
1.1s 3.10nm 4.3mb
NEW 84.63 42 eP 17 30.00 -0.9
PYA 87.80 315 eP 17 44.00 -2.5
OBN 87.85 327 eP 17 52.00 5.6X
2.0s 80.00nm 5.7mb
Z 16s 0.60um 5.1MszX
KIV 88.08 315 eP 17 53.60 5.6X
LRM 88.42 43 eP 17 47.70 -2.0
e 18 04.10 57kmX
HVU 89.54 47 eP 17 55.45 0.4
KIC 142.89 302 PKP 24 27.82 -4.4X
0.6s 8.50nm
LIC 143.20 302 PKP 24 29.68 -3.0
0.9s 7.50nm
RTLL 145.73 124 ePKPc 24 37.00 0.4
LPAZ 148.63 97 PKP 24 43.20 0.8
S.D. = 1.2 on 59 of 69 obs.

& DEC 19, 1993 21h 29m 22.15s
63.402 N 150.337 W
DEPTH = 0.0km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC), 3.1
(PMR).

PWA 1.77 173 eP 29 54.60 0.4
FBA 1.87 35 eP 29 57.10 1.4
PMR 1.90 162 eP 29 56.10 0.0
SUA 1.95 186 eP 29 57.41 0.4
ILB 2.05 46 eP 29 57.02 -1.2
eS 30 26.47
IL1 2.05 46 eP 29 57.02 -1.2
eS 30 26.78
NCG 2.18 204 eP 30 00.91 0.7
PMS 2.20 170 eP 30 01.70 1.2
CGLM 2.24 201 eP 30 01.80 0.6
CRP 2.30 202 eP 30 02.71 0.6
TOA 2.32 122 eP 30 02.60 0.4
CP2 2.32 203 eP 30 03.08 0.6
BGL 2.35 205 eP 30 03.97 1.2
SPU 2.37 201 eP 30 03.90 0.9
CKL 2.40 204 eP 30 04.71 1.2
BKG 2.51 202 eP 30 05.61 0.6
TTA 2.62 262 eP 30 11.80 5.3

NKA 2.70 189 eP 30 10.80 3.2
SLKM 2.91 179 eP 30 11.53 0.9
IM3 2.98 332 eP 30 11.11 -0.4
IMA 3.04 333 eP 30 11.70 -0.8
NCT 3.10 204 eP 30 14.17 0.8
SVW 3.38 229 P 30 17.20 -0.1
BC3 3.88 91 eP 30 23.74 -0.8
24 obs. associated

% DEC 19, 1993 21h 59m 35.97± 1.28s
30.061 S ±12.2km 69.139 W ±13.7km
DEPTH = 120.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

RTRS 0.30 249 iPd 59 53.20 -0.2
RTCB 1.45 168 ePc 00 36.70 33.4X
CFA 1.72 154 ePc 00 07.00 0.5
S 00 29.50
RTCV 1.87 164 eP 00 08.50 0.2
S 00 31.50
RTPR 2.29 97 iPd 00 14.00 0.5
S 00 41.50
CYA 3.34 62 iPd 00 27.50 0.0
S 01 06.50
MRA 3.76 129 ePd 00 32.10 -1.0
S.D. = 0.7 on 6 of 7 obs.

DEC 19, 1993 22h 12m 24.62± 0.41s
39.245 N ± 6.5km 26.253 E ± 3.9km
DEPTH = 12.6 ± 3.3 km
TURKEY (366)
ML 3.5 (ISK), 3.4 (THE). MD 3.3
(ATH).

PRK 0.01 86 ePg 12 26.80 -0.2
IZM 1.16 137 ePn 12 46.30 0.3
eSg 13 01.50
ALN 1.66 355 ePb 12 54.06 0.6
eSb 13 15.92
EDC 1.66 48 iPn 12 54.00 0.5
DST 1.87 78 iPn 12 56.40 -0.3
RDO 1.98 344 ePn 12 58.60 0.5
OUR 2.06 303 ePn 12 59.24 -0.1
eSn 13 24.48
PAIG 2.10 290 ePn 12 59.93 0.0
eSn 13 25.08
IZI 2.71 65 ePn 13 07.50 -1.3
KHL 2.72 109 ePn 13 08.50 -0.4
SOH 2.73 306 ePn 13 09.02 0.1
iSn 13 40.29
SRS 2.77 313 ePn 13 09.12 -0.4
eSn 13 41.68
ALT 3.01 92 ePn 13 13.00 0.1
LIT 3.03 288 ePn 13 12.92 -0.2
HRT 3.06 58 ePn 13 13.00 -0.6
KNT 3.20 308 iPn 13 15.78 0.1
eSn 13 54.08
EYL 3.28 65 ePn 13 16.50 -0.4
GRG 3.41 301 ePn 13 19.00 0.3
VAY 3.50 308 ePn 13 20.60 0.8
i 13 36.40
VLI 3.64 227 ePn 13 20.10 -1.7
KSL 4.09 139 ePn 13 30.50 2.3
S.D. = 0.9 on 21 of 21 obs.

DEC 19, 1993 22h 31m 43.83± 0.43s
40.744 N ± 4.4km 22.069 E ± 3.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.5 (THE), 2.1 (SKO).

GRG 0.33 50 ePg 31 51.08 0.4
eSg 31 56.76
FNA 0.53 274 iPgc 31 54.60 0.1
eSg 32 02.88
VAY 0.69 33 iPg 31 57.40 -0.1
0.2s 40.00nm
iSg 32 07.40
THE 0.69 99 ePg 31 57.28 -0.2
eSg 32 08.04
LIT 0.72 153 iPgd 31 57.96 0.0
eSg 32 08.60
KNT 0.75 56 iPgc 31 58.44 -0.1
eSg 32 09.16
SOH 0.98 85 ePg 32 02.44 0.0
eSg 32 15.56
OHR 1.03 291 iPg 32 03.30 0.0

0.5s 50.00nm
i 32 19.20
i 32 20.10
Lg 32 24.00
SRS 1.21 72 ePb 32 06.20 -0.2
eSb 32 22.24
SKO 1.31 339 ePg 32 08.00 -0.1
0.5s 100.00nm
iSg 32 26.30
Lg 32 29.00
PAIG 1.48 123 ePb 32 10.36 -0.1
eSb 32 30.84
OUR 1.51 105 ePb 32 11.36 0.4
eSb 32 31.24
S.D. = 0.2 on 12 of 12 obs.

? DEC 19, 1993 23h 11m 09.73± 2.74s
36.731 N ±25.6km 21.089 E ±17.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MD 3.2 (ATH).

VLI 1.48 90 ePb 11 36.40 -0.1
VLS 1.50 345 ePb 11 37.00 0.3
eSb 11 58.00
AGG 2.49 23 iPc 11 51.40 0.4
KEK 3.15 342 ePg 12 12.50 12.3X
LCI 4.36 327 P 12 17.55 0.1
0.4s 24.70nm
OHR 4.38 357 eP 12 17.00 -0.8
i 12 36.50
S.D. = 0.7 on 5 of 6 obs.

? DEC 19, 1993 23h 44m 10.32± 1.95s
3.064 N ± 8.2km 126.853 E ±15.7km
DEPTH = 92.4 ± 19.2 km
4.4mb (7 obs.)
TALAUD ISLANDS, INDONESIA (263)

BIP 5.16 353 eP 45 27.00 0.3
WB2 24.02 162 iPd 49 17.50 -0.4
0.5s 22.70nm 4.9mb
MBL 25.04 196 eP 49 29.20 1.7
ASPA 27.44 166 eP 49 47.50 -2.1
0.6s 5.20nm 4.3mb
e 49 53.10
WARB 29.08 180 eP 50 05.50 1.3
0.3s 2.00nm 4.3mb
STK 37.47 159 ePc 51 15.80 -0.8
1.9s 4.90nm 4.1mb
ePP 52 40.50
BJI 38.06 347 eP 51 21.00 -0.4
1.0s 6.00nm 4.5mb
Z 16s 0.88um 4.7MszX
N 10s 0.59um
GUN 46.22 307 P 52 28.90 0.4
0.7s 14.00nm 4.9mb
PKI 46.45 306 P 52 29.60 -0.7
KKN 46.65 306 P 52 31.70 0.0
DMN 46.71 306 P 52 31.90 -0.4
GKN 47.25 306 P 52 36.10 -0.4
YAK 58.85 2 eP 54 00.00 -1.3
1.0s 150.00nm 6.1mb X
i 00 02.00
e 01 40.00
e 55 07.00
e 58 23.00
IMA 82.94 24 (P) 56 26.20 0.0
FBA 85.27 25 (P) 56 38.90 1.2
YKA 100.05 24 ePdiff57 47.80 1.5
0.3s 0.10nm 3.9mb
S.D. = 1.2 on 16 of 16 obs.

& DEC 20, 1993 00h 19m 46.40s
37.640 N 118.954 W
DEPTH = 7.7km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.0 (GM).

MEMM 0.03 24 iPc 19 47.96 0.0
MCSM 0.04 69 P 19 48.15 -0.2
MMPM 0.07 243 iPd 19 48.38 -0.3
HTCR 0.18 127 P 19 50.29 -0.2
ORC 0.24 91 P 19 51.43 0.0
MRCM 0.36 85 (P) 19 53.03 -0.7
MTUM 0.42 133 iPd 19 54.68 -0.3
eS 20 00.51
BCKR 0.47 83 P 19 55.81 0.0
BONR 0.60 58 iPc 19 58.29 -0.3
FRI 0.88 223 P 20 02.98 -0.6
MSTM 1.18 283 P 20 07.96 -0.7
CMB 1.20 290 eP 20 08.00 -1.0
TNP 1.44 72 ePn 20 13.04 0.0
KVN 1.56 25 eP 20 15.50 0.8
WLHM 1.57 161 P 20 15.35 0.4
BAVM 1.65 271 P 20 20.07 4.3
BRMM 1.69 242 P 20 17.82 1.3
PRCM 1.92 225 P 20 21.18 1.4
RCWM 1.99 148 P 20 24.57 3.8
ISA 2.01 169 eP 20 22.76 1.7
eS 20 48.39
EKH 2.02 242 P 20 23.12 1.9
LTR 2.02 249 P 20 22.62 1.4
BHRM 2.06 244 P 20 23.92 2.2
ARN 2.07 263 eP 20 22.58 0.6
eS 20 50.56
BLRM 2.09 243 P 20 25.29 3.1
HSPM 2.11 256 P 20 24.54 2.0
PHAM 2.14 213 (P) 20 23.84 0.9
COE 2.20 261 eP 20 25.52 1.8
WBSM 2.20 162 P 20 26.61 2.6
FRP 2.21 247 P 20 24.90 0.9
WJPM 2.26 170 P 20 27.31 2.6
TPNV 2.26 107 eP 20 26.85 2.0
CRGC 2.47 195 P 20 30.65 2.9
BAPM 2.60 237 P 20 30.27 0.6
BCH 2.61 201 eP 20 30.28 0.5
ORV 2.76 315 eP 20 33.02 1.2
ABL 2.79 185 eP 20 32.90 0.4
eS 21 10.68
PEC 4.01 158 (P) 20 51.14 1.6
38 obs. associated

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* DEC 20, 1993 00h 36m 58.92± 0.93s
51.648 N ±15.2km 175.077 W ±12.4km
DEPTH = 33.0km (normal)
4.1mb (8 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
ML 4.7 (PMR). Felt on Adak.

ADK 1.03 284 iPc 37 18.82 1.8
eS 37 31.91
SDN 9.44 61 eP 39 20.50 4.9X
SVW 14.29 41 eP 40 25.20 4.5X
KDC 14.38 56 (P) 40 23.20 1.5
0.5s 10.01nm 4.6mb
SLKM 16.37 48 eP 40 48.04 0.5
PMS 16.95 46 eP 40 56.50 1.6
IMA 18.05 29 eP 41 08.44 -0.1
1.0s 5.57nm 3.7mb
KLU 18.68 47 eP 41 15.72 -0.6
TOA 18.77 45 eP 41 18.80 1.4
FBA 19.33 36 eP 41 21.69 -2.2
0.7s 6.94nm 4.0mb
INK 25.91 34 eP 42 26.00 -3.2X
MBC 32.50 22 eP 43 45.00 17.0X
DHH 33.18 150 (P) 43 36.26 1.9
YKA 33.35 47 eP 43 33.20 -2.3
0.6s 1.10nm 3.9mb
NEW 36.60 72 eP 44 03.87 0.4
0.6s 5.22nm 4.6mb
e 44 40.08
RSSD 46.49 70 eP 45 23.79 -1.0
0.7s 1.38nm 4.0mb
PV09 46.83 79 eP 45 28.08 0.5
PV08 47.08 79 eP 45 30.50 0.9
MIAR 58.83 73 eP 46 54.73 -1.6
0.6s 3.03nm 4.6mb
WRA 83.86 227 P 49 23.80 -2.5
0.6s 0.40nm 3.8mb
S.D. = 1.6 on 16 of 20 obs.

? DEC 20, 1993 01h 13m 54.72± 1.40s
6.774 S ± 9.3km 130.152 E ±18.2km
DEPTH = 83.4 ± 24.7 km
BANDA SEA (280)

SWI 5.97 11 ePd 15 22.50 0.1
eS 16 25.50
MTN 6.11 171 eP 15 24.30 0.0
0.3s 134.00nm 5.7mb X
eS 16 30.00
WB2 13.71 163 iPc 17 02.60 -4.3X
i 17 04.30
iS 19 26.30
QIS 16.48 147 eP 17 42.00 -0.3
eS 20 32.00
ASPA 17.18 168 iPc 17 51.40 0.5
eS 20 46.30
MBL 17.44 214 eP 17 53.50 -0.6
eS 20 52.80
WARB 19.59 189 eP 18 20.00 1.0
STK 27.17 158 eP 19 31.60 -0.6
2.5s 1.60nm 3.1mb
S.D. = 0.9 on 7 of 8 obs.

? DEC 20, 1993 01h 21m 02.67± 3.36s
40.604 N ±13.2km 27.242 E ±30.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.9 (ISK).

EDC 0.54 118 iPg 21 13.00 -0.6
iSg 21 22.00
DMK 1.28 18 ePn 21 26.10 -0.3
DST 1.46 133 iPn 21 29.30 0.2
IZI 1.72 98 ePn 21 33.00 0.1
HRT 1.86 82 ePn 21 35.40 0.6
S.D. = 0.6 on 5 of 5 obs.

? DEC 20, 1993 02h 25m 15.24± 1.68s
37.746 N ± 7.4km 30.608 E ±21.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.2 (ISK).

BCK 0.28 183 iPg 25 21.00 -0.2
eSg 25 27.00
KHL 1.03 304 iPn 25 34.60 -0.2
ELL 1.14 209 ePn 25 37.00 0.3
ALT 1.36 343 ePn 25 40.50 0.1
S.D. = 0.5 on 4 of 4 obs.

& DEC 20, 1993 03h 03m 50.26s
42.295 N 121.958 W
DEPTH = 6.3km
2.7mb (1 obs.)
OREGON (32)
<SEA-P>. MD 3.0 (SEA). ML 2.9 (GS).

LAB 0.08 251 Pc 03 52.64 0.2
VRC 0.20 282 Pc 03 54.74 0.4
S 03 57.91
HAMO 0.23 182 P 03 55.00 0.0
S 03 58.94
LASM 0.75 158 P 04 04.09 -1.3
BBOR 0.80 318 P 04 05.07 -1.1
S 04 16.38
LMPM 0.82 191 P 04 05.63 -1.0
LBFM 0.95 177 eP 04 07.32 -1.5
LGBM 0.97 191 P 04 08.19 -1.0
DBO 1.26 311 P 04 13.09 -0.9
S 04 31.05
LBKM 1.32 204 P 04 13.46 -1.7
HSO 1.48 326 P 04 17.64 0.1
S 04 37.92
KOMM 1.51 228 P 04 17.28 -0.7
HBO 1.57 350 P 04 18.84 0.0
S 04 40.68
WDC 1.77 195 eP 04 20.68 -0.9
LMEM 1.78 170 eP 04 22.20 0.3
FBO 2.06 348 P 04 25.74 -0.2
FHC 2.13 226 (P) 04 26.95 0.1
KMPM 2.48 222 eP 04 32.48 0.5
SSOR 2.59 352 P 04 33.42 0.0
ORV 2.76 173 (P) 04 36.93 1.1
VBEM 2.78 5 P 04 37.00 0.8
VLL 3.17 4 P 04 42.99 1.3
VGB 3.33 14 (P) 04 48.71 4.8
JBO 3.52 25 P 04 48.68 2.1
MTMW 3.73 357 P 04 50.44 0.7
GL2 3.75 12 P 04 51.00 1.0
YKA 20.70 10 eP 08 33.00 -0.3
0.8s 0.30nm 2.7mb
27 obs. associated

? DEC 20, 1993 03h 22m 11.29± 1.03s
30.789 S ±11.7km 67.895 W ±11.2km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

20d 03h

CFA 0.87 200 ePd 22 28.00 0.9
S 22 42.00
RTCV 1.20 207 iPc 22 31.00 -0.9
S 22 47.50
RTPR 1.29 68 iPc 22 33.00 -0.1
RTRS 1.49 294 eP 22 36.00 0.1
S 22 52.00
S.D. = 1.2 on 4 of 4 obs.

? DEC 20, 1993 04h 03m 39.34± 0.99s
31.426 S ±31.0km 68.602 W ±37.6km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.15 50 iPd 03 53.50 -0.4
S 04 04.00
RTCB 0.18 250 iPd 03 54.00 0.0
S 04 05.00
CFA 0.36 120 iPd 03 54.80 0.3
S 04 06.50
RTRS 1.45 329 eP 04 05.50 0.1
S 04 25.00
S.D. = 0.5 on 4 of 4 obs.

% DEC 20, 1993 04h 31m 00.27± 0.70s
41.168 N ± 7.1km 7.526 W ±10.3km
DEPTH = 10.0km (geophysicist)
PORTUGAL (376)
mbLg 2.6 (MDD).

ERUA 1.26 13 iPc 31 23.38 -0.2
e 31 38.50
EZAM 1.31 319 iPc 31 24.71 0.1
e 31 41.10
EPLA 1.56 135 eP 31 29.04 0.9
e 31 47.60
STS 1.88 336 eP 31 32.70 0.0
e 31 53.80
EMON 2.27 4 eP 31 38.47 0.0
e 32 02.40
GUD 2.61 100 eP 31 43.43 0.1
e 32 13.70
PAB 2.92 123 ePn 31 48.00 0.3
eSn 32 21.00
eSg 32 33.50
EHOR 3.78 151 eP 31 59.50 -0.3
e 32 43.10
EBAN 4.16 135 eP 32 04.26 -1.0
e 32 51.50
S.D. = 0.6 on 9 of 9 obs.

? DEC 20, 1993 04h 55m 04.62± 0.96s
37.059 N ± 7.0km 29.968 E ±13.0km
DEPTH = 5.0km (geophysicist)
TURKEY (366)
ML 3.3 (ISK).

ELL 0.31 189 ePg 55 11.00 0.0
eSg 55 17.00
BCK 0.64 51 ePn 55 17.50 0.1
KHL 1.31 345 ePn 55 29.70 0.3
ALT 2.00 3 ePn 55 39.00 -0.5
S.D. = 0.6 on 4 of 4 obs.

& DEC 20, 1993 05h 03m 17.51s
34.382 N 116.446 W
DEPTH = 6.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS).

PEC 0.77 231 iPd 03 31.51 -1.4
GSC 0.96 342 eP 03 35.44 -0.8
eS 03 50.63
SSK 1.05 261 eP 03 36.56 -1.2
eS 03 50.99
PLM 1.08 199 iPd 03 37.19 -1.2
eS 03 52.56
GLA 1.89 134 eP 03 50.56 -0.1
ISA 2.10 308 eP 03 51.50 -2.2
eS 04 24.49
ABL 2.34 282 eP 03 55.25 -2.0
BCH 3.10 286 (P) 04 06.13 -1.8
ARUT 4.18 35 (P) 04 22.95 -0.4
9 obs. associated

& DEC 20, 1993 05h 29m 04.92s
34.553 N 116.531 W
DEPTH = 4.1km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.7 (PAS).

GSC 0.78 343 eP 29 19.81 -0.7
PEC 0.84 219 eP 29 20.66 -1.0
eS 29 31.28
SSK 1.02 251 eP 29 23.77 -1.1
eS 29 37.92
PLM 1.23 193 eP 29 27.19 -1.2
eS 29 46.09
ISA 1.94 305 eP 29 39.85 0.8
GLA 2.06 136 eP 29 38.02 -2.8
BONR 3.68 338 (P) 30 04.82 0.7
7 obs. associated

DEC 20, 1993 05h 54m 19.71± 0.55s
42.008 N ± 7.3km 20.814 E ± 5.3km
DEPTH = 5.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.7 (TTG), 2.3 (SKO).

SKO 0.47 94 iPgc 54 29.00 -0.1
0.3s 70.00nm
iSg 54 35.30
PVY 0.86 314 iPgc 54 35.40 -1.4
iSg 54 48.83
OHR 0.90 181 iPg 54 36.50 -0.9
0.7s 230.00nm
iSg 54 50.40
IVA 1.10 322 iPgc 54 40.01 -0.8
iSg 54 56.62
ULC 1.17 268 iPgc 54 41.86 -0.1
iSg 55 00.59
TTG 1.23 291 iPgd 54 42.42 -0.6
iSg 55 01.90
VAY 1.48 117 ePn 54 47.60 0.5
BDV 1.50 281 iPgc 54 48.12 0.8
iSg 55 11.22
NKY 1.57 301 iPgc 54 48.74 0.4
iSg 55 12.53
PLE 1.69 322 iPnd 54 50.63 0.6
iSn 55 14.71
HCY 1.77 285 iPnd 54 52.40 1.1
iSn 55 17.93
BRY 1.90 299 iPnd 54 53.65 0.4
iSn 55 20.80
S.D. = 0.8 on 12 of 12 obs.

& DEC 20, 1993 07h 19m 27.01s
63.263 N 150.927 W
DEPTH = 20.5km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC).

SKT 1.32 192 P 19 49.70 -0.6
S 20 07.30
SUA 1.81 177 P 19 57.70 0.2
S 20 22.30
NCG 1.95 198 P 19 59.00 -0.6
CGLM 2.03 195 P 20 00.00 -0.6
CRP 2.08 197 eP 20 00.16 -1.4
eS 20 27.30
CP2 2.10 198 eP 20 01.09 -0.7
eS 20 27.62
BGL 2.12 199 P 20 02.00 0.0
CKN 2.13 197 P 20 02.50 0.4
FBA 2.14 39 eP 20 03.51 1.3
SPU 2.15 195 P 20 02.50 0.1
CKL 2.18 198 P 20 03.00 0.2
BKG 2.29 196 P 20 03.70 -0.6
ILB 2.34 48 P 20 03.70 -1.2
TTA 2.34 264 eP 20 05.49 0.5
IL1 2.34 48 P 20 04.40 -0.5
SLKM 2.79 173 P 20 12.80 1.4
NCT 2.87 200 P 20 12.10 -0.5
KLU 2.93 125 eP 20 13.66 0.2
IM3 2.99 337 P 20 12.10 -2.1
IMA 3.06 338 eP 20 12.55 -2.7
SVW 3.09 228 P 20 13.10 -2.5
BM3 4.94 30 P 20 39.50 -2.4
22 obs. associated

DEC 20, 1993 07h 28m 47.07± 0.47s
40.613 N ± 5.4km 28.788 E ± 3.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.2 (ISK).

ISK 0.50 24 iPg 28 57.70 0.6
iSg 29 04.70
GBZT 0.53 70 ePg 28 58.40 0.6
iSg 29 05.90
IZI 0.59 118 iPg 28 59.20 0.1
HRT 0.70 72 iPg 29 00.00 -0.9
eSg 29 10.00
EDC 0.75 250 iPg 29 02.00 0.2
eSg 29 13.00
DST 1.01 187 iPg 29 07.00 0.7
iSg 29 21.50
EYL 1.04 92 iPg 29 06.70 -0.1
eSg 29 21.20
KGT 1.14 262 iPg 29 08.60 0.1
MFT 1.16 279 iPg 29 08.10 -0.7
GPA 1.21 105 ePn 29 09.50 0.0
ALT 1.86 146 ePn 29 18.80 -0.5
NAL 1.96 101 eP 29 24.50 3.6X
eS 29 53.00
SGKT 2.49 90 eP 29 33.50 5.0X
S.D. = 0.6 on 11 of 13 obs.

DEC 20, 1993 07h 31m 44.85± 0.44s
40.610 N ± 5.0km 28.792 E ± 3.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.1 (ISK).

ISK 0.50 24 iPg 31 55.20 0.3
iSg 32 02.20
GBZT 0.53 70 ePg 31 56.00 0.5
iSg 32 03.50
IZI 0.59 117 iPg 31 56.70 -0.1
iSg 32 04.70
HRT 0.70 72 iPg 31 58.10 -0.6
eSg 32 08.10
EDC 0.76 250 iPg 31 59.00 -0.6
eSg 32 10.00
DST 1.01 187 iPg 32 04.50 0.5
iSg 32 19.50
EYL 1.04 92 iPg 32 04.20 -0.4
eSg 32 18.70
KGT 1.15 263 iPg 32 06.60 0.3
MFT 1.16 279 iPg 32 06.60 0.0
GPA 1.20 105 ePn 32 07.50 0.2
ALT 1.86 146 iPn 32 17.00 -0.1
S.D. = 0.4 on 11 of 11 obs.

% DEC 20, 1993 08h 16m 18.95± 1.17s
38.747 N ±13.3km 27.752 E ±15.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.9 (ISK).

IZM 0.52 228 ePg 16 29.40 -0.1
eSg 16 39.00
DST 1.09 38 iPn 16 38.90 -0.6
EDC 1.60 3 ePn 16 47.00 -0.3
KGT 1.74 349 ePn 16 49.60 0.3
IZI 2.07 39 ePn 16 55.00 0.7
S.D. = 0.8 on 5 of 5 obs.

? DEC 20, 1993 08h 26m 55.15± 0.98s
39.110 N ± 8.5km 27.559 E ±14.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.6 (ISK).

IZM 0.75 198 ePg 27 09.90 0.1
eSg 27 21.10
DST 0.97 59 iPn 27 13.40 -0.1
EDC 1.26 11 ePn 27 19.00 0.5
KGT 1.35 352 ePn 27 19.60 -0.4
S.D. = 0.7 on 4 of 4 obs.

& DEC 20, 1993 08h 34m 08.94s
61.826 N 150.591 W
DEPTH = 51.7km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.9 (AEIC), 4.2
(PMR). Felt (IV) at Skwentna;
(III) at Chickaloon and Willow;
(II) at Eagle River and
Talkeetna.

PWA 0.38 117 iPd 34 18.70 -0.4
PMR 0.73 108 iPc 34 22.04 -1.2
PMS 0.76 139 iPc 34 22.80 -1.0
CGLM 0.85 233 eP 34 24.25 -0.8
NCG 0.86 241 iP 34 24.12 -1.0
eS 34 36.61
CRP 0.94 234 iPd 34 24.82 -1.4
SPU 0.95 228 iP 34 25.64 -0.7
eS 34 39.08
CP2 0.97 235 iPd 34 25.56 -1.1
CKN 0.97 232 eP 34 26.05 -0.5
CKT 1.00 232 eP 34 26.05 -0.9
BGL 1.03 238 eP 34 26.54 -0.9
CKL 1.05 234 eP 34 26.78 -0.9
BKG 1.10 227 eP 34 27.73 -0.7
NKA 1.13 196 iP 34 29.96 1.3
SLKM 1.34 172 eP 34 30.38 -1.2
DFR 1.60 220 iP 34 34.67 -0.7
REF 1.69 218 iP 34 36.15 -0.5
NCT 1.70 223 eP 34 36.23 -0.5
eS 34 58.53
RDW 1.72 220 iP 34 36.78 -0.4
RS2 1.72 218 iP 34 36.78 -0.4
RED 1.76 218 iP 34 37.17 -0.5
eS 34 59.68
NNL 1.82 191 eP 34 37.16 -1.2
ILIM 2.10 214 eP 34 41.77 -0.6
TOA 2.11 80 iPd 34 42.20 -0.3
INE 2.14 215 eP 34 42.19 -0.9
INW 2.16 216 eP 34 42.30 -0.9
HOM 2.24 194 eP 34 44.54 0.3
KLU 2.25 96 eP 34 42.57 -2.0
CNPM 2.33 188 eP 34 44.20 -1.4
SVW 2.52 256 eP 34 46.15 -2.1
OPT 2.54 212 eP 34 48.14 -0.4
PDB 2.70 222 eP 34 48.95 -1.9
TTA 2.76 296 iPc 34 49.34 -2.4
AUP 2.84 211 eP 34 52.72 -0.2
AUH 2.84 211 eP 34 53.01 0.1
AUI 2.86 210 eP 34 53.53 0.4
MID 3.19 137 eP 35 02.40 4.6
MCNL 3.23 217 eP 34 56.99 -1.4
FBA 3.33 21 eP 34 57.20 -2.6
IL1 3.40 28 eP 34 58.43 -2.3
ILB 3.40 28 eP 34 58.80 -1.9
eS 35 36.72
BALM 4.04 98 eP 35 07.12 -2.8
KDC 4.20 194 eP 35 10.31 -1.7
IM3 4.40 343 iP 35 12.42 -2.4
IMA 4.47 344 ePc 35 13.08 -2.8
eS 36 01.38
BM3 6.17 22 eP 35 36.62 -3.2
ANM 7.22 299 eP 35 51.52 -2.9
INK 9.67 41 eP 36 24.00 -4.1
0.5s 2.00nm 4.5mb X
MBC 17.87 24 eP 38 11.50 -3.4
RES 23.13 34 eP 39 10.00 -0.7
FRB 35.16 50 eP 40 56.00 -3.0
51 obs. associated

DEC 20, 1993 08h 57m 17.13± 0.56s
40.472 N ± 5.4km 29.286 E ± 5.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.8 (ISK).

IZI 0.20 133 iPg 57 21.40 -0.1
GBZT 0.34 21 ePg 57 25.00 0.9
iSg 57 30.80
HRT 0.45 40 iPg 57 26.10 -0.3
EYL 0.67 82 iPg 57 30.10 -0.4
eSg 57 40.60
DST 1.00 210 iPn 57 36.90 0.7
EDC 1.09 264 ePn 57 37.50 -0.2
KGT 1.51 270 iPn 57 43.60 -0.7
ALT 1.55 156 ePn 57 45.00 0.1
S.D. = 0.6 on 8 of 8 obs.

? DEC 20, 1993 09h 08m 39.84± 0.97s
39.120 N ± 7.6km 27.539 E ±13.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.75 197 ePg 08 54.60 0.0
eSg 09 07.60
DST 0.97 60 iPn 08 58.40 0.0
EDC 1.25 11 ePn 09 03.00 -0.1
KGT 1.34 352 iPn 09 04.60 0.1
S.D. = 0.1 on 4 of 4 obs.

% DEC 20, 1993 09h 45m 59.35± 1.40s
30.069 S ±14.2km 68.687 W ± 9.2km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE,. ARGENTINA (137)

RTRS 0.68 261 iPc 46 12.40 0.0
RTLL 1.27 172 iPc 46 20.30 -0.6
(S) 46 38.50
RTCB 1.42 184 iPc 46 23.50 0.4
(S) 46 40.00
CFA 1.58 166 iPc 46 25.70 0.3
(S) 46 46.00
RTPR 1.90 98 eP 46 30.00 0.0
S.D. = 0.6 on 5 of 5 obs.

? DEC 20, 1993 10h 03m 52.29± 0.96s
39.259 N ± 7.6km 27.698 E ±12.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

DST 0.80 64 ePg 04 07.80 -0.1
eSg 04 19.80
IZM 0.92 202 ePg 04 10.00 0.0
eSg 04 22.00
EDC 1.09 7 ePn 04 13.00 0.2
KGT 1.23 346 ePn 04 15.00 -0.1
S.D. = 0.2 on 4 of 4 obs.

? DEC 20, 1993 10h 06m 14.35± 0.97s
39.109 N ± 8.3km 27.548 E ±14.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.74 198 ePg 06 29.00 0.0
eSg 06 41.00
DST 0.97 59 iPn 06 32.80 -0.1
EDC 1.26 11 ePn 06 38.00 0.2
KGT 1.35 352 ePn 06 39.00 -0.2
S.D. = 0.3 on 4 of 4 obs.

? DEC 20, 1993 10h 07m 45.41± 0.98s
39.116 N ± 7.6km 27.506 E ±14.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

IZM 0.74 195 ePg 08 00.00 0.0
eSg 08 12.00
DST 1.00 60 iPn 08 04.30 -0.1
EDC 1.26 13 ePn 08 09.00 0.2
KGT 1.34 353 iPn 08 10.00 -0.1
S.D. = 0.2 on 4 of 4 obs.

DEC 20, 1993 10h 23m 34.55± 0.69s
20.838 S ± 9.7km 178.769 W ± 6.6km
DEPTH = 622.0 ± 7.4 km
4.8mb (34 obs.)
FIJI ISLANDS REGION (181)

SVA 3.76 316 eP 25 01.20 0.8
MBU 4.52 328 iPd 25 04.20 -1.5
AFI 9.59 45 eP 25 44.00 -6.1X
eS 27 28.00
BKM 12.66 282 iPc 26 20.30 0.6
DZM 13.82 262 iPd 26 32.00 1.0
ARMA 28.27 244 eP 28 43.00 0.8
0.4s 4.00nm 4.4mb
PMG 34.72 284 eP 29 37.00 0.6
1.0s 100.00nm 5.4mb
KVG 34.75 297 e(P) 29 26.00 -10.6X
TOO 35.12 234 eP 29 39.60 0.1
STK 37.00 244 eP 29 55.20 0.3
1.2s 6.00nm 4.1mb
eS 34 59.60
ASPA 43.74 257 iPd 30 48.40 -0.3
1.0s 87.10nm 5.2mb
iPcP 32 21.30
ePcS 36 14.00
iS 36 36.40
iScS 39 42.90
WB2 43.83 263 iPc 30 48.40 -1.0
1.2s 7.80nm 4.1mb
iPcP 32 22.10
iS 36 37.20
WRA 43.84 263 P 30 49.00 -0.5
0.7s 28.70nm 4.9mb
MTN 48.45 271 eP 31 23.60 -0.9
0.6s 103.00nm 5.5mb
FORT 48.50 247 eP 31 24.60 -0.1
WARB 50.04 253 eP 31 35.50 -0.6
0.3s 7.00nm 4.6mb
MBL 56.98 258 eP 32 24.00 -1.0
0.2s 11.00nm 4.7mb
NANU 60.61 255 iPc 32 47.20 -1.9
0.8s 76.00nm 5.0mb
WKYJ 69.88 321 P 33 46.60 0.3
MAT 70.06 324 eP 33 47.00 -0.2
0.8s 10.45nm 4.4mb
OFUJ 70.17 328 eP 33 47.90 0.1
TKSJ 70.64 320 P 33 51.30 0.7
YONJ 71.81 320 P 33 57.90 0.4
KUSJ 71.95 333 eP 33 58.20 0.2
ADK 72.43 1 eP 33 58.10 -2.4
1.1s 117.80nm 5.3mb
SMY 73.52 355 e(P) 34 08.00 1.3
ASAJ 73.66 332 eP 34 09.50 1.8
SSE 77.35 310 Pc 34 29.00 0.8
0.8s 10.00nm 4.3mb
SDN 77.46 11 eP 34 26.50 -1.7
0.8s 93.70nm 5.3mb
ARN 79.06 43 iP 34 37.77 0.7
KMPM 79.35 39 eP 34 39.60 1.0
PLM 79.91 49 iP 34 42.37 0.6
PEC 80.00 48 eP 34 41.96 -0.1
0.9s 17.94nm 4.5mb
ISA 80.09 46 eP 34 41.97 -0.5
1.2s 32.80nm 4.7mb
CMB 80.20 43 eP 34 43.13 0.1
1.2s 23.26nm 4.5mb
WDC 80.39 40 eP 34 44.43 0.6
1.0s 24.42nm 4.7mb
ORV 80.40 41 eP 34 43.49 -0.5
MEMM 80.92 44 eP 34 47.72 1.2
GSC 81.02 47 eP 34 46.88 -0.4
GLA 81.19 50 eP 34 49.19 1.0
LBFM 81.25 40 iP 34 49.12 0.6
KDC 81.30 14 eP 34 47.30 -0.8
BONR 81.50 44 eP 34 49.98 0.0
KVN 82.25 43 eP 34 53.54 0.0
TNP 82.27 44 eP 34 53.68 0.0
0.8s 17.56nm 4.7mb
TPNV 82.29 46 eP 34 54.08 0.3
0.8s 14.20nm 4.6mb
SSOR 83.08 37 P 34 57.25 -0.2
BMW 83.67 35 P 35 00.13 -0.2
VBEM 83.69 37 P 35 00.34 -0.2
TUC 83.75 52 iP 35 03.12 2.1
1.0s 18.24nm 4.6mb
SHW 84.03 36 eP 35 02.50 0.4
CRP 84.58 13 eP 35 01.86 -2.6
GMW 84.58 34 eP 35 05.24 0.6
LON 84.61 35 eP 35 04.88 0.0
ARUT 84.63 46 eP 35 05.74 0.4
FMW 84.80 35 P 35 05.44 -0.5
MCW 85.27 33 P 35 07.57 -0.4
EBG 85.38 36 P 35 08.37 -0.2
TTA 85.40 10 eP 35 08.00 -0.3
JCW 85.44 34 P 35 08.96 0.2
PMR 85.51 14 eP 35 07.90 -0.8
1.2s 48.40nm 5.1mb
BJI 85.63 316 eP 35 11.00 1.3
2.0s 64.00nm 5.0mb
ANM 85.76 6 e(P) 35 09.60 -0.2
MSU 85.86 46 eP 35 11.97 0.7
WTV 86.19 35 P 35 12.36 0.0
SAW 86.49 36 P 35 13.83 0.0
TOA 86.64 15 eP 35 14.10 -0.2
HVU 87.14 43 eP 35 17.25 0.1
DPW 87.25 36 eP 35 17.25 -0.1
SRU 87.27 46 eP 35 17.86 0.0
EMUT 87.43 46 eP 35 19.07 0.4
DAU 87.43 45 eP 35 19.25 0.5
LTX 87.84 58 eP 35 19.91 -0.7
PV09 87.93 47 eP 35 20.89 -0.2
PV10 87.93 48 eP 35 20.65 -0.4
PTI 87.96 42 eP 35 21.63 0.7
ALQ 88.17 52 eP 35 22.26 0.1
1.1s 15.17nm 4.7mb

```
20d  10h

PV08    88.30  48 eP     35 22.82    0.0
IMA     88.70  10 eP     35 23.00   -0.8
         1.1s    19.50nm          4.9mb
                  e      35 35.80
FBA     88.73  13 eP     35 22.07   -1.7
         0.8s    23.65nm          5.1mb
KMI     88.86 297 Pc     35 28.00    2.5
         1.6s    60.00nm          5.2mb
                  pP     35 35.00  22kmX
BDT     89.04 289 eP     35 22.00  -4.1X
         0.6s    28.60nm          5.3mb
CHTO    89.68 290 ePc    35 30.10    1.0
         1.0s    21.50nm          5.0mb
GOL     91.08  48 eP     35 35.61    0.1
         0.8s     5.46nm          4.6mb
GLD     91.20  48 eP     35 36.46    0.5
         1.0s    11.70nm          4.8mb
RSSD    93.90  44 eP     35 47.56   -0.7
         0.9s     8.00nm          4.9mb
INK     94.79  15 eP     35 51.00   -0.4
         1.0s     3.00nm          4.5mb
YKA     97.12  25 eP     36 01.00   -1.1
         0.8s     1.50nm          4.3mb
FRB    117.42  28 ePKP   41 10.50   -1.0
KAF    135.27 344 iPKP   41 45.90    0.2
         0.3s     2.20nm
NUR    137.06 343 ePKP   41 49.90    0.8
NAO    139.48 353 PKP    41 45.40  -8.2X
         0.8s     7.00nm
EKA    145.40   4 PKP    42 05.81    1.9
KAS    145.73 314 iPKPd  42 07.80   2.8X
DCN    146.90   9 iPKPc  42 09.40   3.0X
DLF    147.05   9 iPKPc  42 09.60   3.0X
         0.9s   106.00nm
OJC    147.21 338 ePKP   42 10.40   3.4X
                  i      42 14.90
UZH    147.53 334 iPKPc  42 10.50   3.0X
                  e      42 15.10
KSP    147.79 342 iPKP   42 11.60   3.7X
         0.9s    49.00nm
                  i      42 16.80
SPC    147.90 336 iPKP   42 12.40   4.0X
PSN    148.03 322 iPKP   42 13.00   4.5X
CLL    148.22 346 ePKP   42 08.00   -0.5
         1.3s    96.00nm
                  i      42 12.90
                  i      42 18.10
BRG    148.40 345 iPKP   42 09.30    0.5
                  i      42 13.40
                  i      42 18.90
PRU    149.05 343 iPKPd  42 14.80   4.9X
         1.0s    43.70nm
                  i      42 22.20
PSZ    149.07 335 e(PKP) 42 15.70   5.6X
MOX    149.15 347 iPKPc  42 15.60   5.6X
         1.5s    65.00nm
HOF    149.40 347 iPKPc  42 16.20   5.8X
JMB    149.69 321 iPKP   42 17.00   5.9X
SRO    149.76 337 iPKP   42 16.80   5.8X
ZST    149.86 339 iPKP   42 16.70   5.6X
                  i      42 26.00
PVL    149.94 323 iPKP   42 18.00   6.6X
KHC    150.09 344 ePKP   42 12.00    0.5
         1.4s    58.50nm
                  i      42 18.00
                  e      42 27.00
                  e      44 39.50
GRF    150.13 347 iPKPc  42 18.30   6.8X
                  e      42 27.60
SNF    150.29 356 PKP    42 18.30   6.6X
GEC2   150.32 343 PKP    42 09.40   -2.6
         0.9s     2.89nm
GEC2   150.32 343 PKP    42 17.70   5.7X
         0.8s    17.42nm
                  e      42 27.30
DIM    150.57 321 iPKP   42 19.00   6.6X
DOU    150.68 356 PKPc   42 19.00   6.7X
         0.7s    35.50nm
WLF    150.97 353 PKPc   42 21.00   8.3X
RZN    151.27 322 iPKP   42 20.00   6.3X
BHG    151.57 343 iPKPd  42 20.20   6.5X
                  i      42 33.40
MMB    151.90 322 iPKP   42 22.00   7.6X
KBA    152.03 342 iPKPc  42 21.40   6.8X
         0.9s    15.80nm
CDF    152.06 351 ePKP   42 21.70   7.2X
         0.8s    12.75nm
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```
KKB    152.08 324 iPKP   42 22.00   7.4X
FLN    152.10   2 ePKP   42 21.40   7.0X
         0.8s    29.15nm
WATA   152.27 345 iPKPc  42 22.30   7.4X
                  i      42 35.70
LDF    152.29   2 ePKP   42 21.80   7.1X
         1.0s    28.20nm
WTTA   152.32 345 iPKPc  42 22.50   7.5X
         0.8s    28.40nm
                  i      42 36.50
MOTA   152.37 345 iPKPc  42 22.70   7.7X
         0.8s    28.40nm
                  i      42 36.30
GRR    152.46   3 ePKP   42 22.40   7.5X
         0.6s     6.60nm
SQTA   152.46 345 iPKPc  42 23.00   7.9X
         0.8s    25.10nm
                  i      42 36.30
HAU    152.58 353 ePKP   42 22.70   7.5X
         0.8s    11.30nm
BSF    152.70 352 ePKP   42 22.90   7.5X
         1.0s    16.00nm
VAY    152.73 323 ePKP   42 10.00  -5.5X
         1.2s    60.00nm
                  i      42 23.00
                  i      42 38.30
LPF    152.81   3 ePKP   42 23.20   7.8X
         0.8s    29.00nm
SKO    152.90 326 iPKP   42 23.80   8.0X
                  i      42 37.80
LOR    153.55 356 ePKP   42 24.90   8.4X
         0.9s     9.15nm
SSF    153.78 356 ePKP   42 25.60   8.9X
         1.1s    19.55nm
LBF    153.82 356 ePKP   42 25.60   8.7X
AVF    154.05 357 ePKP   42 26.00   8.9X
         1.0s     7.80nm
TCF    154.60 358 ePKP   42 26.20   8.3X
LSF    154.65 360 ePKP   42 26.20   8.2X
LPL    154.97 351 ePKP   42 29.50  10.8X
LPG    154.99 351 ePKP   42 28.90  10.1X
LIC    164.26 156 PKP    42 29.30   -0.1
         0.8s     5.50nm
KIC    164.49 157 PKP    42 29.58   -0.1
         1.1s    28.50nm
TIC    164.65 156 PKP    42 29.62   -0.2
         1.0s    12.50nm
LKO    166.99 149 PKPc   42 31.50   -0.1
         1.3s    23.00nm
       S.D. = 0.9  on  97 of 149 obs.
------------------------------------------
? DEC 20, 1993  10h 43m 29.03± 1.12s
  39.655 N ±11.0km    29.445 E ±11.0km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
       ML 2.6 (ISK).

DST      0.63 266 ePg    43 40.80   -1.0
IZI      0.68   2 iPg    43 42.00   -0.6
                  eSg    43 53.00
ALT      0.79 139 ePg    43 44.60    0.1
EDC      1.40 300 ePn    43 56.00    1.4
       S.D. = 1.9  on   4 of   4 obs.
------------------------------------------
% DEC 20, 1993  10h 53m 07.51± 0.85s
  39.644 N ± 6.9km    29.410 E ± 8.1km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
       ML 2.7 (ISK).

DST      0.61 267 iPg    53 19.80    0.0
IZI      0.69   4 iPg    53 21.00   -0.3
                  iSg    53 31.00
ALT      0.80 137 ePg    53 23.10    0.0
                  eSg    53 35.10
EYL      1.08  32 iPn    53 28.00    0.0
HRT      1.19   9 ePn    53 30.00    0.2
       S.D. = 0.3  on   5 of   5 obs.
------------------------------------------
? DEC 20, 1993  10h 56m 06.30± 1.74s
  35.347 N ±42.6km    27.137 E ±10.3km
  DEPTH =  33.0km  (normal)
 DODECANESE ISLANDS                (369)
       MD 3.8 (ATH).

NPS      1.25 267 ePn    56 28.00    0.4
KSL      2.13  68 ePn    56 40.30    0.0
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VAM      2.40 272 ePb    56 43.60   -0.5
ELL      2.65  57 eP     56 57.00   9.3X
VLI      3.67 293 ePn    57 02.20    0.1
   S.D. = 0.7  on   4 of   5 obs.
------------------------------------------
% DEC 20, 1993  12h 14m 13.90± 0.59s
  38.105 N ± 5.6km    3.880 W ± 5.4km
  DEPTH =  10.0km  (geophysicist)
 SPAIN                             (377)
       mbLg 2.8 (MDD).

EBAN     0.09  51 iPc    14 16.02   -0.6
                  e      14 18.80
ELUQ     0.62 210 iPd    14 26.59    0.1
                  e      14 35.40
ECOG     0.86 163 iPc    14 31.30    0.7
                  e      14 42.00
EHUE     1.06 106 iPc    14 34.16    0.3
                  e      14 48.10
EHOR     1.12 256 iPc    14 34.86    0.0
                  e      14 50.90
EVIA     1.21  63 iPd    14 35.57   -0.9
                  e      14 51.30
EGUA     1.29 169 iPc    14 36.99   -0.9
                  e      14 57.20
PAB      1.48 346 ePn    14 41.64    0.9
                  eSn    15 00.10
EPRU     1.56 224 eP     14 41.06   -0.8
ENIJ     1.75 130 eP     14 45.50    1.1
                  e      15 06.70
       S.D. = 0.8  on  10 of  10 obs.
------------------------------------------
   DEC 20, 1993  13h 56m 14.87± 0.11s
   6.876 S ± 2.9km  131.340 E ± 3.0km
   DEPTH =   7.7km  (geophysicist)
   6.4mb ( 96 obs.)  5.7Msz ( 47 obs.)
 TANIMBAR ISLANDS REG., INDONESIA(281)
       Mw 6.3 (GS), 6.3 (HRV). Ms 5.6
       (BRK). Felt (III) at Sorong. Two
       events about 1.9 seconds apart.
       Depth from broadband
       displacement seismograms, based
       on second event.
       FAULT PLANE SOLUTION: P-Waves
        NP1:Strike=270 Dip=86 Slip= -12
        NP2:         1     78      -176
        Principal Axes:
         T              Plg= 6  Azm=316
         P                  11      225
       Comment: The focal mechanism is
         moderately well controlled
         and corresponds to strike-
         slip faulting with a small
         normal component. The
         preferred fault plane is not
         determined.
       RADIATED ENERGY
        No. of sta:  11  Focal mech.  F
        Energy          1.2±0.3*10**15 Nm
       MOMENT TENSOR SOLUTION
       Dep  44              No. of sta:  9
       Moment Tensor;    Scale 10**18 Nm
         Mrr= 0.48        Mtt=-0.13
         Mff=-0.35        Mrt= 0.30
         Mrf= 1.64        Mtf= 2.48
        Principal axes:
         T  Val=  3.01  Plg=30  Azm=311
         N        0.02     55      167
         P       -3.03     17       51
       Best Double Couple:Mo=3.0*10**18
        NP1:Strike= 94 Dip=56 Slip=  10
        NP2:        359     82      146
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 41S, **C  M.W.: 37S, 58C
       Centroid Location:
       Origin Time        13:56:27.0 0.1
       Lat  6.79S 0.01 Lon 131.47E 0.01
       Dep  55.5 0.7 Half-duration  3.3
       Moment Tensor;    Scale 10**18 Nm
         Mrr= 0.32 0.02  Mtt=-1.48 0.02
         Mff= 1.17 0.03  Mrt= 0.61 0.03
         Mrf= 0.75 0.03  Mtf= 2.09 0.02
        Principal Axes:
         T  Val=  2.70  Plg=22  Azm=300
         N       -0.05     68      109
         P       -2.64      4      208
```

```
     Best Double Couple:Mo=2.7*10**18
      NP1:Strike=342 Dip=72 Slip= 167
      NP2:        76      77       18
MTN     5.94 182 eP     57 47.50    2.2
SWI     5.97 359 iPd    57 46.00    0.2
                 iS     58 43.00
KUG     8.31 246 eP     58 23.50    4.8X
                 eS     59 51.00
TNE     8.61 332 eP     58 26.10    3.3X
YOMI   10.10  66 P      58 41.20   -2.2
WSI    11.28 255 ePd    59 01.70    2.2
       0.5s   82.00nm         6.3mb
                 eS     01 02.80
BUNI   11.43 286 P      59 07.30    5.8X
       1.2s    3.50nm        4.6mb X
NINI   11.78 281 P      59 12.50    6.0X
MKS    11.92 277 iPd    59 14.50    6.3X
       1.5s   14.50nm        5.1mb X
MNDI   12.26  87 eP     59 09.80   -3.2X
                 eS     01 17.00
TANI   12.39 285 P      59 20.00    5.5X
       1.3s    4.50nm        4.6mb X
WWKK   12.65  76 eP     59 14.40   -3.7X
WB2    13.31 168 eP     59 22.50   -4.4X
                 i      59 24.20
                 iS     01 33.80
DAV    15.02 337 ePd-   59 51.80    2.6
       1.3s 3369.23nm         6.6mb
                 eS     02 48.80
KEDI   15.17 265 P      59 49.00   -2.4
LAT    15.55  90 eP     59 56.40    0.1
KHKI   15.66 264 eP     59 57.00   -0.7
                 eS     02 54.80
                 e      14 28.00
CTB    15.69 333 ePd    00 00.00    1.9
                 eS     03 00.00
QIS    15.78 150 iPc    59 56.30   -3.0
                 eS     02 39.00
BIP    15.84 341 ePd    00 01.00    1.1
PMG    15.86 100 ePc    59 58.16   -2.1
       0.9s 3334.87nm         6.5mb
ASPA   16.88 172 eP     00 09.40   -3.8X
     Z  19s   29.30um         5.1Msz
                 eS     03 07.80
SRDI   17.12 264 P      00 13.00   -3.3X
TSM    17.43 309 ePd    00 22.90    2.7
       1.3s 3029.10nm         6.3mb
MBL    18.04 217 eP     00 27.20   -0.6
TRT    18.57 266 ePc    00 35.70    1.4
       1.1s   54.60nm        4.7mb X
                 iS     03 54.50
MAP    18.59 337 ePc    00 32.00   -2.6
PLP    19.01 340 ePd    00 41.80    2.1
SJI    19.43 266 ePc    00 45.00    0.1
       0.9s   17.00nm        4.3mb X
                 iS     04 09.00
CTAO   19.54 134 eP     00 46.01   -0.1
       1.3s 2079.76nm         6.3mb
WARB   19.72 193 eP     00 47.40   -0.6
KKM    19.81 310 ePc    00 56.50    7.4X
                 e      01 37.00
                 e      04 35.00
KVG    19.86  79 eP     00 49.00   -0.5
PPR    20.77 323 eP     01 00.00    1.0
RAB    20.90  84 eP     01 01.00    0.6
                 iS     04 48.00
NANU   21.80 223 eP     01 10.00    0.5
PGP    22.72 333 ePd    01 20.60    1.9
TGY    23.26 334 iPc    01 21.00   -3.0X
                 iS     05 50.00
SINI   23.66 268 P      01 26.00   -2.0
QVP    23.69 334 ePc    01 30.00    1.9
TPI    23.95 279 ePd    01 32.00    1.4
                 e      11 00.00
FORT   23.98 187 iPc    01 32.00    1.2
PACI   24.26 269 P      01 32.30   -1.5
GUA    24.35  34 eP     01 35.80    1.2
       1.0s 1088.00nm         6.4mb
GUMO   24.37  33 eP     01 35.10    0.4
       1.0s 1430.69nm         6.6mb
PJG    24.37  33 eP     01 35.70    1.0
KALI   24.50 268 P      01 33.50   -2.6
PULI   25.20 270 P      01 43.30    0.4
BCP    25.46 335 eP     01 46.20    0.8
BAG    25.47 335 ePc+   01 44.00   -1.4
       1.6s 2400.00nm         6.6mb

                 eS     06 04.00
PASI   25.57 269 P      01 46.00   -0.3
PENI   26.05 271 P      01 51.50    0.8
       1.0s   23.00nm        4.8mb X
CVP    26.17 339 ePd    01 51.00   -0.8
SZP    26.55 336 eP     01 54.80   -0.4
STK    26.66 160 eP     01 55.20   -0.9
       0.9s   91.30nm        5.5mb
                 iPP    02 14.70
                 eS     06 41.70
                 eP'P'  34 30.40
HNR    28.43  97 ePc    02 11.65   -0.8
ADE    28.77 167 iPd    02 15.90    0.6
NWAO   29.05 205 (P)    02 18.20    0.4
       0.9s  406.80nm         6.2mb
ARMA   30.19 143 iPd    02 27.70   -0.5
       0.7s   79.00nm         5.7mb
BWA    31.62 152 iPd    02 41.80    1.1
                 i      02 43.80
                 i      03 00.60
                 i      03 07.40
                 i      03 14.60
                 iPP    03 32.50
IPM    32.33 290 ePc    02 47.00   -0.1
       0.9s  164.10nm         6.0mb
                 e      09 12.20
RIV    32.49 148 eP     02 51.20    3.0X
                 e      03 49.70
                 iPcP   04 20.00
                 iS     08 02.00
CAN    32.63 153 iPd    02 49.60    0.1
                 i      02 51.70
                 i      03 06.50
                 i      03 15.30
                 i      03 23.00
                 iPP    03 43.10
CNB    32.80 152 eP     02 50.70   -0.3
       0.9s  113.00nm         5.8mb
                 ePP    04 38.30
MRPI   33.05 284 P      02 56.00    2.5
TATO   33.08 343 (P)    02 52.19   -1.2
       1.0s  264.35nm         6.1mb
TOO    33.15 159 iPd    02 55.00    1.0
       0.9s  493.00nm         6.4mb
QIZ    33.34 321 ePc    02 55.31   -0.5
       1.2s  530.00nm         6.3mb
     N  14s    3.91um
     E  10s    1.97um
                 ic     02 56.80
                 ed     02 58.78
                 ed     03 00.35
                 PP     04 02.50
                 S      08 07.00
HKC    33.52 330 iP     02 57.80    0.5
                 S      08 08.00
SNG    33.68 294 eP     02 59.20    0.4
       1.5s  416.67nm         6.1mb
                 eS     08 18.40
QZH    33.98 339 iPc    03 01.00   -0.2
       1.5s 1180.00nm         6.6mb
     Z  28s   10.10um         5.4MszX
AEKI   34.01 284 P      03 04.30    2.5
GZH    34.59 330 P      03 06.00   -0.5
       1.0s  300.00nm         6.1mb
     Z  24s    6.08um         5.3MszX
     N  12s    2.70um
     E  12s    3.89um
DZM    37.07 118 iPc    03 27.40   -0.3
                 i      09 08.30
BKM    37.55 110 iPc    03 31.90    0.2
PVC    37.63 110 iPc    03 32.50    0.2
LOE    37.92 310 eP     03 34.00   -0.8
                 i      05 52.00
NST    38.17 306 iPd    03 36.50   -0.4
KHT    38.95 304 iPc    03 44.10    0.6
SSE    38.99 346 ePc    03 43.36   -0.2
       1.2s  980.00nm         6.3mb
     Z  20s    7.40um         5.5Msz
     N  16s    1.80um
     E  16s    1.00um
                 ic     03 45.02
                 ed     03 47.25
                 ec     03 49.40
                 sP     03 59.50
                 PcP    05 55.00
                 ScP    09 36.00
                 SS     12 24.00

BDT    39.95 307 eP     03 52.00    0.3
       1.0s  552.00nm         6.2mb
NJ2    40.50 344 Pd     03 56.80    0.8
       1.0s  590.00nm         6.2mb
     Z  24s    2.69um         5.0MszX
     N  11s    2.07um
     E  12s    1.82um
                 ScP    09 42.70
                 iS     09 59.00
WHN    40.62 337 Pd     03 59.50    2.5
       1.5s 3680.00nm         6.9mb
     Z  28s    8.87um         5.5MszX
                 PP     05 34.00
                 S      09 59.00
GYA    40.88 325 iPc    03 59.60    0.2
       1.0s  860.00nm         6.4mb
     Z  24s    5.30um         5.3MszX
     N  14s    5.02um
     E  14s    5.22um
                 sP     04 16.40
                 PP     05 35.00
                 PcP    06 01.80
                 ScP    09 45.40
                 PcS    09 50.00
                 S      10 06.00
CHTO   40.89 309 ePc    03 59.57    0.1
                 ic     04 01.48
                 ed     04 03.38
                 eS     10 07.20
SHK    41.20   2 eP     04 01.80    0.0
KMI    42.27 320 Pc     04 11.00    0.1
       1.6s 2520.00nm         6.7mb
     Z  20s    4.40um         5.3Msz
     N  11s    1.00um
     E  13s    2.50um
                 PP     05 53.00
                 PcP    06 05.00
                 ScP    09 47.50
                 PcS    09 54.00
                 S      10 26.00
                 sS     10 48.00
                 SS     13 31.00
                 ScS    14 05.00
MAJO   43.67   8 eP     04 19.80   -2.1
       0.8s  402.55nm         6.3mb
MAT    43.67   8 iPc    04 20.00   -1.9
       1.2s  187.50nm         5.8mb
     Z  20s   10.99um         5.8Msz
                 eS     10 42.00
TIA    44.89 344 P      04 31.70   -0.1
       1.6s  850.00nm         6.4mb
     Z  20s    2.80um         5.2Msz
     N  14s    1.76um
     E  14s    3.25um
                 PcP    06 15.30
                 ScP    10 00.50
                 S      11 01.00
                 ScS    14 24.30
XAN    45.90 334 ePc    04 38.61   -1.3
       1.2s  730.00nm         6.5mb
     Z  18s    2.89um         5.3Msz
     N  12s    1.33um
     E  10s    1.30um
                 ic     04 40.52
                 ed     04 42.34
                 ed     04 43.66
CD2    45.92 326 iPd    04 39.70   -0.5
       1.2s 1230.00nm         6.8mb
     Z  28s    8.25um         5.5MszX
                 S      11 16.00
DL2    46.43 350 iPc    04 45.00    1.0
       1.0s  390.00nm         6.4mb
     Z  18s    2.82um         5.3Msz
     E  15s    3.73um
                 S      11 25.00
                 SS     14 51.00
VUN    47.20 108 eP     04 52.30    1.9
SVA    47.21 108 eP     05 01.40   11.0X
TIY    47.74 340 Pc     04 54.00   -0.4
       1.2s  940.00nm         6.8mb
     Z  28s   13.60um         5.8MszX
     N  10s    1.71um
                 S      11 45.00
                 ScS    14 43.50
BJI    48.74 345 Pc     05 01.50   -0.5
       1.1s  500.00nm         6.5mb
     Z  20s    4.83um         5.5Msz
```

20d 14h

N 17s 3.30um
esP 05 18.00
PcP 06 28.00
PP 06 54.00
eScP 10 16.50
esS 12 13.00
eScS 14 47.00
SNY 48.98 352 iPc 05 04.00 0.1
1.0s 490.00nm 6.5mb
Z 28s 9.82um 5.7MszX
N 10s 1.52um
PP 06 56.00
iS 12 00.00
SS 15 33.00
VLA 49.76 1 iPc 05 11.00 1.2
1.0s 513.00nm 6.5mb
Z 15s 1.10um 5.0MszX
N 17s 3.50um
E 13s 1.40um
i 05 21.00
iS 12 15.00
iPS 12 30.00
i 14 53.00
iSS 15 40.00
ERM 49.84 12 (P) 05 10.31 -0.2
LZH 49.93 331 Pc 05 11.00 -0.5
1.8s 2950.00nm 6.9mb
Z 34s 8.67um 5.5MszX
N 10s 2.08um
pP 05 24.00 48kmX
sP 05 27.50
PcP 06 32.50
PP 07 05.00
ScP 10 23.00
PcS 10 29.00
S 12 13.00
sS 12 35.00
ScS 14 56.00
SS 15 42.00
SHL 50.10 312 iP 05 12.00 -1.0
1.1s 588.61nm 6.5mb
iS 12 18.00
EWZ 50.29 143 eP 05 14.80 0.9
BWZ 50.32 145 P 05 14.10 0.0
WLZ 50.54 134 eP 05 16.80 0.8
e 05 36.70
THZ 50.60 140 eP 05 14.40 -2.1
CN2 50.72 354 eP 05 16.80 -0.4
1.0s 220.00nm 6.1mb
Z 22s 3.02um 5.3Msz
N 13s 1.73um
E 13s 1.44um
PcP 06 34.40
ScP 10 24.40
eS 12 23.00
ScS 14 58.80
LTZ 50.75 141 eP 05 18.00 0.5
HHC 50.85 341 Pd 05 18.40 0.0
1.4s 1010.00nm 6.6mb
Z 30s 6.23um 5.4MszX
N 15s 1.78um
E 15s 2.04um
sP 05 35.00
PcP 06 35.00
PP 07 18.00
S 12 29.00
ScS 15 00.00
BSZ 50.96 137 P 05 16.90 -2.2
BTO 51.16 339 P 05 20.00 -0.7
1.4s 390.00nm 6.1mb
N 13s 0.77um
E 13s 1.20um
pP 05 30.50 36kmX
PP 07 18.00
S 12 28.00
TCW 51.21 139 eP 05 19.20 -1.8
MDJ 51.28 358 ePc 05 21.24 -0.1
1.1s 330.00nm 6.2mb
ic 05 22.23
ed 05 23.89
S 12 32.50
ScS 15 04.00
SS 16 06.00
KHZ 51.35 140 eP 05 19.50 -2.5
MQZ 51.48 142 P 05 24.00 1.0
MRW 51.50 139 eP 05 21.00 -2.2
SNZO 51.54 139 (P) 05 22.99 -0.5

PP 07 40.00
S 12 36.00
URZ 51.79 134 eP 05 25.00 -0.4
MTW 51.99 138 eP 05 25.90 -1.0
e 05 45.60
BLW 52.07 138 eP 05 27.10 -0.5
PGZ 52.25 137 eP 05 28.20 -0.7
HBZ 52.37 133 eP 05 29.10 -0.8
MCQ 52.43 160 eP 05 29.10 -0.9
PUZ 52.53 133 eP 05 28.90 -2.2
LSA 53.04 315 ePc 05 35.30 -0.2
1.4s 1280.00nm 6.7mb
ic 05 37.29
S 12 55.00
SS 16 44.00
KUR 53.95 14 eP 05 54.30 13.0X
Z 20s 3.20um 5.4Msz
N 20s 3.80um
iS 13 10.00
GTA 54.52 330 iPc 05 45.00 -0.8
1.4s 620.00nm 6.4mb
Z 32s 8.51um 5.6MszX
E 12s 1.36um
pP 05 58.40 49kmX
sP 06 03.00
PcP 06 50.00
PP 07 48.00
ScP 10 42.00
eS 13 16.00
sS 13 37.00
ScS 15 27.50
eSS 16 58.00
YSS 54.60 10 (P) 05 43.77 -2.3
GUN 55.88 310 P 05 55.20 -1.0
PKI 56.06 310 P 05 56.00 -1.5
KKN 56.27 310 P 05 57.60 -1.2
KOD 56.27 287 eP 05 58.60 -0.5
AFI 56.28 102 eP 06 11.00 12.1X
eS 13 40.00
DMN 56.31 310 P 05 58.40 -0.8
HIA 56.82 351 ePc 06 01.05 -1.1
ic 06 02.46
e 06 07.01
GKN 56.87 310 P 06 01.80 -1.3
GBA 57.25 291 Pc 06 05.00 -0.7
HYB 57.46 296 eP 06 05.30 -1.9
1.0s 70.00nm 5.6mb
i 06 20.30
e 06 36.50
eS 13 54.00
CIT 60.58 348 eP 06 28.00 -0.3
Z 20s 2.81um 5.4Msz
eS 14 42.00
e 16 16.00
CSY 61.05 189 eP 06 30.70 -0.5
0.8s 125.10nm 6.1mb
i 06 56.70
ZAK 61.99 340 iPc 06 37.00 -0.8
1.6s 1459.00nm 6.9mb
Z 14s 1.37um 5.3MszX
N 20s 2.22um
eS 14 55.00
e 16 22.00
e 18 50.00
NDI 62.97 307 ePc 06 42.00 -2.7
0.7s 58.22nm 5.9mb
iS 15 02.50
TLY 62.98 341 ePc 06 44.27 -0.1
ic 06 45.93
e 06 49.82
BOM 63.09 295 iPc 06 44.50 -1.1
iS 15 04.50
IRK 63.28 342 eP+ 06 46.00 -0.3
1.4s 972.00nm 6.8mb
Z 15s 2.10um 5.4MszX
N 21s 0.69um
E 20s 1.41um
e 07 00.00
e 07 21.50
e 09 02.00
e 10 34.00
eS 15 12.00
e 15 34.00
PET 64.01 18 eP 06 51.00 -0.1
1.1s 200.00nm 6.2mb
e 09 16.00
eS 15 20.00

eSS 19 24.00
WMQ 64.02 326 ePc 06 51.35 -0.1
Z 32s 5.25um 5.5MszX
N 13s 1.32um
ic 06 53.33
ed 06 55.07
PcP 07 24.00
PP 09 10.00
S 15 20.00
ScS 16 34.00
SS 19 33.00
BOD 66.00 350 eP 07 02.20 -1.6
1.3s 910.00nm 6.8mb
UER 66.40 336 iPc 07 05.00 -1.5
1.2s 950.00nm 6.9mb
i 07 30.00
RAR 67.88 110 eP 07 16.15 -0.4
1.2s 124.37nm 6.0mb
NIL 68.15 310 iPd 07 21.05 3.0X
0.9s 0.70nm 3.8mb X
iS 16 14.06
YAK 68.70 359 iPc+ 07 20.00 -0.7
1.3s 1984.00nm 7.2mb
epP 07 46.00 102kmX
iS 16 15.00
isS 16 45.00
e 17 11.00
eSSS 23 48.00
KSH 68.80 317 P 07 23.30 1.2
1.0s 2070.00nm 7.3mb
Z 28s 5.34um 5.6MszX
N 10s 1.69um
PcP 07 47.00
PP 09 59.00
S 16 24.00
sS 16 42.00
ScS 17 15.00
SS 20 55.00
SMY 69.58 26 eP 07 25.70 -0.7
0.9s 204.35nm 6.3mb
Z 21s 3.80um 5.6Msz
AAK 71.31 319 ePc 07 37.76 0.4
ic 07 39.66
ed 07 42.31
ed 07 43.64
FRU 71.33 320 eP 07 37.00 -0.3
2.0s 1410.00nm 6.7mb
Z 28s 5.00um 5.6MszX
E 28s 8.00um
e 08 00.00
eS 16 52.00
QUE 71.81 305 iPc+ 07 23.00 -17.7X
1.2s 4257.81nm
eS 16 56.30
ADK 73.39 31 ePc 07 48.40 -0.8
1.3s 116.75nm 5.8mb
ec 07 50.38
ed 07 52.12
HON 74.72 66 P 08 10.00 12.5X
Z 19s 2.14um 5.5Msz
DHH 74.88 66 (P) 07 59.42 0.9
MAW 75.55 202 iPc 08 05.20 3.7X
1.1s 155.56nm 6.0mb
MAW 75.55 202 iPd 07 57.60 -3.9X
0.7s 45.66nm 5.7mb
E 15s 1.82um
i 08 04.90
iS 17 36.50
eSS 22 33.20
AFR 77.39 106 iPc 08 14.40 1.7
1.3s 363.90nm 6.3mb
PAE 77.57 107 iPc 08 15.50 1.8
1.4s 343.30nm 6.3mb
PPT 77.58 106 iPc 08 15.60 1.8
1.5s 651.80nm 6.5mb
Z 42s 5025.00um 8.5MszX
PPN 77.72 106 iPc 08 16.40 1.9
1.5s 355.20nm 6.2mb
TVO 77.88 107 iPc 08 17.60 2.1
2.0s 1721.30nm 6.8mb
TIK 78.36 359 iPd+ 08 15.00 -1.9
1.2s 480.00nm 6.4mb
Z 18s 3.00um 5.7Msz
i 08 28.00
e 11 12.00
ePPP 13 10.00
iS 18 02.00

isS 18 50.00
i 19 15.00
PMO 79.36 104 iPc 08 25.40 1.9
1.4s 311.90nm 6.1mb
VAH 79.60 104 iPc 08 26.60 1.8
1.4s 319.80nm 6.1mb
TPT 79.63 104 iPc 08 26.90 1.9
1.4s 346.80nm 6.2mb
MAIO 79.64 309 iPc 08 25.00 0.2
1.0s 150.00nm 5.9mb
eS 18 23.00
RUV 79.84 104 iPc 08 28.00 1.9
1.4s 359.00nm 6.2mb
ASH 80.98 310 P 08 32.00 0.2
1.3s 1190.00nm 6.8mb
e 08 42.00
ePPP 13 24.00
e 18 47.00
sS 19 14.00
PS 19 38.00
eSS 23 54.00
SPA 83.17 180 iPc 08 43.20 0.4
0.8s 166.67nm 6.3mb
SDN 83.49 32 eP 08 44.83 0.5
0.8s 160.10nm 6.3mb
Z 19s 30.34um 6.7MszX
SHI 83.73 301 eP 08 46.00 -0.5
SYO 84.29 201 ePd- 08 46.90 -1.4
eSKS 19 05.00
eS 19 10.00
ANM 85.10 23 eP 08 52.33 0.0
DHR 85.19 297 iPc 08 53.50 0.0
eS 19 10.00
SVE 85.35 329 iPd 08 58.00 4.3X
1.1s 1460.00nm 7.1mb
i 12 10.00
iS 19 16.00
ARU 86.28 328 iPd 08 57.00 -1.3
1.2s 930.00nm 6.8mb
e 09 06.50
e 09 10.00
e 12 17.00
eS 19 15.00
e 19 24.00
BAK 87.93 311 iPc 09 11.00 4.3X
iS 19 35.00
RYD 88.08 295 iPc 09 05.00 -2.8
eS 19 36.00
TTA 88.30 26 eP 09 06.86 -1.3
1.2s 57.50nm 5.8mb
KDC 88.46 31 eP 09 09.72 0.9
1.2s 76.76nm 5.9mb
KER 89.10 305 iPc 09 11.80 -0.8
KMSA 89.42 290 ePc 09 13.60 -0.7
MJMA 89.42 296 ePc 09 04.60 -9.6X
CRP 89.55 28 eP 09 15.01 0.8
ARO 89.89 282 eP 09 18.00 1.4
IMA 90.21 23 ePc 09 16.79 -0.4
0.8s 7.92nm 5.0mb X
SLKM 90.28 29 eP 09 15.79 -1.6
TAB 90.28 308 iPd- 09 19.00 0.9
KMTA 90.67 288 ePc 09 21.30 1.0
QASM 91.02 296 ePc 09 22.00 0.4
PMR 91.04 28 eP 09 19.94 -0.9
0.9s 58.48nm 5.9mb
Z 20s 2.94um 5.7Msz
AFIF 91.10 294 ePc 09 22.80 0.8
GRO 91.52 313 iPd 09 24.00 0.6
2.0s 1440.00nm 7.0mb
i 12 55.00
iS 19 46.00
i 20 19.00
MTA 91.94 312 iP 09 26.00 0.6
1.0s 280.00nm 6.6mb
eS 19 46.00
PS 20 15.00
UQSK 92.04 296 ePc 09 27.30 1.0
FBA 92.31 25 eP 09 24.57 -2.1
1.3s 26.32nm 5.5mb
TOA 92.52 28 eP 09 29.80 2.0
KLU 92.53 28 eP 09 28.34 0.5
NVL 92.86 197 eP 09 28.00 -1.2
1.5s 83.00nm 5.9mb
Z 19s 6.00um 6.1Msz
N 19s 5.50um
E 19s 2.00um
i 09 53.00

ePP 13 24.00
e 14 10.00
ePPP 15 28.00
eSKS 19 57.00
eS 20 32.00
ePS 21 46.00
eSS 26 44.00
eSSS 30 20.00
TAIF 93.37 291 eP 09 33.60 0.9
PYA 93.49 314 iPc 09 32.00 -0.6
1.3s 350.00nm 6.6mb
i 20 36.60
KIV 93.75 314 iPc 09 34.50 0.6
2.7s 604.00nm 6.5mb
e 13 12.30
e 20 02.00
e 20 39.50
(PS) 21 47.30
NAI 94.35 268 iPKPd 09 39.60 2.2
1.0s 7350.00nm 8.0mb X
iSP 20 12.00
iPS 20 47.60
ePPS 22 08.00
ScSP' 24 18.00
SIT 97.54 33 P 10 00.00 9.4X
Z 20s 3.07um 5.8Msz
MOS 97.73 325 iPc 09 50.00 -1.6
1.9s 1.00nm 4.1mb X
e 13 49.00
INK 98.25 22 eP 09 54.00 0.3
1.0s 8.00nm 5.3mb
OBN 98.31 325 eP 10 08.00 13.8X
Z 30s 4.00um 5.7MszX
N 36s 2.00um
E 34s 4.00um
e 20 32.00
e 28 08.00
BHL 98.50 303 P 09 55.00 -0.7
PP 14 00.00
SKS 20 30.00
SLR 98.68 243 iPd 09 57.00 0.2
0.9s 63.03nm 6.3mb
Z 22s 4.44um 5.9Msz
CTK 99.37 310 eP 10 01.20 1.6
BLF 99.76 239 iPd 10 03.50 1.8
1.1s 54.05nm 6.0mb
e 14 07.10
FRS 100.34 238 iPdiff10 05.70 1.6
1.0s 25.00nm 5.7mb
e 14 04.00
MRFT 100.42 310 ePdiff10 05.30 0.9
BOSA 100.54 239 ePdiff10 05.67 0.7
1.3s 89.30nm 6.2mb
MBC 101.19 13 ePdiff10 08.00 1.2
1.0s 6.00nm 5.2mb X
LBTB 101.21 243 ePdiff10 08.47 0.3
0.9s 65.35nm 6.2mb
SGKT 101.48 310 ePdiff10 10.00 0.8
DVR 101.51 311 ePdiff10 10.00 0.9
SDF 102.04 338 iPdiff10 10.80 0.0
NAL 102.06 310 ePdiff10 11.40 -0.3
KAF 103.07 332 iPdiff10 13.40 -2.0
0.9s 75.30nm 6.4mb
ELL 103.23 306 ePdiff10 26.00 9.0X
MNK 103.64 324 ePdiff10 17.00 -1.1
1.5s 514.00nm 7.1mb
NUR 104.15 331 iPdiff10 19.90 -0.4
0.9s 90.30nm 6.6mb
PSN 104.23 313 iPdiff10 22.00 1.0
JMB 105.49 312 iPdiff10 28.00 1.3
GMW 105.75 43 ePdiff10 29.83 2.1
ALN 106.03 310 ePKP 14 45.14 3.7X
SHW 106.29 44 (PKP) 14 43.68 1.6
RDO 106.39 311 ePdiff10 31.20 0.5
WDC 106.68 50 PKP 14 50.00 7.2X
Z 21s 2.73um 5.8Msz
NPS 106.77 305 ePdiff10 34.40 1.8
PLD 106.92 312 iPdiff10 34.00 1.0
RZN 106.95 311 iPdiff10 34.00 0.5
YKA 107.05 26 ePdiff10 32.30 -0.8
1.4s 3.20nm 5.2mb X
YKA 107.05 26 ePKP 14 39.60 -3.1X
0.6s 2.10nm
PGB 107.26 312 iPdiff10 35.00 0.3
RES 107.29 12 ePdiff10 34.50 0.6
0.7s 2.00nm 5.3mb X
RES 107.29 12 ePKP 14 43.50 0.6

1.0s 5.00nm
OUR 107.64 310 e(Pdif10 35.98 -0.3
OUR 107.64 310 ePKP 14 57.30 12.8X
COE 107.65 53 (Pdiff10 37.92 1.5
UZH 107.69 319 iPdiff10 37.50 1.2
MMB 107.70 311 iPdiff10 37.00 0.4
UPP 107.71 331 iPdiff10 35.30 -0.8
1.0s 100.00nm 6.9mb
i 14 53.30
SRS 107.85 311 e(Pdif10 36.34 -0.9
SRS 107.85 311 ePKP 14 56.30 11.3X
SAO 107.87 54 PKP 15 00.00 14.9X
Z 19s 1.88um 5.7Msz
VAM 107.92 305 ePdiff10 39.50 1.8
PAIG 107.92 310 e(Pdif10 36.30 -1.3
SOH 108.07 311 e(Pdif10 36.98 -1.3
SOH 108.07 311 ePKP 14 58.98 13.6X
KKB 108.14 312 iPdiff10 38.00 -0.6
KNT 108.37 311 e(Pdif10 38.62 -1.0
KNT 108.37 311 ePKP 14 47.01 1.1
CMB 108.59 52 PKP 15 00.00 13.5X
Z 19s 2.14um 5.7Msz
CMB 108.59 52 ePdiff11 00.31 19.6X
Z 19s 1.90um 5.7Msz
ePP 15 33.31
eSKS 20 47.31
eS 21 07.31
eSP 24 31.31
ePS 24 36.31
iSS 30 33.31
eSSS 34 02.31
iSSSS 38 24.31
eLQ 41 23.31
eLR 46 17.31
VAY 108.59 311 iPdiff10 39.40 -1.1
1.4s 110.00nm 6.9mb
i 10 41.00
DPW 108.76 42 (PKP) 14 53.47 6.9X
GRG 108.77 311 e(Pdif10 39.90 -1.5
GRG 108.77 311 ePKP 15 02.22 15.5X
LIT 108.81 310 e(Pdif10 40.42 -1.1
SPC 108.92 320 ePdiff10 40.50 -1.5
e 13 58.00
i 14 54.70
OJC 108.99 321 ePdiff10 43.10 1.0
0.9s 60.00nm 6.8mb
SKO 109.35 312 iPdiff10 43.30 -0.6
1.4s 120.00nm
i 15 15.00
i 15 21.00
NEW 109.39 41 PKP 15 00.00 12.3X
Z 21s 2.33um 5.7Msz
PSZ 109.40 318 ePdiff10 45.60 1.5
MEMM 109.77 53 (PKP) 14 53.19 4.6X
BUD 110.07 318 e(Pdif10 46.50 -0.4
NRAO 110.24 333 Pdiff 10 40.50 -6.9X
NRAO 110.24 333 PKPd 14 59.20 10.4X
PP 15 26.50
ISA 110.37 55 PKP 15 00.00 10.0X
Z 18s 1.49um 5.6Msz
SRO 110.46 319 ePdiff10 48.40 -0.3
SRO 110.46 319 ePKP 14 40.50 -9.1X
iPP 15 28.70
NAO 110.53 333 Pdiff 10 48.60 -0.1
1.1s 48.40nm
UZD 110.55 317 e(Pdif10 49.80 0.7
KEK 110.91 310 ePdiff10 51.30 0.4
ZST 111.17 319 ePdiff10 52.50 0.7
e 14 06.60
ZST 111.17 319 iPKP 14 50.80 -0.2
TPNV 111.99 53 PKP 15 00.00 6.9X
Z 20s 2.46um 5.8Msz
PRU 112.32 321 Pdiffd10 58.50 1.6
PRU 112.32 321 PKP 14 53.90 0.8
1.8s 207.00nm
ePP 15 38.60
BRG 112.42 323 iPdiff10 58.00 0.7
1.2s 40.00nm
e 14 34.00
BRG 112.42 323 iPKP 14 54.00 0.7
ePP 15 29.00
ePKKP 26 10.30
CLL 112.85 323 e(Pdif11 00.00 0.8
1.4s 18.00nm
CLL 112.85 323 i(PKP)14 54.50 0.5
1.5s 60.00nm
LRM 113.06 43 ePKP 14 55.80 0.8

20d 14h

KHC 113.17 321 ePdiff11 01.50 0.7
1.1s 5.00nm
e 14 20.00
e 14 40.00
KHC 113.17 321 PKP 14 55.90 1.1
1.2s 25.00nm
ePP 15 35.50
i 15 39.50
e 15 50.00
e 16 12.50
GEC2 113.18 320 e(PKP)14 40.00 -14.9X
1.1s 5.90nm
GEC2 113.18 320 e(PKP)15 00.10 5.2X
0.6s 3.90nm
GEC2 113.18 320 Pdiff 11 01.70 0.8
1.0s 7.41nm
e 11 12.20
e 14 38.60
e 14 54.80
e 15 00.50
e 15 09.10
GEC2 113.18 320 e(PKP)14 54.60 -0.3
0.7s 12.80nm
LJU 113.40 317 ePKP 14 54.80 -0.5
i 14 56.00
e 15 39.10
HVU 113.78 47 ePKP 14 57.57 1.1
PTI 113.82 46 (PKP) 14 58.77 2.2
VOY 113.84 317 ePKP 14 54.70 -1.6
i 14 56.60
ePP 15 46.80
e 15 53.70
MOX 113.90 323 ePdiff11 05.40 1.5
e 14 57.00
KBA 113.91 319 iPdiff11 02.00 -2.3
i 11 05.60
i 11 10.80
KBA 113.91 319 iPKP 14 56.00 -0.6
1.0s 20.90nm
iPP 15 43.80
i 15 51.30
TRI 114.01 317 ePKP 14 56.70 0.2
e 15 43.60
e 25 28.00
e 26 36.00
eLR 52 48.00
BHG 114.03 319 iPKPc 14 56.70 0.1
0.9s 44.00nm
DUG 114.08 49 ePKP 14 56.15 -0.9
GRA1 114.46 322 ePdiff11 07.40 0.9
GRA1 114.46 322 ePKP 14 56.00 -1.3
ePP 15 45.70
GRF 114.46 322 iPdiff11 07.40 0.9
GRF 114.46 322 e(PKP)14 56.20 -1.1
Z 22s 1.40um 5.5Msz
e 14 58.60
MSU 114.91 51 ePKP 15 00.71 1.9
WTTA 114.97 319 iPdiff11 09.40 0.4
WTTA 114.97 319 iPKP 14 57.20 -1.4
0.6s 46.90nm
iPP 15 48.50
WATA 114.99 319 iPdiff11 09.20 0.1
WATA 114.99 319 iPKP 14 56.90 -1.7
i 14 58.90
iPP 15 49.10
SQTA 115.26 319 iPdiff11 10.60 0.4
SQTA 115.26 319 iPKP 14 58.40 -0.7
1.5s 155.00nm
iPP 15 50.20
i 15 57.30
MOTA 115.29 319 iPdiff11 10.40 0.0
MOTA 115.29 319 iPKP 14 57.50 -1.7
1.2s 92.50nm
i 15 57.50
i 16 05.60
EMUT 115.66 49 PKP 15 01.40 1.2
SRU 116.04 50 ePKP 15 00.62 -0.3
OSS 116.12 319 PKP 15 01.48 0.7
FIR 116.26 316 e(PKP)15 06.00 5.1X
VDL 116.63 319 PKP 15 02.50 0.7
LANF 116.80 322 PKP 15 02.75 1.0
LLS 116.81 319 PKP 15 00.96 -1.1
ZLA 116.98 320 PKP 15 03.13 0.9
FEL 117.08 321 PKP 15 02.47 0.0
TMA 117.15 319 PKP 15 01.34 -1.4
TUC 117.15 57 ePKP 15 05.19 2.1
Z 21s 2.12um 5.7Msz

ENN 117.21 324 ePKP 15 03.50 1.1
0.9s 29.90nm
e 16 15.00
PV09 117.24 50 ePKP 15 03.64 0.3
VAI 117.29 318 PKP 15 01.04 -1.7
CDF 117.34 322 ePKP 15 01.30 -1.6
0.9s 10.50nm
PV10 117.34 50 ePKP 15 03.26 -0.2
ECH 117.48 321 PKP 15 03.14 0.0
WLF 117.53 323 PKP 15 05.00 2.0
e 16 21.00
BBS 117.54 321 PKP 15 03.19 -0.1
PV08 117.59 50 PKP 15 05.30 1.2
MOF 117.64 321 PKP 15 02.93 -0.6
MMK 117.76 319 PKP 15 03.22 -0.8
BSF 117.86 321 ePKP 15 02.50 -1.4
1.1s 80.60nm
PCP 117.89 317 PKP 15 03.19 -0.8
ORX 117.89 318 PKP 15 02.92 -1.2
LOMF 118.02 321 PKP 15 04.36 0.1
HAU 118.07 321 ePKP 15 03.00 -1.2
1.2s 94.30nm
DIX 118.11 319 PKP 15 04.05 -0.7
PGF 118.21 315 ePKP 15 03.60 -1.2
1.2s 88.65nm
FIN 118.22 317 PKP 15 04.57 -0.1
SNF 118.26 325 iPKPc 15 04.47 0.0
DOU 118.27 324 PKPc 15 05.60 1.1
e 16 22.90
i 16 34.40
ROB 118.42 317 PKP 15 04.89 -0.2
LSD 118.50 319 PKP 15 05.89 0.4
IMI 118.54 317 PKP 15 05.00 -0.3
RSP 118.54 318 PKP 15 04.43 -0.9
BHB 118.64 318 PKP 15 03.56 -1.9
LPG 118.75 319 ePKP 15 04.90 -1.1
0.8s 28.05nm
ENR 118.75 317 PKP 15 04.84 -0.9
LPL 118.75 319 ePKP 15 04.80 -1.1
0.7s 31.20nm
STV 118.81 317 PKP 15 05.12 -0.7
SBF 118.86 317 ePKP 15 04.60 -1.3
0.7s 40.80nm
PZZ 118.87 318 PKP 15 06.40 0.4
BNI 118.96 318 PKP 15 05.84 -0.3
MVIF 119.05 317 PKP 15 05.83 -0.6
RSSD 119.26 43 PKP 15 05.30 -1.6
EDI 119.35 333 Pdiff 11 13.80 -14.2X
EDI 119.35 333 ePKP 14 48.00 -18.3X
FRF 119.51 317 ePKP 15 06.00 -1.1
LMR 119.68 316 ePKP 15 06.30 -1.1
0.9s 26.35nm
EKA 119.69 332 PKP 15 07.22 0.2
LRG 119.74 317 ePKP 15 06.60 -0.9
1.1s 56.40nm
Z 20s 1.13um 5.5Msz
GOL 119.74 48 ePKP 15 06.81 -1.2
Z 21s 2.11um 5.8Msz
GLD 119.84 48 ePKP 15 09.52 1.4
Z 20s 3.18um 6.0Msz
LOR 119.90 321 ePKP 15 06.70 -1.0
0.9s 34.05nm
Z 21s 1.35um 5.6Msz
LBF 119.95 321 ePKP 15 06.80 -1.1
1.1s 61.30nm
ALQ 120.17 54 ePKP 15 08.81 -0.1
Z 21s 0.32um 4.9Msz
e 15 32.11
e 16 23.74
iPKKP 25 17.78
SMF 120.17 321 ePKP 15 07.00 -1.3
1.4s 93.25nm
SSF 120.21 321 ePKP 15 07.40 -0.9
1.1s 107.45nm
AVF 120.42 321 ePKP 15 07.50 -1.2
1.0s 38.20nm
BGF 120.83 321 ePKP 15 08.70 -0.8
1.1s 134.80nm
MAF 121.15 321 ePKP 15 09.20 -0.9
TCF 121.35 321 ePKP 15 09.80 -0.7
1.1s 97.20nm
FRB 121.45 10 ePKP 15 09.50 -0.6
0.9s 14.00nm
ULM 121.61 34 ePKP 15 12.00 1.2
LDF 121.70 324 ePKP 15 10.20 -0.9
1.4s 75.35nm
LSF 121.79 321 ePKP 15 10.30 -1.0

0.8s 31.95nm
FLN 121.82 325 ePKP 15 10.30 -1.0
1.3s 64.25nm
Z 22s 1.20um 5.5Msz
CAF 122.02 320 ePKP 15 11.40 -0.5
1.1s 49.55nm
RJF 122.21 320 ePKP 15 11.60 -0.6
1.1s 46.65nm
Z 23s 1.38um 5.5MszX
GRR 122.22 324 ePKP 15 11.30 -0.7
1.3s 81.60nm
PERF 122.47 317 PKP 15 12.66 -0.1
LPF 122.51 324 ePKP 15 11.90 -0.7
1.3s 197.10nm
MTHF 122.53 317 PKP 15 13.58 0.7
ETER 122.56 316 ePKP 15 12.74 -0.1
MFF 122.66 322 ePKP 15 12.10 -0.8
0.8s 77.65nm
LPO 122.69 320 ePKP 15 12.80 -0.3
1.3s 96.05nm
DCN 122.81 332 ePKP 15 14.00 1.0
LFF 122.86 320 ePKP 15 13.10 -0.3
0.9s 48.65nm
LESF 123.33 318 PKP 15 14.57 0.2
ESEL 123.48 314 ePKP 15 14.54 -0.2
LTX 123.72 59 ePKP 15 15.46 -0.3
EPF 123.95 318 ePKP 15 14.80 -0.9
1.1s 35.40nm
EGRA 124.75 317 ePKP 15 14.90 -2.2
EBR 124.77 316 ePKP 15 19.00 1.8
EROQ 124.83 316 ePKP 15 14.90 -2.5
ECRI 126.02 319 ePKP 15 19.97 0.2
WMOK 126.28 52 ePKP 15 19.73 -0.7
Z 19s 1.77um 5.8Msz
ECHE 126.29 315 ePKP 15 20.58 0.2
ACU 126.33 313 ePKP 15 20.37 -0.1
MEO 126.42 52 iPKPc 15 21.40 0.7
ETOR 126.52 317 ePKP 15 20.83 0.0
OCO 127.02 50 iPKPc 15 24.00 2.2
EALH 127.32 313 ePKP 15 22.99 0.7
EVIA 127.78 314 ePKP 15 22.69 -0.6
GUD 128.02 317 ePKP 15 22.99 -0.7
TUL 128.16 49 iPKPd 15 25.50 1.6
EHUE 128.18 313 ePKP 15 24.07 0.0
ENIJ 128.25 312 ePKP 15 24.23 0.1
JAQ 128.33 20 ePKP 15 36.00 12.3X
EMON 128.65 322 ePKP 15 24.07 -0.6
PAB 128.66 316 iPKP 15 25.50 0.6
iPP 17 33.00
EBAN 128.89 314 ePKP 15 24.89 -0.4
ERUA 129.10 321 ePKP 15 26.23 0.7
ECOG 129.11 313 ePKP 15 26.17 0.3
TAF 129.24 310 ePKPc 15 27.50 1.4
i 17 32.00
EGUA 129.30 313 ePKP 15 25.15 -1.0
ELUQ 129.49 314 ePKP 15 26.59 0.1
ELOJ 129.59 313 ePKP 15 25.69 -1.1
EPLA 129.59 318 ePKP 15 26.23 -0.4
STS 129.70 322 ePKP 15 26.23 -0.4
UYO 129.83 51 iPKPc 15 26.80 -0.4
EHOR 130.08 315 ePKP 15 27.49 0.0
MIAR 130.36 50 ePKP 15 28.39 0.2
Z 20s 1.30um 5.6Msz
iSKP 18 46.58
SP 27 46.82
SS 35 15.85
EPRU 130.45 314 ePKP 15 27.49 -0.8
EJIF 130.84 313 ePKP 15 28.57 -0.5
SLM 130.97 43 PKP 15 40.00 10.8X
Z 19s 0.91um 5.5Msz
FVM 131.15 44 ePKP 15 29.30 -0.3
Z 21s 5.82um 6.2Msz
iSKP 18 48.22
NKM 131.23 312 ePKP 15 28.00 -1.8
i 15 36.00
i 17 31.00
i 18 48.00
EVAL 131.24 315 ePKP 15 29.47 -0.3
BIT 131.38 312 ePKP 15 32.50 2.5
TSY 131.68 312 ePKP 15 30.50 -0.1
IFR 131.82 309 iPKPd 15 34.00 2.8
i 15 35.00
i 17 31.00
i 17 39.00
ELC 132.32 45 (PKP) 15 33.09 1.3
eSKP 18 52.37
OXF 133.49 48 (PKP) 15 31.54 -2.6

Z 19s 1.00um 5.5Msz
iSKP 18 56.58
AVE 133.65 310 iPKPc 15 35.50 1.0
i 16 43.00
i 19 17.00
TIO 134.50 307 iPKP 15 37.00 0.7
i 15 51.00
RFA 134.55 157 e(PKP)15 27.00 -9.2X
OUK 134.87 308 iPKP 15 39.50 2.7
CIA 135.42 309 ePKP 15 40.00 2.2
YSNY 135.80 32 ePKP 15 36.46 -1.9
Z 21s 2.83um 6.0Msz
iSKP 19 03.25
KIC 136.38 272 ePKP 15 25.28 -14.9X
0.8s 33.50nm
LIC 136.66 272 PKP 15 25.68 -15.0X
0.8s 54.50nm
Z 20s 0.61um 5.3Msz
TIC 136.67 272 PKP 15 25.76 -15.0X
CBM 136.73 19 PKP 15 50.00 10.1X
Z 21s 2.10um 5.8Msz
MYNC 137.00 44 ePKP 15 41.74 0.9
Z 19s 1.32um 5.7Msz
eSKP 19 07.44
MCWV 137.00 36 ePKP 15 42.82 2.2
eSKP 19 07.10
RTCB 137.27 154 ePKPc 15 34.50 -7.0X
LKO 137.31 277 PKP 15 27.94 -14.0X
0.9s 35.00nm
BINY 137.31 30 ePKP 15 41.47 0.3
Z 21s 2.05um 5.8Msz
iSKP 19 08.94
RTLL 137.55 155 ePKPc 15 34.00 -8.0X
LBNH 137.59 25 PKP 15 50.00 8.4X
Z 21s 2.03um 5.8Msz
NAV 137.91 39 ePKP 15 42.49 0.0
iSKP 19 10.50
GOGA 138.34 46 ePKP 15 46.04 2.7
Z 20s 2.17um 5.9Msz
iSKP 19 12.48
LMN 138.73 17 ePKP 15 40.50 -3.2X
PRM 138.76 44 ePKP 15 44.75 0.7
eSKP 19 13.66
CVL 138.92 37 ePKP 15 44.68 0.5
e 15 53.72
iSKP 19 13.69
GPD 138.95 30 ePKP 15 44.43 0.2
LSCT 139.05 28 PKP 15 50.00 5.6X
Z 21s 2.59um 5.9Msz
HRV 139.15 26 PKP 15 50.00 5.5X
Z 21s 1.94um 5.8Msz
PNJ 139.19 30 ePKP 15 42.44 -2.1
PNJ 139.19 30 PKP 15 44.24 -0.3
SKPbc 19 08.88
SKPdf 19 14.73
CBN 139.40 36 e(PKP)15 44.00 -1.1
e 18 48.00
JSC 139.41 43 PKP 15 46.40 1.2
LHS 139.60 43 ePKP 15 46.46 0.9
eSKP 19 14.92
CEH 139.87 40 ePKP 15 46.70 0.7
Z 21s 1.14um 5.6Msz
eSKP 19 14.57
SGS 140.53 44 ePKP 15 47.53 0.3
eSKP 19 14.67
HBF 140.77 44 (PKP) 15 49.28 1.6
CYA 141.19 156 e(PKP)15 40.00 -8.7X
FSA 143.16 153 ePKPd 15 49.30 -2.8
KDS 143.66 282 iPKPd 15 49.30 -3.9X
SLA 144.56 153 ePKP 15 53.50 -1.2
HJA 145.91 152 ePKPd 15 59.10 2.3
NNA 146.29 124 iPKPd 15 59.00 1.3
1.3s 211.54nm
BRU 146.37 84 ePKP 16 07.20 8.8X
YJA 146.75 151 ePKP 16 00.00 1.2
MOCB 147.46 150 PKP 16 02.50 2.5
ARE 147.63 136 ePKP 16 05.00 4.9X
MBO 147.99 286 iPKPc 16 04.30 4.0X
i 19 27.40
RSTA 148.66 179 ePKP 16 02.30 1.1
e 16 06.90
e 16 29.00
ECO 149.18 83 ePKP 16 02.92 0.5
LPB 149.82 141 PKP 16 06.00 2.3
PARB 149.83 186 iPKPc 16 09.70 6.6X
i 16 31.10
e 16 52.40

LPAZ 149.98 140 ePKP 16 07.18 2.9X
VAO 150.26 183 ePKP 16 06.10 2.3
e 16 11.40
e 16 12.00
epPKP 16 55.50
e 17 22.00
e(PP) 19 41.00
PPD 151.16 175 ePKP 16 10.60 5.5X
e 16 12.40
e 16 33.90
CACB 151.56 184 ePKP 16 12.30 6.4X
e 16 13.90
e 16 30.00
e 17 16.90
SIV 154.17 152 PKP 16 09.50 0.0
BOG 154.63 94 ePKP 16 08.00 -2.6
BMG 155.77 88 ePKP 16 12.00 0.1
BDF 157.59 182 ePKP 16 16.30 2.1
i 16 52.50
e 17 04.00
BAO 157.63 182 ePKP 16 17.30 3.1X
e 16 18.90
e 17 10.50
e 17 22.30
SDV 158.14 83 ePKPd 16 15.10 0.1
TOV 158.89 81 ePKP 16 16.10 0.5
CAR 161.59 77 iPKP 16 20.00 1.5
SOB1 162.25 206 ePKP 16 20.00 1.0
S.D. = 1.2 on 433 of 508 obs.

% DEC 20, 1993 14h 19m 17.80± 0.83s
44.525 N ± 7.2km 7.423 E ± 8.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

PZZ 0.23 265 P 19 22.96 0.1
S 19 26.07
ENR 0.30 180 P 19 24.15 0.1
S 19 28.50
BHB 0.34 340 P 19 24.70 -0.1
S 19 29.14
ROB 0.39 125 P 19 26.26 0.4
S 19 32.28
IMI 0.70 151 P 19 31.22 -0.5
S.D. = 0.4 on 5 of 5 obs.

& DEC 20, 1993 15h 56m 58.21s
62.154 N 150.407 W
DEPTH = 1.7km
CENTRAL ALASKA (1)
<AEIC>. ML 3.5 (AEIC), 3.9
(PMR). Felt (III) at Talkeetna.

CUT 0.26 14 iPc 57 03.86 0.5
SKT 0.56 252 eP 57 09.32 0.0
eS 57 17.86
PWA 0.56 153 P 57 10.30 0.8
SUA 0.71 193 iPc 57 13.01 0.6
eS 57 24.22
GHO 0.80 118 ePd 57 13.55 -0.6
eS 57 25.56
PLRM 0.83 132 iPd 57 14.43 -0.3
eS 57 26.46
PMR 0.83 132 iPd 57 14.21 -0.5
HUR 0.90 23 eP 57 14.49 -1.7
eS 57 26.05
PMS 1.00 156 P 57 17.60 -0.3
SML 1.04 109 iPd 57 17.64 -1.0
eS 57 32.53
NCG 1.12 229 eP 57 19.45 -0.6
eS 57 35.37
CGLM 1.14 223 P 57 19.70 -0.7
KNK 1.19 128 ePd 57 20.39 -0.8
eS 57 36.80
CRP 1.22 224 eP 57 20.27 -1.5
CP2 1.25 225 eP 57 21.09 -1.2
SPU 1.25 220 P 57 21.10 -1.2
S 57 39.30
CKN 1.26 223 P 57 22.10 -0.3
CKT 1.29 223 P 57 22.20 -0.6
BGL 1.30 227 P 57 22.50 -0.6
TRF 1.30 2 eP 57 21.41 -1.8
CKL 1.33 225 P 57 23.00 -0.7
BKG 1.40 220 P 57 23.60 -1.3
S 57 43.40
KTH 1.42 351 ePd 57 23.39 -1.8

RND 1.45 29 eP 57 23.19 -2.3
eS 57 42.34
NKA 1.47 196 eP 57 26.71 0.9
SCM 1.49 101 ePd 57 24.57 -1.6
eS 57 44.52
CFI 1.59 127 eP 57 27.29 -0.2
PWL 1.64 142 eP 57 28.54 0.4
SLKM 1.65 177 eP 57 27.78 -0.7
eS 57 49.38
DHY 1.68 55 eP 57 26.30 -2.6
eS 57 50.13
MCK 1.72 22 eP 57 27.87 -1.5
eS 57 50.39
MPA 1.75 163 eP 57 27.22 -2.5
DFR 1.91 216 P 57 32.00 -0.3
TOA 1.99 90 P 57 32.70 -0.7
REF 2.00 215 P 57 33.50 -0.2
RDW 2.04 216 P 57 34.00 -0.2
RS2 2.04 215 P 57 34.40 0.2
BWN 2.07 11 P 57 32.20 -2.2
RED 2.08 214 eP 57 34.93 0.2
SEW 2.11 167 P 57 36.70 1.7
VLZ 2.20 116 eP 57 35.71 -0.6
KLU 2.23 105 P 57 36.00 -0.8
TZL 2.35 90 eP 57 38.77 0.3
ILIM 2.42 212 P 57 40.20 0.6
PAX 2.43 68 eP 57 38.21 -1.5
INE 2.46 213 eP 57 40.37 0.1
INW 2.48 213 eP 57 41.11 0.7
WRH 2.55 23 eP 57 38.29 -3.0
HIN 2.58 131 P 57 43.20 1.4
CNPM 2.67 189 P 57 43.50 0.5
SVW 2.70 249 (P) 57 41.18 -2.4
eS 58 23.07
TTA 2.71 289 eP 57 40.90 -2.8
HDA 2.75 33 P 57 41.50 -2.6
CVA 2.76 124 P 57 46.00 1.6
MLY 2.89 357 P 57 43.70 -2.6
FBA 3.00 22 eP 57 44.26 -3.4
GLB 3.21 100 eP 57 49.01 -1.7
BALM 4.01 103 eP 58 00.81 -1.4
IMA 4.18 341 (P) 58 02.43 -2.2
KDC 4.54 194 (P) 58 07.42 -2.1
YKA 16.51 73 eP 00 52.60 0.5
0.6s 0.20nm 2.4mb
61 obs. associated

& DEC 20, 1993 17h 37m 02.49s
32.366 N 115.359 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 4.0 (PAS), 4.0 (GS).

GLA 0.82 33 iPd 37 16.84 -1.9
PLM 1.60 308 iPd 37 29.18 -2.4
PEC 2.15 316 ePn 37 36.29 -3.0
SSK 2.68 314 ePn 37 44.83 -2.4
ePg 37 51.97
eS 38 25.26
GSC 3.17 338 ePn 37 50.72 -3.2
ePg 38 04.88
TUC 3.87 90 ePn 38 01.57 -2.4
ABL 4.06 309 ePn 38 04.14 -2.6
ISA 4.18 323 ePn 38 04.97 -3.3
TPNV 4.63 351 ePn 38 12.69 -2.1
BCH 4.84 307 eP 38 15.60 -2.1
ARUT 5.63 16 ePn 38 28.14 -0.9
BONR 6.07 337 (P) 38 32.86 -2.4
MSU 6.66 22 (Pn) 38 41.25 -2.3
ALQ 7.85 68 ePn 38 58.48 -1.7
DUG 8.08 14 ePg 39 36.65 33.4
15 obs. associated

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* DEC 20, 1993 18h 36m 41.93± 0.85s
22.470 N ±23.7km 93.837 E ±22.1km
DEPTH = 84.0 ± 12.9 km
4.3mb (4 obs.)
MYANMAR-INDIA BORDER REGION (294)

SHL 3.56 330 iPn 37 37.50 1.3
iSn 38 14.50
CHTO 6.01 126 ePn 38 08.80 -1.3
eSg 39 16.40
BDT 7.12 136 eP 38 25.00 -0.4
KHT 8.87 149 eP 38 51.60 2.1
GUN 9.01 309 P 38 51.80 0.1
PKI 9.17 305 P 38 53.70 -0.2

20d 18h

0.5s 26.00nm 5.3mb X
KKN 9.39 306 P 38 56.00 -0.7
0.3s 9.00nm 5.1mb X
DMN 9.42 305 P 38 57.00 -0.2
GKN 9.98 305 P 39 03.70 -1.0
NDI 16.21 296 eP 40 31.00 5.0X
0.6s 60.00nm 4.9mb
eS 43 14.50
WRA 57.80 134 P 46 27.00 0.0
0.6s 1.20nm 4.2mb
WB2 57.81 134 eP 46 26.10 -1.0
ASPA 60.17 137 eP 46 43.30 -0.1
1.0s 2.60nm 4.3mb
GEC2 67.05 315 P 47 29.60 1.3
0.5s 1.95nm 4.3mb
S.D. = 1.2 on 13 of 14 obs.

? DEC 20, 1993 18h 47m 38.11± 1.61s
49.962 N ±26.9km 19.000 E ± 8.2km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.1 (WAR).

RAC 0.53 283 iP 47 49.00 0.1
iS 47 57.00
OJC 0.58 63 iPgc 47 49.80 0.0
iSg 47 58.00
KSP 1.94 298 iPg 48 11.40 -0.1
0.5s 47.00nm
iS 48 35.00
PSZ 2.13 164 ePn 48 25.40 11.2X
PRU 2.88 272 Pg 48 30.80 6.0X
1.0s 15.80nm
Sg 49 05.80
BRG 3.36 288 ePg 48 39.80 8.1X
eSg 49 21.40
KHC 3.63 259 ePn 48 35.50 0.0
ePg 48 45.50
e 49 02.50
e 49 24.00
eSg 49 34.00
CLL 4.05 292 ePg 48 51.00 9.6X
eSg 49 42.00
KBA 4.74 235 iP 49 11.90 20.5X
0.8s 9.60nm
i 50 03.40
i(Sg) 50 12.20
S.D. = 0.1 on 4 of 9 obs.

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* DEC 20, 1993 19h 15m 24.94± 0.65s
26.921 S ± 7.4km 26.655 E ±11.2km
DEPTH = 5.0km (geophysicist)
4.8mb (6 obs.)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 4.4 (BUL).

SLR 1.88 51 iPd 15 57.50 -0.6
S 16 18.80
BOSA 2.01 213 iPd 16 02.13 2.2
S 16 31.46
LBTB 2.12 333 ePd 16 03.68 2.0
S 16 33.35
BLF 2.22 191 iPd 16 02.60 -0.5
S 16 31.50
FRS 3.05 202 iPc 16 14.00 -0.7
S 16 50.00
POF 6.41 246 eP 17 02.00 -0.3
S 18 10.70
BUL 6.98 15 iPnc 16 07.80 -62.7X
iSn 17 23.50
iSg 17 57.60
WIN 9.71 294 eP 17 45.00 -3.5X
S 19 32.00
KIC 44.93 313 P 23 42.05 -0.8
0.9s 15.00nm 4.9mb
LIC 45.02 312 P 23 42.61 -0.9
1.2s 13.50nm 4.8mb
TIC 45.33 313 P 23 45.33 -0.6
0.7s 9.50nm 4.8mb
LKO 47.88 315 P 24 04.91 -1.3
0.9s 3.00nm 4.4mb
QUE 68.63 37 eP 26 33.20 1.7
BDFB 69.63 262 eP 26 37.11 -0.8
1.0s 14.72nm 5.1mb
GEC2 76.31 351 P 27 16.50 0.1
1.0s 2.39nm 4.3mb
SIV 80.95 257 P 27 42.90 0.5
LPAZ 86.91 253 P 28 13.20 -0.2
S.D. = 1.2 on 15 of 17 obs.

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* DEC 20, 1993 19h 45m 38.95± 1.58s
36.330 N ±28.2km 71.086 E ±11.6km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

NDI 9.21 144 eP 47 54.50 2.0
0.4s 88.98nm 6.3mb X
eS 49 29.50
MAIO 9.36 273 eP 47 55.00 0.4
eS 49 31.00
GKN 14.15 122 P 48 59.40 0.1
0.6s 29.00nm 5.1mb X
DMN 14.72 122 P 49 06.60 -0.3
0.4s 18.00nm 4.8mb X
KKN 14.73 121 P 49 07.00 0.1
0.4s 19.00nm 4.9mb X
PKI 14.96 122 P 49 09.60 -0.4
0.4s 14.00nm 4.6mb
GUN 15.07 120 P 49 11.60 0.1
0.4s 14.00nm 4.6mb
HYB 19.97 159 eP 50 09.50 -1.8
GBA 23.34 164 P 50 45.00 -0.1
S.D. = 1.1 on 9 of 9 obs.

DEC 20, 1993 20h 22m 34.17± 0.55s
26.913 S ± 6.8km 26.699 E ± 9.4km
DEPTH = 5.0km (geophysicist)
4.7mb (3 obs.)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 4.3 (BUL).

SLR 1.84 51 iPd 23 06.40 -0.4
S 23 28.30
BLF 2.23 192 iPd 23 12.70 0.2
S 23 41.50
FRS 3.08 203 iPc 23 23.70 -0.6
S 23 53.20
POF 6.45 246 eP 24 12.00 -0.1
S 25 21.50
BUL 6.96 15 iPnc 23 18.10 -61.4X
iSn 24 32.30
iSg 25 05.80
WIN 9.74 294 eP 23 57.50 -60.7X
S 25 36.00
NVL 44.70 187 P 30 50.00 0.5
KIC 44.96 313 P 30 52.07 -0.2
1.2s 36.50nm 5.2mb X
LIC 45.04 312 P 30 52.73 -0.2
1.1s 12.00nm 4.7mb
TIC 45.35 313 P 30 55.31 -0.1
1.0s 19.00nm 5.0mb
GEC2 76.30 351 P 34 26.50 0.8
1.1s 2.86nm 4.3mb
S.D. = 0.5 on 9 of 11 obs.

& DEC 20, 1993 21h 23m 28.01s
32.347 N 115.347 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.9 (PAS).

PLM 1.62 309 ePn 23 54.43 -3.0
SSK 2.70 314 (Pn) 24 10.41 -2.6
2 obs. associated

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* DEC 20, 1993 21h 24m 20.07± 0.43s
4.708 S ± 9.1km 152.881 E ±10.3km
DEPTH = 64.5km (2 depth phases)
4.7mb (8 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 0.88 306 iPd 24 38.60 1.6
0.4s 2745.76nm
iS 24 52.00
KVG 2.95 315 eP 25 00.50 -5.0X
DZM 21.69 144 iPc 29 07.50 0.0
WB2 23.56 228 eP 29 26.10 0.4
i 29 41.30 65km
ASPA 26.27 222 eP 29 52.00 0.6
0.9s 4.30nm 4.0mb
Z 22s 0.10um 3.3Msz
i 30 07.20 64km
eS 34 24.20
STK 29.03 200 eP 30 14.70 -1.5
0.8s 2.20nm 3.8mb
WARB 32.96 227 eP 30 51.00 0.1
0.8s 13.00nm 4.8mb
MBL 36.00 240 eP 31 16.20 -0.8
SHL 66.33 300 eP 35 03.50 -1.1
YAK 68.88 349 eP 35 21.00 1.3
1.2s 15.00nm 4.8mb
GUN 72.14 301 P 35 40.40 -0.2
0.7s 19.00nm 5.1mb
PKI 72.46 301 P 35 41.80 -0.6
KKN 72.62 301 P 35 43.00 -0.3
0.7s 11.00nm 4.9mb
DMN 72.73 301 P 35 43.70 -0.2
GKN 73.23 301 P 35 46.30 -0.4
0.8s 13.00nm 4.9mb
HYB 76.54 289 ePd 36 05.30 -0.3
KLU 80.86 25 (P) 36 28.02 -0.3
INK 88.34 21 eP 37 04.50 -1.1
YKA 95.31 28 eP 37 36.20 -1.7
0.8s 0.80nm 4.2mb
KHC 123.91 329 ePKP 43 11.00 -1.6
GEC2 124.02 329 PKP 43 12.00 -0.9
0.6s 1.69nm
GRB5 124.88 330 ePKP 43 16.10 1.7
0.8s 7.00nm
MOCB 134.27 126 PKP 43 34.00 0.3
LPAZ 134.39 118 PKP 43 34.80 0.5
AVE 146.14 330 ePKP 43 55.00 0.9
i 44 11.00
VAO 146.32 146 ePKP 43 56.70 1.9
TIO 147.91 327 iPKPc 44 01.00 3.8X
i 44 17.00
BDFB 151.07 135 (PKP) 44 03.97 1.6
iPKPbc44 08.48
BAO 151.09 135 PKPd 44 11.30 8.9X
e 44 28.80
S.D. = 1.1 on 26 of 29 obs.

% DEC 20, 1993 22h 39m 00.49± 1.78s
44.006 N ±11.6km 8.189 E ±10.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

FIN 0.20 4 P 39 05.56 0.6
S 39 12.84
IMI 0.24 246 P 39 06.11 0.5
S 39 09.18
ROB 0.37 322 P 39 08.72 0.6
S 39 17.42
PCP 0.59 25 P 39 12.02 -0.5
S 39 21.86
ENR 0.60 292 P 39 12.34 -0.3
S 39 22.50
STV 0.67 291 P 39 13.21 -0.6
S 39 24.51
PZZ 0.93 303 P 39 17.92 -0.4
S 39 32.52
S.D. = 0.7 on 7 of 7 obs.

? DEC 20, 1993 22h 45m 50.16± 6.02s
42.442 N ±54.5km 24.818 E ±14.1km
DEPTH = 5.0km (geophysicist)
BULGARIA (359)
ML 2.9 (THE).

SRS 1.61 215 ePb 46 18.70 -0.6
eSb 46 39.36
ALN 1.80 149 ePb 46 22.00 0.0
KNT 1.92 229 ePb 46 23.75 -0.1
eSb 46 48.88
SOH 1.96 215 ePb 46 25.00 0.6
iSb 46 49.97
OUR 2.20 197 ePn 46 27.82 0.0
eSn 46 56.93
GRG 2.34 231 ePn 46 30.05 0.1
eSn 47 00.01
S.D. = 0.5 on 6 of 6 obs.

? DEC 21, 1993 00h 28m 06.31± 1.64s
18.452 S ±19.4km 71.925 W ±16.8km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
OFF COAST OF NORTHERN CHILE (121)

LPB 4.12 63 P 29 09.50 0.5

LPAZ 4.21 60 P 29 09.70 -0.8
MOCB 6.54 116 P 29 42.80 -0.4
NNA 7.99 323 eP 30 06.50 3.4X
0.7s 17.12nm 5.3mb X
i 30 16.30
eS 31 41.00
KIC 70.66 76 P 39 24.20 3.0X
LKO 71.10 73 P 39 25.06 1.1
0.5s 3.00nm 4.6mb
YKA 87.40 342 P 40 50.50 -0.5
0.6s 0.90nm 4.2mb
S.D. = 1.1 on 5 of 7 obs.

? DEC 21, 1993 00h 29m 04.38± 0.92s
31.179 S ± 9.4km 68.403 W ±11.7km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

ZON 0.43 213 iPd 29 14.60 0.5
eS 29 25.60
RTCV 0.69 190 iPd 29 17.20 -0.5
S 29 29.00
RTRS 1.36 318 iPd 29 27.00 -0.1
S 29 47.00
RTPR 1.85 62 eP 29 34.40 0.1
S.D. = 0.7 on 4 of 4 obs.

& DEC 21, 1993 01h 12m 13.43s
36.588 N 121.180 W
DEPTH = 4.8km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.8 (GM).

SHG 0.18 199 P 12 16.94 -0.3
LRV 0.21 141 P 12 18.28 0.6
HJSM 0.25 337 P 12 19.44 1.0
SAO 0.28 310 iPc 12 18.88 -0.1
LTR 0.31 341 P 12 20.54 0.8
HBTM 0.40 311 P 12 21.34 0.0
ANZ 0.44 312 P 12 22.09 -0.2
MOP 0.48 140 P 12 23.11 0.0
CSR 0.49 319 P 12 23.87 0.6
HGWM 0.57 319 P 12 25.00 0.1
PSAM 0.61 157 P 12 25.15 -0.5
EUC 0.68 313 P 12 27.46 0.3
PAPM 0.69 192 P 12 26.71 -0.5
PARM 0.76 116 P 12 29.77 1.2
COE 0.78 330 iPd 12 29.56 0.6
PCRM 0.78 129 P 12 29.23 0.2
JUCM 0.81 301 P 12 28.43 -1.2
ARN 0.81 340 iPd 12 29.91 0.2
eS 12 42.45
JBLM 0.96 305 P 12 31.37 -0.8
PHAM 0.98 140 eP 12 32.35 -0.2
PKEM 1.01 121 eP 12 34.01 0.9
SEC 1.03 313 P 12 33.09 -0.2
CDVM 1.06 338 P 12 33.54 -0.3
MNR 1.07 340 P 12 33.75 -0.3
CVAL 1.13 336 P 12 34.84 -0.2
CMB 1.58 23 eP 12 41.61 -0.6
eS 13 02.55
HMR 1.64 343 eP 12 42.28 -0.7
BCH 1.66 147 eP 12 41.82 -1.6
MMPM 2.00 59 eP 12 49.71 1.1
eS 13 15.49
MEMM 2.09 58 eP 12 51.04 1.5
eS 13 19.27
MTUM 2.23 69 eP 12 53.78 2.0
ISA 2.38 112 eP 12 53.45 -0.4
eS 13 23.55
BONR 2.67 58 eP 12 59.81 1.6
ORV 2.97 355 eP 13 02.20 0.0
GSC 3.77 109 eP 13 14.65 1.0
35 obs. associated

% DEC 21, 1993 01h 30m 20.02± 0.87s
39.625 N ± 6.7km 27.695 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

DST 0.72 91 iPg 30 34.10 -0.1
iSg 30 44.60
EDC 0.73 10 iPg 30 34.00 -0.4
eSg 30 45.00
KGT 0.88 340 iPg 30 37.10 0.2
iSg 30 48.60
IZM 1.27 196 ePn 30 43.60 0.0
IZI 1.54 62 ePn 30 48.00 0.4
S.D. = 0.4 on 5 of 5 obs.

DEC 21, 1993 01h 48m 01.27± 0.84s
38.211 N ± 7.0km 27.044 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 3.3 (ISK). MD 3.7 (ATH).

IZM 0.25 43 iPg 48 06.30 -0.4
eSg 48 10.60
PRK 1.20 330 ePb 48 22.60 -1.0
eSg 48 43.30
DST 1.86 41 iPn 48 34.10 0.6
KHL 1.95 86 ePn 48 34.80 -0.1
EDC 2.23 16 ePn 48 40.00 1.3
KGT 2.25 5 ePn 48 39.60 0.6
ALT 2.54 70 ePn 48 44.00 0.6
KSL 2.91 135 ePb 48 46.50 -2.0
RDO 3.15 339 ePn 48 50.70 -1.2
NPS 3.16 202 ePn 48 53.50 1.5
S.D. = 1.3 on 10 of 10 obs.

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* DEC 21, 1993 02h 26m 36.60± 1.93s
24.925 S ±13.5km 64.280 W ±16.7km
DEPTH = 10.0km (geophysicist)
SALTA PROVINCE, ARGENTINA (129)

SLA 1.12 280 iPd 26 56.60 -1.1
FSA 1.94 233 iPc 27 10.50 0.5
HJA 1.99 329 iPd 27 11.40 0.8
MOCB 3.87 341 P 27 38.80 1.0
LPB 9.08 336 P 28 57.00 5.9X
LPAZ 9.32 337 P 28 54.30 -0.3
SIV 9.38 19 P 28 54.00 -0.9
S.D. = 1.2 on 6 of 7 obs.

% DEC 21, 1993 02h 41m 48.53± 3.18s
33.139 S ±11.1km 70.779 W ±10.6km
DEPTH = 75.0 ± 31.2 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.8 (SAN).

PEL 0.08 93 iPd 41 59.72 0.0
iS 42 08.19
ROCH 0.26 311 iP+ 42 00.51 0.1
iS 42 10.12
FCH 0.45 115 iP 42 02.19 0.2
iS 42 12.71
JACH 0.48 19 iP+ 42 01.78 -0.2
iS 42 12.26
PCH 0.53 155 iPd 42 02.13 -0.2
iS 42 12.65
TACH 0.53 194 iP+ 42 02.17 -0.1
iS 42 12.72
LCCH 0.74 243 iP+ 42 04.75 0.3
iS 42 17.12
LNV 0.97 213 iP+ 42 06.83 -0.3
iS 42 21.63
CACH 0.99 171 iP+ 42 07.74 0.2
iS 42 23.24
S.D. = 0.3 on 9 of 9 obs.

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* DEC 21, 1993 03h 14m 25.47± 1.05s
23.249 N ±12.7km 120.983 E ±12.0km
DEPTH = 33.0km (normal)
3.7mb (2 obs.)
TAIWAN (244)
ML 4.0 (BJI).

QZH 2.76 308 Pg 15 10.00 1.7
Sn 15 39.00
GZH 7.03 270 P 16 07.20 -1.6
SSE 7.82 1 P 16 23.00 3.3X
Z 12s 0.90um
pP 16 27.00
NJ2 8.97 348 eP 16 35.00 -0.7
S 18 11.20
GYA 13.39 287 iPd 17 36.20 0.4
S 19 56.40
CD2 17.12 300 eP 18 21.60 -2.3X
CN2 20.83 9 eP 19 06.00 -0.6
WRA 44.86 162 P 22 39.00 0.4
0.7s 0.20nm 3.1mb
YKA 83.90 23 P 26 53.40 0.4
0.7s 1.40nm 4.2mb
S.D. = 1.3 on 7 of 9 obs.

? DEC 21, 1993 04h 35m 11.18±13.77s
51.719 N ±80.8km 16.368 E ±86.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
MG 2.6 (WAR).

KSP 0.88 183 iP 35 28.30 0.2
iS 35 37.70
BRG 1.74 242 iPg 35 42.40 0.8
iSg 36 02.20
PRU 2.08 214 ePn 35 45.80 -0.8
0.5s 25.00nm
Pg 35 49.80
Sn 36 04.80
Sg 36 11.10
CLL 2.14 260 iPn 35 47.10 -0.3
iPg 35 50.30
eSg 36 17.00
OJC 2.64 123 eP 36 04.60 10.1X
iPg 36 06.90
eS 36 30.00
eSg 36 41.80
KHC 3.15 216 ePg 36 05.00 3.3X
e 36 35.00
eSg 36 45.50
MOX 3.18 252 ePg 36 10.10 8.0X
iSg 36 49.10
S.D. = 1.2 on 4 of 7 obs.

? DEC 21, 1993 05h 27m 36.77± 2.65s
39.410 N ±10.6km 37.653 E ±29.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MG 3.5 (DDA). Felt at Erzincan.

BNN 1.50 249 iPn 28 03.80 -0.1
KVT 2.07 324 eP 28 12.00 -0.1
CTK 2.52 301 eP 28 18.60 0.1
MRFT 3.41 290 eP 28 41.90 10.7X
KAS 3.56 305 eP 28 42.50 9.3X
BHL 5.73 197 P 29 04.00 0.0
Sn 30 42.00
S.D. = 0.1 on 4 of 6 obs.

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* DEC 21, 1993 05h 44m 19.79± 1.14s
50.412 N ±16.0km 18.882 E ± 6.7km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.5 (WAR).

RAC 0.55 234 iP 44 30.90 -0.1
iS 44 38.70
OJC 0.62 108 ePg 44 32.30 0.0
iSg 44 41.20
SPC 1.51 144 iP 44 47.00 -0.1
i 45 07.50
KSP 1.70 286 ePn 44 49.60 -0.1
iPg 44 51.80
iS 45 14.00
ZST 2.51 208 eP 45 07.30 6.1X
i 45 40.30
PSZ 2.58 165 e(Pn) 45 08.90 6.5X
SRO 2.63 188 eP 45 10.20 7.2X
PRU 2.82 263 eP 45 12.00 6.3X
e 45 49.50
BRG 3.18 280 ePg 45 21.70 11.0X
eSg 46 02.80
KHC 3.67 252 eP 45 18.00 0.2
1.0s 17.90nm
e 45 35.00
e 46 18.00
e 46 28.00
CLL 3.83 286 e(Pg) 45 34.00 14.0X
i(Sg) 46 27.10
KBA 4.95 230 iP 46 07.10 31.0X
1.0s 16.60nm
i 46 10.60
i 46 52.70
i 46 57.40
WTTA 5.73 239 iP 46 15.50 28.4X
1.2s 20.50nm
i 47 24.80
S.D. = 0.2 on 5 of 13 obs.

DEC 21, 1993 07h 21m 35.96± 0.61s

21d 07h

20.558 S ± 8.2km 177.716 W ± 4.6km
DEPTH = 399.1 ± 7.6 km
5.2mb (18 obs.)
FIJI ISLANDS REGION (181)

SVA 4.35 303 eP 22 51.50 -0.4
eS 23 52.00
VUN 4.41 304 iPc 22 52.80 0.3
RAO 8.66 181 P 23 38.80 -0.4
S 25 05.50
AFI 8.71 42 eP 23 33.00 -7.0X
PVC 13.50 280 iPc 24 36.90 2.3
BKM 13.58 280 iPc 24 36.00 0.5
iS 27 09.00
DZM 14.84 261 iPc 24 49.00 -0.1
iS 27 31.70
SNZO 21.67 196 P 25 58.00 1.3
AFR 26.57 88 iPc 26 41.30 -0.2
1.0s 124.00nm 5.3mb
PAE 26.73 89 iPc 26 42.80 -0.1
1.0s 76.00nm 5.1mb
PPT 26.75 88 iPc 26 43.10 -0.1
1.1s 267.60nm 5.6mb
Z 27s 125.00um 6.3MszX
PPN 26.89 88 iPc 26 44.30 -0.1
1.1s 99.60nm 5.2mb
TVO 27.01 89 iPc 26 45.60 0.0
1.0s 86.80nm 5.1mb
PMO 28.90 84 iPc 27 01.40 -0.7
1.5s 434.60nm 5.6mb
VAH 29.09 84 iPc 27 03.10 -0.6
1.0s 56.80nm 4.9mb
TPT 29.16 84 iPc 27 04.20 -0.2
1.0s 143.20nm 5.3mb
ARMA 29.28 244 iPc 27 05.80 0.3
0.7s 176.00nm 5.5mb
RUV 29.33 85 iPc 27 05.50 -0.3
1.0s 203.20nm 5.4mb
CNB 32.41 236 iPd 27 33.30 0.9
0.5s 54.00nm 5.1mb
CAN 32.70 236 iPc 27 35.00 0.2
i 27 47.20
BWA 32.90 238 iPc 27 35.20 -1.3
i 27 45.50
PMG 35.61 283 eP 27 57.00 -2.4
TOO 36.08 234 iPd 28 03.90 0.7
0.6s 155.00nm 5.5mb
ADE 40.82 240 e(P) 28 43.00 0.9
ASPA 44.77 257 iPc 29 13.00 -0.7
0.5s 226.70nm 5.8mb
i 30 35.60
iS 35 17.70
FORT 49.52 247 eP 29 49.50 -0.5
WARB 51.07 252 iPc 30 00.60 -1.0
0.3s 16.00nm 4.8mb
MBL 58.01 257 iPc 30 49.80 -1.2
RKG 58.63 241 eP 30 55.00 -0.1
0.6s 8.00nm 4.3mb
WSI 60.52 270 ePc 31 08.00 -0.1
NANU 61.64 255 iPc 31 12.10 -3.3X
0.4s 32.00nm 5.2mb
MAT 70.41 324 eP 32 09.00 -0.9
0.7s 10.27nm 4.6mb
BONR 80.61 44 iP 33 08.00 1.0
LTX 86.86 57 iPd 33 39.02 1.0
PV08 87.38 47 eP 33 41.53 0.9
FBA 88.24 12 iPc 33 42.87 -0.8
0.8s 9.50nm 4.7mb
YKA 96.45 25 P 34 23.20 1.9
0.7s 0.40nm 3.7mb X
CLL 148.18 347 iPKPc 40 37.10 4.4X
0.9s 30.00nm
BRG 148.38 346 i(PKP)40 37.50 4.5X
PRU 149.06 345 PKP 40 39.80 5.7X
KHC 150.09 345 ePKP 40 42.00 6.2X
1.0s 5.40nm
e 40 49.50
GEC2 150.33 345 PKP 40 42.20 6.0X
1.0s 3.42nm
S.D. = 1.0 on 35 of 42 obs.

& DEC 21, 1993 08h 09m 12.75s
64.548 N 151.066 W
DEPTH = 10.0km (geophysicist)
CENTRAL ALASKA (1)
<AEIC>. ML 3.3 (AEIC), 3.7
(PMR).

MLY 0.50 16 iP 09 23.27 0.3
eS 09 29.84
BWN 0.79 118 iP 09 29.61 1.5
eS 09 39.71
NEA 0.86 87 eP 09 29.31 0.0
eS 09 39.73
KTH 1.00 176 eP 09 31.53 -0.2
TRF 1.15 162 eP 09 34.00 -0.4
MCK 1.24 130 eP 09 35.15 -0.7
MDM 1.28 70 iP 09 35.13 -1.5
eS 09 54.30
WRH 1.29 92 iP 09 35.26 -1.4
eS 09 53.58
CCB 1.41 85 eP 09 36.82 -1.6
FBA 1.45 74 iPc 09 37.26 -1.7
RND 1.51 139 eP 09 39.20 -0.7
GLM 1.64 73 eP 09 40.16 -1.6
HUR 1.70 157 eP 09 42.39 -0.2
eS 10 05.13
HDA 1.79 93 eP 09 42.73 -1.1
IL1 1.81 81 eP 09 42.20 -2.0
ILB 1.81 81 eP 09 42.19 -2.0
eS 10 09.66
IM3 1.83 323 eP 09 43.33 -1.2
IMA 1.88 325 iPd 09 44.04 -1.3
CUT 2.18 170 eP 09 49.69 0.1
eS 10 17.46
DHY 2.21 130 eP 09 49.55 -0.5
DDM 2.40 106 eP 09 51.14 -1.7
DJE 2.41 100 eP 09 54.83 2.1
PRP 2.55 65 eP 09 52.94 -1.9
SKT 2.59 185 eP 09 54.90 -0.5
TTA 2.73 236 eP 09 57.58 0.0
eS 10 38.54
PAX 2.95 120 eP 10 00.24 -0.3
GHO 2.95 160 eP 09 59.50 -1.1
PWA 2.96 169 P 09 59.90 -0.7
SML 3.02 155 eP 10 00.00 -1.5
PLRM 3.10 163 eP 10 01.64 -0.8
PMR 3.10 163 eP 10 01.70 -0.8
eS 10 48.54
SUA 3.10 177 eP 10 02.28 -0.4
FYU 3.16 48 eP 10 02.86 -0.6
NCG 3.20 189 eP 10 03.06 -1.0
DOT 3.20 103 eP 10 11.34 7.2
SCM 3.21 146 eP 10 03.16 -1.1
CGLM 3.28 188 eP 10 04.47 -0.8
TOA 3.30 136 P 10 05.10 -0.4
CRP 3.33 189 eP 10 04.92 -1.2
CP2 3.34 190 eP 10 05.31 -0.9
BGL 3.35 191 eP 10 05.88 -0.4
KNK 3.37 158 eP 10 06.15 -0.3
CKN 3.38 189 eP 10 05.56 -1.0
PMS 3.39 168 P 10 06.90 0.2
CKT 3.40 189 eP 10 06.32 -0.7
SPU 3.41 188 eP 10 06.29 -0.8
CKL 3.41 190 eP 10 07.38 0.2
BKG 3.53 189 eP 10 08.26 -0.6
TZL 3.58 132 eP 10 10.10 0.7
CFI 3.70 154 eP 10 10.77 -0.4
KLU 3.86 140 eP 10 13.70 0.2
BM3 3.91 40 eP 10 11.35 -2.8
PWL 3.91 160 eP 10 13.79 -0.4
SVW 4.04 213 eP 10 15.69 -0.2
eS 11 18.81
DFR 4.04 191 eP 10 15.24 -0.8
VLZ 4.06 146 eP 10 15.32 -0.8
SLKM 4.07 174 eP 10 16.43 0.0
REF 4.14 191 eP 10 17.14 -0.4
BC3 4.37 106 eP 10 17.38 -3.4
BALM 5.33 127 eP 10 33.12 -1.3
INK 7.96 54 eP 11 09.00 -2.2
61 obs. associated

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* DEC 21, 1993 08h 49m 26.71± 0.67s
56.365 S ±15.0km 24.353 W ±14.6km
DEPTH = 33.0km (normal)
5.0mb (6 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

NVL 21.13 147 eP 54 11.00 0.5
1.5s 46.00nm 4.7mb
e 54 34.00
e 55 59.00
e 59 10.00
e 59 40.00
SOB1 48.79 338 eP 58 10.30 -0.1
LPB 51.64 302 P 58 33.80 1.1
LPAZ 51.87 302 iPd 58 34.60 0.0
ARE 53.33 299 iPd 58 45.50 0.4
NNA 59.80 296 iPc 59 30.50 -0.5
1.0s 30.00nm 5.4mb
LIC 64.37 21 Pc 00 01.56 0.2
0.9s 14.00nm 5.0mb
Z 19s 0.08um 3.9Msz
KIC 64.56 22 Pc 00 02.76 0.2
0.9s 19.00nm 5.2mb
TIC 64.78 21 Pc 00 04.14 0.1
0.8s 9.50nm 4.9mb
LKO 67.49 20 P 00 21.28 -0.1
1.0s 8.00nm 4.8mb
YKA 137.48 317 PKP 08 34.70 -12.6X
0.8s 0.40nm
MBC 144.92 335 ePKP 09 01.00 0.9
1.0s 4.00nm
INK 147.06 320 ePKPc 09 06.40 2.6X
1.0s 6.00nm
BJI 149.56 106 ePKP 09 13.00 4.4X
1.2s 10.00nm
FBA 151.92 311 ePKP 09 08.69 -2.7
IMA 154.48 313 ePKP 09 28.39 13.3X
S.D. = 1.1 on 12 of 16 obs.

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* DEC 21, 1993 09h 07m 51.26± 1.48s
35.176 N ±17.6km 27.103 E ± 7.7km
DEPTH = 58.3 ± 15.3 km
3.6mb (2 obs.)
DODECANESE ISLANDS (369)
MD 4.2 (ATH).

NPS 1.22 274 iPnc 08 11.00 -1.4
KSL 2.23 64 ePn 08 27.40 1.0
VAM 2.39 276 ePn 08 30.00 1.4
ELL 2.76 55 ePn 08 44.00 9.9X
IZM 3.22 2 ePn 08 40.80 0.3
BCK 3.62 50 ePn 08 46.00 -0.2
KHL 3.69 31 ePn 08 46.00 -1.2
VLI 3.71 296 ePn 08 46.50 -0.9
DST 4.59 15 eP 08 59.80 0.1
VLS 6.03 302 ePn 09 21.20 1.2
GEC2 16.87 328 Pn 11 45.00 0.2
0.7s 1.39nm 3.2mb
e 11 49.00
e 11 52.10
e 11 58.80
YKA 77.91 343 P 19 43.60 -0.4
0.7s 0.90nm 3.9mb
S.D. = 1.1 on 11 of 12 obs.

? DEC 21, 1993 09h 55m 43.88± 0.96s
39.234 N ± 7.6km 27.680 E ±12.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

DST 0.82 63 iPg 55 59.80 0.0
IZM 0.90 201 ePg 56 01.10 0.0
eSg 56 14.80
EDC 1.12 7 ePn 56 05.00 0.1
KGT 1.25 347 ePn 56 07.00 -0.1
S.D. = 0.2 on 4 of 4 obs.

DEC 21, 1993 10h 04m 05.48± 0.59s
22.217 N ± 7.0km 103.250 E ± 8.2km
DEPTH = 10.0km (geophysicist)
4.3mb (8 obs.)
YUNNAN, CHINA (318)
ML 4.5 (BJI).

KMI 2.93 351 Pnd 04 51.50 -1.7
Pg 04 55.50
Sn 05 27.00
Sg 05 37.00
LOE 4.99 197 ePn 05 22.00 -0.3
GYA 5.25 36 Pn 05 23.60 -2.3
Sn 06 24.00
CHTO 5.27 231 iPnd 05 25.70 -0.5
iPg 05 45.90
eSg 06 59.80
BDT 6.36 220 ePn 05 40.00 -1.6
eSg 07 20.50
QIZ 6.94 116 eP 05 50.20 0.4
N 11s 2.51um
NST 7.15 205 ePn 05 52.00 -0.6

ePg 06 21.00
eSg 07 57.00
CD2 8.67 3 eP 06 10.20 -3.7X
GZH 9.36 83 P 06 24.40 0.9
XAN 12.79 22 P 07 04.80 -5.4X
0.7s 6.60nm 5.0mb
Z 10s 0.83um 6.9MszX
N 10s 1.16um
S 09 25.00
WHN 12.94 48 eP 07 09.50 -2.7X
N 11s 2.16um
LSA 13.18 307 eP 07 17.00 1.1
LZH 13.83 2 eP 07 29.00 5.0X
1.5s 27.00nm 4.9mb
Z 10s 0.48um 4.3Msz
eS 09 54.00
GUN 16.72 293 P 08 02.60 0.8
0.8s 22.00nm 4.3mb
GTA 17.39 351 Pc 08 10.00 0.1
1.0s 8.00nm 3.8mb
pP 08 14.50
BTO 19.20 16 eP 08 32.50 0.3
E 10s 0.62um
eS 12 04.50
HHC 19.86 19 P 08 38.00 -1.7
1.8s 32.00nm 4.3mb
Z 10s 0.76um 4.6Msz
N 11s 0.35um
BJI 20.89 29 eP 08 53.00 2.7X
1.5s 20.00nm 4.3mb
Z 14s 0.29um 3.8MszX
E 10s 0.36um
WMQ 25.10 333 P 09 35.00 3.1X
1.0s 5.60nm 4.2mb
GBA 25.98 255 P 09 41.00 0.8
INK 80.78 18 eP 16 22.00 1.7
YKA 90.39 17 P 17 10.70 2.6
0.6s 0.40nm 3.9mb
S.D. = 1.5 on 16 of 22 obs.

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* DEC 21, 1993 10h 15m 53.09± 0.97s
17.256 N ± 9.2km 74.057 E ±16.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN INDIA (314)

POO 1.29 351 iPg 16 17.50 0.5
iSg 16 34.50
BOM 2.01 324 ePn 16 27.00 -0.5
eSn 16 51.50
HYB 4.30 87 ePn 17 04.00 3.9X
eSn 18 12.00
GBA 4.88 138 P 17 07.80 -0.5
0.4s 8.50nm
KOD 7.73 154 ePn 17 49.20 0.5
GKN 14.47 41 P 19 20.00 -0.2
S.D. = 0.7 on 5 of 6 obs.

% DEC 21, 1993 10h 33m 17.38± 1.00s
39.680 N ± 6.7km 29.499 E ± 8.5km
DEPTH = 11.9 ± 9.6 km
TURKEY (366)
ML 2.7 (ISK).

IZI 0.66 358 iPg 33 30.30 0.0
iSg 33 40.30
DST 0.68 264 ePg 33 30.70 0.0
eSg 33 41.70
ALT 0.78 143 ePg 33 32.70 0.2
eSg 33 43.20
EYL 1.02 29 iPn 33 36.30 -0.2
HRT 1.15 6 ePn 33 39.30 0.6
EDC 1.42 298 ePn 33 43.00 0.0
S.D. = 0.5 on 6 of 6 obs.

? DEC 21, 1993 11h 49m 13.47±13.09s
14.908 N ±71.5km 60.687 W ±79.5km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
ML 2.5 (FDF).

CRM 0.27 235 iPd 49 20.79 -0.1
S 49 29.60
MVM 0.41 210 eP 49 22.43 -0.3
S 49 32.70
FDF 0.48 249 eP 49 23.67 -0.2
BIM 0.54 224 iPd 49 24.86 0.2
S.D. = 0.4 on 4 of 4 obs.

? DEC 21, 1993 12h 00m 22.44± 5.64s
14.228 N ± 9.4km 60.526 W ±65.4km
DEPTH = 76.8 ± 34.8 km
WINDWARD ISLANDS (95)
MD 3.3 (TRN).

SLW 0.45 243 eP 00 35.36 -0.3
eS 00 45.66
MVM 0.48 312 iPc 00 36.08 0.2
S 00 46.20
BIM 0.60 299 iPc 00 37.06 0.0
S 00 48.10
SLB 0.64 231 eP 00 37.71 0.2
eS 00 48.43
CRM 0.64 324 iPc 00 37.41 0.0
S 00 48.63
FDF 0.79 310 iPc 00 39.00 -0.1
S 00 51.40
SVV 1.13 217 eP 00 43.26 0.1
eS 00 58.92
SVB 1.18 217 eP 00 43.74 -0.1
eS 00 59.48
S.D. = 0.2 on 8 of 8 obs.

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* DEC 21, 1993 12h 12m 37.84± 2.10s
3.647 N ±12.5km 95.743 E ±12.3km
DEPTH = 73.2 ± 20.9 km
4.8mb (7 obs.)
OFF W COAST OF NORTHERN SUMATERA(705)

IPM 5.35 80 ePc 13 57.20 0.2
0.4s 32.60nm 4.9mb
KGM 7.74 102 eP 14 30.00 -0.1
CHTO 15.39 11 eP 16 12.00 -0.2
GBA 20.61 300 P 17 15.00 1.6
HYB 21.71 310 eP 17 24.20 -0.4
SHL 22.11 351 eP 17 23.50 -5.2X
KMI 22.39 17 eP 17 33.00 1.5
1.0s 50.00nm 4.9mb
PKI 25.75 339 P 18 03.10 -0.7
0.6s 22.00nm 4.8mb
GUN 25.90 340 P 18 04.80 -0.4
DMN 25.90 338 P 18 03.90 -1.2
0.6s 17.00nm 4.7mb
KKN 26.00 338 P 18 05.50 -0.5
GKN 26.43 338 P 18 09.40 -0.5
BJI 40.67 24 eP 20 13.00 0.5
1.0s 7.00nm 4.5mb
ASPA 46.03 128 iPc 20 55.40 -0.8
0.4s 5.20nm 4.8mb
ZST 79.72 318 eP 24 39.80 0.6
GEC2 82.03 319 P 24 51.90 0.4
0.7s 2.57nm 4.3mb
PcP 25 05.10
S.D. = 0.9 on 15 of 16 obs.

DEC 21, 1993 12h 16m 12.30± 0.91s
10.290 N ± 5.2km 125.888 E ±11.2km
DEPTH = 62.9 ± 9.2 km
5.1mb (9 obs.)
LEYTE, PHILIPPINE ISLANDS (256)

PLP 1.25 314 ePd 16 33.50 -0.5
MAP 1.88 271 iPc 16 43.50 0.8
iS 17 07.00
BIP 2.08 170 ePc 16 45.50 -0.1
eS 17 12.00
CGP 2.17 213 iPc 16 46.00 -0.8
iS 17 13.00
DAV 3.20 186 iPd 17 03.00 1.8
CTB 3.49 209 eP 17 06.00 0.6
eS 17 59.00
PGP 5.79 304 eP 17 41.50 3.8X
BAG 7.98 320 eP 18 08.00 -0.3
CVP 8.36 332 eP 18 12.00 -1.3
SSE 21.16 349 P 20 55.00 0.7
pP 21 05.00 38kmX
MTN 23.57 167 eP 21 18.00 -0.1
0.5s 50.00nm 5.2mb
BJI 30.86 345 eP 22 36.00 11.3X
1.5s 20.00nm
MBL 31.81 191 eP 22 32.20 -1.1
ASPA 34.65 167 iPc 22 55.50 -2.3
0.5s 30.00nm 5.5mb
eS 28 21.30
SHL 35.61 300 eP 23 06.00 -0.3
WARB 36.26 179 eP 23 11.20 -0.3
FORT 40.88 177 eP 23 49.60 -0.3
RKG 45.40 190 iPd 24 28.30 1.8
0.6s 6.00nm 4.6mb
ADE 46.62 165 eP 24 35.90 -0.3
ARMA 47.44 149 eP 24 41.90 -0.9
GBA 47.46 279 P 24 43.00 -0.1
BWA 49.34 155 iPc 24 58.00 0.6
CAN 50.35 155 eP 25 04.80 -0.3
CNB 50.50 155 iPd 25 06.10 -0.1
0.7s 21.00nm 5.3mb
TOO 51.03 160 iPd 25 00.20 -10.0X
0.4s 20.00nm 5.5mb
DZM 51.15 129 iPc 25 11.20 -0.2
YAK 51.71 2 iPc 25 14.30 -0.6
0.8s 52.00nm 5.6mb
IMA 76.78 24 eP 27 59.40 0.8
0.7s 5.50nm 4.6mb
INK 84.41 22 eP 28 39.50 0.7
MBC 85.77 13 eP 28 47.50 2.0
0.8s 3.00nm 4.5mb
YKA 93.89 24 P 29 24.00 0.1
0.8s 1.70nm 4.5mb
S.D. = 1.0 on 28 of 31 obs.

% DEC 21, 1993 12h 33m 54.24± 1.94s
41.360 N ±16.0km 23.079 E ± 6.1km
DEPTH = 5.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.3 (THE).

KNT 0.24 215 ePg 33 59.48 0.3
eSg 34 03.80
VAY 0.39 264 iPg 34 02.40 0.4
0.2s 40.00nm
iSg 34 06.40
SRS 0.46 122 ePg 34 03.00 -0.4
eSg 34 10.96
SOH 0.58 159 ePg 34 06.08 0.3
GRG 0.65 232 iPg 34 06.36 -0.9
iSg 34 16.40
OUR 1.23 146 ePb 34 17.88 0.3
S.D. = 0.7 on 6 of 6 obs.

? DEC 21, 1993 13h 32m 07.54± 6.96s
60.285 N ±26.6km 4.297 E ±41.6km
DEPTH = 5.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.2 (BER).

EGD 0.46 91 eP 32 17.32 0.5
eS 32 19.93
ASK 0.49 66 eP 32 16.82 -0.5
eS 32 18.92
HYA 1.28 46 eP 32 32.22 0.5
eS 32 46.51
BLS5 1.39 127 eP 32 43.76 10.1X
eS 32 59.75
NRAO 3.61 80 ePn 33 04.78 -0.5
ePg 33 10.50
eLg 34 01.17
S.D. = 1.0 on 4 of 5 obs.

DEC 21, 1993 13h 48m 35.06± 0.85s
16.702 N ±10.2km 98.423 W ± 5.9km
DEPTH = 33.0km (normal)
4.6mb (13 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 1.39 277 iP 48 51.26 -7.0X
iS 49 08.54
OXX 1.67 77 iP 49 02.33 -0.3
iS 49 26.42
PPM 2.36 355 iP 49 15.04 2.3
iS 49 51.00
CRX 2.94 336 iP 49 22.50 1.6
(S) 50 10.00
LVVM 3.55 32 (P) 49 29.48 0.2
(S) 50 20.00
SCX 5.55 89 (P) 50 00.00 2.5
(S) 51 57.50
TPX 6.19 106 (P) 50 06.00 -0.7
AGX 6.32 325 (P) 50 30.00 21.7X
LTX 13.46 340 eP 51 46.16 -0.2
eS 55 57.46
UYO 17.75 11 iPd 52 39.70 -1.6
WMOK 17.96 359 eP 52 43.55 -0.4

21d 13h

0.9s 9.02nm 3.9mb
MEO 18.01 360 iPd 52 45.00 0.5
MIAR 18.29 13 eP 52 47.80 -0.2
1.0s 16.76nm 4.2mb
TUC 19.16 326 eP 52 58.41 -0.2
1.5s 24.50nm 4.2mb
TUL 19.27 6 iPc 52 57.80 -2.1
OXF 19.49 23 (P) 53 01.47 -0.9
0.4s 64.10nm 5.3mb
ALQ 19.54 340 eP 53 02.19 -0.9
1.3s 30.45nm 4.4mb
ELC 22.05 20 eP 53 29.42 0.8
MYNC 22.32 32 eP 53 31.20 -0.1
1.0s 73.75nm 5.1mb
FVM 22.34 17 eP 53 31.57 0.1
1.3s 75.07nm 5.0mb
PRM 22.53 37 eP 53 33.28 -0.1
PV10 23.52 339 eP 53 42.73 -0.6
PV08 23.56 340 eP 53 44.65 0.8
PV09 23.66 339 eP 53 44.98 0.2
GOL 23.70 347 eP 53 45.66 0.6
1.2s 46.71nm 4.9mb
GLD 23.72 347 eP 53 45.83 0.7
1.4s 51.23nm 4.9mb
LHS 23.72 38 eP 53 44.65 -0.3
SRU 24.71 337 eP 53 54.77 0.0
GSC 24.74 322 eP 53 55.42 0.4
ARUT 24.82 331 eP 53 56.25 0.4
MSU 24.85 334 eP 53 56.12 -0.1
EMUT 25.43 337 eP 54 01.48 -0.2
TPNV 25.60 325 (P) 54 03.62 0.4
0.8s 8.06nm 4.4mb
CEH 25.71 38 eP 54 04.13 0.1
1.2s 50.93nm 5.0mb
DAU 26.12 337 eP 54 08.28 0.1
BONR 27.46 324 eP 54 20.05 -0.4
RSSD 27.74 351 eP 54 23.01 0.2
1.6s 30.02nm 4.7mb
HVU 27.87 337 eP 54 24.03 0.0
LRM 31.31 341 eP 54 54.10 -0.6
RSNY 34.29 31 eP 55 19.40 -1.0
GMW 36.73 332 eP 55 40.29 -0.7
YKA 47.13 350 P 57 02.50 -3.2X
1.0s 3.10nm 4.3mb
S.D. = 0.9 on 39 of 42 obs.

DEC 21, 1993 14h 06m 20.36± 0.59s
36.440 N ± 6.0km 3.023 W ± 6.6km
DEPTH = 11.5 ± 4.9 km
STRAIT OF GIBRALTAR (385)
mbLg 3.4 (MDD).

EGUA 0.59 312 iPd 06 31.61 -0.5
e 06 39.70
ENIJ 0.84 51 iPd 06 35.67 -0.8
e 06 46.40
ECOG 0.94 333 iPc 06 38.68 0.4
e 06 51.90
EMEL 1.14 177 eP 06 41.71 0.2
e 06 56.10
EMAL 1.18 286 eP 06 40.40 -1.8
EHUE 1.41 14 eP 06 45.98 0.0
e 07 05.70
ZAI 1.65 172 iP 06 47.50 -1.7
iS 07 05.50
TAF 1.70 163 ePc 06 51.50 1.5
i 06 58.00
i 07 10.00
EBAN 1.83 341 eP 06 52.53 0.7
e 07 16.00
EPRU 1.85 287 eP 06 53.03 0.8
e 07 17.30
EJIF 1.97 271 eP 06 55.33 1.4
e 07 20.30
LIJA 1.97 284 eP 06 58.00 3.9X
ALJ 2.09 277 eP 07 00.00 4.2X
EVIA 2.23 11 eP 06 58.57 0.7
e 07 26.80
PLAT 2.23 263 eP 07 02.00 4.2X
EHOR 2.25 308 eP 06 57.84 -0.2
e 07 26.80
PAB 3.27 342 ePn 07 13.80 1.2
eSg 08 09.00
GUD 4.29 348 eP 07 26.28 -0.8
e 08 15.10
EPLA 4.35 327 eP 07 26.63 -1.1
ETOR 4.44 10 eP 07 29.30 0.2
e 08 18.20
S.D. = 1.1 on 17 of 20 obs.

? DEC 21, 1993 16h 12m 30.00± 3.16s
25.587 N ±43.4km 95.550 E ±35.8km
DEPTH = 33.0km (normal)
MYANMAR-INDIA BORDER REGION (294)

SHL 3.31 270 ePn 13 21.00 0.1
eSn 13 52.50
CHTO 7.44 154 eP 14 19.00 0.0
GUN 8.95 287 P 14 41.30 1.0
0.4s 7.00nm 5.2mb
PKI 9.29 285 P 14 44.80 -0.2
0.4s 3.00nm 4.8mb
KKN 9.44 286 P 14 47.00 0.0
DMN 9.56 284 P 14 48.60 -0.1
GKN 10.04 286 P 14 54.60 -0.6
0.4s 6.00nm 5.2mb
S.D. = 0.6 on 7 of 7 obs.

? DEC 21, 1993 16h 28m 17.22± 1.29s
15.324 S ±67.4km 179.077 W ±54.6km
DEPTH = 447.9 ± 16.3 km
4.5mb (5 obs.)
FIJI ISLANDS REGION (181)

MBU 2.68 232 iPd 29 22.00 -0.4
VUN 3.56 221 iPd 29 29.60 0.5
SVA 3.65 220 ePd 29 29.50 -0.3
DZM 15.26 242 iPc 31 34.10 1.5
ARMA 30.77 236 eP 33 55.80 -0.4
0.9s 10.00nm 4.2mb
ASPA 44.93 252 iPc 35 51.50 -0.9
0.6s 61.30nm 5.2mb
FORT 50.57 243 eP 36 35.00 -0.1
0.6s 17.00nm 4.6mb
WARB 51.58 249 iPd 36 42.20 -0.3
0.6s 17.00nm 4.6mb
YKA 92.26 25 P 40 39.00 0.4
0.9s 1.00nm 3.8mb
S.D. = 0.9 on 9 of 9 obs.

& DEC 21, 1993 16h 40m 51.15s
40.244 N 124.166 W
DEPTH = 12.3km
NEAR COAST OF NORTHERN CALIF. (35)
<GM-P>. MD 3.2 (GM). ML 3.3
(BRK).

KSMM 0.06 187 P 40 54.10 0.3
KMPM 0.18 11 iPc 40 55.31 -0.1
KCTM 0.27 331 P 40 57.56 0.6
EKR 0.45 3 iPd 41 00.83 0.4
iS 41 08.12
KBRM 0.51 18 P 41 01.95 0.4
FHC 0.57 14 iP 41 02.94 0.3
iS 41 12.69
ARC 0.64 6 eP 41 04.09 0.4
eS 41 12.93
KKPM 0.64 98 P 41 03.09 -0.8
KIPM 0.68 129 P 41 04.61 0.0
KHMM 0.71 28 P 41 05.23 0.2
KBNM 0.82 115 P 41 07.11 0.1
KHBM 0.83 60 P 41 06.93 -0.3
GBDM 1.04 140 P 41 08.96 -1.6
GNAM 1.12 158 P 41 10.03 -2.0
GROM 1.19 105 P 41 13.00 -0.3
WDC 1.29 74 eP 41 12.82 -2.0
GHOM 1.29 158 P 41 12.28 -2.6
LBKM 1.42 53 P 41 15.22 -1.6
SKG 1.78 150 P 41 28.00 6.1
YBH 1.85 36 eP 41 21.54 -1.4
LGBM 1.86 53 P 41 23.22 0.0
LMEM 2.00 81 eP 41 23.87 -1.4
LSLM 2.02 84 P 41 24.44 -1.0
LBFM 2.05 57 eP 41 25.36 -0.6
OGOM 2.05 106 P 41 26.80 1.0
OBHM 2.16 105 P 41 25.78 -1.7
ORV 2.16 108 eP 41 26.80 -0.7
NTYM 2.19 147 (P) 41 26.68 -1.1
AARM 2.61 111 P 41 34.52 0.7
JJRM 3.28 151 P 41 42.52 -0.8
MSU 9.45 97 eP 43 09.33 -0.9
31 obs. associated

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* DEC 21, 1993 16h 45m 22.43± 0.99s
35.693 N ±14.2km 27.503 E ± 8.0km
DEPTH = 33.0km (normal)
DODECANESE ISLANDS (369)
MD 4.1 (ATH).

NPS 1.60 255 ePn 45 48.90 0.1
eSn 46 11.20
KSL 1.74 75 ePn 45 50.80 0.0
ELL 2.21 61 ePn 46 07.00 9.3X
IZM 2.71 356 ePn 45 59.60 -5.0X
VAM 2.71 265 ePn 46 04.60 0.0
KHL 3.08 31 ePn 46 12.70 2.7X
VLI 3.83 287 ePn 46 20.30 -0.2
ALT 3.95 31 ePn 46 22.00 -0.3
DST 4.01 13 eP 46 23.40 0.3
S.D. = 0.3 on 6 of 9 obs.

DEC 21, 1993 16h 58m 04.56± 0.55s
35.374 N ± 6.2km 3.681 W ± 6.8km
DEPTH = 33.0km (normal)
STRAIT OF GIBRALTAR (385)
mbLg 3.2 (MDD). MD 2.8 (RBA).

TOU 0.42 188 iP 58 14.50 0.6
iS 58 18.50
EMEL 0.60 97 iPc 58 15.80 -0.7
e 58 24.50
ZAI 0.95 126 iP 58 21.00 -0.6
iS 58 34.00
TAF 1.18 118 iPgc 58 25.50 0.6
iSg 58 41.50
i 58 42.50
NKM 1.41 273 ePg 58 28.00 -0.2
i 58 30.00
eSg 58 45.00
i 58 48.00
EGUA 1.46 4 eP 58 24.40 -4.5X
e 58 42.50
ECOG 1.90 3 eP 58 35.90 0.5
e 58 57.20
EPRU 2.02 322 eP 58 36.30 -0.8
e 59 01.50
IFR 2.21 213 iPn 58 32.50 -7.2X
i 58 33.00
iSn 59 00.50
EHOR 2.75 333 eP 58 47.10 -0.2
e 59 18.70
EBAN 2.79 358 eP 58 48.50 0.7
e 59 19.80
S.D. = 0.7 on 9 of 11 obs.

? DEC 21, 1993 17h 40m 20.23± 5.61s
41.498 N ±36.7km 22.927 E ±10.1km
DEPTH = 5.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.9 (THE).

KNT 0.34 184 ePg 40 27.50 0.5
eSg 40 31.98
SRS 0.63 127 ePg 40 33.02 0.2
GRG 0.67 216 ePg 40 33.60 -0.1
eSg 40 44.18
SOH 0.75 154 ePg 40 34.88 -0.3
THE 0.87 178 ePg 40 37.00 -0.3
S.D. = 0.5 on 5 of 5 obs.

? DEC 21, 1993 19h 59m 55.90± 2.06s
43.425 N ±49.8km 151.054 E ±20.4km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
EAST OF KURIL ISLANDS (222)

KUSJ 4.64 268 eP 01 04.80 -0.7
eS 01 50.90
HOOJ 5.80 262 eP 01 24.00 2.2
eS 02 24.80
ASAJ 6.13 279 eP 01 26.40 -0.1
MRRJ 7.40 266 eP 01 44.70 0.5
IMA 37.37 34 eP 07 07.80 0.8
0.5s 2.40nm 4.3mb
GUN 53.87 276 P 09 18.10 -0.3
KKN 54.37 276 P 09 21.90 -0.1
0.7s 7.00nm 4.8mb
PKI 54.40 276 P 09 21.40 -1.0
YKA 54.48 35 P 09 22.20 0.2
0.4s 0.20nm 3.5mb
DMN 54.60 276 P 09 23.30 -0.5

GKN 54.71 277 P 09 23.60 -0.9
GEC2 80.78 333 P 12 04.10 -3.3X
0.5s 1.11nm 4.1mb
S.D. = 1.0 on 11 of 12 obs.

& DEC 21, 1993 20h 07m 23.59s
61.531 N 152.038 W
DEPTH = 127.8km (geophysicist)
SOUTHERN ALASKA (2)
<AEIC>.

NCG 0.14 204 iP 07 40.58 0.8
CGLM 0.22 176 eP 07 40.66 0.8
CRP 0.27 192 eP 07 41.09 0.9
CRP 0.27 192 eP 07 41.16 1.0
eS 07 54.36
CP2 0.29 200 eP 07 41.35 1.1
CKN 0.32 193 eP 07 41.09 0.9
BGL 0.32 212 iP 07 41.11 0.9
CKT 0.34 194 eP 07 40.92 0.6
SPU 0.35 181 eP 07 40.96 0.7
eS 07 54.99
CKL 0.37 203 eP 07 41.20 -0.9
BKG 0.48 193 eP 07 41.80 -0.8
eS 07 56.51
SKT 0.51 28 eP • 07 41.81 -0.9
eS 07 56.37
SUA 0.62 96 eP 07 43.68 0.1
NKA 0.88 154 eP 07 46.43 1.0
DFR 0.99 199 eP 07 45.70 -0.9
PWA 1.04 82 eP 07 46.86 -0.1
NCT 1.07 204 eP 07 46.48 -0.9
REF 1.09 197 eP 07 46.67 -1.1
RDW 1.12 200 eP 07 46.98 -1.0
RS2 1.13 198 eP 07 47.41 -0.7
RSO 1.13 198 eP 07 47.15 -0.9
RED 1.17 198 eP 07 47.52 -0.9
CUT 1.21 43 eP 07 48.40 -0.3
eS 08 07.17
PMS 1.23 102 eP 07 48.66 -0.3
eS 08 08.29
SLKM 1.36 138 eP 07 49.74 -0.6
PLRM 1.39 86 eP 07 49.53 -1.1
eS 08 11.26
GHO 1.51 79 eP 07 52.40 0.4
ILIM 1.52 198 eP 07 51.01 -1.2
INE 1.56 199 eP 07 51.43 -1.3
INW 1.56 201 eP 07 51.85 -0.9
MPA 1.67 128 eP 07 53.48 -0.4
KNK 1.72 92 eP 07 53.71 -0.8
eS 08 18.22
SML 1.79 79 eP 07 54.20 -1.1
BRLK 1.86 162 eP 07 56.20 0.0
HOM 1.89 174 eP 07 55.66 -0.8
SEW 1.91 137 eP 07 56.10 -0.7
PWL 1.92 109 eP 07 55.60 -1.3
eS 08 21.56
OPT 1.97 198 eP 07 56.86 -0.7
PDB 2.05 212 eP 07 57.41 -1.0
CNPM 2.05 169 eP 07 57.34 -1.2
CFI 2.09 98 eP 07 57.95 -1.0
KTH 2.09 14 eP 07 58.31 -0.8
AUW 2.28 199 eP 08 00.51 -0.9
RND 2.39 37 eP 08 02.33 -0.6
44 obs. associated

DEC 21, 1993 20h 39m 58.19± 0.89s
17.778 S ± 7.5km 71.323 W ± 9.1km
DEPTH = 85.7 ± 9.3 km
4.7mb (10 obs.)
NEAR COAST OF PERU (115)
Felt (III) at Arequipa.

ARE 1.32 353 iPd 40 20.00 -2.1
i(S) 40 26.00
LPB 3.32 69 P 40 51.20 1.8
LPAZ 3.39 65 iPc 40 52.30 1.7
MOCB 6.38 124 P 41 31.90 0.0
NNA 7.85 316 eP 41 51.00 -0.7
0.9s 58.82nm 5.3mb X
i 41 56.50
eS 42 58.00
RTLL 13.74 170 ePc 43 11.00 0.5
RTCB 13.84 171 ePc 43 13.00 1.1
PEL 15.31 178 iPc 43 30.50 -0.3
1.2s 125.00nm 5.0mb
RSTA 21.86 112 eP 44 43.20 -2.0

BDFB 22.42 88 eP 44 49.41 -1.5
0.5s 14.07nm 4.6mb
BAO 22.45 88 eP 44 54.90 3.7X
e 45 08.60
e 45 20.70
VAO 23.40 107 eP 44 58.90 -1.4
SOB1 30.75 78 (P) 46 07.00 -0.7
MIAR 56.18 338 eP 49 31.69 0.3
1.2s 12.10nm 4.8mb
FVM 58.30 342 eP 49 47.22 0.9
1.0s 14.64nm 5.0mb
GOL 65.42 332 eP 50 36.27 2.1
0.2s 1.67nm 4.6mb
KDS 65.67 67 iP 50 36.30 0.4
LIC 69.63 76 Pc 51 00.93 0.2
0.4s 3.00nm 4.5mb
Z 20s 0.04um 3.6Msz
TIC 69.79 76 P 51 01.53 -0.2
0.5s 1.50nm 4.1mb
KIC 69.94 76 Pc 51 02.63 0.0
0.5s 10.00nm 5.0mb
LKO 70.35 73 Pc 51 05.19 0.0
0.6s 8.00nm 4.8mb
NVL 71.10 160 P 51 30.00 21.2X
YKA 86.95 341 P 52 43.50 9.1X
0.8s 3.10nm 4.4mb
MAT 147.95 312 ePKP 59 38.00 5.8X
GBA 149.66 93 PKP 59 42.00 6.6X
KKN 156.28 61 PKP 00 08.40 23.6X
S.D. = 1.3 on 20 of 26 obs.

% DEC 21, 1993 21h 17m 21.37± 0.91s
40.596 N ± 9.5km 28.772 E ± 6.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
ML 2.7 (ISK).

ISK 0.52 25 iPg 17 31.40 -0.4
iSg 17 38.40
GBZT 0.55 69 ePg 17 33.50 1.1
eSg 17 41.10
IZI 0.59 116 iPg 17 32.90 -0.5
iSg 17 40.90
HRT 0.72 71 iPg 17 35.00 -0.5
iSg 17 44.00
EDC 0.74 251 iPg 17 36.00 0.2
eSg 17 47.00
EYL 1.06 91 ePn 17 41.50 0.2
S.D. = 0.8 on 6 of 6 obs.
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* DEC 21, 1993 21h 26m 09.46± 0.70s
23.528 S ± 5.3km 68.019 W ±16.8km
DEPTH = 235.7 ± 24.0 km
NORTHERN CHILE (123)

SLA 2.60 118 iPc 26 57.00 -0.3
FSA 3.13 145 iPd 27 03.20 0.3
MOCB 3.16 45 P 27 03.60 -0.2
CYA 5.29 158 ePd 27 29.50 0.5
LPB 6.96 359 eP 27 51.00 0.4
LPAZ 7.20 359 P 27 53.70 -0.2
RTLL 7.78 183 eP 28 00.20 -0.5
RTCB 7.96 185 eP 28 03.00 0.0
SIV 9.95 42 P 28 28.50 0.0
S.D. = 0.4 on 9 of 9 obs.

? DEC 21, 1993 22h 18m 26.53± 2.44s
31.663 S ±33.4km 69.042 W ±42.3km
DEPTH = 120.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.27 50 ePc 18 43.20 -0.8
S 18 54.00
RTCV 0.47 115 iPc 18 45.00 0.4
S 18 57.00
RTLL 0.59 56 ePc 18 45.00 -0.4
S 18 56.50
CFA 0.69 86 ePc 18 46.50 0.4
S 19 00.00
RTRS 1.53 346 eP 18 55.00 0.3
S 19 15.00
S.D. = 0.8 on 5 of 5 obs.
----
* DEC 21, 1993 23h 05m 38.28± 1.25s
8.727 N ±22.5km 94.363 E ±13.3km
DEPTH = 33.0km (normal)
4.5mb (1 obs.)

NICOBAR ISLANDS, INDIA (704)

SNG 6.38 104 eP 07 12.50 0.0
0.9s 478.99nm 6.2mb X
e 07 38.00
e 08 07.00
e 08 14.60
GBA 17.30 288 P 09 39.00 0.0
HYB 17.65 301 eP 09 46.50 3.1X
GUN 20.69 338 P 10 19.00 0.3
0.8s 18.00nm 4.5mb
DMN 20.72 336 P 10 23.20 4.4X
KKN 20.81 337 P 10 19.80 0.1
GKN 21.26 336 P 10 23.80 -0.4
S.D. = 0.4 on 5 of 7 obs.

DEC 21, 1993 23h 26m 07.68± 0.99s
41.506 N ±11.1km 20.091 E ± 8.2km
DEPTH = 13.8 ± 5.6 km
ALBANIA (391)
ML 2.9 (TTG).

OHR 0.66 126 iPg 26 19.20 -1.4
0.5s 230.00nm
iSg 26 29.90
ULC 0.78 306 ePg 26 21.54 -1.0
iSg 26 33.99
PVY 1.09 355 iPgc 26 26.68 -1.2
iSg 26 43.19
SKO 1.11 65 ePg 26 27.50 -0.7
0.4s 110.00nm
iSg 26 40.40
Lg 26 41.50
TTG 1.11 326 iPgd 26 27.49 -0.7
iSg 26 44.89
BDV 1.22 310 iPgc 26 29.77 -0.3
iSg 26 48.62
IVA 1.37 354 iPgc 26 32.19 -0.2
iSg 26 52.74
HCY 1.52 309 iPnd 26 34.87 0.5
iSn 26 58.45
NKY 1.54 328 iPnd 26 35.37 0.6
iSn 26 59.02
BRY 1.81 321 iPnc 26 39.69 1.0
iSn 27 06.10
VAY 1.87 95 ePn 26 41.30 1.7
PLE 1.89 344 iPnd 26 40.81 0.8
iSn 27 07.92
S.D. = 1.1 on 12 of 12 obs.

& DEC 22, 1993 00h 01m 22.23s
63.071 N 150.412 W
DEPTH = 108.7km (geophysicist)
CENTRAL ALASKA (1)
<AEIC>.

TRF 0.39 8 iP 01 38.46 -0.2
eS 01 50.95
KTH 0.54 335 eP 01 39.16 -0.4
eS 01 51.83
CUT 0.67 174 eP 01 40.35 -0.1
RND 0.78 64 eP 01 41.10 -0.4
MCK 0.94 44 eP 01 42.57 -0.4
BWN 1.18 21 eP 01 45.25 -0.4
SKT 1.21 206 eP 01 45.47 -0.5
eS 02 03.36
DHY 1.38 88 eP 01 47.74 -0.4
PWA 1.45 170 eP 01 48.71 0.0
GHO 1.48 151 eP 01 49.12 0.0
eS 02 09.80
SML 1.59 142 eP 01 50.07 -0.5
eS 02 12.23
PLRM 1.60 157 eP 01 50.12 -0.4
SUA 1.62 186 eP 01 50.98 0.0
NEA 1.62 21 eP 01 49.47 -1.4
eS 02 10.17
WRH 1.74 35 eP 01 51.33 -1.0
NCG 1.86 207 eP 01 53.39 -0.6
PMS 1.88 167 eP 01 53.91 -0.2
SCM 1.90 130 eP 01 53.54 -0.9
KNK 1.90 150 eP 01 53.69 -0.7
CGLM 1.92 204 eP 01 54.07 -0.7
CCB 1.96 35 eP 01 53.90 -1.2
MLY 1.97 356 eP 01 53.94 -1.4
CRP 1.99 205 eP 01 55.27 -0.4
eS 02 20.48
CP2 2.01 206 eP 01 55.54 -0.4

22d 00h

CKN 2.03 205 eP 01 56.37 0.3
BGL 2.04 208 eP 01 56.49 0.2
HDA 2.04 47 eP 01 54.99 -1.2
SPU 2.05 203 eP 01 55.79 -0.5
CKT 2.06 205 eP 01 56.72 0.2
CKL 2.09 207 eP 01 56.94 0.0
MDM 2.13 26 eP 01 56.02 -1.3
TOA 2.19 114 eP 01 58.23 0.1
BKG 2.19 204 eP 01 57.69 -0.5
PAX 2.26 90 eP 01 58.82 -0.3
eS 02 26.99
CFI 2.27 146 eP 01 58.69 -0.4
PWL 2.43 155 eP 02 00.14 -1.1
TZL 2.53 112 eP 02 02.86 0.3
SLKM 2.57 178 eP 02 02.51 -0.7
KLU 2.63 125 eP 02 02.87 -1.2
MPA 2.64 169 eP 02 02.90 -1.1
DFR 2.71 204 eP 02 05.40 0.3
RDW 2.84 205 eP 02 07.31 0.4
DOT 2.92 76 eP 02 06.39 -1.5
SEW 3.01 171 eP 02 08.39 -0.7
PRP 3.25 39 eP 02 11.25 -1.2
GLB 3.49 115 eP 02 14.52 -1.1
CNPM 3.58 187 eP 02 16.63 -0.2
CDD 4.44 202 eP 02 29.06 0.5
48 obs. associated

DEC 22, 1993 00h 51m 26.29± 0.52s
41.473 N ± 4.7km 23.015 E ± 4.5km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.8 (THE), 2.3 (SKO).

KNT 0.32 196 ePg 51 33.00 0.0
eSg 51 37.32
VAY 0.37 246 iPg 51 34.00 0.1
0.2s 160.00nm
iSg 51 39.00
KKB 0.40 7 iPg 51 33.00 -1.4
MMB 0.55 78 iPg 51 37.00 -0.4
SRS 0.56 129 ePg 51 36.68 -1.0
eSg 51 44.46
GRG 0.69 222 iPg 51 39.89 -0.1
eSg 51 49.84
SOH 0.70 158 iPg 51 39.58 -0.6
iSg 51 48.80
THE 0.84 183 iPg 51 42.30 -0.2
eSg 51 54.04
RZN 1.29 80 iP 51 50.00 -0.4
OUR 1.35 147 ePb 51 51.06 -0.1
PLD 1.41 63 iP 51 52.00 0.0
FNA 1.42 241 ePb 51 52.93 0.8
eSb 52 12.28
LIT 1.43 196 ePb 51 52.16 -0.1
PAIG 1.63 162 iPb 51 55.21 0.2
eSb 52 16.48
KDZ 1.81 84 iP 51 59.00 1.2
DIM 1.97 72 iP 52 02.00 2.0
S.D. = 0.9 on 16 of 16 obs.

? DEC 22, 1993 02h 16m 12.51± 2.51s
47.816 N ±41.9km 114.814 W ±26.9km
DEPTH = 5.0km (geophysicist)
MONTANA (456)
ML 2.5 (GS).

NEW 1.61 287 ePn 16 41.67 -0.1
ePg 16 42.89
eSg 17 05.05
DPW 2.28 273 ePn 16 51.57 0.1
HBMT 2.53 142 P 16 55.50 0.3
LRM 2.57 140 P 16 55.59 -0.2
BGMT 3.22 142 P 17 04.80 -0.1
MCMT 3.28 155 P 17 05.80 -0.1
S.D. = 0.2 on 6 of 6 obs.

DEC 22, 1993 02h 16m 49.94± 0.69s
43.855 N ± 7.1km 147.091 E ± 5.3km
DEPTH = 101.9 ± 5.6 km
4.6mb (24 obs.)
KURIL ISLANDS (221)

KUR 1.49 22 iPnd 17 16.20 -0.2
eS 17 36.20
KUSJ 1.89 247 iP+ 17 20.10 -1.5
eS 17 41.90
HOOJ 3.15 243 eP 17 38.80 0.3
eS 18 15.90
ASAJ 3.22 276 eP 17 41.20 1.7
YSS 4.41 317 iPnd 17 55.70 -0.1
eS 18 44.00
MRRJ 4.63 254 eP 17 58.40 -0.4
eS 18 50.60
OFUJ 6.27 222 eP 18 17.90 -3.6X
S 19 24.30
KAKJ 9.30 217 eP 18 58.20 -4.5X
eS 20 36.90
YAK 20.86 337 eP 21 26.20 1.1
1.8s 56.00nm 4.6mb
e 21 47.00
eS 25 13.00
BJI 23.24 271 eP 21 50.00 1.4
1.0s 13.00nm 4.2mb
Z 24s 0.52um 3.9MszX
BOD 24.75 316 eP 22 00.50 -2.5
1.3s 14.00nm 4.2mb
NJ2 25.07 251 Pc 22 06.80 0.6
0.9s 21.00nm 4.6mb
HHC 26.30 276 P 22 18.90 1.2
1.0s 11.00nm 4.3mb
TIY 26.81 269 eP 22 23.40 1.1
BTO 27.50 276 eP 22 29.40 0.9
ZAK 30.16 298 eP 22 52.00 0.0
0.5s 6.00nm 4.6mb
LZH 33.73 272 eP 23 23.50 0.0
1.5s 29.00nm 4.9mb
CD2 36.37 264 iPc 23 46.10 0.2
0.6s 27.00nm 5.3mb
GYA 36.91 255 P 23 49.80 -0.7
IMA 38.62 34 eP 24 04.67 0.3
0.7s 8.87nm 4.7mb
FBA 41.04 36 eP 24 24.87 0.7
0.8s 5.91nm 4.5mb
GUN 50.97 273 P 25 43.60 0.2
0.7s 16.00nm 5.1mb
KKN 51.47 273 P 25 47.40 0.3
0.8s 17.00nm 5.1mb
PKI 51.50 273 P 25 47.00 -0.5
DMN 51.70 273 P 25 48.90 0.0
0.8s 23.00nm 5.2mb
GKN 51.81 274 P 25 49.40 -0.2
YKA 55.74 34 eP 26 16.70 -1.0
0.5s 2.30nm 4.5mb
NEW 62.30 49 eP 27 02.79 -0.5
HYB 62.74 268 ePd 27 05.50 -1.0
KAF 64.20 333 eP 27 13.60 -1.8
WRA 64.55 193 P 27 17.50 -0.6
1.0s 9.80nm 4.7mb
NUR 65.92 333 eP 27 25.00 -1.5
GBA 66.05 266 P 27 27.00 -0.9
LRM 66.32 49 eP 27 29.80 0.2
e 27 54.70
KVN 67.30 57 eP 27 36.63 0.8
ASPA 68.27 193 eP 27 41.30 -0.4
0.8s 8.00nm 4.7mb
KIV 69.66 312 eP 27 50.70 0.5
0.6s 12.00nm 4.9mb
DUG 69.71 54 eP 27 51.04 0.4
0.6s 3.69nm 4.4mb
NAO 69.77 339 P 27 47.20 -3.3X
0.5s 2.20nm 4.2mb
SRU 71.76 53 eP 28 03.39 0.3
RSSD 71.91 46 eP 28 03.72 -0.2
0.7s 7.54nm 4.6mb
PV10 73.11 53 eP 28 11.73 0.6
GOL 74.27 50 eP 28 18.00 0.2
1.3s 5.73nm 4.2mb
ALQ 76.98 54 eP 28 34.29 1.2
1.0s 2.13nm 3.9mb
CLL 77.20 332 iP 28 33.30 -0.4
0.9s 17.00nm 4.9mb
PRU 77.79 331 P 28 37.50 0.5
KHC 78.85 331 eP 28 43.00 0.1
GEC2 79.05 331 eP 28 43.90 -0.1
0.5s 1.19nm 4.0mb
SOB1 144.79 14 (PKP) 36 16.00 -0.6
NVL 145.25 204 iPKPd 36 16.00 0.3
1.0s 35.00nm
S.D. = 0.9 on 47 of 50 obs.

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* DEC 22, 1993 02h 45m 07.76± 1.51s
4.414 S ±12.1km 123.487 E ±12.7km
DEPTH = 192.1 ± 16.4 km
4.8mb (11 obs.)
BANDA SEA (280)

PCI 5.04 314 ePd 46 24.70 1.5
MNI 5.97 13 ePd 46 20.50 -14.8X
eS 46 37.50
SWI 8.53 66 ePd 47 07.00 -1.8
TSM 10.31 327 eP 47 16.50 -15.6X
MTN 11.28 138 eP 47 37.30 -7.4X
0.5s 45.00nm 5.2mb
MBL 17.02 192 eP 48 49.00 -7.2X
e 50 55.00
ASPA 21.62 153 iPc 49 44.40 1.0
0.9s 55.80nm 5.1mb
WARB 21.86 172 eP 49 46.20 0.5
0.7s 20.00nm 4.7mb
IPM 24.15 291 ePd 50 05.90 -2.0
e 51 20.00
CHTO 33.42 314 eP 51 28.90 -1.5
CD2 39.86 333 eP 52 26.10 1.9
XAN 40.64 341 P 52 31.40 0.8
1.0s 16.00nm 4.5mb
TIY 43.15 347 eP 52 50.40 -0.7
Z 14s 0.48um 4.5MszX
BJI 44.74 352 eP 53 05.00 1.4
1.0s 6.00nm 4.0mb
LSA 45.95 320 P 53 14.00 0.1
1.2s 17.00nm 4.4mb
SNY 46.02 0 Pc 53 19.70 6.1X
GUN 48.44 314 P 53 32.30 -0.8
PKI 48.58 313 P 53 33.20 -1.0
0.8s 38.00nm 4.9mb
GTA 48.77 336 P 53 37.00 1.8
1.0s 12.00nm 4.3mb
KKN 48.80 313 P 53 35.10 -0.7
0.8s 37.00nm 4.9mb
DMN 48.83 313 P 53 35.30 -0.7
GBA 49.08 292 P 53 38.00 0.2
HYB 49.37 297 eP 53 39.50 -0.5
GKN 49.39 313 P 53 39.30 -0.9
WMQ 57.81 330 P 54 43.00 1.7
0.8s 16.00nm 4.8mb
Z 24s 0.57um 4.6MszX
YAK 66.41 3 eP 55 43.00 5.1X
0.8s 31.00nm 5.1mb
e 56 13.00
LPB 156.24 151 ePKP 05 08.00 26.2X
LPAZ 156.44 151 PKP 05 07.10 24.8X
S.D. = 1.3 on 20 of 28 obs.

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* DEC 22, 1993 02h 46m 06.18± 1.74s
0.306 N ±10.1km 125.981 E ±15.4km
DEPTH = 118.7 ± 20.9 km
4.5mb (3 obs.)
NORTHERN MOLUCCA SEA (266)

DAV 6.75 357 eP 47 44.50 0.3
KKM 11.29 301 eP 48 45.00 -0.3
QIS 24.65 148 eP 51 17.10 -0.3
ASPA 25.04 163 eP 51 20.40 -0.6
0.8s 55.20nm 5.1mb X
eS 55 43.10
WARB 26.34 179 eP 51 33.50 0.6
0.3s 4.00nm 4.5mb
LZH 41.11 332 eP 53 40.00 -0.2
1.2s 25.00nm 4.8mb
Z 20s 0.50um 4.4Msz
CAN 41.44 151 eP 53 43.80 1.1
DZM 45.27 122 iPc 54 13.10 -0.8
HYB 49.65 293 eP 54 53.50 5.5X
GBA 49.84 288 P 54 44.00 -5.4X
POO 54.26 293 eP 55 08.00 -14.5X
YKA 102.90 25 ePdiff59 52.00 0.3
0.8s 0.40nm 4.3mb
S.D. = 0.8 on 9 of 12 obs.

? DEC 22, 1993 04h 09m 55.17± 2.52s
24.414 N ±72.6km 94.361 E ±55.1km
DEPTH = 132.5 ± 18.0 km
4.6mb (5 obs.)
MYANMAR-INDIA BORDER REGION (294)

SHL 2.52 298 ePn 10 36.50 0.0
eSn 11 08.00
CHTO 7.02 142 iPc 11 36.70 0.0
1.0s 12.25nm 4.3mb
GUN 8.38 296 P 11 55.40 0.0
0.4s 13.00nm 4.9mb

PKI 8.65 293 P 11 58.80 -0.2
0.4s 5.00nm 4.5mb
KKN 8.83 294 P 12 01.40 0.1
DMN 8.91 293 P 12 02.60 0.1
GKN 9.43 294 P 12 09.30 0.0
0.4s 10.00nm 4.9mb
WRA 58.81 135 P 19 42.00 0.0
0.6s 0.50nm 3.7mb
S.D. = 0.1 on 8 of 8 obs.

? DEC 22, 1993 04h 29m 30.11± 2.71s
17.768 N ±15.0km 101.240 W ±25.0km
DEPTH = 60.0km (geophysicist)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 1.59 124 iP 29 56.52 0.1
iS 30 16.49
MRX 1.93 1 iP 30 00.99 0.0
iS 30 26.00
CRX 2.20 42 iP 30 06.03 0.8
iS 30 33.00
UNM 2.50 51 (P) 30 12.50 3.2X
(S) 30 45.00
PPM 2.80 62 iP 30 13.22 -0.6
(S) 30 42.94
OXX 4.37 98 iP 30 36.04 0.4
iS 31 25.45
S.D. = 0.8 on 5 of 6 obs.

DEC 22, 1993 05h 09m 41.35± 0.46s
51.927 N ± 9.8km 175.067 E ± 4.0km
DEPTH = 33.0km (normal)
5.0mb (29 obs.) 4.5Msz (2 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)
ML 5.0 (PMR).

SMY 1.00 324 eP 09 58.83 -0.2
eS 10 11.68
ADK 5.11 87 eP 10 59.77 2.2
eS 12 05.00
PET 10.08 283 eP 12 20.00 13.2X
Z 16s 0.80um
ANM 16.22 31 eP 13 32.20 4.2X
SVW 18.45 49 eP 13 57.34 1.5
1.1s 18.30nm 4.2mb
TTA 18.88 43 eP 14 01.76 0.6
1.2s 35.14nm 4.5mb
KDC 19.44 60 eP 14 05.25 -2.3X
0.7s 13.45nm 4.3mb
CRP 20.11 50 eP 14 15.36 0.4
SLKM 20.90 52 eP 14 22.54 -0.4
IMA 21.12 36 eP 14 25.20 0.0
1.2s 31.28nm 4.6mb
PMS 21.34 50 eP 14 27.70 0.3
0.6s 13.20nm 4.5mb
PMR 21.60 49 eP 14 29.07 -0.9
FBA 22.96 41 eP 14 44.32 0.9
0.6s 11.92nm 4.6mb
TOA 23.07 49 eP 14 45.80 1.2
KLU 23.11 50 eP 14 43.33 -1.6
BRW 23.18 23 eP 14 45.19 -0.2
BALM 24.79 52 eP 15 01.53 0.2
YAK 26.15 310 iPc 15 15.10 1.2
0.9s 102.00nm 5.4mb
Z 15s 0.80um 4.4MszX
E 15s 0.60um
i 15 26.00
eS 19 45.00
TIK 28.29 331 eP 15 32.00 -1.2
1.0s 12.00nm 4.5mb
Z 16s 1.00um 4.5MszX
i 15 42.00
BOD 34.45 304 iPc 16 27.10 -0.4
0.7s 35.00nm 5.4mb
CIT 36.87 295 eP 16 48.50 0.4
DHH 37.14 135 (P) 16 44.27 -6.3X
YKA 37.61 46 eP 16 54.00 -0.1
0.8s 3.70nm 4.3mb
RMW 39.94 71 (P) 17 13.40 -0.5
BJI 41.52 277 eP 17 26.00 -0.8
2.0s 38.00nm 4.8mb
Z 24s 0.64um 4.4MszX
NEW 42.23 67 eP 17 32.79 0.1
ZAK 43.35 298 iPc 17 41.50 -0.1
1.6s 28.00nm 4.8mb
Z 20s 0.56um 4.5Msz
N 20s 0.65um
E 20s 0.54um
GSC 50.18 81 eP 18 35.72 0.0
MSU 50.88 75 (P) 18 40.28 -0.9
PLM 51.45 83 eP 18 45.43 -0.1
LZH 51.54 282 iPc 18 46.50 0.3
1.5s 50.00nm 5.3mb
Z 20s 0.40um 4.4Msz
. pP 18 57.00 36kmX
GDH 54.01 19 iPd 19 03.00 -0.8
0.7s 13.70nm 5.1mb
GOL 54.12 69 eP 19 06.00 0.6
0.7s 2.79nm 4.4mb
ALQ 56.68 74 eP 19 24.00 0.1
1.3s 1.68nm 3.9mb X
WMOK 61.34 69 eP 19 55.15 -0.9
1.0s 7.34nm 4.8mb
LTX 62.30 77 eP 20 01.70 -0.9
FRU 63.30 306 iPc 20 08.40 -0.6
2.2s 90.00nm 5.5mb
e 20 20.00
e 20 46.80
KAF 63.64 344 iP 20 09.80 -1.0
0.4s 8.30nm 5.2mb
ELC 64.88 61 (P) 20 16.81 -2.5
NUR 65.43 344 iP 20 21.40 -1.0
0.7s 13.30nm 5.1mb
NAO 66.89 352 P 20 30.80 -1.0
0.6s 5.90nm 4.9mb
OBN 67.91 336 eP 20 38.00 -0.2
1.2s 40.00nm 5.4mb
e 20 49.00
GUN 68.08 287 P 20 40.10 -0.1
LBNH 68.16 45 (P) 20 38.86 -1.2
KKN 68.52 288 P 20 42.80 0.1
0.8s 51.00nm 5.7mb
PKI 68.61 288 P 20 43.20 -0.2
0.8s 48.00nm 5.6mb
GKN 68.74 288 P 20 43.80 -0.2
0.8s 38.00nm 5.5mb
DMN 68.76 288 P 20 44.20 -0.1
0.8s 38.00nm 5.5mb
JSC 71.40 58 eP 20 59.36 -0.5
EKA 73.10 359 P 21 11.00 1.4
0.6s 4.50nm 4.6mb
KIV 76.02 327 eP 21 27.70 1.0
1.0s 39.00nm 5.4mb
Z 14s 0.20um 4.6MszX
SPC 77.00 343 eP 21 33.10 0.8
MTA 77.25 324 iPc 21 35.00 1.5
0.8s 40.00nm 5.5mb
KHC 78.09 348 eP 21 38.50 0.4
GEC2 78.36 348 ePKP 21 40.00 0.4
1.7s 9.13nm 4.5mb
e 21 48.70
e 21 54.60
ZST 78.49 345 eP 21 41.30 1.1
GBA 84.06 284 P 22 12.00 2.1
S.D. = 0.9 on 53 of 57 obs.

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* DEC 22, 1993 05h 51m 29.94± 1.33s
42.904 N ±15.2km 17.215 E ±12.1km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)
ML 2.5 (TTG).

BRY 0.98 90 iPgc 51 47.45 -1.1
iSg 52 01.25
HCY 1.05 115 iPgd 51 48.90 -0.8
iSg 52 03.73
NKY 1.31 93 iPgc 51 53.52 -0.8
iSg 52 12.23
BDV 1.34 117 iPgc 51 54.13 -0.5
iSg 52 13.31
TTG 1.58 107 iPgd 51 58.39 0.4
iSg 52 21.39
PLE 1.65 74 iPnc 51 59.95 0.8
iSn 52 23.30
ULC 1.78 121 iPnc 52 01.83 0.9
iSn 52 26.58
IVA 1.97 90 iPnd 52 04.58 0.8
iSn 52 31.28
PVY 2.05 98 iPnc 52 05.81 0.8
iSn 52 33.01
VBY 2.96 332 ePn 52 20.50 2.7X
iSn 52 58.80
TRI 3.74 320 e(Pn) 52 35.60 6.7X
e 52 38.70
e(Sn) 53 12.10
i(Sg) 53 27.40
VOY 3.93 324 ePn 52 31.20 -0.5
eSn 53 18.30
e 53 39.20
S.D. = 0.9 on 10 of 12 obs.

? DEC 22, 1993 06h 38m 46.02± 1.28s
18.292 S ±21.1km 178.388 W ±18.9km
DEPTH = 544.4 ± 13.6 km
4.5mb (7 obs.)
FIJI ISLANDS REGION (181)

SVA 3.00 273 eP 40 01.20 0.0
DZM 14.73 253 iPd 41 52.20 -0.5
ARMA 29.77 240 eP 44 11.10 0.7
0.6s 9.00nm 4.6mb
WRA 44.58 260 P 46 11.90 0.4
0.7s 1.30nm 3.6mb
ASPA 44.71 255 iPd 46 12.70 0.2
0.7s 17.50nm 4.7mb
i 46 16.60
iPcP 47 43.80
iS 52 10.50
ADK 69.89 1 (P) 49 02.07 -1.5
BONR 79.43 44 eP 49 58.31 1.0
SVW 81.21 11 (P) 50 05.18 -0.6
RMW 82.77 35 eP 50 14.81 0.9
TTA 82.84 10 ePc 50 14.18 0.2
0.8s 5.61nm 4.1mb
MSU 83.85 46 eP 50 20.66 0.9
SRU 85.27 46 eP 50 27.34 0.8
PV10 85.96 48 eP 50 28.97 -1.0
FBA 86.18 13 eP 50 28.88 -1.2
0.6s 8.44nm 4.6mb
LTX 86.18 58 ePc 50 31.57 0.5
SYO 88.81 193 ePc 50 41.90 -0.7
RSSD 91.83 44 eP 50 57.03 0.0
0.7s 3.17nm 4.5mb
YKA 94.67 25 eP 51 08.30 -1.1
0.6s 1.80nm 4.4mb
LSCT 113.13 52 (PKP) 56 21.01 -2.2X
KSP 145.48 344 iPKPc 57 25.00 1.7
CLL 145.84 347 iPKP 57 26.10 2.3
0.8s 19.00nm
BRG 146.04 346 iPKP 57 26.90 2.7X
1.2s 17.00nm
PRU 146.72 345 PKPd 57 28.50 3.2X
GRF 147.73 348 ePKP 57 31.70 4.7X
KHC 147.75 345 ePKP 57 31.50 4.5X
1.0s 7.00nm
GEC2 147.99 345 ePKPc 57 31.80 4.3X
0.7s 4.81nm
LIC 166.37 151 PKP 57 49.30 -1.0
KIC 166.62 152 PKP 57 50.40 -0.1
TIC 166.74 150 PKP 57 48.60 -2.0
S.D. = 1.1 on 23 of 29 obs.

& DEC 22, 1993 07h 05m 07.10s
61.300 N 146.953 W
DEPTH = 19.3km
SOUTHERN ALASKA (2)
<AEIC>. ML 3.6 (AEIC), 3.5
(PMR).

VZW 0.31 141 eP 05 13.88 -0.1
VLZ 0.34 119 ePd 05 14.09 -0.4
eS 05 20.19
CFI 0.41 254 iPc 05 15.57 0.0
KLU 0.53 68 ePd 05 16.74 -1.0
eS 05 25.24
SCM 0.56 342 iPd 05 17.52 -0.7
KNK 0.73 280 iPc 05 20.25 -0.8
eS 05 30.80
PWL 0.80 237 iPc 05 20.87 -1.4
eS 05 32.32
SML 0.83 308 iPc 05 21.41 -1.4
eS 05 33.61
TOA 0.89 24 P 05 22.70 -1.1
HIN 0.93 166 iPc 05 23.09 -1.4
eS 05 36.66
CVA 0.96 142 iPc 05 23.33 -1.5
eS 05 37.86
TZL 1.04 44 iPc 05 25.13 -1.2
GHO 1.06 298 iPc 05 24.87 -1.8
eS 05 39.89
PLRM 1.09 287 iPc 05 25.25 -1.8

22d 07h

eS 05 39.96
PMR 1.09 287 iPc 05 24.93 -2.1
PTE 1.10 247 eP 05 25.65 -1.6
PMS 1.26 269 P 05 28.20 -1.5
MTU 1.36 195 eP 05 29.27 -1.8
MPA 1.43 236 ePc 05 30.30 -1.7
eS 05 48.87
RAGM 1.44 128 eP 05 30.06 -2.2
PWA 1.45 285 P 05 30.80 -1.5
GLB 1.52 83 iPc 05 31.21 -2.2
eS 05 50.94
HMT 1.64 125 eP 05 32.39 -2.7
eS 05 53.31
SEW 1.72 227 eP 05 34.15 -2.0
eS 05 55.49
SLKM 1.78 245 iPc 05 35.45 -1.8
eS 05 58.92
DHY 1.79 354 eP 05 35.90 -1.6
eS 05 59.19
PAX 1.82 22 eP 05 36.22 -1.5
SUA 1.83 277 iPc 05 36.31 -1.7
KAIM 1.86 137 eP 05 35.99 -2.3
MID 1.90 171 eP 05 40.60 1.7
CUT 1.92 307 eP 05 38.22 -1.0
TGL 2.08 103 eP 05 38.81 -2.8
HUR 2.10 324 eP 05 41.03 -0.8
eS 06 07.25
NKA 2.16 257 eP 05 42.36 -0.3
BALM 2.25 95 ePc 05 41.32 -2.7
eS 06 09.16
SKT 2.29 289 eP 05 42.42 -2.1
eS 06 11.07
RND 2.29 338 eP 05 43.35 -1.2
SNH 2.31 117 eP 05 42.97 -1.9
eS 06 10.96
CGLM 2.44 272 eP 05 44.72 -1.9
SPU 2.47 269 eP 05 44.76 -2.3
BRLK 2.48 233 eP 05 44.93 -2.3
eS 06 13.94
NCG 2.51 275 eP 05 45.46 -2.3
CRP 2.51 272 eP 05 43.57 -4.2
CYK 2.51 117 eP 05 46.24 -1.4
CKT 2.54 270 eP 05 45.58 -2.6
DDM 2.55 11 eP 05 47.52 -0.7
BKG 2.58 267 eP 05 46.23 -2.5
eS 06 18.45
CKL 2.60 270 eP 05 46.84 -2.3
MCK 2.61 340 eP 05 48.02 -1.1
BGL 2.63 272 eP 05 47.20 -2.2
DOT 2.71 28 eP 05 50.59 0.0
YAH 2.72 108 eP 05 47.96 -2.8
CTGM 2.75 95 eP 05 48.57 -2.6
CNPM 2.77 232 eP 05 48.64 -2.7
DJE 2.80 12 eP 05 50.14 -1.6
HOM 2.85 237 eP 05 50.34 -2.0
DFR 2.89 258 ePc 05 50.12 -2.9
KTH 2.92 323 eP 05 52.16 -1.3
REF 2.92 256 eP 05 50.91 -2.7
RSO 2.96 256 eP 05 51.69 -2.4
RS2 2.96 256 eP 05 51.47 -2.7
RDW 2.98 257 eP 05 51.62 -2.8
RED 2.98 255 ePc 05 51.59 -2.7
eS 06 26.81
BC3 3.00 52 eP 05 52.66 -1.9
NCT 3.01 258 eP 05 52.00 -2.8
eS 06 28.14
BWN 3.11 339 eP 05 54.02 -2.0
HDA 3.12 360 eP 05 54.23 -2.0
ILIM 3.20 250 eP 05 54.36 -3.1
WRH 3.23 351 eP 05 56.22 -1.6
INE 3.25 250 eP 05 55.10 -3.2
INW 3.28 251 eP 05 55.56 -3.1
CCB 3.38 354 eP 05 57.56 -2.4
NEA 3.43 344 eP 05 58.47 -2.2
ILB 3.49 0 eP 05 58.62 -2.8
IL1 3.49 0 eP 05 58.57 -2.9
OPT 3.52 245 eP 05 58.91 -3.1
FBA 3.63 354 eP 06 00.80 -2.8
GLM 3.71 357 eP 06 01.98 -2.7
MDM 3.72 352 eP 06 02.45 -2.4
AUE 3.74 241 eP 06 02.56 -2.5
AUP 3.76 242 eP 06 01.52 -3.9
AUH 3.77 242 eP 06 03.02 -2.5
AUW 3.77 242 eP 06 03.17 -2.4
PDB 3.88 250 eP 06 03.84 -3.2
CDD 4.11 238 eP 06 07.65 -2.6
MLY 4.12 337 eP 06 07.82 -2.7

SVW 4.20 271 eP 06 06.67 -5.0
PRP 4.28 8 eP 06 10.13 -2.8
KDC 4.54 221 eP 06 12.33 -4.1
TTA 4.56 295 eP 06 11.94 -4.8
IM3 5.59 330 eP 06 27.74 -3.5
IMA 5.64 331 eP 06 28.00 -4.1
BM3 6.23 8 eP 06 36.45 -3.8
93 obs. associated

? DEC 22, 1993 08h 13m 48.98± 1.11s
34.202 S ±23.1km 111.055 W ±16.6km
DEPTH = 10.0km (geophysicist)
4.6mb (5 obs.)
SOUTHERN EAST PACIFIC RISE (684)

MOCB 41.90 84 P 21 40.80 -1.0
LPB 42.26 76 P 21 46.00 1.2
LR 34 06.00
LPAZ 42.37 76 iPc 21 45.60 -0.3
S 28 22.70
LR 32 51.00
LTX 63.58 7 eP 24 21.76 -0.3
ALQ 68.92 4 eP 24 55.79 -0.4
0.8s 1.40nm 4.2mb
GSC 69.35 355 eP 24 58.34 -0.4
ARUT 71.66 358 eP 25 13.55 0.8
BONR 72.11 354 eP 25 15.72 0.1
TNP 72.15 355 eP 25 15.89 0.1
0.9s 7.66nm 4.8mb
MSU 72.36 359 eP 25 17.16 0.2
KVN 73.18 354 eP 25 23.13 1.4
GOL 73.72 5 eP 25 24.60 -0.4
0.8s 3.87nm 4.5mb
DAU 74.24 360 eP 25 28.51 0.4
RSSD 78.21 5 eP 25 49.62 -0.6
0.8s 9.28nm 4.9mb
LRM 79.66 359 eP 25 58.90 0.8
NEW 82.27 356 eP 26 11.00 -0.6
YKA 96.40 358 eP 27 16.60 -2.0
1.0s 1.20nm 4.4mb
CHTO 149.23 248 ePKP 33 34.90 -0.5
OBN 149.35 37 ePKP 33 36.00 1.5
0.9s 40.00nm
e 33 49.00
LZH 151.49 284 ePKP 33 40.50 2.0X
1.2s 25.00nm
pP 33 47.00
S.D. = 0.9 on 19 of 20 obs.

DEC 22, 1993 09h 18m 52.80± 0.47s
49.156 N ± 3.7km 6.915 E ± 7.8km
DEPTH = 5.0km (geophysicist)
GERMANY (543)
ML 2.8 (STR), 2.4 (UCC).

RUP 0.55 10 ePg 19 03.80 -0.1
WLF 0.71 316 iPd 19 06.43 -0.6
iS 19 16.34
CDF 0.78 162 Pg 19 08.39 -0.1
Sg 19 19.45
WLS 0.80 159 Pg 19 08.64 -0.2
ABH 0.83 29 ePg 19 08.80 -0.6
ECH 0.95 170 Pg 19 10.69 -0.8
Sg 19 23.70
MOF 1.31 174 Pg 19 17.70 0.1
Sg 19 35.68
BSF 1.33 184 Pg 19 17.87 0.0
Sg 19 36.32
FEL 1.47 150 Pg 19 21.27 1.1
ENN 1.74 339 ePg 19 25.00 1.3
0.5s 11.10nm
eSg 19 48.00
DOU 1.78 303 iP 19 24.40 0.0
i 19 28.00
iS 19 46.20
S.D. = 0.7 on 11 of 11 obs.

& DEC 22, 1993 09h 19m 08.05s
62.119 N 149.751 W
DEPTH = 47.0km
CENTRAL ALASKA (1)
<AEIC>. ML 3.7 (AEIC), 3.6
(PMR). Felt (II) at Talkeetna.

CUT 0.38 320 eP 19 17.49 -0.2
PWA 0.47 187 P 19 18.70 -0.1
GHO 0.52 131 eP 19 19.14 -0.4

eS 19 28.55
PLRM 0.61 151 ePc 19 19.63 -0.9
eS 19 30.08
PMR 0.61 151 iPc 19 19.42 -1.1
SML 0.74 114 iPc 19 21.29 -1.1
eS 19 33.41
SUA 0.81 216 iPd 19 23.25 -0.1
eS 19 35.65
SKT 0.85 261 iPc 19 23.06 -0.8
eS 19 35.33
HUR 0.86 3 iPc 19 23.28 -0.8
eS 19 35.42
PMS 0.88 174 P 19 23.70 -0.6
KNK 0.94 138 ePc 19 24.36 -0.7
eS 19 37.83
SCM 1.18 103 iPc 19 27.49 -1.0
eS 19 43.89
PTE 1.31 164 eP 19 29.78 -0.4
CFI 1.33 134 iPc 19 29.97 -0.6
CGLM 1.35 234 eP 19 30.29 -0.6
NCG 1.35 239 eP 19 30.12 -0.8
RND 1.36 17 ePc 19 29.80 -1.2
CRP 1.43 234 eP 19 30.74 -1.4
PWL 1.44 151 iPc 19 30.97 -1.1
eS 19 50.05
SPU 1.45 230 eP 19 31.68 -0.6
eS 19 50.73
DHY 1.46 48 eP 19 31.09 -1.4
CP2 1.46 235 eP 19 31.69 -0.9
CKN 1.47 233 eP 19 32.42 -0.1
CKT 1.49 233 eP 19 32.50 -0.4
BGL 1.52 237 eP 19 32.98 -0.4
CKL 1.54 234 eP 19 33.25 -0.4
NKA 1.55 208 eP 19 35.30 1.6
BKG 1.60 230 eP 19 33.99 -0.4
SLKM 1.63 188 eP 19 33.61 -1.2
MPA 1.65 173 ePc 19 33.59 -1.4
MCK 1.66 13 eP 19 34.30 -0.9
TOA 1.68 89 P 19 35.20 -0.4
VZW 1.86 123 ePc 19 36.68 -1.4
eS 20 00.82
VLZ 1.91 120 iPc 19 36.99 -1.7
KLU 1.92 107 iPc 19 37.57 -1.4
eS 20 02.24
SEW 2.03 176 eP 19 40.47 0.1
TZL 2.04 90 eP 19 39.94 -0.6
BWN 2.06 3 eP 19 39.80 -1.1
DFR 2.09 224 eP 19 40.86 -0.4
FID 2.09 130 eP 19 39.55 -1.7
PAX 2.16 65 eP 19 41.50 -0.9
REF 2.17 222 eP 19 42.14 -0.4
NCT 2.19 226 eP 19 42.99 0.2
RS2 2.21 222 eP 19 42.17 -0.9
RDW 2.21 223 eP 19 42.83 -0.3
THY 2.25 53 eP 19 43.74 0.1
HIN 2.33 136 eP 19 42.94 -1.8
MTU 2.37 154 eP 19 43.02 -2.2
DDM 2.44 45 eP 19 47.10 0.8
WRH 2.48 17 eP 19 44.75 -2.0
NEA 2.49 7 eP 19 44.94 -2.0
CVA 2.49 128 eP 19 45.13 -1.8
ILIM 2.57 219 eP 19 47.83 -0.4
eS 20 18.47
INE 2.62 219 eP 19 48.46 -0.5
eS 20 19.39
HDA 2.62 28 eP 19 47.21 -1.7
INW 2.63 220 eP 19 48.80 -0.4
HOM 2.64 201 eP 19 51.42 2.3
DJE 2.67 42 eP 19 49.27 -0.3
CCB 2.68 18 eP 19 47.65 -2.1
CNPM 2.70 196 eP 19 50.04 0.0
GLB 2.90 101 ePc 19 50.73 -2.2
FBA 2.93 17 ePc 19 50.97 -2.2
MDM 2.93 13 ePc 19 51.46 -1.9
ILB 2.96 25 eP 19 51.61 -2.0
MLY 2.96 352 ePc 19 51.57 -2.1
IL1 2.96 25 ePc 19 51.58 -2.1
SVW 2.98 253 eP 19 51.95 -2.1
OPT 3.00 216 eP 19 55.27 1.0
RAGM 3.01 123 eP 19 52.57 -1.8
TTA 3.01 288 eP 19 51.96 -2.6
DOT 3.02 57 eP 19 54.63 0.0
GLM 3.07 19 eP 19 53.15 -2.1
MID 3.18 147 P 19 57.50 0.8
PDB 3.19 225 eP 19 55.13 -1.7
HMT 3.20 122 eP 19 54.43 -2.7
AUL 3.29 215 eP 19 59.87 1.6

AUE 3.29 214 eP 19 58.55 0.3
AUH 3.31 215 eP 19 59.38 0.8
AUW 3.31 215 eP 19 59.03 0.5
TMW 3.34 66 eP 19 59.71 0.7
CRQM 3.46 110 eP 19 58.85 -2.0
TGL 3.59 109 eP 19 59.84 -2.9
BALM 3.70 104 ePc 20 01.38 -3.0
CDD 3.73 213 eP 20 03.96 -0.7
BC3 3.80 72 eP 20 03.51 -2.2
SNH 3.87 117 eP 20 05.04 -1.6
PRP 3.89 27 eP 20 04.85 -2.2
CTGM 4.19 102 eP 20 08.48 -2.8
YAH 4.25 111 eP 20 09.45 -2.7
IM3 4.26 337 eP 20 09.42 -2.6
IMA 4.32 338 ePc 20 10.22 -2.8
KDC 4.60 199 eP 20 13.13 -3.6
FYU 4.88 22 eP 20 18.21 -2.4
BM3 5.76 20 eP 20 29.93 -3.2
ANM 7.44 296 eP 20 53.54 -3.1
SIT 8.89 118 eP 21 11.37 -5.3
YKA 16.22 73 eP 22 51.90 -2.0
0.6s 0.60nm 2.9mb
97 obs. associated

DEC 22, 1993 09h 48m 24.64± 0.52s
40.469 N ± 5.1km 21.890 E ± 4.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.1 (THE).

FNA 0.50 309 ePg 48 34.76 -0.1
iSg 48 42.32
LIT 0.59 129 ePg 48 36.28 -0.3
eSg 48 44.90
GRG 0.62 38 ePg 48 37.14 -0.1
eSg 48 45.50
VAY 0.99 31 ePn 48 44.40 0.9
OHR 1.05 308 ePn 48 44.00 -0.4
SOH 1.17 72 iPg 48 45.96 -0.5
PAIG 1.47 111 ePb 48 51.00 -0.2
AGG 1.48 167 ePb 48 51.96 0.6
IGT 1.52 232 ePb 48 52.00 0.1
SKO 1.54 347 ePn 49 03.00 10.9X
S.D. = 0.5 on 9 of 10 obs.

? DEC 22, 1993 10h 03m 15.71± 2.80s
38.683 N ±22.6km 22.445 E ±12.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.2 (THE).

AGG 0.35 345 iPg 03 22.92 0.0
eSg 03 28.52
LIT 1.42 1 ePb 03 41.56 0.0
eSb 04 01.48
PAIG 1.57 37 ePb 03 43.60 0.0
IGT 1.85 298 ePb 03 47.73 0.0
S.D. = 0.1 on 4 of 4 obs.

DEC 22, 1993 10h 35m 17.45± 0.19s
4.938 S ± 3.6km 132.083 E ± 4.2km
DEPTH = 33.0km (normal)
5.4mb (26 obs.)
IRIAN JAYA REGION, INDONESIA (196)
Mw 5.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 23S, 29C
Centroid Location:
Origin Time 10:35:24.3 0.6
Lat 4.92S 0.04 Lon 132.10E 0.06
Dep 65.3 4.4 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr= 6.52 0.57 Mtt=-5.88 0.61
Mff=-0.63 1.08 Mrt= 2.17 0.65
Mrf= 4.08 0.82 Mtf=-0.36 0.56
Principal Axes:
T Val= 8.60 Plg=65 Azm=288
N -2.12 20 72
P -6.48 13 167
Best Double Couple:Mo=7.5*10**16
NP1:Strike=282 Dip=36 Slip= 126
NP2: 60 61 67

SWI 4.13 348 ePd 36 20.50 0.7
iS 37 04.50
MTN 7.91 187 eP 37 13.00 -0.2
MNI 9.62 311 eP 37 37.00 0.3
WWKK 11.58 84 eP 38 02.50 -1.1
MNDI 11.58 97 e(P) 38 06.00 2.2
DAV 13.60 331 eP 38 34.60 4.1X
WRA 15.07 172 P 38 45.79 -4.0X
1.3s 53.20nm 4.7mb
PMG 15.60 107 eP 38 57.00 0.4
QIS 17.16 155 eP 39 15.20 -1.3
eS 42 13.10
ASPA 18.70 175 iPc 39 33.60 -2.0
0.5s 298.60nm 5.7mb
Z 21s 2.00um 3.9MszX
eS 42 50.60
KKM 19.24 304 ePc 39 49.00 6.9X
1.2s 285.30nm 5.4mb
MBL 20.04 215 iPc 39 50.50 -0.1
eS 43 22.00
WARB 21.76 193 iPd 40 09.40 1.1
0.4s 48.00nm 5.3mb
NANU 23.73 221 eP 40 25.20 -2.4X
eS 44 51.50
BAG 24.07 332 ePc 40 31.00 -0.2
1.0s 96.00nm 5.3mb
TPI 24.47 274 ePd 40 37.00 2.1
e 42 00.00
COOL 27.79 200 eP 41 05.50 -0.1
eS 46 21.00
MRWA 28.55 210 eP 41 12.00 -0.4
eS 46 37.50
BAL 29.36 208 eP 41 19.80 0.1
eS 46 58.00
KGM 29.56 283 ePd 41 22.50 0.8
KLB 29.73 205 eP 41 23.00 0.0
eS 47 07.50
ADE 30.50 169 eP 41 30.60 0.7
MUN 30.74 207 eP 41 31.50 -0.4
e 42 13.50
eS 47 31.00
ARMA 31.33 146 iPc 41 37.20 -0.1
0.8s 36.00nm 5.3mb
IPM 32.43 286 ePc 41 46.80 -0.2
1.0s 173.10nm 5.9mb
RKG 32.63 203 eP 41 50.00 1.6
0.5s 8.00nm 4.9mb
CAN 34.03 155 iPc 42 01.30 0.6
TOO 34.71 161 eP 42 07.00 0.5
0.7s 22.00nm 5.2mb
LOE 37.30 307 iPc 42 22.00 -6.6X
SSE 37.31 344 Pc 42 29.50 1.1
1.0s 23.00nm 5.0mb
Z 32s 1.20um 4.5MszX
DZM 37.36 120 iPc 42 29.10 0.0
NST 37.68 303 eP 42 33.00 1.2
BDT 39.41 305 eP 42 47.00 0.8
1.0s 96.60nm 5.5mb
CHTO 40.28 307 iPc 42 53.90 0.4
1.1s 107.48nm 5.5mb
KMI 41.31 318 Pc 43 02.00 0.0
1.4s 210.00nm 5.7mb
pP 43 15.50 51kmX
sP 43 20.50
BJI 47.09 343 Pc 43 48.50 0.4
1.2s 49.00nm 5.4mb
Z 24s 0.64um 4.5MszX
eS 50 32.00
eSS 53 40.00
LZH 48.63 329 iPc 44 01.00 0.6
1.8s 133.00nm 5.7mb
Z 30s 0.48um 4.3MszX
sP 44 27.50
ePP 45 26.00
SHL 49.41 310 iP 44 06.00 -0.6
1.0s 102.50nm 5.8mb
eS 51 07.00
GUN 55.22 309 P 44 49.70 -0.6
PKI 55.42 308 P 44 50.60 -1.1
KKN 55.63 309 P 44 52.00 -1.1
DMN 55.68 308 P 44 53.00 -0.5
GKN 56.23 308 P 44 56.60 -0.7
KOD 56.44 286 eP 44 59.00 -0.2
GBA 57.28 290 P 45 03.90 -0.8
0.8s 10.50nm 4.9mb
HYB 57.32 294 eP 44 58.20 -6.8X
1.0s 120.00nm 5.9mb
i 45 03.90
POO 61.92 294 iP 45 35.50 -1.3
NDI 62.42 306 iPc 45 37.80 -2.1
0.4s 33.90nm 5.8mb
YAK 66.79 359 iPc 46 07.50 0.0
0.8s 162.00nm 6.2mb
QUE 71.34 304 eP 46 37.50 0.9
MAIO 79.02 308 iPc 47 20.60 0.4
0.8s 10.98nm 4.9mb
TTA 86.24 26 eP 47 56.99 0.1
1.2s 26.47nm 5.3mb
SYO 86.35 201 ePc 47 57.40 0.2
CP2 87.46 28 eP 48 02.49 -0.5
CRP 87.50 28 eP 48 02.27 -0.8
IMA 88.15 23 eP 48 07.00 0.9
0.8s 2.76nm 4.6mb
SLKM 88.24 29 eP 48 05.58 -0.9
PMR 88.99 28 eP 48 10.02 0.0
1.3s 43.45nm 5.6mb
FBA 90.25 25 eP 48 15.19 -0.7
1.5s 9.46nm 4.9mb
YKA 105.00 26 ePdiff49 21.30 -1.4
1.0s 0.70nm 4.5mb
GEC2 112.15 321 ePKP 53 50.60 -0.9
1.0s 1.92nm
MSU 113.11 50 ePKP 53 53.72 -0.1
PV10 115.53 50 ePKP 53 59.04 0.4
RSSD 117.34 42 ePKP 54 00.89 -0.9
GOL 117.90 47 ePKP 54 03.70 0.7
LTX 122.09 58 ePKP 54 10.92 -0.2
TUL 126.33 48 iPKPd 54 19.80 0.8
UYO 128.03 50 iPKPc 54 22.80 0.5
MIAR 128.54 49 ePKP 54 23.83 0.6
FVM 129.26 44 ePKP 54 24.17 -0.3
KIC 137.02 274 PKP 54 25.89 -14.1X
1.2s 31.00nm
TIC 137.30 274 PKP 54 26.25 -14.2X
0.4s 1.00nm
LIC 137.30 274 PKP 54 26.31 -14.2X
LKO 137.78 279 PKP 54 30.41 -11.0X
0.5s 1.00nm
MBO 148.11 289 iPKPd 55 03.80 4.8X
ARE 148.45 133 ePKP 55 05.00 5.0X
RSTA 150.57 178 ePKP 55 09.00 6.3X
e 55 17.70
LPB 150.79 137 ePKP 55 03.00 -0.7
i 55 11.80
LPAZ 150.94 137 iPKPc 55 05.70 1.5
LR 47 15.00
S.D. = 0.9 on 66 of 79 obs.

? DEC 22, 1993 11h 20m 28.42± 0.93s
59.685 N ± 6.5km 5.414 E ±11.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.5 (BER).

KMY 0.48 190 eP 20 38.20 0.0
BLS5 0.59 116 eP 20 47.82 7.4X
eS 20 55.48
EGD 0.60 351 eP 20 40.40 0.0
eS 20 48.12
ODD1 0.65 69 eP 20 41.51 0.0
eS 20 49.22
ASK 0.81 352 eP 20 44.12 0.0
eS 20 54.69
S.D. = 0.1 on 4 of 5 obs.

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* DEC 22, 1993 12h 24m 05.42± 0.71s
14.746 S ±27.9km 177.959 W ±16.8km
DEPTH = 386.6 ± 10.4 km
4.5mb (4 obs.)
FIJI ISLANDS REGION (181)

MBU 3.89 235 eP 25 16.30 0.2
SVA 4.80 225 ePd 25 24.80 -0.4
DZM 16.49 241 iPc 27 37.10 0.7
WRA 45.71 256 P 31 51.29 -0.3
ASPA 46.14 251 iPd 31 54.80 -0.1
0.5s 64.50nm 5.2mb
i 31 56.30
BONR 76.62 45 eP 35 16.48 0.0
GMW 79.15 34 eP 35 29.84 0.3
RMW 79.64 35 eP 35 32.39 0.2
MSU 81.11 46 eP 35 41.07 0.8
SRU 82.53 46 eP 35 47.39 -0.1
IMA 82.60 10 eP 35 47.43 0.3
0.8s 3.71nm 4.2mb
FBA 82.64 12 ePd 35 46.75 -0.5
0.6s 12.50nm 4.8mb

22d 12h

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PV09    83.26  47 eP      35 51.58   0.3
PV10    83.27  48 eP      35 51.49   0.2
PV08    83.64  48 eP      35 53.56   0.4
LTX     83.95  58 eP      35 53.63  -1.0
YKA     91.29  25 eP      36 27.90  -0.7
        0.5s     0.60nm           3.8mb
GRF    144.35 350 ePKP    42 57.60   0.1
KHC    144.43 347 ePKP    42 57.60  -0.1
        1.0s    10.50nm
GEC2   144.67 347 ePKPd   42 57.90  -0.3
        0.7s     3.01nm
                 e        43 01.60
    S.D. = 0.5  on  20 of  20 obs.
---------------------------------------
* DEC  22, 1993  12h 33m 29.26± 0.93s
   5.641 S ±16.7km  151.026 E ±12.5km
   DEPTH = 108.0 ± 13.6 km
   5.0mb (  3 obs.)
 NEW BRITAIN REGION, P.N.G.      (192)

RAB      1.83  38 iPc     34 00.50   0.0
        0.5s  2563.38nm
LAT      4.13 256 eP      34 39.50   8.2X
PMG      5.36 225 iPc     34 47.90  -0.3
                 eS       35 40.00
QIS     18.52 216 iPd     37 43.20   3.1X
MTN     20.89 249 iPd     38 05.90   1.2
        0.4s    33.00nm           5.0mb
DZM     22.12 139 iPc     38 17.10   0.1
ASPA    24.35 221 iPc     38 39.80   1.2
        0.6s    47.60nm           5.1mb
                 i        39 23.40
                 eS       42 55.80
WARB    30.98 226 eP      39 39.00   0.5
MBL     33.93 240 eP      40 03.20  -1.1
COOL    37.65 225 eP      40 35.20  -0.4
KLB     40.45 226 eP      40 57.50  -1.2
MRWA    40.55 231 eP      40 59.50  -0.1
MUN     41.77 227 eP      41 09.20  -0.4
RKG     42.62 223 eP      41 17.00   0.5
        0.6s     8.00nm           4.7mb
    S.D. = 0.9  on  12 of  14 obs.
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* DEC  22, 1993  12h 53m 42.64± 1.31s
  36.262 N ± 8.6km    4.535 W ±10.5km
  DEPTH = 110.4 ± 19.3 km
 STRAIT OF GIBRALTAR             (385)

EMAL     0.51  10 eP      53 59.31  -0.5
EJIF     0.78 284 eP      54 02.42   0.5
                 e        54 14.00
EPRU     0.90 322 iPd     54 03.50   0.3
                 e        54 14.40
EGUA     0.97  54 eP      54 03.02  -0.8
                 e        54 15.00
ECOG     1.28  37 eP      54 08.39   1.1
                 e        54 20.70
EHOR     1.66 340 iPc     54 11.15  -0.6
                 e        54 30.20
EBAN     1.99  17 iPc     54 15.81  -0.2
                 e        54 38.00
EHUE     2.19  45 eP      54 19.39   0.6
                 e        54 44.60
IFR      2.78 190 iPg     54 26.50  -0.1
                 iSg      54 57.50
EVIA     2.87  34 eP      54 27.46  -0.3
                 e        54 58.30
    S.D. = 0.7  on  10 of  10 obs.
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  DEC  22, 1993  13h 46m 56.63± 0.24s
  20.434 S ± 9.7km  173.705 W ± 4.8km
  DEPTH =  33.0km  (normal)
  5.0mb ( 21 obs.)  5.2Msz ( 28 obs.)
 TONGA ISLANDS                   (173)
     Mw 5.2 (HRV). Mo=1.5*10**17 Nm
     (PPT).
     CENTROID, MOMENT TENSOR     (HRV)
     Data Used: GDSN
     L.P.B.: 11S, 14C
     Centroid Location:
     Origin Time        13:46:57.1 1.3
     Lat 20.54S 0.11 Lon 172.91W 0.10
     Dep  15.0 FIX Half-duration  1.5
     Moment Tensor;   Scale 10**16 Nm
       Mrr= 6.09 0.55  Mtt=-0.25 1.12
       Mff=-5.84 0.79  Mrt=-0.37 1.49
       Mrf= 3.01 1.47  Mtf=-0.81 0.49

     Principal Axes:
       T  Val=  6.84  Plg=75  Azm=252
       N       -0.21       6        5
       P       -6.63      13       96
     Best Double Couple:Mo=6.7*10**16
     NP1:Strike=194 Dip=32 Slip= 101
     NP2:         2      59        83

AFI      6.74  16 eP      49 29.00  53.0X
SVA      7.75 286 ePd     48 51.40   1.3
MBU      7.96 294 eP      48 57.10   4.1X
BKM     17.29 276 iPc     51 02.70   5.5X
DZM     18.58 261 iPc     51 14.40   1.2
AFR     22.80  87 eP      51 56.70  -1.0
        0.9s    44.90nm           5.0mb
PAE     22.97  87 eP      51 58.70  -0.6
        1.1s    47.40nm           4.9mb
PPT     22.99  87 eP      52 00.10   0.5
        1.1s   116.70nm           5.3mb
PPN     23.13  87 eP      52 01.00   0.1
        0.9s    34.70nm           4.9mb
ARMA    32.74 245 eP      53 28.80   0.0
        0.6s     6.00nm           4.7mb
CNB     35.63 238 eP      53 54.00   0.4
        0.9s    18.00nm           5.0mb
CAN     35.92 238 eP      53 56.20   0.2
TOO     39.21 235 iPd     54 24.40   0.8
        0.7s    32.00nm           5.2mb
PMG     39.27 280 eP      54 23.00  -1.3
LAT     40.45 284 eP      54 34.20   0.2
MDG     42.13 285 eP      54 47.30  -0.5
HON     44.25  21 P       55 10.00   5.2X
     Z  19s     0.60um           4.5Msz
ASPA    48.45 256 iPc     55 37.10  -1.1
        1.4s    19.30nm           4.9mb
     Z  20s     1.60um           5.0Msz
WRA     48.59 261 P       55 38.00  -1.3
MTN     53.19 269 eP      56 12.00  -2.3
        0.7s    34.00nm           5.4mb
SWI     57.14 283 ePc     56 41.50  -1.4
COOL    58.93 246 eP      56 55.00  -0.3
MBL     61.70 256 eP      57 13.00  -1.3
KLB     61.72 244 eP      57 14.20  -0.1
        0.8s    19.00nm           5.3mb
RKG     61.98 241 iPd     57 17.30   1.2
        0.7s     9.00nm           5.0mb
NWAO    61.99 243 eP      57 16.90   0.8
BAL     62.75 245 eP      57 21.00  -0.2
MUN     62.98 244 eP      57 23.50   0.8
MRWA    63.58 247 eP      57 27.00   0.3
NANU    65.29 254 eP      57 33.50  -4.4X
SAO     75.28  41 P       58 50.00  11.7X
     Z  19s     0.91um           5.1Msz
ISA     76.46  43 eP      58 44.24  -0.8
        1.8s    49.52nm           5.2mb
CMB     76.74  41 P       59 00.00  13.5X
     Z  18s     0.70um           5.0Msz
ORV     77.04  39 eP      58 48.36   0.2
WDC     77.11  37 P       59 00.00  11.5X
     Z  19s     0.94um           5.1Msz
GSC     77.33  45 eP      58 49.78  -0.2
BONR    77.97  42 eP      58 54.15   0.5
TPNV    78.67  44 eP      58 58.04   0.7
        0.4s     1.24nm           4.3mb
     Z  19s     2.22um           5.5Msz
TNP     78.73  42 eP      58 57.20  -0.5
        0.8s     7.21nm           4.7mb
TUC     79.81  50 eP      59 04.06   0.5
        0.8s     9.27nm           4.8mb
ARUT    80.98  44 eP      59 10.17   0.4
RMW     82.08  33 eP      59 15.61   0.5
MSU     82.21  44 eP      59 16.16  -0.1
DUG     82.74  42 P       59 30.00  11.2X
     Z  19s     0.47um           4.9Msz
SRU     83.62  44 eP      59 23.41   0.0
SIT     83.63  20 P       59 30.00   7.3X
     Z  19s     1.80um           5.5Msz
HVU     83.66  41 eP      59 23.37  -0.1
LTX     83.66  56 eP      59 23.68   0.0
EMUT    83.81  44 eP      59 24.25  -0.2
PMR     84.08  12 P       59 30.00   5.1X
     Z  19s     0.74um           5.1Msz
PV09    84.21  45 eP      59 26.67   0.1
PV10    84.21  46 eP      59 25.86  -0.6
ALQ     84.26  50 eP      59 26.82   0.1
        1.8s    72.18nm           5.5mb
     Z  19s     0.44um           4.8Msz

                 e        00 10.07
PV08    84.58  46 eP      59 28.37  -0.1
NEW     85.01  34 P       59 40.00  10.0X
     Z  20s     1.40um           5.3Msz
LRM     86.14  38 eP      59 36.80   0.9
IPM     87.16 276 ePd     59 43.70   2.4
GOL     87.34  46 P       59 50.00   8.1X
     Z  18s     0.55um           5.0Msz
BJI     88.71 314 eP      59 49.00   0.9
        1.8s    43.00nm           5.5mb
     Z  20s     0.30um           4.7Msz
                 esP      00 13.00
                 eSKS     10 16.00
                 eS       10 40.00
WMOK    89.77  53 P       00 00.00   6.7X
     Z  20s     0.76um           5.1Msz
MEO     89.93  53 iPd     59 55.40   1.4
RSSD    90.35  42 eP      59 55.76  -0.2
        1.1s    10.42nm           5.0mb
INK     93.20  14 eP      00 09.00   0.7
MIAR    93.62  55 P       00 20.00   9.0X
     Z  19s     0.63um           5.1Msz
YKA     94.81  24 eP      00 15.10  -0.7
        0.8s     0.70nm           4.1mb
LZH     95.95 306 eP      00 20.00  -1.9
        2.0s    37.00nm           5.5mb
OXF     96.82  56 P       00 40.00  14.4X
     Z  21s     0.78um           5.2Msz
FVM     97.24  52 P       00 40.00  12.6X
     Z  20s     1.23um           5.4Msz
SLM     97.60  52 P       00 40.00  11.0X
     Z  20s     0.74um           5.2Msz
LPB     98.27 111 eP      00 37.00   3.9X
     Z  18s     1.03um           5.4Msz
                 LR       33 10.00
LPAZ    98.34 111 P       00 34.00   0.3
        1.0s     2.70nm           4.7mb
                 PP       04 29.00
                 S        11 59.50
                 SP       13 38.50
                 SS       19 12.90
                 LR       33 12.00
MYNC   101.12  57 Pdiff   01 00.00  14.9X
     Z  20s     0.65um           5.1Msz
GOGA   101.16  58 Pdiff   01 00.00  14.7X
     Z  19s     0.77um           5.2Msz
CEH    105.30  57 PKP     05 30.00  12.2X
     Z  20s     0.61um           5.1Msz
MCWV   105.63  53 PKP     05 30.00  11.7X
     Z  19s     1.14um           5.4Msz
YSNY   107.22  50 PKP     05 30.00   8.7X
     Z  19s     0.73um           5.3Msz
LSCT   110.96  52 PKP     05 40.00  11.7X
     Z  18s     0.33um           5.0Msz
LBNH   112.27  49 PKP     05 40.00   9.3X
     Z  18s     0.81um           5.3Msz
HRV    112.31  51 PKP     05 40.00   9.2X
     Z  18s     0.88um           5.4Msz
CBM    115.18  47 PKP     05 50.00  13.8X
     Z  19s     0.85um           5.4Msz
MAIO   131.18 301 ePKP    06 07.00  -0.3
EKA    144.43   9 PKP     06 32.00   1.2
        3.1s    18.00nm
DCN    145.53  14 ePKP    06 36.00   3.3X
OJC    148.41 343 ePKP    06 40.50   3.0X
                 i        06 45.00
KSP    148.65 348 ePKP    06 40.50   2.6X
                 e        07 00.00
KAS    148.74 318 ePKP    06 43.50   5.0X
CLL    148.74 352 ePKP    06 42.00   4.0X
        2.1s   135.00nm
BRG    149.03 351 iPKPc   06 44.20   5.7X
        2.0s   120.00nm
UZH    149.06 339 ePKPc   06 43.00   4.4X
        1.1s   112.00nm
                 i        06 45.00
                 e        06 54.00
MOX    149.56 353 iPKP    06 44.70   5.4X
        2.4s   167.00nm
PRU    149.79 349 PKP     06 46.00   6.3X
        2.2s   191.00nm
GRA1   150.54 353 ePKP    06 47.30   6.5X
                 e        06 59.50
GRF    150.54 353 ePKP    06 47.30   6.5X
                 e        06 59.50
BHL    150.75 303 PKP     06 46.00   4.2X
KHC    150.78 350 ePKP    06 47.50   6.3X
```

1.2s 18.00nm
e 07 23.50
e 07 53.00
WLF 150.83 0 PKP 06 50.00 8.8X
GEC2 151.04 350 ePKP 06 45.40 3.7X
1.3s 15.15nm
e 06 51.90
e 06 57.70
e 07 01.10
KIC 162.38 141 e(PKP)06 54.88 -1.7
0.9s 15.00nm
S.D. = 0.9 on 55 of 98 obs.

% DEC 22, 1993 14h 09m 06.49± 1.60s
39.265 N ±16.1km 20.865 E ± 8.6km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
ML 2.6 (THE).

IGT 0.49 303 ePg 09 16.54 0.1
eSg 09 24.10
AGG 1.16 102 ePb 09 28.10 -0.2
eSb 09 44.50
LIT 1.51 56 ePb 09 34.06 0.5
eSb 09 53.70
FNA 1.57 14 ePb 09 34.14 -0.3
GRG 2.06 34 ePn 09 41.46 -0.1
S.D. = 0.4 on 5 of 5 obs.

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* DEC 22, 1993 14h 45m 58.95± 1.36s
28.921 S ± 9.2km 71.216 W ±14.7km
DEPTH = 85.9 ± 14.2 km
4.2mb (2 obs.)
NEAR COAST OF CENTRAL CHILE (135)

RTRS 1.97 130 iPd 46 31.60 0.5
RTCB 3.30 141 iPd 46 49.50 0.0
RTLL 3.38 136 iPd 46 50.00 -0.5
ZON 3.41 141 eP 46 51.20 0.2
CFA 3.71 137 iPd 46 55.30 0.1
IHA 4.11 185 e(P) 47 01.00 0.4
PEL 4.23 174 iPd 46 58.20 -4.3X
RTPR 4.32 110 eP 47 03.00 -0.6
LPAZ 12.89 13 P 49 00.60 -0.2
LKO 73.88 69 P 57 27.86 1.2
0.9s 4.50nm 4.4mb
YKA 97.49 341 eP 59 24.00 0.3
0.8s 0.40nm 4.0mb
WRA 125.52 210 PKP 04 51.00 -1.3
0.7s 2.30nm
GBA 147.18 111 PKP 05 38.00 6.1X
S.D. = 0.8 on 11 of 13 obs.

DEC 22, 1993 15h 08m 52.50± 0.40s
40.650 S ± 8.1km 81.104 E ± 8.8km
DEPTH = 19.2km (2 depth phases)
5.2mb (9 obs.) 5.1Msz (3 obs.)
MID-INDIAN RIDGE (429)

PAF 11.61 218 eP 11 40.00 -0.1
eS 13 55.00
NVL 45.45 206 P 17 04.00 -7.5X
ASPA 47.09 86 iPd 17 24.70 -0.4
1.1s 8.20nm 4.7mb
Z 19s 2.20um 5.1Msz
WRA 49.58 82 P 17 44.50 0.1
1.0s 2.60nm 4.2mb
ARMA 56.90 104 eP 18 39.60 0.9
0.9s 7.00nm 4.7mb
HYB 57.81 357 eP 18 39.70 -5.3X
PMG 65.79 81 e(P) 19 38.00 -0.7
PKI 67.99 4 P 19 52.40 -0.3
DMN 68.01 4 P 19 53.00 0.3
1.0s 35.00nm 5.5mb
KKN 68.20 4 P 19 53.90 0.0
1.0s 32.00nm 5.4mb
GUN 68.35 5 P 19 55.00 0.0
1.2s 51.00nm 5.6mb
GKN 68.38 3 P 19 54.80 -0.1
1.0s 24.00nm 5.3mb
KMI 68.46 21 Pc 20 02.50 6.9X
1.8s 70.00nm 5.5mb
Z 20s 1.10um 5.1Msz
pP 20 09.50 22km
QUE 71.69 347 eP 20 15.50 0.4
MAIO 79.11 342 eP 20 57.00 -0.1
LZH 79.17 19 eP 20 57.50 0.0
1.5s 16.00nm 4.8mb
Z 20s 0.69um 5.0Msz
pP 21 02.50 16km
LPB 116.32 213 Pdiff 24 06.00 14.9X
LPAZ 116.55 213 Pdiff 24 02.50 10.1X
RES 145.82 358 ePKP 28 32.50 2.4X
1.0s 3.00nm
INK 146.63 23 ePKP 28 31.50 0.0
1.0s 3.00nm
S.D. = 0.4 on 14 of 20 obs.

? DEC 22, 1993 16h 14m 28.92± 0.96s
31.395 S ±27.8km 68.636 W ±33.3km
DEPTH = 90.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.16 65 iPd 14 42.00 -0.3
S 14 51.80
RTCB 0.17 237 iPd 14 42.32 0.0
S 14 53.50
CFA 0.40 122 iPd 14 43.40 0.2
S 14 54.80
RTRS 1.41 330 iP 14 54.00 0.1
S 15 13.50
S.D. = 0.4 on 4 of 4 obs.

DEC 22, 1993 16h 22m 19.45± 0.61s
23.005 N ± 6.7km 120.358 E ± 8.1km
DEPTH = 33.0km (normal)
4.1mb (6 obs.)
TAIWAN (244)
ML 4.3 (BJI).

QZH 2.52 320 ePn 22 57.50 -1.4
Pg 23 04.50
Sn 23 25.00
Sg 23 34.50
HKC 5.76 264 iP 23 45.60 0.7
GZH 6.46 272 P 23 55.00 0.2
pP 24 02.00
SSE 8.09 5 P 24 17.50 0.0
Z 12s 1.40um
N 10s 1.00um
pP 24 20.50
sP 24 24.80
S 25 50.50
NJ2 9.11 352 Pc 24 25.80 -5.8X
S 26 13.10
WHN 9.23 326 eP 24 29.50 -3.7X
QIZ 10.59 250 eP 24 50.80 -1.2
GYA 12.91 288 eP 25 24.00 0.5
S 27 47.40
TIY 16.16 337 eP 26 06.00 0.2
Z 12s 0.96um
N 13s 0.58um
CD2 16.75 302 iPd 26 16.50 3.2X
BJI 17.35 349 eP 26 22.00 1.4
1.2s 8.00nm 3.7mb
Z 16s 0.29um 6.3MszX
GTA 23.92 318 eP 27 31.50 0.1
1.0s 5.00nm 4.0mb
pP 27 37.00 20kmX
LSA 26.96 291 P 28 04.80 4.3X
WRA 44.81 161 P 30 32.00 -0.2
0.6s 2.60nm 4.3mb
ASPA 48.22 163 iPd 30 59.20 0.1
0.6s 5.90nm 4.8mb
WARB 49.27 173 eP 31 08.00 0.8
GEC2 83.27 320 eP 34 50.20 6.0X
0.7s 0.63nm 3.8mb
e 34 57.70
e 35 06.00
YKA 84.34 22 eP 34 47.90 -1.3
0.7s 2.10nm 4.4mb
S.D. = 0.9 on 13 of 18 obs.

DEC 22, 1993 17h 01m 17.19± 0.39s
48.523 N ± 3.2km 128.874 W ± 4.3km
DEPTH = 10.0km (geophysicist)
4.3mb (15 obs.)
VANCOUVER ISLAND REGION (25)

EDB 1.78 40 ePn 01 48.72 0.6
eSn 02 13.62
HOLB 2.17 13 ePn 01 54.00 0.1
GDR 2.25 55 ePn 01 55.70 0.7
OZB 2.28 78 ePn 01 55.10 -0.4
eSn 02 24.69
PHC 2.38 23 ePn 01 57.46 0.7
BTB 2.40 66 ePn 01 57.95 0.6
eSn 02 30.20
CBB 2.75 55 ePn 02 03.83 1.7
ALB 2.77 73 ePn 02 03.37 1.0
MGB 2.81 79 ePn 02 02.48 -0.6
eSn 02 38.96
PFB 2.95 87 ePn 02 03.68 -1.2
eSn 02 41.65
NAB 3.29 76 ePn 02 09.88 0.1
SHB 3.46 70 ePn 02 13.10 0.9
PGC 3.60 86 ePn 02 13.35 -0.8
VGZ 3.69 90 ePn 02 14.22 -1.3
eSn 02 58.83
BIB 3.77 74 ePn 02 16.87 0.3
SNB 3.79 84 ePn 02 16.69 -0.2
WPB 3.89 71 ePn 02 18.93 0.6
MCW 4.01 86 P 02 19.51 -0.5
BMW 4.34 116 P 02 23.83 -0.9
VDB 4.51 81 ePn 02 26.70 -0.3
JCW 4.64 91 P 02 28.24 -0.8
LON 5.09 108 P 02 34.62 -0.8
FMW 5.11 105 P 02 36.12 0.3
ASR 5.49 113 P 02 41.63 0.6
SSOR 5.74 127 P 02 43.29 -1.3
EBG 5.83 103 P 02 46.74 0.9
WTV 6.03 95 P 02 48.03 -0.6
VGB 6.30 116 eP 02 52.26 -0.2
SAW 6.40 94 P 02 52.19 -1.6
DPW 7.16 91 eP 03 02.63 -1.9
LNOR 7.69 106 P 03 11.04 -0.8
NEW 7.83 88 eP 03 11.83 -2.0
YBH 8.07 145 iPc 03 17.36 0.2
1.4s 60.00nm 5.6mb X
LBFM 8.72 143 eP 03 26.69 0.3
WDC 9.13 148 eP 03 31.59 -0.3
LMEM 9.53 144 (P) 03 38.55 1.0
MIN 9.68 145 ePc 03 39.40 -0.2
0.2s 230.00nm 7.3mb X
ORV 10.41 147 ePc 03 48.88 -0.6
1.2s 30.00nm 5.6mb X
LRM 11.50 97 eP 04 07.40 2.8X
CMB 12.16 146 eP 04 14.23 0.9
KVN 12.25 137 eP 04 14.84 0.2
PTI 12.84 110 (P) 04 22.94 0.4
MEMM 13.04 143 eP 04 25.88 0.9
BONR 13.06 140 eP 04 25.94 0.3
TNP 13.43 137 eP 04 30.69 0.2
0.9s 12.09nm 4.9mb
DUG 14.17 120 eP 04 40.83 0.8
1.3s 27.29nm 4.8mb
TPNV 14.80 137 eP 04 48.63 0.2
0.7s 6.73nm 4.3mb
DAU 14.94 116 eP 04 51.73 1.4
ISA 14.97 145 eP 04 49.86 -0.6
0.8s 8.70nm 4.3mb
ARUT 15.52 128 eP 04 57.54 -0.3
EMUT 15.58 117 eP 04 58.88 0.2
MSU 15.68 123 eP 05 01.08 1.2
GSC 15.95 142 eP 05 03.99 0.8
YKA 16.10 24 eP 05 04.90 0.0
0.9s 6.60nm 3.8mb
SRU 16.21 119 eP 05 07.25 0.6
PEC 17.04 145 eP 05 17.43 0.5
0.8s 19.08nm 4.3mb
PV09 17.43 118 eP 05 22.21 0.0
PV10 17.57 118 eP 05 24.68 0.9
PV08 17.67 117 eP 05 25.06 -0.1
RSSD 17.68 95 eP 05 23.67 -1.5
1.0s 22.83nm 4.3mb
CRP 18.36 323 eP 05 32.36 -1.0
GLA 18.71 141 (P) 05 38.10 0.3
GLD 19.05 109 eP 05 42.69 0.7
1.2s 26.86nm 4.4mb
FBA 19.28 335 eP 05 45.76 1.3
1.3s 14.27nm 4.1mb
SVW 19.73 320 eP 05 47.50 -2.1
INK 19.98 355 eP 05 54.00 1.9
1.0s 3.00nm 3.6mb
TTA 20.79 324 eP 05 58.70 -1.9
TUC 21.17 133 eP 06 05.64 0.7
0.9s 6.63nm 4.0mb
ALQ 21.44 121 eP 06 07.46 -0.2
1.1s 19.21nm 4.4mb
ULM 21.46 73 eP 06 11.50 4.0X
IMA 21.84 333 eP 06 09.49 -1.9

22d 17h

1.4s 14.69nm 4.2mb
WMOK 26.18 111 eP 06 53.52 0.1
1.0s 8.75nm 4.4mb
LTX 27.21 126 (P) 07 01.57 -1.5
BRG 75.98 23 e(P) 13 07.30 1.7
KHC 77.47 24 eP 13 16.00 2.0
GEC2 77.76 24 ePd 13 17.50 1.8
1.1s 3.10nm 4.3mb
e 13 21.50
LPAZ 84.04 123 P 13 48.30 -1.6
LPB 84.26 123 eP 13 47.00 -3.8X
SLR 151.07 46 ePKP 21 09.50 3.6X
S.D. = 1.0 on 75 of 79 obs.

DEC 22, 1993 18h 18m 43.78± 1.03s
41.485 N ± 7.8km 23.087 E ± 5.1km
DEPTH = 5.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.9 (THE).

KNT 0.35 204 ePg 18 51.10 0.2
eSg 18 55.84
VAY 0.42 247 iPg 18 53.00 0.7
0.2s 290.00nm
iSg 18 57.60
SRS 0.53 134 ePg 18 54.58 0.2
eSg 19 02.34
SOH 0.69 163 ePg 18 57.54 -0.1
eSg 19 06.92
GRG 0.74 225 ePg 18 58.02 -0.5
iSg 19 08.18
THE 0.86 186 ePg 19 00.50 -0.2
iSg 19 11.90
SKO 1.33 292 iPn 19 08.50 -0.2
i 19 13.00
OUR 1.33 149 ePb 19 08.78 -0.1
LIT 1.46 198 ePb 19 10.62 -0.2
FNA 1.47 242 ePb 19 10.94 -0.1
PAIG 1.62 164 ePb 19 13.30 0.2
S.D. = 0.4 on 11 of 11 obs.

% DEC 22, 1993 18h 23m 35.00± 0.55s
15.276 N ± 9.6km 61.125 W ±25.6km
DEPTH = 120.0km (geophysicist)
LEEWARD ISLANDS (92)

FDF 0.54 183 iPd 23 53.76 0.3
S 24 09.60
CRM 0.56 159 eP 23 53.44 -0.1
MGG 0.66 344 iPc 23 54.51 0.2
S 24 09.90
MVM 0.75 163 eP 23 54.89 -0.2
DOG 0.89 328 eP 23 55.90 -0.4
PAG 0.92 325 iPd 23 56.66 0.0
SFG 0.97 356 eP 23 57.40 0.4
DEG 1.03 3 ePc 23 57.43 -0.3
S 24 15.59
S.D. = 0.3 on 8 of 8 obs.

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* DEC 22, 1993 18h 52m 01.67± 1.29s
36.744 N ±10.2km 21.366 E ±10.6km
DEPTH = 65.1 ± 15.5 km
3.7mb (1 obs.)
SOUTHERN GREECE (368)
MD 4.0 (ATH).

VLI 1.26 91 ePb 52 24.80 1.1
VLS 1.56 337 ePb 52 27.80 0.1
ATH 2.24 56 ePn 52 35.60 -1.5
AGG 2.40 18 ePn 52 41.35 2.0
eSn 53 11.28
VAM 2.65 119 ePn 52 42.50 -0.5
IGT 2.90 344 iPn 52 46.75 0.3
iSn 53 20.28
SRN 3.31 341 eP 52 55.70 3.6X
LSK 3.45 350 eP 52 54.50 0.2
LIT 3.47 14 ePn 52 54.96 0.6
KZN 3.57 5 ePn 52 56.50 0.6
PAIG 3.66 29 ePn 52 57.14 0.1
TPE 3.70 344 eP 52 56.00 -1.6
NPS 3.75 112 ePn 53 04.50 6.2X
FNA 4.03 0 ePn 53 02.71 0.3
eSn 53 52.14
OUR 4.13 29 ePn 53 03.35 -0.3
GRG 4.28 11 ePn 53 05.71 -0.2
SOH 4.36 20 ePn 53 06.92 0.0
OHR 4.38 354 iPn 53 07.20 -0.1
1.0s 60.00nm
i 53 47.20
i 54 17.80
KNT 4.57 15 ePn 53 09.78 -0.1
VAY 4.67 11 iPn 53 11.60 0.4
SRS 4.70 21 ePn 53 10.71 -1.0
SKO 5.22 1 ePn 53 18.00 -1.0
KSL 6.65 93 ePn 53 37.00 -2.0X
HVAR 7.45 331 ePn 53 47.40 -2.6X
NB2 25.15 348 P 57 22.70 0.6
0.5s 1.50nm 3.7mb
S.D. = 0.9 on 21 of 25 obs.

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* DEC 22, 1993 18h 57m 34.21± 0.52s
51.183 N ±12.5km 178.435 W ± 6.9km
DEPTH = 33.0km (normal)
4.4mb (12 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
ML 4.4 (PMR).

ADK 1.30 57 ePc 57 57.38 1.2
eS 58 12.61
SMY 4.87 291 (P) 58 49.50 2.5
SDN 11.51 62 eP 00 19.90 0.8
SVW 16.04 43 eP 01 21.20 2.5
0.8s 21.20nm 4.3mb
KDC 16.38 56 (P) 01 22.18 -0.7
PMS 18.79 46 e(P) 01 55.50 2.6
IMA 19.50 31 eP 01 59.71 -1.6
1.0s 11.67nm 4.1mb
KLU 20.54 47 (P) 02 11.01 -1.1
TOA 20.60 46 eP 02 14.50 1.8
FBA 20.96 37 (P) 02 16.21 -0.1
0.6s 3.81nm 4.0mb
INK 27.49 35 eP 03 17.00 -1.9
MBC 33.70 22 eP 04 13.50 -0.3
YKA 35.20 46 eP 04 25.20 -1.6
0.5s 1.10nm 4.0mb
GMW 35.69 73 (P) 04 32.27 1.2
NEW 38.74 70 eP 04 56.68 -0.1
0.7s 7.45nm 4.6mb
ORV 40.68 84 (P) 05 13.30 0.5
BONR 43.64 83 eP 05 39.05 1.6
DUG 45.69 77 eP 05 53.84 0.2
1.0s 9.27nm 4.7mb
DAU 46.51 76 eP 06 00.86 0.5
PV09 48.98 77 eP 06 19.16 -0.5
PV10 49.12 77 eP 06 20.54 -0.1
PV08 49.23 76 eP 06 20.90 -0.7
LZH 55.66 287 Pc 07 10.00 0.6
1.5s 37.00nm 5.2mb
FVM 60.43 65 eP 07 40.52 -2.1
0.7s 10.73nm 5.1mb
NB2 67.86 355 P 08 29.60 -1.2
0.7s 1.50nm 4.2mb
JSC 68.25 62 eP 08 32.81 -0.8
GEC2 79.81 352 eP 09 39.50 -0.9
0.6s 0.93nm 4.0mb
e 09 47.90
e 09 55.30
KBA 81.60 352 iPd 09 49.60 -0.3
0.5s 4.60nm 4.8mb
WRA 82.03 224 P 09 53.29 1.1
HYB 84.50 291 eP 10 04.30 -0.8
ASPA 85.50 223 P 10 10.69 0.9
0.6s 2.80nm 4.7mb
POO 86.34 295 eP 10 14.50 0.2
GBA 88.15 289 P 10 23.00 0.1
TIC 122.13 8 PKP 16 26.32 -0.7
0.3s 3.00nm
KIC 122.43 7 PKPc 16 26.76 -0.9
0.4s 4.50nm
LIC 122.54 8 PKP 16 26.92 -0.9
0.7s 3.50nm
BFT 146.53 309 ePKP 17 17.00 4.8X
0.5s 28.17nm
SLR 147.42 311 iPKPc 17 12.50 -1.1
0.9s 21.01nm
BLF 151.26 311 ePKP 17 26.20 6.8X
S.D. = 1.3 on 37 of 39 obs.

& DEC 22, 1993 19h 25m 11.39s
33.331 N 105.682 W
DEPTH = 10.0km (geophysicist)
NEW MEXICO (496)
<SNM-P>. MD 3.2 (SNM).

CRNM 1.07 306 P 25 31.10 -0.6
BNM 1.14 316 P 25 31.60 -1.2
SMNM 1.20 292 P 25 34.20 0.3
SBM 1.41 298 P 25 37.80 0.4
CPRX 1.55 101 P 25 39.60 0.4
GDL2 1.58 135 P 25 41.00 1.3
S 26 03.00
LAZ 1.62 312 P 25 40.10 -0.1
S 26 01.10
BMNM 1.62 306 P 25 40.80 0.6
S 26 02.60
CBET 1.69 122 P 25 42.80 1.6
S 26 06.10
ALQ 1.73 338 P 25 41.61 -0.3
ANMO 1.73 338 P 25 44.10 2.2
S 26 06.65
CLN7 1.82 120 P 25 45.00 1.9
S 26 09.30
CLNB 1.85 125 P 25 45.30 1.7
S 26 11.10
HTMS 1.92 116 P 25 46.10 1.5
S 26 12.40
PV10 5.72 333 ePn 26 39.07 0.3
PV08 5.76 336 (Pn) 26 40.31 1.0
PV09 5.87 332 ePn 26 40.36 -0.4
WMOK 5.90 74 eP 26 39.95 -1.0
MEO 6.07 74 iPc 26 42.30 -1.0
ACO 6.33 56 iPd 27 04.60 17.6
GOL 6.36 2 (Pn) 26 47.80 0.1
GLD 6.42 3 (Pn) 26 49.26 0.8
OCO 7.13 70 iPc 27 24.60 26.4
MSU 7.38 316 (Pn) 27 01.53 -0.5
UYO 9.38 82 iPd 27 25.60 -4.0
25 obs. associated

DEC 22, 1993 19h 40m 13.79± 0.44s
38.395 N ± 4.4km 21.759 E ± 4.1km
DEPTH = 19.7 ± 4.0 km
4.3mb (9 obs.)
GREECE (364)
ML 4.2 (TTG), 4.1 (TIR), 4.0
(ATH), 3.9 (THE).

AGG 0.77 35 iPg 40 27.65 -0.7
eSg 40 39.16
VLS 0.95 257 ePg 40 30.00 -1.4
IGT 1.59 316 ePb 40 43.34 2.3
eSb 41 05.48
ATH 1.60 105 ePb 40 41.00 -0.2
LIT 1.80 18 ePb 40 45.50 1.5
eSb 41 10.02
KZN 1.91 0 ePb 40 48.60 2.9X
VLI 1.92 150 ePb 40 45.00 -0.8
LSK 1.97 333 iPnc 40 50.00 3.4X
iSn 41 22.80
KEK 2.02 311 ePn 40 49.00 1.8
SRN 2.02 318 iPnc 40 48.90 1.7
iSn 41 17.50
PAIG 2.14 44 ePn 40 49.04 0.1
eSn 41 17.60
TPE 2.33 325 iPnc 40 56.00 4.3X
iSn 41 25.00
FNA 2.40 353 iPn 40 55.74 2.9X
eSn 41 25.16
THE 2.42 22 iPn 40 53.50 0.5
eSn 41 25.02
OUR 2.59 41 iPn 40 55.57 0.1
GRG 2.61 11 ePn 40 56.84 1.1
eSn 41 30.26
VLO 2.71 320 ePn 40 58.10 1.0
SOH 2.72 26 iPn 40 58.38 1.1
iSn 41 31.93
OHR 2.81 345 iPn 41 02.00 3.4X
1.2s 1140.00nm
i 41 06.10
i 41 41.50
i 41 47.20
Lg 41 54.50
KNT 2.90 17 iPn 41 01.14 1.4
eSn 41 36.52
VAY 2.99 12 iPn 41 02.70 1.7
1.1s 510.00nm
iSn 41 46.30
Lg 41 58.50
SRS 3.06 27 ePn 41 02.88 0.8
eSn 41 40.64
TIR 3.29 334 ePn 41 08.50 3.2X

iSn 41 50.00
LCI 3.53 304 P 41 07.82 -0.9
VAM 3.57 146 ePn 41 08.50 -0.8
SKO 3.58 356 iPn 41 13.40 3.9X
0.9s 320.00nm
iPb 41 17.80
iPg 41 21.50
iSn 41 47.00
iSb 41 54.00
iSg 41 56.50
Lg 42 08.00
LACI 3.60 335 iPnd 41 11.00 1.3
iSn 41 58.50
PRK 3.63 75 ePn 41 09.50 -0.6
RDO 4.00 45 ePn 41 14.50 -0.9
SDA 4.04 335 ePn 41 18.20 2.3X
ULC 4.05 332 iPnc 41 16.64 0.5
iSn 42 02.28
ALN 4.15 52 ePn 41 16.48 -1.0
BCI 4.17 343 iPnd 41 20.00 2.1X
GRI 4.20 277 P 41 20.04 1.7
BRT 4.30 307 P 41 20.30 0.6
NPS 4.40 134 ePn 41 21.00 0.0
PVY 4.41 343 iPnd 41 23.04 1.7
iSn 42 13.89
ORI 4.45 294 P 41 22.29 0.5
TTG 4.46 335 iPnd 41 22.73 0.9
iSn 42 12.96
BDV 4.48 331 iPnd 41 22.34 0.1
iSn 42 12.05
SOI 4.50 268 P 41 24.00 1.5
IVA 4.69 343 iPnd 41 26.99 1.7
iSn 42 20.90
HCY 4.75 329 iPnc 41 25.39 -0.7
iSn 42 18.23
NKY 4.89 335 iPnd 41 28.64 0.5
iSn 42 23.34
MGR 5.12 292 P 41 31.64 0.3
BRY 5.12 333 iPnd 41 30.86 -0.6
iSn 42 27.96
PLE 5.25 341 iPnc 41 34.04 0.9
iSn 42 33.57
PZI 5.59 258 P 41 39.86 1.8
HVAR 6.25 322 iPn 41 44.80 -2.4
iSn 42 55.10
DUI 6.48 303 P 41 51.11 0.5
SDI 6.93 301 P 41 56.84 -0.1
AQU 7.50 304 P 42 05.36 0.5
MNS 7.99 303 P 42 12.81 1.1
ASS 8.34 307 P 42 16.86 0.3
ARV 8.39 310 P 42 15.96 -1.4
ZAG 8.57 332 eP 42 17.50 -2.1
PTJ 8.65 332 iP 42 18.90 -1.9
RIY 8.85 324 iPnd 42 21.00 -2.6
RSM 8.93 311 P 42 24.02 -0.6
CRE 9.07 308 P 42 25.72 -1.0
SFI 9.29 310 P 42 30.04 0.5
TRI 9.42 323 e(Pn) 42 28.10 -3.2X
e(Sn) 44 10.90
VOY 9.60 325 eP 42 31.70 -2.3
eS 44 18.30
SRO 9.74 346 eP 42 44.40 8.6X
VVI 10.26 321 P 42 40.95 -2.1
FVI 10.53 324 P 42 44.90 -1.7
KBA 10.65 327 iPd 42 47.10 -1.4
iS 44 42.00
i 44 44.40
CTI 10.70 319 P 42 45.90 -3.2X
SPC 10.85 355 eP 42 56.70 5.6X
WTTA 11.56 323 iPd 42 58.60 -2.2
iS 45 02.80
WATA 11.64 323 iPc 43 00.20 -1.7
iS 45 03.50
i 45 08.80
SQTA 11.73 322 iPc 43 01.40 -1.7
i 43 10.60
iS 45 09.50
MOTA 11.87 322 iPd 43 02.80 -2.2
i 43 12.40
i 43 20.40
i 45 15.50
VAI 12.18 312 P 43 08.50 -0.6
KHC 12.24 334 eP 43 08.50 -1.4
e 43 15.50
e 45 25.00
e 46 27.50
PRU 12.69 338 eP 43 26.50 10.7X
CLL 14.31 337 e(P) 43 49.00 11.8X
NUR 22.21 4 eP 45 10.40 0.1
0.3s 3.80nm 4.3mb
NB2 23.61 347 P 45 23.70 -0.4
0.6s 4.00nm 4.1mb
EKA 23.82 323 P 45 27.00 0.9
0.9s 13.60nm 4.5mb
KAF 23.91 5 iP 45 26.70 -0.2
0.3s 2.50nm 4.2mb
LKO 37.79 228 P 47 30.57 0.0
1.0s 6.50nm 4.4mb
TIC 39.83 224 P 47 49.30 1.7
0.7s 2.50nm 4.0mb
KIC 39.91 224 P 47 48.98 0.7
0.8s 15.00nm 4.7mb
YKA 73.52 340 eP 51 46.80 0.3
0.8s 0.50nm 3.6mb
IMA 75.81 358 eP 52 01.39 1.6
1.0s 4.50nm 4.5mb
S.D. = 1.3 on 71 of 86 obs.

% DEC 22, 1993 19h 49m 14.83± 2.23s
41.289 N ±16.8km 23.332 E ± 6.9km
DEPTH = 5.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.5 (THE).

SRS 0.26 131 iPg 49 20.04 -0.1
iSg 49 23.84
KNT 0.35 249 ePg 49 22.28 0.4
eSg 49 27.60
SOH 0.47 178 ePg 49 24.28 0.1
eSg 49 30.92
THE 0.71 203 ePg 49 28.92 -0.2
eSg 49 39.44
GRG 0.78 245 ePg 49 30.04 -0.4
eSg 49 41.16
OUR 1.07 152 ePg 49 35.64 0.2
S.D. = 0.3 on 6 of 6 obs.

DEC 22, 1993 20h 02m 43.91± 0.67s
65.145 N ± 5.9km 141.187 W ± 5.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ALASKA (676)
ML 2.6 (AEIC), 3.3 (PGC).

DWY 1.33 145 Pn 03 08.40 -0.1
Lg 03 27.90
PRP 1.86 284 eP 03 13.91 -2.3
eS 03 37.02
DOT 1.95 221 eP 03 17.35 -0.1
eS 03 41.61
TMW 1.99 204 eP 03 18.21 0.2
eS 03 43.85
FYU 2.19 312 eP 03 22.11 1.3
DJE 2.24 242 eP 03 22.05 0.5
eS 03 49.65
DDM 2.44 238 eP 03 26.21 1.7
HDA 2.58 256 eP 03 26.10 -0.3
GLM 2.63 269 eP 03 27.04 -0.2
eS 03 58.40
FBA 2.81 268 P 03 32.20 2.5X
CCB 2.87 263 eP 03 32.71 2.3X
PAX 2.88 223 eP 03 31.23 0.4
eS 04 07.10
WRH 3.03 260 eP 03 33.03 0.3
TZL 3.64 213 eP 03 40.49 -1.0
BALM 4.16 188 eP 03 48.29 -0.6
INK 4.40 40 P 03 52.00 -0.1
0.3s 2.60nm
TGL 4.47 190 eP 03 53.08 -0.2
HYT 4.65 157 Pn 03 56.40 0.5
Lg 05 07.90
S.D. = 1.0 on 16 of 18 obs.

DEC 22, 1993 20h 11m 36.96± 0.34s
37.004 N ± 3.5km 3.895 W ± 3.6km
DEPTH = 9.7 ± 3.0 km
SPAIN (377)
mbLg 3.6 (MDD). Felt (IV) in the
Arenas del Rey area.

EGUA 0.31 123 iPd 11 43.52 0.0
e 11 50.20
ECOG 0.38 44 iPd 11 44.28 -0.5
e 11 51.00
EMAL 0.49 241 P 11 46.18 -0.7
e 11 53.20
ELUQ 0.63 332 iPc 11 49.37 -0.3
e 11 58.30
EPRU 1.07 268 iPc 11 58.50 1.3
e 12 11.80
EBAN 1.16 4 iPc 11 58.56 -0.1
e 12 15.00
EHUE 1.32 52 iPc 12 02.60 1.2
e 12 21.50
EHOR 1.35 308 iPc 12 01.59 -0.2
e 12 19.40
ENIJ 1.35 91 iPc 12 02.31 0.4
e 12 22.60
EJIF 1.38 247 eP 12 01.94 -0.3
e 12 19.10
ALJ 1.41 257 iP 12 07.10 4.3X
MOMI 1.62 246 iP 12 10.00 4.3X
GIBL 1.66 264 iP 12 11.50 5.2X
PLAT 1.74 240 iP 12 11.40 3.9X
CPS 1.82 229 iP 12 13.50 5.0X
iS 12 38.00
RANB 1.84 259 eP 12 16.40 7.6X
CNIL 1.85 251 eP 12 12.00 3.1X
SFS 1.93 254 eP 12 12.00 1.8
EVIA 1.97 34 iPd 12 10.57 -0.3
e 12 35.60
NKM 1.98 219 iPn 12 11.50 0.6
i 12 13.00
iSn 12 36.00
i 12 43.00
BIT 2.01 228 eP 12 13.00 1.7
iS 12 35.50
TSY 2.34 226 eP 12 16.00 -0.1
iS 12 42.50
EVAL 2.35 285 eP 12 15.24 -1.0
e 12 44.00
ZAI 2.39 157 iP 12 16.50 -0.2
iS 12 43.50
TAF 2.49 151 ePn 12 18.00 -0.3
i 12 20.00
iSn 12 46.00
PAB 2.56 352 iPnd 12 19.90 0.6
iPb 12 24.80
iPg 12 30.00
iSn 12 50.30
iSb 12 56.00
iSg 13 00.00
ACU 3.14 60 eP 12 28.54 1.0
e 13 06.10
EPLA 3.50 331 eP 12 32.37 -0.2
e 13 11.90
IFR 3.62 197 iPnd 12 33.50 -1.0
iS 13 11.00
iSn 13 15.00
GUD 3.64 357 eP 12 33.71 -1.0
e 13 15.50
ETOR 4.07 20 eP 12 40.00 -0.7
e 13 26.00
TIO 6.68 206 iPn 13 16.00 -1.7
iSn 14 30.00
S.D. = 1.0 on 25 of 32 obs.

& DEC 22, 1993 20h 46m 29.64s
63.097 N 150.430 W
DEPTH = 110.6km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.38 108 ePc 46 45.78 -0.3
eS 46 58.14
KTH 0.51 334 P 46 46.70 -0.2
S 46 59.50
CUT 0.70 174 eP 46 48.11 -0.2
RND 0.78 66 P 46 48.70 -0.4
S 47 04.00
MCK 0.93 46 P 46 50.00 -0.5
S 47 05.10
BWN 1.16 21 P 46 52.70 -0.2
SKT 1.23 205 P 46 53.20 -0.5
DHY 1.39 89 P 46 55.20 -0.5
S 47 15.90
PWA 1.47 170 P 46 56.50 0.0
GHO 1.50 152 eP 46 56.70 -0.3
NEA 1.60 21 ePd 46 56.98 -1.1
eS 47 17.34
SML 1.62 142 eP 46 57.64 -0.7
eS 47 20.11

22d 20h

PLRM 1.63 158 eP 46 57.82 -0.6
PMR 1.63 158 eP 46 57.18 -1.2
eS 47 18.75
SUA 1.65 185 eP 46 58.54 -0.2
eS 47 21.80
WRH 1.73 36 iPd 46 58.83 -0.8
NCG 1.88 206 eP 47 00.98 -0.8
PMS 1.90 167 P 47 01.20 -0.7
SCM 1.92 130 P 47 01.60 -0.6
KNK 1.93 150 eP 47 01.57 -0.6
CCB 1.94 36 iPd 47 01.37 -1.0
eS 47 25.34
CGLM 1.94 203 eP 47 01.87 -0.6
MLY 1.95 356 iPd 47 01.36 -1.1
CRP 2.01 205 (P) 47 02.22 -1.2
CP2 2.03 206 eP 47 02.95 -0.7
HDA 2.03 48 eP 47 02.72 -0.8
CKN 2.05 204 eP 47 04.16 0.3
BGL 2.06 207 eP 47 03.76 -0.2
SPU 2.07 202 eP 47 03.07 -1.0
CKT 2.08 204 eP 47 04.38 0.2
MDM 2.11 26 ePd 47 03.48 -1.0
THY 2.14 79 eP 47 05.74 0.8
FBA 2.15 32 eP 47 03.48 -1.6
DDM 2.17 69 eP 47 05.02 -0.3
TOA 2.21 115 P 47 05.50 -0.4
BKG 2.21 204 eP 47 06.17 0.2
PAX 2.26 91 eP 47 06.24 -0.4
CFI 2.29 146 eP 47 05.99 -0.9
IL1 2.30 41 eP 47 05.77 -1.2
ILB 2.30 41 eP 47 05.79 -1.2
eS 47 32.58
GLM 2.32 34 ePd 47 06.38 -1.0
NKA 2.39 190 eP 47 10.58 2.3
PWL 2.45 155 eP 47 07.83 -1.3
TTA 2.55 269 eP 47 08.70 -1.7
SLKM 2.60 178 eP 47 10.17 -0.9
KLU 2.65 125 eP 47 10.15 -1.6
MPA 2.67 169 eP 47 10.49 -1.4
VLZ 2.76 134 eP 47 11.36 -1.7
REF 2.83 203 eP 47 14.59 0.3
RS2 2.87 204 eP 47 14.77 0.0
DOT 2.92 76 eP 47 14.11 -1.2
FID 3.01 140 eP 47 15.04 -1.4
SEW 3.04 171 eP 47 15.62 -1.2
SVW 3.15 233 eP 47 16.48 -2.0
IM3 3.23 335 eP 47 17.96 -1.5
PRP 3.24 39 eP 47 18.35 -1.3
ILIM 3.26 203 eP 47 18.52 -1.4
IMA 3.30 336 eP 47 18.41 -2.1
INE 3.30 204 eP 47 18.94 -1.6
CVA 3.39 137 P 47 26.80 5.2
GLB 3.51 115 eP 47 22.06 -1.3
CNPM 3.61 187 eP 47 23.54 -1.0
PDB 3.78 210 eP 47 27.15 0.2
BC3 3.93 87 eP 47 27.16 -1.9
TGL 4.29 120 eP 47 31.88 -2.1
BALM 4.33 115 eP 47 32.45 -2.1
BM3 4.98 27 eP 47 41.24 -2.1
67 obs. associated

DEC 22, 1993 22h 37m 21.22± 0.26s
41.139 N ± 2.6km 20.142 E ± 3.0km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
ML 3.1 (TIR), 3.1 (TTG), 2.9
(THE). MD 3.2 (ATH).

OHR 0.50 93 iPg 37 31.60 0.4
0.5s 650.00nm
iSg 37 40.30
LACI 0.59 327 ePg 37 32.00 -1.1
iSg 37 40.50
VLO 0.83 216 ePg 37 37.10 -0.6
TPE 0.85 187 iPgc 37 38.00 -0.1
iSg 37 52.50
FNA 1.00 110 iPg 37 40.64 0.0
eSg 37 55.64
SDA 1.03 332 ePn 37 43.30 2.1
iSn 37 58.70
LSK 1.05 160 ePn 37 41.70 0.2
ULC 1.06 321 iPgd 37 40.67 -1.0
iSg 37 54.58
BCI 1.23 357 iPnd 37 45.00 0.5
iSn 38 02.00
SRN 1.26 185 ePn 37 46.50 1.4
iSn 38 07.00
SKO 1.28 49 iPg 37 45.80 0.4
0.4s 120.00nm
i 37 48.00
iSg 38 03.00
iSn 38 04.00
Lg 38 06.00
KEK 1.45 191 ePb 37 49.80 1.7
TTG 1.45 333 iPgc 37 48.13 0.0
iSg 38 07.90
PVY 1.46 355 iPgd 37 49.22 0.9
iSg 38 09.46
KZN 1.49 123 ePb 37 49.20 0.4
BDV 1.51 320 iPgc 37 48.75 -0.2
iSg 38 08.70
IGT 1.61 175 ePb 37 50.40 0.0
eSb 38 11.30
GRG 1.72 95 ePb 37 51.64 -0.3
iSb 38 14.88
IVA 1.74 354 iPnd 37 53.11 0.8
iSn 38 16.17
HCY 1.79 317 iPnc 37 52.72 -0.3
iSn 38 15.54
VAY 1.84 84 iPn 37 54.70 1.0
NKY 1.88 333 iPnc 37 54.34 0.0
iSn 38 18.35
LIT 2.07 119 ePn 37 56.84 -0.2
KNT 2.08 88 ePn 37 56.80 -0.4
BRY 2.13 326 iPnc 37 57.61 -0.4
iSn 38 23.94
THE 2.20 102 iPn 37 58.72 -0.2
PLE 2.26 346 iPnd 37 59.97 0.1
iSn 38 28.31
SOH 2.45 96 ePn 38 02.06 -0.5
SRS 2.61 89 ePn 38 04.08 -0.7
AGG 2.70 141 ePn 38 05.96 -0.1
PAIG 2.96 113 ePn 38 09.04 -0.6
VLS 2.98 173 ePn 38 09.00 -1.0
OUR 3.03 104 ePn 38 09.72 -0.9
HVAR 3.42 308 e(P) 38 15.20 -1.1
S.D. = 0.8 on 34 of 34 obs.

DEC 22, 1993 22h 48m 19.51± 1.12s
32.937 S ± 8.2km 71.497 W ± 6.9km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.3 (SAN).

IHA 0.15 234 iPd 48 23.60 0.6
iS 48 28.00
ROCH 0.41 95 iP 48 28.84 0.9
iS 48 38.06
LCCH 0.54 186 iP 48 30.11 -0.3
iS 48 40.93
PEL 0.71 107 iP+ 48 33.94 0.4
iS 48 46.65
JACH 0.80 72 iP+ 48 33.28 -1.9
iS 48 46.82
TACH 0.85 147 iP 48 36.18 0.2
iS 48 50.65
SAN 0.87 127 iP 48 36.58 0.3
(S) 48 53.35
LNV 1.02 176 iPd 48 37.33 -1.4
iS 48 54.35
PCH 1.07 130 iPd 48 39.99 0.3
(S) 48 58.84
FCH 1.08 111 iP+ 48 39.85 -0.3
iS 48 57.60
CACH 1.40 148 iPd 48 45.60 0.5
iS 49 08.53
ZON 2.76 61 eP 49 05.30 0.6
S.D. = 0.9 on 12 of 12 obs.

? DEC 22, 1993 23h 35m 45.14± 3.12s
17.908 S ±21.7km 179.521 W ±29.7km
DEPTH = 634.5 ± 29.9 km
4.9mb (8 obs.)
FIJI ISLANDS REGION (181)

BKM 11.66 269 iPc 38 20.00 -0.6
DZM 13.83 250 iPd 38 40.80 -0.7
ARMA 29.03 239 eP 40 59.10 0.3
0.6s 31.00nm 5.1mb
CNB 32.59 232 iPd 41 29.40 0.8
MDG 36.16 286 eP 41 59.80 1.6
TOO 36.35 230 iPd 42 00.40 0.8
0.7s 61.00nm 5.3mb
ADE 40.75 237 iPd 42 36.00 1.0
WRA 43.59 260 P 42 57.20 -0.2
0.7s 7.60nm 4.3mb
ASPA 43.77 254 iPd 42 59.30 0.5
0.6s 190.60nm 5.7mb
MTN 47.74 269 iPc 43 29.00 -0.1
0.3s 20.00nm 5.1mb
WARB 50.28 251 iPd 43 47.80 0.1
0.3s 9.00nm 4.6mb
COOL 55.00 245 eP 44 20.20 -1.0
MBL 56.95 256 iPd 44 34.20 -0.4
0.4s 18.00nm 4.7mb
KLB 57.88 244 eP 44 40.20 -0.6
NWAO 58.28 242 eP 44 43.20 -0.2
BAL 58.83 245 eP 44 46.50 -0.5
MRWA 59.54 246 eP 44 51.20 -0.6
0.8s 19.00nm 4.4mb
KSP 144.80 343 iPKP 54 11.30 -1.3
CLL 145.22 346 iPKPd 54 11.60 -1.6
BRG 145.40 345 iPKP 54 12.60 -0.9
PRU 146.06 344 ePKP 54 14.50 -0.1
SRO 146.79 338 ePKP 54 14.10 -1.7
KHC 147.10 344 ePKP 54 17.50 1.1
GRF 147.13 347 ePKP 54 17.90 1.5
GEC2 147.33 344 ePKPd 54 18.00 1.2
0.5s 3.56nm
e 54 22.00
DOU 147.72 355 PKP 54 18.90 1.6
KBA 149.04 343 iPKPd 54 21.70 2.1X
0.4s 4.60nm
WATA 149.27 345 iPKPd 54 22.60 2.7X
WTTA 149.32 345 iPKPd 54 23.00 2.9X
0.3s 6.60nm
MOTA 149.37 346 iPKPd 54 22.80 2.7X
0.3s 3.00nm
SQTA 149.46 346 iPKPd 54 23.20 3.0X
0.5s 4.90nm
OHR 151.03 327 ePKP 54 27.00 4.3X
S.D. = 1.0 on 26 of 32 obs.

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* DEC 22, 1993 23h 39m 59.85± 2.43s
50.242 N ± 8.6km 129.393 W ±20.5km
DEPTH = 10.0km (geophysicist)
3.2mb (1 obs.)
VANCOUVER ISLAND REGION (25)
ML 3.2 (PGC).

HOLB 0.90 63 Pn 40 18.27 1.2
BPBC 1.05 94 Pnc 40 19.24 -0.4
Sn 40 34.51
PHC 1.34 69 Pn 40 24.48 0.0
Sn 40 42.83
EDB 1.51 103 ePn 40 25.50 -1.4
GDR 2.22 101 ePn 40 36.20 -1.0
CBB 2.60 93 ePn 40 42.43 -0.2
eSn 41 14.16
BTB 2.62 106 ePn 40 41.85 -1.3
OZB 2.84 115 ePn 40 43.97 -2.2
MGB 3.30 110 ePn 40 51.60 -1.1
SHB 3.62 98 ePn 40 56.58 -0.7
PFB 3.64 115 ePn 40 56.93 -0.5
HNB 4.52 100 ePn 41 10.44 0.6
MCW 4.56 108 Pc 41 11.29 0.9
VDB 4.89 102 ePn 41 15.25 0.1
MBW 5.09 104 P 41 18.61 0.4
JCW 5.30 110 P 41 21.78 0.8
RPW 5.45 106 P 41 23.47 0.3
GSM 5.88 118 P 41 29.63 0.5
FMW 6.10 120 P 41 33.12 0.8
ETW 6.53 110 P 41 38.66 0.3
TBM 6.58 114 P 41 39.65 0.6
NAC 6.69 118 P 41 40.91 0.4
EBG 6.74 116 Pd 41 41.87 0.6
EPH 7.09 110 P 41 46.29 0.2
YKA 14.71 28 eP 43 27.90 -1.6
0.9s 0.70nm 3.2mb
ULM 21.34 77 eP 44 51.50 2.6
S.D. = 1.1 on 26 of 26 obs.

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* DEC 22, 1993 23h 43m 10.32± 2.65s
50.114 N ±10.4km 129.625 W ±21.2km
DEPTH = 10.0km (geophysicist)
3.2mb (1 obs.)
VANCOUVER ISLAND REGION (25)
ML 3.3 (PGC).

HOLB 1.09 61 Pn 43 31.24 0.4
eSn 43 45.14

BPBC 1.19 87 Pn 43 32.29 -0.3
eSn 43 47.65
PHC 1.52 66 Pn 43 37.45 -0.1
Sn 43 55.83
EDB 1.63 97 ePn 43 38.43 -0.8
GDR 2.35 97 ePn 43 48.98 -0.5
BTB 2.74 102 ePn 43 54.93 -0.3
CBB 2.75 90 ePn 43 55.46 0.3
eSn 44 27.50
MGB 3.40 107 ePn 44 04.53 0.0
PFB 3.73 112 ePn 44 09.53 0.4
SHB 3.76 96 ePn 44 09.61 0.0
HNB 4.65 98 ePn 44 23.32 1.1
YKA 14.89 28 eP 46 42.20 -0.1
0.8s 0.70nm 3.2mb
ULM 21.51 77 eP 48 08.50 7.3X
S.D. = 0.5 on 12 of 13 obs.

& DEC 23, 1993 00h 28m 06.89s
34.148 N 116.432 W
DEPTH = 5.3km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS), 3.0 (GS).

PEC 0.66 247 eP 28 18.64 -1.4
PLM 0.87 204 iP 28 22.95 -1.2
SSK 1.05 274 eP 28 26.03 -1.2
GSC 1.19 345 eP 28 28.47 -1.1
GLA 1.73 129 eP 28 35.06 -2.7
ABL 2.41 288 eP 28 46.94 -0.8
TPNV 2.80 3 (P) 28 57.36 4.1
BCH 3.18 290 (P) 29 01.29 2.7
8 obs. associated

? DEC 23, 1993 00h 41m 39.08± 4.21s
42.236 N ±29.5km 121.995 W ±14.0km
DEPTH = 5.0km (geophysicist)
OREGON (32)
MD 2.6 (GS).

LASM 0.71 154 P 41 53.43 0.2
LMPM 0.76 190 P 41 54.50 0.1
LBFM 0.89 175 eP 41 56.76 0.0
LGBM 0.90 190 P 41 57.06 0.0
LBKM 1.26 204 P 42 02.53 -0.4
LRDM 1.82 167 P 42 13.47 2.2X
FHC 2.07 227 (P) 42 15.39 0.4
KMPM 2.42 222 (P) 42 19.96 -0.1
ORV 2.70 172 (P) 42 23.50 -0.5
S.D. = 0.4 on 8 of 9 obs.

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* DEC 23, 1993 01h 09m 36.59± 3.59s
45.182 N ±29.6km 14.900 E ± 7.6km
DEPTH = 5.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.8 (LJU), 2.4 (TRI).

RIY 0.40 294 iPgd 09 43.60 -1.0
iSg 09 51.00
VBY 0.41 38 ePg 09 43.70 -1.1
iSg 09 50.10
CEY 0.65 329 ePg 09 49.50 -0.1
eSg 10 01.90
TRI 0.96 304 ePg 09 55.70 0.4
eSg 10 09.90
PTJ 1.03 46 iPg 09 57.50 0.9
iSg 10 10.90
VOY 1.11 321 ePnd 09 58.70 0.8
eSn 10 15.10
S.D. = 1.1 on 6 of 6 obs.

& DEC 23, 1993 01h 28m 37.39s
58.950 N 153.378 W
DEPTH = 82.5km
KODIAK ISLAND REGION (13)
<AEIC>.

CDD 0.14 262 eP 28 48.49 0.5
eS 28 58.02
AUE 0.41 0 eP 28 50.15 -0.7
eS 29 00.25
AGU 0.41 356 eP 28 50.25 -0.8
AUH 0.42 355 eP 28 50.25 -0.7
AUW 0.42 354 eP 28 50.15 -0.8
AUL 0.43 356 eP 28 50.49 -0.5
OPT 0.71 6 eP 28 52.69 -0.9
PDB 0.94 334 eP 28 55.27 -0.8
eS 29 09.09
INE 1.13 8 eP 28 57.11 -1.5
HOM 1.14 51 eP 28 57.72 -0.8
eS 29 13.16
ILIM 1.15 10 eP 28 57.29 -1.5
CNPM 1.24 61 eP 28 59.06 -0.8
eS 29 16.06
KDC 1.29 158 eP 28 59.32 -1.1
BRLK 1.52 56 eP 29 03.14 -0.3
RS2 1.55 11 eP 29 02.71 -1.4
RDW 1.56 10 eP 29 02.94 -1.3
REF 1.58 12 eP 29 03.05 -1.4
NCT 1.63 8 eP 29 04.03 -1.0
DFR 1.68 12 eP 29 04.45 -1.3
BKG 2.20 14 eP 29 11.72 -1.0
SPU 2.34 16 eP 29 13.29 -1.2
BGL 2.37 12 eP 29 14.21 -0.9
CGLM 2.46 16 eP 29 15.19 -1.1
NCG 2.54 13 eP 29 16.21 -1.1
SUA 2.84 26 eP 29 20.42 -1.2
PWL 3.18 51 eP 29 23.37 -2.8
26 obs. associated

& DEC 23, 1993 02h 25m 46.19s
63.491 N 151.639 W
DEPTH = 10.0km (geophysicist)
CENTRAL ALASKA (1)
<AEIC>. ML 3.3 (AEIC), 3.5 (PMR).

HUR 1.04 119 eP 26 05.32 -0.6
eS 26 22.02
BWN 1.18 54 eP 26 08.64 0.4
eS 26 25.79
MCK 1.23 77 eP 26 08.69 -0.4
eS 26 26.06
RND 1.25 93 eP 26 08.93 -0.6
eS 26 25.05
CUT 1.26 150 eP 26 09.21 -0.3
SKT 1.52 178 eP 26 12.96 -0.5
eS 26 32.72
NEA 1.57 45 eP 26 12.74 -1.4
eS 26 35.80
MLY 1.60 14 eP 26 14.16 -0.4
eS 26 37.68
WRH 1.85 56 eP 26 16.52 -1.7
eS 26 43.43
DHY 1.97 100 eP 26 19.93 -0.2
PWA 2.02 155 P 26 20.60 0.0
CCB 2.05 54 eP 26 19.32 -1.7
eS 26 45.79
TTA 2.06 256 eP 26 19.23 -2.1
eS 26 49.08
SUA 2.08 168 eP 26 21.58 0.0
eS 26 50.33
MDM 2.10 44 eP 26 19.97 -1.8
NCG 2.11 187 eP 26 21.70 -0.4
eS 26 49.35
GHO 2.13 143 eP 26 21.11 -1.3
eS 26 49.70
CGLM 2.20 185 eP 26 23.00 -0.4
FBA 2.20 48 eP 26 21.08 -2.2
PLRM 2.23 148 eP 26 22.95 -0.8
PMR 2.23 148 eP 26 23.15 -0.6
CRP 2.25 186 eP 26 23.54 -0.6
CP2 2.25 187 eP 26 24.38 0.1
BGL 2.26 189 eP 26 24.98 0.7
HDA 2.26 64 eP 26 22.28 -1.9
SML 2.28 136 eP 26 23.49 -1.0
CKN 2.29 187 eP 26 25.45 0.8
CKT 2.31 187 eP 26 25.49 0.5
SPU 2.33 185 eP 26 25.50 0.3
eS 26 55.07
GLM 2.39 49 eP 26 24.34 -1.7
BKG 2.45 187 eP 26 27.41 0.5
IL1 2.45 56 eP 26 24.93 -1.9
ILB 2.45 56 eP 26 24.75 -2.1
PMS 2.45 156 P 26 28.20 1.3
KNK 2.56 143 eP 26 28.63 0.2
eS 27 00.13
SCM 2.59 128 eP 26 28.22 -0.7
IM3 2.66 341 eP 26 29.57 -0.3
IMA 2.73 342 eP 26 30.08 -0.9
PAX 2.84 98 eP 26 32.04 -0.5
TOA 2.87 117 P 26 33.00 0.1
CFI 2.94 140 eP 26 34.93 1.2
DFR 2.95 190 eP 26 34.15 0.1
SVW 3.03 220 (P) 26 35.58 0.5
PWL 3.06 148 eP 26 35.82 0.3
SLKM 3.07 167 eP 26 36.04 0.4
KLU 3.33 125 eP 26 39.67 0.3
BM3 4.91 34 eP 26 59.04 -2.8
BALM 4.99 115 (P) 27 02.46 -0.5
YKA 16.70 77 eP 29 42.70 1.3
0.5s 0.20nm 2.5mb
49 obs. associated

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* DEC 23, 1993 03h 25m 50.66± 1.08s
44.222 N ±18.2km 149.019 E ±11.9km
DEPTH = 33.0km (normal)
4.0mb (3 obs.)
KURIL ISLANDS (221)

KUSJ 3.32 252 iP+ 26 40.20 -1.3
eS 27 13.60
HOOJ 4.57 248 eP 27 00.20 1.0
eS 27 48.90
ASAJ 4.59 271 eP 26 59.40 -0.1
MRRJ 6.07 256 eP 27 21.50 1.1
eS 28 24.80
OFUJ 7.53 229 eP 27 39.80 -1.0
eS 28 57.80
YAK 21.11 334 eP 30 47.00 12.7X
0.8s 42.00nm
YKA 54.66 34 eP 35 17.80 -0.3
1.0s 1.10nm 3.8mb
WB2 65.25 195 iPc 36 32.30 1.2
0.8s 1.90nm 4.2mb
WRA 65.25 195 P 36 30.60 -0.5
0.6s 0.90nm 4.0mb
S.D. = 1.2 on 8 of 9 obs.

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* DEC 23, 1993 04h 17m 58.81± 3.38s
6.572 S ±20.6km 147.131 E ±47.3km
DEPTH = 50.6 ± 14.1 km
4.2mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 0.16 234 iPc 18 06.50 -0.5
YYYY 1.20 286 eP 18 24.00 4.3X
MDG 1.88 314 eP 18 29.20 0.1
PMG 2.82 179 eP 18 42.50 0.1
WB2 18.18 222 iPc 22 09.30 -0.1
0.4s 5.10nm 4.0mb
ASPA 21.23 215 iPc 22 43.10 0.4
0.3s 5.50nm 4.4mb
S.D. = 0.6 on 5 of 6 obs.

? DEC 23, 1993 04h 27m 30.97± 1.45s
52.655 N ±33.4km 170.719 W ±20.5km
DEPTH = 33.0km (normal)
3.7mb (4 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

ADK 3.75 260 eP 28 29.85 2.1
eS 29 12.72
INK 23.57 34 eP 32 40.00 1.2
0.6s 1.00nm 3.5mb
YKA 30.68 49 eP 33 44.70 0.5
0.5s 0.30nm 3.3mb
ULM 44.74 62 eP 35 44.00 1.4
KAF 64.79 351 eP 38 07.00 -0.9
NB2 66.64 359 P 38 19.20 -0.7
0.5s 2.30nm 4.5mb
HFS 67.51 358 eP 38 23.80 -1.5
0.4s 8.10nm 5.2mb X
WRA 86.54 230 P 40 09.60 -2.1
0.8s 0.60nm 3.9mb
S.D. = 1.8 on 8 of 8 obs.

? DEC 23, 1993 07h 24m 31.73± 0.93s
45.609 N ± 7.4km 14.257 E ± 8.1km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.2 (LJU).

CEY 0.18 43 iPgd 24 35.90 0.2
eSg 24 38.20
RIY 0.28 161 iPg 24 37.50 -0.1
iSg 24 41.90
TRI 0.36 286 e(Pg) 24 39.40 0.3
i(Sg) 24 45.50
VOY 0.49 329 ePg 24 41.40 -0.4
eSg 24 49.40

23d 07h

S.D. = 0.5 on 4 of 4 obs.

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* DEC 23, 1993 09h 18m 16.54± 2.54s
39.874 N ±24.6km 33.078 E ± 9.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

MRFT 0.69 25 eP 18 29.00 -1.3
eS 18 40.90
SGKT 1.05 312 eP 18 35.60 -0.9
eS 18 50.90
NAL 1.40 284 eP 18 42.00 -0.2
eS 19 05.80
DVR 1.52 328 eP 18 45.20 1.3
eS 19 09.70
CTK 1.57 58 eP 18 44.50 -0.1
eS 19 09.30
KAS 1.59 19 eP 18 46.00 1.2
S.D. = 1.4 on 6 of 6 obs.

? DEC 23, 1993 10h 01m 10.62± 3.00s
16.552 N ±21.9km 100.054 W ±16.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 0.37 31 iP 01 19.00 0.8
iS 01 23.00
PPM 2.85 28 iP 01 56.00 -1.4
(S) 02 30.00
CRX 2.86 7 iP 01 58.00 0.6
(S) 02 29.00
UNM 2.89 17 (P) 01 57.00 -0.7
(S) 02 32.00
OXX 3.23 80 (P) 02 03.00 0.4
iS 02 36.50
MRX 3.32 341 eP 02 04.00 0.4
iS 02 44.00
S.D. = 1.1 on 6 of 6 obs.

DEC 23, 1993 10h 12m 19.48± 0.22s
23.553 S ± 6.6km 176.670 W ± 5.4km
DEPTH = 83.8km (15 depth phases)
5.0mb (35 obs.)
SOUTH OF FIJI ISLANDS (171)
Mo=1.7*10**17 Nm (PPT).

SVA 7.07 319 ePd 14 05.20 2.9X
VUN 7.15 320 iPc 14 08.90 5.5X
MBU 7.85 326 eP 14 16.30 3.3X
PUZ 15.11 196 P 15 44.70 -4.9X
eS 18 23.00
PVC 15.20 290 iPc 15 57.80 7.1X
BKM 15.28 290 iPc 15 58.00 6.1X
DZM 15.64 272 iPc 16 02.00 5.5X
iS 19 11.90
MNG 18.25 199 eP 16 21.80 -6.9X
QRZ 19.47 205 eP 16 40.90 -1.3
THZ 20.14 203 eP 16 46.70 -2.5
eS 20 19.20
LTZ 21.26 203 eP 17 01.20 0.7
WVZ 22.09 205 eP 17 10.70 2.0
EWZ 22.41 204 eP 17 10.40 -1.4
LMZ 23.21 207 eP 17 20.00 0.4
MSZ 24.54 207 eP 17 33.80 1.3
TUZ 24.95 203 eP 17 36.20 -0.1
AFR 25.86 82 iPd 17 44.30 -0.7
0.9s 78.30nm 5.2mb
PAE 26.00 82 iPd 17 45.60 -0.7
1.2s 97.60nm 5.2mb
PPT 26.03 82 iPd 17 46.00 -0.7
0.7s 43.90nm 5.1mb
PPN 26.18 82 iPd 17 47.30 -0.6
0.9s 39.00nm 4.9mb
TVO 26.26 83 iPd 17 47.90 -0.9
0.6s 33.50nm 5.0mb
TPT 28.67 78 iPd 18 09.30 -1.3
1.0s 54.80nm 5.1mb
ARMA 29.00 249 eP 18 16.20 2.6X
0.7s 11.00nm 4.6mb
RIV 29.91 243 eP 18 26.40 4.9X
CNB 31.67 240 iPd 18 39.30 2.2
0.7s 20.00nm 5.0mb
CAN 31.96 241 iPc 18 41.30 1.7
BWA 32.26 242 iPc 18 41.80 -0.4
TOO 35.21 238 iPd 19 09.30 1.8
0.8s 50.00nm 5.5mb
PMG 37.30 286 iPc 19 25.00 -0.3
STK 37.68 248 iPc 19 29.30 0.9
0.5s 9.40nm 5.0mb
LAT 38.72 290 eP 19 37.20 0.0
ADE 40.26 243 eP 19 51.00 1.2
MDG 40.48 291 eP 19 45.70 -6.0X
QIS 40.52 265 eP 19 53.30 1.2
ASPA 45.10 259 iPd 20 28.90 -0.4
0.8s 73.10nm 5.6mb
Z 21s 0.50um 4.4Msz
ePP 22 00.50
iPcP 23 30.70
iScP 25 55.20
eS 26 01.50
eScS 30 18.50
WB2 45.47 265 iPc 20 31.10 -1.1
0.9s 12.40nm 4.8mb
ePP 22 10.50
WRA 45.48 265 P 20 27.39 -4.9X
0.8s 9.90nm 4.7mb
MTN 50.48 273 eP 21 10.40 -0.8
0.5s 45.00nm 5.8mb
WARB 51.15 255 eP 21 14.50 -1.7
COOL 55.17 248 eP 21 44.00 -1.9
KLB 57.93 246 eP 22 04.20 -1.2
0.8s 23.00nm 5.3mb
MBL 58.34 259 eP 22 06.30 -2.1
BAL 58.99 247 eP 22 11.80 -1.0
MUN 59.16 246 eP 22 12.80 -1.2
MRWA 59.86 249 eP 22 18.00 -0.8
0.8s 17.00nm 5.2mb
NANU 61.83 256 eP 22 26.00 -6.2X
0.3s 9.00nm 5.3mb
ADK 75.11 360 eP 23 51.75 -1.9
0.6s 13.24nm 5.0mb
BCH 79.28 44 eP 24 17.70 0.3
e 24 41.28 89km
PLM 80.28 47 eP 24 23.18 0.3
e 24 46.92 90km
PEC 80.40 47 (P) 24 25.34 2.0
epP 24 47.03 81km
ISA 80.61 45 eP 24 25.21 0.8
1.1s 20.50nm 4.9mb
epP 24 47.63 84km
CMB 80.88 42 eP 24 25.98 0.2
1.0s 9.53nm 4.6mb
epP 24 49.43 88km
GSC 81.47 46 eP 24 30.25 1.2
epP 24 52.65 84km
GLA 81.49 48 eP 24 29.68 0.6
BONR 82.12 43 eP 24 33.09 0.5
epP 24 56.15 86km
NJ2 82.76 309 Pd 24 36.40 0.8
TNP 82.88 43 eP 24 36.81 0.4
1.8s 36.34nm 5.0mb
epP 24 58.79 82km
TUC 83.91 51 eP 24 44.02 2.4X
0.9s 6.44nm 4.6mb
epP 25 05.21 78km
SYO 84.05 192 ePc 24 42.90 1.3
ARUT 85.12 45 eP 24 49.16 1.5
epP 25 12.36 86km
esP 25 26.36
CN2 85.46 322 eP 24 48.00 -0.9
1.4s 21.00nm 5.0mb
SVW 86.07 10 eP 24 51.00 -0.7
RMW 86.19 34 eP 24 53.42 0.8
TIA 86.23 312 eP 24 53.00 0.0
MSU 86.35 45 eP 24 55.37 1.6
epP 25 17.86 83km
SLKM 86.49 13 eP 24 53.54 -0.2
CP2 86.79 12 eP 24 54.23 -1.2
epP 25 16.74 83km
CRP 86.81 12 eP 24 53.90 -1.5
epP 25 15.57 80km
LTX 87.67 57 eP 25 00.59 0.4
PMR 87.70 13 e(P) 24 59.30 -0.1
0.9s 12.80nm 5.0mb
SRU 87.76 45 eP 25 00.55 0.0
epP 25 22.34 80km
PV10 88.35 47 eP 25 04.16 0.7
ALQ 88.36 51 eP 25 03.46 0.0
1.1s 7.58nm 4.7mb
BALM 88.75 16 (P) 25 03.36 -1.3
NEW 89.13 35 eP 25 06.71 0.1
1.1s 5.61nm 4.7mb
epP 25 29.53 84km
GYA 89.22 299 iPc 25 08.40 0.7
1.2s 15.00nm 5.1mb
TIY 90.22 311 eP 25 13.00 1.0
LRM 90.28 39 eP 25 12.80 0.5
XAN 90.95 307 P 25 16.20 0.8
1.0s 4.50nm 4.7mb
FBA 90.95 12 eP 25 13.37 -1.3
0.8s 9.10nm 5.1mb
IMA 91.04 9 eP 25 14.06 -1.2
1.0s 3.59nm 4.6mb
BDT 91.74 288 eP 25 07.00 -12.2X
e 25 22.00 51kmX
KMI 91.82 297 eP 25 20.50 0.7
1.5s 70.00nm 5.8mb
HHC 92.35 314 eP 25 22.40 0.6
1.2s 8.10nm 5.0mb
CHTO 92.43 289 iPc 25 24.10 1.7
1.2s 24.31nm 5.5mb
MEO 94.00 54 iPc 25 30.00 0.6
RSSD 94.50 44 eP 25 32.86 1.1
0.8s 10.67nm 5.3mb
YKA 98.76 25 eP 25 50.20 -0.1
0.9s 0.70nm 4.2mb
LPB 99.67 113 P 26 02.00 5.9X
LPAZ 99.76 112 P 25 59.90 3.1X
LR 58 47.00
MAIO 130.31 298 ePKP 31 21.00 -1.0
NB2 142.14 354 PKP 31 37.20 -6.0X
0.9s 2.80nm
HFS 142.73 351 ePKP 31 39.00 -5.1X
0.3s 1.90nm
MNK 144.64 335 ePKP 31 45.00 -2.5X
ANN 145.13 316 ePKP 31 47.00 -1.7
1.0s 50.00nm
EKA 147.90 7 PKP 31 56.00 3.1X
1.0s 14.10nm
KAS 148.99 312 ePKP 32 05.00 9.8X
BHL 149.95 297 PKP 32 01.00 4.1X
OJC 150.44 338 iPKPd 32 02.60 5.6X
0.8s 79.00nm
UZH 150.81 334 iPKPc 32 04.20 6.7X
i 32 06.30
KSP 150.96 343 iPKPc 32 04.10 6.4X
0.9s 58.00nm
SPC 151.15 337 iPKPd 32 04.20 5.9X
CLL 151.30 347 iPKPc 32 04.90 6.7X
1.1s 72.00nm
i 32 43.40
BRG 151.51 346 iPKP 32 05.30 6.8X
0.9s 50.00nm
PRU 152.19 344 iPKPd 32 06.30 6.7X
0.8s 14.90nm
i 32 14.90
MOX 152.20 349 ePKP 32 06.30 6.7X
1.6s 30.00nm
SRO 153.00 337 iPKP 32 20.80 20.1X
i 32 42.00
ZST 153.08 339 ePKP 32 18.20 17.4X
KHC 153.22 345 PKP 32 01.60 0.5
1.1s 20.10nm
e 32 09.50
e 32 16.80
e 32 21.10
DOU 153.49 358 PKPd 32 10.30 9.0X
KBA 155.19 344 iPKPc 32 12.80 8.8X
0.6s 9.20nm
i 32 19.30
i 32 29.20
WATA 155.37 346 iPKPc 32 13.50 9.3X
i 32 30.00
WTTA 155.42 346 iPKPc 32 13.70 9.4X
0.7s 12.60nm
i 32 21.60
i 32 30.20
LJU 155.80 341 ePKP 32 05.00 0.3
iPKPbc32 12.00
iPKPab32 31.20
KIC 161.23 154 PKP 32 12.67 0.9
1.5s 59.00nm
S.D. = 1.1 on 78 of 115 obs.

DEC 23, 1993 10h 26m 13.64± 0.76s
41.876 N ± 6.6km 19.976 E ± 6.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.4 (TTG), 2.2 (TIR).

LACI 0.31 220 ePg 26 22.50 2.4X

SDA 0.40 296 ePg 26 20.60 -1.2
iSg 26 27.70
BCI 0.50 8 ePg 26 30.10 6.4X
TIR 0.53 189 ePg 26 30.40 6.0X
iSg 26 37.10
ULC 0.55 279 iPgd 26 24.76 0.0
iSg 26 33.32
PVY 0.72 360 iPgd 26 27.16 -0.7
iSg 26 37.94
TTG 0.77 316 iPgd 26 28.29 -0.3
iSg 26 40.16
BDV 0.95 296 iPgd 26 31.69 0.0
iSg 26 46.35
OHR 0.98 141 ePn 26 32.20 -0.1
IVA 1.00 357 iPgc 26 32.32 -0.3
iSg 26 47.11
NKY 1.18 323 iPgc 26 35.97 0.2
iSg 26 53.96
HCY 1.24 298 iPgd 26 37.17 0.5
iSg 26 56.16
BRY 1.47 314 iPgd 26 41.29 0.9
iSg 27 03.49
PLE 1.52 344 iPgc 26 41.93 1.0
iSg 27 04.31
S.D. = 0.7 on 11 of 14 obs.

& DEC 23, 1993 11h 38m 25.13s
42.398 N 122.030 W
DEPTH = 11.2km
OREGON (32)
<SEA-P>. MD 2.8 (SEA). ML 2.6 (GS).

LAB 0.13 191 Pc 38 28.62 0.0
VRC 0.15 246 Pc 38 28.97 0.2
S 38 31.70
HAMO 0.33 172 P 38 31.73 -0.4
BBOR 0.68 316 Pd 38 37.92 -0.8
LASM 0.87 157 P 38 41.54 -0.3
LMPM 0.91 186 P 38 42.49 -0.2
LBFM 1.06 174 eP 38 44.87 -0.2
eS 38 59.50
LGBM 1.06 187 P 38 44.95 -0.2
DBO 1.15 309 P 38 45.93 -0.6
HSO 1.37 326 P 38 49.70 -0.5
LBKM 1.40 200 P 38 49.68 -0.9
NCOR 1.46 26 P 38 51.67 0.1
WDC 1.86 192 eP 38 57.32 0.2
KHMM 1.99 221 P 38 52.86 -6.3
FHC 2.17 223 (P) 39 02.89 1.2
15 obs. associated

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* DEC 23, 1993 12h 47m 21.62± 1.90s
3.914 S ±16.1km 143.010 E ±14.7km
DEPTH = 10.0km (geophysicist)
4.2mb (1 obs.)
NEAR N COAST OF NEW GUINEA, PNG.(200)

WWKK 0.68 65 ePd 47 35.00 -0.1
MNDI 2.32 164 eP 47 57.00 -3.6X
MDG 3.06 116 eP 48 11.60 0.6
YYYY 3.75 128 eP 48 21.00 0.1
LAT 4.82 125 eP 48 35.30 -0.7
WB2 18.03 207 eP 51 19.60 -14.5X
0.4s 4.30nm
ASPA 21.52 203 iPc 52 13.10 0.0
0.6s 5.80nm 4.2mb
S.D. = 0.7 on 5 of 7 obs.

DEC 23, 1993 13h 21m 16.75± 0.74s
48.541 N ± 5.6km 128.980 W ± 6.8km
DEPTH = 10.0km (geophysicist)
3.9mb (3 obs.)
VANCOUVER ISLAND REGION (25)

EDB 1.81 42 Pn 21 48.68 0.5
ETB 1.81 62 ePn 21 49.26 1.1
HOLB 2.17 14 ePn 21 54.68 1.2
eSn 22 25.13
GDR 2.30 56 ePn 21 55.98 0.7
OZB 2.35 78 ePn 21 55.38 -0.6
PHC 2.39 24 ePn 21 57.91 1.4
BTB 2.46 67 ePn 21 58.50 0.8
CBB 2.80 56 ePn 22 03.50 1.1
ALB 2.83 73 ePn 22 02.65 -0.2
eSn 22 38.97
MGB 2.87 79 ePn 22 02.31 -1.2
eSn 22 38.51
PFB 3.02 88 ePn 22 04.11 -1.3
SHB 3.52 71 ePn 22 13.19 0.5
eSn 22 57.10
PGC 3.67 86 ePn 22 13.66 -1.1
VGZ 3.76 90 ePn 22 14.30 -1.8
eSn 22 59.21
SNB 3.86 84 ePn 22 16.95 -0.5
MCW 4.08 86 eP 22 19.54 -1.0
HNB 4.28 78 ePn 22 22.82 -0.6
eSn 23 15.64
VDB 4.57 81 ePn 22 26.98 -0.5
eSn 23 22.34
LON 5.17 108 eP 22 34.84 -1.2
LRM 11.57 97 eP 24 08.40 3.2X
BONR 13.12 140 (P) 24 27.04 1.1
DAU 15.01 116 (P) 24 51.98 1.1
ARUT 15.59 128 eP 24 58.14 -0.1
MSU 15.75 123 eP 25 00.70 0.4
GSC 16.01 141 eP 25 04.72 1.2
YKA 16.12 25 eP 25 04.60 0.0
1.1s 1.50nm 3.0mb
SRU 16.28 119 eP 25 08.36 1.2
PV09 17.50 118 (P) 25 23.09 0.5
RSSD 17.75 95 (P) 25 25.41 -0.2
TTA 20.73 324 eP 25 57.38 -2.2
1.3s 8.52nm 3.9mb
ADK 30.28 295 (P) 27 29.43 -0.4
0.9s 10.94nm 4.7mb
S.D. = 1.1 on 30 of 31 obs.

% DEC 23, 1993 14h 05m 44.90± 0.79s
44.349 N ± 5.7km 8.208 E ± 6.2km
DEPTH = 12.5 ± 7.0 km
NORTHERN ITALY (545)
ML 2.1 (GEN).

FIN 0.14 180 P 05 48.45 -0.1
S 05 50.60
ROB 0.25 257 P 05 50.23 -0.2
S 05 53.85
PCP 0.31 51 P 05 51.47 0.0
S 05 55.59
IMI 0.50 208 P 05 55.22 0.2
S 06 01.76
ENR 0.58 258 P 05 56.32 -0.2
S 06 04.28
STV 0.64 261 P 05 57.59 0.0
S 06 05.94
BHB 0.84 306 P 06 01.26 0.4
RSP 1.05 320 P 06 04.34 -0.2
S.D. = 0.3 on 8 of 8 obs.

DEC 23, 1993 14h 22m 35.15± 0.27s
36.756 N ± 2.1km 2.937 W ± 1.8km
DEPTH = 27.4 ± 2.2 km
5.0mb (78 obs.) 4.9Msz (5 obs.)
STRAIT OF GIBRALTAR (385)
Mw 5.3 (HRV). mbLg 5.0 (MDD). MD 4.7 (RBA). Slight damage (VII) in the Adra area, Spain. Felt in Almeria, Ciudad Real, Granada, Jaen, Madrid, Malaga and Toledo Provinces, Spain.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 30C
Centroid Location:
Origin Time 14:22:36.8 0.5
Lat 36.57N 0.07 Lon 2.63W 0.08
Dep 20.0 FIX Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr=-8.74 0.66 Mtt= 2.02 0.80
Mff= 6.71 0.62 Mrt=-0.48 1.44
Mrf= 0.38 1.45 Mtf=-3.09 0.69
Principal Axes:
T Val= 8.26 Plg= 2 Azm=244
N 0.50 2 154
P -8.76 88 23
Best Double Couple:Mo=8.5*10**16
NP1:Strike=335 Dip=43 Slip= -88
NP2: 152 47 -92

ENIJ 0.62 70 iPc 22 45.83 -1.6
e 22 55.10
ECOG 0.72 316 iPc 22 45.83 -3.4X
EHUE 1.09 14 iPc 22 52.89 -1.9
ELUQ 1.33 307 iPd 22 59.19 1.1
e 23 16.90
EMEL 1.45 181 iPd 22 59.82 0.0
EBAN 1.56 335 iPd 23 01.12 -0.2
EALH 1.63 47 iPc 23 02.11 -0.3
EPRU 1.85 277 eP 23 06.79 1.2
EVIA 1.91 10 eP 23 06.14 -0.4
TOU 1.91 201 iP 23 07.50 1.1
iS 23 31.00
ZAI 1.96 175 iP 23 07.00 -0.1
iS 23 30.50
TAF 1.98 167 iPnc 23 09.50 1.9
iSn 23 33.50
i 23 35.00
LIJA 1.99 275 iP 23 09.18 1.5
EJIF 2.06 262 ePn 23 06.59 -2.0
EHOR 2.13 301 eP 23 08.98 -0.6
ALJ 2.14 269 iP 23 11.01 1.1
MOMI 2.28 260 iP 23 12.25 0.5
CPS 2.34 246 iP 23 17.00 4.5X
iS 23 44.50
PLAT 2.36 255 iP 23 14.15 1.2
NKM 2.39 238 iPnd 23 13.00 -0.3
i 23 17.00
iSn 23 40.00
i 23 42.50
GIBL 2.42 273 iP 23 14.86 1.1
BIT 2.51 245 iP 23 16.00 0.9
iS 23 44.00
CNIL 2.54 262 iP 23 17.29 1.9
RANB 2.58 268 iP 23 17.99 2.1
SFS 2.65 265 iP 23 17.81 0.9
ACU 2.66 48 eP 23 15.51 -1.7
TSY 2.82 242 iP 23 20.00 0.7
iS 23 51.50
TZK 2.85 201 iP 23 21.10 1.4
iS 23 53.10
BMK 2.98 233 iP 23 10.50 -11.0X
iS 23 34.50
RSA 3.00 232 iP 23 22.50 0.6
eS 23 55.00
PAB 3.00 339 iPnd 23 20.60 -1.4
iPb 23 30.30
iPg 23 34.00
iSn 23 54.80
iSb 24 06.00
iSg 24 10.40
EVAL 3.15 286 eP 23 22.59 -1.5
TGT 3.19 213 iP 23 25.50 0.9
iS 25 00.00
ECHE 3.23 28 eP 23 24.17 -1.0
IFR 3.70 210 iPnc 23 31.50 -0.5
iS 24 10.00
iSn 24 13.00
GUD 4.00 347 eP 23 35.49 -0.7
ETOR 4.12 9 eP 23 37.83 0.0
e 24 22.10
EPLA 4.12 324 eP 23 37.34 -0.6
RBA 4.21 230 iPn 23 38.00 -1.0
eSn 24 25.50
i 24 32.00
RTC 4.23 230 iP 23 39.10 -0.2
iS 25 24.50
TNF 4.65 206 iP 23 46.50 1.1
iS 24 35.50
EROQ 4.83 32 eP 23 46.61 -1.2
e 24 40.60
AVE 5.04 228 iPnd 23 49.20 -1.7
i 23 55.00
iSn 24 45.00
i 24 48.00
ESEL 5.49 55 eP 23 55.77 -1.4
EGRA 5.80 20 eP 24 03.53 2.0
ECRI 5.85 3 eP 24 01.89 -0.5
e 25 05.00
ELIZ 6.49 9 P 24 10.55 -0.8
ERUA 6.50 331 eP 24 09.84 -1.6
e 25 20.90
BTH 6.70 17 iPnc 24 13.55 -0.6
i 24 15.50
i 24 27.00
i 24 34.50
OUK 6.89 218 iP 24 15.00 -1.9
iS 25 30.50
EZAM 6.99 322 eP 24 16.35 -1.9
CIA 7.09 225 iP 24 17.50 -2.2
iS 27 34.00

23d 14h

ETER	7.12	37	P	24 19.77	-0.3
JHA	7.35	229	iP	24 21.00	-2.4
			iS	25 39.50	
EMON	7.47	335	eP	24 24.20	-0.9
STS	7.49	327	eP	24 23.81	-1.5
LBL	9.67	27	P	24 51.95	-3.6X
PYM	10.03	25	P	24 57.39	-3.2X
CALN	10.25	44	P	25 03.80	0.1
AGO	10.34	24	P	25 01.23	-3.5X
PLDF	10.44	26	P	25 02.56	-3.5X
MVIF	10.49	44	P	25 08.04	1.1
AURF	10.58	45	P	25 09.34	1.2
TOUF	10.62	44	P	25 10.22	1.5
SBF	10.63	45	P	25 10.22	1.5
AUTN	10.71	44	P	25 11.10	1.1
SAOF	10.77	45	P	25 09.93	-0.8
STV	10.81	43	P	25 12.65	1.4
ENR	10.85	43	P	25 13.10	1.3
PZZ	10.86	41	P	25 12.81	0.8
PGF	10.86	54	P	25 10.99	-1.0
IMI	10.92	46	P	25 13.91	1.2
RRL	10.98	39	P	25 15.39	1.7
ROB	11.14	44	P	25 16.54	0.8
BHB	11.17	41	P	25 16.90	0.8
FIN	11.28	45	P	25 19.74	2.1
RSP	11.38	39	P	25 19.84	0.8
RSL	11.46	36	P	25 21.20	1.1
LSD	11.55	38	P	25 21.94	0.5
PCP	11.68	45	P	25 25.55	2.6X
EMS	11.88	35	P	25 28.29	2.4X
ORX	12.08	39	P	25 31.09	2.6X
DIX	12.12	37	P	25 30.62	1.5
MMK	12.37	38	P	25 35.27	2.8X
JSA	12.44	2	eP	25 30.30	-2.8X
JLP	12.50	3	eP	25 31.00	-2.9X
LOMF	12.82	31	P	25 38.15	-0.2
TMA	12.86	40	P	25 42.25	3.3X
FIR	12.90	53	eP	25 40.00	0.7
BSF	13.19	30	P	25 45.49	2.3
VITF	13.20	27	P	25 42.99	-0.2
MOF	13.34	31	P	25 46.82	1.6
VDL	13.42	40	P	25 49.59	3.2X
ZLA	13.60	34	P	25 50.84	2.2
FEL	13.73	33	eP	25 50.20	-0.2
LIBD	13.77	31	P	25 58.90	8.1X
CDF	13.85	30	P	25 52.75	0.9
SLE	13.86	34	P	25 53.89	1.9
OSS	13.91	40	P	25 55.54	2.8X
DOU	14.40	20	iPc	25 56.30	-2.7X
	0.8s		153.30nm		5.6mb
			i	26 01.00	
OGA	14.49	41	eP	26 02.50	2.1
WLF	14.49	24	iPc	26 01.15	1.1
	1.5s		50.50nm		4.8mb
LANF	14.52	29	P	26 07.36	6.8X
SNF	14.70	18	P	26 02.30	-0.6
			e	28 41.20	
SQTA	14.81	41	iPc	26 05.60	1.1
	1.1s		83.10nm		5.0mb
			id	26 06.00	
			i	26 12.40	
RUP	14.83	26	eP	26 05.00	0.3
MOTA	14.83	40	iPd	26 06.00	1.2
UCC	14.98	18	P	26 13.00	6.5X
WTTA	15.06	41	iPd	26 09.10	1.3
	1.0s		145.00nm		5.2mb
			i	26 19.20	
WATA	15.07	41	iPd	26 08.50	0.5
			id	46 08.90	
ABH	15.15	27	eP	26 09.10	0.2
ENN	15.38	22	eP	26 09.00	-2.8X
	1.0s		61.00nm		4.8mb
			eS	29 00.00	
TRI	15.40	49	e(Pn)	26 11.10	-0.9
			e(Sn)	29 08.00	
			e	30 16.00	
			e(LQ)	31 32.00	
FUR	15.46	38	eP	26 13.50	0.6
			eS	29 20.30	
ECP	15.61	352	eP	26 13.00	-1.7
			e	28 53.00	
VOY	15.64	48	ePc	26 14.70	-0.6
			e	26 30.00	
KBA	15.88	44	iPc	26 19.00	0.5
	1.4s		169.00nm		5.0mb
			id	26 19.60	
BNS	15.94	24	ePd	26 22.30	3.3X
	Z 12s		24.00um		
BHG	16.00	42	iPc	26 19.30	-0.6
LJU	16.03	49	ePnc	26 20.00	-0.2
	1.5s		290.00nm		5.2mb
VAL	16.04	343	eP	26 19.30	-0.9
	1.0s		2.90nm		3.4mb X
YRH	16.12	356	eP	26 21.50	0.2
HVAR	16.17	61	iP	26 24.70	2.7X
VBY	16.23	52	eP	26 22.70	0.0
			i	26 28.50	
GRA1	16.50	34	iP	26 26.40	0.2
			ePP	26 35.00	
			eS	29 35.00	
			eSS	29 46.00	
GRF	16.50	34	iPnc	26 26.40	0.2
			e	26 31.80	
			e(Sn)	31 37.50	
YRC	16.53	357	eP	26 26.90	0.4
WME	16.67	357	eP	26 26.20	-2.0
WTS	16.73	21	eP	26 33.00	4.1X
	1.0s		102.60nm		4.9mb
DLF	16.73	352	eP	26 29.60	0.7
ZAG	16.82	52	eP	26 28.50	-1.7
PTJ	16.84	51	iP	26 30.00	-0.6
DCN	16.86	351	eP	26 30.40	-0.2
KMR	16.88	43	iP+	26 30.20	-0.7
			iPP	26 43.20	
			i	32 07.00	
WET	16.91	38	eP	26 30.40	-0.9
	1.3s		73.00nm		4.6mb
GEC2	17.13	40	P	26 32.70	-1.5
	0.7s		22.34nm		4.4mb
			e	26 45.60	
HOF	17.25	34	eP	26 36.10	0.6
KHC	17.25	39	Pc	26 34.00	-1.6
	1.0s		53.50nm		4.6mb
	N 14s		7.80um		
	E 14s		3.00um		
			e	26 40.00	
			e	26 50.50	
			e	27 27.50	
MOX	17.37	32	iP	26 37.90	0.8
	1.8s		112.00nm		4.7mb
			eS	30 00.00	
HCY	17.45	64	iPc	26 39.75	1.6
BRY	17.58	63	iPc	26 40.65	0.7
BDV	17.66	65	iPc	26 41.20	0.5
NKY	17.89	63	iPc	26 43.85	0.2
ULC	17.91	66	iPc	26 45.02	1.2
TTG	18.00	65	iPc	26 45.52	0.6
KEK	18.10	74	eP	26 44.80	-1.3
SDA	18.11	66	eP	26 45.50	-0.7
LACI	18.20	68	iPd	26 49.50	2.1
TIR	18.28	68	eP	26 49.00	0.6
PRU	18.28	38	iPc	26 47.30	-1.0
	1.6s		84.60nm		4.7mb
			i	26 51.10	
			eS	30 19.00	
PLE	18.29	62	iPc	26 48.28	-0.3
TPE	18.29	72	eP	26 45.00	-3.5X
CLL	18.46	33	eP	26 50.00	-0.5
	2.7s		220.00nm		4.9mb
			eS	30 22.00	
IGT	18.50	74	eP	26 48.68	-2.5
IVA	18.55	64	iPc	26 52.59	0.8
PVY	18.55	65	iPc	26 52.97	1.1
BRG	18.58	35	iP	26 52.90	0.9
	1.9s		60.00nm		4.5mb
EKA	18.58	360	P	26 53.00	1.0
	1.4s		101.50nm		4.8mb
ZST	18.63	46	eP	26 50.40	-2.2
LSK	18.73	72	eP	26 52.00	-2.0
UZD	18.79	52	eP	26 54.50	-0.1
KBN	18.90	71	eP	26 55.00	-1.1
OHR	18.95	69	iP	26 55.70	-1.0
	1.0s		260.00nm		5.4mb
EBL	19.02	360	eP	27 00.50	3.2X
EAU	19.10	359	eP	27 01.40	3.2X
SRO	19.15	48	iP	27 01.20	2.3
ESY	19.17	1	eP	26 59.70	0.6
EDI	19.17	360	iPc	27 02.80	3.7X
	1.8s		457.00nm		5.4mb
	Z 20s		4.00um		5.7Msz
	N 20s		3.00um		
	E 20s		4.00um		
			ePP	27 10.80	
			eS	30 22.20	
			eSS	30 35.20	
			ePcP	31 39.80	
FNA	19.36	71	eP	27 00.12	-1.4
EAB	19.46	358	eP	27 02.10	-0.4
EBH	19.50	359	eP	27 02.60	-0.4
SKO	19.53	67	iPc	27 02.50	-0.9
	1.0s		240.00nm		5.4mb
	Z 11s		3.28um		5.4MszX
			i	27 02.60	
			iS	30 41.00	
			iSS	31 07.00	
			LR	37 11.00	
KZN	19.63	72	eP	27 03.00	-1.6
KSP	19.69	38	ePc	27 03.80	-1.2
			e	33 01.80	
ELO	19.73	359	eP	27 05.20	-0.3
AGG	20.05	76	eP	27 05.96	-3.0X
GRG	20.15	70	eP	27 09.01	-1.0
LIT	20.18	73	eP	27 07.20	-3.1X
VAY	20.30	69	iPd	27 10.40	-1.1
	1.3s		380.00nm		5.6mb
KSB	20.53	356	eP	27 13.70	0.0
KNT	20.54	70	iP	27 12.66	-1.3
THE	20.56	71	eP	27 12.20	-2.0
KPL	20.67	356	eP	27 15.70	0.5
VLI	20.72	82	eP	27 16.00	0.1
KKB	20.73	68	iP	27 16.00	0.0
VTS	20.91	66	iP	27 18.00	0.0
SPC	20.93	46	eP	27 16.90	-1.2
SRS	21.06	70	eP	27 17.68	-1.6
PAIG	21.09	73	eP	27 16.36	-3.3X
OJC	21.18	43	iPc	27 20.00	-0.5
	0.9s		76.00nm		5.1mb
			i	27 29.50	
			i	27 45.50	
OUR	21.32	72	eP	27 19.56	-2.4
MUD	21.33	19	iPd	27 22.00	0.1
	0.8s		82.00nm		5.2mb
UZH	21.91	49	iPd	27 28.00	0.2
	1.0s		138.00nm		5.3mb
	Z 12s		3.00um		4.9MszX
	E 12s		3.00um		
			i	27 47.50	
			i	28 01.20	
			eS	31 23.00	
			iPS	31 34.00	
RZN	21.94	69	iP	27 28.00	-0.4
VAM	21.95	85	iPd	27 29.00	0.7
PLD	21.96	67	iP	27 29.00	0.7
KDZ	22.46	69	iP	27 33.00	-0.3
RDO	22.53	70	iPc	27 33.80	-0.2
ALN	22.90	71	iP	27 43.37	5.7X
NPS	23.11	85	eP	27 40.90	1.1
JMB	23.38	67	iP	27 42.00	-0.3
PSN	24.65	64	iP	27 51.00	-3.6X
MBO	25.55	213	iP	28 03.50	0.2
KIS	25.64	56	eP	28 03.00	-0.9
	Z 17s		2.40um		4.8MszX
			i	28 07.50	
			ePPP	28 41.00	
			e	32 35.00	
NRAO	25.71	16	P	28 03.50	-1.0
HFS	25.71	19	eP	28 04.90	0.4
	0.5s		6.90nm		4.5mb
	Z 15s		3.32um		5.0MszX
			LR	38 11.00	
NB2	25.91	16	P	28 06.20	-0.2
	0.8s		11.00nm		4.5mb
KSL	26.11	82	eP	28 08.00	-0.4
MNK	27.15	41	eP	28 29.00	11.2X
	Z 16s		3.10um		5.0MszX
			eS	33 09.00	
			eSS	34 36.00	
LKO	27.20	186	iPd	28 18.25	-0.3
	0.9s		19.00nm		4.8mb
SGKT	27.48	71	eP	28 21.00	-0.1
KAS	28.73	69	eP	28 32.50	0.3
NSS	29.21	13	eP	28 35.35	-0.9
NUR	29.54	28	eP	28 38.70	-0.6
CTK	29.57	71	eP	28 40.30	0.4
TIC	30.03	184	Pd	28 43.36	-0.7
	0.9s		10.00nm		4.7mb
LIC	30.45	184	Pd	28 46.94	-0.8
	0.9s		10.50nm		4.7mb
	Z 20s		1.10um		4.5Msz
KAF	31.20	26	iP	28 52.60	-1.3
	0.8s		13.50nm		4.8mb

ANN 31.25 62 eP 28 57.00 2.5
1.2s 80.00nm 5.4mb
Z 17s 1.30um 4.7MszX
N 17s 1.50um
E 17s 1.00um
e 29 55.00
OBN 32.48 43 eP 29 03.10 -2.1
1.0s 23.10nm 5.1mb
Z 22s 205.70um 6.8MszX
N 20s 260.40um
e 29 09.90
e 29 13.10
(S) 34 24.20
SOC 33.01 65 eP 29 10.00 0.0
MOS 33.23 42 eP 29 12.00 0.3
Z 16s 3.70um 5.2MszX
e 29 20.00
e 30 23.00
SDF 34.92 19 eP 29 25.00 -1.1
KIV 35.14 64 (P) 29 29.20 0.7
1.6s 114.00nm 5.6mb
Z 13s 0.90um 4.7MszX
eS 34 52.40
PYA 35.40 64 iPd 29 33.00 2.4
2.5s 240.00nm 5.7mb
Z 18s 1.00um 4.6Msz
e 35 06.00
MTA 36.93 67 eP 29 44.00 0.6
0.8s 40.00nm 5.3mb
e 35 30.00
GRO 37.36 64 iPc 29 51.00 4.0X
1.0s 220.00nm 6.0mb
Z 14s 3.50um 5.3MszX
N 16s 1.50um
E 12s 1.50um
DAG 40.73 354 iPc 30 14.90 0.3
1.0s 25.00nm 4.9mb
GDH 42.41 336 iPc 30 28.00 -0.4
0.9s 30.25nm 5.0mb
e 42 38.00
ARU 44.92 44 eP 30 49.00 -0.1
1.0s 80.00nm 5.6mb
Z 15s 2.00um 5.2MszX
E 14s 1.50um
e 30 56.00
LMN 46.31 302 eP 31 02.50 2.3
SHI 46.40 82 eP 31 00.00 -1.3
FRB 47.07 326 eP 31 09.50 3.6X
1.0s 6.00nm 4.6mb
ASH 47.94 69 eP 31 13.50 0.4
CBM 48.32 304 eP 31 15.05 -0.9
1.6s 28.70nm 5.1mb
MAIO 49.35 71 iPd 31 24.50 0.4
0.9s 12.79nm 5.0mb
eS 38 20.00
JAQ 51.63 314 eP 31 44.00 2.8X
RSNY 53.28 302 eP 31 53.21 -0.4
1.0s 14.54nm 4.9mb
GAC 53.57 304 eP 31 55.50 -0.1
TBR 54.19 298 eP 31 59.77 -0.5
RES 55.45 341 eP 32 08.00 -1.1
1.0s 4.00nm 4.4mb
QUE 57.51 75 eP 32 25.20 0.6
SOB1 57.96 226 eP 32 28.10 0.4
CVL 58.41 296 eP 32 30.23 -0.4
MCWV 58.72 298 (P) 32 32.19 -0.5
0.5s 7.07nm 5.0mb
KSH 60.22 61 eP 32 43.00 -0.2
0.7s 30.00nm 5.5mb
Z 16s 1.19um 5.1MszX
N 18s 2.88um
E 18s 2.71um
sP 32 57.00
PcP 33 32.00
PP 34 55.00
ScS 42 22.00
MBC 60.46 346 P 32 44.60 0.3
PcP 33 30.80
NIL 60.76 68 iPc 32 50.10 3.3X
0.8s 0.07nm 2.8mb X
iS 41 06.00
JSC 62.05 293 eP 32 55.23 -0.3
PRM 62.96 294 eP 33 01.71 0.2
MYNC 63.79 295 eP 33 06.44 -0.6
0.9s 23.76nm 5.3mb
GOGA 64.08 293 (P) 33 08.11 -0.9
ULM 64.51 315 eP 33 13.00 1.5
TOV 65.69 264 eP 33 21.20 1.6
NDI 66.10 71 iPd 33 21.80 -0.2
0.6s 26.67nm 5.5mb
WMQ 66.13 52 P 33 21.50 -0.6
0.5s 8.40nm 5.1mb
Z 15s 1.66um 5.4MszX
E 11s 0.96um
pP 33 27.00 18kmX
sP 33 33.00
PcP 33 51.00
PP 35 50.00
S 42 12.00
sS 42 19.00
ScS 43 14.00
SS 46 30.00
ELC 66.37 300 eP 33 21.22 -2.4X
TIK 66.71 15 iPc 33 27.00 1.7
1.5s 17.00nm 4.9mb
FVM 66.86 301 eP 33 24.65 -2.2
1.0s 27.03nm 5.3mb
SDV 66.88 264 iPd 33 28.00 0.5
YKA 67.04 332 eP 33 25.30 -2.3X
0.8s 6.20nm 4.8mb
BDF 67.20 228 eP 33 30.60 1.3
1.1s 0.95nm 3.8mb X
BAO 67.23 228 Pd 33 29.60 0.2
BDFB 67.25 228 eP 33 29.40 -0.1
1.3s 24.00nm 5.2mb
OXF 67.86 297 (P) 33 31.60 -1.5
POO 68.75 82 eP 33 39.00 0.0
SLR 68.77 150 iPd 33 37.70 -1.2
1.5s 69.44nm 5.5mb
INK 68.97 342 eP 33 39.00 -0.5
1.0s 4.00nm 4.5mb
POF 69.21 159 iPc 33 42.10 0.8
0.7s 13.70nm 5.2mb
BFT 69.45 148 eP 33 47.00 3.8X
BRW 70.64 351 (P) 33 50.44 0.9
MIAR 70.80 299 ePc 33 50.64 -0.6
0.8s 27.66nm 5.4mb
BLF 71.00 153 iPc 33 53.00 0.5
0.7s 15.00nm 5.2mb
TUL 71.61 301 iPc 33 55.70 -0.4
UYO 71.62 299 iPc 33 55.70 -0.4
ZAK 71.69 40 eP 33 58.00 1.7
2.0s 31.00nm 5.0mb
Z 12s 1.96um 5.6MszX
N 12s 1.06um
E 11s 0.86um
GKN 72.04 68 P 33 58.10 -0.9
BOD 72.08 30 iPd 33 55.10 -3.3X
RSSD 72.42 312 eP 34 00.21 -0.9
0.6s 6.24nm 4.8mb
DMN 72.60 68 P 34 02.10 -0.3
KKN 72.63 68 P 34 02.00 -0.5
PKI 72.85 68 P 34 03.50 -0.5
OCO 72.97 302 iPd 34 05.90 1.7
GUN 73.02 68 P 34 04.80 -0.1
HYB 73.10 81 ePc 34 04.00 -1.1
1.0s 50.00nm 5.5mb
ACO 73.46 304 iPd 34 07.60 0.6
MEO 74.14 302 iPd 34 10.50 -0.5
WMOK 74.30 302 eP 34 11.34 -0.6
0.7s 19.68nm 5.2mb
GBA 74.35 85 P 34 12.00 -0.3
YAK 74.41 21 eP 34 11.10 -0.9
1.0s 35.00nm 5.3mb
Z 20s 0.90um 5.1Msz
N 20s 1.17um
FBA 75.00 345 eP 34 15.62 0.2
0.9s 4.27nm 4.5mb
IMA 75.04 348 eP 34 15.63 -0.1
0.9s 10.32nm 4.9mb
LSA 75.88 63 P 34 21.50 -0.1
0.8s 22.00nm 5.2mb
GTA 76.15 51 eP 34 22.00 -0.5
1.5s 13.00nm 4.7mb
Z 16s 0.92um 5.2MszX
LRM 76.21 317 eP 34 23.10 0.2
e 34 30.20
KOD 76.29 87 eP 34 24.90 1.0
NEW 77.09 321 eP 34 26.79 -0.7
0.8s 6.79nm 4.7mb
PTI 78.03 315 eP 34 33.51 0.6
PWA 78.33 345 eP 34 34.40 0.4
0.7s 22.30nm 5.3mb
e 34 34.60
TTA 78.33 348 eP 34 34.80 0.7
SHL 78.77 67 eP 34 37.00 -0.3
eS 44 32.00
PV09 78.84 310 eP 34 37.95 0.3
PV10 78.85 310 eP 34 37.73 0.1
DAU 78.93 312 eP 34 37.40 -0.7
EMUT 79.04 312 eP 34 38.12 -0.5
SRU 79.31 311 eP 34 39.19 -0.8
ALQ 79.31 306 ePd 34 40.62 0.5
1.0s 8.19nm 4.7mb
e 34 47.79
ePP 37 40.90
RMW 79.95 323 eP 34 42.61 -0.6
DUG 79.99 313 eP 34 43.43 -0.2
0.6s 6.00nm 4.8mb
GMW 80.36 323 eP 34 45.62 0.4
LON 80.45 322 eP 34 45.35 -0.5
MSU 80.68 311 ePd 34 47.49 0.0
LZH 80.70 52 eP 34 47.50 0.0
1.8s 30.00nm 5.0mb
Z 18s 0.54um 4.9Msz
N 13s 0.42um
pP 34 50.00 8kmX
VGB 80.80 321 eP 34 47.75 0.1
LTX 80.80 300 eP 34 44.15 -3.9X
LPAZ 80.94 242 Pc 34 48.90 -0.6
0.7s 3.40nm 4.5mb
SS 50 47.70
PKKP 52 51.50
LR 01 33.30
SHW 81.05 322 eP 34 49.50 0.4
LPB 81.08 242 P 34 49.50 -0.5
BMW 81.33 323 eP 34 50.31 -0.2
BTO 81.51 45 eP 34 50.10 -1.4
ARUT 81.91 311 eP 34 54.12 0.3
MOCB 82.59 237 P 34 56.70 -1.1
TUC 83.77 306 eP 35 05.56 2.2
0.9s 25.42nm 5.4mb
KVN 83.80 315 eP 35 04.36 0.8
CD2 83.90 56 Pc 35 04.60 0.6
0.6s 19.00nm 5.5mb
Z 17s 1.27um 5.4MszX
S 45 24.00
BONR 84.67 314 eP 35 09.00 1.0
TIY 84.84 46 eP 35 11.90 3.3X
Z 17s 1.91um 5.6MszX
E 13s 0.93um
XAN 85.20 51 P 35 10.50 0.1
0.7s 3.30nm 4.7mb
Z 15s 0.58um 5.1MszX
E 13s 0.47um
pP 35 13.00 8kmX
MEMM 85.23 314 (P) 35 13.35 2.9X
BJI 85.31 42 eP 35 11.00 0.2
1.5s 14.00nm 5.0mb
Z 24s 0.39um 4.7MszX
N 17s 0.79um
epP 35 21.50 33kmX
eS 45 36.00
eSS 51 16.00
ORV 85.35 317 eP 35 10.53 -0.5
GSC 85.59 311 eP 35 13.62 1.2
CMB 85.80 315 eP 35 14.19 0.8
1.0s 6.29nm 4.8mb
ISA 86.34 313 eP 35 17.22 1.1
0.6s 13.17nm 5.3mb
CN2 87.14 35 eP 35 19.00 -0.8
Z 20s 0.62um 5.0Msz
NJ2 92.56 46 Pc 35 45.50 0.2
Z 14s 0.71um 5.3MszX
ADE 149.00 98 ePKP 42 22.00 4.0X
STK 150.41 91 ePKP 42 20.70 0.6
0.8s 31.70nm
S.D. = 1.1 on 292 of 338 obs.

% DEC 23, 1993 14h 34m 46.72± 1.31s
36.692 N ±12.1km 3.018 W ± 7.0km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 3.4 (MDD). Felt (IV) in
the Adra area, Spain.

ENIJ 0.71 67 iPc 35 00.19 -0.5
e 35 09.80
ECOG 0.73 323 eP 35 00.77 -0.4
e 35 08.40
EMAL 1.14 274 eP 35 07.97 0.0

23d 14h

e 35 21.20
EHUE 1.17 17 eP 35 07.96 -0.7
e 35 21.60
ELUQ 1.32 311 eP 35 10.00 -1.2
e 35 28.00
EBAN 1.59 338 eP 35 15.89 0.9
e 35 36.20
EPRU 1.80 279 ePnc 35 23.98 6.0X
EVIA 1.99 12 eP 35 21.90 1.1
e 35 44.50
EJIF 1.99 264 eP 35 21.00 0.3
EHOR 2.11 303 eP 35 26.57 4.1X
e 35 53.00
PAB 3.04 340 ePn 35 38.00 2.3X
ePg 35 45.00
iSg 36 25.00
ECHE 3.31 29 ePnc 35 41.81 2.1X
S.D. = 0.9 on 8 of 12 obs.

? DEC 23, 1993 14h 53m 08.61± 2.99s
36.648 N ±27.5km 3.009 W ± 8.3km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.7 (MDD).

EGUA 0.48 293 iPc. 53 18.96 0.5
e 53 25.70
ENIJ 0.72 63 iPc 53 22.56 -0.2
e 53 32.20
ECOG 0.77 325 iPc 53 22.76 -1.0
e 53 32.20
EHUE 1.21 16 eP 53 31.93 0.7
e 53 46.50
S.D. = 1.3 on 4 of 4 obs.

% DEC 23, 1993 15h 28m 18.23± 1.64s
36.942 N ±16.6km 3.883 W ±11.8km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.8 (MDD).

ECOG 0.42 37 eP 28 26.00 -0.8
e 28 32.00
EMAL 0.47 248 eP 28 27.39 -0.5
e 28 34.10
EBAN 1.22 4 eP 28 40.50 -0.5
e 28 57.30
EHUE 1.35 49 eP 28 44.00 0.9
e 29 03.00
EHOR 1.40 309 eP 28 44.60 0.9
e 29 02.00
S.D. = 1.2 on 5 of 5 obs.

DEC 23, 1993 15h 51m 35.11± 0.35s
6.410 N ± 9.0km 33.455 W ± 6.6km
DEPTH = 10.0km (geophysicist)
4.6mb (10 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)

MBO 18.05 63 iPd 55 47.00 -0.8
BAO 26.21 213 eP 57 12.70 0.5
BDFB 26.23 213 eP 57 11.21 -1.1
1.5s 43.10nm 4.9mb
LKO 27.77 82 P 57 26.10 -0.3
0.8s 4.50nm 4.3mb
TIC 28.25 88 P 57 30.48 -0.2
0.8s 2.00nm 4.0mb
LIC 28.25 89 Pc 57 30.46 -0.3
0.8s 5.50nm 4.4mb
KIC 28.53 88 P 57 33.02 -0.3
0.9s 18.50nm 4.9mb
LPAZ 41.06 236 iPc 59 21.60 0.1
LPB 41.16 236 P 59 23.20 1.2
MOCB 41.87 228 P 59 28.30 0.4
GRF 57.09 33 eP 01 24.80 0.8
1.7s 23.00nm 4.9mb
Z 15s 6.00um 5.8MszX
GEC2 58.02 35 P 01 29.70 -0.9
1.3s 5.05nm 4.4mb
e 01 38.60
KHC 58.09 34 eP 01 31.90 0.9
1.4s 14.00nm 4.8mb
e 02 15.00
BRG 59.20 33 eP 01 39.80 1.1
1.5s 22.00nm 5.1mb
ZST 59.68 37 eP 01 42.30 0.3
SKO 59.99 45 iP 01 44.00 -0.3
SRO 60.23 38 eP 01 45.10 -0.7
KSP 60.47 34 eP 01 48.70 1.3
VAY 60.58 46 eP 01 49.50 1.2
SPC 61.98 37 eP 02 02.60 4.6X
ACO 66.75 307 iPd 02 27.90 -1.1
LTX 69.65 299 eP 02 45.65 -1.7
GLD 71.92 310 eP 03 01.47 0.5
SRU 75.95 309 eP 03 24.53 0.1
MSU 77.22 308 P 03 31.78 0.2
ARUT 78.19 307 eP 03 37.86 1.0
YKA 80.26 332 eP 03 45.50 -1.8
1.0s 1.70nm 4.0mb
MAIO 86.62 54 eP 04 33.00 2.8X
S.D. = 0.9 on 26 of 28 obs.

? DEC 23, 1993 15h 57m 54.78± 2.54s
6.030 N ±27.1km 82.688 W ±17.9km
DEPTH = 10.0km (geophysicist)
4.0mb (1 obs.)
SOUTH OF PANAMA (83)
MD 4.1 (UPA).

DVD 2.40 6 iPd 58 34.99 0.2
eS 59 03.90
BRU 2.76 3 eP 58 40.26 -0.1
eS 59 14.55
UPA 4.29 47 eP 59 01.53 0.0
eS 59 50.02
ECO 4.45 42 eP 59 03.81 0.0
eS 59 55.85
YKA 61.03 344 eP 08 09.10 -1.6
0.8s 1.00nm 4.0mb
INK 70.71 342 eP 09 14.00 1.4
S.D. = 1.2 on 6 of 6 obs.

DEC 23, 1993 16h 05m 13.10± 0.62s
38.186 N ± 4.8km 24.177 E ± 7.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH), 2.8 (THE).

ATH 0.42 240 iPbc 05 21.00 -0.7
eSb 05 28.00
AGG 1.67 301 ePb 05 43.70 1.1
eSb 06 04.40
VLI 1.77 214 iPnc 05 39.00 -4.9X
PAIG 1.78 348 ePb 05 43.62 -0.5
eSb 06 03.22
OUR 2.15 356 ePb 05 48.54 -0.9
LIT 2.32 326 ePn 05 52.08 0.2
iSn 06 19.86
SOH 2.71 347 ePn 05 57.86 0.4
VAM 2.77 180 ePn 05 57.00 -1.4
SRS 2.96 351 ePn 06 00.86 -0.2
ALN 3.07 27 ePn 06 02.70 0.2
GRG 3.09 334 ePn 06 02.44 -0.4
KNT 3.13 342 ePn 06 03.14 -0.3
NPS 3.14 158 ePn 06 05.00 1.5
IGT 3.29 295 ePn 06 06.50 0.8
VAY 3.37 339 ePn 06 17.00 10.2X
S.D. = 0.9 on 13 of 15 obs.

? DEC 23, 1993 16h 23m 48.87± 1.74s
22.276 S ±23.7km 67.540 W ±25.1km
DEPTH = 180.0km (geophysicist)
4.1mb (1 obs.)
CHILE-BOLIVIA BORDER REGION (124)

LPB 5.74 355 iPc 25 14.30 0.7
1.0s 140.00nm 5.1mb X
S 26 18.00
LPAZ 5.98 355 iPc 25 16.70 -0.4
S 26 18.10
ARE 6.88 327 eP 25 28.00 -0.6
eS 26 39.00
LIC 67.39 73 P 34 27.80 0.7
TIC 67.59 72 P 34 27.00 -1.4
KIC 67.71 73 P 34 29.40 0.3
YKA 92.34 340 eP 36 40.00 0.7
0.7s 1.20nm 4.1mb
S.D. = 1.0 on 7 of 7 obs.

DEC 23, 1993 16h 44m 31.55± 0.32s
6.369 S ± 5.5km 154.924 E ± 6.5km
DEPTH = 46.0km (7 depth phases)
5.0mb (25 obs.)
SOLOMON ISLANDS (193)

RAB 3.50 308 eP 45 29.00 4.2X
iS 46 21.00
KVG 5.56 312 eP 45 58.40 4.5X
HNR 5.83 122 P 46 02.00 4.2X
LAT 7.88 267 iPd 46 28.00 1.6
PMG 8.26 248 iPd 46 32.00 0.3
eS 48 05.00
YYYY 8.90 270 eP 46 44.00 3.3X
BKM 17.18 132 iPd 48 33.00 2.9X
DZM 19.17 146 iPd 48 54.10 -0.3
QIS 20.49 225 eP 49 11.40 3.1X
WB2 24.11 234 iPd 49 45.50 1.3
0.5s 20.20nm 4.9mb
ePcP 53 38.50
eS 54 03.80
WRA 24.12 234 P 49 45.79 1.5
0.7s 19.90nm 4.8mb
ARMA 24.12 187 iPd 49 45.40 1.0
1.0s 46.00nm 5.0mb
ipP 49 55.80 39km
MTN 24.31 253 eP 49 47.80 1.6
0.5s 30.00nm 5.1mb
ASPA 26.54 227 iPd 50 06.40 -0.7
0.4s 19.60nm 5.1mb
Z 23s 0.80um 4.2MszX
e 50 23.60 74kmX
iPcP 53 44.00
i 57 22.50
RIV 27.55 187 eP 50 16.20 0.1
STK 28.28 204 eP 50 21.10 -1.6
0.4s 3.40nm 4.3mb
ePcP 53 47.60
WARB 33.40 231 eP 51 08.00 -0.1
MBL 37.00 243 eP 51 38.00 -0.8
e 52 00.30 94kmX
e 54 11.50
COOL 39.96 228 eP 52 04.00 0.6
NANU 41.23 243 eP 52 08.50 -5.4X
KLB 42.83 229 eP 52 26.20 -0.7
MRWA 43.16 233 eP 52 28.80 -0.9
0.3s 2.00nm 4.3mb
BAL 43.19 231 eP 52 29.20 -0.7
NJ2 51.39 320 Pc 53 35.20 1.2
IPM 54.90 280 ePc 53 59.50 -0.9
CN2 56.60 335 eP 54 10.60 -1.5
1.0s 11.00nm 4.8mb
LOE 57.60 295 eP 54 19.00 -0.6
BJI 58.37 326 eP 54 23.00 -1.6
1.2s 8.00nm 4.7mb
NST 58.50 293 eP 54 26.50 0.6
TIY 59.06 321 eP 54 28.50 -1.1
Z 15s 0.47um 4.7MszX
XAN 59.21 316 P 54 29.30 -1.4
0.7s 4.60nm 4.7mb
KMI 59.61 304 Pd 54 35.00 1.2
1.4s 90.00nm 5.7mb
pP 54 46.50 39km
BDT 60.02 294 eP 54 34.50 -1.9
e 54 50.00 57kmX
CHTO 60.57 296 iPc 54 40.00 -0.1
1.1s 58.89nm 5.6mb
CD2 61.36 310 eP 54 44.90 -0.5
ADK 62.90 19 e(P) 54 56.00 0.8
0.7s 47.20nm 5.7mb
i 55 10.40 52km
LZH 63.82 315 eP 55 01.50 -0.3
1.5s 37.00nm 5.2mb
Z 20s 0.30um 4.5Msz
pP 55 15.00 48km
sP 55 22.00
GTA 68.24 317 eP 55 30.00 0.0
1.5s 19.00nm 4.9mb
pP 55 42.50 43km
SHL 68.92 300 eP 55 33.50 -1.0
LSA 70.86 304 P 55 47.40 0.8
YAK 70.91 348 eP 55 46.30 0.6
2.0s 69.00nm 5.3mb
GUN 74.74 301 P 56 09.40 0.1
0.6s 28.00nm 5.4mb
PKI 75.05 301 P 56 10.60 -0.5
0.4s 11.00nm 5.2mb
KKN 75.21 301 P 56 11.70 -0.2
0.4s 17.00nm 5.3mb
DMN 75.32 301 P 56 12.60 0.0
0.6s 32.00nm 5.4mb
GKN 75.82 301 P 56 14.80 -0.5
0.4s 11.00nm 5.2mb

ANM 76.65 16 eP 56 34.16 15.1X
SVW 77.44 22 eP 56 26.00 2.5
TTA 78.47 21 e(P) 56 30.50 1.4
CP2 78.83 23 (P) 56 45.63 14.3X
CRP 78.87 23 eP 56 45.54 14.1X
HYB 79.00 289 eP 56 32.50 -0.4
SLKM 79.20 24 eP 56 47.51 14.4X
GBA 79.42 285 P 56 36.00 0.9
PMS 79.88 24 eP 56 37.10 0.3
IMA 81.24 19 eP 56 44.30 0.3
0.6s 2.00nm 4.3mb
e 56 59.30 52km
KLU 81.50 25 eP 57 00.67 15.3X
NDI 82.34 300 iPc 57 02.50 12.2X
FBA 82.56 21 eP 56 49.60 -1.1
POO 83.60 289 eP 57 09.80 12.8X
KSH 85.54 310 P 57 08.50 2.1
0.8s 30.00nm 5.5mb
INK 89.16 21 eP 57 23.00 -0.2
GMW 89.47 42 eP 57 39.67 14.6X
MCW 89.63 41 eP 57 40.22 14.3X
RMW 90.11 42 (P) 57 41.56 13.4X
BONR 91.33 52 eP 57 48.83 14.5X
QUE 91.42 300 eP 57 29.50 -5.2X
KVN 91.62 51 (P) 57 50.10 14.6X
PEC 91.78 56 eP 57 50.28 14.2X
1.2s 24.92nm
TNP 92.20 52 eP 57 53.02 14.8X
1.0s 11.47nm
MBC 95.12 14 eP 57 51.50 0.9
0.6s 2.00nm 4.7mb
pP 58 06.00 49km
YKA 95.82 28 eP 57 53.70 -0.3
0.4s 1.50nm 4.8mb
GEC2 126.48 329 PKP 03 30.50 -1.0
0.8s 0.88nm
e 03 43.90
MOCB 131.66 126 PKP 03 41.90 -0.7
LPB 131.74 119 ePKP 03 43.00 0.2
LPAZ 131.82 118 iPKPc 03 43.10 -0.1
BAO 148.49 134 (PKP) 04 16.00 3.7X
i 04 32.00
S.D. = 1.0 on 54 of 77 obs.

DEC 23, 1993 16h 45m 25.06± 0.70s
40.947 N ± 6.6km 21.543 E ± 6.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.3 (THE).

FNA 0.21 218 ePg 45 30.02 0.4
eSg 45 32.38
OHR 0.59 286 iPg 45 32.20 -4.8X
0.6s 280.00nm
iSg 45 42.80
i 45 50.80
GRG 0.65 89 ePg 45 37.82 -0.2
eSg 45 47.78
VAY 0.86 64 ePg 45 41.20 -0.4
SKO 1.03 356 ePg 45 44.00 -0.5
iSg 45 59.80
KNT 1.05 78 iPg 45 44.94 0.1
eSg 46 00.70
LIT 1.11 139 iPg 45 44.85 -1.1
eSg 46 01.18
SOH 1.38 95 ePb 45 50.74 0.4
SRS 1.56 83 ePb 45 54.26 1.4
IGT 1.69 214 eP 45 54.70 -0.1
eS 46 16.66
S.D. = 0.8 on 9 of 10 obs.

DEC 23, 1993 18h 00m 07.91± 0.41s
36.769 N ± 3.6km 2.940 W ± 4.5km
DEPTH = 20.5 ± 4.2 km
STRAIT OF GIBRALTAR (385)
mbLg 3.8 (MDD). Felt (IV) in the
Adra area, Spain.

EGUA 0.51 278 iPc 00 16.57 -1.5
e 00 22.80
ENIJ 0.62 71 iPc 00 19.56 -0.4
e 00 28.20
ECOG 0.71 316 iPc 00 20.34 -1.3
e 00 29.50
EHUE 1.08 15 iPc 00 27.47 -0.4
e 00 42.50
EMAL 1.20 270 eP 00 27.28 -2.2
e 00 43.40
ELUQ 1.32 307 ePnc 00 33.79 2.5
eSn 00 52.50
EMEL 1.47 181 eP 00 33.03 -0.2
e 00 52.60
EBAN 1.55 334 iPd 00 35.06 0.6
e 00 56.30
EALH 1.63 48 iPd 00 36.09 0.4
e 00 58.30
EPRU 1.85 277 ePnc 00 41.72 2.8X
eSn 01 04.20
EVIA 1.90 10 iPd 00 40.69 1.0
e 01 05.40
TOU 1.92 200 iP 00 40.50 0.6
iS 01 02.50
ZAI 1.97 175 iP 00 40.00 -0.6
iS 01 02.50
LIJA 1.99 274 iP 00 43.92 3.0X
TAF 2.00 167 iPn 00 42.00 0.9
eS 00 58.50
iSn 01 04.00
EJIF 2.06 262 eP 00 40.12 -1.8
e 01 06.00
EHOR 2.12 300 iPc 00 42.62 -0.2
e 01 09.00
ALJ 2.14 268 iP 00 44.78 1.6
MOMI 2.28 260 iP 00 45.76 0.6
PLAT 2.36 255 iP 00 48.01 1.8
NKM 2.40 237 iPn 00 46.50 -0.2
iSn 01 10.00
i 01 14.00
GIBL 2.42 272 iP 00 48.65 1.6
BIT 2.52 244 iP 00 51.00 2.6X
iS 01 19.50
CNIL 2.54 262 iP 00 50.71 2.0
ACU 2.66 48 eP 00 50.01 -0.5
e 01 23.50
TSY 2.82 241 iP 00 54.00 1.3
iS 01 26.00
TZK 2.86 201 iP 00 54.00 0.8
iS 01 28.00
BMK 2.98 233 iP 00 43.00 -11.9X
iS 01 05.00
PAB 2.99 339 iPn 00 56.10 1.0
iPb 01 05.50
iSg 01 43.50
TGT 3.20 213 iP 01 00.00 1.9
iS 01 36.50
ECHE 3.22 28 eP 00 59.01 0.6
e 01 37.10
IFR 3.71 210 iPn 01 05.50 0.0
iSn 01 46.00
GUD 3.98 347 eP 01 09.29 0.0
e 01 52.50
ETOR 4.10 9 eP 01 11.71 0.7
EPLA 4.11 324 iPd 01 11.01 -0.1
e 01 58.00
EROQ 4.82 32 eP 01 21.52 0.4
AVE 5.05 228 iPn 01 22.50 -1.8
iSn 02 18.00
i 02 20.00
ECRI 5.84 3 eP 01 36.11 0.6
ELIZ 6.48 9 ePnc 01 44.27 -0.3
eSn 01 55.00
ERUA 6.49 331 eP 01 43.00 -1.6
TIO 6.85 213 iPn 01 48.50 -1.3
iSn 03 03.00
i 03 05.00
EZAM 6.98 322 eP 01 50.16 -1.3
S.D. = 1.2 on 38 of 42 obs.

& DEC 23, 1993 19h 08m 47.80s
64.775 N 147.996 W
DEPTH = 26.7km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC).

CCB 0.15 147 P 08 53.20 0.0
S 08 56.90
FBA 0.15 35 iPc 08 52.85 -0.3
eS 08 56.43
MDM 0.21 332 P 08 53.70 -0.1
WRH 0.31 188 P 08 55.00 -0.1
GLM 0.34 50 P 08 55.50 -0.1
S 09 00.70
ILB 0.48 90 P 08 57.00 -0.7
IL1 0.48 90 P 08 57.00 -0.7
S 09 04.50
NEA 0.51 247 P 08 57.90 -0.3
HDA 0.58 129 P 08 59.20 -0.2
S 09 07.40
BWN 0.88 227 P 09 03.20 -1.1
MCK 1.12 202 P 09 08.60 0.7
MLY 1.20 284 P 09 09.60 0.7
DJE 1.26 126 P 09 11.30 1.6
PRP 1.28 53 P 09 11.10 0.9
DDM 1.36 136 P 09 11.80 0.6
RND 1.43 196 P 09 15.10 2.9
FYU 2.13 31 P 09 18.50 -3.8
IM3 2.70 299 P 09 30.00 -0.3
BM3 2.99 26 P 09 34.20 -0.4
BC3 3.24 119 P 09 35.20 -2.8
BALM 4.56 143 (P) 09 56.53 -0.3
21 obs. associated

DEC 23, 1993 20h 57m 00.72± 0.83s
5.894 S ± 7.2km 145.729 E ± 9.9km
DEPTH = 10.0km (geophysicist)
3.3mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY 0.42 145 iPc 57 10.10 0.8
MDG 0.64 5 iPd 57 13.80 0.2
LAT 1.48 121 eP 57 26.60 -0.8
WWKK 3.08 317 eP 57 54.50 4.1X
PMG 3.77 158 eP 58 00.00 -0.1
WB2 17.81 217 eP 01 09.80 -0.7
0.4s 2.40nm 3.7mb
WRA 17.82 217 P 01 11.10 0.5
0.4s 0.40nm 2.9mb
GEC2 121.10 325 Pdiff 12 37.30 15.7X
0.7s 0.93nm
e 12 46.40
S.D. = 0.8 on 6 of 8 obs.

? DEC 23, 1993 21h 32m 13.44± 1.10s
12.278 N ±25.2km 122.266 E ±24.9km
DEPTH = 10.0km (geophysicist)
LUZON, PHILIPPINE ISLANDS (249)

PGP 1.77 314 eP 32 44.00 -0.3
eS 33 10.00
MAP 2.57 139 ePc 32 56.00 0.2
QVP 2.63 332 eP 32 57.00 0.3
PLP 2.88 112 ePc 33 00.00 -0.2
S.D. = 0.5 on 4 of 4 obs.

% DEC 23, 1993 21h 41m 23.87± 0.77s
40.566 N ± 8.1km 23.601 E ±12.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

SOH 0.32 324 iPg 41 30.85 0.4
eSg 41 34.98
OUR 0.37 128 iPg 41 31.82 0.3
eSg 41 37.26
SRS 0.55 359 iPg 41 34.62 -0.4
eSg 41 42.22
PAIG 0.64 175 ePg 41 36.38 -0.3
eSg 41 45.46
KNT 0.80 318 ePg 41 39.42 0.0
eSg 41 50.56
S.D. = 0.5 on 5 of 5 obs.

DEC 24, 1993 00h 09m 09.47± 0.34s
50.528 N ± 7.4km 173.702 W ± 3.8km
DEPTH = 33.0km (normal)
4.8mb (40 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
ML 4.3 (PMR).

ADK 2.32 307 iPc 09 43.98 -2.0
eS 10 10.23
SDN 9.31 54 eP 11 22.68 -1.6
KDC 14.34 52 eP 12 28.85 -2.9X
SVW 14.62 37 eP 12 34.86 -0.7
0.8s 25.24nm 4.7mb
TTA 15.69 31 eP 12 48.58 -0.9
1.0s 38.85nm 4.5mb
CP2 16.05 40 (P) 12 53.41 -0.8
SLKM 16.54 44 eP 12 57.85 -2.3
PWA 17.22 41 eP 13 10.70 2.0X
PET 17.25 289 eP 13 11.00 1.9

24d 00h

IMA 18.65 26 eP 13 25.94 -0.5
0.8s 17.21nm 4.3mb
KLU 18.85 44 eP 13 26.57 -2.4
eS 16 56.98
TOA 18.99 42 eP 13 29.90 -0.7
FBA 19.75 33 eP 13 37.06 -2.0
0.9s 25.00nm 4.5mb
BALM 20.32 47 eP 13 44.68 -0.5
INK 26.37 33 eP 14 45.50 1.6
0.9s 8.00nm 4.3mb
GMW 32.98 75 eP 15 43.94 0.9
BMW 33.16 77 P 15 45.44 0.7
MBC 33.23 21 eP 15 47.50 2.6X
JCW 33.24 74 P 15 46.04 0.7
KMOR 33.37 79 P 15 47.04 0.4
YKA 33.49 46 eP 15 48.10 0.8
1.0s 8.10nm 4.6mb
RMW 33.62 75 eP 15 49.28 0.5
LON 33.92 76 eP 15 52.08 0.7
FMW 33.93 75 P 15 51.87 0.3
ASR 34.32 77 P 15 55.33 0.5
SSOR 34.38 79 P 15 55.64 0.3
EBG 34.62 75 P 15 57.47 0.1
VBEM 34.83 78 P 15 59.73 0.5
VGB 35.12 77 eP 16 02.10 0.5
CROR 35.24 78 P 16 02.70 0.0
WAH2 35.31 75 P 16 03.29 0.2
VIPM 35.70 79 P 16 06.58 -0.1
NEW 36.14 71 eP 16 10.11 -0.1
0.6s 4.17nm 4.5mb
LBFM 36.51 84 eP 16 14.68 1.1
ORV 37.75 86 eP 16 23.69 -0.1
HMR 38.37 88 (P) 16 28.80 -0.1
RES 39.19 24 eP 16 40.00 4.6X
CMB 39.34 87 eP 16 37.81 0.7
1.3s 20.84nm 4.7mb
LRM 40.10 72 eP 16 42.90 -0.7
KVN 40.20 85 eP 16 44.74 0.3
MEMM 40.48 87 eP 16 47.50 1.1
MTUM 40.90 87 eP 16 51.12 0.9
TNP 41.33 85 eP 16 53.75 0.1
0.9s 17.83nm 4.8mb
PTI 41.67 76 eP 16 57.50 1.1
ISA 41.99 89 eP 16 58.20 -0.8
0.8s 13.64nm 4.7mb
HVU 42.02 78 eP 16 59.83 0.6
TPNV 42.62 86 iP 17 04.75 0.5
0.7s 24.83nm 5.0mb
DUG 42.88 80 eP 17 06.67 0.3
1.0s 19.35nm 4.8mb
ePcP 18 55.34
GSC 43.28 88 eP 17 09.63 0.1
BW06 43.46 74 iP 17 10.84 -0.3
0.8s 13.09nm 4.7mb
DAU 43.73 78 eP 17 14.28 0.8
CIT 43.74 301 eP 17 13.00 -0.1
ARUT 43.90 83 eP 17 14.46 -0.2
MSU 44.27 81 eP 17 17.89 0.2
ePcP 19 01.25
EMUT 44.36 79 eP 17 19.06 0.6
SRU 44.95 79 eP 17 22.94 -0.2
RSSD 46.07 70 eP 17 30.58 -1.4
0.7s 3.70nm 4.4mb
PV09 46.19 79 eP 17 32.49 -0.6
PV08 46.45 79 eP 17 34.54 -0.6
ULM 47.42 58 eP 17 44.00 1.8
GOL 47.81 75 eP 17 45.70 -0.1
1.0s 21.11nm 5.1mb
ePcP 19 13.28
GLD 47.87 75 eP 17 46.50 0.3
1.2s 14.52nm 4.9mb
TUC 49.04 87 eP 17 55.63 0.5
1.0s 11.86nm 4.9mb
ePcP 19 18.30
ALQ 50.08 81 eP 18 02.49 -0.8
1.2s 12.49nm 4.8mb
ePcP 19 21.07
DAG 51.98 7 iPc 18 17.10 0.3
0.7s 7.53nm 4.8mb
FRB 52.03 33 eP 18 18.00 0.7
1.0s 7.00nm 4.6mb
WMOK 55.01 76 eP 18 38.41 -1.4
0.8s 21.67nm 5.2mb
ePcP 19 39.62
LTX 55.56 84 eP 18 41.97 -2.0
ePcP 19 41.49
LZH 58.71 290 eP 19 05.00 -1.3
1.5s 27.00nm 5.1mb
OXF 60.88 70 eP 19 18.99 -2.0
GAC 60.97 52 eP 19 20.50 -0.9
YSNY 61.61 57 eP 19 25.17 -0.8
0.8s 18.55nm 5.3mb
ARU 64.98 331 eP 19 48.00 0.2
LMN 66.04 46 eP 19 54.00 -0.7
KAF 66.58 350 eP 19 57.80 -0.1
KMI 67.05 282 eP 20 00.00 -1.7
1.0s 40.00nm 5.5mb
pP 20 09.00 29kmX
NUR 68.33 350 eP 20 09.00 0.1
HFS 69.53 356 eP 20 16.80 0.5
0.4s 4.20nm 4.8mb
Z 16s 0.08um 4.1MszX
LR 44 50.00
FRU 69.63 313 eP 20 17.70 0.4
2.0s 50.00nm 5.2mb
e 20 26.00
e 20 40.00
OBN 71.74 342 eP 20 30.00 0.2
SHL 73.38 290 iP 20 38.50 -1.6
DZM 74.38 199 iPc 20 43.10 -2.5
GUN 75.15 296 P 20 49.80 -0.7
0.8s 34.00nm 5.4mb
KKN 75.58 296 P 20 52.00 -0.9
0.6s 10.00nm 5.0mb
PKI 75.68 296 P 20 52.40 -1.1
0.8s 12.00nm 4.9mb
GKN 75.79 297 P 20 52.50 -1.4
0.6s 14.00nm 5.1mb
DMN 75.82 296 P 20 53.50 -0.8
CLL 78.38 356 eP 21 08.00 0.3
KSP 78.65 354 eP 21 10.00 0.8
BRG 78.77 355 iP 21 10.70 0.9
1.0s 14.00nm 4.9mb
ENN 79.08 0 eP 21 13.10 1.6
0.8s 17.30nm 5.1mb
e 21 22.50
MOX 79.10 357 eP 21 12.20 0.5
1.6s 20.00nm 4.9mb
PRU 79.62 355 P 21 15.50 1.1
DOU 79.75 1 Pc 21 17.60 2.5
e 21 26.20
SPC 79.95 351 eP 21 10.40 -6.1X
GRF 80.07 357 iPc 21 19.00 2.1
1.1s 12.00nm 4.8mb
KHC 80.53 355 eP 21 20.50 1.1
1.2s 8.00nm 4.6mb
e 21 31.00
e 21 43.50
e 21 55.00
KIV 80.71 334 P 21 23.40 2.9
ASH 80.73 321 eP 21 21.40 0.8
GEC2 80.80 355 P 21 21.80 0.9
0.8s 1.57nm 4.1mb
e 21 24.90
e 21 27.80
e 21 41.80
ZST 81.22 353 eP 21 23.90 0.9
KBA 82.59 355 iPd 21 32.10 1.7
0.7s 10.70nm 5.0mb
i 21 34.30
PTJ 83.59 353 eP 21 36.10 0.7
WB2 83.74 228 iPd 21 32.50 -3.8X
1.0s 2.70nm 4.3mb
e 24 30.30
WRA 83.74 228 P 21 33.00 -3.3X
0.7s 1.00nm 4.1mb
SKO 86.93 349 iP 21 53.40 1.3
ASPA 87.15 227 iPd 21 48.50 -4.7X
1.2s 5.20nm 4.6mb
VAY 87.43 348 eP 21 55.70 1.3
HYB 87.52 294 eP 21 53.50 -1.7
TIC 122.22 13 PKP 28 00.90 -1.6
KIC 122.54 13 PKP 28 01.30 -1.8
LIC 122.63 13 PKP 28 01.40 -1.9
BFT 149.21 315 PKP 28 56.50 4.7X
SLR 150.03 317 iPKPd 28 55.20 2.3
0.8s 18.66nm
S.D. = 1.1 on 105 of 114 obs.

? DEC 24, 1993 00h 13m 15.42± 0.99s
37.514 N ± 9.6km 3.916 W ±11.1km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.4 (MDD).

ECOG 0.37 130 iPc 13 23.94 1.0
e 13 29.00
EBAN 0.66 9 iPd 13 28.19 -0.4
e 13 37.80
EGUA 0.73 157 iPc 13 28.82 -1.0
e 13 39.90
EHOR 1.10 287 eP 13 36.50 0.4
e 13 50.20
S.D. = 1.5 on 4 of 4 obs.

DEC 24, 1993 00h 21m 38.51± 0.27s
16.010 N ± 4.6km 86.620 W ± 4.0km
DEPTH = 10.0km (geophysicist)
4.8mb (37 obs.)
CARIBBEAN SEA (94)
Felt at Roatan, Bahia Islands.

TPX 5.55 259 (P) 23 16.00 12.8X
SCX 5.82 278 (P) 23 05.00 -1.9
ECO 9.45 134 eP 23 56.69 -1.1
eS 25 30.88
OXX 9.75 278 (P) 24 01.00 -1.0
UPA 9.83 134 eP 24 01.24 -1.7
eS 25 26.13
PPM 11.85 287 (P) 24 33.00 1.9
BMG 15.96 122 eP 25 32.00 7.0X
BOG 16.74 131 eP 25 43.00 7.9X
SDV 17.13 113 eP 25 44.20 4.2X
PSO 17.34 147 eP 25 51.00 8.2X
TOV 17.52 109 eP 25 48.20 3.5X
GOGA 17.56 9 eP 25 42.90 -2.1
0.6s 19.08nm 4.4mb
eSg 28 43.13
SGS 17.98 17 (P) 25 50.91 0.8
OXF 18.59 353 eP 25 57.15 -0.6
JSC 18.82 14 eP 25 59.34 -1.2
MYNC 19.12 6 eP 26 03.51 -0.7
0.6s 46.76nm 4.9mb
eSg 29 19.67
UYO 19.41 340 iPc 26 08.30 0.5
MIAR 19.49 343 eP 26 07.73 -0.9
1.1s 41.08nm 4.6mb
eSg 29 27.60
LTX 20.54 313 eP 26 19.33 -0.6
eSg 29 54.78
CEH 20.91 17 eP 26 23.52 -0.1
0.5s 10.06nm 4.4mb
ELC 21.32 354 eP 26 28.42 0.7
TUL 21.44 339 iPc 26 29.40 0.4
WMOK 21.61 332 eP 26 29.51 -1.2
0.8s 42.71nm 4.9mb
eSg 30 17.38
OCO 21.72 335 iPd 26 34.00 2.1
BLA 21.82 13 eP 26 33.72 0.8
1.3s 80.51nm 5.0mb
NAV 21.84 13 eP 26 33.32 0.2
FVM 22.14 352 eP 26 35.89 -0.2
0.7s 22.22nm 4.7mb
CVL 23.04 17 eP 26 45.18 0.3
ACO 23.42 334 iPd 26 48.80 0.2
MCWV 24.29 13 (P) 26 56.82 -0.2
1.1s 32.96nm 4.9mb
ALQ 25.91 320 eP 27 13.09 0.3
0.8s 8.08nm 4.5mb
TUC 27.28 311 eP 27 24.35 -0.8
0.9s 10.09nm 4.5mb
BINY 27.65 17 eP 27 28.47 0.0
1.4s 37.27nm 5.0mb
GLD 28.69 329 eP 27 37.70 -0.3
1.2s 16.83nm 4.7mb
GOL 28.72 329 eP 27 37.84 -0.5
1.0s 23.24nm 4.9mb
PV09 29.89 323 (P) 27 48.36 -0.6
RSNY 30.23 17 eP 27 51.77 0.2
1.1s 31.63nm 5.1mb
SRU 31.10 322 eP 27 59.85 0.3
MSU 31.72 320 eP 28 05.92 0.9
EMUT 31.74 323 eP 28 05.22 0.1
ARUT 32.09 318 eP 28 09.18 1.0
BW06 33.12 328 eP 28 16.18 -0.9
1.0s 11.13nm 4.7mb
DUG 33.15 322 eP 28 17.99 0.6
0.9s 7.49nm 4.6mb
TPNV 33.51 314 (P) 28 21.34 0.7
0.8s 8.06nm 4.7mb
HVU 34.15 324 eP 28 25.88 -0.2
PTI 34.65 326 eP 28 30.57 0.2

ULM 34.96 350 eP 28 33.50 0.8
BONR 35.43 314 eP 28 38.60 1.4
ARE 35.55 154 eP 28 40.00 1.6
KVN 35.84 316 eP 28 41.26 0.7
LRM 36.75 329 eP 28 49.00 0.8
LPAZ 36.92 150 P 28 49.10 -1.2
S 34 46.00
LR 40 34.00
LPB 37.14 150 eP 28 55.00 3.1X
ORV 38.39 315 eP 29 02.92 1.1
LBFM 39.51 317 eP 29 11.27 -0.1
VGB 41.02 323 eP 29 24.02 0.5
DPW 41.04 328 eP 29 23.67 0.0
VBEM 41.24 322 P 29 26.52 1.0
SSOR 41.65 321 P 29 28.62 -0.2
EBG 41.71 325 P 29 29.60 0.4
ASR 41.85 323 P 29 30.62 0.2
WTV 41.85 326 P 29 29.91 -0.4
RNO 41.96 319 P 29 31.78 0.5
LON 42.32 324 eP 29 34.65 0.5
FMW 42.34 324 P 29 34.99 0.5
KMOR 42.68 322 P 29 37.97 0.8
RMW 42.72 325 eP 29 36.94 -0.5
BMW 42.98 323 (P) 29 39.31 -0.3
JCW 43.21 326 P 29 40.49 -0.9
GMW 43.32 324 eP 29 41.64 -0.6
MCW 43.99 326 eP 29 47.40 -0.3
STW 44.15 325 P 29 49.57 0.6
FRB 49.30 10 eP 30 27.50 -1.8
0.6s 2.00nm 4.3mb
YKA 50.43 344 eP 30 37.00 -1.0
0.9s 17.10nm 5.0mb
RES 58.86 357 eP 31 38.00 -1.3
0.9s 5.00nm 4.6mb
INK 60.08 342 eP 31 46.50 -1.4
1.0s 4.00nm 4.5mb
MBC 62.63 352 ePc 32 05.30 0.3
1.0s 11.00nm 5.0mb
FBA 63.53 335 eP 32 09.07 -2.0
0.9s 4.76nm 4.7mb
TTA 66.51 332 eP 32 28.36 -2.1
0.8s 2.91nm 4.5mb
DAG 69.50 13 iPd 32 47.80 -1.0
0.8s 7.46nm 4.9mb
KDS 71.84 82 eP 33 04.50 0.5
PAB 74.11 53 ePc 33 18.10 1.0
LKO 78.87 83 Pd 33 44.60 0.4
0.9s 18.00nm 5.1mb
TIC 80.15 86 Pd 33 51.43 0.3
0.9s 8.00nm 4.7mb
LIC 80.25 86 Pd 33 52.05 0.4
0.9s 12.50nm 4.9mb
KIC 80.49 86 Pd 33 53.45 0.5
0.8s 14.50nm 5.0mb
HFS 81.31 30 eP 33 55.50 -0.8
0.5s 1.80nm 4.4mb
GRF 82.92 40 eP 34 05.20 0.3
1.5s 18.00nm 5.0mb
CLL 83.54 39 iP 34 08.20 0.2
BRG 84.24 39 eP 34 11.80 0.2
KHC 84.56 40 P 34 14.00 0.7
1.2s 8.00nm 4.8mb
e 34 18.00
GEC2 84.73 41 PKP 34 14.70 0.5
1.3s 9.48nm 4.9mb
e 34 21.10
PRU 84.88 39 eP 34 15.50 0.7
KBA 85.05 43 iPc 34 16.40 0.5
1.3s 16.50nm 5.1mb
KSP 85.66 38 eP 34 19.00 0.3
KAF 86.23 26 eP 34 21.90 0.6
NUR 86.24 28 iP 34 22.00 0.6
0.8s 15.80nm 5.3mb
ZST 87.07 41 iP 34 26.50 0.8
1.0s 19.20nm 5.3mb
PTJ 87.14 43 i(P) 34 26.80 0.6
TIK 89.33 349 eP 34 35.00 -1.1
1.2s 20.00nm 5.2mb
e 34 40.00
SKO 92.28 45 eP 34 51.00 0.7
OBN 94.50 29 eP 35 00.00 -0.2
LZH 127.25 349 ePKP 40 45.50 -0.1
1.2s 23.00nm
WB2 140.90 258 iPKPc 41 04.20 -7.2X
0.5s 5.50nm
i 41 11.70
WRA 140.91 258 PKP 41 04.00 -7.4X

0.9s 2.40nm
ASPA 141.23 252 iPKPd 41 05.30 -6.7X
1.0s 5.90nm
i 41 12.20
HYB 143.71 24 ePKP 41 07.50 -8.9X
CHTO 144.97 351 ePKP 41 16.90 -1.6
GBA 146.62 29 PKP 41 23.00 1.7
NST 147.82 348 ePKP 41 21.00 -2.1X
KOD 149.54 32 ePKP 41 32.00 5.7X
S.D. = 0.9 on 98 of 111 obs.

? DEC 24, 1993 01h 00m 07.09± 2.50s
36.713 N ±27.6km 2.969 W ± 7.9km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.6 (MDD).

EGUA 0.49 284 iPc 00 17.20 0.1
e 00 23.50
ENIJ 0.66 67 iPd 00 20.20 -0.1
e 00 29.40
ECOG 0.74 320 eP 00 21.00 -0.7
e 00 29.80
EBAN 1.59 336 eP 00 36.00 0.7
e 00 55.70
S.D. = 1.0 on 4 of 4 obs.

? DEC 24, 1993 01h 55m 07.29± 3.58s
73.823 N ±19.9km 9.148 E ±29.9km
DEPTH = 10.0km (geophysicist)
GREENLAND SEA (640)
MD 2.9 (BER).

BJO 2.84 71 eP 55 53.37 0.0
eS 56 23.33
TRO 5.21 139 eP 56 27.77 0.8
eS 57 22.24
ARA0 6.70 122 Pn 56 48.12 0.1
Sn 57 58.97
NSD 9.29 154 eP 57 23.50 -0.5
0.4s 1.00nm 4.6mb X
NRA0 13.18 175 Pn 58 17.19 0.3
KAF 13.32 143 eP 58 17.90 -0.7
S.D. = 0.7 on 6 of 6 obs.

% DEC 24, 1993 02h 12m 14.96± 0.60s
44.493 N ± 4.5km 8.153 E ± 4.2km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

ROB 0.28 226 P 12 20.94 0.2
S 12 24.87
PCP 0.28 80 P 12 20.71 0.0
S 12 24.78
FIN 0.29 172 P 12 20.85 0.1
S 12 24.83
ENR 0.59 243 P 12 26.43 -0.3
S 12 34.44
IMI 0.61 198 P 12 27.12 -0.1
STV 0.64 248 P 12 27.94 0.1
S 12 36.13
BHB 0.72 299 P 12 29.59 0.1
S 12 38.83
PZZ 0.75 271 P 12 30.14 0.0
S 12 39.57
RSP 0.92 316 P 12 32.98 -0.1
S.D. = 0.2 on 9 of 9 obs.

? DEC 24, 1993 02h 14m 06.68± 3.09s
18.219 N ±37.9km 67.096 W ±21.3km
DEPTH = 33.0km (normal)
MONA PASSAGE (89)

LSP 0.04 167 iP 14 12.00 -0.3
S 14 15.40
MGP 0.21 178 iP 14 13.50 0.1
S 14 18.10
CLLP 0.51 106 iP 14 17.00 -0.5
SJG 0.91 97 iP 14 34.50 11.4X
CPD 1.14 99 iP 14 26.40 0.0
LPR 1.17 85 iP 14 27.00 0.2
S.D. = 0.4 on 5 of 6 obs.

% DEC 24, 1993 02h 25m 18.77± 3.70s
33.432 S ± 8.5km 70.448 W ±17.2km
DEPTH = 90.3 ± 31.9 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.6 (SAN).

FCH 0.17 52 iP 25 32.21 -0.2
iS 25 44.03
SAN 0.18 263 iP+ 25 32.06 0.0
iS 25 42.50
PCH 0.20 196 iP+ 25 32.13 -0.1
iS 25 42.33
PEL 0.35 325 iP+ 25 33.00 0.2
iS 25 43.78
TACH 0.46 242 iP+ 25 33.46 0.0
iS 25 45.99
ROCH 0.66 314 iP 25 35.49 0.1
iS 25 48.56
CACH 0.69 190 iP 25 36.02 0.4
iS 25 50.11
JACH 0.76 351 P 25 36.15 -0.1
iS 25 50.02
LCCH 0.94 267 iP 25 38.26 0.2
iS 25 53.76
LNV 0.96 237 iP+ 25 37.77 -0.5
iS 25 53.80
S.D. = 0.3 on 10 of 10 obs.

% DEC 24, 1993 02h 28m 21.97± 5.53s
33.584 S ±11.6km 70.337 W ±24.5km
DEPTH = 103.1 ± 45.7 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.4 (SAN).

PCH 0.15 256 iP+ 28 36.75 -0.1
iS 28 48.84
FCH 0.26 9 iP 28 37.39 -0.1
iS 28 49.86
TACH 0.51 262 iP 28 38.42 0.1
iS 28 51.59
PEL 0.53 326 iP 28 38.65 0.1
iS 28 52.10
CACH 0.57 202 iP+ 28 39.31 0.3
iS 28 53.74
ROCH 0.83 317 iP+ 28 41.51 0.1
iS 28 57.01
JACH 0.93 346 iP 28 42.18 -0.1
iS 28 57.90
LNV 0.97 247 iP 28 42.09 -0.4
iS 28 57.80
LCCH 1.04 276 iPd 28 43.51 0.2
iS 29 00.31
S.D. = 0.3 on 9 of 9 obs.

DEC 24, 1993 02h 33m 28.39± 0.41s
13.947 S ± 5.8km 170.436 E ± 4.2km
DEPTH = 638.2 ± 5.4 km
4.8mb (53 obs.)
VANUATU ISLANDS REGION (185)

BKM 4.26 209 iP 34 59.00 0.3
iS 36 10.00
VUN 8.71 119 iPd 35 35.60 -0.3
DZM 8.93 205 iPc 35 38.20 0.3
iS 37 26.10
AFI 17.27 92 eP 36 58.00 0.7
PMG 23.23 279 e(P) 37 52.00 0.6
ARMA 23.86 224 iPd 37 56.50 -0.4
0.5s 14.00nm 4.8mb
ePcP 41 16.70
MDG 25.78 287 eP 38 08.00 -5.7X
RIV 26.41 218 eP 38 20.00 0.9
MRW 27.44 173 P 38 24.80 -3.1X
CNB 28.51 218 iPc 38 36.80 -0.5
0.6s 70.00nm 5.5mb
QIS 30.13 253 eP 38 50.80 -0.3
STK 31.86 231 ePc 39 05.70 0.2
e 40 41.80
ePcP 41 36.10
eS 43 33.10
TOO 32.34 219 iPc 39 09.80 0.3
0.5s 139.00nm 5.8mb X
WB2 34.98 255 iPd 39 30.20 -1.3
0.8s 16.40nm 4.6mb
iPcP 41 46.20
iS 44 17.70
WRA 34.99 255 P 39 30.89 -0.7
0.9s 17.80nm 4.6mb
ADE 35.43 228 eP 39 35.20 0.1
ASPA 35.82 249 iPc 39 37.60 -0.8

24d 02h

	0.7s	116.80nm			5.5mb
			i	39 43.50	
			iPcP	41 47.40	
			iS	44 30.50	
			iScS	48 42.70	
MTN	38.22	267	eP	39 58.20	0.1
	0.5s	75.00nm			5.5mb
WARB	42.71	246	iPc	40 34.70	1.1
	0.3s	11.00nm			4.9mb
COOL	48.18	241	eP	41 13.90	-1.4
MBL	48.61	254	iPd	41 18.00	-0.5
	0.5s	31.00nm			5.0mb
KLB	51.15	241	eP	41 35.80	-1.2
NWAO	51.78	239	eP	41 40.10	-1.4
	0.5s	13.00nm			4.5mb
MRWA	52.42	244	iPc	41 45.40	-0.7
MUN	52.51	240	eP	41 47.00	0.2
NANU	52.60	252	eP	41 41.20	-6.3X
	0.3s	13.00nm			4.8mb
MAT	58.70	330	eP	42 27.00	-2.0
SBA	63.94	181	eP	43 04.50	2.2
CSY	65.42	203	iPd	43 11.10	-0.5
	0.5s	41.60nm			5.1mb
YSS	65.58	340	iPc	43 13.40	0.6
	0.8s	40.00nm			4.9mb
ADK	66.50	9	eP	43 15.29	-3.0X
	0.9s	15.63nm			4.5mb
MDJ	69.09	330	eP	43 34.50	0.4
WHN	69.74	310	Pc	43 38.00	-0.2
	1.0s	30.00nm			4.7mb
CN2	70.61	327	eP	43 43.30	0.3
	1.2s	40.00nm			4.8mb
BJI	73.63	319	eP	44 01.00	0.8
	1.0s	17.00nm			4.5mb
			eS	52 40.00	
TIY	74.80	316	eP	44 08.00	1.1
XAN	75.46	311	P	44 11.00	0.4
	1.0s	22.00nm			4.6mb
KMI	76.53	300	eP	44 17.80	0.9
	1.0s	20.00nm			4.6mb
BDT	77.00	292	eP	44 20.00	0.8
	1.0s	47.60nm			5.0mb
CHTO	77.57	293	iPd	44 22.80	0.6
	0.9s	21.31nm			4.7mb
CD2	78.00	306	iPc	44 25.20	0.9
	1.0s	33.00nm			4.8mb
SVW	79.52	16	eP	44 32.20	0.6
LZH	80.10	311	Pd	44 36.20	0.9
	1.0s	44.00nm			4.9mb
ANM	80.42	10	(P)	44 34.50	-1.6
SLKM	80.59	19	eP	44 36.35	-0.8
CRP	80.62	17	eP	44 35.80	-1.6
TTA	80.95	15	eP	44 38.11	-0.9
	0.9s	22.59nm			4.7mb
			e	44 58.74	
STAN	81.23	48	ePc	44 42.14	1.3
BKS	81.39	48	ePc	44 42.46	0.8
	0.8s	60.00nm			5.2mb
SAO	81.50	49	ePc	44 42.64	0.4
	0.9s	20.00nm			4.6mb
COE	81.54	48	eP	44 41.00	-1.4
MHC	81.59	48	ePc	44 43.54	0.7
	0.9s	30.00nm			4.8mb
ARN	81.68	48	eP	44 42.85	-0.3
PMR	81.77	18	eP	44 42.18	-0.8
	0.5s	25.83nm			5.0mb
BCH	81.87	51	eP	44 44.98	0.7
CIT	81.95	328	eP	44 45.40	1.3
YAK	82.19	342	iPc	44 44.40	-0.7
	1.1s	85.00nm			5.2mb
			eS	54 14.00	
WDC	82.33	45	eP	44 45.96	-0.3
	0.8s	17.10nm			4.7mb
ORV	82.62	46	ePc	44 47.94	0.2
	1.0s	20.00nm			4.6mb
KLU	82.71	20	eP	44 46.40	-1.4
YBH	82.71	44	ePc	44 49.11	0.9
	1.1s	30.00nm			4.8mb
CMB	82.79	48	ePc	44 49.00	0.3
	1.0s	20.00nm			4.7mb
MIN	82.88	46	ePc	44 49.75	0.6
	0.8s	10.00nm			4.5mb
TOA	83.08	19	eP	44 50.70	1.0
LBFM	83.10	45	eP	44 50.70	0.3
ISA	83.27	51	eP	44 50.70	-0.5
	0.9s	26.87nm			4.9mb
SSK	83.32	52	eP	44 51.82	0.2
PEC	83.61	53	eP	44 52.91	0.1
	0.6s	20.54nm			4.9mb
PLM	83.65	54	eP	44 53.37	0.1
MEMM	83.69	49	(P)	44 55.05	2.0
MTUM	83.85	49	eP	44 54.61	0.5
KMOR	83.94	40	P	44 54.26	0.0
IMA	84.13	14	eP	44 54.00	-0.8
	0.9s	8.38nm			4.4mb
BONR	84.27	49	eP	44 56.01	-0.3
GTA	84.37	313	iPd	44 57.50	1.0
	1.0s	44.00nm			5.0mb
			pP	47 09.00	620kmX
GSC	84.40	52	eP	44 56.55	-0.2
FBA	84.71	17	eP	44 55.46	-2.0
	0.4s	13.01nm			4.9mb
KVN	84.83	48	eP	44 58.95	0.1
VBEM	84.89	41	P	44 59.24	0.3
SHW	84.97	40	eP	44 59.42	0.2
TNP	85.11	49	eP	44 59.76	-0.5
	0.6s	11.43nm			4.7mb
CROR	85.24	42	P	45 01.14	0.6
TPNV	85.41	50	eP	45 01.52	-0.1
	0.6s	16.00nm			4.9mb
LON	85.48	40	eP	45 00.27	-1.3
FMW	85.64	40	P	45 02.24	-0.3
MCW	85.71	38	eP	45 02.98	0.4
RMW	85.79	39	eP	45 03.02	-0.1
JCW	86.03	38	P	45 04.10	-0.1
JBO	86.18	41	P	45 04.91	-0.1
EBG	86.32	40	P	45 05.42	-0.2
ZAK	86.71	324	eP	45 04.30	-3.0X
	1.4s	12.00nm			4.4mb
WAH2	86.88	40	P	45 08.06	-0.1
WTV	87.02	39	P	45 08.46	-0.5
LNOR	87.34	41	P	45 09.81	-0.6
SAW	87.37	39	P	45 09.71	-0.8
LSA	87.77	301	Pc	45 14.80	1.5
	1.0s	13.00nm			4.6mb
ARUT	87.80	50	eP	45 13.20	0.3
TUC	88.13	56	eP	45 15.79	1.3
	0.8s	10.21nm			4.6mb
DPW	88.18	40	eP	45 14.00	-0.3
MSU	88.98	50	eP	45 19.10	0.7
NEW	89.00	40	eP	45 17.83	-0.2
	0.6s	10.83nm			4.9mb
DUG	89.06	48	eP	45 17.93	-0.7
	0.7s	7.92nm			4.7mb
HVU	89.60	47	eP	45 21.35	0.3
PTI	90.24	46	eP	45 24.69	0.7
SRU	90.39	50	eP	45 24.96	0.1
LRM	91.13	43	eP	45 29.40	1.2
INK	91.19	18	eP	45 27.00	-0.6
PV09	91.25	51	eP	45 29.29	0.3
PV10	91.29	51	eP	45 28.75	-0.3
PV08	91.64	51	eP	45 30.80	0.0
GUN	91.72	298	P	45 31.50	0.1
PKI	92.04	298	PKP	45 32.60	-0.2
	0.6s	14.00nm			5.2mb
BW06	92.18	47	eP	45 32.06	-1.0
	0.7s	4.19nm			4.6mb
KKN	92.20	298	PKP	45 33.30	-0.1
	0.6s	15.00nm			5.2mb
DMN	92.31	298	PKP	45 34.00	0.0
	0.6s	26.00nm			5.5mb
ALQ	92.34	55	eP	45 33.48	-0.4
	0.8s	5.47nm			4.7mb
GKN	92.81	298	PKP	45 35.40	-0.7
	0.4s	12.00nm			5.3mb
LTX	93.21	61	eP	45 36.56	-1.4
WMQ	94.38	314	P	45 43.50	0.6
YKA	95.46	27	eP	45 46.20	-0.9
	0.6s	9.30nm			5.2mb
GBA	96.05	282	P	45 51.00	0.3
RSSD	96.41	46	eP	45 50.50	-1.6
	0.8s	3.73nm			4.7mb
MBC	98.85	13	eP	46 03.50	1.3
ARU	113.57	326	ePKP	50 56.00	-0.9
MOCB	114.78	122	PKP	51 00.00	-0.9
LPAZ	114.80	115	PKP	51 00.50	-0.8
FRB	115.91	25	ePKP	51 00.50	-0.6
GAC	116.65	46	ePKP	51 02.50	-0.6
DAG	116.99	2	iPKPd	51 01.20	-1.7
	0.6s	6.67nm			
CBM	121.43	43	ePKP	51 10.27	-1.9X
LMN	123.93	44	ePKP	51 16.00	-1.1
BFT	124.87	225	ePKP	51 22.00	2.2
FRS	125.05	217	ePKP	51 19.50	-0.3
	0.8s	7.46nm			
KAF	125.54	340	ePKP	51 13.80	-5.9X
OBN	125.62	329	iPKPd	51 20.00	0.0
	1.1s	35.00nm			
RSTA	125.64	135	ePKP	51 20.40	-0.7
BOSA	125.83	218	ePKP	51 18.92	-2.3X
NUR	127.26	340	ePKP	51 14.40	-8.6X
HFS	130.83	345	ePKP	51 27.10	-2.7X
	0.5s	3.50nm			
BAO	131.96	126	(PKP)	51 29.00	-4.4X
OJC	136.65	333	ePKP	51 40.80	-0.4
			i	51 43.70	
SPC	137.18	331	ePKP	51 39.60	-2.9X
KSP	137.66	336	ePKP	51 36.00	-7.0X
			i	51 44.90	
			e	54 22.00	
CLL	138.52	339	e(PKP)	51 45.00	0.5
BRG	138.54	338	ePKP	51 40.50	-4.1X
ZST	139.33	333	e(PKP)	51 46.10	0.0
MOX	139.56	339	ePKP	51 44.70	-1.8
	2.3s	54.00nm			
GEC2	140.27	336	PKP	51 41.50	-6.4X
	0.9s	2.98nm			
			e	51 51.30	
GRF	140.50	339	e(PKP)	51 47.90	-0.3
DCN	140.66	358	ePKP	51 51.20	2.9X
DLF	140.67	357	ePKP	51 51.00	2.7X
VAY	140.97	320	ePKP	51 43.60	-5.7X
SKO	141.27	322	iPKP	51 45.50	-4.3X
PTJ	141.56	331	iPKP	51 46.90	-3.4X
ECP	141.78	357	ePKP	51 48.00	-2.3X
KBA	141.82	335	iPKPc	51 46.00	-4.8X
	0.6s	8.30nm			
			i	51 46.70	
			i	51 47.70	
WLF	142.12	343	iPKPc	51 48.50	-2.4X
DOU	142.14	345	PKP	51 48.60	-2.4X
OHR	142.17	321	iPKP	51 47.20	-4.2X
	0.6s	110.00nm			
WATA	142.33	336	iPKPc	51 47.90	-3.7X
WTTA	142.36	336	iPKPc	51 48.30	-3.4X
	0.6s	14.70nm			
KBN	142.47	321	ePKP	51 49.40	-2.6X
MOTA	142.50	337	iPKPc	51 48.60	-3.3X
	0.8s	22.90nm			
SQTA	142.56	337	iPKPc	51 48.60	-3.4X
	0.6s	19.60nm			
TIR	142.59	322	ePKP	51 46.60	-5.4X
LSK	142.87	320	ePKP	51 50.60	-2.1X
OGA	142.92	336	iPKPc	51 50.80	-1.9X
TPE	143.14	321	iPKPc	51 49.00	-4.0X
HVAR	143.28	328	iPKPc	51 50.90	-2.3X
SRN	143.40	320	iPKPc	51 50.70	-2.7X
ORX	145.10	338	PKP	51 56.74	0.4
RSL	145.53	340	PKP	51 57.53	0.4
LSD	145.55	339	PKP	51 58.85	1.6
RSP	145.78	339	PKP	51 58.07	0.6
PCP	145.82	337	PKP	51 59.40	1.9
BHB	146.04	338	PKP	51 58.48	0.7
RRL	146.14	339	PKP	52 00.45	2.2
FIN	146.23	337	PKP	51 59.53	1.4
ROB	146.29	337	PKP	51 59.63	1.4
PZZ	146.39	338	PKP	51 59.49	1.0
ENR	146.52	338	PKP	51 59.81	1.2
STV	146.54	338	PKP	51 59.30	0.6
IMI	146.61	337	PKP	52 00.68	1.9
SAOF	146.67	337	PKP	52 01.14	2.3X
AUTN	146.71	337	PKP	52 01.46	2.3X
TOUF	146.76	338	PKP	52 01.57	2.4X
SBF	146.82	337	PKP	52 01.85	2.7X
AURF	146.84	337	PKP	52 01.68	2.5X
MTHF	149.29	342	PKP	52 08.67	5.7X
LESF	149.55	344	PKP	52 09.27	6.0X
PERF	149.60	342	PKP	52 08.83	5.4X
GRBF	149.66	344	PKP	52 08.97	5.4X
ETER	149.77	342	ePKP	52 13.00	9.4X
MADF	149.95	347	PKP	52 09.95	6.1X
PAND	149.95	343	PKP	52 10.34	6.2X
ATE	149.98	347	PKP	52 10.01	6.1X
BOH	150.03	347	PKP	52 10.51	6.4X
ISSF	150.05	347	PKP	52 11.01	6.8X
ELIZ	150.07	348	ePKP	52 11.00	6.9X
EMON	150.55	357	ePKP	52 11.00	6.2X
EGRA	150.74	346	ePKP	52 12.00	7.0X
ECRI	150.80	349	ePKP	52 13.00	7.7X
STS	151.15	358	ePKP	52 12.50	6.8X
ERUA	151.58	356	ePKP	52 13.00	6.7X

ESEL 152.04 339 ePKP 52 15.00 8.0X
ETOR 152.44 348 ePKP 52 17.50 9.8X
ECHE 153.36 345 ePKP 52 18.00 9.1X
EVIA 154.62 347 ePKP 52 12.00 1.3
ECOG 156.16 348 ePKP 52 13.00 0.1
EVAL 156.33 354 ePKP 52 15.00 2.1
KIC 171.09 213 PKP 52 26.28 -0.1
1.1s 30.00nm
LIC 171.12 211 PKP 52 26.20 -0.2
1.1s 17.50nm
TIC 171.48 212 PKP 52 26.36 -0.2
1.1s 12.00nm
LKO 174.14 222 PKP 52 27.18 -0.4
1.1s 16.00nm
KDS 177.08 118 ePKP 52 27.80 -0.4
S.D. = 0.9 on 155 of 215 obs.

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* DEC 24, 1993 02h 34m 56.41± 1.78s
36.565 N ±13.4km 21.313 E ±13.1km
DEPTH = 33.0km (normal)
SOUTHERN GREECE (368)
ML 3.7 (ATH), 3.2 (THE).

VLI 1.32 83 eP 35 19.60 1.0
VLS 1.71 341 eP 35 25.50 1.2
ATH 2.38 53 eP 35 33.00 -0.9
AGG 2.58 18 ePn 35 38.08 1.3
iSn 36 07.44
VAM 2.61 115 iPc 35 36.80 -0.4
IGT 3.06 346 ePn 35 42.52 -1.1
eSn 36 20.20
KEK 3.36 340 eP 35 48.00 0.1
LIT 3.65 14 ePn 35 52.36 0.4
PAIG 3.84 28 ePn 35 55.22 0.7
FNA 4.21 1 ePn 35 59.00 -1.0
OUR 4.31 28 ePn 36 00.42 -0.8
GRG 4.47 11 ePn 36 02.42 -1.2
SOH 4.54 20 ePn 36 04.28 -0.4
KNT 4.75 15 ePn 36 06.72 -0.9
VAY 4.85 11 ePn 36 10.80 1.9
S.D. = 1.1 on 15 of 15 obs.

% DEC 24, 1993 04h 03m 14.24± 0.79s
40.540 N ± 6.8km 23.548 E ±11.1km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.6 (THE).

SOH 0.32 332 ePg 03 20.94 0.3
eSg 03 25.60
OUR 0.39 122 ePg 03 22.34 0.3
eSg 03 26.82
SRS 0.58 3 ePg 03 25.42 -0.4
eSg 03 33.24
PAIG 0.62 171 ePg 03 26.42 -0.2
KNT 0.79 322 ePg 03 30.18 0.1
eSg 03 40.98
S.D. = 0.4 on 5 of 5 obs.

DEC 24, 1993 04h 04m 08.49± 0.30s
18.413 S ± 6.8km 69.234 W ± 4.9km
DEPTH = 110.7km (22 depth phases)
5.1mb (36 obs.)
NORTHERN CHILE (123)

LPB 2.16 30 iPc 04 51.00 6.5X
LPAZ 2.36 27 iPc 04 53.30 6.0X
ARE 2.90 312 iPd 04 55.90 1.7
iS 05 27.00
MOCB 4.41 130 P 05 18.30 3.5X
NNA 9.73 310 iPd 06 25.00 -2.1
0.7s 20.55nm 5.1mb
eS 08 06.00
PPD 17.20 105 eP 08 02.80 -0.6
e 08 04.10
e 08 06.70
AGVB 18.01 97 iPc 08 12.10 -1.1
i 08 15.30
e 08 41.60
RSTA 19.78 112 eP 08 29.80 -2.6X
BDFB 20.48 85 eP 08 38.31 -1.3
0.6s 140.73nm 5.5mb
BAO 20.50 85 eP 08 28.70 -11.2X
i 08 42.30 61kmX
CACB 21.38 103 ePc 08 47.40 -1.4
e 08 49.90 9kmX
SDV 27.16 357 eP 09 42.50 -1.1
TOV 28.02 359 eP 09 50.80 -0.5
OLLA 28.35 5 iP 09 54.10 -0.2
CANV 29.27 1 iP 10 02.20 -0.2
HBF 52.15 348 eP 13 09.48 -0.2
SGS 52.43 348 eP 13 11.58 -0.2
e 13 39.63 118km
GOGA 53.29 345 eP 13 17.89 -0.2
0.4s 4.63nm 4.8mb
JSC 53.63 348 eP 13 20.04 -0.5
e 13 48.15 118km
PRM 53.68 346 eP 13 20.45 -0.4
epP 13 47.96 115km
LHS 53.74 348 eP 13 20.85 -0.4
CEH 54.81 350 eP 13 27.56 -1.6
0.6s 6.30nm 4.8mb
NAV 56.49 349 eP 13 40.56 -0.7
CVL 56.76 351 eP 13 42.57 -0.5
MIAR 57.53 336 eP 13 47.49 -1.1
0.8s 10.19nm 4.9mb
epP 14 14.36 110km
UYO 57.54 335 iPd 13 48.10 -0.5
LTX 57.94 324 eP 13 49.50 -2.2
LST 57.97 341 eP 13 51.02 -0.6
epP 14 17.86 110km
ELC 58.52 341 eP 13 54.15 -1.2
epP 14 20.56 108km
esP 14 35.30
MCWV 58.61 350 eP 13 55.92 -0.1
0.5s 19.19nm 5.4mb
FVM 59.53 341 eP 14 01.55 -0.8
0.6s 52.72nm 5.8mb
epP 14 28.97 112km
TUL 59.59 335 iPd 14 02.80 -0.1
MEO 59.81 332 iPc 14 02.50 -1.9
WMOK 59.86 332 eP 14 03.59 -1.1
0.7s 5.86nm 4.8mb
epP 14 31.09 112km
LSCT 59.90 357 eP 14 04.26 -0.5
0.5s 17.32nm 5.4mb
OCO 59.95 334 iPd 14 06.00 0.7
YSNY 61.19 352 eP 14 12.75 -0.9
0.6s 25.16nm 5.4mb
ACO 61.66 333 iPd 14 15.40 -1.5
RSNY 62.84 356 eP 14 23.56 -0.9
0.8s 15.98nm 5.0mb
ALQ 63.76 326 eP 14 30.96 -0.1
0.6s 6.37nm 4.7mb
epP 14 58.46 111km
GAC 64.06 355 eP 14 32.50 0.1
LMN 64.08 3 eP 14 32.00 -0.6
KDS 64.11 66 iPc 14 32.00 -1.4
TUC 64.23 321 eP 14 34.83 0.8
0.8s 6.07nm 4.6mb
GLD 66.90 330 eP 14 51.51 0.4
1.0s 17.91nm 4.9mb
GOL 66.93 330 eP 14 50.91 -0.5
0.6s 13.42nm 5.0mb
epP 15 16.94 103km
PV08 67.67 327 eP 14 55.88 -0.2
LIC 67.86 75 Pc 14 56.04 -1.3
0.7s 41.50nm 5.5mb
Z 20s 0.36um 4.6Msz
PV09 67.86 327 eP 14 57.54 0.3
TIC 68.03 75 Pc 14 57.16 -1.2
0.8s 40.50nm 5.4mb
KIC 68.17 75 Pc 14 58.26 -1.0
0.6s 87.50nm 5.8mb
LKO 68.65 72 Pc 15 01.32 -1.0
0.6s 65.00nm 5.7mb
MSU 69.48 325 eP 15 07.77 0.6
epP 15 35.75 111km
ARUT 69.66 324 eP 15 08.82 0.7
epP 15 36.33 109km
NVL 69.81 160 P 15 07.00 -1.4
e 15 41.00 139kmX
RSSD 69.90 334 eP 15 09.83 0.3
0.8s 13.50nm 4.8mb
epP 15 35.81 102km
GSC 69.92 320 eP 15 09.99 0.3
epP 15 36.76 106km
DAU 70.38 327 eP 15 12.01 -0.7
TPNV 70.69 322 eP 15 15.69 1.2
0.6s 6.86nm 4.7mb
epP 15 43.12 108km
DUG 71.03 326 eP 15 17.22 0.8
0.8s 7.60nm 4.6mb
epP 15 45.50 112km
BW06 71.30 330 eP 15 17.46 -0.7
0.7s 4.35nm 4.4mb
HVU 72.16 327 eP 15 23.27 0.1
ULM 72.29 342 eP 15 25.50 2.0
pP 15 55.50 119km
MTUM 72.34 321 (P) 15 23.25 -1.1
BONR 72.58 321 eP 15 26.65 0.8
PTI 72.75 328 eP 15 26.71 0.1
MEMM 72.77 321 eP 15 28.02 1.5
KVN 73.18 322 eP 15 28.04 -1.2
RUV 74.34 259 eP 15 37.20 1.1
1.1s 90.80nm 5.5mb
VAH 74.55 259 eP 15 38.00 0.6
0.9s 58.00nm 5.4mb
TPT 74.61 259 eP 15 38.50 0.8
0.9s 82.60nm 5.5mb
PMO 74.86 259 eP 15 40.00 0.9
0.9s 79.60nm 5.5mb
LRM 74.96 330 eP 15 40.40 1.0
ORV 75.52 321 eP 15 43.46 1.0
epP 16 11.23 108km
PPN 75.63 256 eP 15 41.40 -2.1
PAE 75.73 256 eP 15 44.00 0.0
1.2s 152.30nm 5.7mb
AFR 75.94 256 eP 15 45.90 0.7
1.0s 94.00nm 5.6mb
TIO 77.12 51 iPc 15 53.00 1.3
AVE 78.23 49 iP 15 59.00 1.4
i 16 43.00 180kmX
NEW 78.94 330 eP 16 00.81 -0.4
0.6s 1.59nm 4.0mb X
DPW 79.19 329 eP 16 03.45 0.9
epP 16 31.68 110km
IFR 79.99 50 iP 16 08.00 0.7
RMW 80.74 327 eP 16 10.89 0.0
NKM 80.75 48 iPd 16 13.00 1.9
BMW 80.86 326 eP 16 11.68 0.2
epP 16 40.81 113km
EVAL 80.92 46 eP 16 13.46 1.5
EJIF 81.22 47 eP 16 15.65 2.2
GMW 81.30 327 eP 16 13.73 0.0
EPRU 81.64 47 eP 16 17.54 1.8
FRB 81.89 0 eP 16 16.50 0.2
0.7s 4.00nm 4.3mb
MCW 82.05 327 eP 16 18.03 0.5
epP 16 46.43 110km
EHOR 82.06 46 eP 16 18.90 1.1
TAF 82.58 50 eP 16 25.00 4.3X
EPLA 82.66 44 eP 16 19.61 -1.3
ECOG 82.95 47 eP 16 23.59 1.0
ERUA 83.20 41 eP 16 25.09 1.4
EBAN 83.24 46 eP 16 25.09 1.2
PAB 83.54 45 iPc 16 26.50 1.0
0.7s 30.82nm 5.3mb
EMON 83.65 40 eP 16 27.23 1.3
ENIJ 83.76 48 eP 16 26.74 0.2
EHUE 83.89 47 eP 16 27.53 0.2
GUD 84.22 44 eP 16 30.45 1.5
EVIA 84.35 46 eP 16 31.12 1.5
FRS 84.87 119 iPc 16 31.80 -0.6
1.0s 20.00nm 5.0mb
BOSA 85.30 118 eP 16 33.54 -1.0
0.9s 13.17nm 4.9mb
epP 17 02.06 109km
ETOR 85.70 45 eP 16 38.24 2.0
BLF 85.79 119 e(P) 16 18.50 -18.7X
ECHE 85.85 46 eP 16 38.11 1.1
ECRI 86.26 43 eP 16 39.90 0.9
YKA 88.19 341 eP 16 48.20 0.5
0.5s 9.00nm 5.1mb
SLR 88.65 117 iPc 16 48.10 -2.9X
0.7s 10.27nm 5.0mb
e 19 25.50 770kmX
GEC2 99.12 42 PKP 17 38.00 -0.3
0.6s 0.66nm 4.4mb
ASPA 132.47 209 ePKP 23 11.00 -1.2
0.8s 3.80nm
WRA 135.42 212 PKP 23 14.60 -3.2X
POO 145.02 84 iPKPc 23 34.40 -0.7
KOD 146.77 100 ePKP 23 41.00 2.6X
GBA 147.64 94 PKP 23 42.00 2.6X
NDI 147.69 65 ePKP 23 39.50 0.4
HYB 149.35 87 ePKPc 23 46.50 4.4X
1.0s 60.00nm
MAT 149.85 312 ePKP 23 48.00 5.7X
0.7s 10.96nm
GKN 154.21 63 PKP 23 57.40 8.4X

24d 04h

0.5s 11.00nm
DMN 154.71 64 PKP 23 59.00 9.2X
KKN 154.81 64 PKP 23 58.70 8.8X
0.5s 10.00nm
PKI 154.98 64 PKP 23 59.00 8.7X
GUN 155.28 63 PKP 24 00.00 9.3X
0.7s 11.00nm
S.D. = 1.0 on 107 of 125 obs.

% DEC 24, 1993 05h 09m 35.81± 0.79s
40.859 N ± 8.1km 21.413 E ± 5.9km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

FNA 0.08 201 ePg 09 37.56 -0.2
eSg 09 39.16
OHR 0.53 299 iPg 09 46.50 0.1
0.4s 60.00nm
iSg 09 55.60
GRG 0.76 82 ePg 09 50.68 -0.3
eSg 10 01.60
LIT 1.12 132 ePg 09 57.52 0.3
KNT 1.16 74 ePb 09 58.12 0.1
eSb 10 14.80
S.D. = 0.3 on 5 of 5 obs.

DEC 24, 1993 05h 18m 34.64± 0.11s
21.853 S ± 4.1km 178.646 W ± 2.9km
DEPTH = 445.1km (38 depth phases)
5.6mb (86 obs.)
FIJI ISLANDS REGION (181)
Mw 5.8 (HRV). Mo=1.3*10**18 Nm
(PPT).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 37S, 72C
Centroid Location:
Origin Time 05:18:37.6 0.3
Lat 21.87S 0.03 Lon 178.37W 0.02
Dep 445.2 1.2 Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-2.52 0.07 Mtt=-0.96 0.13
Mff= 3.48 0.13 Mrt=-2.04 0.13
Mrf=-3.35 0.13 Mtf=-3.68 0.10
Principal Axes:
T Val= 6.06 Plg=15 Azm= 66
N 0.30 43 170
P -6.36 44 322
Best Double Couple:Mo=6.2*10**17
NP1:Strike=115 Dip=48 Slip=-155
NP2: 8 72 -45

SVA 4.61 323 iPc 19 56.20 0.4
eS 21 02.40
VUN 4.69 324 iPc 19 57.10 0.5
MBU 5.45 332 eP 20 05.60 1.5
RAO 7.40 175 ePc 20 23.70 -0.9
eS 21 46.00
AFI 10.25 41 iPc 20 49.80 -6.6X
eS 22 00.00
PVC 12.94 286 iPd 21 27.70 2.2
iS 23 52.50
BKM 13.02 286 iPd 21 28.50 2.0
iS 23 54.00
DZM 13.84 266 iPc 21 36.40 1.2
iS 24 06.80
ScP 29 16.40
ScS 33 00.00
RAR 17.57 91 ePc 22 12.86 -0.3
1.1s 963.76nm 6.2mb
SNZO 20.20 195 P 22 38.20 -0.3
S 26 04.00
AFR 27.49 86 iPc 23 43.70 -1.4
1.2s 1647.10nm 6.3mb
PAE 27.65 87 iPc 23 45.10 -1.4
1.6s 2019.90nm 6.3mb
PPT 27.68 86 iPc 23 45.30 -1.4
1.3s 1888.90nm 6.4mb
PPN 27.82 86 iPc 23 46.60 -1.4
1.4s 1094.00nm 6.1mb
TVO 27.93 87 iPc 23 47.70 -1.3
1.5s 1688.10nm 6.2mb
ARMA 27.95 246 iPd 23 50.20 0.9
0.5s 21.00nm 4.8mb
ipP 25 07.30
iPcP 26 52.80

iScP 29 52.10
PMO 29.92 82 iPc 24 04.90 -1.4
1.3s 1605.80nm 6.3mb
VAH 30.09 83 iPc 24 06.40 -1.4
1.1s 969.00nm 6.1mb
TPT 30.18 82 iPc 24 07.30 -1.3
1.2s 2056.50nm 6.4mb
RUV 30.34 83 iPc 24 08.50 -1.4
1.1s 2266.10nm 6.5mb
CNB 30.98 237 iPc 24 16.20 0.7
0.7s 130.00nm 5.5mb
ipP 25 36.20 445km
iPcP 27 00.30
iS 30 01.00
CAN 31.27 237 eP 24 18.60 0.7
i 24 20.20 6kmX
i 25 38.30
i 25 50.20
e 28 55.40
BWA 31.49 239 eP 24 17.80 -2.0
e 24 19.60 6kmX
e 25 38.40
i 25 48.70
CTAO 32.78 267 iPd 24 31.09 0.3
0.7s 307.73nm 5.8mb
RAB 33.31 298 e(P) 24 33.00 -2.3
TOO 34.62 235 iPd 24 47.20 1.0
0.6s 209.00nm 5.7mb
epP 26 15.00 494kmX
iPcP 27 10.00
eS 29 45.00
iScP 30 15.40
PMG 35.09 285 iPd 24 50.00 -0.2
LAT 36.44 289 eP 25 00.50 -0.9
STK 36.67 246 ePd 25 04.10 0.8
e 26 24.70 417kmX
i 26 31.60
e 26 39.50
ePcP 27 16.30
eS 30 11.30
eScP 30 22.00
ePcS 31 04.70
eScS 34 30.50
MCQ 36.72 202 eP 25 05.80 2.5X
e 25 30.80 108kmX
e 26 30.30
MDG 38.17 290 ePd 25 15.90 0.2
QIS 38.86 264 eP 25 20.50 -0.8
ADE 39.43 241 eP 25 26.10 0.2
ASPA 43.64 258 iPd 25 59.20 -0.6
0.9s 293.10nm 5.7mb
e 27 23.60 439km
i 27 29.50
iPcP 27 37.70
iScP 30 49.00
iPcS 31 30.10
iS 31 53.80
i 31 58.40
iScS 35 11.90
WB2 43.82 264 iPc 25 59.60 -1.6
1.1s 105.80nm 5.2mb
e 26 26.10 115kmX
iPcP 27 39.00
iScP 30 50.30
WRA 43.83 264 P 26 00.10 -1.2
1.0s 138.70nm 5.3mb
MHA 47.33 30 eP 26 26.59 -1.6
DHH 47.44 27 eP 26 27.58 -1.5
HKL 47.62 29 eP 26 29.40 -1.5
MTN 48.59 272 iPd 26 36.60 -1.4
0.6s 269.00nm 5.8mb
e 27 56.00 395kmX
e 31 09.70
WARB 49.86 254 iPd 26 46.40 -1.1
0.4s 10.00nm 4.5mb X
GUA 50.15 311 eP 26 49.20 -0.5
0.9s 1257.14nm 6.2mb
GUMO 50.22 311 eP 26 48.70 -1.4
1.1s 1225.50nm 6.1mb
PJG 50.22 311 eP 26 49.00 -1.2
COOL 54.14 247 iPd 27 17.20 -1.4
0.9s 65.00nm 5.0mb
SBA 56.49 184 iPc 27 37.80 3.4X
MBL 56.89 258 iPd 27 36.40 -1.6
KLB 56.94 246 iPd 27 37.10 -1.1
0.8s 83.00nm 5.2mb
NWAO 57.23 244 eP 27 39.30 -0.9

RKG 57.25 242 eP 27 40.10 -0.2
0.7s 33.00nm 4.9mb
BAL 57.96 247 iPd 27 44.20 -1.0
MUN 58.21 245 iPd 27 46.10 -0.7
1.0s 120.00nm 5.3mb
MRWA 58.78 248 eP 27 49.90 -0.9
0.6s 52.00nm 5.1mb
NANU 60.47 256 iPd 27 55.50 -6.6X
0.4s 41.00nm 5.3mb
BIP 61.74 293 ePd 28 08.50 -2.1
DAV 61.76 291 eP 28 10.00 -0.7
1.0s 400.00nm 5.9mb
CSY 62.49 206 iPd 28 14.80 0.1
0.8s 163.70nm 5.6mb
e 29 52.80 469kmX
CTB 63.01 291 iPd 28 19.00 0.2
CGP 63.19 292 eP 28 20.50 0.6
PLP 64.30 295 eP 28 25.00 -2.1
TSM 67.29 285 ePd 28 46.50 0.7
KKM 69.53 286 eP 29 00.50 1.0
KAKJ 69.64 325 P 28 58.90 -0.7
CHJJ 70.15 325 P 29 02.10 -0.6
CVP 70.30 299 ePd 29 05.50 1.6
IIDJ 70.33 323 P 29 03.10 -0.7
BAG 70.64 297 ePc 29 05.00 -1.2
1.0s 120.00nm 5.5mb
e 31 35.00 793kmX
WKYJ 70.74 321 P 29 06.30 0.1
MAJO 70.94 324 ePd 29 06.44 -0.9
1.1s 265.80nm 5.8mb
MAT 70.94 324 iPd 29 06.50 -0.8
0.9s 144.54nm 5.6mb
eS 37 47.00
NIIJ 71.04 325 eP 29 05.90 -1.9
OFUJ 71.09 328 P 29 07.60 -0.5
MTMJ 71.20 324 P 29 08.50 -0.4
YAMJ 71.21 327 P 29 08.90 0.1
TSRJ 71.45 322 P 29 09.80 -0.5
TKSJ 71.48 320 P 29 10.40 -0.1
KAGJ 71.57 316 P 29 11.00 -0.1
KUMJ 72.49 317 eP 29 15.80 -0.6
YONJ 72.67 320 P 29 17.30 -0.1
AOMJ 72.86 328 eP 29 18.40 0.1
KUSJ 72.90 333 P 29 18.10 -0.4
HOOJ 72.94 331 eP 29 19.60 0.9
SHNJ 73.37 318 eP 29 20.70 -0.7
KUR 73.40 336 iPd- 29 21.20 -0.1
1.0s 570.00nm 6.2mb
ADK 73.44 1 iP 29 19.50 -1.8
0.6s 162.56nm 5.8mb
MRRJ 73.98 330 P 29 24.80 0.2
TATO 74.46 305 eP 29 27.22 -0.6
1.4s 515.95nm 6.0mb
SMY 74.53 355 eP 29 26.17 -1.4
0.9s 345.01nm 6.0mb
ASAJ 74.61 332 P 29 29.50 1.3
SKR 75.57 344 eP 29 31.90 -1.5
1.0s 360.00nm 6.0mb
e 29 44.90 45kmX
KLI 75.68 270 eP 29 33.50 -1.3
QZH 76.66 304 P 29 40.30 0.4
1.0s 150.00nm 5.6mb
YSS 76.90 334 iP 29 40.80 0.0
1.0s 180.00nm 5.7mb
e 29 52.00 37kmX
e 34 28.00
e 38 52.00
PET 77.12 346 eP 29 41.00 -0.8
1.0s 230.00nm 5.8mb
SSE 78.10 310 iPc 29 47.00 -0.6
1.0s 35.00nm 5.0mb
Z 20s 0.46um 4.8Msz
SDN 78.43 10 eP 29 47.64 -1.2
0.8s 409.48nm 6.1mb
BCH 79.36 45 eP 29 54.66 0.3
epP 31 33.09 441km
SAO 79.42 43 ePc 29 55.04 0.5
1.9s 140.00nm 5.3mb
epPc 31 34.24 445km
BKS 79.60 42 ePc 29 56.11 0.7
MHC 79.65 43 ePc 29 56.44 0.6
1.6s 120.00nm 5.3mb
epPc 31 34.39 438km
KGM 79.66 276 iPd 29 57.00 0.8
1.1s 207.10nm 5.7mb
NTYM 79.66 41 (P) 29 56.50 0.8
ARN 79.72 43 eP 29 57.02 0.9

epP 31 36.43 446km
KMPM 80.06 39 (P) 29 58.65 0.8
epP 31 38.42 447km
MAW 80.09 200 iPd 29 59.00 1.5
0.8s 91.10nm 5.5mb
epP 31 43.80 473kmX
eS 39 28.10
NJ2 80.28 310 Pd 29 59.40 0.3
1.3s 180.00nm 5.6mb
PEC 80.59 48 eP 30 00.85 0.1
0.9s 19.28nm 4.7mb
ISA 80.71 46 eP 30 01.99 0.7
1.2s 26.05nm 4.7mb
epP 31 41.05 443km
CMB 80.86 43 ePc 30 02.50 0.4
1.4s 50.00nm 5.0mb
epPc 31 41.85 444km
ORV 81.09 41 ePc 30 03.54 0.4
1.4s 60.00nm 5.1mb
epPc 31 45.54 457kmX
WDC 81.09 40 eP 30 03.68 0.5
0.8s 11.97nm 4.6mb X
epP 31 44.18 450km
MDJ 81.28 325 iPd 30 04.60 0.6
1.4s 270.00nm 5.7mb
sP 32 30.00
eSKS 39 40.00
MMPM 81.47 44 (P) 30 06.30 0.7
MIN 81.51 40 ePc 30 05.40 -0.1
1.4s 50.00nm 5.0mb
epP 31 45.40 446km
GSC 81.62 47 eP 30 06.21 0.1
epP 31 45.76 444km
MTUM 81.62 44 eP 30 06.97 0.8
epP 31 46.17 442km
YBH 81.72 39 ePc 30 07.41 1.0
1.1s 20.00nm 4.7mb
epPc 31 47.66 447km
LBFM 81.96 39 eP 30 08.59 0.8
epP 31 49.05 448km
BONR 82.14 44 eP 30 09.57 0.6
epP 31 48.95 442km
KDC 82.25 14 eP 30 08.35 -0.3
1.2s 158.52nm 5.6mb
IPM 82.75 278 ePd 30 12.40 0.3
0.9s 244.30nm 5.9mb
WHN 82.76 307 Pd 30 12.50 0.7
1.5s 250.00nm 5.7mb
S 39 55.00
SNY 82.86 320 iPd 30 12.00 0.0
1.8s 490.00nm 5.9mb
Z 24s 0.65um 4.9MszX
PP 33 25.00
S 39 48.00
KVN 82.91 43 eP 30 13.28 0.7
epP 31 53.85 447km
TPNV 82.91 46 eP 30 13.04 0.4
0.8s 17.76nm 4.8mb
epP 31 52.91 444km
TNP 82.92 44 eP 30 13.10 0.4
0.8s 11.40nm 4.6mb
epP 31 52.48 441km
CN2 83.00 323 Pd 30 13.00 0.3
1.3s 410.00nm 6.0mb
AUP 83.54 13 eP 30 15.04 -0.1
TIA 83.74 313 Pd 30 17.30 0.7
Z 24s 0.32um 4.6MszX
sP 32 41.00
S 39 55.00
TUC 84.28 52 ePc 30 21.89 2.4X
1.1s 31.27nm 5.0mb
epP 32 01.48 440km
S 39 58.00
BMW 84.44 35 eP 30 20.72 0.8
epP 32 01.96 449km
VIPM 84.64 38 P 30 22.08 1.0
SVW 84.74 11 eP 30 20.20 -0.9
0.8s 76.74nm 5.5mb
SHW 84.79 36 eP 30 23.35 1.6
epP 32 04.91 450km
SLKM 85.26 14 eP 30 22.92 -0.7
STW 85.28 33 P 30 25.07 1.2
SYO 85.30 193 ePd 30 23.30 -0.5
eS 40 02.00
eScS 40 13.00
GMW 85.35 34 eP 30 25.18 0.9
epP 32 06.55 448km
LON 85.37 35 eP 30 23.98 -0.5
CP2 85.52 12 eP 30 23.80 -1.3
CRP 85.54 12 eP 30 23.21 -1.9
FMW 85.55 35 P 30 26.39 0.9
JBO 85.66 37 P 30 26.62 0.8
RMW 85.81 35 eP 30 26.67 0.1
epP 32 07.86 447km
MCW 86.05 33 eP 30 28.63 1.0
EBG 86.14 36 P 30 29.13 1.0
TTA 86.37 10 eP 30 28.55 -0.4
1.2s 117.29nm 5.5mb
BJI 86.43 316 Pd 30 30.00 0.4
2.0s 60.00nm 5.0mb
esP 32 56.00
eSKS 40 12.00
eS 40 32.00
PMR 86.47 14 eP 30 28.31 -1.0
1.2s 363.84nm 6.0mb
MSU 86.48 46 eP 30 30.87 0.7
epP 32 11.19 442km
ANM 86.75 6 eP 30 29.89 -0.7
LNOR 86.78 37 P 30 31.70 0.5
WTV 86.95 35 P 30 32.47 0.4
KLU 87.12 15 eP 30 31.98 -0.6
SAW 87.25 36 P 30 33.86 0.4
NVL 87.34 183 iPd 30 33.00 -0.5
1.0s 168.00nm 5.8mb
e 32 15.00 449km
e 40 38.00
TOA 87.59 15 eP 30 34.90 0.1
BALM 87.64 17 eP 30 34.62 -0.5
TIY 87.73 312 iPd 30 37.00 1.0
1.1s 170.00nm 5.8mb
Z 18s 0.73um 5.1Msz
HVU 87.80 43 eP 30 36.47 0.1
NST 87.87 288 iPd 30 38.50 1.6
SRU 87.89 46 eP 30 36.69 -0.2
epP 32 18.20 446km
DPW 88.00 36 eP 30 37.30 0.3
epP 32 18.90 446km
LTX 88.29 58 eP 30 37.98 -0.8
epP 32 19.37 445km
XAN 88.47 308 iPd 30 40.40 0.9
1.4s 260.00nm 5.9mb
PV09 88.53 47 eP 30 40.10 0.1
epP 32 21.56 445km
PV10 88.53 47 eP 30 39.88 -0.1
epP 32 21.94 448km
PTI 88.63 42 eP 30 40.50 0.3
epP 32 21.78 444km
ALQ 88.71 51 ePc 30 41.04 0.2
1.0s 11.73nm 4.7mb
ipP 32 22.65 445km
NEW 88.82 36 eP 30 41.08 0.3
1.2s 12.35nm 4.6mb
epP 32 23.67 450km
PV08 88.90 47 eP 30 41.67 -0.1
epP 32 22.52 441km
KMI 89.43 297 Pc 30 44.00 -0.3
1.6s 560.00nm 6.2mb
IMA 89.67 10 iP 30 43.96 -0.5
1.0s 80.97nm 5.6mb
COL 89.69 13 ePd 30 43.25 -1.1
0.9s 273.71nm 6.1mb
FBA 89.69 13 eP 30 42.92 -1.4
HHC 89.87 315 iPd 30 46.80 1.0
2.0s 970.00nm 6.4mb
BGMT 90.07 40 eP 30 47.40 0.6
e 32 32.70 463kmX
CHTO 90.14 290 iPd 30 49.10 1.7
1.0s 134.75nm 5.8mb
BW06 90.36 43 eP 30 47.25 -1.0
0.8s 5.36nm 4.5mb X
epP 32 29.59 448km
BTO 90.77 314 eP 30 50.30 0.3
CD2 91.01 303 Pd 30 52.60 1.3
1.5s 170.00nm 5.8mb
Z 26s 1.06um 5.2MszX
GLD 91.80 48 (P) 30 55.54 0.7
1.3s 16.82nm 4.9mb
epP 32 37.74 446km
LZH 93.11 308 iPd 31 01.80 0.8
1.5s 220.00nm 6.0mb
Z 16s 0.44um 5.0MszX
PP 34 49.00
YAK 93.12 338 eP 31 00.00 -0.1
2.0s 857.00nm 6.4mb
eS 40 48.00
CIT 94.21 325 eP 31 05.00 -0.5
MEO 94.48 54 iPc 31 12.00 4.9X
RSSD 94.54 44 (P) 31 08.34 0.9
0.9s 7.10nm 4.8mb
epP 32 51.36 450km
INK 95.73 15 eP 31 11.50 -0.4
1.0s 14.00nm 5.1mb
BOD 96.89 330 iPd 31 16.20 -1.1
1.5s 41.00nm 5.4mb
GTA 97.36 309 P 31 20.50 0.4
1.4s 51.00nm 5.6mb
YKA 97.99 25 eP 31 20.70 -1.5
0.9s 4.80nm 4.8mb
ZAK 99.29 321 eP 31 28.00 -0.3
1.6s 34.00nm 5.5mb
e 41 25.00
TIK 99.88 345 iPc 31 29.00 -1.6
1.4s 44.00nm 5.7mb
i 35 40.00
e 41 26.00
eS 42 23.00
FFC 100.20 35 (Pdiff31 29.93 -2.5X
LSA 100.68 298 Pdiff 31 36.90 1.1
LPB 102.01 113 ePdiff31 51.00 9.1X
LPAZ 102.09 113 Pdiff 31 45.50 3.0X
i 33 25.90
MBC 104.23 12 Pdiff 31 50.70 0.9
DMN 105.09 294 PKP 36 06.80 -0.5
0.8s 64.00nm
GKN 105.60 294 PKP 36 06.80 -1.4
0.8s 43.00nm
GBA 107.68 278 PKPc 36 12.00 -0.2
0.7s 6.00nm
HYB 107.86 282 ePKP 36 12.10 -0.4
RES 109.26 16 ePKP 36 12.50 -0.9
1.0s 9.00nm
NDI 112.09 293 iPKPc 36 19.00 -1.2
0.5s 126.76nm
POO 112.46 282 iPKPc 36 20.30 -0.9
1.0s 32.00nm
KSH 115.15 304 ePKP 36 26.50 0.5
Z 12s 0.73um 5.5MszX
NIL 116.42 298 (PKP)c36 30.50 2.1
0.7s 0.03nm
FRU 116.58 308 iPKPc 36 28.50 0.0
1.6s 110.00nm
e 37 42.00
SJG 116.90 80 ePKPc 36 28.09 -1.6
FRB 118.26 28 ePKP 36 29.50 -1.4
0.6s 3.00nm
BDF 119.00 123 ePKP 36 34.00 0.1
0.9s 0.60nm
QUE 121.16 293 ePKP 36 39.50 1.7
LMN 121.81 49 ePKP 36 37.00 -1.2
CER 122.49 198 iPKPc 36 30.00 -10.0X
1.0s 110.00nm
FRS 123.75 205 iPKPd 36 42.80 0.3
1.0s 95.00nm
BLF 123.96 206 ePKP 36 43.10 -0.1
0.9s 23.08nm
DAG 124.13 5 iPKPd 36 40.50 -1.3
0.8s 67.91nm
BOSA 124.72 206 ePKP 36 44.67 0.3
BFT 125.16 212 iPKPd 36 48.50 2.8X
0.7s 30.14nm
ARU 125.95 325 ePKPd 36 44.50 -1.4
1.0s 420.00nm
e 38 43.00
e 39 16.00
SLR 125.96 210 iPKPc 36 45.20 -1.9
1.0s 45.00nm
ASH 128.80 302 PKP 36 52.00 0.0
1.4s 640.00nm
KEV 129.67 349 PKP 36 52.45 -0.2
TRO 131.05 352 ePKP 36 54.78 -0.4
SDF 131.79 347 iPKP 36 55.80 -0.9
AKU 134.39 11 iPKP 37 03.00 1.3
0.9s 23.53nm
KAF 136.27 343 ePKP 36 51.60 -13.8X
NSS 136.76 353 ePKP 36 55.48 -10.7X
MOS 136.79 331 ePKP 36 56.00 -10.5X
e 37 06.00
e 39 58.00
e 43 38.00
GRO 137.55 311 iPKPc 36 57.00 -11.4X
1.5s 160.00nm

24d 05h

OBN 137.64 331 ePKP 37 06.50 -1.6
Z 21s 104.90um 7.5MszX
N 16s 33.20um
e() 38 35.70
epPKP 38 55.60
esPKP 39 33.20
ePP 39 53.80
eSKP 40 00.20
e 40 09.30
iPKS 40 42.10
(SKS) 43 12.00
(SS) 57 12.50
NUR 138.06 343 ePKP 36 57.70 -11.0X
KER 138.09 297 ePKP 36 58.00 -11.9X
TAB 138.24 303 ePKP 37 00.00 -10.0X
i 37 11.00
RYD 138.47 283 ePKP 37 03.00 -7.7X
MTA 138.62 309 ePKP 37 01.00 -9.3X
e 37 09.00
i 40 03.80
MOL 139.09 356 ePKP 37 01.59 -8.9X
KIV 139.44 313 (PKP) 37 04.30 -7.6X
1.1s 50.00nm
e 37 11.80
e 40 05.40
MJMA 139.76 285 ePKPc 37 05.60 -7.4X
FOO 140.20 357 ePKP 37 06.19 -6.3X
UPP 140.31 347 iPKP 37 04.90 -7.9X
NRA0 140.50 352 PKPd 37 05.20 -7.9X
NRE0 140.50 352 PKPd 37 24.60 11.5X
PP 40 28.60
SS 58 09.00
SSS 03 29.90
HFS 140.77 350 ePKP 37 06.50 -7.2X
0.4s 47.00nm
QASM 141.35 285 ePKPd 37 12.00 -3.8X
MNK 142.33 335 ePKP 37 10.00 -6.5X
0.9s 438.00nm
UQSK 142.39 284 iPKPd 37 14.80 -2.9X
KMY 142.57 357 ePKP 37 13.50 -3.3X
ANN 142.65 317 iPKP- 37 13.50 -3.9X
1.0s 160.00nm
TAIF 143.79 277 iPKPd 37 20.30 0.0
KSK 143.94 7 ePKP 37 17.80 -1.4
KAC 144.06 6 ePKP 37 17.80 -1.6
KPL 144.19 6 ePKP 37 17.30 -2.3
KSB 144.34 6 ePKP 37 18.60 -1.2
EDR 144.86 4 ePKP 37 19.10 -1.7
MUD 144.96 352 iPKPc 37 20.00 -0.9
1.0s 1080.00nm
EDU 145.20 4 ePKP 37 20.90 -0.5
COP 145.22 349 iPKPd 37 22.00 0.6
0.8s 402.99nm
ELO 145.22 5 ePKP 37 21.20 -0.2
BSD 145.27 346 iPKPd 37 21.80 0.3
0.6s 300.00nm
EAB 145.45 6 ePKP 37 21.40 -0.4
EBH 145.46 5 ePKP 37 21.70 -0.1
EDI 145.81 5 iPKP 37 23.70 1.3
ESY 145.85 4 ePKP 37 22.20 -0.3
EAU 145.87 5 ePKP 37 22.40 -0.1
EBL 145.97 4 ePKP 37 23.10 0.4
CTK 146.06 311 ePKP 37 25.80 2.3
EKA 146.40 5 PKPc 37 25.50 2.2
0.8s 243.10nm
ESK 146.41 5 ePKP 37 24.95 1.6
KIS 146.48 325 ePKP- 37 23.00 -0.7
i 37 25.50
KAS 146.51 313 iPKPc 37 24.60 0.5
ADAT 146.95 305 ePKP 37 28.30 3.5X
MRFT 147.09 312 ePKP 37 25.80 0.6
WIM 147.43 7 ePKP 37 28.10 3.1X
BHL 147.54 299 PKP 37 24.00 -2.0
DCN 147.87 10 ePKP 37 26.00 0.2
1.0s 232.00nm
SALJ 147.88 296 Pdiffd34 46.08 -18.8X
MASJ 147.90 295 Pdiffd34 46.37 -18.6X
KFNJ 147.91 295 Pdiffd34 46.14 -18.7X
MKRJ 147.99 295 Pdiffd34 46.62 -18.8X
AYN 148.00 290 iPKPc 37 27.30 0.6
SGKT 148.02 313 ePKP 37 26.90 0.2
DLF 148.03 9 ePKP 37 26.20 0.2
1.0s 116.00nm
BRNL 148.10 346 ePKP 37 27.00 0.9
e 37 30.00
BRN 148.15 346 ePKP 37 27.00 0.8
OJC 148.18 337 iPKPd 37 26.50 0.1
0.9s 555.00nm
i 37 34.80
i 37 42.60
WME 148.21 6 ePKP 37 29.80 3.5X
YRC 148.33 7 ePKP 37 29.80 3.4X
UZH 148.48 333 iPKPc 37 27.50 0.6
1.7s 135.00nm
FAM 148.59 302 ePKP 37 27.00 -0.5
NAL 148.70 313 ePKP 37 27.70 0.0
YRH 148.73 7 ePKP 37 30.40 3.3X
KSP 148.79 342 iPKPc 37 27.90 0.6
1.1s 842.00nm
i 37 32.60
i 37 37.60
WIT 148.82 354 ePKP 37 28.50 1.3
eP'P' 37 33.00
PSN 148.88 321 iPKP 37 28.00 0.3
CSS 149.13 302 ePKP 37 28.00 -0.4
ECP 149.14 9 ePKP 37 32.40 4.7X
DPC 149.18 341 ePKPc 37 28.09 0.1
CLL 149.23 346 iPKP 37 27.70 -0.2
1.6s 105.00nm
BRG 149.40 344 iPKPd 37 28.40 0.2
i 37 33.60
i 37 39.00
e 39 21.00
WTS 149.62 353 ePKP 37 28.00 -0.4
1.0s 103.80nm
eP'P' 37 33.50
e 37 40.00
ITU 149.79 316 iPKPc 37 29.00 -0.1
PPCY 149.93 302 ePKP 37 29.00 -0.5
PRU 150.05 343 PKP 37 29.60 0.4
0.9s 545.00nm
e 37 34.80
e 37 42.50
e 39 26.20
PP 41 09.90
MOX 150.16 347 iPKPc 37 29.40 0.0
1.3s 473.00nm
HOF 150.41 346 iPKPc 37 30.00 0.2
i 37 35.50
i 37 43.10
JMB 150.55 320 iPKP 37 30.00 -0.2
BNS 150.59 352 iPKPc 37 30.70 0.7
ic 37 36.80
SRO 150.73 336 iPKP 37 31.20 0.9
i 37 37.00
i 37 45.90
PVL 150.81 322 iPKP 37 31.00 0.4
ZST 150.84 338 iPKP 37 30.90 0.4
i 37 38.20
i 37 46.80
ENN 150.92 354 iPKPc 37 30.50 0.0
0.9s 43.30nm
eP'P' 37 35.50
i 37 45.00
UCC 151.01 356 PKP+ 37 32.00 1.4
e 37 37.60
e 37 47.00
VKA 151.05 339 iPKPc 37 31.10 0.3
i 37 38.10
i 37 47.50
KHC 151.10 343 PKPc 37 31.40 0.5
1.0s 324.50nm
i 37 37.50
i 37 46.00
e 38 02.50
e 38 19.00
e 38 42.00
e 39 33.50
GRA1 151.14 347 iPKP 37 31.80 0.9
GRF 151.14 347 e(PKP)37 29.80 -1.1
ic 37 31.80
ic 37 38.50
e 37 47.60
WET 151.26 344 ePKP 37 31.20 0.1
i 37 38.60
i 37 48.00
SNF 151.30 356 iPKPc 37 31.76 0.7
ic 37 37.79
ic 37 47.38
GEC2 151.32 343 PKP 37 30.80 -0.5
0.8s 11.96nm
e 37 37.90
e 45 48.40
DIM 151.42 320 iPKP 37 31.00 -0.5
SOP 151.47 338 ePKP 37 31.10 -0.3
KSL 151.63 306 iPKPc 37 31.20 -0.8
e 37 39.20
UZD 151.63 335 ePKP 37 31.80 0.1
DOU 151.70 356 PKP 37 33.20 1.6
i 37 38.70
KDZ 151.73 320 iPKP 37 32.00 0.0
ALN 151.79 318 ePKP 37 31.04 -1.0
PLD 151.88 321 iPKP 37 30.00 -2.2
PGB 151.90 323 iPKP 37 32.00 -0.3
KMR 151.92 342 (PKP) 37 36.00 4.0X
i 37 39.90
i 37 50.30
RDO 151.96 319 iPKPc 37 32.00 -0.3
e 37 39.50
WLF 151.99 353 iPKPc 37 32.66 0.6
id 37 40.22
i 37 51.06
e 39 33.00
RZN 152.13 321 iPKPc 37 32.00 -0.8
VTS 152.41 324 iPKPc 37 33.00 -0.1
FUR 152.57 346 ePKP 37 33.60 0.6
0.7s 416.00nm
iPKPbc37 40.90
iPKPab37 53.20
BHG 152.57 343 ePKP 37 33.30 0.3
i 37 41.00
i 37 53.60
MMB 152.77 321 iPKPc 37 33.00 -0.5
KKB 152.96 323 iPKPc 37 33.00 -0.7
KBA 153.03 342 iPKPc 37 33.40 -0.5
i 37 41.40
i 37 55.00
SRS 153.14 321 ePKP 37 32.16 -1.8
PTJ 153.21 337 iPKPc 37 34.60 0.6
WATA 153.27 344 iPKPc 37 33.70 -0.5
i 37 41.80
i 37 56.40
ZAG 153.27 337 iPKP 37 35.00 1.0
WTTA 153.32 344 iPKPc 37 33.80 -0.5
i 37 42.20
i 37 56.80
MOTA 153.38 345 iPKPc 37 33.70 -0.6
i 37 42.60
i 37 56.70
OUR 153.39 319 iPKP 37 20.80 -13.5X
SQTA 153.47 345 iPKPd 37 33.70 -0.7
i 37 42.10
i 37 56.80
SOH 153.47 320 ePKP 37 41.40 6.9X
KNT 153.52 322 iPKP 37 33.25 -1.3
LJU 153.58 339 iPKPc 37 35.00 0.6
i 37 43.30
i 37 57.00
epPKP 39 32.30
ePP 41 33.40
VAY 153.60 322 iPKP 37 33.50 -1.1
1.0s 160.00nm
i 37 42.50
i 37 59.50
SKO 153.79 325 ePKP 37 35.00 0.2
i 37 43.70
i 37 59.80
VOY 153.80 340 iPKP 37 35.00 0.2
iPKPbc37 43.10
VBY 153.80 337 ePKP 37 35.10 0.4
iPKPbc37 43.30
PAIG 153.82 319 iPKP 37 33.68 -1.2
OGA 153.84 345 ePKP 37 35.20 0.2
PLE 153.85 329 iPKPc 37 35.24 0.2
GRG 153.94 322 ePKP 37 32.34 -2.8X
IVA 153.95 328 iPKPc 37 35.08 0.0
PVY 154.11 327 iPKPc 37 35.37 0.0
TRI 154.13 340 ePKPc 37 35.40 0.3
e 37 43.80
e 37 59.00
BCI 154.23 327 iPKP 37 35.00 -0.4
RIY 154.25 339 iPKP 37 35.50 0.2
NKY 154.43 329 iPKPc 37 35.83 0.0
LIT 154.43 320 ePKP 37 33.14 -2.6X
BRY 154.58 330 iPKPc 37 35.93 -0.1
TTG 154.59 328 iPKPc 37 35.90 0.1
KZN 154.72 321 ePKP 37 36.00 -0.2
OHR 154.73 324 iPKP 37 36.20 0.0
1.0s 270.00nm
i 37 43.70
i 38 02.70

BDV 154.91 328 iPKPc 37 36.31 0.0
NPS 154.93 307 ePKP 37 34.50 -2.1
e 37 46.50
ULC 154.94 327 iPKPc 37 36.33 -0.1
LACI 154.94 326 ePKP 37 36.90 0.6
HCY 154.95 329 iPKPc 37 36.34 0.0
TIR 155.07 325 ePKP 37 36.60 0.1
KBN 155.07 323 ePKP 37 37.50 0.8
AGG 155.20 318 ePKP 37 35.04 -1.8
HVAR 155.29 333 iPKP 37 45.10 8.3X
i 38 03.50
ORX 155.67 349 PKP 37 37.62 0.2
VAM 155.90 309 ePKP 37 38.00 0.1
e 37 48.80
LSD 155.98 350 PKP 37 38.81 0.8
SRN 156.02 323 ePKP 37 36.80 -1.1
IGT 156.07 322 ePKP 37 37.64 -0.4
VLI 156.12 313 ePKP 37 39.80 1.7
KEK 156.25 323 ePKP 37 38.50 0.3
eS 37 49.00
RSP 156.26 350 PKP 37 38.35 0.1
BHB 156.56 349 PKP 37 38.67 0.2
RRL 156.56 350 PKP 37 39.68 0.9
PCP 156.61 347 PKP 37 41.42 2.8X
FIR 156.64 342 ePKP 37 37.00 -1.5
VLS 156.79 319 ePKP 37 40.80 1.8
PZZ 156.91 349 PKP 37 39.68 0.6
ROB 156.98 348 PKP 37 39.04 0.0
FIN 156.99 347 PKP 37 40.82 1.8
ENR 157.13 349 PKP 37 40.13 0.8
STV 157.13 349 PKP 37 39.77 0.5
IMI 157.34 348 PKP 37 42.65 3.1X
ECRI 159.05 8 ePKP 37 43.00 1.5
EGRA 159.67 4 ePKP 37 43.00 1.0
GUD 160.69 13 ePKP 37 45.00 1.7
EPLA 160.77 18 ePKP 37 44.50 1.2
ETOR 160.87 8 ePKP 37 45.50 2.1
EROQ 161.07 2 ePKP 37 45.00 1.5
PAB 161.70 14 iPKPc 37 45.20 0.9
ECHE 162.21 6 ePKP 37 46.00 1.2
EVAL 162.83 22 ePKP 37 47.00 1.6
EVIA 162.94 10 ePKP 37 47.00 1.4
EHOR 163.09 18 ePKP 37 47.20 1.6
EBAN 163.15 14 ePKP 37 46.50 0.8
LIC 163.28 157 PKPd 37 46.37 -0.1
1.1s 67.00nm
KIC 163.51 158 iPKPd 37 46.63 -0.1
1.0s 61.00nm
TIC 163.67 157 PKPd 37 46.83 -0.1
1.0s 61.00nm
EHUE 163.73 11 ePKP 37 48.00 1.6
GIBL 163.79 21 ePKP 37 49.50 3.1X
EALH 163.87 8 ePKP 37 48.00 1.6
EPRU 163.89 19 ePKP 37 48.50 2.0
SFS 164.03 23 ePKP 37 46.00 -0.5
ALJ 164.04 21 ePKP 37 50.00 3.3X
ECOG 164.05 14 ePKP 37 47.00 0.3
KDS 164.10 123 iPKP 37 46.50 -0.7
CNIL 164.16 22 iPKP 37 49.50 2.8X
EJIF 164.29 21 ePKP 37 49.00 2.2
MOMI 164.32 22 iPKP 37 48.50 1.6
EGUA 164.47 15 ePKP 37 48.00 1.0
PLAT 164.49 22 iPKP 37 49.50 2.5X
ENIJ 164.62 11 ePKP 37 48.80 1.7
NKM 165.22 22 iPKPc 37 49.80 2.2
LKO 166.06 150 PKPd 37 48.52 -0.4
1.2s 94.50nm
AVE 166.21 32 iPKPc 37 50.00 1.5
TAF 166.67 14 iPKPc 37 51.50 2.6X
IFR 167.05 25 iPKP 37 51.00 1.6
TIO 168.12 39 iPKPc 37 51.00 0.9
i 38 11.50
S.D. = 1.0 on 376 of 432 obs.

& DEC 24, 1993 05h 44m 39.71s
59.936 N 152.798 W
DEPTH = 92.8km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.17 331 iP 44 52.50 0.9
eS 45 03.16
INE 0.18 313 eP 44 52.86 1.1
eS 45 03.70
OPT 0.36 218 eP 44 53.63 -0.4
eS 45 04.85
RED 0.48 2 iP 44 54.17 -0.8
eS 45 05.52
RSO 0.53 2 iP 44 54.76 -0.7
RS2 0.53 2 iP 44 54.80 -0.7
eS 45 06.88
RDW 0.55 359 iP 44 54.88 -0.7
eS 45 07.49
REF 0.56 5 iP 44 54.95 -0.7
eS 45 06.68
NCT 0.63 354 eP 44 55.41 -0.8
eS 45 07.68
AUL 0.64 210 eP 44 55.89 -0.3
HOM 0.65 115 eP 44 55.92 -0.3
AUE 0.65 207 eP 44 55.72 -0.5
AUP 0.66 209 eP 44 55.44 -1.0
AUH 0.66 210 eP 44 56.04 -0.4
DFR 0.66 5 iP 44 55.66 -0.8
eS 45 08.23
AUW 0.66 211 eP 44 55.91 -0.4
AUI 0.68 208 eP 44 55.99 -0.5
eS 45 08.67
PDB 0.72 259 eP 44 56.38 -0.5
eS 45 09.45
XLV 0.73 131 eP 44 56.63 -0.4
CNPM 0.89 117 eP 44 57.93 -0.8
eS 45 12.08
BRLK 0.98 99 eP 44 59.11 -0.6
eS 45 13.73
MCNL 1.09 227 eP 45 00.06 -0.8
NKA 1.12 43 eP 45 02.01 0.7
BKG 1.17 13 iP 45 01.18 -0.8
eS 45 17.84
CKL 1.29 10 eP 45 02.56 -0.9
CKT 1.30 13 eP 45 02.58 -1.0
SPU 1.30 16 iP 45 02.55 -1.0
CKN 1.33 13 eP 45 03.08 -0.8
BGL 1.35 8 eP 45 03.40 -0.8
CP2 1.36 11 eP 45 03.34 -1.1
CRP 1.37 13 eP 45 02.85 -1.7
SLKM 1.41 65 eP 45 03.35 -1.5
CGLM 1.43 15 eP 45 04.32 -0.9
NCG 1.51 12 eP 45 05.42 -0.8
SEW 1.69 83 eP 45 06.86 -1.5
MPA 1.80 71 eP 45 08.35 -1.6
SVW 1.83 311 eP 45 08.30 -2.0
SUA 1.84 33 eP 45 10.14 -0.3
PMS 2.07 49 P 45 12.30 -1.2
SKT 2.14 16 eP 45 13.08 -1.4
KDC 2.20 176 eP 45 12.25 -2.9
PWA 2.24 38 P 45 15.00 -0.7
PWL 2.40 65 eP 45 15.79 -2.2
PLRM 2.45 46 eP 45 16.79 -1.8
PMR 2.45 46 eP 45 16.46 -2.1
MTU 2.59 87 eP 45 18.43 -2.1
KNK 2.60 53 eP 45 18.27 -2.4
GHO 2.64 44 eP 45 19.71 -1.6
CUT 2.76 25 eP 45 21.97 -0.9
CFI 2.78 61 eP 45 20.39 -2.7
SML 2.88 47 eP 45 22.10 -2.4
HIN 3.18 79 eP 45 26.14 -2.5
FID 3.25 73 eP 45 26.35 -3.1
SCM 3.28 52 eP 45 28.13 -1.9
TTA 3.38 334 eP 45 28.90 -2.5
HUR 3.41 25 eP 45 30.78 -1.0
VLZ 3.41 67 eP 45 28.96 -2.8
CVA 3.57 77 eP 45 31.73 -2.1
KLU 3.72 62 eP 45 32.94 -3.2
IL1 5.58 27 eP 45 58.32 -3.4
ILB 5.58 27 eP 45 57.23 -4.5
IM3 6.09 356 eP 46 06.90 -1.9
62 obs. associated

% DEC 24, 1993 06h 11m 41.88± 1.40s
44.528 N ± 5.7km 6.845 E ±11.2km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN).

PZZ 0.18 97 Pc 11 46.63 0.9
S 11 49.32
RRL 0.39 354 Pd 11 50.16 0.3
S 11 55.66
BHB 0.43 43 Pc 11 50.55 0.0
S 11 56.08
STV 0.45 129 P 11 51.13 0.3
S 11 56.82
ENR 0.51 126 P 11 52.24 0.1
S 11 59.25
RSP 0.69 25 P 11 55.79 0.1
S 12 03.70
ROB 0.77 107 P 11 57.15 -0.2
LSD 0.96 13 P 12 00.36 -0.3
IMI 0.97 129 P 12 00.63 -0.2
FIN 1.03 108 P 12 01.42 -0.4
PCP 1.22 89 P 12 04.46 -0.6
S.D. = 0.5 on 11 of 11 obs.

? DEC 24, 1993 06h 33m 53.79± 0.93s
45.541 N ± 7.1km 14.411 E ±10.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 2.3 (LJU).

CEY 0.20 3 ePg 33 58.60 0.4
eSg 34 02.00
RIY 0.20 185 iPgc 33 58.30 0.2
iSg 34 01.80
VBY 0.60 93 ePg 34 05.60 -0.2
eSg 34 14.40
VOY 0.61 324 iPg 34 05.80 -0.4
iSg 34 14.10
S.D. = 0.6 on 4 of 4 obs.

? DEC 24, 1993 07h 31m 34.33± 1.76s
34.412 S ±19.8km 70.577 W ±16.6km
DEPTH = 120.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.4 (SAN).

CACH 0.29 356 iP+ 31 51.70 0.0
iS 32 04.99
PCH 0.79 4 iPd 31 54.84 0.0
iS 32 09.49
TACH 0.81 338 iPd 31 54.87 -0.1
iS 32 09.85
LNV 0.83 303 iPd 31 55.05 0.1
FCH 1.11 13 iPd 31 58.10 0.0
iS 32 16.55
LCCH 1.25 318 iPd 31 59.15 -0.1
iS 32 17.82
PEL 1.27 356 iP+ 31 59.75 0.2
iS 32 18.21
ROCH 1.48 346 iPd 32 02.14 0.0
iS 32 22.47
JACH 1.73 360 iP 32 04.85 -0.1
iS 32 27.59
S.D. = 0.1 on 9 of 9 obs.

& DEC 24, 1993 07h 59m 44.37s
63.107 N 150.863 W
DEPTH = 140.1km
CENTRAL ALASKA (1)
<AEIC>.

KTH 0.45 357 P 00 04.00 -0.7
HUR 0.57 103 P 00 04.50 -0.8
CUT 0.76 159 iP 00 06.07 -0.4
eS 00 23.07
RND 0.96 71 eP 00 07.39 -0.8
eS 00 25.14
MCK 1.07 53 eP 00 08.46 -0.7
eS 00 27.17
SKT 1.17 196 P 00 09.60 -0.5
BWN 1.24 30 P 00 10.30 -0.5
PWA 1.53 162 P 00 13.80 0.0
GHO 1.62 145 iP 00 14.58 -0.3
eS 00 38.24
SUA 1.65 178 eP 00 15.39 0.0
NEA 1.67 27 eP 00 14.18 -1.3
PLRM 1.72 151 eP 00 15.19 -0.8
eS 00 39.19
PMR 1.72 151 ePc 00 14.84 -1.1
eS 00 38.28
SML 1.76 137 iP 00 15.63 -0.8
eS 00 40.42
NCG 1.81 200 eP 00 16.79 -0.4
WRH 1.84 41 eP 00 16.35 -1.1
CGLM 1.88 197 eP 00 17.65 -0.4
MLY 1.93 2 eP 00 17.29 -1.3
CRP 1.94 199 eP 00 17.60 -1.2
eS 00 43.31
CP2 1.96 200 eP 00 18.19 -0.9
PMS 1.97 161 P 00 18.50 -0.5
S 00 44.80
BGL 1.98 202 eP 00 19.25 0.0

```
CKN       1.99 199 eP      00 19.65    0.4
SPU       2.01 197 eP      00 18.91   -0.6
                   eS      00 45.24
KNK       2.04 145 eP      00 19.06   -0.8
                   eS      00 46.05
CCB       2.05  40 eP      00 18.79   -1.2
SCM       2.08 126 eP      00 19.65   -0.7
BKG       2.15 198 eP      00 20.79   -0.4
HDA       2.17  51 eP      00 20.44   -1.0
MDM       2.19  31 eP      00 20.51   -1.2
FBA       2.25  36 eP      00 20.56   -1.8
THY       2.33  80 eP      00 22.69   -0.7
DDM       2.35  71 eP      00 24.02    0.4
TTA       2.35 268 eP      00 21.92   -1.8
NKA       2.38 184 eP      00 26.30    2.4
TOA       2.39 113 P       00 23.70   -0.5
CFI       2.42 142 eP      00 23.67   -0.7
IL1       2.42  45 eP      00 23.30   -1.2
ILB       2.42  45 eP      00 23.39   -1.1
GLM       2.43  37 eP      00 23.65   -1.0
PAX       2.46  91 eP      00 24.47   -0.7
DJE       2.50  66 P       00 28.00    2.5
                   S       00 55.10
PWL       2.55 151 eP      00 25.32   -0.9
                   eS      00 57.61
SLKM      2.63 173 eP      00 26.64   -0.5
DFR       2.67 200 eP      00 27.54   -0.2
MPA       2.72 164 P       00 27.50   -0.8
TZL       2.73 111 eP      00 28.26   -0.2
NCT       2.74 202 eP      00 29.09    0.5
RDW       2.79 200 eP      00 29.84    0.4
KLU       2.82 123 eP      00 28.34   -1.3
VLZ       2.91 131 eP      00 28.88   -1.8
SVW       3.00 230 P       00 31.10   -0.9
DOT       3.11  77 eP      00 32.12   -1.3
IM3       3.15 338 eP      00 32.41   -1.4
CVA       3.53 134 eP      00 38.52   -0.3
CNPM      3.60 183 eP      00 39.08   -0.7
GLB       3.70 114 eP      00 40.21   -0.9
                   eS      01 21.78
BC3       4.13  87 eP      00 45.21   -1.6
BALM      4.51 114 eP      00 50.70   -1.4
CTGM      4.97 111 eP      00 57.52   -0.8
BM3       5.06  28 eP      00 57.56   -1.8
       61 obs. associated
-------------------------------------
* DEC  24, 1993  08h 06m 23.94± 0.82s
   7.981 N ± 8.4km  124.474 E ±11.3km
  DEPTH =  33.0km  (normal)
 MINDANAO, PHILIPPINE ISLANDS    (259)

CTB       0.82 199 iPc     06 39.00   -0.1
                   iS      06 53.00
BIP       1.78  82 ePc     06 53.00    0.2
                   eS      07 20.00
MAP       2.38 348 ePc     07 02.00    0.6
PLP       3.20   9 ePc     07 12.50   -0.6
GUN      41.47 304 P       14 10.00    0.0
       0.4s      9.00nm          4.9mb X
     S.D. = 0.6  on    5 of   5 obs.
-------------------------------------
? DEC  24, 1993  08h 19m 09.95± 2.83s
  19.789 S ±44.8km  172.818 W ±38.1km
  DEPTH =  33.0km  (normal)
  5.1mb (  7 obs.)
 TONGA ISLANDS REGION            (174)

BKM      18.06 274 iPc     23 19.80   -0.3
DZM      19.50 260 iPc     23 38.90    1.4
ARMA     33.76 245 eP      25 57.10    6.1X
       0.4s      4.00nm          4.7mb
ASPA     49.42 255 iPd     27 59.90    0.9
       0.8s     55.70nm          5.6mb
                   ipP     29 28.20  448kmX
                   eS      34 32.90
WB2      49.51 260 iPd     27 59.10   -0.6
       0.6s     15.20nm          5.2mb
WRA      49.52 260 P       27 59.50   -0.3
       0.6s      3.00nm          4.5mb
MTN      54.04 268 eP      28 32.00   -1.8
       0.7s     34.00nm          5.5mb
NANU     66.27 253 eP      29 54.00   -3.5X
       0.8s     28.00nm          5.4mb
MAT      72.64 320 eP      30 37.00    0.7
       0.8s      7.46nm          4.7mb
FBA      86.58  10 iPc     32 02.73   12.0X
       0.8s      8.23nm

YKA      93.88  23 eP      32 38.80   13.9X
       0.6s      0.30nm
KSP     148.18 349 ePKP    39 04.50   14.0X
CLL     148.21 353 iPKP    39 04.30   13.8X
GEC2    150.54 351 PKP     39 10.10   15.8X
       0.7s      1.58nm
                   e       39 13.20
     S.D. = 1.3  on    7 of  14 obs.
-------------------------------------
  DEC  24, 1993  08h 32m 21.44± 0.38s
  50.776 N ± 3.6km    6.873 E ± 3.4km
  DEPTH =  10.0km  (geophysicist)
 GERMANY                         (543)
     ML 2.5 (BNS). Felt (IV) in the
     epicentral area.

STB       0.18 187 iPgc    32 25.80    0.3
       0.2s   1350.00nm
                   iSg     32 28.50
BNS       0.27  45 iPgc    32 27.00   -0.1
       0.3s   1220.00nm
                   iSg     32 30.70
ENN       0.60 270 iPgc    32 33.10   -0.5
       0.5s    160.00nm
                   eSg     32 42.00
ABH       0.99 154 ePn     32 40.80    0.5
RUP       1.08 174 ePn     32 42.00    0.2
TNS       1.15 118 ePnc    32 43.40    0.4
                   eSn     32 58.50
WLF       1.20 203 iPd     32 43.92    0.1
                   iS      32 58.90
WTS       1.22 358 eP      32 44.50    0.3
                   eS      33 01.50
DOU       1.61 246 iPc     32 50.00    0.1
                   iS      33 10.00
SNF       1.67 262 iPc     32 51.10    0.3
TOD       1.71 133 ePn     32 50.50   -0.9
FEL       3.00 165 ePn     33 09.20   -0.8
MOX       3.02  91 ePn     33 10.00   -0.1
                   iSg     33 58.00
CLL       3.91  80 e(Pg)   33 38.00   15.3X
                   eSg     34 24.00
KHC       4.63 108 Pn      33 33.00   -0.1
                   e       34 23.50
                   eSn     34 46.00
                   e       35 18.00
KBA       5.65 128 iPnd    33 47.90    0.3
                   iSg     34 47.20
     S.D. = 0.5  on   15 of  16 obs.
-------------------------------------
  DEC  24, 1993  08h 32m 40.32± 0.64s
  43.586 N ± 5.0km    7.957 E ± 4.5km
  DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE      (379)
     ML 3.3 (GEN), 2.8 (STR).

IMI       0.33 351 Pd      32 48.00    0.9
                   S       32 52.29
REVF      0.45 290 Pg      32 50.50    0.9
                   Sg      32 56.35
SAOF      0.49 324 Pg      32 49.98   -0.4
                   Sg      32 56.28
AURF      0.55 304 Pg      32 51.58    0.2
                   Sg      32 58.38
AUTN      0.56 317 Pg      32 51.69   -0.2
                   Sg      32 58.36
FIN       0.65  16 Pd      32 54.01    0.7
                   S       33 02.27
TOUF      0.67 310 Pg      32 53.05   -0.7
                   Sg      33 02.15
ROB       0.71 355 Pd      32 54.90    0.5
                   S       33 03.55
ENR       0.75 329 Pd      32 55.20    0.2
                   S       33 03.96
CALN      0.79 282 Pg      32 56.11    0.3
                   Sg      33 06.03
STV       0.80 325 Pd      32 56.10    0.2
                   S       33 05.29
PCP       1.05  24 Pd      33 00.40    0.3
                   S       33 13.76
PZZ       1.11 326 P       33 00.85   -0.3
                   S       33 14.26
PGF       1.29 143 Pg      33 04.13   -0.1
BHB       1.35 339 P       33 03.97   -1.2
                   S       33 20.20
RRL       1.58 328 P       33 09.44    0.8
                   S       33 29.09

RSP       1.64 342 P       33 08.44   -1.0
                   S       33 28.16
LSD       1.96 343 P       33 13.99   -0.1
                   S       33 38.25
ORX       2.05   0 P       33 14.62   -0.7
     S.D. = 0.7  on   19 of  19 obs.
-------------------------------------
  DEC  24, 1993  08h 57m 08.11± 0.89s
  43.360 N ± 7.0km   20.485 E ± 6.7km
  DEPTH =   5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
     ML 2.6 (TTG).

IVA       0.65 222 iPgd    57 20.36   -0.8
                   iSg     57 27.44
PLE       0.80 268 iPgc    57 23.77   -0.3
                   iSg     57 33.53
PVY       0.85 206 iPgd    57 24.32   -0.8
                   iSg     57 34.63
NKY       1.22 244 iPgd    57 30.79   -0.5
                   iSg     57 46.30
TTG       1.29 224 iPgc    57 31.94   -0.6
                   iSg     57 48.65
BRY       1.49 253 iPgc    57 35.98    0.2
                   iSg     57 55.62
SKO       1.56 153 iPn     57 35.50   -1.0
BDV       1.63 229 iPgd    57 38.32    0.8
                   iSg     57 59.71
ULC       1.67 214 iPgd    57 39.16    1.1
                   iSg     58 01.42
HCY       1.72 239 iPgd    57 39.98    1.1
                   iSg     58 02.77
OHR       2.26 174 iPn     57 50.00    3.3X
                   i       58 17.80
                   i       58 19.50
VAY       2.56 142 ePn     57 51.70    0.8
UZD       3.50 338 e(P)    58 03.90   -0.4
     S.D. = 0.9  on   12 of  13 obs.
-------------------------------------
? DEC  24, 1993  09h 57m 02.71± 1.05s
  59.536 N ± 8.0km    5.673 E ±11.9km
  DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                 (535)
     MD 1.8 (BER).

KMY       0.39 214 eP      57 10.72    0.0
BLS5      0.42 106 eP      57 19.61    8.4X
                   eS      57 24.90
ODD1      0.61  52 iPd     57 15.12    0.0
                   eS      57 22.49
EGD       0.77 343 eP      57 18.00    0.3
                   eS      57 29.00
ASK       0.98 346 eP      57 21.00   -0.3
                   eS      57 36.00
NRA0      3.17  65 ePn     57 57.35    3.8X
                   ePg     58 04.29
                   eLg     58 40.89
     S.D. = 0.4  on    4 of   6 obs.
-------------------------------------
% DEC  24, 1993  11h 00m 27.58± 1.54s
  44.542 N ± 6.2km    6.838 E ±12.5km
  DEPTH =   5.0km  (geophysicist)
 FRANCE                          (538)
     ML 2.5 (GEN).

PZZ       0.19 101 Pc      00 32.55    1.0
                   S       00 35.45
RRL       0.38 354 P       00 36.04    0.8
                   S       00 41.56
BHB       0.43  45 Pc      00 36.48    0.3
                   S       00 42.02
STV       0.46 130 P       00 36.89    0.1
                   S       00 43.26
ENR       0.52 127 P       00 37.98   -0.1
                   S       00 45.22
RSP       0.68  26 P       00 41.26    0.1
                   S       00 50.12
ROB       0.78 108 P       00 43.10   -0.2
                   S       00 53.02
LSD       0.94  14 P       00 46.23    0.0
                   S       00 58.34
IMI       0.98 130 P       00 46.80    0.0
                   S       00 59.08
FIN       1.04 108 P       00 47.51   -0.1
PCP       1.22  89 P       00 50.59   -0.2
ORX       1.36  36 P       00 51.54   -1.7
     S.D. = 0.7  on   12 of  12 obs.
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DEC 24, 1993 11h 21m 02.50± 0.45s
44.934 N ± 3.9km 117.303 W ± 4.2km
DEPTH = 5.0km (geophysicist)
OREGON (32)
MD 3.0 (GS).

BMO 0.08 181 iPc 21 05.68 1.1
TPOR 0.18 59 iPc 21 06.78 0.5
BDID 0.33 114 iPd 21 09.49 0.4
LIME 0.50 175 iPc 21 12.85 0.3
SPVI 0.52 132 iPd 21 12.80 -0.1
LGOR 0.57 300 iPd 21 13.38 -0.5
LVRI 0.60 89 iPd 21 14.13 -0.5
CPI 1.29 146 eP 21 26.01 -0.8
WPI 1.69 166 eP 21 31.91 -0.9
VGB 2.52 285 eP 21 45.00 0.1
DPW 3.00 348 eP 21 52.12 0.4
NEW 3.33 2 ePn 21 56.29 -0.1
eSn 22 35.27
eSg 22 48.50
S.D. = 0.7 on 12 of 12 obs.

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* DEC 24, 1993 12h 24m 06.58± 2.80s
41.596 N ±22.2km 22.355 E ± 7.9km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 2.4 (THE), 2.2 (SKO).

VAY 0.32 149 iPg 24 13.60 0.4
0.2s 220.00nm
iSg 24 19.20
KNT 0.60 136 ePg 24 18.30 -0.3
eSg 24 26.92
GRG 0.64 177 ePg 24 19.14 -0.3
eSg 24 28.32
SRS 1.05 117 ePg 24 26.24 -0.1
eSg 24 40.72
SOH 1.08 135 ePg 24 26.80 -0.1
eSg 24 41.66
PNA 1.10 223 ePg 24 27.28 0.1
eSg 24 42.16
OUR 1.76 135 ePb 24 37.68 0.4
S.D. = 0.4 on 7 of 7 obs.

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* DEC 24, 1993 12h 42m 06.24± 1.61s
36.715 N ±15.1km 2.979 W ± 6.9km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 3.6 (MDD). Felt (IV) in the
Adra area, Spain.

EGUA 0.49 284 iPc 42 16.33 0.2
e 42 22.40
ENIJ 0.67 67 iPc 42 19.33 -0.3
e 42 28.80
ECOG 0.73 320 iPc 42 19.74 -1.0
e 42 28.00
EHUE 1.14 16 iPc 42 26.90 -0.7
e 42 43.20
EMAL 1.17 273 iPd 42 27.87 -0.1
e 42 42.80
EBAN 1.58 336 iPc 42 35.02 0.6
e 42 56.10
EVIA 1.96 11 iPc 42 41.12 1.2
e 43 04.20
EHOR 2.12 302 eP 42 45.83 3.6X
i 43 13.90
PAB 3.03 340 ePn 43 04.00 8.9X
eSg 44 43.50
S.D. = 0.9 on 7 of 9 obs.

% DEC 24, 1993 13h 12m 53.40± 0.83s
44.343 N ± 6.7km 7.287 E ± 9.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

STV 0.10 165 P 12 55.66 0.0
S 12 56.85
ENR 0.15 141 P 12 56.57 0.0
S 12 58.63
PZZ 0.21 321 P 12 57.81 0.1
S 13 01.38
ROB 0.42 96 P 13 01.93 0.1
BHB 0.50 358 P 13 03.30 -0.1
S 13 10.17

S.D. = 0.1 on 5 of 5 obs.

? DEC 24, 1993 13h 26m 46.95± 8.00s
9.143 S ±77.2km 124.187 E ±32.7km
DEPTH = 185.9 ± 30.7 km
TIMOR REGION, INDONESIA (289)

MTN 7.75 119 eP 28 37.60 -0.3
0.3s 106.00nm 5.6mb
eS 30 07.00
MBL 12.66 199 eP 29 42.00 0.3
WB2 14.55 139 eP 30 06.00 0.5
eS 32 47.00
WARB 17.11 172 eP 30 36.00 -0.7
ASPA 17.17 148 eP 30 37.60 0.1
eS 33 50.50
QIS 18.71 129 iPc 30 54.00 0.1
S.D. = 0.7 on 6 of 6 obs.

% DEC 24, 1993 13h 33m 17.54± 4.11s
43.516 N ±28.0km 7.859 E ±10.9km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.6 (GEN).

IMI 0.39 3 P 33 25.92 0.4
S 33 29.95
PIN 0.74 20 P 33 32.15 -0.1
S 33 40.39
ENR 0.78 336 P 33 33.02 -0.2
S 33 41.85
ROB 0.78 1 P 33 32.79 -0.4
S 33 41.53
STV 0.82 332 P 33 34.02 0.0
S 33 43.22
PZZ 1.13 331 P 33 39.34 0.1
S 33 52.29
PCP 1.14 26 P 33 39.59 0.2
S 33 52.62
BHB 1.39 342 P 33 43.22 -0.4
S 33 58.97
RRL 1.60 332 P 33 47.58 0.8
RSP 1.69 345 P 33 47.58 -0.4
S.D. = 0.4 on 10 of 10 obs.

? DEC 24, 1993 13h 52m 39.93± 4.35s
31.098 S ±20.6km 69.569 W ±38.1km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.76 121 iPd 52 55.20 0.3
(S) 53 12.70
RTRS 0.93 6 iPd 52 57.50 -0.2
S 53 09.00
RTLL 0.97 104 iPd 52 58.00 -0.4
(S) 53 15.00
CFA 1.25 114 iPd 53 03.00 -0.1
(S) 53 20.50
CYA 4.21 52 ePc 53 46.00 0.3
S 54 35.00
S.D. = 0.4 on 5 of 5 obs.

& DEC 24, 1993 13h 54m 43.45s
62.236 N 151.404 W
DEPTH = 11.4km
CENTRAL ALASKA (1)
<AEIC>. ML 2.8 (AEIC).

SKT 0.26 193 iP 54 49.10 0.0
eS 54 54.15
CUT 0.56 72 iP 54 54.12 -0.5
SUA 0.84 158 eP 54 59.16 -0.4
NCG 0.91 203 eP 54 59.53 -1.3
eS 55 12.41
PWA 0.93 128 P 55 00.80 -0.3
S 55 14.10
CGLM 0.97 197 eP 55 00.81 -1.1
CRP 1.04 201 eP 55 01.24 -1.8
eS 55 15.27
CP2 1.05 203 eP 55 01.86 -1.5
eS 55 15.71
CKN 1.08 200 eP 55 03.11 -0.6
BGL 1.08 206 eP 55 02.52 -1.2
SPU 1.10 197 eP 55 03.13 -0.9
eS 55 18.43
HUR 1.11 47 eP 55 02.91 -1.2
eS 55 18.24
CKT 1.11 201 eP 55 03.17 -1.0
CKL 1.13 204 eP 55 03.78 -0.9
BKG 1.24 200 eP 55 05.17 -1.2
PLRM 1.25 120 eP 55 05.49 -1.1
PMR 1.25 120 eP 55 05.35 -1.3
GHO 1.26 111 eP 55 05.65 -1.1
PMS 1.33 138 P 55 07.50 -0.3
KTH 1.34 9 eP 55 06.01 -2.0
NKA 1.50 177 eP 55 10.97 0.8
SML 1.51 105 eP 55 09.68 -0.7
KNK 1.63 119 eP 55 11.92 -0.1
RND 1.66 44 eP 55 10.87 -1.7
DFR 1.76 201 eP 55 14.03 -0.1
SLKM 1.83 161 eP 55 13.94 -1.0
NCT 1.83 204 eP 55 15.07 -0.1
REF 1.86 200 eP 55 15.56 -0.1
MCK 1.88 36 eP 55 14.53 -1.2
RDW 1.89 202 eP 55 15.76 -0.2
RED 1.94 200 eP 55 16.79 0.1
SCM 1.96 100 eP 55 16.80 -0.2
MPA 2.01 150 eP 55 18.13 0.5
PWL 2.02 132 eP 55 17.94 0.2
CFI 2.03 120 eP 55 18.60 0.7
BWN 2.13 23 eP 55 19.03 -0.4
TTA 2.24 290 eP 55 17.88 -3.2
ILIM 2.29 200 eP 55 20.10 -1.6
SVW 2.31 243 eP 55 17.63 -4.3
INE 2.33 201 eP 55 22.41 0.1
SEW 2.34 155 eP 55 21.58 -0.8
TOA 2.46 91 P 55 25.20 1.1
VLZ 2.66 112 eP 55 27.23 0.3
WRH 2.70 32 eP 55 24.64 -2.8
KLU 2.70 104 eP 55 27.42 -0.2
CNPM 2.72 178 eP 55 28.42 0.6
PDB 2.81 210 eP 55 27.77 -1.2
TZL 2.81 91 eP 55 25.71 -3.4
MLY 2.82 6 eP 55 26.04 -3.2
PAX 2.84 72 eP 55 29.97 0.4
CCB 2.91 32 eP 55 27.41 -3.0
HDA 2.96 41 eP 55 28.86 -2.3
DDM 2.97 56 eP 55 31.02 -0.3
MDM 3.08 26 eP 55 29.61 -3.2
FBA 3.12 30 eP 55 29.97 -3.5
IL1 3.25 37 eP 55 32.23 -3.1
ILB 3.25 37 eP 55 32.24 -3.1
IM3 3.90 346 eP 55 40.63 -3.9
IMA 3.97 346 eP 55 41.21 -4.5
PRP 4.20 36 eP 55 45.85 -3.0
BALM 4.49 102 eP 55 52.40 -0.5
BC3 4.52 75 eP 55 52.12 -1.1
BM3 5.95 26 eP 56 09.18 -4.4
63 obs. associated

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* DEC 24, 1993 14h 23m 55.22± 1.19s
13.032 N ±24.1km 143.869 E ±24.3km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)
SOUTH OF MARIANA ISLANDS (210)

GUMO 1.12 60 Pn 24 14.40 -0.2
Pg 24 15.00
eS 24 26.80
PJG 1.12 60 Pg 24 15.00 0.4
GUA 1.14 63 Pn 24 14.70 -0.2
WB2 34.08 196 iPd 30 38.90 0.0
1.0s 8.60nm 4.6mb
ASPA 37.75 195 eP 31 10.10 0.0
0.7s 4.20nm 4.4mb
YKA 83.80 27 eP 36 22.30 0.0
0.4s 0.30nm 3.8mb
S.D. = 0.3 on 6 of 6 obs.

& DEC 24, 1993 14h 52m 03.81s
58.222 N 152.729 W
DEPTH = 62.9km
3.1mb (1 obs.)
KODIAK ISLAND REGION (13)
<AEIC>. ML 2.9 (AEIC).

SYI 0.43 24 P 52 13.60 -1.8
KDC 0.49 165 eP 52 14.58 -1.5
AUE 1.19 344 eP 52 23.86 -0.9
eS 52 39.22
AUP 1.20 343 eP 52 24.32 -0.6
AUH 1.20 342 eP 52 24.66 -0.4
AUW 1.21 342 eP 52 24.24 -0.8
AUL 1.22 343 eP 52 24.71 -0.5

24d 14h

MCNL 1.28 320 eP 52 24.04 -1.9
OPT 1.46 350 eP 52 27.41 -1.0
eS 52 46.02
CNPM 1.52 30 eP 52 28.24 -1.0
eS 52 48.79
HOM 1.55 21 eP 52 28.86 -0.7
eS 52 46.98
PDB 1.74 335 eP 52 30.42 -1.9
eS 52 49.73
BRLK 1.82 31 eP 52 31.87 -1.5
eS 52 52.97
INE 1.85 355 eP 52 33.26 -0.8
eS 52 55.91
ILIM 1.87 356 eP 52 32.90 -1.2
RED 2.20 359 eP 52 37.40 -1.5
RS2 2.25 360 eP 52 39.40 -0.2
RDW 2.27 359 eP 52 38.23 -1.6
REF 2.27 0 eP 52 37.72 -2.2
NCT 2.35 358 eP 52 38.77 -2.1
DFR 2.38 1 eP 52 39.85 -1.4
SEW 2.53 40 eP 52 40.98 -2.3
SLKM 2.63 28 eP 52 42.52 -2.2
NKA 2.64 16 eP 52 44.96 0.1
MPA 2.85 36 eP 52 45.89 -2.0
BKG 2.87 5 eP 52 46.53 -1.6
SPU 2.99 6 eP . 52 47.94 -1.9
CKL 2.99 4 eP 52 48.30 -1.6
CKT 3.00 5 eP 52 47.71 -2.3
CKN 3.02 5 eP 52 49.05 -1.3
BGL 3.06 3 eP 52 49.11 -1.7
CP2 3.06 4 eP 52 48.79 -2.2
CRP 3.07 5 eP 52 47.19 -3.9
CGLM 3.12 6 eP 52 50.18 -1.5
NCG 3.21 5 eP 52 50.74 -2.2
SVW 3.25 334 (P) 52 51.73 -1.7
PMS 3.43 27 P 52 55.50 -0.5
PWL 3.46 38 eP 52 53.91 -2.6
SKT 3.82 9 eP 52 58.96 -2.5
KNK 3.86 32 eP 53 00.67 -1.4
HIN 3.87 53 eP 52 59.92 -2.2
FID 4.07 49 eP 53 01.69 -3.3
KLU 4.75 43 eP 53 11.26 -3.3
BALM 5.98 57 eP 53 28.52 -3.3
FBA 7.10 17 eP 53 42.41 -4.9
YKA 19.13 61 eP 56 22.00 -2.2
0.5s 0.60nm 3.1mb
46 obs. associated

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* DEC 24, 1993 15h 47m 47.86± 0.87s
21.583 N ±13.1km 119.917 E ±15.0km
DEPTH = 33.0km (normal)
3.9mb (3 obs.)
TAIWAN REGION (243)

PIP 3.31 168 eP 48 38.20 -0.4
CVP 4.26 155 eP 49 03.00 11.0X
HKC 5.38 279 iP 49 07.90 0.0
WRA 43.61 160 P 55 51.50 0.6
0.5s 0.70nm 3.7mb
GEC2 84.10 320 P 00 17.00 0.2
1.5s 3.70nm 4.3mb
YKA 85.81 22 eP 00 24.70 -0.3
0.7s 0.50nm 3.8mb
S.D. = 0.5 on 5 of 6 obs.

? DEC 24, 1993 16h 44m 11.40± 2.71s
19.787 S ±24.5km 178.733 W ±45.6km
DEPTH = 690.7 ± 12.9 km
4.7mb (8 obs.)
FIJI ISLANDS REGION (181)

VUN 3.19 303 eP 45 39.20 0.0
DZM 14.04 258 iPc 47 09.30 0.0
ARMA 28.77 243 iPc 49 20.20 -0.2
0.5s 6.00nm 4.4mb
CNB 32.07 235 eP 49 47.90 -0.1
TOO 35.77 233 iPd 50 18.30 -0.1
0.6s 30.00nm 5.0mb
STK 37.49 243 eP 50 33.00 0.6
1.3s 9.00nm 4.1mb
WB2 44.01 261 eP 51 23.40 -0.4
0.3s 46.30nm 5.4mb
ASPA 44.02 256 iPd 51 24.20 0.3
0.8s 37.90nm 4.9mb
iS 57 07.20
WRA 44.02 261 P 51 23.90 0.0
0.6s 10.20nm 4.4mb
MTN 48.47 270 eP 51 57.50 0.1
0.4s 29.00nm 5.1mb
WARB 50.39 252 eP 52 11.20 -0.1
MBL 57.24 257 iPc 52 59.00 -0.1
0.3s 9.00nm 4.5mb
S.D. = 0.3 on 12 of 12 obs.

DEC 24, 1993 16h 49m 44.17± 0.42s
9.313 S ± 8.4km 67.323 E ± 8.2km
DEPTH = 10.0km (geophysicist)
5.0mb (28 obs.) 4.7Msz (10 obs.)
MID-INDIAN RIDGE (429)

KOD 21.88 28 eP 54 40.00 0.4
eS 58 48.00
GBA 24.88 24 P 55 08.00 -0.6
POO 28.41 13 eP 55 41.50 0.4
HYB 28.78 23 eP 55 42.50 -2.0
NDI 38.96 14 eP 57 12.00 -0.3
eS 03 12.00
QUE 39.27 359 eP 57 16.80 1.7
SLR 40.46 241 iPc 57 24.30 -0.7
0.8s 26.12nm 5.0mb
Z 18s 2.75um 5.2Msz
DMN 40.54 25 P 57 26.60 0.9
1.0s 88.00nm 5.4mb
PKI 40.64 25 P 57 27.40 0.8
1.0s 24.00nm 4.9mb
GKN 40.70 24 P 57 27.50 0.6
1.0s 64.00nm 5.3mb
KKN 40.78 25 P 57 28.40 0.8
1.1s 67.00nm 5.3mb
GUN 41.13 25 P 57 31.80 1.2
CHTO 41.88 48 ePc 57 38.20 1.7
0.9s 15.35nm 4.7mb
BLF 43.25 237 eP 57 48.00 0.1
LSA 45.06 30 Pd 58 02.20 -0.6
1.0s 18.00nm 5.0mb
MAIO 45.96 351 iPd 58 09.60 0.3
eS 05 00.00
KMI 48.60 44 eP 58 32.00 1.6
2.0s 60.00nm 5.3mb
KSH 49.18 9 eP 58 34.90 0.4
1.0s 22.00nm 5.1mb
Z 20s 0.86um 4.7Msz
PcP 59 56.00
PP 00 30.00
S 05 38.00
ScS 08 19.00
TAB 51.05 339 eP 58 49.00 0.1
GYA 52.19 46 iPd 58 57.40 -0.3
1.0s 16.00nm 4.9mb
Z 20s 0.37um 4.4Msz
sP 59 08.80
S 06 24.00
FRU 52.32 7 eP 58 58.00 -0.3
CD2 53.11 40 iPd 59 03.70 -0.7
1.0s 74.00nm 5.6mb
S 06 38.00
WMQ 56.03 18 P 59 24.00 -1.5
1.0s 9.80nm 4.8mb
Z 20s 0.80um 4.8Msz
E 14s 0.57um
PP 01 30.00
S 07 17.00
ScS 09 07.00
LZH 56.76 35 eP 59 29.00 -2.0
1.4s 16.00nm 4.9mb
Z 20s 0.25um 4.3Msz
pP 59 33.00 13kmX
GTA 57.09 30 iPd 59 32.50 -0.8
1.0s 20.00nm 5.1mb
Z 18s 0.86um 4.9Msz
pP 59 38.00 18kmX
sP 59 43.50
XAN 58.44 40 Pd 59 41.60 -1.1
1.0s 13.00nm 5.0mb
pP 59 53.00 39kmX
TIY 62.97 39 eP 00 13.20 -0.3
Z 20s 0.75um 4.9Msz
E 13s 0.47um
HHC 64.43 36 P 00 23.50 0.4
1.0s 17.00nm 5.2mb
ASPA 64.92 112 eP 00 27.80 1.2
0.8s 4.60nm 4.7mb
Z 19s 0.40um 4.6Msz
eS 08 09.10
TIA 65.12 43 eP 00 27.40 -0.2
WRA 65.35 108 P 00 27.40 -1.9
0.8s 2.50nm 4.5mb
WB2 65.36 108 iPc 00 31.10 1.7
0.7s 4.60nm 4.8mb
ARU 65.87 355 eP 00 31.00 -0.9
SVE 66.12 356 ePc 00 33.80 0.3
BJI 66.70 39 eP 00 38.00 0.5
1.0s 11.00nm 5.0mb
Z 20s 0.30um 4.5Msz
esP 00 49.50
eS 09 28.00
ZAK 67.17 24 eP 00 51.00 10.7X
2.0s 22.00nm
MOS 69.37 343 eP 01 02.00 8.0X
e 01 20.00
UZH 69.97 330 eP 01 06.00 8.3X
1.0s 32.00nm 5.4mb
SNY 72.36 41 Pc 01 12.40 0.1
S 10 40.00
KIC 73.48 279 P 01 20.04 0.7
1.3s 43.00nm 5.4mb
LIC 73.73 279 P 01 21.36 0.5
1.2s 21.50nm 5.1mb
Z 20s 0.15um 4.3Msz
TIC 73.81 280 P 01 21.54 0.2
0.9s 6.00nm 4.6mb
CN2 74.54 40 eP 01 25.00 0.0
0.8s 4.70nm 4.6mb
esP 01 36.00
KHC 74.80 327 eP 01 38.00 11.6X
1.0s 5.40nm
e 01 49.00
BRG 75.60 328 eP 01 44.40 13.5X
1.0s 12.00nm
CLL 76.34 328 e(P) 01 45.00 9.9X
1.6s 24.00nm 5.0mb
BOD 77.00 24 eP 01 36.80 -1.8
MDJ 77.56 40 eP 01 42.70 0.7
MAT 80.50 50 (P) 02 09.00 10.8X
1.5s 27.78nm
HFS 81.15 336 eP 02 01.40 0.3
0.5s 1.50nm 4.3mb
YAK 85.76 25 eP 02 30.00 5.5X
1.8s 35.00nm 5.2mb
YSS 86.96 42 eP 02 30.00 -0.7
YKA 126.90 1 ePKP 08 49.40 -0.1
0.7s 1.10nm
LPB 128.97 240 ePKP 09 02.00 6.6X
Z 16s 1.01um 5.6MszX
LR 39 42.00
LPAZ 129.10 240 PKP 08 55.30 -0.6
LR 39 42.00
UYO 150.14 329 iPKPd 09 39.10 7.0X
MEO 151.55 335 e(PKP)09 40.50 6.3X
S.D. = 1.0 on 46 of 57 obs.

DEC 24, 1993 17h 22m 39.32± 0.46s
11.432 N ± 7.7km 87.071 W ± 8.3km
DEPTH = 33.0km (normal)
4.7mb (13 obs.)
NEAR COAST OF NICARAGUA (74)

PPM 13.48 306 iP 25 52.80 1.5
SDV 16.38 97 eP 26 30.50 1.8
TOV 17.06 94 eP 26 40.70 3.5X
CAR 19.80 91 eP 27 08.00 -2.2
GOGA 22.12 8 eP 27 34.67 1.0
0.6s 34.84nm 5.0mb
PRM 22.95 10 eP 27 43.00 1.2
OXF 23.07 355 eP 27 42.66 -0.3
JSC 23.35 12 eP 27 46.88 1.2
UYO 23.61 345 iPd 27 48.60 0.3
LHS 23.64 13 eP 27 49.98 1.5
MYNC 23.69 6 ePc 27 49.85 0.8
0.6s 16.13nm 4.7mb
MIAR 23.76 347 eP 27 49.36 -0.3
0.7s 20.52nm 4.8mb
e 27 57.45
CEH 25.40 15 eP 28 05.26 -0.1
0.6s 27.36nm 5.0mb
MEO 25.50 338 iPd 28 06.80 0.4
WMOK 25.53 337 eP 28 06.73 0.0
1.2s 85.94nm 5.2mb
TUL 25.62 343 iPc 28 06.20 -1.3
OCO 25.77 340 iPc 28 09.80 0.9
ELC 25.81 356 eP 28 07.93 -1.3

FVM 26.61 354 eP 28 15.10 -1.5
0.5s 7.88nm 4.6mb
ACO 27.41 339 iPd 28 22.80 -1.2
CVL 27.54 15 eP 28 24.93 -0.1
CBN 28.04 16 eP 28 30.00 0.5
PV08 33.18 328 eP 29 14.75 -0.8
ePcP 31 58.07
PV10 33.24 328 eP 29 14.48 -1.4
ePcP 31 57.43
LPAZ 33.31 145 P 29 19.20 2.1
LPB 33.53 146 eP 29 17.00 -1.8
SRU 34.57 327 eP 29 26.69 -0.6
RSNY 34.72 16 eP 29 26.79 -1.5
0.8s 27.44nm 5.2mb
PLM 34.92 313 eP 29 31.23 0.8
EMUT 35.23 327 eP 29 32.54 -0.5
ARUT 35.30 322 eP 29 33.88 0.3
RSSD 35.71 339 eP 29 35.95 -1.1
0.7s 5.66nm 4.6mb
ePcP 32 01.97
BW06 36.85 332 eP 29 45.33 -1.3
0.7s 4.92nm 4.5mb
HVU 37.68 328 eP 29 53.07 -0.5
BONR 38.43 319 eP 30 00.97 0.9
ePcP 32 21.37
MOCB 38.71 147 P 30 03.40 0.7
KVN 38.95 320 (P) 30 05.23 1.0
LRM 40.52 333 eP 30 18.10 0.9
ORV 41.40 319 eP 30 26.00 1.8
LMEM 41.99 320 (P) 30 30.68 1.4
VGB 44.48 326 eP 30 48.75 -0.6
DPW 44.71 330 eP 30 49.83 -1.3
ePcP 32 29.25
BAO 47.12 124 eP 31 09.40 -1.3
YKA 54.69 345 eP 32 04.30 -3.0X
0.7s 3.00nm 4.4mb
IMA 70.21 337 eP 33 50.46 -0.4
1.0s 1.79nm 4.1mb
DAG 74.03 13 iPc 34 10.00 -3.2X
0.5s 6.34nm 4.9mb
LKO 79.88 82 P 34 43.86 -3.2X
0.9s 5.00nm 4.5mb
ASPA 139.23 247 ePKP 42 03.80 -1.8
1.6s 4.60nm
WB2 139.32 253 iPKPd 42 02.50 -3.3X
0.5s 1.90nm
WRA 139.33 253 PKP 42 04.60 -1.2
0.8s 1.00nm
HYB 148.01 27 ePKP 42 21.50 0.8
CHTO 149.37 349 ePKPc 42 27.30 4.5X
1.0s 17.50nm
GBA 150.76 32 PKP 42 26.00 1.1
BDT 150.88 348 ePKP 42 30.50 5.4X
1.0s 63.50nm
KOD 153.55 36 ePKP 42 31.40 2.0
S.D. = 1.2 on 48 of 55 obs.

& DEC 24, 1993 17h 59m 17.77s
59.826 N 152.595 W
DEPTH = 83.2km
2.9mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.31 324 eP 59 29.79 -1.0
eS 59 39.53
INE 0.33 315 eP 59 30.43 -0.6
eS 59 40.76
OPT 0.37 242 iP 59 30.39 -0.6
eS 59 39.45
HOM 0.51 109 eP 59 31.48 -0.6
XLV 0.58 130 eP 59 31.80 -0.9
RED 0.60 352 eP 59 32.09 -0.9
eS 59 43.78
AUE 0.61 220 eP 59 32.38 -0.6
eS 59 42.69
AUL 0.62 224 eP 59 32.43 -0.6
eS 59 44.29
AUP 0.63 222 eP 59 32.22 -1.0
AUH 0.63 223 eP 59 32.67 -0.6
AUW 0.64 225 iP 59 32.67 -0.6
RS2 0.64 353 eP 59 33.68 0.1
eS 59 45.80
AUI 0.65 221 eP 59 32.72 -0.7
eS 59 43.94
RDW 0.67 351 eP 59 33.05 -0.7
eS 59 45.44
REF 0.67 355 iP 59 33.03 -0.8
eS 59 45.40
CNPM 0.75 113 iP 59 33.58 -0.9
eS 59 45.88
NCT 0.76 347 eP 59 33.92 -0.7
eS 59 46.56
DFR 0.77 357 iP 59 33.97 -0.8
eS 59 47.04
PDB 0.81 268 iP 59 34.09 -1.0
eS 59 47.10
BRLK 0.87 93 eP 59 34.98 -0.8
eS 59 47.90
MCNL 1.10 235 eP 59 37.22 -1.2
eS 59 52.42
NKA 1.14 36 eP 59 39.92 0.9
SYI 1.22 175 eP 59 39.47 -0.5
BKG 1.26 7 iP 59 39.86 -0.7
eS 59 57.29
SLKM 1.37 59 eP 59 40.75 -1.2
CKL 1.38 5 eP 59 41.55 -0.6
SPU 1.39 11 iP 59 41.50 -0.7
eS 59 59.96
CKT 1.39 8 iP 59 41.58 -0.7
eS 59 59.85
CKN 1.42 8 eP 59 42.10 -0.5
eS 00 00.81
BGL 1.45 4 iP 59 42.46 -0.6
CP2 1.45 7 eP 59 42.42 -0.8
CRP 1.46 8 eP 59 41.83 -1.5
CGLM 1.51 11 eP 59 43.33 -0.6
NCG 1.60 8 iP 59 44.46 -0.6
SEW 1.61 79 eP 59 44.01 -1.0
MPA 1.75 66 eP 59 46.04 -0.8
SUA 1.88 28 eP 59 48.29 -0.5
SVW 1.98 312 P 59 48.60 -1.4
PMS 2.07 45 P 59 50.50 -0.8
KDC 2.09 178 eP 59 48.97 -2.4
SKT 2.22 13 eP 59 52.29 -1.1
PWA 2.27 35 P 59 53.40 -0.5
PWL 2.36 62 eP 59 53.12 -2.1
PLRM 2.46 42 eP 59 54.76 -1.8
PMR 2.46 42 eP 59 54.43 -2.1
MTU 2.50 84 eP 59 56.02 -1.1
GHO 2.66 41 eP 59 57.79 -1.6
CFI 2.75 58 eP 59 58.21 -2.3
CUT 2.82 23 eP 00 00.60 -0.9
SML 2.88 45 eP 00 00.62 -1.8
HIN 3.10 77 eP 00 03.68 -1.8
SCM 3.27 50 eP 00 06.06 -1.8
VLZ 3.37 64 eP 00 06.99 -2.0
HUR 3.47 23 eP 00 10.20 -0.3
KLU 3.69 60 eP 00 10.95 -2.7
FBA 5.56 22 eP 00 36.80 -2.8
IL1 5.63 26 eP 00 37.98 -2.7
ILB 5.63 26 eP 00 38.04 -2.6
BC3 6.12 53 eP 00 45.03 -2.4
IM3 6.20 356 eP 00 47.99 -0.6
YKA 18.34 65 eP 03 24.70 -2.9
0.4s 0.30nm 2.9mb
61 obs. associated

% DEC 24, 1993 18h 23m 00.56± 1.22s
37.214 N ±13.2km 21.823 E ±14.5km
DEPTH = 33.0km (normal)
SOUTHERN GREECE (368)
ML 3.3 (ATH).

VLI 1.02 119 ePb 23 20.00 1.4
VLS 1.37 315 ePn 23 23.10 -0.5
ATH 1.68 63 ePn 23 27.00 -1.1
VAM 2.63 132 ePn 23 40.50 -1.2
KZN 3.09 359 ePn 23 48.70 0.5
NPS 3.63 121 ePn 23 55.50 -0.3
S.D. = 1.3 on 6 of 6 obs.

? DEC 24, 1993 20h 16m 00.27± 2.87s
27.672 N ±24.2km 140.108 E ±48.3km
DEPTH = 522.5 ± 45.8 km
3.4mb (3 obs.)
BONIN ISLANDS REGION (212)

WKYJ 7.59 330 P 17 54.70 0.6
TKSJ 8.17 322 P 18 00.40 0.5
MAT 8.99 350 eP 18 07.00 -1.4
0.5s 3.52nm 3.9mb
eS 19 52.00
YONJ 9.40 325 P 18 12.10 -0.5
YAMJ 10.47 360 eP 18 24.50 0.8
eS 20 20.00
OFUJ 11.45 6 eP 18 38.70 4.9X
WRA 47.66 187 P 23 50.50 -0.1
0.4s 0.40nm 3.3mb
YKA 72.51 28 eP 26 34.90 0.1
0.6s 0.60nm 3.3mb
S.D. = 1.1 on 7 of 8 obs.

DEC 24, 1993 21h 53m 19.87± 0.31s
40.158 N ± 2.7km 19.815 E ± 2.2km
DEPTH = 24.5 ± 2.4 km
5.2mb (57 obs.) 4.6Msz (6 obs.)
ALBANIA (391)
MD 5.1 (TTG), 4.9 (ATH). Felt
(IV) in Vlore and Tepelene
Departments.

TPE 0.20 47 iPgc 53 21.50 -4.0X
SRN 0.31 153 iPgc 53 24.50 -2.5
KEK 0.44 182 ePb 53 27.50 -1.6
LSK 0.60 90 iPgd 53 29.00 -2.8
iSg 53 40.70
IGT 0.74 147 iPg 53 34.24 0.2
eSg 53 44.58
TIR 1.19 2 iPnc 53 42.10 1.1
iSn 54 03.50
OHR 1.21 38 iPn 53 41.40 0.0
i 53 46.50
i 54 04.50
i 54 09.70
FNA 1.35 62 iPb 53 43.82 0.6
eSb 54 03.10
LACI 1.48 357 iPnc 53 47.50 2.4X
iSn 54 13.20
KZN 1.50 84 ePb 53 45.50 -0.1
ULC 1.85 347 iPnc 53 52.07 1.5
iSn 54 17.98
SDA 1.91 353 iPnc 53 51.20 -0.1
iSn 54 21.30
LIT 2.05 91 iPn 53 55.14 1.7
VLS 2.07 163 ePn 53 53.30 -0.4
GRG 2.13 67 iPn 53 56.14 1.6
eSn 54 22.56
SKO 2.19 34 iPnc 53 57.80 2.4X
iPg 54 01.50
i 54 22.50
iSn 54 27.00
iSg 54 32.00
LR 54 40.00
LQ 54 52.00
BCI 2.22 5 iPnd 53 56.40 0.6
iSn 54 30.00
AGG 2.25 119 iPn 53 58.17 1.9
BDV 2.25 341 iPnc 53 56.98 0.7
iSn 54 26.07
TTG 2.31 350 iPnc 53 58.81 1.8
iSn 54 29.34
VAY 2.39 60 iPn 54 00.50 2.2
iSn 54 31.00
i 54 35.60
PVY 2.44 3 iPnc 54 01.91 2.9X
iSn 54 34.67
THE 2.45 78 iPn 54 00.53 1.4
HCY 2.49 337 iPnc 53 59.73 0.0
iSn 54 31.11
KNT 2.55 66 iPn 54 01.78 1.2
eSn 54 33.08
IVA 2.71 1 iPnc 54 05.57 2.7X
iSn 54 40.96
NKY 2.72 347 iPnd 54 04.11 1.1
iSn 54 38.58
SOH 2.78 75 ePn 54 05.00 1.2
BRY 2.90 341 iPnc 54 06.01 0.4
iSn 54 41.79
PAIG 2.98 93 iPn 54 06.97 0.5
eSn 54 43.57
KKB 3.01 54 iPc 54 08.00 1.0
SRS 3.03 70 ePn 54 08.00 0.7
iSn 54 44.17
PLE 3.19 354 iPnc 54 11.10 1.5
iSn 54 51.13
OUR 3.19 85 iPn 54 10.29 0.6
MMB 3.29 63 iPc 54 12.00 0.9
VTS 3.53 45 iPc 54 16.00 1.5
ATH 3.74 124 ePn 54 17.50 0.1
HVAR 3.93 321 iPn 54 20.40 0.3

24d 21h

PLD 4.17 61 iPc 54 25.00 1.4
VLI 4.22 143 ePn 54 23.80 -0.4
RDO 4.46 75 ePn 54 27.60 -0.1
ALN 4.81 79 ePn 54 32.46 0.0
PRK 5.06 98 ePn 54 37.20 1.1
JMB 5.59 63 iP 54 44.00 0.3
VAM 5.88 142 ePn 54 45.50 -2.1X
VBY 6.31 329 iPnd 54 53.30 -0.4
ZAG 6.31 335 e(Pn) 54 54.30 0.5
iSn 56 02.50
PTJ 6.40 335 Pn 54 53.10 -1.9
Sn 56 04.00
UZD 6.49 352 eP 54 55.30 -1.0
RIY 6.54 324 iPn 54 55.20 -1.8
iSn 56 08.40
NPS 6.71 135 ePn 54 58.00 -1.4
ITU 7.06 79 ePn 55 04.00 -0.3
iSg 57 00.00
TRI 7.10 323 iPnc 55 03.70 -1.1
iSn 56 20.50
e 57 16.00
PSN 7.17 58 iP 55 06.00 0.3
VOY 7.30 326 ePn 55 06.70 -0.9
eSn 56 26.00
FIR 7.33 302 ePn 55 08.00 0.0
iSn 56 27.00
BUD 7.35 356 ePn 55 05.60 -2.6
SRO 7.73 352 iP 55 12.90 -0.7
i 57 10.10
KBA 8.36 328 iPnc 55 21.50 -1.0
i 55 23.10
iSn 56 55.70
iSgSg 57 57.20
VKA 8.48 344 e(Pn) 55 24.00 -0.1
i 55 24.70
iSn 56 56.20
i 57 19.30
UZH 8.66 11 eP 55 26.20 -0.3
KSL 8.69 115 ePn 55 27.00 0.0
NAL 8.80 86 eP 55 29.00 0.4
KMR 8.89 335 iPn+ 55 28.20 -1.5
i 56 55.30
i 57 11.80
SCE 9.04 322 eP 55 30.10 -1.9
WTTA 9.24 323 iPnc 55 33.50 -1.3
i 55 35.10
iSn 57 13.00
OGA 9.26 319 iPc 55 33.30 -1.7
WATA 9.32 323 iPnd 55 35.10 -0.8
i 55 36.10
iSn 57 16.60
SGKT 9.35 84 eP 55 36.50 0.1
SQTA 9.41 321 iPnc 55 36.50 -0.6
i 55 37.80
iSn 57 19.80
KIS 9.49 41 iP- 55 38.00 0.0
Z 11s 4.30um
eS 57 20.00
MOTA 9.55 322 iPnd 55 37.80 -1.2
i 55 39.40
iSn 57 22.70
OSS 9.59 316 P 55 38.02 -1.6
VDL 9.84 313 P 55 41.65 -1.3
TMA 9.96 310 P 55 41.43 -3.3X
KHC 10.01 336 Pc 55 42.40 -2.8X
1.1s 50.00nm 5.8mb
Z 11s 5.00um 5.2Msz
N 10s 3.00um
E 10s 3.80um
e 55 46.50
e 55 54.50
i 57 33.00
e 58 16.50
e 58 42.00
i 59 27.50
OJC 10.06 360 iPc 55 45.60 -0.3
1.1s 63.00nm 5.9mb
i 55 54.00
i 56 00.70
eS 57 34.30
FUR 10.08 325 iPc 55 44.80 -1.3X
LVV 10.11 16 eP 55 49.00 2.5X
WET 10.25 334 iPd 55 46.00 -2.5X
LLS 10.32 314 P 55 49.04 -0.7X
MMK 10.47 308 P 55 50.77 -1.0X
PRU 10.51 341 Pc 55 50.00 -2.0X
1.0s 50.10nm 5.8mb

eS 57 56.30
e 58 32.40
KAS 10.65 79 eP 55 55.50 1.4X
DIX 10.82 307 P 55 54.47 -2.1X
KSP 10.97 348 ePn 55 56.20 -2.0X
ePg 56 15.00
ZLA 11.03 315 P 55 58.52 -0.6X
EMS 11.11 306 P` 55 59.11 -1.4X
RSL 11.13 304 P 55 58.70 -2.0X
SLE 11.15 317 P 55 58.72 -2.0X
GRF 11.30 330 ePn 55 59.80 -3.0X
Z 15s 2.90um
FEL 11.47 316 eP 56 02.60 -2.6X
BRG 11.48 341 iP 56 03.30 -1.8X
e 59 19.00
SIM 11.58 61 eP 56 08.00 1.3
HOF 11.59 334 eP 56 03.60 -3.1X
MOX 11.96 334 iPc 56 09.00 -2.7X
0.9s 55.00nm 5.8mb
CLL 12.12 339 eP 56 14.00 0.2
1.4s 42.00nm 5.5mb
i 59 28.60
TOD 12.24 324 eP 55 58.70 -16.8X
ABH 13.01 322 eP 56 24.50 -1.3
RUP 13.12 321 eP 56 26.70 -0.6
WLF 13.55 319 iPd 56 35.45 2.7
1.4s 16.20nm 4.7mb
ic 56 44.49
ANN 13.73 64 eP 56 37.00 1.8
HLW 13.94 134 eP 56 32.00 -6.1X
eS 58 57.00
BNS 13.95 325 ePc 56 35.90 -2.1
ENN 14.38 322 eP 56 44.50 0.8
e(S) 59 17.00
DOU 14.61 318 P 56 49.10 2.4X
S 59 20.40
WTS 14.86 327 eP 56 57.00 7.1X
0.8s 18.90nm 4.5mb
e 59 25.00
e 59 44.00
SNF 15.02 319 P 57 02.90 10.9X
e 59 28.70
SOC 15.21 71 eP 56 55.50 0.8
Z 12s 0.50um
N 13s 0.40um
E 13s 0.40um
EGRA 15.30 284 iPc 56 57.22 1.5
WIT 15.53 329 eP 57 07.00 8.4X
ACU 15.74 271 iPc 57 05.15 3.6X
ECHE 15.97 275 iPc 57 09.18 4.7X
ETOR 16.65 279 iPc 57 17.45 4.2X
ECRI 16.93 286 P 57 22.82 6.2X
EVIA 17.31 272 iPc 57 23.37 1.8
KIV 17.39 70 iP 57 23.00 0.5
e 00 40.20
AYN 17.43 125 ePc 57 20.00 -2.8
EHUE 17.57 270 P 57 28.32 3.5X
PYA 17.66 70 eP 57 26.00 0.2
Z 12s 1.00um
MUD 17.75 340 eP 57 26.00 -0.6
1.4s 209.00nm 5.1mb
GUD 18.25 279 iPd 57 36.08 2.8
EBAN 18.40 271 iPc 57 34.86 -0.1
TAF 18.41 260 eP 57 42.00 6.8X
i 57 48.00
ECOG 18.46 269 iPd 57 35.50 -0.3
PAB 18.55 276 iP 57 38.20 1.3
iS 01 08.00
EGUA 18.59 267 iPd 57 36.38 -0.9
OBN 18.67 31 iPc 57 36.80 -1.2
1.0s 70.00nm 4.8mb
Z 12s 2.00um 5.1Msz
N 12s 2.00um
E 18s 0.70um
eS 01 10.00
MTA 18.93 77 eP 57 41.00 -0.3
GRO 19.54 72 iPd 57 50.00 1.5
2.0s 280.00nm 5.2mb
eS 01 16.00
MOS 19.54 31 eP 57 47.00 -1.3
Z 13s 1.80um
EHOR 19.61 271 iPc 57 48.47 -0.8
UPP 19.77 357 iP 57 49.40 -1.4
EPLA 19.79 278 iPd 57 51.20 -0.1
EPRU 19.83 269 iPc 57 48.86 -2.8X
EJIF 20.16 268 iPc 57 52.65 -2.5
ALJ 20.20 268 iP 57 58.00 2.3X

HFS 20.36 351 eP 57 56.00 -1.1
0.5s 32.10nm 5.0mb
Z 16s 0.87um 4.2MszX
LR 05 32.00
MOMI 20.40 267 iP 57 54.00 -3.6X
NKM 20.45 265 iP 57 57.00 -1.2
CPS 20.46 266 eP 58 06.00 7.8X
PLAT 20.49 267 iP 57 57.00 -1.6
KONO 20.55 345 eP 57 56.86 -2.1
NUR 20.60 7 iP 57 57.00 -2.5
0.8s 74.80nm 5.1mb
BIT 20.63 266 eP 58 02.00 2.1
CNIL 20.63 268 eP 57 55.00 -5.0X
TAB 20.65 87 iPc 57 59.00 -1.5
TGT 20.71 261 eP 57 59.50 -1.3
PUL 20.71 15 ePc 57 58.00 -2.6
1.2s 370.00nm 5.7mb
N 12s 1.20um
E 12s 1.60um
e 58 16.00
e 01 48.00
EVAL 20.82 271 iPc 58 01.83 -0.1
MAK 20.82 73 eP 58 02.00 0.1
Z 11s 2.00um 4.7MszX
N 11s 1.00um
E 11s 1.10um
e 58 24.00
ePPP 58 40.00
iS 01 59.00
TSY 20.91 265 eP 58 02.50 -0.3
IFR 21.00 259 iP 58 04.00 0.0
i 58 06.00
BLS5 21.05 341 eP 58 13.62 9.5X
EKA 21.51 323 P 58 09.00 0.2
1.2s 92.50nm 5.1mb
ESK 21.52 322 eP 58 09.50 0.6
1.0s 160.00nm 5.4mb
NB2 21.57 349 P 58 08.00 -1.5
0.6s 29.10nm 4.9mb
ECP 21.62 312 eP 58 12.20 2.3X
DLF 22.18 315 eP 58 18.50 3.0X
KAF 22.34 8 eP 58 15.20 -1.8
0.8s 67.90nm 5.2mb
KER 22.44 96 eP 58 18.00 -0.4
DCN 22.60 315 eP 58 19.80 0.1
1.0s 162.00nm 5.5mb
AVE 22.82 261 eP 58 11.50 -10.5X
i 58 27.00
BAK 22.91 80 iPd 58 25.00 2.2
eS 02 36.00
MOL 23.63 346 eP 58 30.02 0.4
TIO 23.81 256 iP 58 32.50 0.7
i 58 50.50
NSS 24.84 352 iP 58 41.36 0.1
AFIF 25.34 122 ePc 58 47.00 0.5
MJMA 25.57 116 ePc 58 47.30 -1.3
RYD 27.22 116 ePc 59 02.60 -1.2
SDF 27.56 5 eP 59 05.00 -1.4
TRO 29.54 359 eP 59 26.00 1.8
ASH 29.85 82 eP 59 27.00 -0.4
1.3s 140.00nm 5.6mb
SVE 31.19 44 ePc 59 38.80 -0.1
2.1s 40.00nm 4.9mb
Z 12s 2.50um 5.1MszX
N 12s 0.50um
E 12s 1.50um
e 00 38.00
MAIO 31.23 84 iPd 59 38.00 -1.6
1.0s 11.00nm 4.7mb
eS 05 00.00
LKO 37.94 223 Pd 00 36.58 -0.7
0.8s 26.00nm 5.1mb
KDS 39.35 235 iP 00 49.30 0.3
TIC 40.11 220 P 00 54.80 -0.5
0.9s 8.50nm 4.5mb
KIC 40.22 220 P 00 55.78 -0.4
1.3s 44.00nm 5.0mb
DAG 40.26 347 iPc 00 55.90 0.0
0.8s 7.46nm 4.5mb
LIC 40.48 220 P 00 57.84 -0.5
1.0s 21.00nm 4.8mb
Z 20s 0.20um 4.0Msz
FRU 40.53 68 iP 00 59.00 0.5
1.8s 130.00nm 5.4mb
GDH 47.28 332 ePd 01 53.00 0.5
e 02 30.00
NDI 47.97 85 eP 01 56.00 -2.6X

WMQ 49.30 62 iPc 02 07.90 -0.8
1.0s 21.00nm 5.1mb
Z 18s 0.52um 4.6Msz
E 10s 0.42um
pP 02 11.90 13kmX
sP 02 14.90
sS 09 26.00
ScS 11 57.00
GKN 53.96 82 P 02 41.10 -3.0X
DMN 54.52 82 P 02 45.70 -2.7X
0.9s 61.00nm 5.6mb
KKN 54.56 82 P 02 45.70 -2.9
0.9s 38.00nm 5.4mb
PKI 54.77 82 P 02 47.20 -3.1X
0.9s 29.00nm 5.3mb
GUN 54.95 81 P 02 48.60 -3.0X
0.8s 43.00nm 5.5mb
ZAK 56.68 50 eP 03 02.30 -1.0
1.9s 35.00nm 5.1mb
Z 14s 0.78um 5.0MszX
N 14s 0.48um
E 12s 0.58um
LSA 57.99 76 P 03 19.00 5.6X
TIK 58.00 21 iPd 03 11.00 -1.3
2.0s 49.00nm 5.2mb
Z 18s 1.20um 5.1Msz
e 05 15.00
ePPP 06 40.00
e 11 38.00
BOD 59.23 38 iPc 03 18.70 -2.4
1.1s 31.00nm 5.3mb
GTA 59.38 62 iPc 03 20.50 -2.1
1.0s 16.00nm 5.1mb
pP 03 24.00 11kmX
CIT 61.73 44 eP 03 38.00 -0.4
YAK 63.68 30 eP 03 57.40 6.4X
2.0s 86.00nm 5.5mb
N 15s 0.50um
E 18s 0.40um
LZH 63.82 64 eP 03 51.00 -1.5
1.5s 29.00nm 5.2mb
Z 20s 0.30um 4.5Msz
CD2 66.56 69 iPd 04 08.20 -1.9
XAN 68.42 63 P 04 20.40 -1.4
1.2s 14.00nm 5.0mb
pP 04 24.00 12kmX
TIY 68.69 58 eP 04 20.20 -3.2X
Z 18s 0.73um 5.0Msz
N 16s 0.72um
E 14s 0.55um
KMI 69.10 74 eP 04 28.50 2.2
1.8s 50.00nm 5.3mb
sP 04 36.50
BJI 69.73 54 eP 04 28.50 -1.2
2.0s 92.00nm 5.6mb
Z 22s 0.30um 4.5Msz
N 16s 0.56um
GYA 71.19 71 iPd 04 42.00 3.1X
1.0s 11.00nm 4.9mb
YKA 71.35 340 eP 04 39.20 0.1
1.4s 20.40nm 5.0mb
CVL 72.15 305 eP 04 44.71 0.4
TIA 72.61 57 eP 04 45.40 -1.7
CN2 72.93 47 P 04 47.90 -0.9
1.0s 23.00nm 5.2mb
epP 04 55.00 23kmX
IMA 73.99 357 eP 04 54.83 0.1
0.9s 11.67nm 4.9mb
NAV 74.02 305 eP 04 55.99 0.6
FBA 74.83 355 eP 04 59.32 -0.1
0.9s 10.67nm 4.9mb
ANM 75.54 2 eP 05 03.81 0.3
JSC 76.22 303 eP 05 08.98 1.1
NJ2 76.29 60 Pd 05 07.00 -1.3
TTA 77.20 358 eP 05 14.30 1.3
PWA 78.20 355 eP 05 18.90 0.6
1.1s 105.30nm 5.8mb
CRP 78.72 356 eP 05 20.02 -1.4
SVW 79.02 358 eP 05 24.40 1.5
ELC 79.16 310 eP 05 24.18 0.1
FVM 79.39 311 eP 05 25.93 0.6
0.7s 21.45nm 5.3mb
YSS 79.42 36 ePd 05 26.00 0.7
1.0s 40.00nm 5.4mb
e 05 38.70
LST 79.98 310 eP 05 29.45 1.0
RSSD 82.06 323 eP 05 40.53 0.9

0.9s 12.51nm 5.0mb
MIAR 83.60 310 eP 05 48.46 1.0
0.9s 14.78nm 5.2mb
BAO 83.86 244 eP 05 50.20 1.2
BDFB 83.88 244 eP 05 51.21 2.1
1.2s 23.24nm 5.3mb
TUL 83.90 313 iPc 05 50.30 1.4
NEW 84.04 333 eP 05 50.18 0.7
1.0s 11.92nm 5.1mb
LRM 84.34 329 eP 05 52.50 1.2
e 05 56.00
UYO 84.39 311 iPc 05 51.60 0.2
DPW 84.76 333 eP 05 54.25 1.1
MAT 84.99 45 eP 05 54.00 -0.4
1.2s 15.63nm 5.1mb
SAW 85.32 334 P 05 56.89 1.0
WTV 85.50 334 P 05 57.81 1.0
BW06 85.60 325 eP 05 57.89 0.3
1.2s 13.81nm 5.1mb
JCW 85.72 335 P 05 57.77 -0.1
WAH2 86.19 333 P 06 01.55 1.4
MEO 86.29 313 iPc 06 02.50 1.6
RMW 86.32 335 eP 06 01.09 0.1
EBG 86.40 334 P 06 01.62 0.3
WMOK 86.43 314 eP 06 02.65 1.0
0.9s 27.88nm 5.5mb
GMW 86.56 336 eP 06 03.24 1.2
FMW 86.74 335 P 06 03.14 0.0
LON 86.95 335 eP 06 04.66 0.7
SHW 87.58 335 eP 06 09.24 2.1
BMW 87.65 335 eP 06 07.63 0.3
VGB 87.68 333 eP 06 08.93 1.4
HVU 87.80 327 eP 06 08.76 0.5
DAU 88.26 325 eP 06 10.64 -0.1
VBEM 88.36 334 P 06 12.13 1.2
PV08 88.55 322 eP 06 12.48 0.3
PV09 88.84 322 eP 06 14.14 0.6
PV10 88.90 322 eP 06 14.36 0.6
SRU 88.99 324 eP 06 13.62 -0.5
DUG 89.12 326 ePd 06 15.50 0.9
0.9s 13.04nm 5.2mb
MSU 90.22 324 eP 06 20.33 0.4
ARUT 91.38 325 eP 06 27.22 2.0
LBFM 91.73 332 eP 06 27.51 0.7
LGPM 92.44 333 eP 06 30.79 0.8
ORV 93.16 331 eP 06 33.97 0.9
LTX 93.22 313 eP 06 33.76 0.1
BONR 93.30 328 eP 06 35.40 1.2
GLA 95.95 323 (P) 06 46.73 0.6
WRA 121.14 91 PKP 12 12.80 0.5
0.8s 0.70nm
ASPA 122.90 94 ePKP 12 17.80 2.2
0.9s 7.60nm
DZM 146.48 68 iPKPc 13 01.90 2.5
S.D. = 1.2 on 210 of 266 obs.

& DEC 24, 1993 22h 57m 28.84s
32.366 N 115.347 W
DEPTH = 6.0km (geophysicist)
CALIF.-BAJA CALIF. BORDER REGION(45)
<PAS-P>. ML 2.9 (PAS).

GLA 0.81 33 eP 57 43.01 -2.0
PLM 1.61 308 eP 57 55.32 -2.7
PEC 2.15 315 (Pn) 58 04.50 -1.3
SSK 2.69 314 (Pn) 58 12.30 -1.3
GSC 3.17 338 (Pn) 58 18.79 -1.5
5 obs. associated

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* DEC 24, 1993 22h 59m 27.87± 0.59s
4.117 S ± 9.5km 135.603 E ±10.3km
DEPTH = 33.0km (normal)
4.8mb (4 obs.)
IRIAN JAYA REGION, INDONESIA (196)

WWKK 8.02 87 eP 01 25.50 0.4
MTN 9.73 207 eP 01 45.30 -3.4X
0.3s 114.00nm 6.6mb X
eS 03 29.80
PMG 12.62 115 eP 02 28.00 0.1
WB2 15.78 184 iPc 03 04.20 -5.2X
i 03 13.50
iS 05 51.50
ASPA 19.50 185 iPd 03 53.40 -2.1
Z 17s 1.20um
ipP 04 11.20 96kmX
iS 07 21.50

MBL 22.84 221 eP 04 31.00 1.6
WARB 23.56 200 eP 04 37.00 0.6
XAN 45.55 329 P 07 46.00 -0.5
0.7s 2.60nm 4.3mb
TIY 46.86 335 eP 07 55.00 -1.8
BJI 47.43 340 eP 08 02.00 0.8
1.4s 12.00nm 4.7mb
LZH 49.82 326 eP 08 20.00 0.0
1.0s 12.00nm 4.9mb
pP 08 24.00 13kmX
HHC 49.87 336 eP 08 20.70 0.5
WMQ 64.23 323 P 10 02.50 0.4
0.5s 7.00nm 5.0mb
MOCB 147.30 141 PKP 19 14.10 5.4X
LPB 148.86 132 ePKP 19 15.00 3.8X
LPAZ 148.98 131 PKP 19 16.60 4.9X
S.D. = 1.2 on 11 of 16 obs.

DEC 24, 1993 23h 40m 31.17± 0.52s
9.713 N ± 8.3km 122.496 E ± 6.1km
DEPTH = 33.0km (normal)
4.6mb (6 obs.)
NEGROS, PHILIPPINE ISLANDS (257)

MAP 1.58 67 iPc 40 58.00 0.7
iS 41 18.00
CGP 2.51 120 iPd 41 09.00 -1.5
iS 41 30.00
PLP 2.84 59 ePc 41 15.00 -0.1
eS 41 42.00
CTB 3.01 146 ePd 41 20.00 2.3
BIP 3.99 111 eP 41 32.00 0.4
eS 42 21.00
TSM 7.07 221 ePc 42 14.70 -0.4
KKM 7.21 240 ePd 42 18.00 0.9
0.8s 61.50nm 5.6mb
e 43 36.00
WB2 31.70 158 eP 46 50.40 -3.8X
0.5s 1.80nm 4.2mb
ASPA 35.00 162 eP 47 20.50 -2.3
0.9s 4.50nm 4.4mb
WARB 35.91 174 eP 47 30.50 0.0
GUN 38.89 303 P 47 56.40 0.4
0.7s 30.00nm 5.2mb
PKI 39.17 302 P 47 58.00 -0.3
0.6s 7.00nm 4.6mb
KKN 39.35 302 P 47 59.80 0.1
0.6s 6.00nm 4.5mb
DMN 39.43 302 P 48 00.50 0.1
GKN 39.96 302 P 48 04.20 -0.4
S.D. = 1.2 on 14 of 15 obs.

& DEC 25, 1993 01h 24m 52.43s
59.546 N 137.251 W
DEPTH = 10.0km (geophysicist)
SOUTHEASTERN ALASKA (19)
<PGC-P>. ML 2.9 (PGC).

HYT 1.29 354 Pn 25 16.10 -0.3
Lg 25 32.90
TCBC 3.51 115 Pn 25 47.00 -1.2
Lg 26 41.50
DLB 3.89 104 Pn 25 51.50 -2.1
Lg 26 53.50
DAWY 4.65 348 ePn 26 03.82 -0.5
eSg 27 18.93
4 obs. associated

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* DEC 25, 1993 01h 35m 51.98± 0.29s
7.487 N ± 5.8km 76.796 W ± 4.2km
DEPTH = 33.0km (normal)
4.7mb (23 obs.)
NORTHERN COLOMBIA (99)

UPA 3.09 299 eP 36 38.07 -1.5
eS 37 21.47
ECO 3.42 303 eP 36 43.27 -1.1
eS 37 28.51
BMG 3.71 96 eP 36 49.00 0.5
BOG 3.93 136 eP 36 54.00 2.1
iS 37 42.00
DVD 5.68 280 eP 37 17.21 0.9
eS 38 27.76
BRU 5.86 283 eP 37 19.77 0.5
eS 38 36.25
SDV 6.26 77 iPnc 37 24.50 -0.1
eSn 38 27.70

25d 01h

PSO 6.28 185 eP 37 27.50 2.4
TOV 7.29 71 eP 37 37.60 -1.4
eS 38 57.60
CEOS 8.51 79 iPc 37 52.30 -3.8X
iS 39 23.80
CANV 8.62 65 eP 37 57.00 -0.5
iS 39 42.20
MORO 9.02 67 iPd 38 03.60 0.5
OLLA 10.19 75 eP 38 14.60 -4.6X
CAR 10.20 72 eP 38 10.00 -9.3X
LLAV 10.30 73 eP 38 18.70 -2.1
ARE 24.37 168 eP 41 09.00 0.3
LPAZ 25.13 160 P 41 14.50 -1.9
S 45 15.90
LR 49 56.00
LPB 25.37 160 P 41 17.00 -1.4
OXF 29.30 338 eP 41 54.44 0.8
UYO 31.15 331 iPd 42 10.00 -0.1
FVM 32.77 340 eP 42 23.76 -0.5
0.8s 32.42nm 5.3mb
TUL 33.20 331 iPc 42 27.60 -0.4
LTX 33.34 314 eP 42 27.79 -1.6
MEO 33.76 327 iPc 42 31.50 -1.3
BAO 36.63 129 Pc 42 55.50 -2.1
e 42 58.50
RSNY 36.97 3 eP 43 01.62 1.6
0.8s 9.47nm 4.7mb
ALQ 38.59 319 ePd 43 14.83 0.9
0.7s 4.53nm 4.4mb
GOL 41.05 326 eP 43 34.93 0.6
0.8s 7.44nm 4.5mb
PV10 42.34 321 eP 43 45.52 0.6
RSSD 43.55 331 eP 43 55.04 0.4
1.0s 10.33nm 4.6mb
MSU 44.40 320 eP 44 02.41 0.8
DAU 44.94 322 eP 44 06.22 0.1
BW06 45.45 326 eP 44 09.48 -0.5
0.7s 3.85nm 4.4mb
PEC 45.55 311 eP 44 10.68 0.0
0.8s 6.24nm 4.6mb
DUG 45.77 321 eP 44 12.50 0.1
0.7s 3.73nm 4.4mb
PTI 47.10 324 eP 44 22.89 -0.1
TNP 47.53 316 eP 44 26.38 -0.1
0.8s 2.75nm 4.3mb
BONR 48.22 315 eP 44 32.62 0.7
LBFM 52.25 318 eP 45 01.11 -1.5
YKA 61.42 341 eP 46 05.90 -1.3
0.8s 11.40nm 5.1mb
KDS 63.67 80 iP 46 22.00 -0.9
LKO 70.34 83 P 47 04.54 -0.6
0.7s 13.00nm 5.1mb
TIC 71.16 86 P 47 09.06 -1.0
0.9s 8.50nm 4.8mb
LIC 71.19 86 Pc 47 09.36 -0.9
0.9s 11.50nm 4.9mb
KIC 71.46 86 Pc 47 11.16 -0.8
0.9s 19.00nm 5.1mb
BALM 71.77 332 eP 47 13.04 0.0
DCN 71.84 36 eP 47 13.80 0.4
DLF 72.27 36 eP 47 16.00 0.1
EKA 74.58 35 P 47 30.00 0.6
1.5s 20.80nm 4.9mb
DAG 75.71 12 iPc 47 35.40 -0.1
0.8s 12.69nm 5.0mb
CRP 76.44 331 eP 47 38.97 -1.1
WLF 79.78 41 iPc 47 59.36 1.0
0.9s 5.40nm 4.5mb
GRF 83.07 41 eP 48 17.00 1.3
0.9s 4.00nm 4.5mb
HFS 83.81 30 eP 48 19.00 -0.2
0.5s 1.20nm 4.3mb
CLL 84.09 39 iP 48 22.40 1.6
KHC 84.64 41 eP 48 25.50 1.8
1.0s 7.00nm 4.8mb
BRG 84.72 40 iP 48 25.60 1.6
0.8s 12.00nm 5.1mb
GEC2 84.75 42 PKP 48 25.10 0.8
0.8s 3.20nm 4.6mb
PRU 85.19 40 eP 48 28.00 1.7
KSP 86.20 39 eP 48 33.20 1.8
NUR 89.13 29 eP 48 46.20 0.9
KAF 89.51 27 iP 48 47.50 0.5
0.9s 8.30nm 5.0mb
HYB 145.28 44 ePKPd 55 28.00 -1.0
1.0s 50.00nm
ASPA 146.45 238 ePKP 55 29.50 -1.3
0.9s 14.30nm
GBA 146.93 51 PKP 55 33.00 1.3
WB2 147.38 245 iPKPc 55 31.20 -1.2
1.0s 7.70nm
WRA 147.39 245 PKP 55 31.50 -0.9
0.7s 3.70nm
MTN 152.01 257 ePKP 55 45.00 5.5X
0.5s 30.00nm
S.D. = 1.1 on 64 of 68 obs.

& DEC 25, 1993 01h 54m 58.72s
60.125 N 153.238 W
DEPTH = 139.3km
3.6mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.11 126 iPc 55 16.95 0.6
eS 55 31.99
ILIM 0.15 108 iPc 55 16.85 0.5
eS 55 31.73
RED 0.38 38 iPc 55 17.59 0.6
eS 55 32.83
RS2 0.42 35 eP 55 18.84 -0.1
RDW 0.42 31 iPc 55 17.99 -0.9
REF 0.45 36 iPc 55 18.17 -0.9
NCT 0.46 19 iPc 55 18.18 -0.9
eS 55 33.57
OPT 0.47 179 iPc 55 18.22 -0.8
eS 55 33.91
DFR 0.54 30 iPc 55 18.33 -1.1
PDB 0.59 235 iPd 55 18.53 -1.1
eS 55 34.27
AUL 0.75 188 ePd 55 19.86 -0.9
eS 55 36.17
AUW 0.77 189 ePd 55 19.99 -0.8
AUH 0.77 188 ePd 55 20.02 -0.9
AUP 0.77 187 ePc 55 19.75 -1.2
eS 55 35.47
AUE 0.77 185 ePd 55 19.81 -1.0
eS 55 35.07
AGU 0.77 187 ePd 55 20.03 -1.0
AUI 0.80 187 eP 55 20.11 -0.9
eS 55 36.65
HOM 0.93 120 ePc 55 21.42 -0.7
XLV 1.02 131 eP 55 21.54 -1.4
eS 55 39.61
BKG 1.06 26 iPc 55 22.43 -1.0
MCNL 1.10 211 ePd 55 22.40 -1.3
eS 55 41.06
CKL 1.16 22 eP 55 23.63 -0.8
NKA 1.17 57 ePc 55 24.75 0.4
CNPM 1.18 120 iPc 55 23.32 -1.1
eS 55 42.07
CKT 1.19 25 ePc 55 23.63 -1.1
SPU 1.21 28 iPc 55 23.68 -1.1
eS 55 44.04
BGL 1.22 20 ePc 55 24.30 -0.6
CDD 1.22 190 iPd 55 23.41 -1.5
eS 55 42.74
CKN 1.22 25 ePc 55 24.09 -0.8
BRLK 1.24 106 eP 55 23.98 -1.1
eS 55 44.01
CP2 1.24 23 iPc 55 24.26 -1.1
CRP 1.26 24 eP 55 24.01 -1.5
eS 55 43.81
CGLM 1.33 26 ePc 55 25.01 -1.1
NCG 1.39 22 eP 55 25.81 -0.9
SVW 1.53 311 iPc 55 26.54 -1.7
SLKM 1.55 74 ePc 55 26.52 -1.9
SYI 1.58 164 P 55 27.00 -1.7
SUA 1.82 41 ePd 55 30.13 -1.4
eS 55 55.37
SEW 1.90 89 eP 55 30.35 -2.0
MPA 1.96 78 eP 55 31.36 -1.8
SKT 2.04 23 ePd 55 32.68 -1.4
eS 55 59.82
PMS 2.13 57 P 55 33.20 -2.0
PWA 2.25 46 P 55 34.20 -2.4
KDC 2.42 170 eP 55 35.21 -3.5
eS 56 05.10
PLRM 2.49 52 eP 55 36.93 -2.7
PMR 2.49 52 (P) 55 36.42 -3.2
PWL 2.54 71 eP 55 37.39 -2.9
GHO 2.68 50 eP 55 39.12 -3.0
KNK 2.68 59 eP 55 39.10 -3.0
CUT 2.70 31 eP 55 40.33 -2.0
eS 56 13.42
MTU 2.80 90 eP 55 41.95 -1.8
CFI 2.90 66 eP 55 42.33 -2.5
SML 2.93 53 eP 55 42.28 -3.1
TTA 3.11 336 eP 55 47.09 -0.7
HUR 3.34 29 eP 55 48.44 -2.3
SCM 3.35 57 eP 55 47.89 -3.0
HIN 3.37 82 eP 55 48.87 -2.2
VLZ 3.55 70 eP 55 51.21 -2.2
eS 56 31.41
KTH 3.61 17 eP 55 52.50 -1.8
CVA 3.75 80 eP 55 53.80 -2.2
KLU 3.84 66 eP 55 54.13 -3.2
RND 3.90 30 eP 55 55.71 -2.4
TOA 3.96 57 eP 55 56.40 -2.6
iS 56 44.50
MCK 4.15 27 eP 55 59.34 -2.1
TZL 4.25 60 eP 56 00.89 -1.9
BWN 4.43 22 eP 56 03.22 -1.9
PAX 4.69 49 eP 56 06.06 -2.6
GLB 4.81 70 eP 56 07.73 -2.5
NEA 4.87 22 eP 56 08.12 -3.0
WRH 4.98 27 eP 56 09.57 -3.0
MLY 5.06 12 eP 56 11.70 -2.0
DDM 5.06 40 eP 56 12.49 -1.2
CCB 5.19 27 eP 56 12.24 -3.2
HDA 5.20 32 eP 56 12.57 -3.0
DJE 5.29 39 eP 56 14.30 -2.4
MDM 5.38 23 eP 56 15.01 -2.9
FBA 5.41 25 eP 56 14.87 -3.5
eS 57 16.96
BALM 5.45 76 eP 56 16.83 -2.1
IL1 5.52 30 eP 56 16.48 -3.3
ILB 5.51 30 eP 56 16.49 -3.3
GLM 5.58 26 eP 56 17.52 -3.1
YAH 5.73 83 eP 56 21.44 -1.5
IM3 5.89 358 eP 56 22.52 -2.2
CTGM 5.94 77 eP 56 23.64 -2.0
IMA 5.97 358 eP 56 23.65 -2.4
BC3 6.21 57 eP 56 25.33 -3.9
PRP 6.46 30 eP 56 29.34 -3.4
BM3 8.25 24 eP 56 52.24 -4.5
YKA 18.51 66 eP 59 02.90 -3.6
0.5s 1.50nm 3.6mb
89 obs. associated

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* DEC 25, 1993 02h 06m 03.65± 1.80s
4.310 N ± 9.2km 127.723 E ±20.3km
DEPTH = 176.0 ± 16.6 km
4.6mb (8 obs.)
TALAUD ISLANDS, INDONESIA (263)

SWI 6.24 145 ePd 07 34.50 0.0
eS 08 42.00
WB2 24.97 165 iPc 11 12.50 -0.1
0.3s 19.60nm 5.2mb
ASPA 28.45 168 iPd 11 44.10 -0.2
0.5s 6.80nm 4.6mb
STK 38.34 161 eP 13 09.30 0.3
0.4s 6.30nm 4.6mb
LZH 38.52 328 Pc 13 10.80 0.1
1.6s 33.00nm 4.8mb
ARMA 41.42 148 eP 13 34.80 0.3
0.8s 6.00nm 4.2mb
DZM 46.07 126 iPd 14 11.80 -0.1
SVW 79.80 29 eP 17 54.10 0.6
TTA 79.94 27 eP 17 54.30 0.1
IMA 81.46 24 eP 18 02.60 0.4
0.7s 6.30nm 4.5mb
PMR 82.97 29 eP 18 09.00 -0.8
0.9s 8.60nm 4.5mb
TOA 84.39 28 eP 18 17.80 0.7
YKA 98.56 25 eP 19 22.20 -1.0
0.7s 0.60nm 4.2mb
S.D. = 0.6 on 13 of 13 obs.

& DEC 25, 1993 02h 18m 15.75s
60.160 N 153.773 W
DEPTH = 184.9km
SOUTHERN ALASKA (2)
<AEIC>.

INE 0.37 105 eP 18 39.93 0.4
eS 18 59.40
ILIM 0.42 101 eP 18 40.05 0.5
eS 18 59.49
PDB 0.43 210 eP 18 40.07 0.6

eS 18 59.07
RED 0.56 62 eP 18 40.57 -1.2
eS 18 59.71
OPT 0.58 151 iP 18 41.16 -0.6
eS 19 01.30
RDW 0.58 56 eP 18 40.87 -1.1
eS 19 00.65
NCT 0.58 46 eP 18 40.72 -1.1
eS 19 00.76
RS2 0.59 59 P 18 41.70 -0.3
REF 0.63 58 eP 18 41.10 -1.1
DFR 0.69 51 eP 18 41.11 -1.3
eS 19 01.55
AUL 0.80 167 eP 18 42.37 -0.5
AUW 0.81 169 eP 18 42.43 -0.5
AUH 0.82 168 P 18 42.70 -0.4
AUE 0.83 166 eP 18 42.37 -0.7
MCNL 1.02 197 eP 18 43.63 -0.8
BKG 1.18 39 eP 18 44.53 -1.2
eS 19 07.07
HOM 1.19 114 eP 18 45.10 -0.5
CDD 1.24 177 iP 18 45.26 -0.9
eS 19 08.66
CKT 1.30 36 eP 18 45.48 -1.2
BGL 1.30 31 iP 18 45.96 -0.8
CKN 1.32 36 eP 18 45.91 -1.0
SPU 1.33 39 eP 18 45.47 -1.5
CP2 1.34 34 eP 18 46.04 -1.2
CRP 1.37 35 eP 18 45.61 -1.8
CNPM 1.43 115 iP 18 46.86 -1.0
eS 19 10.53
CGLM 1.44 36 eP 18 46.50 -1.5
NCG 1.48 32 eP 18 47.43 -0.9
BRLK 1.51 104 eP 18 47.75 -0.8
eS 19 11.34
SLKM 1.80 77 eP 18 49.63 -1.8
SUA 1.98 47 eP 18 51.29 -2.1
eS 19 20.37
SKT 2.13 30 eP 18 53.40 -1.5
SEW 2.16 90 eP 18 54.04 -1.2
MPA 2.22 80 eP 18 54.28 -1.6
PMS 2.34 60 P 18 54.70 -2.6
PWA 2.42 50 P 18 56.20 -2.0
KDC 2.51 164 (P) 18 56.51 -2.7
PWL 2.78 73 eP 19 01.02 -1.4
CUT 2.82 35 eP 19 00.51 -2.3
GHO 2.86 54 eP 19 00.24 -3.3
KNK 2.89 62 eP 19 00.74 -3.1
SML 3.12 56 eP 19 03.49 -3.2
HUR 3.45 33 eP 19 08.08 -2.6
SCM 3.56 59 eP 19 10.15 -1.9
FID 3.66 78 P 19 10.80 -2.5
VZW 3.67 73 eP 19 11.59 -1.9
VLZ 3.79 72 eP 19 13.06 -1.8
RND 4.01 34 eP 19 15.39 -2.4
KLU 4.07 67 eP 19 16.28 -2.3
TOA 4.17 59 P 19 18.20 -1.6
FBA 5.50 28 eP 19 33.13 -3.9
IL1 5.62 32 eP 19 35.29 -3.3
ILB 5.62 32 eP 19 35.21 -3.3
IM3 5.85 0 eP 19 39.58 -1.9
BC3 6.42 58 eP 19 47.44 -1.6
54 obs. associated

? DEC 25, 1993 02h 51m 52.20± 1.15s
6.941 S ±10.8km 130.537 E ±26.2km
DEPTH = 139.5 ± 42.2 km
BANDA SEA (280)

TLE 2.55 60 iPd 52 34.50 0.5
iS 52 52.00
MTN 5.90 174 eP 53 18.00 -0.5
0.3s 118.00nm 5.6mb
eS 54 21.00
SWI 6.08 7 iPd 53 20.50 -0.5
eS 54 24.50
WB2 13.44 164 eP 54 54.70 -3.9X
iS 57 16.10
ASPA 16.94 169 eP 55 42.20 -0.2
eS 58 37.10
MBL 17.52 215 eP 55 50.00 0.6
eS 58 54.00
S.D. = 1.0 on 5 of 6 obs.

DEC 25, 1993 03h 22m 32.70± 0.32s
41.468 N ± 2.9km 23.059 E ± 2.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.9 (THE).

KNT 0.33 202 iPg 22 39.13 -0.4
eSg 22 42.92
VAY 0.40 248 iPg 22 41.30 0.5
0.2s 150.00nm
iSg 22 46.00
KKB 0.40 3 iPgc 22 40.00 -0.9
MMB 0.52 76 iPg 22 43.00 -0.2
SRS 0.53 131 iPg 22 42.98 -0.5
SOH 0.68 161 iPg 22 45.78 -0.5
eSg 22 54.60
GRG 0.71 224 ePg 22 46.21 -0.6
eSg 22 56.16
THE 0.84 185 iPg 22 48.62 -0.2
eSg 23 00.36
VTS 1.13 6 iPg 22 54.00 0.1
RZN 1.26 79 iP 22 56.00 -0.3
SKO 1.31 293 ePn 22 57.00 0.0
OUR 1.33 148 ePb 22 57.36 0.1
PGB 1.36 37 iP 22 58.00 0.3
LIT 1.43 198 ePb 22 58.82 0.1
eSb 23 18.28
FNA 1.44 242 ePb 22 59.56 0.6
iSb 23 19.00
PAIG 1.61 163 ePb 23 01.45 0.2
iSb 23 22.90
KDZ 1.78 83 iP 23 04.00 0.3
ALN 2.32 103 iPn 23 12.88 1.3
S.D. = 0.5 on 18 of 18 obs.

& DEC 25, 1993 03h 57m 58.30s
63.824 N 148.516 W
DEPTH = 96.8km
CENTRAL ALASKA (1)
<AEIC>.

MCK 0.21 244 P 58 12.50 1.9
S 58 23.60
RND 0.45 200 P 58 13.10 -0.6
S 58 24.90
BWN 0.54 310 P 58 14.10 -0.2
WRH 0.68 16 P 58 15.10 -0.3
S 58 28.20
NEA 0.80 342 P 58 16.00 -0.6
CCB 0.88 20 P 58 16.70 -0.8
S 58 31.20
HDA 0.90 49 P 58 17.00 -0.7
KTH 1.11 257 P 58 19.60 -0.5
S 58 36.70
FBA 1.13 16 eP 58 18.85 -1.3
MDM 1.15 6 P 58 19.80 -0.7
DDM 1.18 91 P 58 20.70 -0.2
S 58 38.30
ILB 1.19 36 P 58 19.30 -1.6
IL1 1.19 36 P 58 19.60 -1.3
S 58 36.90
DJE 1.27 79 P 58 21.80 -0.1
MLY 1.55 322 P 58 24.70 -0.7
PAX 1.62 121 P 58 26.10 -0.3
S 58 48.50
CUT 1.63 210 P 58 25.50 -0.9
S 58 48.40
SML 2.03 178 P 58 30.50 -1.1
TOA 2.03 147 P 58 32.50 0.8
GHO 2.07 185 P 58 31.60 -0.7
SCM 2.07 164 P 58 30.80 -1.5
PRP 2.13 36 P 58 31.80 -1.4
S 58 57.80
PLRM 2.26 187 P 58 34.50 -0.2
PMR 2.26 187 eP 58 33.87 -0.8
PWA 2.27 197 P 58 34.50 -0.3
SKT 2.31 218 P 58 34.00 -1.4
S 59 02.60
KNK 2.42 179 P 58 37.00 0.1
SUA 2.58 204 P 58 39.90 0.7
KLU 2.63 152 P 58 40.50 0.7
PMS 2.63 191 P 58 40.50 0.7
NCG 2.96 216 P 58 42.20 -2.0
CRP 3.07 215 eP 58 45.97 0.1
CP2 3.10 216 eP 58 47.05 0.8
IM3 3.11 317 P 58 44.40 -1.9
BC3 3.12 101 P 58 43.20 -3.2
BKG 3.27 214 P 58 47.90 -0.6
MPA 3.37 187 P 58 48.70 -1.1
SLKM 3.42 194 P 58 49.50 -1.1
CVA 3.54 157 P 58 54.70 2.6
DFR 3.79 213 P 58 55.00 -0.6
BM3 3.96 22 P 58 55.00 -2.9
BALM 4.01 131 (P) 58 57.92 -0.8
42 obs. associated

? DEC 25, 1993 04h 01m 38.63± 0.99s
31.299 S ±28.7km 68.533 W ±39.0km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.06 119 eP 01 52.50 -0.6
RTCB 0.29 231 eP 01 53.50 0.0
CFA 0.40 141 eP 01 54.40 0.4
S 02 06.50
RTRS 1.38 324 eP 02 03.90 0.2
S 02 22.50
S.D. = 0.7 on 4 of 4 obs.

DEC 25, 1993 04h 30m 28.25± 0.73s
40.044 N ± 6.0km 20.026 E ± 8.0km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.2 (ATH).

SRN 0.16 187 iPgc 30 32.30 0.3
iSg 30 37.20
TPE 0.25 357 iPgd 30 29.00 -4.6X
KEK 0.37 208 ePb 30 35.50 -0.4
LSK 0.45 76 ePg 30 38.20 0.7
VLO 0.59 316 ePg 30 40.40 0.3
KBN 0.82 45 ePn 30 42.00 -2.2
iSn 31 02.00
OHR 1.22 29 ePn 30 52.00 1.0
TIR 1.31 355 ePn 30 52.10 -0.3
KZN 1.36 78 ePn 30 56.00 2.7X
VLS 1.91 167 ePg 31 07.00 5.8X
SKO 2.20 29 ePn 31 06.00 0.6
S.D. = 1.2 on 8 of 11 obs.

% DEC 25, 1993 06h 49m 22.72± 2.35s
31.926 S ±18.5km 68.338 W ±11.2km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.33 15 eP 49 29.00 -0.5
S 49 34.40
RTCB 0.59 318 eP 49 35.00 0.3
RTLL 0.60 349 eP 49 34.40 -0.6
RTRS 2.00 331 eP 50 00.00 3.1X
S 50 24.00
RTPR 2.25 45 eP 50 01.50 0.9
S 50 29.00
TCA 3.25 81 e(P) 50 14.00 -0.8
(S) 51 01.00
CYA 4.11 33 e(P) 50 27.60 0.7
S.D. = 0.9 on 6 of 7 obs.

DEC 25, 1993 08h 31m 00.39± 1.86s
57.368 N ±15.9km 142.980 W ± 5.1km
DEPTH = 10.0km (geophysicist)
2.8mb (1 obs.)
GULF OF ALASKA (15)
ML 3.1 (AEIC).

KAIM 2.67 344 eP 31 45.31 1.1
MID 2.72 321 P 31 45.00 0.1
CYK 2.74 5 eP 31 44.79 -0.3
eS 32 13.76
SNH 2.82 1 eP 31 46.75 0.4
eS 32 16.45
CHX 2.87 19 iP 31 47.48 0.3
PNL 2.98 38 eP 31 48.18 -0.3
HMT 3.05 348 eP 31 49.57 0.0
YAH 3.07 12 eP 31 50.37 0.3
eS 32 21.64
PCA 3.08 26 eP 31 49.96 -0.1
BCPM 3.13 33 iP 31 50.29 -0.3
CVA 3.50 337 eP 31 56.48 0.6
HIN 3.55 330 eP 31 57.20 0.6
MTU 3.59 319 eP 31 57.32 0.2
BALM 3.69 5 eP 31 58.50 -0.4
CTGM 3.71 13 eP 31 58.73 -0.3
VZW 4.13 335 eP 32 04.41 -0.5
SEW 4.35 312 eP 32 07.79 -0.1
KLU 4.40 341 eP 32 08.08 -0.7
PWL 4.46 324 eP 32 08.76 -0.8

25d 08h

CFI 4.55 329 eP 32 10.29 -0.4
MPA 4.55 316 eP 32 10.61 -0.2
CNPM 4.85 300 eP 32 15.46 0.4
TZL 4.85 346 eP 32 15.61 0.5
SLKM 4.90 313 eP 32 15.62 -0.2
KNK 4.93 328 eP 32 16.31 0.1
HOM 5.09 300 eP 32 19.82 1.4
SML 5.22 331 eP 32 20.10 -0.2
SUA 5.71 319 eP 32 26.80 -0.5
BC3 5.75 5 P 32 28.60 0.8
CRP 6.11 314 eP 32 31.71 -1.3
CP2 6.14 313 eP 32 33.30 -0.2
YKA 15.04 58 eP 34 41.00 6.7X
0.7s 0.30nm 2.8mb
S.D. = 0.6 on 31 of 32 obs.

DEC 25, 1993 09h 50m 27.70± 1.31s
12.198 N ± 6.9km 125.780 E ±11.2km
DEPTH = 54.0 ± 11.2 km
4.8mb (13 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

DAV 5.08 182 ePd 51 44.20 1.0
BAG 6.55 310 ePc+ 52 02.90 -1.1
0.7s 117.81nm 5.6mb
SSE 19.28 348 Pc 54 52.00 1.1
1.0s 23.00nm 4.4mb
Z 20s 0.60um 5.1Msz
N 12s 0.30um
E 12s 0.40um
pP 55 29.20
S 58 20.00
sS 58 30.00
KMI 25.28 304 Pc 55 51.50 0.5
1.5s 70.00nm 5.0mb
Z 16s 1.10um 4.5MszX
pP 56 06.00 61kmX
sP 56 10.00
BJI 29.00 345 eP 56 24.00 -0.5
1.2s 8.00nm 4.2mb
Z 14s 0.29um 4.0MszX
E 14s 0.78um
LZH 30.94 324 P 56 43.00 1.1
1.4s 31.00nm 4.8mb
Z 14s 0.78um 4.5MszX
N 13s 0.48um
pP 56 48.80 20kmX
sP 56 51.50
ePP 57 52.50
ASPA 36.52 167 iPd 57 27.40 -2.6X
1.5s 9.40nm 4.5mb
WARB 38.16 179 eP 57 43.50 -0.2
GUN 40.40 299 P 58 03.00 0.2
PKI 40.72 298 P 58 05.20 -0.2
KKN 40.88 298 P 58 06.60 0.0
DMN 40.99 298 P 58 07.80 0.3
GKN 41.49 299 P 58 11.00 -0.5
HYB 45.86 282 eP 58 46.50 -0.3
STK 46.37 161 eP 58 49.20 -1.3
1.2s 5.80nm 4.4mb
e 58 57.60
GBA 47.08 277 P 58 56.00 -0.4
YAK 49.82 2 eP 59 15.50 -1.4
1.1s 50.00nm 5.5mb
OBN 79.64 324 ePc 02 31.00 0.3
1.3s 52.00nm 5.3mb
e 03 17.00
SDF 82.41 337 eP 02 46.00 0.9
KAF 83.71 332 iP 02 52.30 0.5
1.0s 33.10nm 5.3mb
NUR 84.89 331 iP 02 57.30 -0.4
0.9s 29.50nm 5.4mb
YKA 92.20 24 eP 03 35.90 3.3X
1.0s 1.00nm 4.2mb
GEC2 94.89 322 P 03 45.90 0.5
1.4s 2.38nm 4.4mb
KIC 127.47 288 PKP 09 29.26 0.0
1.1s 20.50nm
LIC 127.78 288 PKP 09 29.74 -0.1
1.3s 15.50nm
LPB 165.88 109 ePKP 10 33.00 4.2X
LPAZ 165.92 108 PKP 10 29.30 0.2
S.D. = 0.7 on 24 of 27 obs.

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* DEC 25, 1993 10h 02m 22.49± 1.27s
36.590 N ±11.7km 70.613 E ± 8.0km
DEPTH = 195.2 ± 14.3 km
4.4mb (11 obs.)
HINDU KUSH REGION, AFGHANISTAN (718)

QUE 7.08 207 eP 04 05.50 0.8
eS 05 23.50
MAIO 8.96 271 ePn 04 28.00 -1.3
eSn 05 47.00
NDI 9.65 143 iPd 04 37.30 -0.8
0.6s 100.00nm 5.4mb
iS 06 15.50
GKN 14.62 122 P 05 41.20 -0.3
DMN 15.19 122 P 05 48.20 -0.4
0.6s 42.00nm 5.0mb
KKN 15.19 121 P 05 48.20 -0.4
PKI 15.42 121 P 05 51.20 -0.3
GUN 15.53 120 P 05 52.60 -0.4
POO 18.21 170 iPd 06 25.00 1.5
HYB 20.35 158 eP 06 48.00 2.7
SHL 21.23 115 iP 06 55.50 1.4
eS 10 38.00
KAF 37.38 327 eP 09 18.80 1.3
NUR 37.57 324 eP 09 20.20 1.1
HFS 42.80 322 eP 10 02.50 0.4
0.4s 2.70nm 4.1mb
DAG 54.58 344 iPc 11 33.00 0.9
0.7s 3.42nm 4.2mb
ipP 12 29.50 257kmX
KIC 74.48 266 P 13 40.43 -0.9
0.5s 7.00nm 4.6mb
TIC 74.54 267 P 13 40.67 -1.0
0.5s 1.50nm 4.0mb
LIC 74.79 266 P 13 42.04 -1.0
0.5s 2.00nm 4.1mb
YKA 81.17 2 eP 14 17.20 0.3
0.6s 2.60nm 4.1mb
WRA 82.30 122 P 14 22.60 -0.9
0.8s 2.90nm 4.1mb
WB2 82.31 122 iPd 14 22.20 -1.3
0.3s 10.10nm 5.0mb
ASPA 84.56 125 iPd 14 33.50 -1.3
0.5s 6.20nm 4.6mb
S.D. = 1.2 on 22 of 22 obs.

DEC 25, 1993 10h 13m 45.94± 1.26s
32.445 S ± 7.7km 71.476 W ±14.1km
DEPTH = 59.2 ± 31.7 km
NEAR COAST OF CENTRAL CHILE (135)
MD 4.0 (SAN).

ROCH 0.66 143 iPd 14 00.06 0.1
iS 14 10.95
JACH 0.78 108 iP+ 14 00.98 -0.4
iS 14 12.85
PEL 0.96 136 iP+ 14 03.93 0.3
iS 14 17.75
LCCH 1.03 184 iP+ 14 04.55 0.1
iS 14 18.77
SAN 1.22 146 iP+ 14 07.02 0.0
iS 14 23.90
TACH 1.29 160 iP+ 14 08.34 0.3
iS 14 25.92
FCH 1.33 132 iP+ 14 08.70 -0.2
iS 14 26.98
PCH 1.42 146 iP+ 14 09.81 -0.2
iS 14 29.39
LNV 1.51 178 iP+ 14 10.41 -0.6
iS 14 30.49
CACH 1.82 156 iP+ 14 15.90 0.4
iS 14 40.43
RTRS 2.85 38 eP 14 30.00 0.1
S.D. = 0.4 on 11 of 11 obs.

DEC 25, 1993 10h 15m 27.51± 0.72s
34.921 N ± 5.2km 24.217 E ± 3.3km
DEPTH = 36.5 ± 6.0 km
4.8mb (48 obs.)
CRETE (370)
ML 4.4 (ATH), 4.5 (THE).

VAM 0.49 358 ePb 15 37.50 -0.4
NPS 1.19 73 ePn 15 50.70 2.7X
VLI 2.07 330 ePn 16 02.50 1.9
ATH 3.07 353 ePn 16 16.00 1.2
AGG 4.36 340 iPn 16 34.26 1.1
eSn 17 22.00
VLS 4.37 319 ePn 16 32.80 -0.4
KSL 4.54 73 ePn 16 36.50 1.0
PRK 4.62 20 ePn 16 37.00 0.3
PAIG 5.02 355 iPn 16 42.68 0.3
LIT 5.35 346 ePn 16 47.20 0.2
OUR 5.41 358 ePn 16 48.36 0.6
IGT 5.55 327 ePn 16 49.88 0.1
KZN 5.72 341 ePn 16 52.80 0.5
THE 5.79 351 iPn 16 52.96 -0.2
SOH 5.93 354 ePn 16 55.80 0.5
SRN 5.98 327 ePg 16 56.10 0.2
ALN 6.14 13 ePn 16 57.64 -0.5
eSn 18 04.88
GRG 6.19 347 ePn 16 58.56 -0.4
SRS 6.21 356 ePn 16 59.32 0.2
FNA 6.27 340 ePn 16 58.92 -1.1
RDO 6.30 9 ePn 17 00.50 0.1
KBN 6.31 336 ePn 17 01.00 0.4
KNT 6.32 351 ePn 17 00.56 -0.1
TPE 6.32 329 ePg 16 56.00 -4.7X
VAY 6.52 349 iPn 17 04.50 1.0
MMB 6.67 357 iP 17 06.00 0.4
PPCY 6.68 88 eP 17 03.50 -2.2
OHR 6.74 337 iPn 17 05.20 -1.5
i 17 22.00
i 17 34.50
i 17 47.70
i 18 04.40
RZN 6.77 3 iP 17 08.00 0.8
KDZ 6.78 8 iP 17 07.00 -0.2
KKB 6.99 353 iP 17 10.00 -0.1
PLD 7.18 3 iP 17 14.00 1.2
DIM 7.19 8 iP 17 13.00 0.1
TIR 7.27 333 ePn 17 12.10 -2.0
SKO 7.37 344 iPn 17 15.00 -0.4
i 17 19.70
i 17 24.70
i 17 37.50
i 18 28.40
i 18 31.50
i 18 34.20
i 18 40.00
CSS 7.48 87 eP 17 14.00 -3.1
eS 18 36.00
LACI 7.58 333 ePn 17 15.50 -2.9
iSn 17 37.50
VTS 7.70 354 iP 17 06.00 -14.2X
NAL 7.71 45 eP 17 21.80 1.5
JMB 7.76 13 iP 17 21.00 0.2
HLW 7.86 128 eP 17 20.00 -2.3
eS 18 43.50
FAM 8.03 87 eP 17 23.35 -1.4
ULC 8.04 332 iPnd 17 21.68 -3.1X
iSn 18 44.18
BCI 8.11 338 ePn 17 23.90 -1.9
PVL 8.33 6 iP 17 27.00 -1.7
SGKT 8.39 45 iP 17 31.50 1.7
MRFT 9.20 50 eP 17 41.50 0.6
KAS 9.90 47 iPc 17 51.40 0.9
CTK 10.18 52 eP 17 54.00 -0.4
HVAR 10.22 326 i(P) 17 50.40 -4.4X
GZR 10.52 354 ePd 18 12.00 13.1X
AYN 11.69 118 ePc 18 12.00 -2.8X
KIS 12.58 15 eP 18 26.00 -0.7
PTJ 12.63 333 iP 18 22.50 -5.0X
TRI 13.39 327 e(Pn) 18 34.20 -3.2X
e(Sn) 20 50.70
e 21 11.00
e 23 44.00
SRO 13.62 343 eP 18 41.00 0.7
e 19 21.30
UZH 13.78 355 eP 18 48.00 5.6X
SOC 14.78 50 eP 18 57.00 1.4
1.0s 80.00nm 5.1mb
WTTA 15.53 326 iPc 19 04.10 -1.4
1.0s 42.90nm 4.6mb
i 19 10.80
OJC 15.63 349 eP 19 08.70 2.1
e 19 13.50
SQTA 15.70 325 iPc 19 06.50 -1.1
1.0s 21.30nm 4.3mb
i 19 12.60
KHC 16.23 334 eP 19 12.40 -1.9
1.0s 24.30nm 4.3mb
i 19 17.90
e 19 23.80
e 19 44.00
FUR 16.37 328 iPc 19 18.50 2.4
WET 16.49 333 iPc 19 16.00 -1.6

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PRU     16.64 338 Pd      19 20.80    1.3
        1.1s     21.40nm          4.2mb
                 i        19 29.80
                 e        19 41.20
KIV     16.85  52 eP      19 24.40    2.1
        0.9s   317.00nm           5.4mb
      Z 18s      0.20um           5.0Msz
KSP     16.92 343 eP      19 24.00    1.0
        0.8s     20.00nm          4.3mb
                 i        19 42.50
PYA     17.13  52 iPd     19 28.00    2.4
GRF     17.57 331 ePn     19 28.80   -2.3
                 e        19 32.00
BRG     17.60 338 eP      19 31.50    0.0
        1.3s     20.00nm          4.1mb
                 e        19 40.20
                 e        19 52.50
TAB     18.05  74 eP      19 39.00    1.8
UQSK    18.09 115 eP      19 39.30    1.6
MOX     18.19 334 eP      19 39.50    0.7
        1.4s     19.00nm          4.1mb
CLL     18.28 337 iPd     19 39.10   -0.7
        1.2s     24.00nm          4.2mb
                 i        19 48.70
GRO     18.62  57 eP      19 47.00    2.9X
        1.0s   110.00nm           5.0mb
      Z 14s      0.60um           5.2MszX
      N 14s      1.50um
KER     18.84  85 eP      19 47.00    0.0
MNK     19.12   6 eP      19 54.00    4.0X
WLF     19.81 324 iPc     19 57.57   -0.1
        1.1s     15.50nm          4.2mb
BNS     20.24 328 ePc     20 02.30    0.2
MJMA    20.27 111 eP      20 04.60    1.9
ENN     20.66 326 eP      20 07.00    0.5
        1.0s     23.00nm          4.5mb
DOU     20.86 323 Pd      20 08.00   -0.6
        0.7s     57.80nm          5.1mb
                 e        20 17.20
BAK     21.02  67 iPc     20 14.00    3.8X
WTS     21.14 329 eP      20 11.00   -0.4
        1.0s     14.10nm          4.3mb
SNF     21.28 323 P       20 12.60   -0.2
                 e        20 20.60
ENIJ    21.47 283 eP      20 21.00    6.1X
EVIA    21.69 288 eP      20 21.50    4.3X
WIT     21.81 330 eP      20 20.00    2.0
TAF     21.83 277 ePc     20 36.00   17.4X
                 i        20 54.00
OBN     21.93  19 iPc     20 16.50   -2.8X
                 i        20 28.00
                 iPPP     20 50.00
                 iS       24 12.50
                 i        24 26.00
ECRI    22.15 298 eP      20 24.50    2.8X
ECOG    22.54 284 eP      20 28.40    2.7X
EBAN    22.70 286 eP      20 30.20    3.1X
MOS     22.77  20 eP      20 26.00   -1.6
                 e        21 00.00
                 e        24 30.00
GUD     23.08 293 eP      20 32.70    1.7
PAB     23.16 290 eP      20 34.50    2.9X
EPRU    23.89 284 eP      20 40.00    1.3
EJIF    24.12 282 eP      20 43.00    2.1
NKM     24.18 280 eP      20 41.00   -0.5
                 i        21 05.00
                 i        21 47.00
EPLA    24.52 291 eP      20 46.50    1.8
PUL     25.18   7 ePc     20 50.50   -0.3
                 e        21 02.00
                 e        21 40.00
NUR     25.61   0 eP      20 49.50   -5.3X
        0.7s     12.50nm          4.6mb
HFS     26.14 348 eP      20 58.20   -1.6
        0.4s      3.80nm          4.3mb
      Z 16s      0.19um           3.7MszX
                 LR       30 24.00
AVE     26.19 276 eP      20 58.00   -2.5X
                 i        21 25.00
TIO     26.66 270 eP      20 45.00  -20.0X
                 e        21 08.00
KAF     27.25   2 eP      21 07.20   -2.6X
        0.7s     12.40nm          4.7mb
ASH     27.54  74 eP      21 15.00    2.2
EKA     27.80 326 P+      21 15.05    0.1
        0.7s      3.60nm          4.2mb
DLF     28.39 320 eP      21 12.40   -7.9X
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MAIO    28.62  77 eP      21 22.00   -0.7
SDF     32.57   2 eP      21 55.00   -2.1
SVE     32.90  37 ePc     21 59.00   -1.1
                 e        23 17.00
LKO     37.14 234 P       22 36.75    0.0
        0.8s      7.50nm          4.6mb
TIC     38.94 231 P       22 51.73   -0.1
        1.0s      8.50nm          4.5mb
KIC     38.98 230 P       22 52.15    0.0
        1.0s     20.00nm          4.9mb
LIC     39.27 230 P       22 54.51    0.0
        1.0s     15.50nm          4.7mb
      Z 20s      0.08um           3.5Msz
FRU     39.53  63 eP      22 57.00    0.5
        2.0s   100.00nm           5.2mb
                 e        23 13.00
KSH     41.02  68 P       23 09.80    0.8
        0.9s     37.00nm          5.1mb
      Z 12s      0.61um           4.7MszX
DAG     46.13 347 iPc     23 49.60    0.0
        0.7s      4.11nm          4.5mb
WMQ     48.79  59 Pd      24 10.00   -1.0
        1.0s     28.00nm          5.2mb
                 pP       24 20.50  36kmX
                 sP       24 26.00
HYB     51.18  95 eP      24 30.50    1.1
GKN     51.33  80 P       24 30.40   -0.3
DMN     51.87  80 Pc      24 34.80   -0.1
        1.1s     97.00nm          5.7mb
KKN     51.94  80 Pc      24 35.00   -0.3
        1.1s     57.00nm          5.5mb
PKI     52.13  80 Pc      24 36.40   -0.5
        1.1s     78.00nm          5.6mb
GBA     52.30 100 P       24 38.00    0.2
GUN     52.37  80 P       24 38.80    0.0
LSA     55.87  75 P       25 04.90    0.4
        1.0s     18.00nm          5.1mb
ZAK     57.48  48 iPd     25 14.50   -0.6
        1.0s     34.00nm          5.4mb
                 e        26 12.00
IRK     57.56  46 ePc     25 14.50   -1.1
        1.3s     32.00nm          5.2mb
GTA     58.76  61 iPc     25 24.50    0.2
        1.0s     21.00nm          5.2mb
BOD     61.20  38 iPd     25 37.10   -3.5X
        0.9s     38.00nm          5.5mb
TIK     61.67  20 eP      25 42.00   -1.7
        1.0s     10.00nm          4.9mb
                 e        25 48.00
LZH     63.00  63 Pd      25 52.50   -0.7
        1.0s     37.00nm          5.5mb
CIT     63.04  44 eP      25 52.00   -1.1
CD2     65.20  69 iPc     26 07.50    0.0
        1.0s     39.00nm          5.4mb
BTO     65.47  57 eP      26 09.40    0.2
HHC     66.41  56 Pc      26 15.00   -0.2
        1.0s     61.00nm          5.6mb
                 pP       26 33.00  67kmX
YAK     66.49  30 eP      26 13.00   -2.2
        0.9s     50.00nm          5.6mb
KMI     67.12  75 eP      26 20.00   -0.1
XAN     67.64  63 P       26 22.50   -0.5
        1.0s      7.10nm          4.7mb
TIY     68.45  58 eP      26 27.70   -0.3
GYA     69.55  72 iPc     26 34.60   -0.4
        1.2s     15.00nm          4.9mb
BJI     69.90  55 eP      26 35.50   -1.3
        1.2s     16.00nm          4.9mb
TIA     72.45  58 eP      26 52.00   -0.3
SNY     73.82  50 iPd     27 00.00   -0.1
        1.1s     27.00nm          5.1mb
CN2     73.91  48 Pc      27 00.50   -0.1
        0.8s     21.00nm          5.2mb
YKA     77.44 342 eP      27 19.40   -0.8
        0.5s      1.00nm          4.1mb
IMA     79.32 359 eP      27 31.80    1.2
        0.8s      7.90nm          4.7mb
FBA     80.31 357 eP      27 36.02    0.2
        1.4s      7.83nm          4.5mb
PWA     83.65 357 eP      27 55.10    1.9
SVW     84.32 360 eP      27 57.50    0.9
TNE    100.29  82 iPdiff29 16.50      4.5X
ASPA   118.77 100 ePKP    34 19.90    6.1X
        0.8s      3.10nm
DZM    144.63  79 iPKPc 35 03.00      0.6
   S.D. = 1.2  on 126 of 155 obs.
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% DEC  25, 1993  10h 29m 54.60± 0.82s
   44.240 N ± 6.3km     8.210 E ± 7.1km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
        ML 1.6 (GEN).

FIN      0.03 182 P       29 56.72    0.1
                  S       29 57.86
ROB      0.25 283 P       30 00.29    0.3
                  S       30 03.86
PCP      0.39  38 P       30 02.34   -0.2
                  S       30 07.42
IMI      0.40 215 P       30 02.85    0.0
                  S       30 08.07
ENR      0.57 269 P       30 05.41   -0.8
BHB      0.91 312 P       30 12.18    0.2
    S.D. = 0.5  on   6 of   6 obs.
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% DEC  25, 1993  10h 29m 59.50± 0.79s
   44.247 N ± 6.1km     8.207 E ± 6.7km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
        ML 1.4 (GEN).

FIN      0.04 179 P       30 01.75    0.1
                  S       30 02.94
ROB      0.25 281 P       30 04.77    0.0
                  S       30 08.84
PCP      0.38  39 P       30 07.20   -0.1
IMI      0.41 214 P       30 07.88    0.0
ENR      0.57 268 P       30 10.67   -0.4
BHB      0.90 312 P       30 17.13    0.4
    S.D. = 0.3  on   6 of   6 obs.
-------------------------------------
% DEC  25, 1993  10h 30m 03.00± 1.55s
   44.194 N ±10.2km     8.322 E ±11.1km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
        ML 1.3 (GEN).

FIN      0.08 280 P       30 06.19    0.6
                  S       30 07.52
ROB      0.34 287 P       30 09.90   -0.1
                  S       30 13.65
PCP      0.38  25 P       30 10.81   -0.1
IMI      0.42 228 P       30 11.50   -0.1
ENR      0.65 273 P       30 12.12   -3.9X
BHB      1.00 311 P       30 21.75   -0.1
    S.D. = 0.5  on   5 of   6 obs.
-------------------------------------
% DEC  25, 1993  10h 30m 35.13± 0.84s
   44.210 N ± 8.1km     8.178 E ± 6.2km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
        ML 1.6 (GEN).

FIN      0.02  92 P       30 36.91   -0.2
                  S       30 37.99
ROB      0.24 291 P       30 40.51    0.3
                  S       30 44.12
IMI      0.37 215 P       30 42.69    0.0
                  S       30 48.58
ENR      0.55 272 P       30 45.95   -0.2
                  S       30 54.07
PZZ      0.83 291 P       30 51.21    0.0
BHB      0.91 314 P       30 52.47   -0.1
    S.D. = 0.2  on   6 of   6 obs.
-------------------------------------
% DEC  25, 1993  10h 30m 37.26± 2.58s
   44.228 N ± 9.7km     8.215 E ±20.3km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
        ML 1.5 (GEN).

FIN      0.02 195 P       30 39.20    0.0
                  S       30 40.43
ROB      0.26 285 P       30 42.86    0.1
                  S       30 46.34
IMI      0.39 217 P       30 45.42    0.1
ENR      0.57 270 P       30 48.72   -0.2
BHB      0.92 312 P       30 54.80    0.0
    S.D. = 0.2  on   5 of   5 obs.
-------------------------------------
% DEC  25, 1993  10h 31m 08.31± 1.08s
   44.233 N ± 7.8km     8.265 E ± 8.5km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
```

ML 1.5 (GEN).

FIN	0.05	239	P	31 10.78	0.3	
			S	31 11.88		
ROB	0.29	282	P	31 14.39	0.0	
			S	31 17.87		
PCP	0.37	33	P	31 15.86	0.0	
			S	31 20.71		
IMI	0.42	220	P	31 16.86	-0.1	
			S	31 22.26		
ENR	0.61	270	P	31 20.48	-0.2	
BHB	0.94	311	P	31 26.34	0.1	

S.D. = 0.2 on 6 of 6 obs.

% DEC 25, 1993 10h 31m 38.15± 0.94s
44.228 N ± 6.6km 8.245 E ± 7.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

FIN	0.03	234	P	31 40.34	0.1
			S	31 41.44	
ROB	0.28	284	P	31 44.00	0.0
			S	31 47.57	
PCP	0.38	34	P	31 46.01	0.0
			S	31 51.69	
IMI	0.41	219	P	31 46.38	-0.1
			S	31 52.42	
ENR	0.59	270	P	31 50.32	0.1
			S	31 57.64	
STV	0.66	272	P	31 51.74	0.3
			S	31 59.52	
PZZ	0.87	289	P	31 54.62	-0.3
			S	32 05.74	
BHB	0.93	311	P	31 55.90	-0.1

S.D. = 0.2 on 8 of 8 obs.

% DEC 25, 1993 10h 32m 25.04± 0.89s
44.228 N ± 5.7km 8.243 E ± 6.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN	0.03	233	P	32 27.21	0.1
			S	32 28.35	
ROB	0.28	284	P	32 30.73	-0.1
			S	32 34.35	
PCP	0.38	35	P	32 32.88	0.0
			S	32 38.10	
IMI	0.41	219	P	32 33.25	-0.1
			S	32 38.69	
ENR	0.59	270	P	32 37.39	0.3
			S	32 44.16	
STV	0.66	272	P	32 38.35	0.1
			S	32 46.36	
PZZ	0.86	289	P	32 41.51	-0.3
			S	32 52.31	
BHB	0.93	312	P	32 42.97	0.1
RSP	1.16	323	P	32 46.73	-0.1

S.D. = 0.2 on 9 of 9 obs.

DEC 25, 1993 10h 42m 56.03± 0.35s
44.196 N ± 3.8km 8.313 E ± 3.1km
DEPTH = 12.5 ± 2.8 km
NORTHERN ITALY (545)
ML 4.1 (GEN). MD 3.8 (TRI).

FIN	0.08	280	Pc	42 58.90	0.0
ROB	0.33	287	Pd	43 02.50	-0.6
IMI	0.42	227	Pc	43 04.89	0.2
SAOF	0.58	249	Pg	43 07.62	-0.1
ENR	0.64	273	Pd	43 08.00	-0.7
			S	43 15.96	
AUTN	0.67	253	Pg	43 09.59	0.3
			Sg	43 18.33	
STV	0.71	274	Pd	43 09.25	-0.6
			S	43 17.99	
AURF	0.77	247	Pg	43 11.74	0.8
			Sg	43 21.49	
TOUF	0.79	257	Pg	43 11.85	0.6
REVF	0.82	237	Pg	43 11.85	0.1
MVIF	0.89	251	Pg	43 13.71	0.8
			Sg	43 24.85	
PZZ	0.92	290	Pd	43 12.85	-0.7
			S	43 24.01	
BHB	0.99	311	P	43 14.09	-0.5
			S	43 26.12	
CALN	1.12	247	Pg	43 18.09	1.2
			Sg	43 32.95	
RSP	1.22	322	P	43 18.01	-0.5
			S	43 32.75	
RRL	1.31	304	Pd	43 19.49	-0.8
			S	43 36.13	
ORX	1.46	351	P	43 22.17	0.0
			S	43 39.35	
LSD	1.51	327	P	43 22.73	-0.3
			S	43 41.65	
PGF	1.72	163	Pg	43 24.78	-1.2
RSL	1.91	322	Pn	43 30.39	1.6
FIR	2.17	100	e(Pn)	43 39.00	6.7X
			i(Sn)	44 12.00	
SSB	2.90	293	Pn	43 42.42	-0.3
TRI	4.15	67	ePn	44 00.10	-0.4
			eSg	44 43.10	
VOY	4.36	63	ePn	44 03.20	-0.3
			eSn	44 52.00	
			e	45 52.50	
ETER	4.41	246	eP	44 03.50	-0.7
			e	45 19.00	
KBA	4.56	49	iPnc	44 07.80	1.4
			iSn	44 55.50	
PTJ	5.68	70	e(P)	44 22.10	-0.1
ESEL	5.99	224	eP	44 26.00	-0.5
			e	45 50.00	
DOU	6.42	338	P	44 33.20	0.6
			S	45 40.20	
PRU	7.18	34	ePn	44 43.50	0.2
			eSn	46 05.00	
			eSg	47 03.70	

S.D. = 0.7 on 29 of 30 obs.

% DEC 25, 1993 10h 43m 37.34± 2.80s
44.253 N ± 9.5km 8.237 E ±20.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

FIN	0.05	205	P	43 39.34	-0.2
			S	43 40.39	
ROB	0.27	279	P	43 42.90	-0.1
			S	43 46.52	
IMI	0.42	216	P	43 46.27	0.2
ENR	0.59	268	P	43 49.05	-0.3
			S	43 56.31	
STV	0.66	270	P	43 50.66	0.2
BHB	0.91	311	P	43 54.92	0.1

S.D. = 0.3 on 6 of 6 obs.

% DEC 25, 1993 10h 43m 40.97± 0.88s
44.315 N ± 7.5km 8.222 E ± 6.6km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.4 (GEN).

FIN	0.11	185	P	43 43.36	0.1
			S	43 44.55	
ROB	0.25	265	P	43 46.47	0.3
PCP	0.32	46	P	43 47.48	0.0
ENR	0.58	262	P	43 52.24	-0.4
BHB	0.86	308	P	43 58.14	0.1

S.D. = 0.4 on 5 of 5 obs.

DEC 25, 1993 10h 43m 56.06± 0.61s
44.223 N ± 3.6km 8.333 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.9 (GEN).

FIN	0.09	262	Pc	43 59.13	0.4
ROB	0.34	282	Pd	44 02.74	-0.4
PCP	0.35	25	Pc	44 04.55	1.2
			S	44 09.66	
IMI	0.45	226	P	44 05.13	-0.1
			S	44 10.96	
SAOF	0.61	247	Pg	44 08.58	0.2
ENR	0.66	271	P	44 08.59	-0.6
			S	44 16.03	
AUTN	0.69	251	Pg	44 09.97	0.1
			Sg	44 18.56	
STV	0.73	272	P	44 10.48	0.1
			S	44 18.07	
AURF	0.80	246	Pg	44 12.09	0.4
			Sg	44 21.90	
TOUF	0.81	255	Pg	44 12.09	0.2
REVF	0.85	236	Pg	44 12.30	-0.1
MVIF	0.91	249	Pg	44 14.40	0.8
			Sg	44 25.35	
PZZ	0.93	288	P	44 13.04	-0.8
			S	44 24.10	
BHB	0.98	309	P	44 14.62	-0.1
			S	44 26.41	
CALN	1.14	246	Pg	44 18.29	0.7
			Sg	44 33.25	
RSP	1.21	321	P	44 18.61	0.0
RRL	1.31	303	P	44 20.01	-0.4
ORX	1.43	350	P	44 21.27	-0.9
LSD	1.49	326	P	44 23.40	0.3
PGF	1.74	164	Pg	44 25.63	-1.0

S.D. = 0.6 on 20 of 20 obs.

% DEC 25, 1993 10h 46m 55.05± 0.72s
44.277 N ± 5.4km 8.194 E ± 5.5km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

FIN	0.07	171	P	46 56.89	0.1
			S	46 58.03	
ROB	0.23	274	P	47 00.46	0.7
			S	47 04.12	
PCP	0.37	43	P	47 02.42	0.0
			S	47 07.60	
IMI	0.43	211	P	47 03.57	-0.1
			S	47 09.52	
ENR	0.56	265	P	47 05.90	-0.3
			S	47 14.00	
PZZ	0.82	287	P	47 11.17	-0.3
BHB	0.87	311	P	47 12.26	0.0

S.D. = 0.4 on 7 of 7 obs.

% DEC 25, 1993 10h 47m 24.99± 0.89s
44.254 N ± 6.6km 8.232 E ± 7.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

FIN	0.05	201	P	47 27.18	0.0
			S	47 28.60	
ROB	0.26	279	P	47 30.54	0.0
PCP	0.37	38	P	47 32.39	-0.1
IMI	0.42	216	P	47 33.88	0.2
ENR	0.58	268	P	47 36.25	-0.6
BHB	0.91	311	P	47 42.90	0.5

S.D. = 0.5 on 6 of 6 obs.

% DEC 25, 1993 10h 47m 34.05± 0.64s
44.239 N ± 5.7km 8.172 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

FIN	0.04	139	P	47 35.90	-0.3
			S	47 37.14	
ROB	0.22	285	P	47 39.40	0.5
			S	47 43.11	
IMI	0.39	212	P	47 42.19	0.2
PCP	0.40	41	P	47 42.49	0.2
ENR	0.54	269	P	47 44.97	0.0
			S	47 52.79	
STV	0.61	271	P	47 46.36	0.0
PZZ	0.81	289	P	47 49.34	-0.6
BHB	0.89	313	P	47 51.09	0.0

S.D. = 0.4 on 8 of 8 obs.

? DEC 25, 1993 10h 47m 42.02± 1.13s
44.267 N ± 9.5km 8.249 E ± 9.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.3 (GEN).

FIN	0.06	207	P	47 44.38	0.0
			S	47 45.39	
ROB	0.27	276	P	47 47.72	-0.1
PCP	0.35	38	P	47 49.18	0.0
BHB	0.91	310	P	47 59.53	0.1

S.D. = 0.1 on 4 of 4 obs.

% DEC 25, 1993 10h 48m 48.42± 0.69s
44.264 N ± 4.7km 8.208 E ± 5.2km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)

```
     ML 1.7 (GEN).

FIN     0.05 180 P      48 50.32    0.3
                 S      48 51.33
ROB     0.24 277 P      48 53.89    0.5
                 S      48 56.63
PCP     0.37  41 P      48 55.90    0.1
                 S      49 00.84
IMI     0.42 213 P      48 56.27   -0.6
ENR     0.57 266 P      49 00.02    0.2
                 S      49 07.39
STV     0.64 269 P      49 01.40    0.3
                 S      49 09.20
PZZ     0.83 287 P      49 04.50   -0.5
                 S      49 16.55
BHB     0.89 311 P      49 05.74   -0.2
RSP     1.12 323 P      49 09.86    0.0
   S.D. = 0.4  on    9 of   9 obs.
-------------------------------------
% DEC  25, 1993  10h 49m 43.52± 2.04s
  44.244 N ± 6.1km     8.236 E ±15.9km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 2.2 (GEN).

FIN     0.04 210 P      49 45.84    0.2
                 S      49 47.03
ROB     0.27 281 P      49 49.41    0.2
                 S      49 52.98
IMI     0.42 217 P      49 51.79   -0.3
                 S      49 57.51
ENR     0.59 269 P      49 55.68    0.2
                 S      50 02.96
STV     0.65 270 P      49 56.74    0.1
                 S      50 04.79
PZZ     0.85 288 P      49 59.62   -0.5
                 S      50 10.37
BHB     0.92 311 P      50 01.27    0.2
RSP     1.15 323 P      50 04.88   -0.1
   S.D. = 0.3  on    8 of   8 obs.
-------------------------------------
% DEC  25, 1993  10h 50m 05.44± 0.72s
  44.236 N ± 4.8km     8.214 E ± 5.6km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 2.2 (GEN).

FIN     0.03 189 P      50 07.67    0.2
                 S      50 08.86
ROB     0.25 283 P      50 11.29    0.4
                 S      50 14.90
PCP     0.39  38 P      50 13.21   -0.2
                 S      50 18.75
IMI     0.40 216 P      50 13.67    0.0
                 S      50 19.57
ENR     0.57 269 P      50 16.87   -0.2
                 S      50 24.79
STV     0.64 271 P      50 17.97   -0.4
                 S      50 26.53
PZZ     0.84 289 P      50 21.59   -0.2
                 S      50 33.26
BHB     0.91 312 P      50 22.96    0.1
RSP     1.14 324 P      50 27.12    0.2
   S.D. = 0.3  on    9 of   9 obs.
-------------------------------------
% DEC  25, 1993  10h 51m 07.35± 0.71s
  44.245 N ± 4.5km     8.238 E ± 5.5km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 2.8 (GEN).

FIN     0.04 211 P      51 09.78    0.3
                 S      51 11.09
ROB     0.27 281 P      51 13.39    0.3
                 S      51 16.94
PCP     0.37  36 P      51 15.21    0.3
                 S      51 20.22
IMI     0.42 217 P      51 15.70   -0.2
                 S      51 21.67
ENR     0.59 268 P      51 19.19   -0.1
                 S      51 26.88
STV     0.66 270 P      51 20.43   -0.1
                 S      51 28.77
PZZ     0.86 288 P      51 23.93    0.0
                 S      51 34.84
BHB     0.92 311 P      51 25.27    0.4
                 S      51 37.31

RSP     1.15 323 P      51 29.03    0.2
RRL     1.24 304 P      51 30.27   -0.3
ORX     1.40 353 P      51 32.21   -0.8
LSD     1.44 328 P      51 33.82    0.2
   S.D. = 0.4  on   12 of  12 obs.
-------------------------------------
  DEC  25, 1993  10h 52m 35.59± 0.57s
  44.224 N ± 4.2km     8.322 E ± 4.7km
  DEPTH =  13.4 ±  4.0 km
 NORTHERN ITALY                  (545)
     ML 3.2 (GEN).

FIN     0.08 260 Pc     52 38.62    0.0
                 S      52 39.74
ROB     0.33 283 Pd     52 42.18   -0.5
                 S      52 45.75
PCP     0.36  27 Pc     52 44.01    0.9
                 S      52 49.07
IMI     0.44 225 Pc     52 44.57   -0.1
                 S      52 50.27
SAOF    0.60 247 Pg     52 47.73    0.3
ENR     0.65 271 P      52 47.87   -0.4
                 S      52 55.82
AUTN    0.68 251 Pg     52 48.99    0.0
STV     0.72 272 Pd     52 49.44    0.0
AURF    0.79 245 Pg     52 50.90    0.2
                 Sg     53 01.47
TOUF    0.80 255 Pg     52 51.22    0.2
REVF    0.84 235 Pg     52 52.00    0.4
MVIF    0.90 249 Pg     52 53.08    0.4
                 Sg     53 04.69
PZZ     0.92 288 P      52 52.57   -0.4
                 S      53 03.66
BHB     0.98 310 P      52 53.83    0.0
                 S      53 05.49
CALN    1.14 246 Pg     52 57.92    1.3
RSP     1.20 321 P      52 57.64   -0.1
                 S      53 11.62
RRL     1.30 303 Pc     52 59.41   -0.1
                 S      53 15.22
ORX     1.43 350 P      53 00.80   -0.4
                 S      53 18.31
LSD     1.49 326 P      53 02.26    0.1
PGF     1.75 163 Pg     53 04.98   -0.8
   S.D. = 0.5  on   20 of  20 obs.
-------------------------------------
% DEC  25, 1993  10h 54m 28.87± 0.81s
  44.238 N ± 5.3km     8.236 E ± 6.2km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 2.4 (GEN).

FIN     0.04 215 P      54 31.14    0.2
                 S      54 32.38
ROB     0.27 282 P      54 34.76    0.2
                 S      54 38.37
PCP     0.38  36 P      54 36.59    0.0
                 S      54 41.67
IMI     0.41 217 P      54 37.23   -0.1
                 S      54 42.86
ENR     0.59 269 P      54 40.52   -0.3
                 S      54 48.40
STV     0.66 271 P      54 41.94   -0.1
                 S      54 50.09
PZZ     0.86 289 P      54 45.60    0.1
                 S      54 56.09
BHB     0.92 311 P      54 46.79    0.3
RSP     1.15 323 P      54 50.14   -0.3
   S.D. = 0.3  on    9 of   9 obs.
-------------------------------------
* DEC  25, 1993  10h 54m 50.49± 1.41s
  45.564 N ± 7.9km    10.833 E ±27.3km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 2.9 (VIE).

OGA     1.31   6 iPc    55 15.90    1.0
SCE     1.60  22 iPnc   55 19.30    0.3
SQTA    1.68   9 iPnc   55 19.80   -0.3
                 iPg    55 22.80
                 iSg    55 52.40
WTTA    1.79  18 iPnd   55 20.40   -1.4
                 iPg    55 23.80
                 iSg    55 55.20
FIR     1.81 170 ePg    55 22.00    0.1
KBA     2.31  48 iPgc   55 29.60    0.3
                 iSg    56 03.60

KHC     4.03  27 ePn    56 03.00    9.5X
                 Sn     56 36.00
                 Sg     57 09.00
   S.D. = 1.0  on    6 of   7 obs.
-------------------------------------
? DEC  25, 1993  10h 55m 09.87± 1.32s
  44.224 N ±11.7km     8.271 E ±12.0km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 1.3 (GEN).

FIN     0.05 252 P      55 12.44    0.4
                 S      55 13.51
ROB     0.30 284 P      55 15.90   -0.2
                 S      55 19.54
PCP     0.37  32 P      55 17.54    0.0
IMI     0.42 221 P      55 18.24   -0.2
   S.D. = 0.5  on    4 of   4 obs.
-------------------------------------
  DEC  25, 1993  10h 55m 39.00± 0.62s
  44.197 N ± 3.6km     8.326 E ± 4.9km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 3.3 (GEN).

FIN     0.09 279 Pc     55 42.17    0.6
                 S      55 43.40
ROB     0.34 287 Pd     55 45.83   -0.3
                 S      55 49.33
PCP     0.38  24 Pc     55 47.67    0.9
                 S      55 53.08
IMI     0.43 228 Pc     55 48.20    0.5
                 S      55 53.84
SAOF    0.59 250 Pg     55 51.22    0.2
                 Sg     55 58.72
ENR     0.65 273 P      55 51.43   -0.6
                 S      55 59.15
AUTN    0.68 253 Pg     55 52.48   -0.1
STV     0.72 274 P      55 52.98   -0.3
                 S      56 01.25
AURF    0.78 247 Pg     55 54.52    0.2
                 Sg     56 04.88
TOUF    0.80 257 Pg     55 54.73    0.1
REVF    0.83 237 Pg     55 55.15    0.1
MVIF    0.90 251 Pg     55 56.79    0.5
                 Sg     56 08.06
PZZ     0.93 290 P      55 56.15   -0.7
                 S      56 07.38
BHB     1.00 311 P      55 57.64   -0.3
                 S      56 09.72
CALN    1.13 247 Pg     56 00.78    0.5
RSP     1.22 322 P      56 01.45   -0.4
                 S      56 16.14
RRL     1.32 304 Pc     56 03.06   -0.5
                 S      56 18.59
ORX     1.46 350 P      56 04.70   -0.8
LSD     1.51 327 P      56 06.17   -0.2
                 S      56 24.31
PGF     1.72 163 Pg     56 08.26   -1.0
RSL     1.92 322 Pn     56 13.73    1.6
   S.D. = 0.6  on   21 of  21 obs.
-------------------------------------
  DEC  25, 1993  11h 02m 50.11± 0.55s
  44.265 N ± 3.3km     8.224 E ± 4.5km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
     ML 3.1 (GEN).

FIN     0.06 192 P      02 52.26   -0.1
                 S      02 53.68
ROB     0.26 277 P      02 55.87    0.3
                 S      02 59.31
PCP     0.36  40 P      02 57.61    0.1
                 S      03 02.61
IMI     0.43 214 P      02 58.16   -0.7
                 S      03 04.32
ENR     0.58 266 P      03 01.05   -0.9
                 S      03 09.10
AUTN    0.63 245 Pg     03 03.02    0.0
                 Sg     03 10.99
STV     0.65 268 P      03 02.89   -0.2
                 S      03 11.13
TOUF    0.75 251 Pg     03 04.79   -0.1
                 Sg     03 15.02
AURF    0.75 240 Pg     03 04.79    0.0
                 Sg     03 15.00
REVF    0.81 230 Pg     03 06.66    0.8
```

25d 11h

Sg 03 18.12
PZZ 0.84 287 P 03 06.13 -0.3
S 03 16.68
MVIF 0.86 245 Pg 03 06.90 0.2
Sg 03 18.20
BHB 0.90 310 P 03 07.59 0.3
S 03 19.37
CALN 1.09 242 Pg 03 11.55 0.8
Sg 03 26.14
RSP 1.12 322 P 03 11.25 0.0
S 03 24.75
RRL 1.22 303 P 03 12.85 -0.1
S 03 28.93
ORX 1.38 353 P 03 15.31 -0.2
S 03 32.08
LSD 1.41 328 P 03 16.23 0.1
S 03 33.28
S.D. = 0.4 on 18 of 18 obs.

% DEC 25, 1993 11h 06m 08.47± 0.72s
44.254 N ± 5.1km 8.208 E ± 5.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

FIN 0.04 180 P 06 10.19 0.3
S 06 11.51
ROB 0.25 280 P 06 13.98 0.5
S 06 17.46
PCP 0.38 40 P 06 16.04 0.0
S 06 21.81
IMI 0.41 214 P 06 16.36 -0.4
S 06 22.73
ENR 0.57 268 P 06 20.03 0.2
S 06 27.49
STV 0.64 269 P 06 21.12 -0.1
PZZ 0.83 288 P 06 24.83 -0.3
S 06 35.40
BHB 0.90 311 P 06 25.93 -0.2
S.D. = 0.4 on 8 of 8 obs.

? DEC 25, 1993 11h 06m 56.22± 1.11s
44.248 N ± 9.1km 8.232 E ± 8.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.3 (GEN).

FIN 0.04 203 P 06 58.38 0.0
S 06 59.38
ROB 0.26 280 P 07 01.75 -0.1
S 07 05.27
PCP 0.37 37 P 07 03.81 0.0
BHB 0.91 311 P 07 13.75 0.1
S.D. = 0.1 on 4 of 4 obs.

% DEC 25, 1993 11h 08m 41.77± 0.94s
44.233 N ± 6.6km 8.241 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.03 225 P 08 44.01 0.2
S 08 45.29
ROB 0.27 283 P 08 47.67 0.1
S 08 51.28
PCP 0.38 35 P 08 49.54 0.0
S 08 54.67
IMI 0.41 218 P 08 50.14 0.0
S 08 55.91
ENR 0.59 270 P 08 53.39 -0.4
S 09 01.26
PZZ 0.86 289 P 08 58.70 0.2
BHB 0.93 311 P 08 59.43 -0.1
S.D. = 0.3 on 7 of 7 obs.

? DEC 25, 1993 11h 09m 13.96± 1.47s
44.238 N ±14.6km 8.252 E ±11.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.3 (GEN).

FIN 0.04 227 P 09 15.91 -0.2
S 09 17.10
ROB 0.28 282 P 09 19.39 -0.5
S 09 23.05
PCP 0.37 35 P 09 21.58 0.0
S 09 26.85
ENR 0.60 269 P 09 26.71 0.6
S 09 33.07
S.D. = 0.8 on 4 of 4 obs.

% DEC 25, 1993 11h 09m 52.47± 0.86s
44.232 N ± 5.5km 8.241 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

FIN 0.03 226 P 09 54.60 0.1
S 09 56.02
ROB 0.27 283 P 09 58.54 0.3
S 10 01.97
PCP 0.38 35 P 10 00.28 0.0
S 10 06.32
IMI 0.41 218 P 10 00.87 0.0
S 10 06.87
ENR 0.59 270 P 10 04.21 -0.3
S 10 11.95
STV 0.66 271 P 10 05.63 0.0
S 10 13.87
PZZ 0.86 289 P 10 09.13 0.0
S 10 20.00
BHB 0.93 311 P 10 10.33 0.1
S 10 21.09
RSP 1.16 323 P 10 13.99 -0.2
S.D. = 0.2 on 9 of 9 obs.

% DEC 25, 1993 11h 14m 43.95± 0.69s
44.245 N ± 4.5km 8.219 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

FIN 0.04 192 P 14 46.24 0.2
S 14 47.33
ROB 0.26 281 P 14 49.71 0.3
S 14 53.24
PCP 0.38 38 P 14 51.68 0.0
S 14 56.89
IMI 0.41 215 P 14 52.14 -0.2
S 14 57.86
ENR 0.57 268 P 14 55.57 -0.1
S 15 03.31
STV 0.64 270 P 14 57.03 0.1
S 15 05.18
PZZ 0.84 288 P 15 00.19 -0.1
S 15 11.24
BHB 0.91 311 P 15 01.35 0.0
S 15 13.10
RSP 1.14 323 P 15 05.32 0.0
S 15 18.86
RRL 1.23 304 P 15 06.78 -0.2
S 15 22.57
S.D. = 0.2 on 10 of 10 obs.

% DEC 25, 1993 11h 22m 27.64± 0.74s
44.240 N ± 5.7km 8.203 E ± 5.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

FIN 0.03 172 P 22 29.91 0.2
S 22 31.10
ROB 0.24 283 P 22 33.52 0.6
S 22 37.05
PCP 0.39 39 P 22 35.45 -0.2
S 22 40.85
IMI 0.40 215 P 22 35.90 0.1
S 22 41.53
ENR 0.56 269 P 22 38.65 -0.5
S 22 47.12
STV 0.63 271 P 22 39.65 -0.7
S 22 48.72
PZZ 0.83 289 P 22 44.05 0.2
S 22 55.52
BHB 0.90 312 P 22 45.22 0.3
S.D. = 0.5 on 8 of 8 obs.

DEC 25, 1993 11h 23m 47.12± 0.56s
44.265 N ± 3.3km 8.234 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.2 (GEN).

FIN 0.06 198 Pc 23 49.23 -0.2
S 23 50.23
ROB 0.26 277 Pd 23 52.83 0.1
S 23 56.34
PCP 0.36 39 Pc 23 54.81 0.3
S 24 00.20
IMI 0.43 215 Pc 23 55.24 -0.7
S 24 00.90
SAOF 0.56 241 Pg 23 58.62 0.1
Sg 24 05.83
ENR 0.59 267 P 23 58.38 -0.7
AUTN 0.64 245 Pg 24 00.29 0.2
Sg 24 08.62
STV 0.65 268 P 23 59.93 -0.3
S 24 08.14
TOUF 0.75 251 Pg 24 02.23 0.2
AURF 0.75 240 Pg 24 01.67 -0.3
Sg 24 11.86
REVF 0.82 230 Pg 24 03.75 0.8
Sg 24 14.83
PZZ 0.85 287 P 24 03.24 -0.3
S 24 14.32
MVIF 0.86 245 Pg 24 03.97 0.1
Sg 24 14.93
BHB 0.90 310 Pd 24 04.80 0.4
S 24 16.19
CALN 1.10 243 Pg 24 08.54 0.7
Sg 24 24.06
RSP 1.13 322 P 24 08.49 0.2
S 24 23.02
RRL 1.23 303 P 24 10.10 0.0
S 24 25.59
ORX 1.38 353 P 24 11.75 -0.7
S 24 29.03
LSD 1.42 328 P 24 13.25 0.1
S 24 31.54
S.D. = 0.5 on 19 of 19 obs.

% DEC 25, 1993 11h 24m 33.86± 0.69s
44.239 N ± 4.8km 8.208 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

FIN 0.03 179 P 24 36.05 0.1
S 24 37.19
ROB 0.25 283 P 24 39.61 0.4
S 24 43.12
PCP 0.39 38 P 24 41.72 -0.1
S 24 46.77
IMI 0.40 215 P 24 42.03 -0.1
S 24 47.61
ENR 0.57 269 P 24 45.59 0.2
S 24 52.94
STV 0.64 271 P 24 46.21 -0.5
S 24 54.90
PZZ 0.84 289 P 24 49.80 -0.3
S 25 01.63
BHB 0.91 312 P 24 51.37 0.2
S 25 03.09
RSP 1.14 324 P 24 55.29 0.1
S.D. = 0.3 on 9 of 9 obs.

% DEC 25, 1993 11h 30m 11.29± 0.74s
44.236 N ± 4.7km 8.224 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

FIN 0.03 203 P 30 13.54 0.2
S 30 14.57
ROB 0.26 283 P 30 17.09 0.3
S 30 20.59
PCP 0.38 37 P 30 19.06 -0.1
S 30 24.46
IMI 0.41 217 P 30 19.45 -0.2
S 30 25.05
ENR 0.58 269 P 30 22.91 -0.2
S 30 30.70
STV 0.65 271 P 30 24.35 0.0
S 30 32.91
PZZ 0.85 289 P 30 27.59 -0.2
BHB 0.92 312 P 30 29.08 0.3
RSP 1.15 323 P 30 33.04 0.2
RRL 1.24 304 P 30 33.96 -0.5
S.D. = 0.3 on 10 of 10 obs.

DEC 25, 1993 11h 30m 24.98± 0.64s

44.223 N ± 4.0km 8.316 E ± 4.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.3 (GEN).

FIN 0.08 260 P 30 27.77 0.3
S 30 29.09
ROB 0.33 283 P 30 31.44 -0.4
S 30 34.79
PCP 0.36 27 P 30 33.17 0.8
S 30 37.53
IMI 0.44 225 P 30 33.76 -0.2
SAOF 0.60 247 Pg 30 36.89 -0.2
Sg 30 44.67
ENR 0.64 271 P 30 37.48 -0.5
S 30 44.78
AUTN 0.68 251 Pg 30 39.05 0.4
Sg 30 47.37
STV 0.71 272 P 30 38.69 -0.4
S 30 47.04
AURF 0.79 245 Pg 30 40.96 0.6
Sg 30 51.19
TOUF 0.80 255 Pg 30 40.81 0.2
MVIF 0.90 249 Pg 30 42.93 0.6
Sg 30 53.92
PZZ 0.92 288 P 30 42.15 -0.4
S 30 52.80
BHB 0.97 310 P 30 43.30 -0.2
S 30 54.56
CALN 1.13 246 Pg 30 47.20 0.9
Sg 31 02.76
RSP 1.20 321 P 30 47.31 -0.1
RRL 1.30 303 P 30 48.63 -0.5
PGF 1.75 163 Pg 30 54.61 -1.0
S.D. = 0.6 on 17 of 17 obs.

% DEC 25, 1993 11h 30m 28.58± 0.74s
44.243 N ± 4.7km 8.239 E ± 5.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.4 (GEN).

FIN 0.04 213 P 30 31.03 0.3
S 30 32.46
ROB 0.27 281 P 30 34.52 0.2
S 30 38.35
PCP 0.37 36 P 30 36.23 0.0
S 30 41.16
IMI 0.42 217 P 30 37.21 0.1
S 30 42.70
ENR 0.59 269 P 30 40.18 -0.4
STV 0.66 270 P 30 41.27 -0.5
S 30 49.68
PZZ 0.86 288 P 30 44.87 -0.3
S 30 55.80
BHB 0.92 311 P 30 46.42 0.2
RSP 1.15 323 P 30 50.60 0.5
RRL 1.24 304 P 30 52.08 0.3
ORX 1.40 353 P 30 53.46 -0.8
LSD 1.44 328 P 30 55.35 0.4
S.D. = 0.5 on 12 of 12 obs.

% DEC 25, 1993 11h 33m 01.72± 0.79s
44.235 N ± 5.1km 8.229 E ± 6.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

FIN 0.03 211 P 33 03.92 0.2
S 33 05.01
ROB 0.26 283 P 33 07.62 0.3
S 33 11.28
PCP 0.38 36 P 33 09.54 0.0
S 33 15.04
IMI 0.41 217 P 33 10.00 -0.1
S 33 16.04
ENR 0.58 269 P 33 13.53 0.0
S 33 21.17
STV 0.65 271 P 33 14.44 -0.3
S 33 22.91
PZZ 0.85 289 P 33 18.19 -0.1
S 33 29.41
BHB 0.92 312 P 33 19.57 0.3
RSP 1.15 323 P 33 23.14 -0.2
S 33 37.82
S.D. = 0.2 on 9 of 9 obs.

% DEC 25, 1993 11h 35m 26.55± 0.77s
44.235 N ± 5.6km 8.214 E ± 6.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.03 189 P 35 28.82 0.2
S 35 29.73
ROB 0.25 284 P 35 32.21 0.2
S 35 35.68
PCP 0.39 38 P 35 34.36 -0.2
S 35 39.57
IMI 0.40 216 P 35 34.68 -0.1
S 35 40.35
ENR 0.57 269 P 35 38.15 0.0
S 35 45.75
STV 0.64 271 P 35 38.70 -0.7
PZZ 0.84 289 P 35 43.19 0.3
S 35 53.81
BHB 0.91 312 P 35 44.20 0.2
S.D. = 0.4 on 8 of 8 obs.

DEC 25, 1993 11h 36m 28.25± 0.81s
44.248 N ± 5.9km 8.229 E ± 6.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

FIN 0.04 200 P 36 30.37 0.0
S 36 31.47
ROB 0.26 280 P 36 33.94 0.1
S 36 37.60
PCP 0.37 38 P 36 35.86 0.0
S 36 41.36
IMI 0.42 216 P 36 36.92 0.1
ENR 0.58 268 P 36 39.75 -0.3
S 36 47.40
PZZ 0.85 288 P 36 44.70 0.0
BHB 0.91 311 P 36 45.84 0.2
S.D. = 0.2 on 7 of 7 obs.

% DEC 25, 1993 11h 36m 49.65± 0.91s
44.261 N ± 6.9km 8.231 E ± 8.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN).

FIN 0.05 198 P 36 51.44 -0.5
S 36 52.43
ROB 0.26 278 P 36 55.01 -0.2
S 36 58.55
PCP 0.36 39 P 36 57.17 0.1
S 37 02.36
IMI 0.43 215 P 36 58.79 0.4
BHB 0.90 310 P 37 06.99 0.0
S.D. = 0.4 on 5 of 5 obs.

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* DEC 25, 1993 11h 41m 53.18± 2.98s
8.154 S ± 7.9km 119.753 E ±11.6km
DEPTH = 156.7 ± 32.9 km
4.6mb (6 obs.)
FLORES REGION, INDONESIA (286)

MTN 12.12 114 eP 44 42.30 0.5
0.3s 285.00nm 6.3mb X
eS 46 47.00
NANU 14.89 195 eP 45 10.00 -7.1X
eS 47 49.00
WB2 18.36 131 iPc 45 57.00 -1.7
eS 49 11.50
WARB 19.09 161 eP 46 06.20 -0.1
ASPA 20.54 140 iPc 46 20.60 -0.5
iS 49 54.10
MRWA 21.25 189 eP 46 28.40 0.3
e 46 50.40
iS 50 24.00
BAL 22.52 187 eP 46 41.10 0.7
eS 50 57.00
COOL 22.65 177 eP 46 41.10 -0.6
eS 50 09.00
QIS 22.81 125 iPd 46 44.00 0.6
KLB 23.39 184 iPd 46 49.10 0.2
eS 51 18.00
MUN 23.93 187 eP 46 54.00 -0.1
e 47 26.00
eS 51 28.00
STK 31.14 142 eP 47 58.50 -0.7
1.0s 6.90nm 4.3mb
ARMA 37.13 131 iPc 48 52.10 1.6
0.7s 5.00nm 4.3mb
GUN 48.56 319 P 50 23.20 0.2
0.8s 24.00nm 4.9mb
PKI 48.64 318 P 50 23.00 -0.6
0.4s 5.00nm 4.6mb
DMN 48.87 318 P 50 25.00 -0.2
0.7s 12.00nm 4.7mb
KKN 48.87 318 P 50 25.30 0.1
GKN 49.44 318 P 50 29.80 0.3
0.4s 9.00nm 4.8mb
YKA 113.12 24 ePKP 00 10.80 -2.2X
0.5s 0.10nm
LPB 154.27 162 ePKP 01 46.00 17.1X
LPAZ 154.49 162 PKP 01 39.00 9.6X
S.D. = 0.8 on 17 of 21 obs.

% DEC 25, 1993 11h 52m 56.63± 0.88s
44.236 N ± 6.2km 8.230 E ± 7.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

FIN 0.03 210 P 52 58.86 0.2
S 53 00.05
ROB 0.26 283 P 53 02.52 0.3
S 53 06.05
PCP 0.38 36 P 53 04.40 -0.1
S 53 09.62
IMI 0.41 217 P 53 04.99 0.0
S 53 10.44
ENR 0.58 269 P 53 07.83 -0.7
S 53 15.75
PZZ 0.85 289 P 53 13.37 0.2
BHB 0.92 312 P 53 14.28 0.1
S.D. = 0.4 on 7 of 7 obs.

% DEC 25, 1993 11h 53m 31.12± 1.01s
44.228 N ± 6.5km 8.193 E ± 8.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.02 150 P 53 33.10 0.0
S 53 34.24
IMI 0.39 215 P 53 39.09 0.0
S 53 45.13
ENR 0.56 270 P 53 42.43 0.0
S 53 50.21
STV 0.62 272 P 53 43.62 -0.1
S 53 51.95
PZZ 0.83 290 P 53 47.47 0.2
BHB 0.91 313 P 53 48.52 0.1
RSP 1.14 324 P 53 52.46 -0.1
S.D. = 0.1 on 7 of 7 obs.

% DEC 25, 1993 11h 53m 33.18± 0.88s
44.226 N ± 5.6km 8.236 E ± 6.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.03 229 P 53 35.48 0.3
S 53 36.62
ROB 0.27 285 P 53 39.18 0.3
S 53 42.80
PCP 0.39 35 P 53 41.01 -0.1
S 53 46.23
IMI 0.40 218 P 53 41.43 0.0
S 53 47.06
ENR 0.59 270 P 53 44.86 -0.3
S 53 52.41
STV 0.66 272 P 53 45.96 -0.4
S 53 54.42
PZZ 0.86 289 P 53 49.80 0.0
BHB 0.93 312 P 53 51.04 0.1
RSP 1.16 323 P 53 55.06 0.1
S.D. = 0.3 on 9 of 9 obs.

& DEC 25, 1993 12h 13m 11.92s
42.305 N 121.978 W
DEPTH = 3.9km
3.2mb (1 obs.)
OREGON (32)
<SEA-P>. MD 3.4 (SEA). ML 3.4
(GS), 3.3 (BRK).

25d 12h

LAB 0.07 239 Pc 13 14.05 0.3
VRC 0.18 280 Pc 13 16.20 0.6
HAMO 0.24 179 P 13 17.10 0.4
S 13 20.83
LASM 0.77 157 P 13 25.54 -1.7
BBOR 0.78 319 P 13 26.48 -1.0
YBH 0.79 224 iPc 13 25.79 -2.0
iS 13 36.69
LMPM 0.83 190 P 13 27.00 -1.4
LBFM 0.96 176 eP 13 29.15 -1.8
LGBM 0.97 190 P 13 29.57 -1.6
DBO 1.24 312 P 13 34.54 -1.0
LBKM 1.32 203 P 13 35.06 -2.0
HSO 1.47 327 P 13 38.62 -0.7
S 13 59.31
KOMM 1.51 228 P 13 38.11 -1.7
NCOR 1.53 23 Pd 13 39.93 -0.3
LGPM 1.53 205 eP 13 37.41 -2.8
HBO 1.56 351 P 13 40.04 -0.6
WDC 1.77 194 eP 13 42.43 -1.2
LMEM 1.79 170 eP 13 43.59 -0.5
TCO 1.82 9 P 13 44.12 -0.4
LCFM 1.85 169 P 13 45.88 0.9
KRPM 1.91 234 P 13 47.75 2.1
MIN 1.98 172 ePd 13 46.75 0.0
eS • 14 15.76
FBO 2.05 348 P 13 48.16 0.5
RNO 2.06 322 P 13 49.24 1.4
ARC 2.12 228 eP 13 49.71 1.1
eS 14 26.61
FHC 2.13 226 eP 13 48.54 -0.2
GMO 2.26 19 P 13 51.67 0.9
BPO 2.36 5 P 13 51.89 -0.3
VIPM 2.41 24 P 13 52.93 -0.1
MPOR 2.48 333 P 13 54.11 0.2
KMPM 2.48 221 eP 13 52.65 -1.2
SSOR 2.57 352 P 13 54.90 -0.3
VBEM 2.77 6 P 13 58.07 0.0
ORV 2.77 172 ePc 13 59.86 1.9
eS 14 42.42
CROR 2.77 15 P 13 58.81 0.8
GT2 2.86 356 P 13 59.40 0.2
TDH 2.99 3 P 14 04.03 2.9
VTHM 3.05 19 P 14 06.99 5.1
VLL 3.16 4 P 14 06.82 3.3
VLMM 3.23 359 P 14 07.06 2.5
VGB 3.32 15 ePn 14 04.16 -1.7
ASR 3.85 4 P 14 15.58 2.2
SHW 3.89 357 (Pn) 14 18.06 4.1
GLK 4.27 3 P 14 20.96 1.7
KVN 4.39 137 (Pn) 14 22.37 1.3
RSW 4.43 22 P 14 22.28 0.7
CMB 4.44 164 (Pn) 14 20.80 -0.8
LON 4.45 1 ePn 14 21.33 -0.4
MDW 4.59 19 P 14 24.50 0.8
BONR 5.18 146 (Pn) 14 32.37 0.0
HVU 6.87 91 (Pn) 14 58.54 2.4
YKA 20.69 10 eP 17 52.50 -2.8
0.8s 1.00nm 3.2mb
52 obs. associated

% DEC 25, 1993 12h 29m 27.05± 2.36s
33.711 S ± 7.2km 70.047 W ±17.0km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.5 (SAN).

PCH 0.40 283 iP+ 29 35.54 0.3
iS 29 41.81
FCH 0.43 332 iPd 29 35.78 -0.2
iS 29 41.62
CACH 0.61 228 iP 29 39.69 0.2
iS 29 48.66
TACH 0.75 274 iP+ 29 41.62 0.0
iS 29 52.24
PEL 0.78 316 eP 29 42.03 -0.2
iS 29 52.46
ROCH 1.09 312 iP 29 48.34 0.6
iS 30 02.47
JACH 1.12 336 iP 29 48.19 0.0
iS 30 03.08
LNV 1.16 257 iP 29 48.43 -0.3
iS 30 04.71
LCCH 1.29 280 iP+ 29 50.70 -0.3
iS 30 08.12
S.D. = 0.3 on 9 of 9 obs.

& DEC 25, 1993 12h 33m 29.15s
42.278 N 122.004 W
DEPTH = 0.1km
3.8mb (1 obs.)
OREGON (32)
<SEA-P>. ML 4.0 (GS), 3.7 (BRK). MD 4.0 (SEA). Felt (V) at Beatty and Chiloquin; (III) at Edgewood; (II) at Dairy and Merrill. Also felt at Klamath Falls.

LAB 0.05 257 P 33 30.95 0.9
VRC 0.17 290 Pc 33 34.09 1.6
HAMO 0.21 173 Pc 33 34.35 1.0
S 33 38.66
YBH 0.76 224 iPc 33 43.78 -0.5
eS 33 54.38
BBOR 0.79 321 P 33 44.48 -0.4
LBFM 0.93 175 eP 33 47.29 -0.5
LGBM 0.94 189 P 33 45.22 -2.7
DBO 1.24 313 P 33 52.86 -0.3
LBKM 1.29 203 P 33 51.29 -2.8
HSO 1.48 328 Pd 33 56.35 -0.8
LGPM 1.50 205 (P) 33 53.53 -3.9
LHCM 1.52 166 P 33 57.54 -0.2
NCOR 1.56 24 Pd 33 57.82 -0.6
S 34 19.63
HBO 1.58 352 Pd 33 58.24 -0.4
WDC 1.74 194 eP 33 59.74 -1.1
LMEM 1.77 169 eP 34 01.25 -0.2
LCFM 1.83 168 P 34 03.00 0.7
LDBM 1.85 175 P 34 03.65 1.1
TCO 1.85 9 Pd 34 02.00 -0.6
KHBM 1.86 210 P 34 04.48 1.8
LSLM 1.88 169 P 34 03.61 0.7
KRPM 1.88 234 P 34 05.19 2.3
MIN 1.95 171 ePc 34 03.87 -0.2
eS 34 31.66
LBPM 2.07 199 P 34 07.90 2.3
RNO 2.07 323 Pd 34 06.86 1.2
FBO 2.07 349 Pd 34 05.11 -0.6
ARC 2.09 229 ePc 34 09.21 3.3
iS 34 37.76
FHC 2.09 226 eP 34 06.18 0.2
LCMM 2.16 170 P 34 10.00 2.9
EKR 2.25 226 iP 34 10.16 2.0
GMO 2.29 19 P 34 09.60 0.6
BPO 2.38 5 Pd 34 09.75 -0.6
VIPM 2.45 24 Pd 34 10.13 -1.1
KMPM 2.45 221 eP 34 10.96 -0.2
MPOR 2.49 334 Pd 34 11.90 0.1
SSOR 2.60 353 Pd 34 12.58 -0.7
ORV 2.75 172 eP 34 16.31 1.0
VBEM 2.80 6 P 34 18.90 2.7
CROR 2.80 15 P 34 15.32 -0.9
GT2 2.88 356 P 34 17.06 -0.2
S 35 00.95
OSUM 3.01 178 P 34 19.31 0.4
TDH 3.01 3 P 34 18.75 -0.5
VFP 3.06 7 P 34 20.11 0.2
VTHM 3.08 19 P 34 19.75 -0.3
VLL 3.19 4 P 34 21.59 -0.1
PGO 3.20 354 P 34 22.61 0.9
VLMM 3.26 360 P 34 22.82 0.2
TKO 3.27 342 P 34 22.84 0.2
VGB 3.36 15 eP 34 23.29 -0.7
JBO 3.55 25 P 34 26.46 -0.2
GULW 3.66 4 P 34 30.39 2.1
MTMW 3.75 358 P 34 29.13 -0.5
GL2 3.78 13 P 34 29.39 -0.6
LVP 3.80 356 P 34 30.00 -0.4
CDFW 3.84 360 P 34 31.50 0.7
JLK 3.87 358 P 34 30.91 -0.4
ASR 3.88 4 P 34 32.20 0.7
HSR 3.90 358 P 34 33.88 2.1
SHW 3.92 358 eP 34 31.75 -0.3
ESD 3.92 359 P 34 33.87 1.8
YEL 3.93 358 P 34 32.67 0.4
NLO 3.95 345 P 34 33.14 0.7
SOSW 3.96 359 P 34 33.65 1.1
STD 3.96 358 P 34 34.15 1.5
BMW 4.29 349 eP 34 37.32 0.1
GLK 4.29 4 P 34 38.85 1.5
KVN 4.38 136 eP 34 38.50 -0.2
CMB 4.42 163 eP 34 41.16 2.1
WPW 4.43 4 P 34 40.90 1.6
BRVW 4.45 18 P 34 40.13 0.7
RSW 4.46 22 P 34 39.97 0.3
LON 4.47 2 eP 34 39.29 -0.5
WIW 4.59 24 P 34 41.60 0.3
EBG 4.74 12 P 34 43.99 0.3
BVW 4.78 18 P 34 44.98 0.8
LOCW 4.81 22 P 34 44.53 0.0
WAH2 4.81 20 P 34 44.57 0.1
GSM 4.93 2 P 34 47.60 1.3
ARN 4.94 176 (Pn) 34 46.88 0.5
BONR 5.17 145 ePn 34 50.30 0.4
RMW 5.18 1 ePn 34 49.84 -0.1
MMPM 5.19 153 (Pn) 34 50.88 0.6
GMW 5.30 354 ePn 34 50.88 -0.6
ETW 5.46 12 P 34 52.93 -0.9
HTW 5.53 2 P 34 55.26 0.5
PGW 5.56 356 P 34 55.82 0.7
TNP 5.57 137 ePn 34 55.26 -0.3
FRI 5.57 161 eP 34 56.01 0.7
SAW 5.73 18 P 34 56.42 -1.2
JCW 5.92 0 P 35 00.80 0.6
RPW 6.18 3 P 35 03.79 -0.1
DPW 6.21 24 ePn 35 02.01 -2.3
HVU 6.89 91 (Pn) 35 12.70 -1.4
NEW 6.90 28 ePn 35 11.12 -3.0
MCMT 7.12 66 eP 35 14.60 -2.8
DUG 7.23 104 ePn 35 17.90 -1.0
LRM 7.74 60 eP 35 23.80 -2.3
BGMT 7.79 64 eP 35 24.50 -2.3
ARUT 7.95 121 (Pn) 35 27.51 -1.5
DAU 8.30 99 (P) 35 37.95 4.0
MSU 8.39 113 (P) 35 33.66 -1.5
YKA 20.72 10 eP 38 10.30 -3.1
0.8s 3.60nm 3.8mb
102 obs. associated

% DEC 25, 1993 12h 40m 43.24± 0.75s
44.235 N ± 4.9km 8.219 E ± 5.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

FIN 0.03 196 P 40 45.46 0.2
S 40 46.70
ROB 0.26 284 P 40 49.08 0.4
S 40 52.65
PCP 0.39 37 P 40 51.04 -0.1
S 40 56.54
IMI 0.40 216 P 40 51.50 0.0
S 40 57.36
ENR 0.57 269 P 40 54.71 -0.2
S 41 02.49
STV 0.64 271 P 40 55.67 -0.5
S 41 04.13
PZZ 0.85 289 P 40 59.74 0.1
S 41 10.68
BHB 0.91 312 P 41 01.02 0.3
RSP 1.14 324 P 41 04.68 -0.1
S.D. = 0.3 on 9 of 9 obs.

? DEC 25, 1993 12h 42m 44.18± 1.26s
44.224 N ±11.3km 8.259 E ±11.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.4 (GEN).

FIN 0.04 248 P 42 46.64 0.3
S 42 47.69
ROB 0.29 284 P 42 50.17 -0.1
S 42 53.69
PCP 0.38 33 P 42 51.95 0.0
S 42 56.94
IMI 0.41 220 P 42 52.50 -0.1
S 42 57.95
S.D. = 0.4 on 4 of 4 obs.

% DEC 25, 1993 12h 42m 53.62± 0.79s
44.232 N ± 5.2km 8.220 E ± 6.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

FIN 0.02 200 P 42 55.93 0.3
S 42 57.12
ROB 0.26 284 P 42 59.59 0.5
S 43 03.07
PCP 0.39 37 P 43 01.42 -0.2

S 43 06.00
IMI 0.40 217 P 43 01.93 0.1
S 43 07.19
ENR 0.57 270 P 43 04.67 -0.7
S 43 12.96
STV 0.64 271 P 43 06.00 -0.6
S 43 14.79
PZZ 0.85 289 P 43 10.26 0.2
S 43 21.10
BHB 0.92 312 P 43 11.36 0.2
RSP 1.15 324 P 43 15.38 0.2
S.D. = 0.5 on 9 of 9 obs.

% DEC 25, 1993 12h 46m 05.24± 0.80s
44.234 N ± 5.2km 8.232 E ± 6.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.03 215 P 46 07.45 0.2
S 46 08.55
ROB 0.27 283 P 46 11.11 0.2
S 46 14.68
PCP 0.38 36 P 46 13.08 0.0
S 46 18.25
IMI 0.41 217 P 46 13.49 -0.1
S 46 19.03
ENR 0.58 270 P 46 17.02 -0.1
S 46 24.61
STV 0.65 271 P 46 18.21 -0.1
S 46 26.49
PZZ 0.86 289 P 46 21.87 0.1
S 46 32.76
BHB 0.92 312 P 46 23.01 0.1
RSP 1.15 323 P 46 26.67 -0.2
S.D. = 0.2 on 9 of 9 obs.

& DEC 25, 1993 13h 10m 26.11s
42.296 N 121.959 W
DEPTH = 3.2km
OREGON (32)
<SEA-P>. MD 2.6 (SEA), 2.7 (GS).

LAB 0.08 250 Pc 10 28.36 0.4
VRC 0.20 282 Pc 10 30.39 0.3
S 10 33.96
HAMO 0.23 182 P 10 30.84 0.1
S 10 34.93
LASM 0.75 158 P 10 39.80 -1.4
BBOR 0.79 318 P 10 41.26 -0.7
LMPM 0.82 191 P 10 41.36 -1.1
LBFM 0.95 177 eP 10 43.00 -2.0
LGBM 0.97 191 P 10 43.97 -1.3
DBO 1.25 311 P 10 49.28 -0.8
S 11 06.91
LBKM 1.32 204 P 10 49.58 -1.7
HSO 1.48 326 P 10 52.86 -0.9
KOMM 1.51 228 P 10 53.58 -0.6
LGPM 1.53 206 eP 10 52.06 -2.4
NCOR 1.53 23 P 10 53.72 -0.8
HBO 1.57 350 P 10 54.48 -0.6
LMEM 1.78 170 eP 10 56.93 -1.2
TCO 1.83 8 P 10 58.89 0.0
BPO 2.36 5 P 11 07.32 0.7
VIPM 2.42 23 P 11 08.43 1.1
KMPM 2.48 222 (P) 11 07.40 -0.8
ORV 2.76 173 (P) 11 10.90 -1.2
VGB 3.33 14 ePn 11 18.93 -1.2
22 obs. associated

& DEC 25, 1993 13h 18m 04.70s
42.288 N 121.934 W
DEPTH = 7.7km
OREGON (32)
<SEA-P>. MD 2.7 (SEA). ML 2.7
(GS).

LAB 0.10 258 Pc 18 07.37 0.1
VRC 0.22 283 Pc 18 09.45 0.2
S 18 13.18
HAMO 0.22 187 P 18 09.54 0.1
S 18 13.24
LASM 0.74 159 P 18 18.72 -0.9
BBOR 0.81 318 P 18 19.76 -1.0
LMPM 0.82 192 P 18 20.14 -0.7
LBFM 0.94 178 eP 18 22.23 -0.8
LGBM 0.96 192 P 18 22.88 -0.5
DBO 1.27 311 P 18 27.82 -0.8
S 18 45.77
LBKM 1.32 205 P 18 28.75 -0.7
HSO 1.50 326 P 18 31.95 -0.1
LGPM 1.53 206 eP 18 30.64 -1.8
eS 18 49.08
NCOR 1.53 22 P 18 32.72 0.1
HBO 1.58 350 P 18 33.47 0.2
WDC 1.77 195 eP 18 35.19 -0.6
FBO 2.07 347 P 18 41.51 1.2
VIPM 2.42 23 P 18 46.57 1.2
SSOR 2.60 352 P 18 47.88 0.1
18 obs. associated

DEC 25, 1993 13h 22m 50.74± 0.55s
44.262 N ± 3.3km 8.226 E ± 4.3km
DEPTH = 8.5 ± 3.5 km
NORTHERN ITALY (545)
ML 2.5 (GEN).

FIN 0.05 194 P 22 52.81 0.0
S 22 53.86
ROB 0.26 277 P 22 56.42 0.3
S 22 59.95
PCP 0.36 39 P 22 58.39 0.3
S 23 03.79
IMI 0.43 215 P 22 58.85 -0.6
S 23 04.71
SAOF 0.56 241 Pg 23 01.89 -0.1
Sg 23 09.39
ENR 0.58 267 P 23 02.33 -0.1
S 23 09.83
AUTN 0.63 245 Pg 23 03.80 0.3
STV 0.65 269 P 23 03.42 -0.3
S 23 11.52
TOUF 0.75 251 Pg 23 06.23 0.6
Sg 23 16.03
AURF 0.75 240 Pg 23 05.79 0.2
PZZ 0.84 287 P 23 06.90 -0.3
S 23 17.98
MVIF 0.86 245 Pg 23 07.55 0.1
Sg 23 18.84
BHB 0.90 310 P 23 08.28 0.1
S 23 19.78
CALN 1.09 243 Pg 23 11.56 0.1
RSP 1.13 322 P 23 11.68 -0.4
S 23 26.17
RRL 1.22 303 P 23 13.74 0.0
ORX 1.38 353 P 23 15.73 -0.6
LSD 1.42 328 P 23 17.58 0.6
S.D. = 0.4 on 18 of 18 obs.

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* DEC 25, 1993 13h 28m 05.22± 1.44s
10.272 S ±10.6km 161.288 E ±10.2km
DEPTH = 114.4 ± 15.4 km
4.5mb (6 obs.)
SOLOMON ISLANDS (193)

BKM 9.98 138 iPc 30 26.00 -1.0
iS 32 14.50
RAB 10.88 303 iPd 30 38.50 -0.4
iS 31 00.00
DZM 12.73 158 iPd 31 04.50 1.1
iSS 33 19.50
PMG 13.95 272 e(P) 31 20.00 0.9
ARMA 21.97 203 iPc 32 51.10 0.2
1.1s 18.00nm 4.3mb
WB2 27.69 247 iPd 33 44.00 -0.6
0.5s 11.90nm 4.8mb
i 34 04.00
STK 28.19 217 eP 33 48.80 -0.2
1.0s 3.90nm 4.0mb
ASPA 29.31 239 eP 33 57.80 -1.5
1.1s 8.40nm 4.3mb
Z 21s 0.50um 4.1Msz
epP 34 18.70 92kmX
TOO 30.68 205 eP 34 12.00 0.9
MBL 41.23 250 eP 35 40.40 -0.2
MRWA 46.27 239 eP 36 21.00 -0.1
KMI 67.00 303 eP 39 08.50 20.0X
1.4s 40.00nm
LZH 71.03 314 eP 39 14.20 1.2
1.2s 15.00nm 4.7mb
PKI 82.44 300 P 40 00.00 -16.9X
YKA 96.31 28 eP 41 21.30 -0.3
0.8s 1.50nm 4.5mb
S.D. = 1.0 on 13 of 15 obs.

DEC 25, 1993 14h 07m 13.81± 1.47s
5.767 S ± 6.3km 104.186 E ± 7.6km
DEPTH = 76.5 ± 12.5 km
5.1mb (32 obs.)
SOUTHERN SUMATERA, INDONESIA (274)
Mw 5.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 15C
Centroid Location:
Origin Time 14:07:14.7 0.7
Lat 5.77S FIX;Lon 104.21E FIX
Dep 77.0 FIX Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-0.28 0.35 Mtt=-3.12 0.51
Mff= 3.40 0.53 Mrt= 4.49 0.76
Mrf=-2.78 0.52 Mtf= 3.90 0.81
Principal Axes:
T Val= 5.36 Plg=13 Azm=108
N 3.01 54 0
P -8.36 33 207
Best Double Couple:Mo=6.9*10**16
NP1:Strike=242 Dip=57 Slip= -16
NP2: 341 77 -146

TPI 4.57 49 iPd 08 22.00 0.0
e 15 00.00
KGM 7.78 354 ePc 09 07.90 1.4
0.7s 77.60nm 5.5mb
e 11 23.90
IPM 10.75 343 ePc 09 49.50 2.4
KKM 16.79 46 ePd 11 16.50 10.8X
1.1s 83.50nm
NANU 19.97 148 iPd 11 33.20 -9.3X
0.7s 77.00nm 5.1mb
iS 15 03.50
MBL 21.54 137 eP 11 57.50 -1.1
eS 15 53.00
DAV 24.87 59 ePd 12 40.00 9.0X
QIZ 25.26 13 eP 12 40.00 5.4X
E 19s 4.05um
BAG 27.36 36 eP 12 59.00 4.9X
MTN 27.48 107 eP 12 54.00 -1.0
0.4s 63.00nm 5.5mb
MUN 28.40 158 eP 13 01.50 -1.6
e 13 09.20
WARB 29.53 136 eP 13 12.50 -0.9
COOL 29.63 150 eP 13 12.00 -2.2
e 13 20.00
KMI 30.74 357 eP 13 25.00 0.8
1.0s 50.00nm 5.2mb
Z 12s 2.70um 5.1MszX
N 11s 1.70um
E 11s 1.60um
KOD 31.00 301 eP 13 25.00 -1.7
GYA 32.12 4 P 13 38.40 2.2
Z 16s 1.52um 4.8MszX
N 15s 0.79um
E 15s 2.18um
WB2 32.53 118 iPc 13 38.90 -0.8
0.7s 16.80nm 5.0mb
GBA 32.80 306 P 13 42.00 -0.1
SHL 33.36 340 eP 13 44.50 -2.6X
eS 19 07.00
ASPA 33.68 125 iPc 13 49.00 -0.7
1.0s 89.80nm 5.6mb
Z 21s 0.60um 4.3Msz
i 14 53.20
iS 19 09.20
HYB 34.23 313 eP 13 42.00 -12.5X
e 14 01.00
CD2 36.47 359 eP 14 12.30 -1.0
Z 14s 2.42um 5.1MszX
E 16s 3.43um
QIS 37.37 117 eP 14 21.20 0.1
LSA 37.42 341 P 14 21.60 -0.2
1.0s 16.00nm 4.9mb
Z 22s 2.50um 5.0Msz
PKI 37.78 332 P 14 23.20 -1.6
0.5s 15.00nm 5.2mb
GUN 37.86 333 P 14 24.20 -1.2
DMN 37.96 332 P 14 24.60 -1.6
0.4s 15.00nm 5.3mb
KKN 38.03 332 P 14 25.20 -1.5
POO 38.44 310 eP 14 30.00 -0.1
GKN 38.51 332 P 14 29.20 -1.5

25d 14h

XAN 39.84 6 P 14 40.50 -1.0
1.0s 7.10nm 4.5mb
NJ2 40.12 19 Pc 14 46.20 2.5
Z 16s 0.88um 4.7MszX
LZH 41.63 360 eP 14 56.00 -0.3
1.8s 18.00nm 4.6mb
Z 14s 1.66um 5.1MszX
E 14s 0.96um
PMG 42.73 98 eP 15 04.50 -0.9
NDI 42.99 324 iP 15 06.00 -1.3
eS 21 25.00
ADE 43.09 137 eP 15 09.10 0.9
TIA 43.48 15 eP 15 13.30 2.1
STK 43.54 131 eP 15 11.90 0.1
0.7s 41.30nm 5.4mb
ePcP 17 00.30
TIY 43.93 9 eP 15 17.20 2.3
Z 18s 1.21um 4.9Msz
E 18s 2.12um
GTA 45.13 355 eP 15 24.50 0.0
1.0s 8.00nm 4.5mb
Z 14s 1.97um 5.2MszX
E 16s 1.42um
BJI 46.90 13 eP 15 39.00 0.7
Z 18s 1.18um 4.9Msz
E 16s 1.72um
TKSJ 48.59 33 P 15 51.90 0.3
TOO 49.12 136 eP 15 56.80 1.1
0.6s 13.00nm 5.1mb
YONJ 49.18 32 eP 16 05.80 9.6X
WKYJ 49.62 35 P 15 59.70 0.1
BWA 49.80 131 iPd 16 03.00 2.0
SNY 50.57 19 eP 16 11.70 5.1X
Z 18s 0.83um 4.8Msz
CAN 50.60 132 iPd 16 07.90 0.8
i 16 17.30
ARMA 50.83 125 eP 16 10.20 1.2
1.1s 25.00nm 5.2mb
CNB 50.87 132 eP 16 09.80 0.6
WMQ 51.56 345 P 16 13.60 -0.6
1.4s 23.00nm 5.0mb
Z 28s 0.62um 4.5MszX
E 17s 0.79um
PcP 17 21.70
PP 18 16.50
ScP 21 15.00
PcS 21 22.00
KSH 52.00 332 P 16 16.50 -1.2
1.0s 23.00nm 5.2mb
Z 18s 1.22um 5.0Msz
N 14s 1.01um
pP 16 32.50 61kmX
sP 16 40.50
PcP 17 22.00
PP 18 19.00
ScP 21 15.00
sS 24 07.00
ScS 25 58.00
CHJJ 52.87 35 eP 16 22.50 -1.6
CN2 52.95 19 P 16 24.00 -0.5
1.0s 14.00nm 4.9mb
Z 18s 0.90um 4.9Msz
YAMJ 54.95 34 P 16 38.60 -0.7
MDJ 55.11 22 eP 16 40.60 0.3
OFUJ 56.50 35 P 16 49.40 -1.0
IRK 57.81 0 eP 17 06.60 7.2X
1.5s 22.00nm 5.1mb
Z 16s 3.94um 5.6MszX
CIT 58.10 7 eP 17 00.50 -1.0
MRRJ 58.52 31 eP 17 11.50 7.0X
ASAJ 60.53 31 eP 17 17.90 -0.4
ASH 60.86 320 eP 17 18.60 -2.1
KUSJ 60.92 33 eP 17 20.40 -0.5
DZM 62.17 112 iPc 17 29.80 -0.1
YSS 62.63 29 iPd 17 31.70 -0.6
i 17 38.50
BOD 63.92 6 iPc 17 38.20 -2.4
1.0s 19.00nm 5.0mb
YAK 70.40 12 iPc 18 19.20 -2.1
1.1s 70.00nm 5.5mb
Z 16s 0.90um 5.1MszX
N 13s 0.40um
E 18s 0.40um
MTA 71.74 317 iPd 18 30.20 0.4
0.8s 20.00nm 5.1mb
SVE 71.74 336 iPd 18 30.00 0.5
2.1s 120.00nm 5.5mb

Z 18s 0.50um 4.8Msz
N 18s 0.20um
E 18s 0.50um
GRO 71.88 319 eP 18 32.00 1.4
2.0s 240.00nm 5.8mb
ARU 72.29 335 ePc 18 32.00 -0.8
1.1s 40.00nm 5.3mb
i 18 40.00
KIV 74.10 319 eP 18 43.90 0.1
1.2s 24.00nm 5.0mb
e 18 59.60
(S) 28 19.90
SLR 74.83 245 e(P) 18 45.00 -3.4X
FRS 77.50 241 eP 19 04.50 1.4
TIK 78.93 8 iPd 19 09.00 -1.1
1.2s 14.00nm 4.8mb
Z 16s 0.80um 5.1MszX
e 19 17.00
e 29 07.00
eS 29 21.00
e 29 28.00
MOS 81.86 328 eP 19 26.00 0.2
i 19 35.00
OBN 82.16 328 iPd 19 28.50 1.1
1.0s 28.00nm 5.1mb
Z 20s 0.40um 4.8Msz
i 19 37.00
NVL 85.38 199 P 19 54.00 10.5X
MNK 86.80 325 eP 19 51.00 0.3
UZH 88.94 319 eP 20 02.80 1.7
1.0s 17.00nm 5.2mb
e 20 09.00
e 20 18.30
KAF 89.42 333 iP 20 03.40 0.3
0.8s 13.10nm 5.2mb
NUR 89.85 331 eP 20 04.40 -0.7
0.8s 11.50nm 5.2mb
OJC 90.80 320 eP 20 10.10 0.3
KSP 93.10 321 eP 20 20.20 -0.1
LJU 93.87 316 eP 20 26.00 2.0
i 20 37.00
BRG 94.58 321 i(P) 20 28.40 1.3
GRB5 95.96 319 e(P) 20 32.10 -1.5
1.0s 5.00nm 5.0mb
YKA 116.65 19 ePKP 25 49.40 -1.0
0.6s 0.60nm
RMW 122.85 36 ePKP 26 04.73 1.9
NTYM 126.62 46 ePKP 26 13.31 3.0X
LRM 129.03 32 ePKP 26 15.10 0.1
MEMM 129.57 45 ePdiff23 11.34 7.6X
SSK 132.05 48 ePKP 26 23.89 2.9X
RSSD 134.48 29 ePKP 26 26.26 0.9
eSKP 29 55.10
PV10 135.72 38 ePKP 26 29.51 1.5
WMOK 144.20 33 ePKP 26 41.50 -1.5
MEO 144.28 33 iPKPc 26 42.00 -1.1
TUL 144.83 29 iPKPc 26 44.00 0.0
BAO 145.20 232 PKPc 26 46.10 0.8
BDFB 145.21 232 ePKP 26 45.93 0.6
MCWV 146.06 6 ePKP 26 47.35 1.4
ELC 146.32 19 ePKP 26 47.89 1.4
CVL 147.84 4 ePKP 26 51.49 2.6X
NAV 148.27 8 ePKP 26 51.36 1.7
MYNC 149.84 14 ePKP 26 53.31 1.2
PRM 151.18 11 ePKP 26 58.68 4.6X
MOCB 151.35 200 PKP 26 56.00 0.7
LPB 156.57 199 ePKP 27 23.00 20.4X
LPAZ 156.81 199 PKP 27 16.00 12.9X
LR 21 05.00
S.D. = 1.2 on 89 of 109 obs.

& DEC 25, 1993 14h 24m 38.52s
37.638 N 118.973 W
DEPTH = 7.7km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.9 (GM).

MEMM 0.04 43 ePc 24 40.13 -0.1
MMPM 0.05 237 eP 24 40.26 -0.4
MCSM 0.06 73 P 24 40.40 -0.3
HTCR 0.19 124 P 24 42.54 -0.3
MRCM 0.37 85 eP 24 46.98 0.8
MTUM 0.43 131 ePd 24 46.93 -0.4
eS 24 52.79
BCKR 0.48 83 P 24 48.22 0.0
BHPR 0.51 131 P 24 48.62 -0.3
BONR 0.62 59 eP 24 50.50 -0.5

MSTM 1.17 284 P 24 59.81 -0.7
CMB 1.19 290 ePd 25 00.09 -0.8
TNP 1.46 72 eP 25 06.03 0.6
MNHM 1.54 290 P 25 06.67 0.3
KVN 1.57 26 eP 25 07.34 0.4
PHBM 1.65 213 P 25 09.30 1.4
BRMM 1.68 242 P 25 09.69 1.3
BMSM 1.75 237 P 25 11.02 1.5
HVC 1.94 230 P 25 13.50 1.3
RCWM 1.99 147 P 25 15.48 2.5
LTR 2.01 249 P 25 14.43 1.3
ISA 2.01 168 eP 25 14.82 1.6
HJSM 2.03 247 P 25 15.10 1.7
ARN 2.06 263 eP 25 13.83 0.0
BLRM 2.08 243 P 25 16.59 2.5
WOFM 2.11 174 P 25 16.62 1.9
PHAM 2.13 213 (P) 25 16.54 1.6
BVYM 2.14 246 P 25 16.34 1.2
SAO 2.16 247 eP 25 16.15 0.8
COE 2.18 261 eP 25 15.66 0.0
WBSM 2.20 162 P 25 19.37 3.2
CBO 2.23 257 P 25 18.22 1.9
TPNV 2.28 107 eP 25 19.00 1.8
HMR 2.30 284 eP 25 18.91 1.6
BCH 2.61 200 (P) 25 22.85 1.0
MARC 2.65 187 P 25 23.98 1.7
ORV 2.75 315 eP 25 24.11 0.3
ABL 2.79 184 eP 25 25.07 0.5
GSC 2.91 142 (P) 25 30.17 4.0
ARUT 4.39 86 (Pn) 25 50.76 3.6
ePg 26 04.77
PLM 4.61 157 eP 25 51.43 1.1
MSU 5.44 79 (Pn) 26 06.32 4.2
ePg 26 27.36
DUG 5.44 60 (Pn) 26 06.51 4.4
ePg 26 22.30
HVU 6.32 47 (Pn) 26 20.79 6.3
DAU 6.62 63 (Pn) 26 17.89 -0.9
SRU 6.80 75 (Pn) 26 25.72 4.5
45 obs. associated

DEC 25, 1993 15h 10m 12.13± 0.77s
38.342 N ± 6.8km 21.865 E ± 8.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (ATH), 2.9 (THE).

AGG 0.77 28 ePg 10 26.04 -1.1
eSg 10 37.48
VLS 1.02 261 ePb 10 30.30 -1.1
ATH 1.51 104 ePb 10 39.50 0.4
IGT 1.69 315 ePb 10 45.76 4.0X
LIT 1.82 15 ePb 10 44.64 0.9
eSb 11 09.00
VLI 1.83 152 ePn 10 44.50 0.6
KZN 1.96 358 ePb 10 39.50 -6.4X
PAIG 2.12 41 ePn 10 47.20 -0.9
FNA 2.47 351 ePn 10 54.98 1.9
OUR 2.58 39 ePn 10 53.64 -0.9
GRG 2.64 9 ePn 10 56.18 0.6
SOH 2.73 24 ePn 10 56.74 -0.1
OHR 2.89 344 ePn 11 03.30 4.3X
VAY 3.02 10 iPn 11 03.70 2.8X
SRS 3.07 25 ePn 11 01.34 -0.3
SKO 3.64 355 ePn 11 05.00 -4.7X
S.D. = 1.1 on 11 of 16 obs.

DEC 25, 1993 15h 33m 35.57± 0.34s
37.467 N ± 6.1km 68.253 E ± 4.9km
DEPTH = 33.0km (normal)
4.5mb (21 obs.)
AFGHANISTAN-TAJIKISTAN BORD REG.(717)

KSH 6.38 70 Pn 35 09.00 -0.9
0.2s 36.00nm 5.8mb X
Sn 36 22.50
MAIO 7.12 263 ePn 35 18.00 -2.1
0.7s 12.71nm 5.0mb
eSn 36 50.00
FRU 7.24 40 ePn 35 21.00 -0.8
iS 36 43.80
i 37 41.00
QUE 7.34 189 eP 35 26.80 3.4X
e(S) 38 32.50
ASH 7.87 277 eP 35 28.00 -2.5X
S 37 11.00
NDI 11.54 137 iPd 36 19.00 -2.0

```
     0.6s    93.33nm        6.1mb X
            eS     38 23.00
WMQ   16.05  61 P     37 16.00  -4.4X
     0.7s     6.90nm        3.9mb
            pP     37 22.00
            sP     37 27.50
            PP     37 31.00
GKN   16.69 120 P     37 24.30  -4.3X
DMN   17.26 120 P     37 32.00  -3.8X
KKN   17.26 119 P     37 31.00  -4.9X
PKI   17.49 119 P     37 34.40  -4.4X
GUN   17.61 118 P     37 36.80  -3.5X
GRO   18.14 296 iPd   37 50.00   3.5X
     1.5s   160.00nm        4.9mb
            eS     41 17.00
SVE   20.01 348 ePd   38 07.80  -0.3
     1.9s    60.00nm        4.6mb
   Z  11s     1.00um        4.4MszX
   N  11s     0.50um
   E  11s     0.50um
ARU   20.02 344 eP    38 08.00  -0.1
PYA   20.14 297 eP    38 15.00   5.4X
KIV   20.39 297 (P)   38 12.00  -0.3
     0.3s     2.00nm        4.0mb
   Z  14s     0.10um        3.3MszX
            S      41 48.60
LSA   20.56 105 P     38 15.00   0.5
     1.0s    13.00nm        4.3mb
HYB   21.94 153 eP    38 28.20   0.1
UER   23.04  44 eP    38 37.80  -0.7
     1.6s    30.00nm        4.5mb
SHL   23.31 114 eP    38 41.50  -0.2
            eS     42 57.50
GTA   24.74  76 P     38 56.50   1.1
     1.0s    24.00nm        4.7mb
   Z  10s     0.64um        4.4MszX
GBA   25.14 159 P     39 00.00   0.9
ZAK   28.06  51 eP    39 25.80   0.1
     1.1s    10.00nm        4.4mb
LZH   28.44  82 eP    39 14.20 -15.3X
     1.5s    19.00nm
   Z  15s     0.29um        4.0MszX
            pP     39 36.00  98kmX
XAN   33.00  83 P     40 09.80   0.1
     1.0s     8.90nm        4.6mb
GYA   34.17  97 P     40 20.80   0.8
CIT   34.73  51 eP    40 24.50   0.0
TIY   34.77  76 eP    40 23.00  -1.9
   Z  15s     0.59um        4.5MszX
BRG   40.29 307 i(P)  41 12.80   1.8
HFS   40.95 322 eP    41 16.30   0.0
     0.3s     1.50nm        4.2mb
   Z  15s     0.06um        3.6MszX
            LR     58 30.00
NJ2   41.52  82 Pc    41 23.10   1.8
     1.0s    18.00nm        4.8mb
SSE   43.72  82 eP    41 40.60   1.3
YAK   44.49  36 eP    41 44.70  -0.4
     1.0s    30.00nm        5.1mb
TIK   45.71  23 iPd   41 55.00   0.3
     0.8s    15.00nm        5.0mb
            e      42 05.00
DAG   53.20 343 iPc   42 52.40   0.1
     0.7s     3.42nm        4.4mb
IMA   71.85  17 eP    44 56.70  -0.1
     0.9s     5.90nm        4.6mb
KIC   72.66 265 Pd    45 02.81   0.6
     0.8s    16.50nm        5.1mb
TIC   72.72 265 P     45 03.03   0.5
     0.7s     2.00nm        4.2mb
LIC   72.97 265 Pd    45 04.53   0.5
     0.7s     1.50nm        4.1mb
FBA   74.13  15 eP    45 09.90   0.0
YKA   80.36   1 eP    45 44.40  -0.1
     0.7s     4.20nm        4.5mb
WRA   84.37 120 P     46 05.40  -0.5
     0.8s     0.70nm        3.9mb
   S.D. = 1.0  on  32 of  43 obs.
-------------------------------------
% DEC  25, 1993  15h 33m 41.50± 0.82s
  44.422 N ± 6.8km     7.227 E ± 9.4km
  DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                  (545)
    ML 2.1 (GEN).

PZZ    0.12 313 P     33 44.23   0.1
            S      33 46.02
STV    0.19 159 P     33 45.42   0.0
            S      33 48.12
ENR    0.24 145 P     33 46.38   0.0
            S      33 49.45
BHB    0.42   4 P     33 49.86  -0.1
            S      33 55.40
ROB    0.48 105 P     33 51.19   0.1
            S      33 57.82
   S.D. = 0.1  on   5 of   5 obs.
-------------------------------------
? DEC  25, 1993  15h 43m 57.63± 0.87s
  44.432 N ± 7.6km     7.253 E ±13.5km
  DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                  (545)
    ML 1.8 (GEN).

PZZ    0.13 304 P     44 00.48   0.0
            S      44 02.31
STV    0.19 165 P     44 01.53  -0.1
            S      44 03.95
ENR    0.24 150 P     44 02.63   0.1
            S      44 05.69
BHB    0.41   1 P     44 05.83   0.0
            S      44 11.28
   S.D. = 0.2  on   4 of   4 obs.
-------------------------------------
& DEC  25, 1993  16h 08m 17.45s
  62.891 N            149.281 W
  DEPTH =  69.5km
 CENTRAL ALASKA                  (  1)
    <AEIC>. ML 2.6 (AEIC).

HUR    0.18 298 eP    08 27.99  -0.1
            eS     08 35.96
RND    0.55  20 eP    08 30.71  -0.3
CUT    0.67 224 iP    08 31.97  -0.2
            eS     08 42.82
MCK    0.86  10 eP    08 34.18  -0.3
KTH    1.00 313 eP    08 36.13  -0.1
            eS     08 51.43
GHO    1.14 171 eP    08 37.70  -0.3
            eS     08 54.13
SML    1.17 157 eP    08 37.94  -0.5
PWA    1.28 193 eP    08 39.61  -0.1
BWN    1.29 356 eP    08 39.29  -0.7
            eS     08 57.93
PLRM   1.31 177 eP    08 40.11   0.0
PMR    1.31 177 eP    08 39.70  -0.4
SKT    1.39 230 eP    08 40.78  -0.5
            eS     08 59.57
SCM    1.40 139 eP    08 41.61   0.1
            eS     09 01.31
KNK    1.53 165 eP    08 43.40   0.1
            eS     09 04.93
SUA    1.59 206 eP    08 44.06  -0.1
            eS     09 06.10
TOA    1.64 117 eP    08 45.61   0.8
PMS    1.66 185 eP    08 45.86   0.9
WRH    1.67  18 eP    08 44.08  -1.1
NEA    1.70   3 eP    08 44.28  -1.2
            eS     09 04.91
PAX    1.75  86 eP    08 46.08  -0.2
            eS     09 08.42
DDM    1.78  58 eP    08 46.92   0.2
HDA    1.84  33 iP    08 46.43  -1.1
CFI    1.86 157 eP    08 47.09  -0.6
CCB    1.88  20 eP    08 46.72  -1.3
DJE    1.98  53 eP    08 50.39   1.0
TZL    1.98 114 eP    08 50.05   0.6
NCG    2.01 223 eP    08 49.82  -0.1
CGLM   2.04 220 eP    08 50.41   0.1
PWL    2.09 167 eP    08 50.64  -0.3
KLU    2.11 130 eP    08 50.39  -0.9
CRP    2.12 221 eP    08 51.17  -0.3
FBA    2.12  17 eP    08 49.76  -1.6
MDM    2.13  12 eP    08 50.45  -1.0
CP2    2.15 222 eP    08 52.28   0.4
SPU    2.16 219 eP    08 51.80  -0.1
CKN    2.16 221 eP    08 53.15   1.2
IL1    2.17  28 eP    08 50.62  -1.3
ILB    2.17  28 eP    08 50.56  -1.4
CKT    2.19 220 eP    08 53.14   0.8
BGL    2.19 223 eP    08 53.00   0.6
MLY    2.24 344 eP    08 51.89  -1.2
VZW    2.24 144 eP    08 51.89  -1.2
VLZ    2.25 140 eP    08 51.61  -1.4
GLM    2.26  21 eP    08 52.08  -1.3
BKG    2.31 219 eP    08 53.86  -0.1
MPA    2.41 181 eP    08 56.75   1.4
SLKM   2.43 191 eP    08 56.57   0.9
DOT    2.48  70 eP    08 56.49   0.1
SEW    2.80 182 eP    09 01.13   0.4
DFR    2.82 217 eP    09 01.81   0.7
HIN    2.83 151 eP    08 59.82  -1.5
CVA    2.89 143 eP    09 00.87  -1.2
REF    2.91 216 eP    09 03.66   1.1
RDW    2.94 216 eP    09 03.76   0.8
GLB    2.95 117 eP    09 02.28  -0.7
TTA    3.08 274 eP    09 03.65  -1.1
BC3    3.43  84 eP    09 08.07  -1.5
SVW    3.48 242 P     09 09.80  -0.6
IM3    3.66 330 eP    09 11.01  -1.8
IMA    3.71 331 eP    09 11.64  -2.1
       60 obs. associated
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  DEC  25, 1993  16h 23m 20.23± 0.86s
  43.782 N ± 5.2km     7.267 E ± 3.9km
  DEPTH =  11.1 ±  6.3 km
 NEAR SOUTH COAST OF FRANCE      (379)
    ML 2.4 (GEN).

REVF   0.08 120 Pg    23 22.39  -0.6
AURF   0.11  23 Pg    23 23.27  -0.1
            Sg     23 25.53
MVIF   0.14 324 Pg    23 23.71  -0.1
            Sg     23 27.17
TOUF   0.23 357 Pg    23 25.38   0.0
            Sg     23 29.51
AUTN   0.24  29 Pg    23 25.64   0.0
            Sg     23 30.16
CALN   0.27 264 Pg    23 26.55   0.4
            Sg     23 32.18
SAOF   0.29  46 Pg    23 26.31  -0.1
            Sg     23 30.73
ENR    0.46  14 P     23 29.62   0.0
            S      23 35.89
STV    0.46   5 P     23 29.62  -0.1
            S      23 35.98
IMI    0.47  74 P     23 29.53  -0.3
            S      23 35.84
ROB    0.67  40 P     23 33.51   0.0
PZZ    0.73 351 P     23 34.50  -0.1
            S      23 44.38
FIN    0.80  58 P     23 36.12   0.4
BHB    1.06 360 P     23 39.55  -0.6
PCP    1.19  50 P     23 43.62   1.2
   S.D. = 0.5  on  15 of  15 obs.
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& DEC  25, 1993  16h 44m 22.30s
  46.506 N             75.606 W
  DEPTH =  18.0km  (geophysicist)
 SOUTHERN QUEBEC, CANADA         (447)
    <OTT-P>. mbLg 4.3 (OTT). Felt
    strongly at Mont-Laurier. Also
    felt at Maniwaki.

GAC    0.81 174 Pgd   44 37.46   0.0
            Sg     44 47.54
OTT    1.11 184 Pgd   44 42.52  -0.2
            Sg     44 57.57
CKO    1.38 249 Pgd   44 47.20   0.6
            Sg     45 05.23
WBO    1.52 171 Pnd   44 49.70   1.0
            Sg     45 09.07
MNT    1.71 125 Pnd   44 51.78   0.4
            Sg     45 14.80
DPQ    1.96  84 Pnd   44 55.54   0.5
            Sg     45 21.65
RSNY   2.10 158 eP    44 57.71   0.6
            eS     45 24.86
EEO    2.40 274 Pn    45 02.21   0.9
            Pg     45 04.62
            Sg     45 37.39
WLVO   3.25 218 P     45 13.27  -0.1
DAQ    3.31  62 Pn    45 13.30  -1.1
            Pg     45 18.61
            Sg     46 03.45
LBNH   3.44 130 eP    45 16.80   0.6
            eS     46 01.11
STCO   4.16 219 P     45 25.45  -0.8
ACTO   4.28 229 P     45 27.79  -0.3
TYNO   4.56 223 P     45 30.87  -1.2
LSCT   5.12 160 (P)   45 38.84  -1.1
CBM    5.17  83 eP    45 39.21  -1.4
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25d 16h

GPD 5.55 171 eP 45 44.69 -1.4
PAL 5.64 167 eP 45 46.32 -0.9
MCWV 7.51 206 eP 46 10.87 -2.7
CVL 8.78 195 eP 46 29.37 -1.8
CEH 10.92 195 eP 46 56.92 -3.8
21 obs. associated

% DEC 25, 1993 16h 48m 19.72± 0.92s
44.227 N ± 6.4km 8.230 E ± 7.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN 0.02 222 P 48 21.91 0.2
S 48 22.87
ROB 0.27 285 P 48 25.61 0.2
S 48 29.14
PCP 0.39 36 P 48 27.63 -0.1
S 48 33.03
IMI 0.40 218 P 48 27.95 0.0
S 48 33.85
ENR 0.58 270 P 48 31.11 -0.5
S 48 38.93
PZZ 0.86 289 P 48 36.41 0.1
BHB 0.93 312 P 48 37.47 0.1
S.D. = 0.3 on 7 of 7 obs.

& DEC 25, 1993 17h 21m 05.33s
60.504 N 151.777 W
DEPTH = 68.3km
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 2.7 (AEIC).

NKA 0.36 48 eP 21 17.93 1.1
DFR 0.46 282 iP 21 17.16 -0.7
eS 21 27.01
REF 0.46 269 iP 21 17.36 -0.6
eS 21 27.21
RS2 0.49 266 iP 21 17.67 -0.6
RED 0.50 261 iP 21 17.53 -0.8
eS 21 27.77
eS 21 27.80
RDW 0.51 268 eP 21 17.81 -0.7
eS 21 28.59
NCT 0.57 276 eP 21 18.26 -0.8
eS 21 29.12
BKG 0.62 337 eP 21 18.78 -0.7
eS 21 30.22
SPU 0.69 349 eP 21 19.47 -0.8
ILIM 0.73 235 iP 21 19.90 -0.8
eS 21 32.14
CKT 0.73 343 eP 21 20.07 -0.7
eS 21 31.97
CKL 0.75 339 eP 21 20.70 -0.3
CKN 0.75 345 eP 21 20.61 -0.3
SLKM 0.77 89 eP 21 20.31 -0.9
eS 21 32.50
INE 0.78 236 eP 21 20.43 -1.0
CRP 0.79 347 eP 21 20.39 -1.1
eS 21 32.78
CP2 0.80 344 ePd 21 20.86 -0.8
eS 21 33.30
CGLM 0.81 352 eP 21 21.17 -0.6
BGL 0.82 339 eP 21 21.34 -0.5
HOM 0.85 175 eP 21 21.87 -0.2
eS 21 35.62
BRLK 0.87 149 eP 21 21.70 -0.7
eS 21 35.10
NCG 0.92 349 iP 21 22.52 -0.6
eS 21 36.69
CNPM 1.02 164 eP 21 23.73 -0.5
eS 21 38.01
SUA 1.09 27 eP 21 24.60 -0.7
eS 21 39.66
OPT 1.12 221 eP 21 25.06 -0.6
eS 21 40.31
MPA 1.20 90 eP 21 26.06 -0.5
SEW 1.23 108 eP 21 25.84 -1.1
PMS 1.31 55 P 21 27.30 -0.9
AUL 1.40 217 eP 21 29.09 -0.2
AUE 1.40 216 eP 21 28.73 -0.6
PDB 1.41 240 eP 21 27.60 -1.8
eS 21 45.47
AUW 1.42 218 eP 21 29.22 -0.4
PWA 1.48 38 P 21 29.30 -1.0
SKT 1.49 5 eP 21 29.50 -1.0
eS 21 48.79
PLRM 1.69 49 eP 21 31.92 -1.3
PMR 1.69 49 eP 21 30.74 -2.4
PWL 1.73 77 eP 21 32.02 -1.8
CDD 1.84 212 eP 21 34.34 -1.0
KNK 1.86 59 eP 21 34.04 -1.6
GHO 1.88 46 eP 21 34.84 -1.1
SVW 1.98 289 eP 21 34.53 -2.8
CFI 2.08 69 eP 21 36.31 -2.2
MTU 2.12 102 eP 21 36.97 -2.2
SML 2.12 50 eP 21 37.59 -1.7
SCM 2.54 56 eP 21 43.12 -1.9
VZW 2.62 75 eP 21 43.29 -2.9
FID 2.62 82 eP 21 41.80 -4.4
VLZ 2.74 74 eP 21 45.11 -2.7
KLU 3.02 68 eP 21 49.12 -2.7
FBA 4.78 21 eP 22 13.55 -2.9
50 obs. associated

% DEC 25, 1993 18h 12m 10.89± 2.33s
44.386 N ±10.1km 6.801 E ±17.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN).

PZZ 0.25 61 P 12 16.55 0.3
S 12 19.53
STV 0.40 111 P 12 19.30 0.2
S 12 24.06
ENR 0.47 110 P 12 20.58 0.1
S 12 26.07
RRL 0.53 359 P 12 21.91 0.2
S 12 29.14
BHB 0.56 36 P 12 21.91 -0.4
S 12 28.82
ROB 0.77 96 P 12 26.03 0.0
S 12 35.50
IMI 0.92 121 P 12 28.47 0.0
S 12 39.53
FIN 1.03 99 P 12 29.96 -0.4
S.D. = 0.3 on 8 of 8 obs.

? DEC 25, 1993 18h 41m 53.00± 3.77s
40.663 N ±19.9km 23.469 E ±18.9km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.8 (THE).

SOH 0.18 331 ePg 41 57.14 0.4
eSg 42 00.30
THE 0.38 266 iPg 42 00.74 0.0
eSg 42 06.54
SRS 0.46 12 ePg 42 02.22 -0.1
eSg 42 09.50
KNT 0.66 319 ePg 42 05.86 -0.3
eSg 42 15.90
S.D. = 0.5 on 4 of 4 obs.

? DEC 25, 1993 19h 11m 17.75± 5.88s
32.540 S ±32.6km 72.101 W ±32.4km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)
MD 3.8 (SAN).

ROCH 1.01 115 iPd 11 36.94 -0.2
iS 11 46.79
LCCH 1.03 155 iP+ 11 37.26 0.0
iS 11 47.62
JACH 1.28 97 iP+ 11 41.76 0.2
iS 11 55.96
PEL 1.34 117 iP+ 11 42.17 -0.2
iS 11 56.58
TACH 1.48 139 iP 11 43.87 -0.6
iS 11 59.23
SAN 1.51 127 iP 11 45.28 0.3
iS 12 01.73
LNV 1.53 158 iP 11 44.62 -0.4
FCH 1.71 118 iP+ 11 48.03 -0.1
iS 12 07.11
PCH 1.71 129 iP 11 47.98 0.1
CACH 2.01 142 iP 11 53.28 1.0
iS 12 17.31
S.D. = 0.5 on 10 of 10 obs.

& DEC 25, 1993 19h 26m 28.12s
38.807 N 122.789 W
DEPTH = 4.9km
NORTHERN CALIFORNIA (36)
<GM-P>. MD 3.0 (GM). ML 3.0
(BRK).

GGPM 0.06 226 P 26 29.63 -0.2
GAXM 0.10 165 P 26 30.23 -0.1
GPMM 0.13 288 P 26 30.96 0.1
GCVM 0.18 258 P 26 32.06 0.2
MAC 0.26 169 P 26 33.63 0.2
GHVM 0.28 9 P 26 34.29 0.5
GSNM 0.34 293 P 26 35.29 0.3
GCWM 0.39 325 P 26 36.04 0.0
NTYM 0.43 166 eP 26 36.65 -0.1
NBPM 0.49 106 P 26 38.70 0.8
GGUM 0.56 275 P 26 39.41 0.2
NTBM 0.57 191 P 26 40.68 1.2
GCBM 0.81 316 P 26 44.86 0.5
OSUM 0.86 57 P 26 45.27 0.1
ZSP 0.96 154 iPd 26 46.46 -0.3
eS 26 59.25
AGC 0.99 163 P 26 47.36 0.1
DUC 0.99 141 P 26 48.34 0.9
HMR 1.01 130 eP 26 47.08 -0.7
BKS 1.03 155 ePc 26 47.64 -0.3
eS 27 02.81
BGC 1.14 150 P 26 50.91 0.9
LKC 1.21 152 P 26 51.38 0.2
APRM 1.23 86 P 26 49.56 -1.9
ORV 1.25 53 eP 26 49.97 -1.8
iS 27 20.05
KBSM 1.27 331 P 26 54.34 2.1
JHPM 1.41 164 P 26 55.30 0.8
STAN 1.48 161 eP 26 56.31 0.8
iS 27 16.36
MHC 1.72 148 eP 26 57.55 -1.5
ARN 1.76 145 eP 26 58.04 -1.5
COE 1.78 150 eP 26 58.54 -1.2
WDC 1.78 6 eP 26 58.74 -1.0
KMPM 1.91 328 ePn 27 02.38 0.7
LMEM 1.97 28 (P) 27 04.08 1.4
CMB 2.04 111 ePc 27 02.46 -1.1
eS 27 28.72
FHC 2.19 336 ePgd 27 14.23 8.4
SAO 2.30 152 eP 27 05.22 -2.1
LBFM 2.63 15 ePn 27 12.65 0.5
FRI 3.04 126 eP 27 17.01 -0.7
PRI 3.15 147 eP 27 18.62 -0.9
MMPM 3.19 111 ePn 27 20.43 0.1
MEMM 3.24 109 ePn 27 19.96 -0.6
BONR 3.63 102 ePn 27 26.44 0.0
MTUM 3.64 112 ePn 27 27.05 0.6
KVN 3.67 85 ePg 27 34.49 7.6
TNP 4.43 98 ePn 27 38.56 0.8
ISA 4.66 131 eP 27 39.24 -1.6
45 obs. associated

? DEC 25, 1993 19h 57m 01.50± 3.00s
44.945 N ±13.6km 6.723 E ±29.9km
DEPTH = 33.0km (normal)
FRANCE (538)
ML 1.8 (GEN).

RRL 0.05 120 P 57 07.65 0.2
S 57 10.12
BHB 0.40 105 P 57 11.13 0.5
S 57 17.35
RSP 0.43 61 P 57 10.81 -0.4
S 57 16.76
PZZ 0.52 148 P 57 11.72 -0.8
S 57 17.58
ENR 0.87 145 P 57 17.90 0.4
S.D. = 0.8 on 5 of 5 obs.

? DEC 25, 1993 20h 28m 19.76± 1.94s
36.778 N ±22.5km 2.995 W ± 7.8km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.9 (MDD).

EGUA 0.46 277 iPc 28 29.28 0.1
e 28 36.00
ENIJ 0.66 73 iPc 28 32.80 -0.1
e 28 41.40
ECOG 0.68 318 iPc 28 32.45 -0.8
e 28 42.10
EBAN 1.52 336 eP 28 47.84 0.8
e 29 06.80
S.D. = 1.2 on 4 of 4 obs.

? DEC 25, 1993 20h 38m 02.66± 0.95s
44.458 N ± 6.9km 7.294 E ±12.5km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.6 (GEN).

PZZ 0.15 289 P 38 05.79 0.0
S 38 07.58
STV 0.21 174 P 38 06.94 -0.1
S 38 09.50
ENR 0.25 159 P 38 07.85 0.1
S 38 11.01
BHB 0.38 357 P 38 10.37 0.0
S 38 16.78
S.D. = 0.2 on 4 of 4 obs.

& DEC 25, 1993 20h 47m 46.70s
59.999 N 152.442 W
DEPTH = 85.5km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.27 288 eP 47 59.02 -0.7
eS 48 09.36
INE 0.32 282 eP 47 59.43 -0.7
eS 48 09.93
RED 0.45 339 eP 48 00.21 -0.7
eS 48 11.07
RS2 0.49 341 eP 48 00.77 -0.6
REF 0.51 345 eP 48 00.86 -0.6
eS 48 12.14
RDW 0.52 339 eP 48 00.94 -0.6
OPT 0.53 229 eP 48 00.78 -0.7
eS 48 12.65
HOM 0.53 130 eP 48 01.18 -0.2
eS 48 12.50
DFR 0.61 349 eP 48 01.48 -0.8
eS 48 13.30
NCT 0.61 337 eP 48 01.15 -1.2
CNPM 0.77 127 eP 48 03.05 -0.8
AUE 0.80 217 eP 48 03.02 -1.0
AUL 0.80 220 eP 48 03.40 -0.7
AUH 0.81 219 eP 48 03.38 -0.9
AUW 0.82 220 eP 48 03.55 -0.7
BRLK 0.82 106 eP 48 03.76 -0.6
eS 48 16.73
PDB 0.91 257 eP 48 04.38 -0.9
eS 48 18.16
NKA 0.96 38 eP 48 06.79 1.0
BKG 1.08 5 eP 48 06.77 -0.6
eS 48 22.69
SPU 1.20 9 eP 48 08.06 -0.8
eS 48 24.67
CKT 1.21 5 eP 48 08.19 -0.8
eS 48 24.93
SLKM 1.22 64 eP 48 07.64 -1.4
CDD 1.24 210 eP 48 07.98 -1.3
CKN 1.24 6 eP 48 08.75 -0.5
BGL 1.27 1 iP 48 09.09 -0.7
eS 48 27.44
CP2 1.27 4 eP 48 09.02 -0.9
eS 48 24.58
CRP 1.28 6 eP 48 08.71 -1.3
CGLM 1.33 9 eP 48 09.84 -0.7
SYI 1.39 179 eP 48 10.36 -0.9
NCG 1.42 6 eP 48 10.98 -0.7
eS 48 29.97
SEW 1.51 85 eP 48 10.99 -1.7
MPA 1.61 71 eP 48 12.55 -1.5
SUA 1.69 29 eP 48 14.82 -0.4
PMS 1.89 47 P 48 17.00 -0.9
SKT 2.04 12 eP 48 18.62 -1.2
PWA 2.08 36 P 48 19.50 -0.8
PWL 2.21 65 eP 48 19.78 -2.4
PLRM 2.28 44 eP 48 21.43 -1.6
PMR 2.28 44 eP 48 21.19 -1.8
MTU 2.41 88 eP 48 22.90 -1.9
KNK 2.42 52 eP 48 22.85 -2.2
GHO 2.47 43 eP 48 23.54 -2.3
CFI 2.59 61 eP 48 25.92 -1.4
CUT 2.63 23 eP 48 26.53 -1.4
SML 2.71 46 eP 48 27.11 -1.9
HIN 2.99 80 eP 48 29.80 -3.1
FID 3.06 73 eP 48 30.80 -3.0
SCM 3.10 51 eP 48 32.56 -1.9
KLU 3.53 62 eP 48 37.44 -3.0

TRF 3.61 16 eP 48 41.08 -0.5
FBA 5.37 22 eP 49 02.75 -3.2
51 obs. associated

? DEC 25, 1993 20h 52m 58.76±10.64s
45.182 N ±39.8km 16.540 E ±73.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.4 (TRI).

ZAG 0.75 329 e(Pg) 53 14.70 1.3
iSg 53 30.70
PTJ 0.83 331 iPg 53 13.60 -1.2
iSg 53 31.50
VBY 0.96 290 ePg 53 16.60 -0.4
e(Sg) 53 34.50
RIY 1.53 277 ePn 53 25.00 -1.1
CEY 1.59 291 ePn 53 28.30 1.3
i 53 29.70
eSn 53 54.50
HVAR 2.00 182 iPn 53 23.30 -9.7X
iSn 53 47.20
UZD 2.01 45 ePn 53 28.90 -4.1X
TRI 2.02 286 ePn 53 34.50 1.2
eSg 54 03.70
VOY 2.04 296 ePn 53 33.80 0.1
iPg 53 36.40
eSn 54 00.90
e(Sg) 54 10.70
KBA 2.92 312 iPnd 53 49.20 2.9X
iPg 53 55.50
iSn 54 21.80
iSg 54 36.80
WTTA 3.99 303 iPnd 54 00.20 -1.2
i 54 05.90
i 54 51.20
i 54 52.50
FIR 4.03 251 ePg 54 31.50 29.7X
iSg 54 51.00
KHC 4.44 334 Pn 54 04.00 -3.6X
e 54 10.50
eSg 54 55.90
e 55 11.50
e 55 28.00
S.D. = 1.4 on 8 of 13 obs.

DEC 25, 1993 20h 54m 34.38± 0.93s
5.570 S ± 6.6km 147.680 E ±12.2km
DEPTH = 203.2 ± 5.1 km
4.7mb (12 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 1.28 212 iPc 55 07.00 0.2
YYYY 1.83 249 iPc 55 12.00 0.1
MDG 1.92 279 eP 55 12.50 -0.1
eS 55 43.00
PMG 3.85 188 iPc 55 33.70 -1.2
eS 56 20.00
MNDI 4.04 262 iPc 55 36.40 -1.2
eS 56 36.00
WWKK 4.48 295 eP 55 45.00 2.1
QIS 16.84 207 iPc 58 20.00 -0.1
MTN 17.86 245 eP 58 30.10 -1.0
0.6s 77.00nm 5.3mb
WB2 19.29 221 iPc 58 45.60 -0.4
0.4s 122.10nm 5.8mb X
eS 02 11.80
ASPA 22.36 215 iPd 59 17.90 1.6
0.6s 83.30nm 5.5mb
iS 03 13.30
i 03 24.80
iSS 10 12.10
ARMA 25.00 172 iPc 59 51.40 10.1X
0.6s 19.00nm
WARB 28.71 222 eP 00 15.50 0.6
0.3s 7.00nm 4.9mb
CNB 29.64 177 iPc 00 24.00 1.0
MBL 31.12 238 iPd 00 35.20 -0.9
0.5s 10.00nm 4.8mb
NANU 35.34 238 eP 01 04.00 -8.2X
COOL 35.43 221 iPd 01 12.80 -0.1
MRWA 38.07 228 iPd 01 35.20 0.1
0.5s 23.00nm 5.1mb
KLB 38.15 224 eP 01 35.00 -0.7
0.4s 9.00nm 4.7mb
BAL 38.31 226 eP 01 37.20 0.1
MUN 39.44 224 eP 01 46.90 0.6

RKG 40.45 220 iPc 01 55.70 1.1
0.5s 8.00nm 4.5mb
LZH 58.33 319 eP 04 10.60 -0.1
1.5s 24.00nm 4.7mb
GUN 68.20 303 P 05 15.80 0.2
0.6s 8.00nm 4.6mb
PKI 68.49 302 P 05 16.90 -0.4
KKN 68.66 303 P 05 18.10 -0.2
DMN 68.75 302 P 05 18.60 -0.3
0.6s 6.00nm 4.5mb
GKN 69.27 303 P 05 21.20 -0.7
0.6s 7.00nm 4.6mb
YKA 98.48 28 eP 07 49.90 -0.4
0.9s 0.90nm 4.2mb
LKO 153.22 280 PKP 14 10.51 7.9X
0.7s 2.00nm
S.D. = 0.9 on 26 of 29 obs.

? DEC 25, 1993 21h 30m 18.82± 3.28s
39.036 N ±27.9km 23.374 E ±21.3km
DEPTH = 33.0km (normal)
AEGEAN SEA (365)
ML 2.4 (THE).

AGG 0.81 269 ePg 30 33.80 -0.1
eSg 30 47.28
PAIG 0.92 15 ePg 30 35.80 0.4
LIT 1.26 328 ePb 30 40.80 0.5
eSb 31 00.24
OUR 1.38 20 ePb 30 41.80 -0.1
KNT 2.15 350 ePn 30 52.36 -0.7
S.D. = 0.7 on 5 of 5 obs.

DEC 25, 1993 21h 37m 44.99± 0.55s
71.575 N ± 8.0km 4.074 W ± 6.0km
DEPTH = 10.0km (geophysicist)
4.5mb (22 obs.) 4.0Msz (3 obs.)
JAN MAYEN ISLAND REGION (639)

JNE 1.48 249 eP 38 11.27 -0.4
JNW 1.51 251 eP 38 12.21 0.2
eS 38 24.29
JMI 1.64 249 eP 38 14.14 0.2
eS 38 31.09
LOF 6.98 111 eP 39 24.96 -4.7X
TRO 7.88 93 eP 39 38.00 -4.1X
NSS 9.24 132 iP 39 57.41 -3.7X
MOL 10.09 148 eP 40 05.28 -7.5X
FOO 10.64 156 eP 40 07.90 -12.4X
HFS 13.50 139 eP 40 55.30 -3.5X
0.5s 8.30nm 5.0mb
Z 19s 1.83um 3.7Msz
LR 44 29.00
KAF 15.04 114 iP 41 14.10 -4.8X
0.8s 17.90nm 4.6mb
NUR 15.87 120 iP 41 26.50 -3.1X
0.6s 9.80nm 4.2mb
EKA 16.31 178 P 41 35.00 -0.3
1.2s 13.50nm 4.0mb
PUL 18.10 113 eP 41 56.00 -1.6
Z 15s 1.50um
N 15s 1.40um
E 15s 1.00um
WTS 20.24 160 eP 42 22.00 -0.6
0.4s 4.10nm 4.1mb
ENN 21.37 162 eP 42 33.50 -0.7
0.7s 5.80nm 4.1mb
CLL 21.74 150 iPd 42 37.40 -0.6
1.3s 23.00nm 4.4mb
DOU 21.91 165 P 42 41.90 2.2X
MOX 22.18 153 iPc 42 42.00 -0.3
1.6s 44.00nm 4.7mb
Z 19s 0.20um 3.6Msz
BRG 22.32 149 iPc 42 44.80 1.1
1.3s 30.00nm 4.6mb
MNK 22.41 125 eP 42 39.00 -5.6X
WLF 22.48 162 P 42 46.00 0.7
KSP 22.75 145 iPc 42 47.60 -0.4
1.0s 37.00nm 4.8mb
GRF 23.05 154 iPc 42 52.60 1.6
1.2s 14.00nm 4.4mb
PRU 23.27 149 P 42 54.30 1.2
1.1s 20.10nm 4.6mb
i 43 00.00
MOS 23.63 110 eP 42 56.00 -0.4
e 43 38.00
OBN 23.87 112 ePd 42 59.00 0.2

25d 21h

1.3s 31.00nm 4.7mb
Z 18s 1.70um 4.6Msz
N 16s 1.20um
E 16s 0.70um
i 43 05.00
e 43 29.00
eS 47 16.00
KHC 23.95 151 eP 43 01.00 1.3
1.0s 5.40nm 4.1mb
e 43 08.50
e 43 45.50
OJC 24.02 140 eP 43 01.00 0.6
GEC2 24.24 151 P 43 04.10 1.4
0.9s 5.37nm 4.1mb
e 43 08.70
e 43 12.30
SPC 25.09 140 eP 43 09.50 -1.4
MOTA 25.34 155 iPc 43 14.50 1.3
WTTA 25.49 155 iPc 43 16.00 1.3
1.1s 32.80nm 4.9mb
i 43 29.00
KBA 25.91 152 iPc 43 17.40 -1.2
SRO 26.03 144 eP 43 19.20 -0.3
UZH 26.05 138 eP 43 20.50 0.9
1.2s 37.00nm 4.9mb
TIK 33.85 25 eP 44 30.00 1.2
e 44 34.00
PYA 35.64 115 eP 44 42.00 -2.5
GRO 37.03 112 eP 44 59.00 2.9X
Z 16s 1.50um 4.9MszX
N 15s 2.50um
E 14s 1.00um
YKA 38.01 315 eP 45 04.40 0.2
0.9s 1.80nm 3.8mb
BOD 43.89 43 eP 45 51.90 -0.7
1.3s 12.00nm 4.6mb
MAIO 47.69 102 eP 46 25.00 1.8
LKO 61.98 182 P 48 06.04 -1.2
0.7s 5.50nm 4.9mb
KIC 65.14 181 P 48 26.76 -1.1
0.8s 13.50nm 5.2mb
LIC 65.28 181 P 48 27.41 -1.3
1.0s 6.00nm 4.7mb
Z 20s 0.09um 4.0Msz
S.D. = 1.1 on 33 of 44 obs.

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* DEC 25, 1993 22h 30m 38.40± 1.37s
10.958 S ±12.6km 161.223 E ±17.2km
DEPTH = 33.0km (normal)
4.4mb (5 obs.) 4.4Msz (1 obs.)
SOLOMON ISLANDS (193)

HNR 1.97 320 eP 31 10.00 -0.1
BKM 9.53 135 iPc 32 51.80 -4.6X
DZM 12.13 156 iPc 33 32.20 0.2
PMG 13.93 275 eP 33 56.00 0.2
ARMA 21.32 203 iPc 35 25.00 0.1
0.8s 14.00nm 4.4mb
BWA 26.12 205 eP 36 10.50 -0.8
WB2 27.36 248 iPc 36 22.70 -0.1
0.6s 7.80nm 4.5mb
STK 27.61 218 eP 36 25.20 0.3
2.2s 4.80nm 3.8mb
ASPA 28.92 240 eP 36 40.30 3.5X
1.2s 7.80nm 4.3mb
Z 21s 0.90um 4.4Msz
KMI 67.32 303 eP 41 35.50 2.6X
1.8s 60.00nm 5.4mb
S.D. = 0.5 on 7 of 10 obs.

% DEC 25, 1993 22h 47m 20.97± 1.00s
44.236 N ± 5.6km 8.241 E ± 6.5km
DEPTH = 11.0 ± 7.8 km
NORTHERN ITALY (545)
ML 2.6 (GEN).

FIN 0.04 221 P 47 23.36 0.1
S 47 24.64
ROB 0.27 282 P 47 26.97 0.2
S 47 30.54
PCP 0.38 35 P 47 28.76 0.0
S 47 33.93
IMI 0.41 218 P 47 29.35 -0.1
S 47 34.75
ENR 0.59 269 P 47 32.97 0.1
S 47 40.61
STV 0.66 271 P 47 33.98 -0.1
S 47 42.44
PZZ 0.86 289 P 47 37.41 -0.1
S 47 48.39
BHB 0.92 311 P 47 38.64 0.1
RSP 1.15 323 P 47 42.40 -0.1
S.D. = 0.2 on 9 of 9 obs.

% DEC 25, 1993 22h 50m 37.94± 0.64s
44.243 N ± 4.1km 8.226 E ± 5.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.4 (GEN).

FIN 0.04 201 Pd 50 40.30 0.3
S 50 41.69
ROB 0.26 282 Pd 50 43.88 0.4
S 50 47.50
PCP 0.38 37 Pc 50 45.67 0.0
S 50 50.89
IMI 0.41 216 Pc 50 46.26 -0.1
S 50 51.84
ENR 0.58 269 P 50 49.41 -0.3
S 50 57.38
STV 0.65 270 P 50 50.82 -0.2
S 50 59.40
PZZ 0.85 288 Pd 50 54.26 -0.1
S 51 05.29
BHB 0.91 311 P 50 55.70 0.3
S 51 07.61
RSP 1.14 323 P 50 59.42 0.0
RRL 1.23 304 Pc 51 01.13 0.1
ORX 1.40 353 P 51 03.43 -0.2
LSD 1.43 328 P 51 04.05 -0.2
S.D. = 0.2 on 12 of 12 obs.

% DEC 25, 1993 22h 51m 32.92± 0.79s
44.236 N ± 5.1km 8.227 E ± 6.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

FIN 0.03 206 P 51 35.16 0.2
S 51 36.39
ROB 0.26 283 P 51 38.86 0.4
S 51 42.39
PCP 0.38 37 P 51 40.65 -0.1
S 51 46.26
IMI 0.41 217 P 51 41.29 0.0
S 51 47.33
ENR 0.58 269 P 51 44.31 -0.4
S 51 52.10
STV 0.65 271 P 51 45.61 -0.4
S 51 54.05
PZZ 0.85 289 P 51 49.45 0.0
S 51 59.92
BHB 0.92 312 P 51 50.76 0.3
RSP 1.15 323 P 51 54.43 0.0
S.D. = 0.3 on 9 of 9 obs.

% DEC 25, 1993 22h 52m 31.70± 0.74s
44.246 N ± 5.0km 8.223 E ± 5.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN).

FIN 0.04 196 P 52 34.12 0.3
S 52 35.07
ROB 0.26 281 Pd 52 37.53 0.3
S 52 40.89
PCP 0.38 38 Pc 52 39.31 -0.1
S 52 44.32
IMI 0.41 216 Pc 52 39.90 -0.3
S 52 44.87
ENR 0.58 268 P 52 43.20 -0.3
S 52 50.61
STV 0.65 270 P 52 44.75 0.1
S 52 53.08
PZZ 0.85 288 P 52 47.77 -0.3
S 52 58.57
BHB 0.91 311 P 52 49.42 0.3
RSP 1.14 323 P 52 53.05 0.0
S.D. = 0.3 on 9 of 9 obs.

% DEC 25, 1993 22h 53m 11.90± 0.84s
44.238 N ± 5.4km 8.241 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

FIN 0.04 220 P 53 14.20 0.2
S 53 15.29
ROB 0.27 282 P 53 17.67 0.0
S 53 21.24
PCP 0.37 36 P 53 19.60 0.0
S 53 24.72
IMI 0.41 218 P 53 20.19 -0.2
S 53 26.19
ENR 0.59 269 P 53 23.62 -0.3
S 53 31.27
STV 0.66 271 P 53 25.59 0.5
S 53 33.42
PZZ 0.86 289 P 53 28.43 -0.1
S 53 39.64
BHB 0.92 311 P 53 29.66 0.1
RSP 1.15 323 P 53 33.42 -0.1
S.D. = 0.3 on 9 of 9 obs.

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* DEC 25, 1993 22h 53m 35.42± 1.56s
6.459 S ± 9.1km 154.921 E ±11.9km
DEPTH = 87.6 ± 12.7 km
4.8mb (9 obs.)
SOLOMON ISLANDS (193)

RAB 3.55 309 eP 54 30.00 0.6
iS 55 18.00
PMG 8.23 249 eP 55 33.00 -1.0
DZM 19.10 146 iPc 57 53.90 -0.3
ARMA 24.04 187 iPd 58 44.40 0.8
0.7s 9.00nm 4.3mb
WB2 24.05 234 iPc 58 44.70 1.0
0.9s 14.40nm 4.4mb
i 02 24.40
ASPA 26.48 228 eP 59 15.80 9.4X
0.4s 9.00nm 4.7mb
MBL 36.96 243 eP 00 37.40 -0.6
SSE 49.34 321 eP 02 28.50 10.6X
1.0s 12.00nm
GUN 74.78 301 P 05 08.50 -0.1
0.6s 22.00nm 5.2mb
PKI 75.09 301 P 05 10.20 -0.2
0.4s 5.00nm 4.7mb
KKN 75.26 301 P 05 11.30 0.1
0.4s 10.00nm 5.0mb
DMN 75.36 301 P 05 11.60 -0.2
0.6s 20.00nm 5.2mb
GKN 75.86 301 P 05 14.20 -0.3
0.7s 15.00nm 5.0mb
GBA 79.44 285 P 05 35.00 0.8
YKA 95.90 28 eP 06 52.80 -0.4
0.5s 1.00nm 4.6mb
S.D. = 0.7 on 13 of 15 obs.

DEC 25, 1993 23h 34m 20.97± 0.52s
38.241 N ± 4.4km 20.672 E ± 5.4km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 3.5 (ATH).

VLS 0.09 226 ePg 34 22.90 -0.1
IGT 1.32 348 ePb 34 45.98 0.2
eSb 35 06.30
AGG 1.51 58 ePb 34 49.54 0.7
eSb 35 11.90
SRN 1.72 342 ePn 34 53.90 2.3X
LSK 1.91 358 ePn 35 00.00 5.5X
TPE 2.11 346 ePn 35 04.20 6.8X
KZN 2.23 22 ePn 35 01.50 2.3X
LIT 2.33 37 ePn 35 01.30 0.7
VLI 2.36 129 ePn 35 01.00 0.0
KBN 2.38 2 ePn 35 03.50 2.2X
ATH 2.42 95 ePn 35 02.10 0.3
FNA 2.60 12 iPn 35 04.74 0.4
OHR 2.87 2 ePn 35 08.50 0.2
PAIG 2.88 53 iPn 35 07.90 -0.5
THE 2.98 36 ePn 35 09.42 -0.3
OUR 3.31 50 ePn 35 14.02 -0.5
KNT 3.38 30 ePn 35 14.90 -0.6
VAY 3.41 25 ePn 35 21.00 5.2X
SRS 3.65 37 ePn 35 18.86 -0.5
SKO 3.77 9 ePn 35 21.00 -0.1
e 35 36.00
S.D. = 0.5 on 14 of 20 obs.

? DEC 26, 1993 01h 15m 39.55± 4.65s

30.939 S ±53.5km 177.817 W ±63.7km
DEPTH = 50.0km (geophysicist)
4.7mb (6 obs.)
KERMADEC ISLANDS, NEW ZEALAND (178)

DZM 16.61 298 iPd 19 31.90 1.3
ARMA 26.25 263 eP 21 14.20 2.3
0.5s 3.00nm 4.1mb
STK 34.52 258 ePc 22 24.90 -0.2
1.1s 15.40nm 4.8mb
ASPA 43.24 267 iPd 23 36.80 -1.1
1.4s 7.80nm 4.2mb
WB2 44.27 273 iPc 23 44.40 -1.8
0.4s 13.70nm 5.1mb
WRA 44.28 273 P 23 44.70 -1.5
0.7s 6.20nm 4.5mb
CSY 54.74 208 ePd 25 05.60 -0.2
0.6s 13.20nm 5.1mb
SYO 76.65 193 ePc 27 27.40 1.2
NB2 149.31 351 PKP 35 22.80 3.7X
0.8s 5.80nm
HFS 149.80 349 ePKP 35 22.20 2.4X
0.5s 1.50nm
KIC 154.70 164 PKP 35 38.53 10.3X
1.0s 3.50nm
S.D. = 1.7 on 8 of 11 obs.

DEC 26, 1993 05h 33m 47.02± 0.30s
2.471 S ± 5.4km 80.891 W ± 5.4km
DEPTH = 40.7km (3 depth phases)
4.8mb (14 obs.) 4.4Msz (1 obs.)
NEAR COAST OF ECUADOR (105)

PSO 5.09 44 eP 35 04.50 1.2
BOG 9.81 44 eP 36 10.00 1.0
eS 38 23.00
NNA 10.27 157 iPd 36 15.90 0.9
0.5s 56.34nm 6.0mb X
eS 38 06.50
BMG 12.28 39 eP 36 41.00 -1.3
SDV 15.23 42 eP 37 23.00 1.8
TOV 16.45 42 eP 37 37.00 0.3
LPAZ 18.61 138 iPc 38 03.90 -0.2
LR 45 39.00
LPB 18.80 139 P 38 07.20 0.9
1.2s 156.25nm 5.1mb
Z 16s 4.38um 4.1Msz
LR 46 04.00
CAR 18.96 47 ePg 38 08.00 0.1
BDFB 34.93 114 eP 40 35.99 -1.5
1.1s 29.55nm 5.1mb
BAO 34.95 114 Pc 40 37.30 -0.4
e 52 16.40
GOGA 35.77 356 (P) 40 43.06 -1.2
PRM 36.39 358 (P) 40 48.15 -1.3
RSTA 37.82 128 eP 41 00.80 -0.9
LTX 38.42 327 eP 41 06.00 -0.7
UYO 38.62 342 iPc 41 08.60 0.4
ELC 40.31 350 (P) 41 21.82 -0.3
TUL 40.64 341 iPc 41 25.00 0.1
ACO 42.52 338 iPd 41 41.30 1.0
TUC 44.71 323 eP 41 59.91 1.6
PV10 48.25 330 eP 42 25.71 -0.6
PV09 48.39 330 eP 42 27.15 -0.3
SRU 49.55 330 eP 42 36.50 0.2
PEC 49.74 320 eP 42 37.63 0.0
1.3s 12.89nm 4.8mb
MSU 49.96 328 eP 42 39.93 0.5
ARUT 50.13 326 eP 42 41.72 1.1
GSC 50.42 321 eP 42 43.89 1.1
RSSD 50.81 339 eP 42 45.29 -0.5
1.1s 11.70nm 4.8mb
DUG 51.54 329 eP 42 51.40 0.1
1.6s 17.54nm 4.8mb
TNP 52.49 324 eP 42 58.94 0.3
1.3s 15.45nm 4.8mb
e 43 10.15 39km
BONR 53.05 323 eP 43 02.43 -0.5
MEMM 53.25 322 eP 43 05.54 1.6
e 43 18.48 47km
BGMT 54.98 333 eP 43 17.10 0.3
LRM 55.62 334 eP 43 20.90 -0.6
ORV 56.00 323 eP 43 24.33 0.3
LBFM 57.35 324 eP 43 33.48 -0.4
e 43 44.41 37km
RMW 61.26 330 eP 43 59.51 -1.0
GMW 61.82 329 eP 44 03.79 -0.5
MCW 62.58 330 eP 44 08.39 -1.0
YKA 69.64 344 eP 44 51.60 -2.4
1.1s 4.10nm 4.3mb
KDS 69.79 76 iP 44 54.00 -1.8
LKO 75.94 80 P 45 31.32 -0.8
0.9s 6.50nm 4.6mb
LIC 76.23 83 Pd 45 33.28 -0.5
0.9s 8.50nm 4.7mb
Z 20s 0.20um 4.4Msz
TIC 76.27 83 P 45 33.54 -0.4
0.9s 9.50nm 4.8mb
KIC 76.53 83 Pd 45 36.08 0.7
0.9s 22.50nm 5.2mb
FBA 82.62 337 (P) 46 07.08 -0.1
1.4s 4.97nm 4.4mb
IMA 85.33 337 eP 46 20.13 -0.9
1.1s 4.71nm 4.6mb
DAG 86.22 12 iPc 46 25.10 0.0
1.1s 24.05nm 5.3mb
WB2 138.86 236 ePKP 53 05.20 -6.6X
0.9s 2.10nm
WRA 138.87 236 PKP 53 13.10 1.3
0.9s 1.60nm
SSE 144.71 326 PKP 53 19.50 -2.2
1.2s 36.00nm
MTN 144.75 244 iPKPd 53 22.50 0.3
0.4s 27.00nm
LZH 146.27 353 PKPc 53 25.00 0.6
1.6s 142.00nm
pP 53 38.00
GKN 151.09 27 PKP 53 33.70 1.5
1.2s 68.00nm
KKN 151.56 26 PKP 53 34.20 1.2
GUN 151.72 25 PKP 53 33.90 0.5
PKI 151.81 26 PKP 53 34.40 0.9
1.0s 22.00nm
S.D. = 1.0 on 56 of 57 obs.

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* DEC 26, 1993 06h 16m 05.47± 0.78s
12.451 S ± 9.5km 124.084 E ± 8.6km
DEPTH = 33.0km (normal)
4.7mb (4 obs.)
SOUTH OF TIMOR, INDONESIA (293)

MTN 6.89 94 eP 17 47.60 0.8
0.4s 242.00nm 6.5mb X
eS 19 01.00
MBL 9.57 205 eP 18 23.30 -0.7
iS 20 04.00
WB2 12.35 128 iPc 19 00.30 -1.7
iS 21 12.90
NANU 12.94 218 eP 19 01.00 -8.8X
0.2s 5.00nm 5.2mb
eS 21 17.00
WARB 13.87 170 eP 19 23.20 1.1
0.2s 2.00nm 4.5mb
eS 21 53.50
ASPA 14.54 141 iPd 19 31.10 0.3
Z 18s 0.20um
eS 22 05.30
QIS 16.91 120 eP 20 01.30 -0.1
MRWA 18.30 203 eP 20 19.00 0.4
iS 23 29.90
BAL 19.31 200 eP 20 35.00 4.2X
eS 23 52.00
MUN 20.74 199 eP 20 54.40 8.5X
eS 24 28.00
STK 25.17 143 eP 21 33.60 4.2X
0.5s 3.00nm 4.1mb
epP 21 43.60 37kmX
GUN 54.58 318 P 25 33.80 0.2
0.6s 8.00nm 4.9mb
GKN 55.47 317 P 25 39.40 -0.4
LPAZ 149.00 157 PKP 35 54.90 5.7X
S.D. = 1.0 on 9 of 14 obs.

? DEC 26, 1993 07h 08m 49.93± 5.38s
41.908 N ±31.9km 20.029 E ±26.3km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.6 (TTG).

ULC 0.58 276 iPgc 09 01.00 -0.8
iSg 09 09.82
PVY 0.69 357 iPgd 09 02.71 -0.9
iSg 09 13.73
TTG 0.77 313 iPgc 09 04.23 -0.7
iSg 09 16.89
IVA 0.97 354 iPgc 09 08.03 -0.4
iSg 09 22.71
BDV 0.97 293 iPgd 09 08.44 0.1
iSg 09 22.71
NKY 1.18 320 iPgd 09 12.41 0.3
iSg 09 30.41
HCY 1.26 296 iPgd 09 13.39 0.1
iSg 09 32.41
BRY 1.48 313 iPgd 09 18.03 1.3
iSg 09 40.09
PLE 1.50 342 iPgd 09 17.92 1.0
iSg 09 40.70
S.D. = 0.9 on 9 of 9 obs.

% DEC 26, 1993 08h 08m 34.94± 0.98s
39.981 N ± 6.7km 23.701 E ± 8.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.2 (THE).

PAIG 0.06 197 iPg 08 37.22 0.1
eSg 08 38.04
OUR 0.41 31 iPg 08 43.06 -0.3
eSg 08 49.56
THE 0.86 319 ePg 08 51.28 -0.2
LIT 0.94 278 ePg 08 52.72 -0.1
SRS 1.14 356 ePg 08 56.78 0.5
eSg 09 12.28
KNT 1.33 333 ePb 08 59.48 0.0
S.D. = 0.4 on 6 of 6 obs.

& DEC 26, 1993 08h 26m 30.70s
37.642 N 118.818 W
DEPTH = 1.3km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.8 (GM).

CLKR 0.05 185 P 26 31.79 -0.1
MCSM 0.07 281 P 26 32.50 0.3
MEMM 0.10 284 iPnd 26 33.27 0.6
HTCR 0.12 162 P 26 33.43 0.3
ORC 0.13 93 P 26 33.95 0.7
MMPM 0.17 259 ePn 26 34.45 0.3
MTUM 0.35 145 ePnd 26 37.90 0.2
BHPR 0.43 142 P 26 40.13 0.8
BONR 0.51 52 ePn 26 41.20 0.2
CMB 1.30 288 ePn 26 54.76 -0.9
TNP 1.34 70 eP 26 56.64 0.2
KVN 1.52 22 (P) 26 59.99 0.8
ISA 1.99 172 eP 27 07.42 1.5
TPNV 2.16 108 (P) 27 10.54 2.1
COE 2.30 261 (P) 27 19.55 9.1
BCH 2.66 203 (P) 27 16.63 1.1
ABL 2.80 187 (P) 27 22.02 4.3
17 obs. associated

& DEC 26, 1993 08h 42m 45.11s
59.953 N 152.865 W
DEPTH = 91.7km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.14 340 eP 42 57.63 0.8
eS 43 08.23
INE 0.15 318 eP 42 58.02 1.1
eS 43 08.71
OPT 0.35 212 eP 42 58.75 -0.5
RED 0.47 6 iP 42 59.45 -0.7
eS 43 10.83
RDW 0.53 3 eP 42 59.99 -0.8
eS 43 12.11
REF 0.54 9 iP 43 00.14 -0.7
eS 43 11.92
NCT 0.61 357 eP 43 00.53 -0.8
eS 43 12.96
DFR 0.65 8 iP 43 00.82 -0.8
eS 43 13.70
AUH 0.66 207 eP 43 00.83 -0.9
AUW 0.66 208 eP 43 01.13 -0.5
HOM 0.68 115 eP 43 01.47 -0.4
PDB 0.69 257 eP 43 01.31 -0.6
XLV 0.77 130 eP 43 01.70 -1.0
CNPM 0.93 117 iP 43 03.52 -0.9
eS 43 17.86
BRLK 1.02 100 eP 43 04.63 -0.8
eS 43 19.79

26d 08h

CDD 1.10 202 eP 43 05.19 -1.2
NKA 1.13 45 eP 43 07.63 0.9
BKG 1.16 15 iP 43 06.33 -0.9
eS 43 22.44
CKT 1.29 14 iP 43 07.76 -1.1
SPU 1.30 18 iP 43 07.73 -1.1
CKN 1.32 15 iP 43 08.24 -0.9
BGL 1.34 10 eP 43 08.53 -0.8
CP2 1.35 13 iP 43 08.83 -0.8
CRP 1.36 15 iP 43 08.89 -0.9
CRP 1.36 15 eP 43 08.93 -0.9
eS 43 27.21
CGLM 1.42 17 iP 43 09.44 -1.0
SLKM 1.43 66 eP 43 09.42 -1.1
NCG 1.50 13 eP 43 10.42 -1.0
SEW 1.72 83 eP 43 12.58 -1.6
SVW 1.79 312 eP 43 13.46 -1.7
MPA 1.83 71 eP 43 14.19 -1.4
SUA 1.84 34 eP 43 14.79 -1.1
PMS 2.08 50 eP 43 17.90 -1.2
SKT 2.14 17 eP 43 18.23 -1.5
PWA 2.25 39 eP 43 19.97 -1.2
PWL 2.42 66 eP 43 20.93 -2.7
PLRM 2.46 46 eP 43 22.01 -2.1
KNK 2.62 54 eP 43 23.85 -2.4
MTU 2.62 87 eP 43 24.31 -2.0
GHO 2.65 45 eP 43 24.92 -1.9
CUT 2.76 26 eP 43 26.80 -1.4
CFI 2.80 62 eP 43 26.01 -2.7
SML 2.89 48 eP 43 27.81 -2.3
HIN 3.21 79 eP 43 31.93 -2.5
CVA 3.60 77 eP 43 37.48 -2.2
IL1 5.58 27 eP 44 03.96 -3.2
46 obs. associated

DEC 26, 1993 08h 45m 48.66± 1.68s
38.628 N ± 4.7km 68.926 E ± 3.7km
DEPTH = 18.5 ± 12.8 km
5.0mb (33 obs.)
TAJIKISTAN (715)

KSH 5.55 79 P 47 12.90 0.4
0.5s 260.00nm 6.1mb X
S 48 20.50
FRU 6.03 44 ePn 47 21.00 1.9
N 12s 5.00um
e 47 41.00
eS 48 34.00
e 48 56.00
NIL 6.08 144 iPc 47 24.10 4.3X
0.3s 0.03nm 2.5mb X
iS 48 34.40
MAIO 7.85 256 ePn 47 43.00 -1.8
0.9s 10.66nm 5.1mb
eSn 49 10.00
ASH 8.35 269 eP 47 58.50 6.9X
S 49 27.00
QUE 8.58 192 eP 47 56.50 1.5
eS 49 35.50
NDI 12.08 143 iP 48 42.00 -0.7
eS 50 50.50
WMQ 15.04 64 P 49 20.60 -1.3
Z 12s 0.53um
S 52 09.00
SS 52 20.60
GKN 16.85 124 P 49 41.40 -3.8X
KKN 17.41 124 P 49 47.80 -4.5X
DMN 17.42 124 P 49 49.00 -3.5X
PKI 17.64 124 P 49 51.00 -4.4X
GUN 17.73 122 P 49 52.00 -4.4X
MTA 18.68 287 eP 50 09.00 1.3
SVE 19.00 346 ePc 50 11.00 -0.5
1.2s 80.00nm 4.8mb
ARU 19.06 342 eP 50 12.00 -0.2
eS 53 40.00
BOM 19.95 169 eP 50 17.00 -5.5X
PYA 20.12 294 iP 50 23.50 -0.8
1.6s 80.00nm 4.8mb
Z 11s 0.50um 4.1MszX
e 54 38.00
KIV 20.38 294 iPc 50 25.00 -2.0
eS 54 11.00
LSA 20.39 109 P 50 28.00 0.4
0.8s 28.00nm 4.7mb
Z 12s 0.95um 4.4MszX
E 10s 0.91um
POO 20.48 167 eP 50 29.50 1.4
HYB 22.75 156 eP 50 51.50 0.5
1.0s 40.00nm 4.9mb
SHL 23.33 117 eP 50 56.00 -0.8
e(S) 55 06.00
GTA 23.96 78 P 51 03.00 0.3
1.5s 25.00nm 4.5mb
GBA 26.04 161 P 51 25.00 2.5X
ZAK 26.93 53 iPc 51 30.50 0.1
1.0s 42.00nm 5.0mb
Z 12s 0.49um 4.3MszX
eS 56 12.00
MOS 26.97 320 eP 51 31.00 0.2
e 52 16.00
e 52 35.00
OBN 27.23 318 eP 51 34.00 0.9
0.9s 43.00nm 5.1mb
e 51 43.00
e 52 22.00
LZH 27.77 84 eP 51 42.00 3.5X
2.0s 27.00nm 4.6mb
Z 20s 0.60um 4.2Msz
KMI 31.52 105 eP 52 11.50 -0.6
1.0s 30.00nm 5.1mb
XAN 32.36 86 P 52 18.00 -1.1
0.7s 6.60nm 4.7mb
HHC 32.63 72 eP 52 21.40 -0.1
1.2s 13.00nm 4.7mb
CIT 33.59 52 eP 52 29.50 -0.2
GYA 33.82 100 P 52 31.00 -1.0
pP 52 46.00 60kmX
TIY 33.98 78 eP 52 33.00 -0.2
Z 18s 0.49um 4.3Msz
BOD 34.90 42 iPc 52 38.70 -2.1
0.7s 37.00nm 5.4mb
BJI 36.24 72 eP 53 05.00 12.7X
Z 16s 0.29um 4.1MszX
SRO 37.42 301 e(P) 53 11.80 9.7X
TIA 38.01 78 eP 53 08.00 0.7
KSP 38.54 306 eP 53 12.50 0.9
PRU 39.71 305 eP 53 17.80 -3.5X
e 53 22.50
BRG 40.02 306 iP 53 24.60 0.7
i 53 36.70
GEC2 40.37 303 P 53 27.80 0.9
0.6s 1.63nm 3.9mb X
e 53 32.00
e 53 34.00
e 53 38.20
e 53 40.30
HFS 40.38 321 eP 53 26.30 -0.4
0.5s 22.60nm 5.1mb
Z 15s 0.06um 3.6MszX
LR 09 13.00
KHC 40.42 304 P 53 29.10 1.9
e 53 33.50
e 53 41.40
CLL 40.59 307 eP 53 29.00 0.5
e 53 41.00
NRAO 41.50 321 P 53 34.20 -1.7
PP 55 06.20
YAK 43.24 37 iPc 53 52.30 2.3
0.6s 95.00nm 5.7mb
TIK 44.44 23 eP 53 59.00 -0.6
1.0s 30.00nm 5.1mb
e 54 14.00
EKA 49.62 314 P 54 41.00 0.5
1.1s 15.10nm 4.9mb
DLF 52.03 313 eP 54 54.80 -4.1X
DAG 52.25 343 iPc 55 00.00 -0.3
0.8s 23.88nm 5.2mb
DCN 52.44 313 eP 55 02.00 0.0
YSS 52.92 55 ePd 55 05.00 -0.6
0.9s 30.00nm 5.2mb
MBC 65.29 2 P 56 31.60 0.7
0.4s 55.00nm 6.0mb
PP 59 17.30
PPP 00 39.20
SS 09 02.10
SSS 12 34.10
SSS 12 34.20
IMA 70.58 17 iPc 57 03.50 -0.8
0.5s 7.20nm 5.1mb
LKO 72.02 268 P 57 12.69 -0.9
0.9s 11.50nm 4.9mb
TTA 72.59 20 eP 57 16.02 -0.3
1.0s 8.73nm 4.8mb
FBA 72.87 15 eP 57 17.57 -0.3
0.7s 13.29nm 5.1mb
KIC 73.30 265 iPc 57 20.60 -0.5
0.8s 16.00nm 5.1mb
TIC 73.34 265 Pc 57 20.78 -0.6
0.8s 8.00nm 4.8mb
LIC 73.61 265 Pc 57 22.34 -0.5
0.9s 12.50nm 4.9mb
CP2 74.97 19 eP 57 30.39 0.1
CRP 74.99 19 eP 57 29.69 -0.7
KDS 75.39 274 iP 57 32.00 -1.1
PMR 75.46 18 eP 57 32.46 -0.3
0.9s 34.72nm 5.4mb
TOA 75.69 16 eP 57 34.90 0.7
KLU 76.29 16 eP 57 37.88 0.3
BALM 77.46 15 eP 57 44.43 0.3
YKA 79.19 2 eP 57 53.50 0.1
0.6s 11.60nm 5.1mb
WRA 84.50 121 P 58 21.50 -0.2
0.7s 8.70nm 5.1mb
WB2 84.51 121 iPd 58 21.10 -0.7
0.4s 25.30nm 5.8mb
ASPA 86.81 124 eP 58 32.80 -0.4
0.6s 10.90nm 5.3mb
CTA 92.91 113 P 59 03.20 1.4
NEW 93.32 4 eP 59 04.45 1.0
0.7s 4.77nm 5.0mb
RMW 93.76 7 eP 59 06.75 1.2
LPAZ 136.38 288 PKPd 05 13.70 1.6
0.8s 1.30nm
SKP 08 35.10
SKS 12 32.80
S.D. = 1.0 on 63 of 77 obs.

% DEC 26, 1993 08h 55m 42.20± 2.02s
44.527 N ± 8.5km 6.831 E ±16.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (GEN).

PZZ 0.19 96 P 55 46.88 0.3
S 55 49.81
RRL 0.39 355 P 55 50.40 0.0
S 55 56.44
BHB 0.44 44 P 55 50.95 -0.2
S 55 56.21
STV 0.45 128 P 55 51.18 -0.3
S 55 57.45
ENR 0.52 125 P 55 52.83 0.1
S 55 59.60
RSP 0.69 26 P 55 56.08 0.1
S 56 05.28
S.D. = 0.3 on 6 of 6 obs.

? DEC 26, 1993 08h 58m 23.42± 4.71s
36.765 N ±28.8km 6.692 W ±33.0km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.8 (MDD).

EVAL 0.82 357 eP 58 39.79 0.5
e 58 53.60
EJIF 1.03 107 eP 58 43.20 0.3
EHOR 1.56 47 eP 58 52.60 1.3
EBAN 2.70 58 iPc 59 07.80 0.1
e 59 42.20
EPLA 3.33 8 iPd 59 15.84 -0.8
e 59 55.00
EVIA 3.81 59 iP 59 22.00 -1.6
S.D. = 1.3 on 6 of 6 obs.

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* DEC 26, 1993 09h 58m 52.93± 2.22s
35.967 N ±16.4km 21.593 E ±14.9km
DEPTH = 33.0km (normal)
CENTRAL MEDITERRANEAN SEA (400)
ML 3.7 (ATH), 3.6 (THE).

VLI 1.32 55 ePb 59 17.00 1.8
VAM 2.19 104 ePn 59 27.00 -0.8
VLS 2.35 340 ePn 59 31.00 1.0
ATH 2.63 40 ePn 59 35.00 1.1
AGG 3.11 11 ePn 59 38.68 -2.1
eSn 00 12.40
NPS 3.35 101 ePb 59 54.00 9.8X
IGT 3.70 345 ePn 59 49.72 0.6
eSn 00 30.44
LIT 4.19 9 ePn 59 56.84 0.7
eSn 00 40.28

PAIG 4.28 22 iPn 59 57.14 -0.3
KZN 4.34 2 ePn 59 54.00 -4.3X
OUR 4.75 23 iPn 00 03.69 -0.3
THE 4.78 13 ePn 00 03.76 -0.7
FNA 4.81 358 ePn 00 05.00 0.0
GRG 5.02 7 ePn 00 07.72 -0.3
SOH 5.04 15 ePn 00 08.08 -0.2
KNT 5.29 11 ePn 00 11.52 -0.1
SRS 5.38 16 ePn 00 12.04 -0.9
VAY 5.40 8 ePg 00 13.50 0.3
S.D. = 1.0 on 16 of 18 obs.

DEC 26, 1993 10h 20m 11.56± 0.43s
41.512 N ± 3.7km 19.538 E ± 4.5km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
ML 3.1 (TIR), 2.8 (TTG).

LACI 0.18 46 iPgd 20 14.60 -0.6
iSg 20 18.00
TIR 0.30 124 iPgc 20 18.00 0.5
iSg 20 23.50
ULC 0.50 335 iPgd 20 20.72 -0.9
iSg 20 28.04
SDA 0.54 357 ePg 20 21.50 -0.9
iSg 20 28.70
BDV 0.94 326 iPgc 20 29.39 -0.5
iSg 20 42.36
TTG 0.94 347 iPgc 20 30.22 0.3
iSg 20 43.18
BCI 0.94 25 ePg 20 35.10 5.1X
OHR 1.03 112 iPn 20 30.20 -1.3
i 20 31.80
i 20 46.00
VLO 1.04 182 ePg 20 32.00 0.3
PVY 1.13 17 iPgc 20 34.77 1.5
iSg 20 51.30
HCY 1.21 321 iPgd 20 34.01 -0.6
iSg 20 51.74
TPE 1.27 163 ePn 20 41.50 6.0X
NKY 1.36 343 iPgc 20 36.66 -0.6
iSg 20 56.28
IVA 1.39 11 iPgd 20 37.93 0.3
iSg 20 58.89
SKO 1.50 71 iPn 20 39.50 0.4
iSn 20 59.50
FNA 1.57 117 ePb 20 40.40 0.2
iSb 21 02.88
BRY 1.57 332 iPgd 20 41.28 1.0
iSg 21 02.95
PLE 1.82 357 iPnd 20 45.07 1.2
iSn 21 09.69
IGT 2.07 163 ePn 20 47.56 0.2
GRG 2.23 103 ePn 20 49.76 0.0
eSn 21 19.32
VAY 2.29 94 iPn 20 51.40 0.8
LIT 2.65 121 ePn 20 55.64 0.0
THE 2.74 108 iPn 20 56.38 -0.5
SOH 2.96 102 ePn 20 59.76 -0.4
SRS 3.08 96 ePn 21 01.28 -0.5
S.D. = 0.8 on 23 of 25 obs.

% DEC 26, 1993 10h 43m 52.33± 1.20s
18.409 N ±20.3km 66.302 W ± 8.1km
DEPTH = 60.0km (geophysicist)
PUERTO RICO REGION (90)

SJG 0.33 154 iP 44 02.90 0.1
S 44 10.90
APR 0.41 276 P 44 03.70 0.3
CLLP 0.42 219 P 44 03.50 0.0
LPR 0.42 104 P 44 03.30 -0.3
S 44 09.50
CPD 0.52 135 P 44 04.90 0.3
MGP 0.85 242 P 44 08.20 -0.3
S.D. = 0.4 on 6 of 6 obs.

% DEC 26, 1993 12h 43m 27.98± 1.05s
11.293 N ±12.0km 61.550 W ±20.9km
DEPTH = 90.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.1 (TRN).

TCE 0.62 199 iPc 43 42.68 -1.3
eS 43 54.82
TRN 0.66 167 iPc 43 45.48 1.2
eS 43 59.17

BOT 0.83 99 eP 43 45.38 -0.6
GRW 0.87 353 eP 43 46.87 0.3
eS 44 05.02
TBH 0.93 149 eP 43 49.54 2.3X
eS 44 07.99
TPP 0.97 174 eP 43 48.06 0.4
eS 44 06.36
S.D. = 1.4 on 5 of 6 obs.

DEC 26, 1993 13h 43m 25.14± 0.33s
20.157 N ± 4.1km 145.337 E ±10.1km
DEPTH = 134.2km (3 depth phases)
4.8mb (15 obs.)
MARIANA ISLANDS (216)

GUMO 6.55 184 eP 45 02.20 1.9
1.0s 129.00nm 5.2mb
e(S) 46 17.40
PJG 6.55 184 eP 45 02.30 2.0
GUA 6.59 184 eP 45 02.40 1.4
0.6s 74.67nm 5.2mb
e(S) 46 14.70
KAKJ 16.62 345 eP 47 10.80 -0.6
CHJJ 16.78 342 eP 47 13.10 -0.4
MAT 17.48 341 eP 47 21.00 -1.0
0.8s 10.45nm 4.2mb
eS 50 35.00
MTMJ 17.65 340 eP 47 22.80 -1.3
NIIJ 17.90 343 eP 47 26.30 -0.7
YAMJ 18.53 347 P 47 34.40 0.4
OFUJ 19.12 351 P 47 40.30 0.1
HOOJ 22.23 356 eP 48 13.70 2.4
KUSJ 22.88 359 P 48 18.30 0.7
ASAJ 24.00 355 P 48 29.90 1.4
WB2 41.28 196 iPc 50 58.50 -0.3
0.6s 36.30nm 5.2mb
ipP 51 29.30 137km
WRA 41.28 196 P 50 58.50 -0.4
0.8s 21.40nm 4.9mb
YAK 43.21 349 iPc 51 15.90 1.8
1.0s 101.00nm 5.5mb
ASPA 44.96 195 iPd 51 27.70 -0.9
0.4s 12.20nm 4.9mb
DZM 46.76 153 iPc 51 41.30 -1.6
MBL 48.05 213 eP 51 52.30 -0.5
WARB 49.51 202 eP 52 04.00 0.0
0.2s 3.00nm 4.8mb
GUN 54.41 290 P 52 42.10 1.0
PKI 54.86 290 P 52 44.70 0.3
KKN 54.95 290 P 52 46.40 1.5
DMN 55.12 290 P 52 46.80 0.6
GKN 55.49 291 P 52 49.20 0.5
0.1s 11.00nm
COOL 55.82 205 iPc 52 49.80 -0.9
MRWA 56.66 211 eP 52 55.40 -1.3
BAL 57.49 209 eP 53 01.30 -1.2
0.4s 13.00nm 5.2mb
KLB 57.85 208 eP 53 04.00 -1.0
MUN 58.87 209 eP 53 11.20 -0.9
NWAO 59.22 207 eP 53 14.00 -0.5
IMA 60.09 24 eP 53 19.38 -0.8
1.0s 3.59nm 4.3mb
RKG 60.73 207 eP 53 25.00 0.3
0.6s 12.00nm 5.0mb
FBA 62.14 26 eP 53 33.70 -0.2
0.8s 4.48nm 4.5mb
BALM 64.02 31 eP 53 46.00 -0.4
YKA 76.87 28 eP 55 02.20 -1.3
0.7s 3.90nm 4.3mb
NEW 80.07 42 eP 55 21.30 0.0
epP 55 54.50 131km
TNP 83.43 52 (P) 55 40.00 0.8
0.9s 3.52nm 4.2mb
LRM 83.92 43 eP 55 41.90 0.3
HFS 90.91 338 eP 56 12.90 -1.7
0.3s 1.10nm 4.4mb
GOL 91.23 47 (P) 56 18.20 1.4
epP 56 52.80 134km
KIC 140.50 309 PKP 02 40.00 -1.1
S.D. = 1.1 on 42 of 42 obs.

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* DEC 26, 1993 14h 19m 00.61± 0.50s
20.470 S ±20.4km 173.682 W ±12.3km
DEPTH = 33.0km (normal)
4.8mb (11 obs.) 4.1Msz (1 obs.)
TONGA ISLANDS (173)

AFI 6.77 16 eP 21 16.00 35.6X
BKM 17.31 276 iPd 23 05.50 4.0X
DZM 18.59 262 iPd 23 18.00 0.6
CNB 35.63 238 eP 25 57.30 -0.2
0.7s 23.00nm 5.2mb
TOO 39.21 235 eP 26 28.00 0.4
0.7s 27.00nm 5.1mb
MDG 42.16 285 eP 26 48.00 -4.0X
ASPA 48.46 256 iPd 27 40.40 -1.9
1.0s 12.50nm 4.9mb
Z 22s 0.20um 4.1Msz
iPcP 29 08.50
WB2 48.60 261 iPc 27 41.50 -1.8
1.1s 6.00nm 4.5mb
iPcP 29 09.80
MUN 62.98 244 eP 29 26.80 0.1
NANU 65.30 254 eP 29 33.00 -8.9X
MAT 72.66 321 eP 30 27.00 0.0
0.8s 6.72nm 4.7mb
PLM 76.16 46 (P) 30 47.00 -0.5
GSC 77.35 45 eP 30 53.36 -0.6
BONR 77.99 42 eP 30 57.82 0.1
TNP 78.74 42 eP 31 01.70 -0.1
0.8s 6.81nm 4.7mb
ARUT 80.99 44 eP 31 14.13 0.4
GMW 81.67 32 (P) 31 17.37 0.5
RMW 82.10 33 eP 31 17.82 -1.4
MSU 82.22 44 eP 31 21.02 0.8
SRU 83.63 44 eP 31 27.46 0.0
LTX 83.66 56 (P) 31 27.58 -0.1
PV10 84.22 46 eP 31 30.53 0.0
PV09 84.22 45 eP 31 31.07 0.5
ALQ 84.26 50 eP 31 31.25 0.5
1.3s 6.24nm 4.6mb
NEW 85.03 34 eP 31 33.70 -0.3
LRM 86.16 38 eP 31 40.30 0.3
FBA 87.40 11 eP 31 44.66 -0.6
0.8s 5.68nm 4.9mb
BJI 88.75 314 eP 31 54.00 1.7
1.1s 7.00nm 4.9mb
RSSD 90.36 42 eP 31 59.50 -0.5
1.1s 4.86nm 4.7mb
BDT 93.47 287 eP 32 16.70 2.2
YKA 94.83 24 eP 32 18.60 -1.3
0.9s 0.80nm 4.1mb
KSP 148.68 348 ePKP 38 46.70 4.7X
e 38 49.80
CLL 148.78 352 iPKPc 38 46.20 4.1X
1.3s 15.00nm
BRG 149.07 351 ePKP 38 47.40 4.9X
1.0s 20.00nm
GEC2 151.08 350 PKP 38 52.20 6.4X
0.9s 1.34nm
e 38 55.10
e 39 01.80
KIC 162.34 141 PKP 39 01.72 1.2
1.8s 93.00nm
S.D. = 1.0 on 28 of 36 obs.

? DEC 26, 1993 14h 20m 23.44± 5.32s
34.841 S ±52.4km 71.043 W ±18.1km
DEPTH = 100.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.4 (SAN).

CACH 0.81 27 iP 20 42.20 -0.1
iS 20 57.72
LNV 0.93 341 iPd 20 43.37 0.0
iS 20 59.65
TACH 1.19 4 iP 20 46.18 -0.1
iS 21 04.10
PCH 1.29 20 iP 20 47.80 0.2
iS 21 06.98
LCCH 1.43 342 iP+ 20 49.31 0.1
iS 21 09.81
FCH 1.63 23 iP 20 52.26 0.2
iS 21 14.96
PEL 1.72 10 iP 20 52.68 -0.2
iS 21 16.04
S.D. = 0.2 on 7 of 7 obs.

DEC 26, 1993 14h 39m 31.76± 0.80s
38.153 N ± 7.2km 21.761 E ± 7.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.1 (ATH). ML 2.8 (THE).

26d 14h

VLS 0.92 272 ePn 39 48.00 -1.4
AGG 0.98 27 ePg 39 50.04 -0.3
eSg 40 01.28
ATH 1.55 96 ePn 40 00.00 0.5
VLI 1.71 146 ePn 40 02.00 0.2
IGT 1.77 321 ePb 40 05.12 2.5
LIT 2.03 16 ePb 40 06.00 -0.4
eSb 40 29.76
KZN 2.15 0 ePn 40 08.00 -0.2
PAIG 2.32 40 ePn 40 09.80 -0.7
FNA 2.64 354 ePn 40 15.16 -0.1
OUR 2.78 38 ePn 40 17.12 0.0
KNT 3.13 16 ePn 40 21.08 -1.0
VAY 3.23 11 ePn 40 24.20 0.8
S.D. = 1.1 on 12 of 12 obs.

DEC 26, 1993 15h 26m 28.42± 0.72s
40.053 N ± 5.3km 19.794 E ± 5.8km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
ML 3.7 (TTG), 3.5 (THE), 3.0 (TIR).

SRN 0.23 137 iPgc 26 33.30 0.1
iSg 26 38.80
TPE 0.29 34 iPgc 26 31.00 -3.4X
iSg 26 35.20
LSK 0.63 81 iPgd 26 39.00 -2.0
iSg 26 48.00
IGT 0.66 141 iPg 26 41.78 0.1
eSg 26 52.00
KBN 0.95 53 ePg 26 46.00 -1.0
TIR 1.29 2 ePn 26 54.50 1.7
iSn 27 16.50
OHR 1.31 36 iPn 26 53.60 0.5
i 26 55.90
i 27 12.10
i 27 14.00
FNA 1.41 58 ePb 26 54.30 -0.6
eSb 27 14.40
LACI 1.58 358 ePn 26 58.40 1.3
iSn 27 20.20
ULC 1.95 348 iPnc 27 02.49 -0.1
iSn 27 29.47
SDA 2.01 354 ePn 27 08.50 5.2X
LIT 2.07 88 ePn 27 04.50 0.2
eSn 27 32.14
GRG 2.18 65 ePn 27 07.10 1.2
eSn 27 34.96
AGG 2.21 117 ePn 27 07.54 1.1
eSn 27 36.90
SKO 2.29 32 ePn 27 09.00 1.6
iPb 27 12.00
iSn 27 27.00
iSb 27 39.50
iSg 27 41.00
BDV 2.35 342 iPnd 27 07.85 -0.4
iSn 27 39.38
TTG 2.41 351 iPnd 27 09.05 0.0
iSn 27 41.21
VAY 2.46 58 ePn 27 10.30 0.4
THE 2.49 76 ePn 27 10.58 0.3
PVY 2.54 3 iPnd 27 10.52 -0.6
iSn 27 44.24
HCY 2.58 338 iPnd 27 10.90 -0.7
iSn 27 44.96
KNT 2.61 64 ePn 27 12.16 0.2
IVA 2.82 2 iPnd 27 14.32 -0.7
iSn 27 51.09
NKY 2.82 348 iPnd 27 14.44 -0.7
iSn 27 50.70
SOH 2.82 73 ePn 27 15.08 0.0
PAIG 2.99 91 iPn 27 15.90 -1.4
eSn 27 55.50
BRY 3.00 342 iPnd 27 17.09 -0.5
iSn 27 54.73
SRS 3.08 69 iPn 27 19.06 0.4
OUR 3.22 84 ePn 27 20.62 0.0
PLE 3.29 355 iPnd 27 21.27 -0.4
iSn 28 02.38
S.D. = 0.9 on 28 of 30 obs.

? DEC 26, 1993 16h 17m 12.10± 7.97s
36.175 S ±78.3km 70.037 W ±24.4km
DEPTH = 189.9 ± 14.5 km
CHILE-ARGENTINA BORDER REGION (127)
MD 4.2 (SAN).

CACH 2.10 347 iPd 17 51.86 0.4
LNV 2.48 333 eP 17 55.05 -0.5
eS 18 27.98
PCH 2.58 351 iP+ 17 57.61 0.8
iS 18 32.16
TACH 2.62 343 iPd 17 57.17 0.0
iS 18 32.10
SAN 2.76 349 iP 17 59.09 0.2
iS 18 35.15
FCH 2.85 356 iP 18 00.94 0.7
iS 18 39.21
LCCH 2.97 334 iPd 18 00.79 -0.6
eS 18 37.64
PEL 3.07 350 iPd 18 02.85 0.3
iS 18 41.98
ROCH 3.30 346 iP+ 18 05.16 -0.4
iS 18 45.49
JACH 3.52 352 iP 18 07.92 -0.2
iS 18 51.60
RTCV 4.48 17 eP 18 19.80 -0.5
S 19 19.00
CFA 4.80 19 ePc 18 23.60 -0.7
S 19 19.50
RTPR 6.56 28 iPc 18 44.50 -2.7X
MOCB 15.36 16 P 20 41.30 0.5
LPAZ 19.88 5 P 21 31.30 0.0
S.D. = 0.6 on 14 of 15 obs.

DEC 26, 1993 16h 19m 01.02± 0.43s
37.076 N ± 3.4km 117.912 W ± 4.3km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 2.9 (GS).

BHPR 0.51 296 P 19 11.52 0.2
CWCR 0.52 323 P 19 09.77 -1.8
MTUM 0.59 298 iPc 19 12.82 0.0
BCKR 0.72 330 P 19 15.72 0.3
ORC 0.81 313 P 19 17.21 -0.2
HTCR 0.82 304 P 19 17.35 -0.3
CLKR 0.89 306 P 19 18.85 0.1
BONR 0.93 341 eP 19 19.82 0.4
MCSM 0.98 306 P 19 20.40 0.1
MEMM 1.01 306 ePc 19 20.69 0.1
MMPM 1.04 301 eP 19 20.81 -0.5
eS 19 35.45
VPEM 1.13 176 P 19 35.68 13.0X
TNP 1.15 29 eP 19 23.64 0.6
eS 19 42.10
TPNV 1.34 95 eP 19 26.06 -0.2
eS 19 47.68
WASM 1.43 201 P 19 41.02 13.1X
ISA 1.48 198 eP 19 27.07 -1.3
WOPM 1.67 203 P 19 30.79 -0.4
WJPM 1.72 196 P 19 31.79 -0.2
GSC 1.98 153 eP 19 35.95 0.2
CMB 2.19 297 P 19 40.55 2.0X
BMSM 2.35 261 P 19 43.61 2.7X
MARC 2.37 210 P 19 43.18 2.0X
ABL 2.46 206 eP 19 43.42 0.7
eS 20 16.24
MNHM 2.54 296 P 19 46.66 3.1X
BCH 2.58 224 eP 19 44.59 0.3
ARN 2.90 276 ePn 19 50.54 1.7
CVAL 3.11 281 P 19 53.93 2.3X
BAPM 3.13 254 P 19 56.22 4.1X
S.D. = 0.8 on 20 of 28 obs.

? DEC 26, 1993 18h 01m 58.53± 5.46s
36.765 N ±24.4km 7.320 W ±41.6km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.7 (MDD).

EVAL 0.94 29 eP 02 17.50 1.1
e 02 29.50
EJIF 1.52 101 eP 02 26.50 0.7
e 02 42.00
EPRU 1.69 83 eP 02 28.00 -0.2
e 02 47.80
EHOR 1.96 57 eP 02 32.00 -0.1
e 02 53.00
EBAN 3.14 63 eP 02 48.00 -1.0
e 03 22.50
EPLA 3.43 16 eP 02 52.70 -0.5
e 03 31.70
S.D. = 1.0 on 6 of 6 obs.

? DEC 26, 1993 18h 12m 30.80± 7.71s
13.292 N ±38.2km 59.914 W ±48.0km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.2 (TRN).

SLB 1.22 296 iP 12 53.38 -0.1
eS 13 09.56
SVV 1.27 271 eP 12 54.56 0.2
iS 13 11.70
SVB 1.30 269 iP 12 54.71 -0.2
iS 13 12.08
MVM 1.58 323 eP 12 58.44 -0.4
BIM 1.66 317 eP 13 00.40 0.3
CRM 1.75 326 eP 13 01.00 -0.4
S 13 22.80
FDF 1.87 320 eP 13 03.70 0.6
S 13 26.10
S.D. = 0.5 on 7 of 7 obs.

DEC 26, 1993 18h 24m 12.86± 0.93s
32.841 S ± 6.4km 71.479 W ± 7.5km
DEPTH = 22.4 ± 6.6 km
NEAR COAST OF CENTRAL CHILE (135)
MD 4.1 (SAN).

IHA 0.23 217 iP 24 18.70 0.1
iS 24 24.00
ROCH 0.41 108 iPd 24 21.87 0.2
iS 24 30.26
LCCH 0.64 187 iPd 24 24.69 -0.5
PEL 0.73 115 iP+ 24 26.94 0.1
iS 24 39.00
JACH 0.76 78 iP+ 24 25.89 -1.6
iS 24 37.28
SAN 0.92 132 iP+ 24 29.86 -0.1
iS 24 44.11
TACH 0.93 151 eP 24 30.00 -0.2
iS 24 44.10
FCH 1.11 116 iP+ 24 32.57 -0.8
iS 24 49.52
LNV 1.11 177 eP 24 32.01 -1.0
PCH 1.12 134 iP+ 24 32.91 -0.4
iS 24 50.33
CACH 1.47 150 eP+ 24 39.32 1.1
iS 25 01.97
CFA 3.01 67 ePd 25 00.70 0.5
S 25 42.60
RTRS 3.17 33 eP 25 02.00 -0.5
S.D. = 0.8 on 13 of 13 obs.

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* DEC 26, 1993 18h 57m 36.37± 1.87s
44.625 N ± 6.0km 129.734 W ±17.5km
DEPTH = 10.0km (geophysicist)
4.1mb (7 obs.)
OFF COAST OF OREGON (30)

BMW 4.93 66 eP 58 52.09 -0.2
SHW 5.51 71 eP 59 00.76 0.2
GMW 5.65 56 eP 59 03.06 0.7
LON 5.94 66 eP 59 05.89 -0.7
RMW 6.20 60 eP 59 11.00 0.7
MCW 6.25 47 eP 59 11.89 1.1
VGB 6.41 79 eP 59 12.33 -0.8
LBFM 6.62 117 eP 59 16.95 0.7
ORV 7.94 127 eP 59 33.96 -0.7
DPW 8.63 64 eP 59 43.06 -1.1
NEW 9.44 63 eP 59 53.88 -1.5
CMB 9.63 130 eP 59 56.69 -1.3
MEMM 10.70 127 eP 00 13.95 1.4
LRM 12.25 78 ePc 00 34.60 0.7
DUG 13.26 104 eP 00 45.93 -1.4
0.8s 2.65nm 4.4mb
GSC 13.59 129 eP 00 51.92 0.3
ARUT 14.03 114 eP 00 58.12 0.7
DAU 14.26 101 eP 00 59.81 -0.8
MSU 14.48 109 eP 01 04.96 1.5
BW06 14.71 90 eP 01 07.49 1.0
1.1s 4.77nm 4.0mb
EMUT 14.81 102 eP 01 09.09 1.3
SRU 15.32 104 (P) 01 14.20 -0.2
PV09 16.57 105 eP 01 30.66 0.1
PV10 16.69 105 eP 01 32.51 0.4
RSSD 18.36 83 eP 01 51.65 -1.2
1.1s 12.55nm 4.0mb
GOL 18.69 97 eP 01 56.89 -0.1

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        1.0s    12.83nm            4.1mb
GLD     18.78  96 eP     01 58.71   0.8
        1.1s    16.56nm            4.2mb
YKA     19.93  21 eP     02 11.30   0.4
        0.9s     2.00nm            3.4mb
WMOK    25.65 102 eP     03 07.86   0.1
        0.7s    17.66nm            4.9mb
LTX     25.67 118 eP     03 06.33  -1.7
      S.D. = 1.0  on  30 of  30 obs.
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? DEC  26, 1993  19h 09m 02.47± 1.80s
  46.694 N ±29.8km  154.285 E ±27.4km
  DEPTH =  33.0km  (normal)
  4.8mb (  6 obs.)
 EAST OF KURIL ISLANDS             (222)

KUSJ     7.69 246 eP     10 53.00  -1.9
                  eS     12 14.20
ASAJ     8.59 257 eP     11 09.50   2.1
HOOJ     8.96 245 eP     11 12.20  -0.3
                  eS     12 48.30
MAT     15.70 235 eP     12 43.00   0.3
        1.5s    25.00nm            4.2mb
LZH     38.70 273 eP     16 25.60   0.6
        1.2s    18.00nm            4.7mb
YKA     50.49  37 eP .   17 59.70   1.0
        0.9s     0.60nm            3.6mb X
NDI     61.20 282 iPd    19 16.00  -0.3
NB2     68.54 342 P      20 02.30  -1.1
        0.8s    10.20nm            5.0mb
HFS     68.79 340 eP     20 03.50  -1.3
        0.4s     9.10nm            5.2mb
KSP     76.31 334 eP     20 49.70   0.3
CLL     76.84 336 iPd    20 52.60   0.3
        0.7s    13.00nm            5.1mb
GEC2    78.86 335 P      21 03.90   0.3
        0.6s     0.70nm            3.8mb
      S.D. = 1.2  on  12 of  12 obs.
--------------------------------------
? DEC  26, 1993  19h 21m 00.56± 6.96s
  40.036 N ± 8.8km   19.809 E ±60.8km
  DEPTH =   5.0km  (geophysicist)
 ALBANIA                           (391)
     ML 2.8 (THE).

IGT      0.64 141 ePg    21 12.88  -0.6
                  iSg    21 24.08
OHR      1.31  35 ePn    21 26.00   0.7
FNA      1.41  58 ePb    21 25.46  -1.5
                  eSb    21 45.66
LIT      2.06  87 ePn    21 37.06   0.8
GRG      2.18  64 ePn    21 38.06   0.0
AGG      2.20 117 ePn    21 39.22   0.9
KNT      2.61  63 ePn    21 44.00  -0.1
SOH      2.82  73 ePn    21 46.88  -0.3
      S.D. = 1.0  on   8 of   8 obs.
--------------------------------------
% DEC  26, 1993  19h 48m 49.01± 1.03s
  44.034 N ± 9.5km    7.653 E ± 7.9km
  DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                    (545)
     ML 2.1 (GEN).

IMI      0.21 126 P      48 53.31   0.0
                  S      48 56.78
ENR      0.26 319 P      48 54.50   0.3
                  S      48 58.43
ROB      0.30  31 P      48 55.46   0.3
                  S      48 59.76
STV      0.32 312 P      48 55.55   0.1
                  S      48 59.90
PZZ      0.62 320 P      49 01.45   0.1
                  S      49 09.83
BHB      0.85 341 P      49 05.16  -0.8
                  S      49 16.69
      S.D. = 0.5  on   6 of   6 obs.
--------------------------------------
* DEC  26, 1993  19h 54m 01.48± 0.70s
   2.977 N ± 9.1km  125.037 E ±12.1km
  DEPTH =  33.0km  (normal)
  4.8mb (  3 obs.)
 TALAUD ISLANDS, INDONESIA         (263)

BIP      5.35  13 eP     55 21.20   0.0
WB2     24.55 158 eP     59 19.60   0.0
        0.8s     7.70nm            4.3mb
LZH     38.33 332 eP     01 21.00  -0.2
        1.5s    27.00nm            4.9mb
GUN     44.82 308 P      02 14.60  -0.3
        0.6s    14.00nm            5.0mb
PKI     45.04 307 P      02 16.20  -0.4
KKN     45.24 307 P      02 18.00  -0.1
DMN     45.30 307 P      02 19.40   0.8
GKN     45.85 307 P      02 23.00   0.2
HYB     47.79 291 eP     02 38.00  -0.1
GBA     48.18 286 P      02 41.00  -0.1
      S.D. = 0.4  on  10 of  10 obs.
--------------------------------------
* DEC  26, 1993  22h 55m 21.54± 2.84s
  41.509 N ±14.5km   19.610 E ±27.7km
  DEPTH =  10.0km  (geophysicist)
 ALBANIA                           (391)
     ML 2.6 (TIR).

LACI     0.15  30 iPgd   55 24.70  -0.2
                  iSg    55 28.00
TIR      0.25 130 iPgd   55 26.60  -0.3
                  iSg    55 32.10
SDA      0.55 351 ePg    55 32.70   0.1
BCI      0.92  22 ePg    55 39.30   0.1
OHR      0.98 114 ePn    55 40.50   0.3
VAY      2.23  94 ePn    56 01.40   2.3X
      S.D. = 0.3  on   5 of   6 obs.
--------------------------------------
* DEC  26, 1993  23h 09m 47.67± 1.51s
  32.611 S ±14.2km   68.747 W ±17.4km
  DEPTH =  24.0 ±  6.9 km
 MENDOZA PROVINCE, ARGENTINA       (139)
     MD 4.3 (SAN).

RTCV     0.77  13 iPd    10 02.00  -0.3
CFA      1.09  23 iPc    10 07.80   0.3
FCH      1.48 241 iP+    10 12.92  -0.4
JACH     1.56 267 iP+    10 14.14  -0.1
PEL      1.72 251 iP+    10 16.55   0.1
                  iS     10 38.48
PCH      1.79 235 iP+    10 18.35   0.7
                  iS     10 42.17
SAN      1.81 242 iP+    10 18.40   0.5
                  iS     10 42.44
ROCH     1.94 259 eP     10 20.70   0.8
TACH     2.11 240 iP+    10 22.11  -0.1
CACH     2.16 225 iP+    10 23.14   0.2
IHA      2.47 260 eP     10 27.40   0.2
LCCH     2.52 249 eP     10 27.12  -0.9
LNV      2.60 238 iP+    10 27.98  -1.1
RTPR     2.99  40 eP     10 37.00   2.4X
                  S      11 18.50
      S.D. = 0.7  on  13 of  14 obs.
--------------------------------------
? DEC  26, 1993  23h 46m 07.54± 0.87s
  44.421 N ± 8.0km    7.241 E ±14.4km
  DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                    (545)
     ML 1.9 (GEN).

PZZ      0.13 310 P      46 10.36   0.0
                  S      46 12.10
STV      0.19 161 P      46 11.37   0.0
                  S      46 13.93
ENR      0.23 146 P      46 12.33   0.0
                  S      46 15.44
BHB      0.42   2 P      46 15.99   0.0
                  S      46 21.30
      S.D. = 0.0  on   4 of   4 obs.
--------------------------------------
? DEC  27, 1993  03h 06m 33.04± 4.62s
  37.493 N ±49.0km   75.806 E ±10.2km
  DEPTH =  33.0km  (normal)
 TAJIKISTAN-XINJIANG BORDER REG. (719)

NDI      8.86 172 eP     08 42.00   0.2
QUE     10.35 228 eP     09 02.50   0.0
                  eS     11 37.80
GKN     12.03 139 P      09 24.60  -0.6
        0.4s     9.00nm            5.3mb
KKN     12.54 138 P      09 31.40  -0.7
DMN     12.59 139 P      09 32.80   0.0
GUN     12.77 136 P      09 36.40   1.1
PKI     12.78 138 P      09 35.60   0.2
      S.D. = 0.7  on   7 of   7 obs.
--------------------------------------
? DEC  27, 1993  03h 36m 34.80± 3.86s
  45.828 N ±21.6km    6.888 E ±18.9km
  DEPTH =   5.0km  (geophysicist)
 FRANCE                            (538)
     ML 2.5 (GEN).

LSD      0.42 153 P      36 43.39   0.2
                  S      36 47.51
RSP      0.72 159 P      36 48.93  -0.4
                  S      36 57.31
ORX      0.79 104 P      36 50.67   0.0
                  S      36 59.65
RRL      0.91 185 P      36 52.71  -0.1
                  S      37 03.56
BHB      1.02 165 P      36 54.79   0.2
PZZ      1.33 173 P      37 00.10   0.1
                  S      37 14.96
      S.D. = 0.3  on   6 of   6 obs.
--------------------------------------
? DEC  27, 1993  03h 41m 30.41± 1.34s
   0.124 S ±47.4km   16.450 W ±25.5km
  DEPTH =  10.0km  (geophysicist)
  4.8mb (  5 obs.)
 NORTH OF ASCENSION ISLAND         (407)

LIC     13.03  61 P      44 38.83   0.5
        1.3s    17.50nm            5.1mb
TIC     13.24  59 P      44 39.09  -2.0
        0.7s     4.50nm            4.7mb
KIC     13.34  61 P      44 43.61   1.1
        1.1s    19.50nm            5.1mb
                  S      46 48.00
                  TT     54 41.00
LKO     14.46  48 P      44 57.74   0.5
        0.8s    18.50nm            4.8mb
BAO     34.75 242 eP     48 23.40   0.1
YKA     93.89 333 eP     54 49.00  -0.1
        1.0s     1.20nm            4.2mb
      S.D. = 1.4  on   6 of   6 obs.
--------------------------------------
  DEC  27, 1993  05h 20m 41.78± 0.45s
  61.197 N ± 5.3km    2.716 E ± 3.4km
  DEPTH =  10.0km  (geophysicist)
  3.7mb (  1 obs.)
 NORWEGIAN SEA                     (642)
     MD 3.3 (BER).

OSG      0.71 174 eP     21 01.74   6.1X
                  eS     21 13.95
SUE      1.00  97 eP     21 23.27  22.5X
                  eS     21 34.00
FOO      1.19  69 iPd    21 04.47   0.5
                  eS     21 17.54
ASK      1.41 119 eP     21 08.18   0.8
                  eS     21 25.27
EGD      1.54 126 eP     21 10.12   0.8
                  eS     21 28.13
HYA      1.68  90 eP     21 12.35   1.0
                  eS     21 32.12
LRW      2.19 243 ePnc   21 21.00   2.3
                  eSn    22 46.90
ODD1     2.32 122 eP     21 22.21   1.5
                  eS     21 48.48
KMY      2.36 146 ePd    21 22.85   1.8
                  eS     21 49.62
BLS5     2.57 132 eP     21 34.28  10.1X
                  eS     22 03.38
MOL      2.67  57 eP     21 25.59   0.0
KONO     3.75 111 eP     21 40.88   0.0
                  eS     22 21.20
NRA0     4.33  92 Pn     21 48.01  -1.1
                  Sn     22 31.31
                  Lg     22 47.86
MFI      4.41 218 ePn    21 51.49   1.2
                  eSn    22 39.18
MCD      4.73 223 ePn    21 55.63   0.8
                  eSn    22 46.39
                  e      22 48.00
                  e      22 48.75
                  e      22 49.12
EDR      5.07 215 ePn    22 00.30   0.6
                  eS     22 54.57
MDO      5.23 227 ePn    22 02.74   0.9
                  eSn    22 58.17
NSS      5.39  48 eP     22 03.12  -1.0
                  eS     23 02.20
HFS      5.50  96 eP     22 03.90  -1.8
        0.2s    31.40nm            5.5mb X
KAC      5.53 231 ePn    22 05.85  -0.2
```

EDU 5.53 215 ePnd 22 06.58 0.5
eS 23 05.71
KPL 5.78 232 ePn 22 09.33 -0.2
eSn 23 11.52
e 23 12.49
e 23 14.33
KSB 5.78 230 ePn 22 09.29 -0.3
ELO 5.80 218 eP 22 10.17 0.4
MUD 5.81 142 iP 22 10.00 0.0
i 22 17.50
e 23 10.00
iS 23 15.00
EBH 5.93 216 ePnd 22 11.97 0.3
ESY 5.98 210 ePn 22 12.68 0.3
EDI 6.12 213 ePn 22 14.71 0.3
eSn 23 19.56
e 23 24.59
e 23 24.66
EBL 6.22 212 ePn 22 16.08 0.3
EAB 6.22 219 ePn 22 16.04 0.2
EAU 6.26 214 ePn 22 16.33 -0.1
XDE 7.48 209 eP 22 33.37 -0.1
LMI 7.70 207 eP 22 35.89 -0.6
eS 23 57.21
e 24 01.58
e 24 01.69
GIM 7.91 212 eP 22 39.06 -0.5
eS 24 02.45
e 24 04.11
e 24 05.74
WIM 8.10 212 eP 22 41.29 -0.8
KWE 8.57 199 eP 22 47.24 -1.4
WME 8.69 209 eP 22 49.30 -1.0
CWF 8.76 196 eP 22 50.30 -1.0
eS 24 21.81
e 24 25.34
e 24 25.98
YRC 8.89 210 eP 22 52.49 -0.6
YRH 9.29 209 eP 22 58.18 -0.4
DLF 9.36 216 eP 22 59.40 -0.2
eS 24 37.70
WTS 9.49 164 eP 23 08.00 6.6X
e 24 14.50
DCN 9.54 219 eP 23 02.10 0.0
eS 24 41.40
HTR 9.71 202 eP 23 02.88 -1.6
ENN 10.61 169 eP 23 16.00 -0.7
0.6s 9.40nm 5.4mb X
e 23 23.50
e 25 03.00
NUR 10.71 84 iP 23 13.30 -4.8X
0.3s 7.10nm 5.5mb X
SNF 10.75 175 iPc 23 17.45 -1.2
DOU 11.18 174 P 23 19.70 -4.8X
0.3s 7.50nm 5.5mb X
i 23 31.10
iS 25 22.00
KAF 11.23 75 iP 23 21.40 -3.8X
0.3s 13.50nm 5.8mb X
CLL 11.42 146 e(P) 23 34.00 6.1X
e 24 10.00
e 25 49.00
ARA0 12.57 39 Pn 23 38.13 -5.1X
Sn 25 49.31
GEC2 13.86 148 Pn 24 00.85 0.4
YKA 47.80 326 eP 29 20.20 -0.3
0.8s 0.50nm 3.7mb
S.D. = 0.9 on 44 of 53 obs.

DEC 27, 1993 05h 30m 18.18± 0.83s
18.227 N ± 8.8km 100.675 W ± 9.4km
DEPTH = 33.0km (normal)
3.9mb (7 obs.)
GUERRERO, MEXICO (59)

CRX 1.50 39 iP 30 46.62 3.2X
MRX 1.55 342 iPc 30 49.62 5.9X
iS 31 08.30
ACX 1.56 150 iPd 30 43.65 -0.3
iS 31 01.00
UNM 1.79 52 iP 30 48.70 1.2
iS 31 12.00
PPM 2.11 66 iPd 30 52.66 0.3
iS 31 16.00
OXX 3.94 106 iP 31 18.24 0.2
LVVM 4.27 69 (P) 31 28.30 5.8X
LTX 11.39 347 eP 33 03.36 1.6
UYO 16.82 18 iPd 34 12.90 0.1
MIAR 17.44 20 eP 34 18.71 -1.8
0.8s 2.96nm 3.5mb
TUL 18.14 13 iPc 34 28.00 -1.2
PV10 21.36 342 eP 35 04.76 -0.4
GOL 21.78 350 eP 35 09.29 -0.1
0.6s 6.80nm 4.2mb
MYNC 22.31 38 eP 35 11.74 -2.7X
0.8s 6.28nm 4.1mb
SRU 22.50 340 eP 35 17.20 0.7
DAU 23.92 340 eP 35 31.41 1.0
DUG 24.27 337 eP 35 33.20 -0.4
0.4s 1.12nm 3.8mb
BW06 25.61 345 eP 35 46.47 0.0
1.1s 7.52nm 4.2mb
RSSD 25.97 354 eP 35 48.84 -0.9
0.6s 1.62nm 3.8mb
YKA 45.28 351 eP 38 31.10 -3.1X
0.5s 0.40nm 3.6mb
MAIO 122.62 19 ePKP 49 21.00 8.6X
WRA 128.18 259 Pdiff 45 43.80 -23.7X
0.4s 1.40nm
S.D. = 1.0 on 15 of 22 obs.

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* DEC 27, 1993 05h 41m 05.83± 0.69s
6.932 N ±12.6km 73.053 W ±13.5km
DEPTH = 163.2 ± 9.3 km
4.5mb (1 obs.)
NORTHERN COLOMBIA (99)

BMG 0.14 351 iPc 41 28.00 -1.2
BOG 2.50 204 iPd 41 48.50 0.0
iS 42 19.50
SDV 3.08 51 iPnc 41 57.20 1.7
iSn 42 35.40
TOV 4.30 48 iPnc 42 12.40 1.4
iSn 43 02.80
CEOS 5.12 66 iPd 42 21.30 -0.6
CANV 5.84 45 iPd 42 32.50 1.1
MORO 6.10 50 iPd 42 34.80 -0.2
OLLA 6.90 63 iPc 42 44.70 -1.0
CAR 7.02 59 iPc 42 46.50 -0.8
LLAV 7.11 60 iPd 42 47.90 -0.6
PSO 7.12 217 eP 42 49.50 0.6
LPB 23.82 168 P 46 06.00 0.3
YKA 63.18 340 eP 51 17.70 -0.6
0.5s 3.20nm 4.5mb
WB2 150.44 241 ePKP 00 39.40 4.7X
0.4s 3.10nm
WRA 150.45 241 PKP 00 39.80 5.1X
0.5s 0.50nm
S.D. = 1.1 on 13 of 15 obs.

DEC 27, 1993 05h 53m 54.67± 1.04s
44.943 N ± 6.5km 9.090 E ± 8.0km
DEPTH = 19.9 ± 5.1 km
NORTHERN ITALY (545)
ML 2.8 (GEN).

PCP 0.56 224 P 54 04.55 -1.2
S 54 11.64
BORS 0.87 143 P 54 10.82 -0.2
S 54 21.50
FIN 0.97 221 P 54 12.12 -0.5
S 54 23.95
ORX 1.04 312 P 54 14.64 0.7
S 54 27.48
ROB 1.09 234 P 54 14.94 0.2
S 54 27.97
BHB 1.30 266 P 54 16.79 -1.0
S 54 31.96
RSP 1.32 280 P 54 17.57 -0.5
S 54 32.19
IMI 1.34 220 P 54 18.07 -0.4
ENR 1.39 240 P 54 19.33 0.2
STV 1.44 242 P 54 19.70 -0.1
SAOF 1.46 229 Pn 54 20.64 0.6
LSD 1.46 291 P 54 19.97 -0.3
PZZ 1.48 254 P 54 20.07 -0.4
AUTN 1.52 232 Pn 54 22.27 1.1
TOUF 1.61 235 Pn 54 23.17 0.7
Sg 54 46.27
RRL 1.64 270 P 54 22.72 -0.1
AURF 1.65 231 Pn 54 23.94 1.1
Sg 54 45.89
MVIF 1.74 234 Pn 54 26.12 1.9X
Sg 54 48.31
S.D. = 0.8 on 17 of 18 obs.

? DEC 27, 1993 05h 56m 06.89± 4.44s
47.290 N ±20.1km 10.895 E ±27.1km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.9 (VIE).

MOTA 0.15 69 iPgc 56 10.40 -0.1
iSg 56 15.40
SQTA 0.22 108 iPgc 56 11.80 0.0
iSg 56 17.60
WATA 0.47 84 iPg 56 16.60 0.2
iSg 56 25.70
WTTA 0.51 93 iPgc 56 17.10 -0.1
iSg 56 27.10
FUR 0.91 16 ePg 56 24.40 0.0
S.D. = 0.2 on 5 of 5 obs.

% DEC 27, 1993 06h 59m 33.27± 2.82s
33.818 S ± 8.6km 70.130 W ±19.8km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.8 (SAN).

PCH 0.38 301 iP+ 59 41.57 0.6
iS 59 47.26
CACH 0.49 233 iP+ 59 43.50 0.2
iS 59 50.77
FCH 0.51 345 iP+ 59 43.65 0.0
TACH 0.69 283 iP+ 59 47.04 0.0
iS 59 56.90
PEL 0.82 325 iPd 59 49.31 0.2
iS 00 00.78
LNV 1.07 262 iP+ 59 53.39 -0.1
iS 00 07.95
ROCH 1.12 319 iP 59 54.31 -0.1
iS 00 09.64
LCCH 1.25 285 iP+ 59 56.19 -0.3
iS 00 13.56
S.D. = 0.3 on 8 of 8 obs.

DEC 27, 1993 07h 00m 11.69± 0.25s
20.490 S ± 8.8km 173.563 W ± 5.2km
DEPTH = 33.0km (normal)
5.2mb (42 obs.)
TONGA ISLANDS (173)

AFI 6.76 15 eP 01 43.00 -8.3X
eS 03 16.00
SVA 7.90 286 eP 02 12.60 5.5X
VUN 7.93 287 eP 02 09.90 2.3
BKM 17.42 276 iPd 04 17.50 3.6X
DZM 18.70 262 iPc 04 28.60 -1.2
AFR 22.67 87 eP 05 11.20 -0.3
1.3s 342.20nm 5.7mb
PAE 22.84 87 eP 05 12.90 -0.2
1.5s 328.00nm 5.6mb
PPT 22.86 87 eP 05 13.20 -0.2
1.5s 449.20nm 5.7mb
MRW 22.95 203 P 05 15.50 1.4
PPN 23.00 87 eP 05 14.30 -0.4
1.3s 189.10nm 5.4mb
TVO 23.12 87 eP 05 15.60 -0.4
1.6s 649.30nm 5.9mb
PMO 25.03 82 eP 05 27.80 -6.6X
1.6s 385.60nm 5.8mb
TPT 25.29 82 eP 05 29.80 -7.1X
1.4s 273.60nm 5.7mb
RUV 25.46 82 eP 05 31.50 -6.9X
1.2s 171.40nm 5.5mb
ARMA 32.83 245 eP 06 45.00 0.3
CNB 35.71 238 eP 07 11.60 2.3X
0.9s 16.00nm 4.9mb
TOO 39.29 235 eP 07 39.70 0.4
0.6s 19.00nm 5.0mb
PMG 39.41 280 eP 07 38.00 -2.5X
STK 41.55 245 eP 07 57.10 -0.8
2.8s 6.40nm 3.9mb X
MDG 42.28 285 eP 08 03.00 -1.0
MHA 43.97 24 eP 08 15.95 -1.7
ASPA 48.57 256 iPd 08 52.20 -2.0
0.7s 18.40nm 5.2mb
Z 20s 0.40um 4.4Msz
eS 15 49.00
WB2 48.70 261 iPd 08 52.40 -2.8X
0.7s 11.90nm 5.0mb

i 09 18.70
WRA 48.72 261 P 08 53.20 -2.1
1.2s 2.60nm 4.1mb X
SWI 57.28 283 ePc 09 56.50 -2.4X
COOL 59.03 246 eP 10 09.50 -1.5
MBL 61.81 256 iPd 10 28.10 -2.0
0.6s 11.00nm 5.2mb
i 10 38.40
KLB 61.81 244 eP 10 29.20 -0.9
0.8s 30.00nm 5.5mb
NWAO 62.08 243 eP 10 34.70 2.9
1.0s 16.00nm 5.1mb
BAL 62.85 245 eP 10 36.00 -0.9
MUN 63.07 244 eP 10 38.00 -0.3
1.0s 30.00nm 5.4mb
MRWA 63.68 247 eP 10 41.00 -1.4
0.7s 22.00nm 5.4mb
NANU 65.40 254 eP 10 43.50 -10.1X
0.6s 14.00nm
MAT 72.74 321 eP 11 39.00 0.4
0.9s 10.08nm 4.8mb
KKM 73.79 283 ePd 11 47.50 2.2X
BCH 75.08 43 eP 11 52.09 -0.3
SAO 75.23 41 eP 11 52.90 -0.2
1.1s 20.00nm 5.0mb
MHC 75.48 40 eP 11 54.69 0.1
1.3s 30.00nm 5.1mb
ARN 75.56 40 eP 11 54.33 -0.6
KMPM 76.07 37 eP 11 56.74 -1.1
PEC 76.21 46 eP 11 58.07 -0.6
0.8s 10.27nm 4.9mb
ISA 76.41 43 eP 11 59.67 -0.2
1.2s 32.89nm 5.2mb
CMB 76.69 41 eP 12 01.20 -0.1
1.0s 10.00nm 4.8mb
ORV 77.00 39 eP 12 02.73 -0.2
1.4s 20.00nm 5.0mb
WDC 77.08 37 eP 12 03.00 -0.3
2.1s 60.00nm 5.2mb
GSC 77.28 45 eP 12 04.32 -0.4
GLA 77.31 47 eP 12 05.04 0.2
MEMM 77.35 42 eP 12 05.59 0.7
MTUM 77.39 42 eP 12 05.38 0.0
YBH 77.75 36 eP 12 07.46 0.4
1.4s 20.00nm 4.9mb
BONR 77.93 42 eP 12 07.91 -0.6
LBFM 77.95 37 eP 12 07.84 -0.6
TPNV 78.62 43 eP 12 12.27 0.1
0.8s 13.32nm 5.0mb
TNP 78.68 42 eP 12 12.50 0.0
0.8s 21.22nm 5.2mb
KVN 78.72 41 eP 12 12.55 -0.2
TUC 79.74 50 eP 12 19.68 1.4
1.0s 15.94nm 5.0mb
ARUT 80.93 44 eP 12 25.07 0.5
GMW 81.63 32 eP 12 27.41 -0.3
RMW 82.06 33 eP 12 29.75 -0.3
MSU 82.16 44 ePd 12 31.78 0.8
NJ2 83.12 308 eP 12 35.80 0.0
CP2 83.26 10 (P) 12 34.70 -1.4
SRU 83.57 44 eP 12 38.66 0.5
HVU 83.61 41 eP 12 38.26 -0.1
EMUT 83.76 44 eP 12 39.87 0.7
DAU 83.80 43 eP 12 40.05 0.5
PV10 84.16 46 eP 12 40.75 -0.5
PV09 84.16 45 eP 12 41.74 0.4
ALQ 84.19 50 ePd 12 42.38 0.9
1.7s 78.61nm 5.6mb
PTI 84.48 40 eP 12 43.39 0.7
PV08 84.52 45 eP 12 43.78 0.6
CN2 84.88 321 eP 12 48.00 3.6X
1.2s 12.00nm 5.0mb
epP 12 55.00 22kmX
LRM 86.10 38 eP 12 51.00 0.2
BW06 86.16 42 eP 12 49.79 -1.3
1.2s 8.52nm 4.9mb
IPM 87.30 276 ePc 12 58.50 1.5
0.6s 24.40nm 5.6mb
FBA 87.40 11 eP 12 55.07 -1.3
0.8s 11.36nm 5.2mb
GLD 87.41 46 eP 12 57.58 0.4
1.2s 12.85nm 5.1mb
IMA 87.60 8 eP 12 57.32 -0.1
1.6s 17.66nm 5.1mb
BJI 88.85 314 eP 13 06.00 2.2
1.5s 28.00nm 5.4mb
RSSD 90.30 42 eP 13 10.37 -0.5

0.9s 8.31nm 5.0mb
TIY 90.40 310 eP 13 12.50 1.2
XAN 91.47 306 P 13 19.40 3.2X
1.0s 8.90nm 5.1mb
pP 13 27.40 25kmX
HHC 92.36 313 eP 13 24.00 3.8X
0.8s 9.10nm 5.3mb
TUL 92.41 53 iPc 13 21.60 1.2
BDT 93.58 287 eP 13 21.00 -5.1X
BDT 93.58 287 iPc 13 38.00 11.9X
0.9s 36.30nm
CHTO 94.17 288 eP 13 31.60 2.7
YKA 94.80 24 eP 13 30.10 -0.7
0.8s 1.30nm 4.4mb
LZH 96.09 306 eP 13 43.50 5.9X
1.5s 21.00nm 5.4mb
sP 13 50.00
MAIO 131.32 301 ePKP 19 25.00 2.4X
OBN 138.64 334 (PKP) 19 34.30 -1.4
1.2s 8.90nm
Z 27s 47.30um 7.1MszX
HFS 140.06 354 ePKP 19 30.90 -7.2X
0.5s 1.20nm
DCN 145.55 15 ePKP 19 48.40 0.6
DLF 145.76 14 ePKP 19 49.10 0.9
WIT 147.74 360 ePKP 19 58.00 6.6X
OJC 148.50 343 ePKP 19 58.00 5.3X
WTS 148.55 360 ePKP 19 57.00 4.3X
0.9s 17.90nm
KSP 148.73 348 ePKP 19 57.00 3.9X
CLL 148.81 352 iPKP 19 58.00 4.8X
1.8s 55.00nm
i 20 08.20
KAS 148.87 318 ePKP 20 01.00 7.3X
BRG 149.11 351 iPKP 19 58.80 5.1X
1.5s 52.00nm
i 20 09.60
SPC 149.31 342 ePKP 20 00.70 6.4X
BNS 149.58 359 ePKPd 20 02.50 8.1X
MOX 149.63 353 ePKP 20 00.00 5.5X
VRI 149.69 331 ePKPc 19 55.00 0.3
ENN 149.78 1 ePKP 20 01.00 6.3X
2.0s 83.30nm
PRU 149.87 350 PKPc 20 00.40 5.6X
1.6s 40.80nm
e 20 07.50
e 20 15.90
e 22 11.00
ISR 150.33 331 ePKP 20 02.50 6.7X
MLR 150.34 332 ePKPd 20 01.50 5.6X
DOU 150.42 2 PKPc 20 02.00 6.3X
e 20 13.00
GRF 150.61 354 ePKP 20 01.40 5.4X
KHC 150.86 350 PKPc 20 03.40 7.0X
1.4s 24.90nm
e 20 13.90
e 20 19.30
WLF 150.89 0 PKP 20 05.00 8.7X
LIC 161.98 140 PKP 20 12.29 1.0
1.4s 20.50nm
KIC 162.26 141 ePKP 20 12.57 1.0
1.1s 24.00nm
TIC 162.31 140 PKP 20 12.73 1.1
1.3s 10.50nm
S.D. = 1.0 on 78 of 116 obs.

& DEC 27, 1993 07h 38m 00.18s
35.988 N 120.111 W
DEPTH = 15.8km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.4 (GM). ML 2.5
(GS), 2.4 (PAS).

PKEM 0.07 1 eP 38 03.72 0.3
PHAM 0.28 237 eP 38 06.63 0.3
BCH 0.80 178 eP 38 15.21 -0.1
ABL 1.35 147 eP 38 23.16 -1.4
ISA 1.37 103 eP 38 24.26 -0.4
ARN 1.78 320 (P) 38 34.62 4.1
MMPM 1.84 28 eP 38 32.03 0.4
MTUM 1.85 42 eP 38 32.24 0.6
MEMM 1.92 29 eP 38 33.86 1.4
CMB 2.05 354 eP 38 35.51 1.0
BONR 2.44 36 eP 38 42.97 2.7
11 obs. associated

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* DEC 27, 1993 07h 43m 47.77± 1.21s
3.914 N ±20.8km 74.062 W ±18.4km
DEPTH = 67.7 ± 15.3 km
3.5mb (1 obs.)
COLOMBIA (103)

BOG 0.70 360 iPc 44 02.50 -0.6
iS 44 16.00
BMG 3.29 17 eP 44 41.00 2.9X
PSO 4.23 230 eP 44 52.00 0.3
SDV 6.00 34 iPnc 45 17.50 1.3
iSn 46 25.20
TOV 7.21 36 eP 45 32.60 -0.3
CEOS 7.63 48 eP 45 37.20 -1.5
eS 48 00.10
CANV 8.78 36 iPd 45 54.90 0.5
MORO 8.96 39 eP 45 58.40 1.4
OLLA 9.42 50 iPc 46 01.80 -1.5
LLAV 9.71 47 iP 46 08.20 0.9
YKA 65.66 341 eP 54 26.30 -0.5
0.5s 0.30nm 3.5mb
WB2 148.05 238 ePKP 03 26.80 2.0X
1.2s 2.00nm
S.D. = 1.3 on 10 of 12 obs.

? DEC 27, 1993 09h 13m 44.06± 0.91s
47.253 N ±14.0km 11.270 E ± 6.8km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.4 (VIE).

SQTA 0.05 232 iPgc 13 46.20 -0.2
iSg 13 47.80
MOTA 0.15 309 iPgc 13 47.60 0.0
iSg 13 50.10
WATA 0.22 68 iPgc 13 48.80 -0.2
WTTA 0.25 87 iPgc 13 49.60 0.1
KHC 2.43 39 Pg 14 34.00 9.5X
e 14 53.20
Sg 15 01.50
S.D. = 0.3 on 4 of 5 obs.

? DEC 27, 1993 09h 32m 24.48± 5.64s
15.202 N ±17.9km 123.021 E ±59.3km
DEPTH = 33.0km (normal)
PHILIPPINE ISLANDS REGION (248)

QVP 2.03 254 eP 32 57.00 -0.1
eS 33 22.80
TGY 2.30 242 iPd 32 56.00 -4.9X
PGP 2.62 230 eP 33 05.50 0.0
CVP 2.74 335 eP 33 07.00 -0.1
PIP 3.87 324 eP 33 23.20 0.1
S.D. = 0.2 on 4 of 5 obs.

& DEC 27, 1993 09h 35m 40.22s
63.377 N 149.600 W
DEPTH = 113.0km
CENTRAL ALASKA (1)
<AEIC>.

RND 0.34 85 eP 35 56.63 -0.2
HUR 0.40 182 ePc 35 56.62 -0.5
eS 36 08.93
MCK 0.46 40 ePd 35 57.12 -0.3
eS 36 10.27
KTH 0.62 287 eP 35 56.74 -1.9
BWN 0.80 4 iPd 35 59.89 -0.1
eS 36 14.01
CUT 1.02 198 ePd 36 01.86 -0.3
eS 36 18.04
NEA 1.23 11 ePd 36 03.65 -0.8
WRH 1.29 31 ePd 36 04.49 -0.6
CCB 1.50 31 iPd 36 06.88 -0.7
HDA 1.56 47 eP 36 07.72 -0.6
eS 36 29.49
GHO 1.64 169 eP 36 09.32 -0.1
SKT 1.66 213 iPd 36 08.73 -0.8
eS 36 30.59
SML 1.68 159 eP 36 09.59 -0.3
MDM 1.70 20 ePd 36 09.48 -0.6
DDM 1.72 74 eP 36 10.52 0.1
FBA 1.72 27 eP 36 09.19 -1.1
THY 1.73 87 eP 36 10.16 -0.3
MLY 1.73 344 iPc 36 09.84 -0.7
PWA 1.74 184 P 36 10.60 0.1
PLRM 1.80 173 eP 36 10.98 -0.3
PMR 1.80 173 eP 36 10.52 -0.8

27d 09h

eS 36 33.16
IL1 1.84 39 iPd 36 10.98 -0.8
ILB 1.84 39 iPd 36 10.98 -0.8
eS 36 35.17
DJE 1.86 68 eP 36 12.14 0.0
SCM 1.87 145 eP 36 11.99 -0.3
GLM 1.88 30 ePd 36 11.73 -0.7
PAX 1.92 100 ePc 36 12.98 0.1
eS 36 38.73
SUA 1.99 196 eP 36 13.91 0.1
TOA 2.03 127 P 36 14.30 0.0
KNK 2.04 164 eP 36 14.23 -0.2
eS 36 40.41
PMS 2.14 179 P 36 15.50 -0.2
NCG 2.31 212 eP 36 17.28 -0.7
TZL 2.34 123 eP 36 18.42 0.1
CGLM 2.36 209 eP 36 18.13 -0.5
CFI 2.36 158 eP 36 18.08 -0.4
CRP 2.43 211 eP 36 18.46 -1.1
CP2 2.45 211 eP 36 19.37 -0.6
CKN 2.47 210 eP 36 20.15 0.1
SPU 2.48 209 eP 36 19.73 -0.5
BGL 2.49 213 eP 36 20.52 0.2
DOT 2.50 81 eP 36 19.67 -0.7
CKT 2.50 210 eP 36 20.03 -0.4
KLU 2.55 136 eP 36 20.05 -1.0
PWL 2.60 166 eP 36 21.29 -0.3
BKG 2.63 209 eP 36 21.71 -0.4
VLZ 2.72 144 eP 36 21.72 -1.5
eS 36 53.94
NKA 2.75 197 eP 36 25.95 2.3
SLKM 2.89 186 eP 36 25.39 -0.2
MPA 2.90 178 eP 36 24.87 -0.8
TTA 2.94 264 P 36 25.80 -0.5
TMW 2.98 88 eP 36 25.73 -1.0
FID 3.02 149 P 36 26.60 -0.7
DFR 3.15 209 eP 36 29.25 0.1
IM3 3.17 328 ePc 36 28.18 -1.1
IMA 3.22 329 eP 36 28.47 -1.6
REF 3.25 208 eP 36 30.79 0.3
RDW 3.28 209 eP 36 30.70 -0.2
RS2 3.28 208 P 36 32.50 1.5
SEW 3.29 179 eP 36 29.89 -0.9
GLB 3.32 123 eP 36 30.81 -0.6
HIN 3.33 152 eP 36 30.28 -1.2
CVA 3.37 146 eP 36 31.40 -0.6
BC3 3.55 92 ePc 36 33.30 -1.2
ILIM 3.67 207 eP 36 37.35 1.2
CNPM 3.94 192 eP 36 39.00 -0.8
HMT 3.96 138 eP 36 39.45 -0.6
CRQM 4.02 128 eP 36 40.02 -1.0
BALM 4.13 121 eP 36 41.21 -1.2
TGL 4.13 127 eP 36 41.11 -1.3
KAIM 4.25 142 P 36 40.70 -3.3
SNH 4.54 132 eP 36 47.35 -0.6
BM3 4.56 25 eP 36 46.76 -1.5
CTGM 4.57 118 eP 36 47.87 -0.6
73 obs. associated

DEC 27, 1993 11h 53m 37.34± 0.37s
7.640 S ± 4.6km 146.806 E ± 6.7km
DEPTH = 33.0km (normal)
5.2mb (17 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)
ML 5.2 (PMG).

LAT 0.99 11 iPc 53 54.10 -0.8
YYYY 1.62 329 eP 54 05.90 1.8
PMG 1.79 169 iPc 54 06.60 0.2
eS 55 33.00
MDG 2.58 337 eP 54 21.00 3.3X
MNDI 3.46 295 iPd 54 31.00 0.6
WWKK 5.09 321 eP 54 57.50 4.0X
MTN 16.27 250 eP 57 26.50 1.4
eS 00 15.00
WB2 17.18 223 iPc 57 35.60 -1.1
0.5s 40.50nm 4.8mb
i 57 39.00
eS 00 36.90
WRA 17.19 223 P 57 36.20 -0.6
0.9s 23.60nm 4.3mb
ASPA 20.18 216 iPd 58 11.80 -0.3
1.0s 173.00nm 5.4mb
i 59 07.90
ARMA 23.11 169 eP 58 43.10 1.5
0.6s 10.00nm 4.5mb
STK 24.60 191 eP 58 58.90 3.0X
1.5s 6.00nm 3.9mb X
WARB 26.61 224 eP 59 14.50 -0.3
MAT 44.68 350 (P) 01 47.00 -2.0
IPM 47.26 283 ePd 02 09.20 -0.6
0.8s 89.10nm 5.8mb
LOE 51.02 300 eP 02 38.00 -0.7
NST 51.70 297 eP 02 44.00 0.2
KMI 53.85 309 Pc 03 01.00 1.0
1.8s 50.00nm 5.2mb
pP 03 10.50 31kmX
CHTO 54.01 300 eP 03 01.00 0.0
BJI 55.24 332 eP 03 06.00 -3.6X
1.6s 17.00nm 4.8mb
LZH 59.33 320 iPd 03 39.20 0.4
1.0s 49.00nm 5.6mb
SHL 62.75 304 iPd 04 02.00 -0.2
GUN 68.61 304 P 04 40.00 0.0
0.7s 34.00nm 5.5mb
PKI 68.87 303 P 04 41.20 -0.4
0.9s 23.00nm 5.2mb
KKN 69.06 304 P 04 42.60 0.0
0.8s 42.00nm 5.6mb
DMN 69.14 303 P 04 43.20 0.0
0.7s 52.00nm 5.7mb
GKN 69.66 303 P 04 46.00 -0.3
0.7s 35.00nm 5.5mb
KOD 71.28 283 eP 04 52.00 -4.5X
HYB 71.86 291 eP 04 59.00 -0.5
1.0s 30.00nm 5.3mb
GBA 72.02 287 Pd 05 00.30 -0.1
0.7s 2.00nm 4.2mb
NDI 76.07 302 eP 05 23.00 -0.8
POO 76.47 291 eP 05 26.00 -0.2
ANM 80.31 19 (P) 05 46.89 0.6
SVW 81.80 24 eP 05 55.40 1.2
SLKM 83.79 26 (P) 06 04.46 0.0
IMA 85.15 21 eP 06 12.12 0.8
1.0s 5.39nm 4.7mb
FBA 86.76 23 eP 06 18.31 -0.8
0.9s 6.02nm 4.8mb
KIC 151.73 269 PKP 13 31.38 6.8X
0.9s 19.50nm
LIC 152.01 269 PKP 13 31.84 6.9X
0.9s 18.00nm
TIC 152.03 270 PKP 13 31.94 6.9X
0.9s 12.00nm
BDFB 152.60 148 ePKP 13 25.72 -0.1
ePKPbc13 33.29
BAO 152.62 148 ePKP 13 33.20 7.3X
LKO 152.64 276 PKP 13 33.27 7.4X
0.9s 12.50nm
S.D. = 0.8 on 33 of 43 obs.

DEC 27, 1993 13h 54m 05.43± 0.70s
46.042 N ±11.0km 13.538 E ± 8.9km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 2.2 (VIE), 1.9 (LJU). MD 2.0
(TRI).

VOY 0.25 92 iPgd 54 11.20 0.4
eSg 54 17.10
TRI 0.37 155 ePg 54 13.20 0.2
eSg 54 20.70
CEY 0.69 116 e(Pn) 54 18.50 -0.6
eSn 54 33.00
VBY 1.32 113 ePn 54 31.10 1.3X
eSn 54 51.90
WTTA 1.79 314 iPgc 54 36.20 -0.6
iSg 54 59.40
WATA 1.87 314 iPgd 54 37.80 -0.1
iSg 55 02.80
SQTA 1.99 307 iPgc 54 40.30 0.7
iSg 55 06.80
S.D. = 0.7 on 6 of 7 obs.

& DEC 27, 1993 14h 13m 08.03s
34.073 N 116.384 W
DEPTH = 3.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.5 (PAS). Felt.

PEC 0.67 255 iPc 13 20.42 -1.0
eS 13 29.29
PLM 0.82 209 eP 13 22.97 -1.4
SSK 1.09 278 eP 13 28.03 -1.3
GSC 1.27 344 eP 13 31.30 -1.1
GLA 1.65 128 eP 13 37.11 -1.0
5 obs. associated

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* DEC 27, 1993 15h 03m 41.09± 1.84s
31.520 S ±10.7km 70.756 W ±13.6km
DEPTH = 134.6 ± 25.7 km
CHILE-ARGENTINA BORDER REGION (127)
MD 4.0 (SAN).

JACH 1.17 173 iP+ 04 05.96 -0.5
iS 04 23.34
ROCH 1.46 188 iPd 04 09.10 -0.6
iS 04 29.56
PEL 1.62 178 iP+ 04 11.21 -0.1
iS 04 32.91
RTRS 1.75 40 iPc 04 13.20 0.5
S 04 35.50
ZON 1.77 91 iPd 04 13.40 0.3
eS 04 34.40
FCH 1.84 168 iP+ 04 14.96 0.7
iS 04 39.32
RTCV 1.92 101 eP 04 14.50 -0.3
LCCH 2.07 199 eP 04 16.54 0.0
eS 04 42.38
PCH 2.10 174 eP 04 17.33 0.2
eS 04 44.66
TACH 2.13 184 iP 04 17.46 0.1
iS 04 44.66
LNV 2.49 193 iP+ 04 21.40 -0.4
iS 04 51.01
CACH 2.59 177 iPd 04 24.00 0.7
iS 04 55.96
RTPR 3.84 73 eP 04 39.00 -0.6
S 05 20.00
S.D. = 0.6 on 13 of 13 obs.

DEC 27, 1993 15h 08m 01.18± 1.04s
10.250 N ± 7.5km 121.998 E ± 9.4km
DEPTH = 37.1 ± 14.6 km
4.7mb (4 obs.)
PANAY, PHILIPPINE ISLANDS (254)

MAP 1.95 88 iPd 08 31.00 -1.5
iS 09 03.00
PLP 3.07 72 ePc 08 48.00 -0.4
eS 09 11.50
PGP 3.39 343 eP 08 53.20 0.2
CTB 3.73 144 ePc 08 59.00 1.2
eS 09 21.00
BIP 4.65 115 ePc 09 12.20 1.2
DAV 4.73 131 eP 09 17.00 5.0X
TSM 7.19 215 ePc 09 46.00 -0.7
SSE 20.76 358 P 12 42.00 0.6
KMI 23.52 311 eP 13 12.50 3.3X
2.0s 50.00nm 4.7mb
sP 13 21.50
BJI 30.12 351 eP 14 09.50 -0.1
2.0s 32.00nm 4.8mb
WB2 32.37 158 eP 14 29.00 -0.7
0.9s 5.10nm 4.4mb
YAK 51.98 5 eP 17 08.90 0.3
1.1s 25.00nm 5.1mb
S.D. = 1.1 on 10 of 12 obs.

% DEC 27, 1993 15h 38m 17.37± 0.86s
60.870 N ± 6.1km 5.003 E ± 9.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

SUE 0.22 328 iPc 38 22.10 0.0
eS 38 25.52
ASK 0.40 166 eP 38 25.27 -0.3
EGD 0.61 170 eP 38 29.94 0.3
eS 38 37.93
HYA 0.65 62 eP 38 30.33 0.0
eS 38 38.99
NRA0 3.21 90 ePn 39 08.73 0.0
ePg 39 12.95
eLg 40 01.50
S.D. = 0.3 on 5 of 5 obs.

& DEC 27, 1993 16h 02m 57.10s
62.474 N 149.811 W
DEPTH = 68.1km
4.7mb (11 obs.)
CENTRAL ALASKA (1)

<AEIC>. ML 4.7 (AEIC), 4.8 (PMR). Felt (V) at Talkeetna; (IV) at Eagle River, Wasilla and Willow; (III) at Anchorage, Chickaloon and Skwentna; (II) at Palmer.

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CUT    0.22 252 ePd   03 07.18  -0.5
HUR    0.51   9 iPd   03 09.40  -0.7
GHO    0.82 149 iPc   03 12.97  -0.6
                eS    03 26.21
PWA    0.83 182 P     03 12.80  -0.8
PLRM   0.94 160 iPc   03 14.13  -0.8
PMR    0.94 160 eP    03 14.30  -0.7
SKT    0.95 239 iPd   03 14.46  -0.6
                eS    03 28.36
SML    0.96 133 iPc   03 14.48  -0.9
                eS    03 28.72
RND    1.03  25 iPd   03 15.25  -1.0
SUA    1.11 204 iPc   03 16.84  -0.4
PMS    1.24 174 P     03 18.20  -0.7
KNK    1.24 148 iPc   03 18.14  -0.8
                eS    03 35.13
DHY    1.27  61 iPd   03 18.39  -1.1
                eS    03 35.66
MCK    1.32  17 iPd   03 19.27  -0.8
SCM    1.33 118 iPc   03 19.33  -0.9
NCG    1.54 227 iPd   03 22.23  -0.9
CGLM   1.57 223 ePd   03 22.51  -0.9
CFI    1.62 142 iPc   03 22.90  -1.1
CRP    1.64 224 ePd   03 23.07  -1.5
PTE    1.66 167 eP    03 24.80   0.3
CP2    1.67 225 eP    03 23.68  -1.3
SPU    1.68 220 iPd   03 23.98  -0.9
CKN    1.68 223 iPd   03 24.40  -0.6
CKT    1.71 223 iPd   03 24.44  -0.9
BWN    1.71   5 iPd   03 24.35  -1.0
BGL    1.72 226 eP    03 24.90  -0.7
TOA    1.74 101 P     03 25.50  -0.3
PWL    1.77 156 ePc   03 24.64  -1.4
BKG    1.83 221 iPd   03 26.08  -0.9
NKA    1.87 202 eP    03 28.14   0.7
SLKM   1.98 186 eP    03 27.42  -1.7
MPA    2.00 174 eP    03 27.51  -1.8
PAX    2.06  74 eP    03 29.47  -0.8
THY    2.08  61 eP    03 30.35  -0.1
KLU    2.08 116 eP    03 28.83  -1.7
TZL    2.10 100 ePc   03 30.16  -0.5
VZW    2.10 131 ePc   03 28.79  -2.0
VLZ    2.13 128 eP    03 28.96  -2.1
NEA    2.14   9 iPd   03 29.55  -1.6
WRH    2.15  20 iPd   03 29.85  -1.5
DDM    2.23  52 iPd   03 32.45   0.0
HDA    2.33  32 eP    03 32.37  -1.5
DFR    2.34 217 iPd   03 32.88  -1.2
FID    2.35 136 eP    03 32.01  -2.2
CCB    2.36  21 iPd   03 32.57  -1.7
SEW    2.39 176 eP    03 33.56  -1.0
REF    2.43 216 iPd   03 34.31  -1.1
DJE    2.43  48 eP    03 34.27  -1.1
RDW    2.46 217 iPd   03 34.82  -1.1
RSO    2.46 216 eP    03 34.85  -1.1
RED    2.51 216 ePd   03 35.27  -1.1
MDM    2.59  15 iPd   03 36.05  -1.5
FBA    2.60  19 ePd   03 35.80  -1.8
MLY    2.60 351 eP    03 35.93  -1.8
LTI    2.62 158 eP    03 35.76  -2.1
HIN    2.62 141 eP    03 35.83  -2.1
ILB    2.65  28 eP    03 36.12  -2.2
                eS    04 06.78
IL1    2.65  28 eP    03 36.08  -2.3
MTU    2.70 156 eP    03 36.94  -2.2
CVA    2.74 133 eP    03 37.97  -1.7
GLM    2.74  22 iPd   03 38.06  -1.6
ILIM   2.84 214 eP    03 39.62  -1.5
DOT    2.87  63 eP    03 40.11  -1.4
INE    2.89 214 eP    03 40.07  -1.7
TTA    2.89 282 ePc   03 39.77  -2.1
HOM    2.96 198 eP    03 40.57  -2.1
GLB    3.02 107 ePc   03 41.27  -2.3
                eS    04 16.27
CNPM   3.04 194 eP    03 42.18  -1.6
SVW    3.08 246 ePd   03 42.32  -2.1
XLV    3.17 198 eP    03 44.59  -1.0
TMW    3.23  72 eP    03 45.01  -1.5
RAGM   3.24 128 eP    03 45.32  -1.3
OPT    3.28 212 eP    03 47.18  -0.1
HMT    3.42 126 eP    03 46.22  -3.0
PDB    3.43 220 eP    03 48.85  -0.4
MID    3.49 149 P     03 46.90  -3.2
AUL    3.57 211 eP    03 51.23   0.0
AUE    3.58 211 eP    03 50.66  -0.6
AUP    3.58 211 eP    03 50.99  -0.5
AGU    3.59 211 eP    03 51.79   0.2
AUH    3.59 211 eP    03 51.65   0.1
AUW    3.59 211 eP    03 51.12  -0.4
CRQM   3.62 115 eP    03 49.46  -2.7
BC3    3.74  77 eP    03 51.34  -2.3
TGL    3.75 114 eP    03 50.86  -3.0
BALM   3.83 109 eP    03 51.96  -3.0
WAX    3.91 118 eP    03 53.16  -2.9
IM3    3.92 336 ePc   03 54.18  -1.9
IMA    3.98 337 ePc   03 54.42  -2.7
CDD    4.02 210 eP    03 56.13  -1.5
CTGM   4.31 107 eP    03 59.02  -2.8
YAH    4.42 115 eP    03 59.92  -3.4
CHX    4.84 116 eP    04 07.01  -2.2
KDC    4.93 197 eP    04 05.94  -4.3
PCA    5.19 113 eP    04 10.72  -3.3
BM3    5.43  22 eP    04 14.65  -2.8
BCPM   5.53 113 eP    04 14.87  -3.8
PNL    5.78 114 eP    04 18.57  -3.7
ANM    7.26 294 eP    04 40.28  -2.5
SDN    9.03 222 eP    05 01.47  -5.5
SIT    9.09 120 (P)   05 01.04  -6.8
BRW    9.27 346 eP    05 05.89  -4.4
ADK   17.87 246 e(P)  07 00.90  -1.2
       0.9s    37.80nm         4.6mb
MCW   20.36 120 eP    07 27.96  -2.2
                esP   07 53.00
GMW   21.29 122 eP    07 38.38  -1.1
                esP   08 03.57
RMW   21.75 121 eP    07 43.15  -1.0
FMW   22.24 121 P     07 48.35  -0.7
WTV   22.31 118 P     07 49.32  -0.4
LON   22.33 122 eP    07 48.42  -1.4
                epP   08 05.53  77kmX
                esP   08 14.36
EBG   22.69 120 P     07 52.44  -1.0
ASR   22.91 122 P     07 54.84  -0.7
DPW   22.91 115 eP    07 54.23  -1.3
                epP   08 12.16  80kmX
NEW   23.06 113 eP    07 56.24  -0.7
       0.9s    11.01nm         4.3mb
                epP   08 14.24  81kmX
SSOR  23.66 125 P     08 01.37  -1.5
VGB   23.75 122 eP    08 01.80  -1.9
                epP   08 20.42  83kmX
                esP   08 29.25
CROR  24.11 123 P     08 05.67  -1.6
DBO   24.86 129 P     08 12.09  -2.3
LBFM  26.89 129 eP    08 32.23  -1.1
                esP   08 58.18
WDC   27.34 131 eP    08 35.96  -1.1
HVU   30.10 116 (P)   08 59.59  -2.5
KVN   30.30 126 eP    09 02.52  -1.4
                esP   09 28.82
ARN   30.57 132 eP    09 02.93  -3.2
                esP   09 30.22
COE   30.61 132 (P)   09 03.89  -2.5
BW06  30.65 111 eP    09 04.54  -2.5
       1.0s    15.01nm         4.7mb
                esP   09 30.42
BONR  31.19 127 eP    09 10.03  -1.8
MEMM  31.21 128 eP    09 10.37  -1.2
TNP   31.48 126 eP    09 12.32  -2.0
       0.9s    12.01nm         4.7mb
DAU   31.87 116 (P)   09 15.18  -2.7
RSSD  32.04 103 eP    09 16.55  -2.6
       0.6s     9.21nm         4.8mb
                esP   09 42.52
BCH   33.02 132 eP    09 25.93  -1.7
                epP   09 44.21  77kmX
                esP   09 52.48
MSU   33.10 119 eP    09 26.44  -2.0
                epP   09 44.96  78kmX
ISA   33.16 129 eP    09 26.54  -2.3
       0.9s    15.81nm         4.9mb
                epP   09 44.25  74kmX
                esP   09 52.63
ARUT  33.21 121 eP    09 26.57  -2.7
                esP   09 53.54
SRU   33.27 116 eP    09 27.47  -2.4
                epP   09 45.96  78kmX
GSC   34.09 127 eP    09 35.25  -1.6
                epP   09 52.80  73kmX
                esP   10 01.49
PV09  34.37 115 eP    09 36.52  -2.9
PV10  34.51 115 eP    09 37.98  -2.7
                epP   09 57.42  83kmX
YAK   35.21 306 eP    09 39.30  -6.7
       0.8s    26.00nm         5.2mb
PEC   35.22 129 eP    09 44.32  -2.2
                esP   10 10.13
PLM   35.82 129 eP    09 48.79  -2.9
GLA   36.83 127 eP    09 58.19  -1.8
DAG   37.68  17 iPc   10 03.30  -3.3
       0.7s    11.64nm         4.9mb
ALQ   38.52 115 eP    10 13.00  -1.4
       1.2s     7.81nm         4.5mb
                esP   10 37.50
TUC   39.04 122 eP    10 17.83  -0.8
       1.1s    10.04nm         4.6mb
                esP   10 44.79
UYO   44.44 103 iPc   10 59.40  -3.2
LTX   44.55 116 eP    11 00.35  -3.3
PRM   50.07  92 eP    11 43.35  -3.2
NSD   52.36   6 eP    11 58.50  -5.0
       0.6s     1.60nm         4.2mb
NB2   55.96  11 P     12 43.50  13.5
       0.8s     4.60nm
LZH   65.58 301 eP    13 50.40  14.8
       1.4s    34.00nm
MAIO  78.78 336 eP    15 10.00  16.5
GUN   79.60 312 P     14 55.00  -3.4
KKN   79.91 312 P     14 56.90  -3.0
GKN   79.94 313 P     14 56.80  -3.2
PKI   80.07 312 P     14 57.90  -3.0
DMN   80.14 313 P     14 58.10  -3.1
```

156 obs. associated

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* DEC 27, 1993 16h 30m 34.98± 1.56s
36.445 N ± 7.9km 7.777 W ±17.1km
DEPTH = 33.0km (normal)
STRAIT OF GIBRALTAR (385)
mbLg 3.0 (MDD).

```
EVAL   1.40  36 eP    30 59.08   0.6
                e     31 15.00
EJIF   1.86  89 eP    31 06.00   0.9
                e     31 26.00
EPRU   2.11  75 eP    31 09.80   1.1
                e     31 32.80
EHOR   2.44  55 eP    31 13.15  -0.3
                e     31 40.00
EBAN   3.62  60 iPd   31 29.51  -0.5
                e     32 06.00
IFR    3.64 143 iPn   31 30.50  -0.1
                iSn   32 08.00
                i     32 40.00
EPLA   3.85  20 eP    31 33.77   0.4
                e     32 13.80
EVIA   4.73  61 iP    31 44.00  -1.9
                e     32 34.00
TIO    5.52 175 iPn   31 57.00  -0.1
                iSn   32 55.00
                i     32 56.00
```

S.D. = 1.1 on 9 of 9 obs.

? DEC 27, 1993 17h 26m 03.08± 2.09s
37.484 N ± 8.3km 2.069 W ±23.7km
DEPTH = 5.0km (geophysicist)
SPAIN (377)
mbLg 2.7 (MDD).

```
ENIJ   0.52 192 iPd   26 13.39  -0.2
                e     26 19.40
EHUE   0.53 309 eP    26 13.06  -0.7
                e     26 20.50
EVIA   1.20 344 iPd   26 25.96  -0.1
                e     26 43.00
EBAN   1.52 297 eP    26 31.87   0.9
                e     26 51.70
```

S.D. = 1.1 on 4 of 4 obs.

DEC 27, 1993 18h 21m 11.23± 1.64s
1.160 S ± 6.5km 121.276 E ±14.0km
DEPTH = 33.9 ± 15.4 km
4.8mb (15 obs.) 4.3Msz (1 obs.)
SULAWESI, INDONESIA (268)

```
27d  18h

TSM      6.40 328 ePd    22 44.40  -1.2
         0.9s   655.90nm        6.4mb X
KKM      8.76 325 eP     23 20.00   1.3
MBL     19.93 184 eP     25 43.40   0.2
IPM     21.02 286 ePd    25 58.00   3.4X
         0.8s    26.10nm        4.7mb
NANU    21.99 194 eP     25 55.50  -8.8X
WB2     22.63 146 iPd    26 10.70   0.1
         1.0s    39.80nm        4.8mb
                  i      26 24.90
QIZ     22.99 331 eP     26 13.00  -1.2
WARB    25.41 169 eP     26 38.50   1.0
LOE     26.67 315 eP     26 49.00  -0.2
MRWA    28.35 190 eP     27 03.80  -0.5
CHTO    29.59 313 eP     27 16.50   0.9
         1.0s    20.50nm        4.8mb
BAL     29.60 188 eP     27 15.00  -0.6
GYA     30.87 334 iPc    27 30.00   3.1X
         1.0s    33.00nm        5.1mb
KMI     31.70 327 eP     27 36.00   1.6
         1.5s    50.00nm        5.2mb
NWAO    31.83 186 eP     27 35.00  -0.1
         0.7s     5.00nm        4.5mb
CD2     35.98 334 P      28 10.60  -0.5
         1.0s    66.00nm        5.5mb
STK     36.08 150 iPd    28 11.80   0.0
         1.0s     6.60nm        4.5mb
XAN     36.89 343 P      28 18.00  -0.7
         1.0s     8.90nm        4.6mb
SHL     38.91 315 eP     28 36.50   0.6
TIY     39.53 349 eP     28 40.40  -0.4
      Z  20s      0.50um        4.3Msz
LZH     40.46 338 Pc     28 49.50   0.9
         1.4s    23.00nm        4.7mb
BJI     41.27 354 eP     28 54.00  -0.9
         1.4s    12.00nm        4.4mb
                  pP     29 08.50  56kmX
LSA     42.06 319 P      29 03.00   0.9
HHC     42.74 349 eP     29 07.10   0.0
BTO     42.81 347 eP     29 11.80   4.1X
GUN     44.61 313 P      29 29.60   6.8X
         0.8s    43.00nm        5.4mb
PKI     44.77 312 P      29 31.20   7.2X
         0.6s    11.00nm        4.9mb
GTA     44.92 336 P      29 25.00   0.2
         1.5s    16.00nm        4.7mb
KKN     44.98 313 P      29 32.40   6.8X
DMN     45.01 312 P      29 33.40   7.5X
         0.6s    15.00nm        5.1mb
GKN     45.57 312 P      29 36.60   6.4X
GBA     45.86 290 P      29 32.00  -0.4
HYB     45.95 296 eP     29 33.00  -0.2
WMQ     53.91 330 P      30 34.50   0.8
                  pP     30 45.50  37kmX
QUE     60.35 306 eP     31 17.50  -2.3
MAIO    68.28 310 eP     32 12.00   0.6
    S.D. = 0.9  on  27 of  36 obs.
----------------------------------------
* DEC 27, 1993  19h 09m 10.01± 0.72s
   5.872 S ±10.6km  145.439 E ± 9.7km
   DEPTH =  33.0km  (normal)
   3.6mb ( 1 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

YYYY     0.64 125 iPd    09 23.10   0.3
MDG      0.71  29 iPc    08 41.90 -41.6X
LAT      1.74 117 eP     09 38.20  -0.2
MNDI     1.79 261 eP     09 45.50   6.1X
WWKK     2.87 321 iPd    09 54.60   0.0
PMG      3.90 154 iPc    10 09.00  -0.1
WB2     17.66 217 eP     13 15.30   0.1
         0.7s     3.90nm        3.6mb
KIC    150.35 273 PKP    28 55.10  -0.1
    S.D. = 0.2  on   6 of   8 obs.
----------------------------------------
* DEC 27, 1993  19h 54m 46.92± 0.74s
   31.219 S ±13.7km   68.640 W ±13.0km
   DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA    (137)

RTLL     0.18 127 iPd    55 01.50  -0.1
                  S      55 11.70
RTCB     0.30 207 iPd    55 01.80   0.0
                  S      55 12.00
ZON      0.33 186 iPd    55 02.00   0.1
                  eS     55 13.00
RTRS     1.26 326 iP     55 10.60   0.0
                  S      55 28.30
RTPR     2.05  64 iPd    55 20.60   0.0
                  S      55 47.00
    S.D. = 0.1  on   5 of   5 obs.
----------------------------------------
  DEC 27, 1993  19h 58m 17.63± 0.45s
  44.359 N ± 2.4km    7.304 E ± 4.0km
  DEPTH =  14.4 ±· 4.4 km
 NORTHERN ITALY                   (545)
     ML 2.7 (GEN).

STV      0.12 173 Pc     58 21.31   0.1
                  S      58 23.21
ENR      0.16 148 Pc     58 21.81   0.0
                  S      58 23.80
PZZ      0.21 315 Pd     58 23.11   0.5
                  S      58 26.41
TOUF     0.35 187 Pg     58 25.12   0.0
                  Sg     58 29.64
AUTN     0.37 166 Pg     58 25.59  -0.1
                  Sg     58 29.88
ROB      0.41  99 Pc     58 26.42   0.2
                  S      58 32.11
SAOF     0.41 154 Pg     58 26.00  -0.2
                  Sg     58 31.27
AURF     0.47 178 Pg     58 27.17  -0.1
                  Sg     58 33.34
MVIF     0.48 193 Pg     58 27.24  -0.1
                  Sg     58 33.34
BHB      0.48 357 Pc     58 26.84  -0.5
                  S      58 34.40
IMI      0.62 137 Pc     58 29.61  -0.1
                  S      58 37.64
REVF     0.62 176 Pg     58 30.08   0.3
                  Sg     58 38.03
FIN      0.67 103 Pc     58 30.69   0.2
                  S      58 39.34
RRL      0.67 327 P      58 31.12   0.4
                  S      58 40.02
CALN     0.68 206 Pg     58 30.97   0.2
                  Sg     58 39.68
RSP      0.79 358 P      58 31.70  -1.0
                  S      58 42.93
PCP      0.91  78 Pd     58 35.14   0.5
                  S      58 47.25
LSD      1.10 355 P      58 39.08   1.0
                  S      58 53.31
ORX      1.36  20 P      58 39.89  -2.3X
    S.D. = 0.5  on  18 of  19 obs.
----------------------------------------
? DEC 27, 1993  20h 01m 14.70± 1.14s
  44.384 N ± 7.4km    7.375 E ±16.9km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
     ML 1.6 (GEN).

STV      0.14 195 P      01 18.00  -0.2
                  S      01 19.92
ENR      0.16 168 P      01 18.55   0.1
                  S      01 20.89
PZZ      0.23 302 P      01 19.79   0.1
                  S      01 23.17
BHB      0.46 350 P      01 24.09  -0.1
                  S      01 31.59
    S.D. = 0.2  on   4 of   4 obs.
----------------------------------------
% DEC 27, 1993  20h 01m 56.84± 1.63s
  36.742 N ±15.4km    3.009 W ± 6.0km
  DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR              (385)
     mbLg 3.1 (MDD). Felt (III) in
     the Adra area, Spain.

EGUA     0.46 282 iPd    02 06.18   0.1
                  e      02 13.90
ENIJ     0.68  70 iPc    02 10.14  -0.3
                  e      02 20.00
ECOG     0.70 320 iPc    02 09.85  -0.8
                  e      02 18.80
EHUE     1.12  17 eP     02 18.18   0.3
                  e      02 33.20
EBAN     1.55 337 eP     02 24.61   0.1
                  e      02 43.20
EVIA     1.94  12 eP     02 30.43   0.2
                  e      02 53.00
EHOR     2.09 302 eP     02 32.70   0.4
    S.D. = 0.5  on   7 of   7 obs.
----------------------------------------
? DEC 27, 1993  20h 14m 05.64± 1.11s
  44.374 N ± 7.4km    7.370 E ±17.0km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
     ML 1.6 (GEN).

STV      0.13 194 P      14 08.78  -0.1
                  S      14 10.65
ENR      0.15 166 P      14 09.37   0.1
                  S      14 11.70
PZZ      0.23 304 P      14 10.79   0.1
                  S      14 13.81
BHB      0.47 351 P      14 15.23   0.0
    S.D. = 0.2  on   4 of   4 obs.
----------------------------------------
? DEC 27, 1993  21h 26m 13.34± 1.23s
  44.383 N ± 7.3km    7.390 E ±17.3km
  DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
     ML 1.6 (GEN).

STV      0.15 199 P      26 16.72  -0.1
                  S      26 18.64
ENR      0.16 172 P      26 17.13   0.1
                  S      26 19.42
PZZ      0.24 301 P      26 18.59   0.0
                  S      26 21.89
BHB      0.47 349 P      26 22.80   0.0
                  S      26 28.43
    S.D. = 0.1  on   4 of   4 obs.
----------------------------------------
  DEC 27, 1993  21h 53m 17.84± 0.34s
  40.213 N ± 4.2km   19.853 E ± 3.8km
  DEPTH =  10.0km  (geophysicist)
 ALBANIA                          (391)

KEK      0.50 185 ePg    53 27.50  -0.5
LCI      1.46 275 P      53 44.24   0.1
KZN      1.47  86 ePg    53 45.50   1.0
VLS      2.11 164 ePn    53 53.30  -0.4
BRT      2.13 289 P      53 55.68   1.8
ORI      2.61 268 P      54 01.74   0.9
TDS      2.76 260 P      54 04.53   1.6
GRI      3.00 243 P      54 05.88  -0.4
MGR      3.29 270 P      54 11.89   1.4
SGO      3.49 277 P      54 14.02   0.8
SOI      3.65 235 P      54 14.19  -1.3
ATH      3.75 125 ePn    54 17.50   0.6
MSI      3.89 240 P      54 18.21  -0.8
VLI      4.25 144 ePn    54 23.80  -0.2
RDO      4.42  76 ePn    54 27.60   1.1
MNO      4.62 242 P      54 29.29  -0.2
SDI      4.81 290 P      54 33.54   1.5
MEU      4.95 233 P      54 31.34  -2.7X
PZI      5.00 232 P      54 30.21  -4.6X
PRK      5.04  99 ePn    54 37.20   1.9
GIB      5.05 246 P      54 33.88  -1.6
AQU      5.31 296 P      54 40.56   1.4
RDP      5.62 288 P      54 44.31   0.8
RMP      5.64 289 P      54 44.24   0.5
MNS      5.82 294 P      54 47.61   1.3
VAM      5.90 143 ePn    54 45.50  -1.9
ASS      6.10 300 P      54 51.74   1.5
ARV      6.11 305 P      54 50.41   0.0
RSM      6.64 306 P      54 58.27   0.5
NPS      6.73 135 ePn    54 58.00  -1.1
CRE      6.81 303 P      55 00.90   0.6
SFI      7.01 305 P      55 03.96   1.0
PGD      7.07 304 P      55 05.55   1.5
TRI      7.08 323 P      55 03.44  -0.5
PII      7.78 300 P      55 15.23   1.4
MME      7.87 303 P      55 16.34   1.0
BDI      7.88 302 P      55 16.02   0.7
VVI      7.92 319 P      55 15.11  -0.7
FVI      8.19 323 P      55 18.70  -0.8
CTI      8.36 317 P      55 20.52  -1.5
KSL      8.68 115 ePn    55 27.00   0.6
SAL      8.71 311 P      55 25.15  -1.6
BOB      8.93 304 P      55 30.36   0.5
CKI      9.55 300 P      55 38.08  -0.3
OSS      9.57 316 eP     55 37.96  -0.9
VDL      9.82 313 iPd    55 41.66  -0.6
TMA      9.95 310 iP+    55 41.20  -2.8X
ORO     10.25 306 P      55 46.91  -1.2
LLS     10.31 314 eP     55 48.68  -0.3
MMK     10.46 308 eP     55 49.54  -1.6
```

DIX 10.81 307 (P) 55 53.84 -2.1
ZLA 11.01 315 (P) 55 57.24 -1.1
EMS 11.10 306 eP 55 58.90 -0.9
SLE 11.13 316 (P) 55 58.30 -1.7
MOX 11.92 334 Pn 56 08.80 -1.9
TNS 12.82 325 Pn 56 22.40 -0.4
TIY 68.63 58 eP 04 41.40 18.1X
Z 24s 0.68um 4.8MszX
E 20s 1.21um
YKA 71.30 340 P 04 39.30 0.3
S.D. = 1.1 on 54 of 58 obs.

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* DEC 27, 1993 22h 00m 41.31± 1.56s
31.026 N ±15.2km 131.570 E ± 8.9km
DEPTH = 47.4 ± 10.2 km
4.4mb (14 obs.) 4.0Msz (1 obs.)
KYUSHU, JAPAN (235)

KAGJ 0.61 286 iPd 00 52.90 -0.9
S 01 02.30
KUMJ 1.63 337 P 01 08.00 0.0
eS 01 28.00
SHNJ 3.11 353 eP 01 30.00 0.9
eS 02 06.00
TKSJ 3.62 35 P 01 37.00 0.7
SHK 3.62 15 eP 01 43.00 6.7X
YONJ 4.44 20 P 01 48.40 0.5
WKYJ 4.65 46 P 01 49.90 -1.0
NJ2 10.90 279 eP 03 17.60 0.1
Z 14s 0.71um
CN2 13.64 341 eP 04 02.20 8.2X
0.8s 7.10nm 4.5mb
Z 15s 0.83um 4.4Msz
N 14s 0.63um
E 14s 0.13um
epP 04 06.00
BJI 15.41 310 eP 04 18.50 1.5
1.2s 16.00nm 4.1mb
Z 16s 0.94um 3.9MszX
E 14s 0.67um
HHC 18.90 307 P 05 00.30 -0.4
1.0s 10.00nm 4.0mb
Z 15s 0.71um 5.8MszX
XAN 19.33 285 P 05 04.00 -1.5
1.0s 6.30nm 3.8mb
Z 15s 0.58um 4.4Msz
pP 05 10.50 24kmX
BTO 19.88 305 eP 05 10.20 -1.2
GYA 22.29 264 iPc 05 36.80 0.7
0.8s 18.00nm 4.6mb
sP 05 52.00
LZH 23.61 290 eP 05 49.50 0.6
1.2s 37.00nm 4.8mb
Z 18s 0.44um 4.0Msz
pP 05 56.50 25kmX
CD2 23.83 277 Pd 05 51.10 0.2
1.0s 50.00nm 5.0mb
GTA 27.15 297 eP 06 20.80 -1.4
1.2s 7.00nm 4.2mb
WMQ 36.70 303 eP 07 42.50 -3.1X
GUN 39.69 277 P 08 11.00 -0.1
0.6s 29.00nm 5.3mb
PKI 40.19 277 P 08 15.60 0.4
0.6s 9.00nm 4.7mb
KKN 40.23 277 P 08 15.30 -0.1
0.6s 11.00nm 4.8mb
DMN 40.43 277 P 08 19.00 1.9
GKN 40.72 278 P 08 19.20 -0.2
WRA 50.74 177 P 09 52.00 13.4X
0.9s 1.50nm
GBA 52.49 263 P 09 53.00 1.0
HFS 75.93 333 eP 12 23.60 -0.8
0.5s 1.20nm 4.1mb
NB2 76.30 334 P 12 25.10 -1.5
0.8s 2.50nm 4.2mb
GEC2 83.11 324 P 13 04.10 0.7
0.6s 0.43nm 3.6mb
S.D. = 1.0 on 24 of 28 obs.

? DEC 27, 1993 23h 43m 59.11± 9.66s
18.347 N ±46.2km 67.230 W ±73.3km
DEPTH = 33.0km (normal)
MONA PASSAGE (89)

MGP 0.36 158 P 44 07.60 -0.1
APR 0.49 77 P 44 10.30 0.8
CLLP 0.68 113 P 44 13.00 0.8
SJG 1.05 103 iP 44 07.80 -9.8X
CPD 1.29 104 P 44 21.00 0.1
LPR 1.29 91 P 44 19.30 -1.7
S.D. = 1.5 on 5 of 6 obs.

? DEC 28, 1993 00h 04m 03.85± 1.05s
44.373 N ± 7.5km 7.360 E ±16.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

STV 0.13 191 P 04 07.00 -0.1
S 04 08.93
ENR 0.15 163 P 04 07.55 0.1
S 04 09.89
PZZ 0.23 306 P 04 08.88 0.1
S 04 12.22
BHB 0.47 352 P 04 13.46 0.0
PCP 0.87 78 P 04 52.07 31.5X
S.D. = 0.1 on 4 of 5 obs.

& DEC 28, 1993 00h 06m 11.03s
62.572 N 151.300 W
DEPTH = 90.5km
CENTRAL ALASKA (1)
<AEIC>.

CUT 0.51 109 iP 06 25.85 -0.2
SKT 0.60 190 iP 06 26.69 -0.3
eS 06 38.51
HUR 0.87 61 iP 06 29.22 -0.4
eS 06 43.11
TRF 1.00 27 eP 06 30.91 -0.3
KTH 1.00 10 iP 06 30.89 -0.2
eS 06 45.53
PWA 1.14 144 eP 06 32.46 -0.2
SUA 1.14 166 eP 06 32.44 -0.4
NCG 1.24 199 iP 06 33.59 -0.5
CGLM 1.31 195 eP 06 34.94 0.0
CRP 1.37 198 eP 06 35.38 -0.3
CRP 1.37 198 eP 06 35.57 -0.2
eS 06 54.27
GHO 1.37 125 eP 06 35.61 -0.1
eS 06 54.76
CP2 1.39 199 eP 06 35.10 -0.9
RND 1.40 52 eP 06 35.51 -0.4
eS 06 53.85
BGL 1.41 202 eP 06 36.90 0.7
CKN 1.42 198 eP 06 36.45 0.3
PLRM 1.42 133 eP 06 35.42 -0.7
SPU 1.44 195 eP 06 36.52 0.0
CKT 1.44 198 eP 06 36.15 -0.4
PMS 1.57 148 eP 06 37.43 -0.7
BKG 1.58 197 eP 06 38.00 -0.3
MCK 1.58 42 eP 06 37.97 -0.3
eS 06 58.84
SML 1.59 118 eP 06 37.78 -0.6
KNK 1.78 130 eP 06 40.01 -0.8
BWN 1.81 26 eP 06 41.00 -0.2
DHY 1.87 73 eP 06 41.62 -0.6
eS 07 04.97
SCM 2.00 110 eP 06 42.63 -1.3
DFR 2.09 199 eP 06 45.95 0.8
SLKM 2.14 166 eP 06 46.13 0.5
CFI 2.18 128 eP 06 45.06 -1.1
TTA 2.20 281 eP 06 45.67 -0.8
PWL 2.22 139 eP 06 45.12 -1.7
MPA 2.29 155 eP 06 47.13 -0.5
WRH 2.39 36 eP 06 48.02 -1.0
TOA 2.44 99 eP 06 48.97 -0.8
SVW 2.52 236 eP 06 50.21 -0.7
CCB 2.60 35 eP 06 50.87 -1.0
HDA 2.68 45 eP 06 52.24 -0.8
PAX 2.71 79 eP 06 53.08 -0.4
DDM 2.75 61 eP 06 54.48 0.5
KLU 2.76 111 eP 06 51.99 -2.1
MDM 2.76 28 eP 06 53.49 -0.6
TZL 2.79 98 eP 06 53.89 -0.7
FBA 2.81 32 eP 06 55.33 0.6
FID 2.94 126 eP 06 54.18 -2.4
IL1 2.96 40 eP 06 55.64 -1.2
ILB 2.96 40 eP 06 55.62 -1.2
GLM 2.98 34 eP 06 56.21 -1.0
LTI 3.04 145 eP 06 56.67 -1.2
IM3 3.59 344 eP 07 04.63 -0.8
GLB 3.71 104 eP 07 05.14 -2.1
BC3 4.39 79 eP 07 14.46 -2.2
BM3 5.63 27 eP 07 32.20 -1.7
53 obs. associated

? DEC 28, 1993 00h 16m 18.77± 1.66s
20.919 S ±35.9km 179.372 W ±20.1km
DEPTH = 630.1 ± 13.9 km
4.5mb (10 obs.)
FIJI ISLANDS REGION (181)

SVA 3.46 323 eP 17 43.20 -0.1
DZM 13.25 262 iPc 19 13.60 4.0X
PMG 34.19 284 iPd 22 16.60 0.8
0.8s 44.78nm 5.1mb
STK 36.45 244 eP 22 35.00 0.8
0.8s 4.20nm 4.1mb
ASPA 43.18 257 iPd 23 28.30 0.2
1.0s 41.00nm 4.9mb
iPcP 27 57.50
iS 29 09.80
iScS 32 20.20
WB2 43.26 263 iPc 23 28.40 -0.4
0.3s 33.50nm 5.3mb
eS 29 09.50
WRA 43.27 263 P 23 28.80 -0.1
0.9s 7.70nm 4.2mb
MTN 47.89 271 eP 24 03.50 -0.6
MBL 56.42 258 iPd 25 04.10 -0.7
0.4s 9.00nm 4.4mb
NANU 60.05 255 iPd 25 19.10 -10.0X
0.8s 51.00nm 4.8mb
CMB 80.64 43 eP 27 28.45 -0.4
1.3s 10.00nm 4.2mb
WDC 80.82 40 eP 27 29.80 0.2
1.1s 10.00nm 4.3mb
ORV 80.84 42 eP 27 29.53 -0.2
YBH 81.42 39 eP 27 33.26 0.5
0.9s 10.00nm 4.3mb
GEC2 150.23 342 PKP 35 00.50 5.2X
0.9s 0.57nm
e 35 05.80
e 35 10.20
S.D. = 0.6 on 12 of 15 obs.

? DEC 28, 1993 00h 41m 34.35± 3.29s
5.618 S ±17.1km 152.489 E ±51.0km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 1.45 347 iPd 41 58.50 0.0
iS 42 21.00
PMG 6.49 234 eP 43 10.00 -0.1
eS 44 20.00
MTN 22.26 250 eP 46 30.50 0.3
WB2 22.67 229 eP 46 33.50 -0.7
0.4s 5.00nm 4.3mb
e 46 39.10
ASPA 25.34 223 eP 47 00.60 0.5
0.9s 5.70nm 4.2mb
S.D. = 0.7 on 5 of 5 obs.

? DEC 28, 1993 03h 16m 21.17± 3.31s
44.715 N ±10.4km 6.714 E ±23.3km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 1.8 (GEN).

RRL 0.21 14 P 16 25.65 0.1
S 16 29.08
PZZ 0.35 127 P 16 28.17 0.0
S 16 33.84
BHB 0.41 72 P 16 29.59 0.2
S 16 36.31
RSP 0.58 41 P 16 32.65 -0.2
S 16 41.07
S.D. = 0.3 on 4 of 4 obs.

& DEC 28, 1993 03h 25m 36.14s
59.900 N 147.396 W
DEPTH = 19.8km
GULF OF ALASKA (15)
<AEIC>. ML 2.6 (AEIC).

MTU 0.16 304 eP 25 40.53 -0.2
eS 25 44.82
LTI 0.27 302 eP 25 41.78 -0.6
HIN 0.67 42 iP 25 48.09 -1.0

28d 03h

```
                eS     25 58.18
MID     0.72 131 P     25 50.00   0.2
FID     0.97  28 eP    25 51.83  -2.3
CVA     1.05  51 iP    25 53.74  -1.7
                eS     26 08.40
SEW     1.05 282 eP    25 53.55  -2.0
PWL     1.07 335 eP    25 53.57  -2.3
                eS     26 08.06
MPA     1.15 302 eP    25 55.11  -1.9
                eS     26 10.50
VZW     1.24  19 eP    25 56.46  -1.9
CFI     1.30 352 eP    25 57.09  -2.1
                eS     26 14.68
VLZ     1.34  23 iP    25 58.11  -1.7
                eS     26 15.53
RAGM    1.45  69 eP    26 00.05  -1.3
KAIM    1.50  88 eP    26 00.71  -1.4
SLKM    1.54 295 eP    26 00.61  -2.0
KNK     1.60 341 eP    26 02.20  -1.4
HMT     1.63  73 eP    26 02.66  -1.3
PMS     1.72 323 P     26 03.70  -1.6
KLU     1.76  24 eP    26 04.10  -1.8
PLRM    1.90 334 eP    26 06.88  -1.0
PMR     1.90 334 eP    26 06.57  -1.3
SCM     1.94   1 eP    26 07.84  -0.7
SML     1.97 347 eP    26 08.16  -0.8
CNPM    1.98 261 eP    26 08.32  -0.8
GHO     2.02 339 eP    26 09.03  -0.7
PWA     2.14 326 P     26 10.80  -0.5
SUA     2.27 315 eP    26 11.16  -2.2
TOA     2.29  15 P     26 12.60  -1.0
WAX     2.34  74 eP    26 11.82  -2.4
GLB     2.35  47 eP    26 12.49  -1.8
TGL     2.43  67 eP    26 13.29  -2.2
SPU     2.64 301 eP    26 16.10  -2.4
CGLM    2.68 304 eP    26 16.74  -2.3
BKG     2.68 298 eP    26 16.83  -2.3
REF     2.71 285 eP    26 17.16  -2.6
CRP     2.72 302 eP    26 17.99  -1.8
DFR     2.73 287 eP    26 17.42  -2.4
RS2     2.74 284 eP    26 18.40  -1.6
BALM    2.75  63 eP    26 17.61  -2.5
CP2     2.76 302 eP    26 19.02  -1.3
RDW     2.77 285 eP    26 18.37  -2.1
NCG     2.79 305 eP    26 18.26  -2.4
ILIM    2.80 276 eP    26 20.04  -0.8
BGL     2.82 301 eP    26 19.08  -2.0
NCT     2.84 286 eP    26 19.39  -2.0
YAH     2.87  78 eP    26 19.23  -2.6
CUT     2.87 332 eP    26 21.28  -0.4
SKT     2.90 318 eP    26 19.80  -2.4
DHY     3.19   0 eP    26 25.40  -1.0
CTGM    3.19  68 eP    26 24.26  -2.2
PAX     3.22  16 eP    26 25.57  -1.2
      51 obs. associated
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  DEC 28, 1993  03h 29m 43.67± 0.50s
  12.519 N ± 2.7km  125.267 E ± 3.9km
  DEPTH =  39.8 ±  4.4 km
  5.6mb ( 72 obs.)  5.6Msz ( 20 obs.)
 SAMAR, PHILIPPINE ISLANDS           (251)
     Mw 5.9 (HRV).
     CENTROID, MOMENT TENSOR        (HRV)
     Data Used: GDSN
     L.P.B.: 32S, 72C
     Centroid Location:
     Origin Time        03:29:45.7 0.2
     Lat 12.59N 0.02 Lon 125.50E 0.03
     Dep  15.0 FIX Half-duration  2.3
     Moment Tensor;   Scale 10**17 Nm
       Mrr= 3.43 0.08  Mtt=-1.02 0.10
       Mff=-2.41 0.13  Mrt= 0.14 0.24
       Mrf= 7.62 0.23  Mtf= 0.92 0.08
      Principal Axes:
       T  Val=  8.71   Plg=55  Azm=277
       N       -0.99        6      177
       P       -7.72       34       83
     Best Double Couple:Mo=8.2*10**17
      NP1:Strike=147 Dip=12 Slip=  59
      NP2:       359     79        96

PLP     1.37 192 ePc   30 07.00   0.3
MAP     2.52 210 iPc   30 25.00   1.9
                iS     30 46.00
CGP     4.08 188 iPc   30 51.00   5.8X
                iS     31 43.00
BIP     4.37 167 iPc   30 49.00  -0.4

                         iS     31 53.00
TGY      4.50 291 ePc    30 50.00  -1.3X
                         eS     32 05.00
QCP      4.59 298 eP     31 02.00   9.6X
QVP      4.64 297 ePd    30 54.00   0.8
                         eS     31 57.00
CTB      5.39 191 ePd    31 06.00   2.3
                         eS     32 27.00
DAV      5.41 177 eP+    31 09.00   5.0X
BCP      5.95 311 eP     31 13.00   1.2
                         eS     32 32.20
BAG      5.96 311 iPc+   31 10.00  -2.1X
         0.7s   289.04nm           5.9mb
CVP      6.14 328 ePc    31 14.00  -0.3
SZP      6.83 318 eP     31 24.80   0.8
                         eS     31 40.00
TSM     10.96 222 ePd    32 25.70   4.6X
KKM     11.01 235 ePd    32 28.00   6.2X
MNI     11.01 182 ePc    32 29.50   7.7X
QZH     13.88 334 eP     32 58.00  -1.9
      Z  15s     15.00um
      E  16s     12.70um
HKC     14.37 314 P      33 08.00   1.6
GZH     15.46 314 Pc     33 20.00  -0.6
      Z  17s     21.60um
      N  15s     17.40um
      E  14s     16.60um
QIZ     16.19 296 Pc     33 29.00  -1.0
      N  13s      8.88um
      E  14s     12.60um
MKS     18.54 198 iPd    33 58.50  -0.8
SSE     18.87 349 iPc    34 02.00  -1.2
         1.0s    70.00nm           4.8mb
      Z  18s     10.30um           4.4Msz
      N  14s      5.00um
      E  13s      4.60um
                         pP     34 16.00
                         iS     37 30.00
                         SS     37 54.00
KAGJ    19.29  15 eP     34 10.80   2.6X
NJ2     20.32 344 Pc     34 18.30  -0.8
         1.3s    54.00nm           4.7mb
      Z  20s      6.33um           5.0Msz
      N  12s      6.34um
      E  13s      7.91um
                         S      37 56.00
KUMJ    20.57  13 eP     34 21.10  -0.6
WHN     20.59 332 Pd     34 18.60  -3.3X
         1.5s   370.00nm           5.5mb
GYA     22.31 311 iPc    34 39.80   0.3
         1.0s   220.00nm           5.6mb
      Z  20s     15.00um           5.4Msz
      N  17s     14.70um
      E  17s      8.00um
TKSJ    22.82  19 P      34 45.70   1.5
SHK     22.93  16 eP     34 46.00   0.7
WKYJ    23.56  22 P      34 51.90   0.4
YONJ    23.76  17 P      34 54.10   0.7
KGM     24.11 246 ePc    34 58.60   1.6
         0.7s   120.80nm           5.5mb
WWKK    24.29 130 eP     34 59.00   0.3
NST     24.57 280 eP     35 02.00   0.6
KMI     24.69 304 Pc     35 03.00   0.3
         1.5s   370.00nm           5.7mb
      Z  20s     20.10um           5.6Msz
      N  15s      5.60um
      E  15s     13.60um
                         pP     35 16.00  53kmX
                         sS     39 42.00
                         ScP    42 10.00
                         PcS    42 15.00
TIA     24.71 344 eP     35 02.40  -0.1
         1.4s   210.00nm           5.5mb
      Z  18s      5.88um           5.1Msz
      N  14s      2.89um
      E  14s      5.39um
                         pP     35 14.00  45kmX
TSRJ    24.88  21 eP     35 04.60   0.4
IPM     25.22 254 ePc    35 07.10  -0.5
         0.7s    92.70nm           5.5mb
IIDJ    25.56  24 eP     35 09.90  -0.8
BDT     25.80 284 eP     35 12.60  -0.4
         1.0s    55.20nm           5.1mb
MTN     25.86 167 eP     35 12.80  -0.7
         0.4s   113.00nm           5.8mb
XAN     26.09 328 P      35 14.50  -1.0
         1.0s   190.00nm           5.6mb

      Z  15s     11.10um           5.5MszX
      N  15s      6.10um
      E  15s      6.10um
                        S      39 40.00
CHTO    26.09 287 ePd   35 14.40  -1.3
         0.9s    40.49nm           5.0mb
DL2     26.48 354 eP    35 17.00  -2.0
      Z  15s      3.56um           5.0MszX
      N  14s      5.37um
      E  15s      5.33um
                        S      39 46.00
MTMJ    26.48  23 eP    35 20.00   0.8
CHJJ    26.50  26 eP    35 17.40  -1.9
MAT     26.60  24 (P)   35 18.00  -2.2
         2.0s   105.88nm           5.1mb
      Z  20s     12.06um           5.4Msz
                        eS     39 30.00
KLI     26.64 231 eP    35 25.00   4.3X
CD2     27.01 316 P     35 22.00  -2.0
         1.2s   480.00nm           6.0mb
      Z  19s     20.40um           5.7Msz
      N  19s     32.90um
                        pP     35 40.00  78kmX
TIY     27.59 338 Pd    35 29.00  -0.3
      Z  16s      7.85um           5.4MszX
      E  13s      3.65um
                        PP     36 16.00
BJI     28.56 345 Pc    35 36.50  -1.4
         1.6s    74.00nm           5.1mb
      Z  16s      6.44um           5.3MszX
      E  14s      5.92um
                        ePP    36 28.00
                        eS     40 20.00
                        eSS    41 44.00
SNY     29.24 357 Pc    35 41.00  -2.9X
         1.0s    80.00nm           5.4mb
      Z  16s      5.16um           5.2MszX
      N  13s      2.77um
      E  13s      4.39um
                        pP     35 56.00  61kmX
                        S      40 24.00
OFUJ    30.19  26 eP    35 52.10  -0.4
LZH     30.38 324 Pc    35 53.50  -1.0
         1.6s   380.00nm           5.9mb
      Z  16s     13.70um           5.7MszX
      E  14s      8.21um
                        PP     36 54.00
                        eS     40 50.00
                        SS     42 30.00
HHC     30.68 339 Pd    35 56.80  -0.2
         1.0s    56.00nm           5.3mb
      Z  15s      7.33um           5.5MszX
      N  13s      2.93um
      E  14s      2.59um
                        PP     37 02.00
                        PcP    38 57.00
                        PcS    42 36.50
BTO     31.02 337 eP    35 58.60  -1.3
VLA     31.03   9 iPc   36 12.00  12.2X
         1.7s    63.00nm
      Z  12s      1.60um           4.9MszX
      E  13s      2.60um
                        i      37 05.00
                        iPPP   37 20.00
                        iS     40 56.00
                        i      41 13.00
CN2     31.17   0 eP    36 00.40  -0.7
         0.8s     9.40nm           4.6mb
      Z  16s      3.44um           5.1MszX
      N  15s      2.38um
      E  15s      3.94um
                        eS     41 01.50
WRA     33.47 164 P     36 18.79  -2.6X
         1.0s    14.20nm           4.8mb
WB2     33.47 164 eP    36 18.30  -3.1X
         0.8s    28.40nm           5.2mb
                        eS     41 27.80
MBL     33.89 189 eP    36 23.50  -1.5
SHL     34.01 297 iPd   36 25.00  -1.3
                        iPP    37 40.00
                        iS     41 54.00
GTA     34.99 325 Pc    36 34.50   0.0
         1.4s   120.00nm           5.6mb
      Z  16s     14.20um           5.8MszX
      E  15s      5.69um
                        PP     37 52.00
                        PcP    39 07.00
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QIS      35.77 157 eP      36 40.00   -1.1
LSA      35.94 304 P       36 43.80    0.7
         1.3s    360.00nm            6.1mb
     Z  18s      21.90um             6.0Msz
     N  18s       2.56um
     E  16s       4.63um
NANU     36.15 195 eP      36 33.50  -10.7X
ASPA     36.94 167 iPd     36 48.00   -3.0X
         0.7s     63.60nm            5.6mb
                   eS      42 28.60
YSS      37.39  20 eP      36 55.50    1.0
                   e       37 04.20
                   e       42 41.00
                   e       45 07.00
CTA      38.42 147 P       37 04.19    0.7
WARB     38.49 178 iPd     37 03.50   -0.4
         0.8s    287.00nm            6.2mb
GUN      39.81 299 P       37 15.20   -0.2
PKI      40.13 298 P       37 17.10   -0.9
KKN      40.29 298 P       37 18.80   -0.4
DMN      40.40 298 P       37 19.60   -0.5
CIT      40.49 349 eP      37 21.50    1.2
GKN      40.89 298 P       37 23.00   -1.1
ZAK      41.83 339 ePd     37 31.00   -0.1
     Z  14s       2.44um             5.2MszX
     N  15s       3.45um
                   e       39 09.00
                   e       39 23.00
                   eS      43 44.00
                   e       46 42.00
MRWA     42.45 192 eP      37 34.20   -2.3
         0.4s     21.00nm            5.2mb
IRK      43.09 341 eP      37 36.00   -5.5X
         1.7s     54.00nm            5.0mb
                   e       39 27.80
                   eS      44 06.00
                   e       44 18.00
COOL     43.33 185 eP      37 42.50   -1.2
BAL      43.66 191 eP      37 45.00   -1.3
KLB      44.44 189 eP      37 51.00   -1.7
WMQ      44.86 321 Pd      37 57.30    1.2
         2.0s    110.00nm            5.4mb
     Z  20s      13.10um             5.9Msz
     E  17s      11.90um
                   PP      39 39.00
                   PcS     43 33.00
MUN      45.09 191 eP      37 55.80   -2.0
HYB      45.31 282 iPc     38 00.00    0.1
         1.0s     90.00nm            5.6mb
                   eS      44 40.00
NWAO     45.84 189 eP      38 02.00   -1.7
BOD      46.02 352 eP      38 04.80   -0.1
GBA      46.55 277 Pc      38 10.00    0.4
STK      46.84 161 eP      38 10.60   -1.1
         0.6s     18.80nm            5.2mb
                   eS      44 58.90
KOD      46.87 272 eP      38 16.00    3.4X
                   eS      45 20.00
NDI      47.44 297 iPc     38 14.60   -2.0
         0.8s    123.13nm            6.0mb
                   eS      45 10.00
                   eScS    48 08.00
RKG      47.48 189 eP      38 16.00   -0.7
         0.7s     48.00nm            5.6mb
PET      48.37  26 eP      38 24.00    0.6
                   eS      45 22.00
                   e       48 16.00
                   eSS     48 48.00
                   eSSS    50 00.00
ADE      48.92 165 eP      38 28.10    0.2
YAK      49.52   3 iPc     38 31.70   -0.4
     Z  20s       1.80um             5.1Msz
     E  16s       2.70um
                   e       40 02.00
                   eS      45 35.00
                   ePS     45 51.00
                   i       48 19.00
ARMA     49.66 150 iPc     38 34.10    0.3
         0.7s     35.00nm            5.5mb
POO      49.77 284 iPd     38 35.50    0.7
         1.0s     45.00nm            5.5mb
                   iS      45 54.00
KSH      50.99 311 P       38 45.80    1.9
         1.5s    170.00nm            5.8mb
     Z  16s       9.76um             5.9MszX
     N  14s       5.88um
     E  14s       6.74um
                   pP      39 01.50   60kmX
                   sP      39 09.00
                   PcP     39 56.00
                   PP      40 46.00
                   ScP     43 46.00
                   PcS     43 51.00
                   ScS     48 26.30
BWA      51.61 156 eP      38 48.90    0.4
                   i       38 50.60
NIL      51.68 303 iPd     38 51.60    2.5X
         0.7s      0.16nm            3.1mb X
                   iScP    44 00.30
                   iS      46 12.80
RIV      52.27 153 eP      38 55.00    1.6
CAN      52.62 156 eP      38 55.40   -0.7
                   i       38 56.90
CNB      52.76 155 iPc     38 58.20    1.0
         1.0s     97.00nm            5.7mb
FRU      53.03 315 eP      38 59.00   -0.1
     Z  17s       6.00um             5.7MszX
     E  17s       7.00um
                   eS      46 30.00
                   eSSS    51 50.00
DZM      53.03 130 iPc     38 58.30   -1.1
TOO      53.32 160 eP      39 01.10   -0.1
         0.6s     71.00nm            5.8mb
QUE      56.51 298 eP      39 25.50    0.7
         1.0s     55.00nm            5.5mb
                   eS      47 22.00
TIK      59.12   1 iPc     39 40.00   -2.2
         1.5s    132.00nm            5.8mb
     Z  18s       3.00um             5.5Msz
                   i       39 47.00
                   i       40 34.00
                   i       41 56.00
                   ePPP    43 14.00
                   eS      47 40.00
                   i       47 58.00
                   iPS     48 08.00
                   i       49 24.00
MAIO     63.21 304 iPc     40 10.80    0.2
         1.0s     50.00nm            5.6mb
                   eS      48 52.00
ASH      64.24 306 iPc     40 18.00    0.8
         1.5s    710.00nm            6.5mb
SVE      65.80 327 iP      40 26.00   -0.8
         1.2s    260.00nm            6.2mb
     Z  16s       3.50um             5.7MszX
     N  15s       2.00um
     E  15s       2.00um
                   eS      49 13.00
ARU      66.79 326 eP      40 35.50    2.3
     Z  16s       3.50um             5.7MszX
     N  16s       1.50um
     E  16s       2.50um
                   e       40 46.00
                   eS      49 22.00
SHI      69.01 297 eP      40 47.00   -0.8
ANM      69.95  25 (P)     40 55.38    2.7X
MRW      70.27 143 P       40 55.00    0.0
BAK      70.89 309 iPc     40 58.00   -0.8
                   iS      50 16.00
DHR      71.34 294 eP      41 00.00   -1.8
                   eS      50 35.00
KER      73.34 302 eP      41 13.00   -0.7
TAB      73.73 306 iP+     41 17.00    1.1
TTA      73.81  28 eP      41 16.30    0.6
SVW      73.87  30 eP      41 17.00    0.9
GRO      73.97 312 iPc+    41 16.00   -1.0
         2.0s    840.00nm            6.4mb
                   i       41 30.00
RYD      74.68 292 ePc     41 22.00    0.5
                   eS      50 56.00
MTA      74.70 310 iPc     41 20.80   -0.4
                   eS      50 55.00
                   ePS     51 30.00
                   ePPS    51 50.00
IMA      75.01  25 ePc     41 23.27    0.5
         1.3s     19.99nm            4.9mb
CP2      75.51  30 eP      41 26.41    0.7
CRP      75.55  30 (P)     41 27.53    1.6
MJMA     75.73 294 ePd     41 27.30   -0.2
PYA      75.84 313 iPd     41 28.90    1.2
         1.2s    350.00nm            6.2mb
     Z  17s       6.00um             6.0MszX
     N  17s       6.00um
                   eS      51 10.00
KIV      76.11 312 iPc     41 20.10   -9.3X
         1.1s    477.00nm            6.4mb
     Z  15s       4.10um             5.9MszX
                   iS      51 03.00
SLKM     76.50  30 (P)     41 31.41    0.3
PMR      77.00  29 eP      41 33.80    0.0
KMSA     77.21 288 ePd     41 34.26   -1.6
FBA      77.47  26 ePd     41 36.20   -0.2
         0.5s      1.77nm            4.3mb X
AFIF     77.86 292 ePd     41 41.00    1.6
SOC      78.29 312 eP      41 42.00    0.7
         1.2s     80.00nm            5.6mb
     Z  18s       5.00um             5.9Msz
     N  16s       2.50um
     E  19s       3.50um
                   eS      51 34.00
UQSK     78.35 294 ePd     41 42.60    0.5
TOA      78.37  29 eP      41 42.90    1.4
MOS      78.44 325 iPc     41 43.00    1.1
         1.8s    350.00nm            6.1mb
     Z  19s       3.60um             5.7Msz
     N  19s       4.00um
                   e       41 56.00
                   eS      51 50.00
KLU      78.54  29 eP      41 41.87   -0.6
OBN      79.09 324 iPc+    41 45.00   -0.4
         1.5s    245.00nm            6.0mb
     Z  18s       4.10um             5.8Msz
     N  16s       0.80um
     E  18s       3.00um
                   e       41 55.00
                   e       42 02.00
                   e       44 48.00
                   ePPP    46 36.00
                   eS      51 40.00
                   eSS     56 52.00
ABHA     79.17 286 ePd     41 49.00    2.1
CSY      79.34 186 eP      41 46.20   -0.2
         0.5s     43.10nm            5.7mb
ARO      80.27 280 eP+     41 53.00    0.4
BALM     80.31  30 (P)     41 50.63   -1.4
PUL      81.77 329 eP      42 00.00    0.5
     Z  19s       2.40um             5.6Msz
     E  19s       2.20um
                   e       42 15.00
                   eS      52 11.00
                   e       52 15.00
SDF      81.92 337 iP      42 01.50    1.3
SIM      82.08 314 eP+     42 03.00    1.5
     Z  20s       1.30um             5.3Msz
                   eS      52 13.00
BHL      82.82 303 P       42 04.00   -1.7
                   PP      45 16.00
                   S       52 24.00
KAS      82.96 311 iPc     42 07.40    1.2
KAF      83.19 332 iP      42 05.90   -1.0
         0.5s      8.80nm            5.1mb
AYN      83.43 298 ePd     42 06.00   -2.8X
MBC      83.74  13 P       42 09.40   -0.1
         0.9s    140.00nm            6.0mb
                   PcP     42 13.40
FAM      83.96 304 eP      42 13.50    2.2
NUR      84.37 331 iP      42 09.80   -3.0X
         0.5s     17.60nm            5.4mb
MNK      84.48 324 eP      42 12.50   -1.0
                   eS      52 34.00
CSS      84.51 304 eP      42 14.20    0.1
KIS      85.26 317 eP      42 18.00    0.4
                   e       52 40.00
PPCY     85.31 305 eP      42 16.00   -2.1
CFR      86.17 315 eP      42 22.00   -0.1
VRI      86.98 316 ePd     42 27.50    1.4
ISR      87.29 316 eP      42 30.00    2.3X
MLR      87.60 316 ePc     42 30.00    0.7
CRZF     87.86 222 eP      42 27.00   -3.2X
                   eS      52 12.00
UPP      87.90 331 iP      42 30.30    0.1
DAG      88.42 352 iPd     42 32.30   -0.2
         0.6s     10.67nm            5.3mb
NAI      88.77 268 iPd     42 39.00    3.4X
         1.0s   1468.00nm            7.3mb X
UZH      89.09 320 iPd     42 37.50    1.3
         1.1s    300.00nm            6.5mb
                   i       42 45.00
                   i       42 51.30
HFS      89.61 332 eP      42 38.20   -0.2
         0.4s      3.60nm            5.0mb
```

28d 03h

Z 17s 2.70um 5.7MszX
LR 22 23.00
OJC 90.13 322 eP 42 41.50 0.5
e 42 52.00
SPC 90.20 321 eP 42 41.20 -0.4
NRA0 90.31 333 P 42 39.50 -2.2
PP 46 27.00
NRE0 90.31 333 P 42 44.50 2.9X
PPP 48 14.90
S 53 28.10
SS 59 41.40
SSS 03 24.50
NB2 90.32 334 P 42 40.30 -1.4
0.7s 6.00nm 5.0mb
VAY 91.15 313 iP 42 45.60 -0.3
1.4s 130.00nm 6.1mb
MAW 91.46 200 eP 42 47.80 1.2
1.0s 10.61nm 5.2mb
SKO 91.75 314 iPc 42 49.20 0.5
1.3s 90.00nm 6.0mb
KSP 91.99 323 eP 42 49.50 -0.1
e 46 12.00
UZD 92.14 319 eP 42 50.50 0.2
BRG 93.34 324 iP 42 56.20 0.4
1.2s 34.00nm 5.7mb
Z 19s 2.60um 5.7Msz
N 19s 3.00um
E 19s 1.50um
PRU 93.36 323 Pc 42 56.80 0.9
1.4s 36.00nm 5.6mb
pP 43 08.30 37kmX
CLL 93.70 324 iP 42 57.60 0.2
1.5s 34.00nm 5.6mb
e 43 16.00
TJ 94.09 319 eP 43 00.30 0.8
HC 94.28 322 P 43 00.90 0.7
3.4s 16.10nm 4.9mb X
Z 16s 2.10um 5.7MszX
N 16s 1.00um
E 16s 1.10um
e 43 12.80
e 44 02.00
e 46 39.50
C2 94.33 322 P 43 00.60 0.1
1.6s 23.25nm 5.4mb
e 43 08.70
e 43 14.60
e 46 05.10
e 46 12.40
e 53 30.80
e 53 36.30
MOX 94.78 324 ePc 43 03.30 0.9
1.5s 24.00nm 5.4mb
Z 19s 2.00um 5.6Msz
e 43 33.00
LJU 94.95 319 eP 43 03.80 0.5
eS 54 17.00
e 54 27.30
KBA 95.28 320 iPc 43 05.30 0.3
1.0s 22.10nm 5.6mb
RHG 95.29 321 eP 43 05.40 0.5
VOY 95.36 319 eP 43 04.80 -0.5
epP 43 15.70 34kmX
e 43 35.20
GRF 95.43 323 eP 43 06.00 0.5
1.7s 50.00nm 5.7mb
Z 19s 2.00um 5.6Msz
FUR 96.07 322 eP 43 09.30 0.8
1.6s 73.00nm 5.9mb
Z 16s 2.10um 5.7MszX
WTTA 96.25 321 iPd 43 09.30 -0.2
1.3s 53.80nm 5.9mb
i 47 00.10
i 47 13.20
WATA 96.26 321 iPd 43 09.10 -0.4
i 43 23.10
i 47 03.10
SQTA 96.53 321 iPd 43 10.50 -0.2
1.3s 40.00nm 5.8mb
i 43 20.70
i 47 05.90
MOTA 96.54 321 eP 43 10.40 -0.4
OGA 96.80 321 eP 43 12.30 0.3
FIR 98.01 318 eP 43 15.00 -2.2
LBFM 98.26 45 ePDIF 43 24.66 6.0X
WLF 98.34 325 iPc 43 19.92 1.4
1.2s 15.40nm 5.4mb

DOU 98.98 326 Pc 43 23.00 1.6
CMB 100.71 47 (Pdiff43 35.29 5.7X
LRM 102.17 37 ePdiff43 42.00 5.8X
RSSD 108.01 35 ePKP 48 09.21 -0.1
LTX 117.08 48 ePKP 48 27.25 0.4
UYO 120.16 38 iPKPd 48 32.50 0.1
OXF 122.80 34 ePKP 48 37.82 0.4
MYNC 125.08 29 ePKP 48 41.65 -0.2
e 48 49.85
e 49 07.75
e 49 34.91
LKO 126.48 292 PKP 48 44.45 -0.8
1.3s 20.50nm
KIC 126.89 288 ePKP 48 45.76 -0.2
1.3s 31.50nm
TIC 127.05 288 PKP 48 45.26 -1.0
1.4s 25.00nm
LIC 127.21 288 PKP 48 46.06 -0.5
1.4s 52.00nm
Z 20s 0.76um 5.4Msz
TOV 153.26 35 ePKP 49 34.30 2.1X
SDV 153.51 37 ePKP 49 33.20 0.5
CAR 154.12 28 ePKP 49 32.00 -1.4
RFA 154.58 153 ePKPd 49 34.20 0.8
PEL 154.82 147 ePKP 49 35.50 1.7
LPA 157.52 173 ePKP+ 49 40.00 2.8X
Z 20s 1.42um 5.8Msz
SLA 164.16 142 ePKPd 49 47.00 2.4X
YJA 165.94 135 ePKP 49 49.00 2.4X
SOB1 166.02 282 (PKP) 49 48.00 1.7
LPB 166.46 109 PKP 49 49.00 2.0
Z 18s 1.37um 5.2MszX
LR 47 36.00
PPD 169.99 199 ePKPc 49 50.30 1.6
BDF 172.67 244 ePKP 49 50.60 0.4
1.5s 1.35nm
i 50 08.10
i 51 16.50
BAO 172.76 244 ePKP 49 50.50 0.3
S.D. = 1.1 on 190 of 225 obs.

? DEC 28, 1993 04h 18m 31.17± 1.00s
45.304 N ±10.6km 26.952 E ± 7.4km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

ISR 0.33 240 iPc 18 38.50 0.4
VRI 0.59 344 iPc 18 43.50 0.4
MLR 0.73 285 iPd 18 45.00 -0.7
CFR 0.86 98 iPd 18 47.50 -0.1
S.D. = 0.9 on 4 of 4 obs.

DEC 28, 1993 04h 35m 21.00± 0.20s
12.470 N ± 3.8km 125.288 E ± 5.8km
DEPTH = 24.4km (4 depth phases)
5.3mb (44 obs.) 4.8Msz (8 obs.)
SAMAR, PHILIPPINE ISLANDS (251)
Mw 5.2 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 7S, 10C
Centroid Location:
Origin Time 04:35:29.1 1.1
Lat 12.51N 0.08 Lon 125.87E 0.13
Dep 89.0 FIX Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr= 5.20 0.75 Mtt= 0.42 1.40
Mff=-5.62 2.00 Mrt=-3.75 1.25
Mrf= 3.24 0.95 Mtf= 1.61 1.55
Principal Axes:
T Val= 7.61 Plg=63 Azm=201
N -0.18 19 332
P -7.43 19 69
Best Double Couple:Mo=7.5*10**16
NP1:Strike=187 Dip=31 Slip= 129
NP2: 324 67 70

QCP 4.63 298 eP 36 37.00 5.8X
DAV 5.36 177 eP 36 53.00 11.5X
BAG 6.01 311 iPc 36 52.00 1.1
TSM 10.94 223 eP 38 07.00 7.8X
KKM 11.00 235 ePd 38 15.50 15.5X
GZH 15.51 315 P 39 04.00 4.2X
SSE 18.92 349 Pc 39 44.00 1.5
1.2s 230.00nm 5.3mb
Z 20s 1.50um 4.1Msz
N 14s 1.00um
E 14s 1.40um
PP 40 01.70
sS 43 29.00
NJ2 20.37 344 Pd 39 58.50 -0.1
1.2s 32.00nm 4.6mb
Z 22s 1.34um 4.3Msz
WHN 20.64 332 P 39 57.50 -3.9X
1.2s 130.00nm 5.2mb
GYA 22.36 311 iPc 40 19.60 0.6
1.0s 130.00nm 5.4mb
Z 20s 3.76um 4.8Msz
N 16s 1.88um
E 16s 1.86um
KGM 24.11 246 ePc 40 39.10 3.1X
NST 24.60 280 eP 40 41.50 0.8
KMI 24.73 304 Pc 40 43.00 0.8
1.6s 160.00nm 5.4mb
Z 20s 3.70um 4.9Msz
N 15s 1.40um
E 16s 2.50um
PP 41 27.00
sS 45 32.00
TIA 24.76 344 P 40 42.10 0.0
IPM 25.22 254 ePd 40 47.10 0.4
0.9s 34.00nm 5.0mb
MTN 25.81 167 eP 40 51.20 -1.0
BDT 25.83 284 eP 40 51.00 -1.4
CHTO 26.12 287 ePc 40 54.20 -0.9
1.0s 15.00nm 4.6mb
e 44 22.50
XAN 26.14 328 Pc 40 54.80 -0.3
1.0s 130.00nm 5.5mb
Z 15s 1.46um 4.6MszX
N 16s 0.96um
E 16s 0.96um
CD2 27.06 316 Pc 41 03.60 0.0
1.0s 200.00nm 5.7mb
Z 14s 3.23um 5.0MszX
E 16s 3.12um
TIY 27.64 338 eP 41 09.00 0.1
Z 16s 1.43um 4.6MszX
E 14s 0.86um
BJI 28.62 345 eP 41 16.50 -1.0
1.4s 29.00nm 4.8mb
Z 20s 0.91um 4.4Msz
E 14s 1.12um
SNY 29.29 357 eP 41 20.50 -3.0X
LZH 30.44 324 iPc 41 34.50 0.4
1.6s 220.00nm 5.7mb
Z 18s 2.35um 4.9Msz
E 13s 1.41um
PP 42 40.00
HHC 30.73 339 P 41 36.40 -0.2
1.2s 36.00nm 5.1mb
BTO 31.07 337 eP 41 38.40 -1.2
CN2 31.22 0 eP 41 45.80 5.1X
0.8s 7.10nm 4.6mb
Z 14s 0.71um 4.5MszX
WB2 33.42 164 iPd 41 58.00 -2.1
0.6s 10.80nm 5.0mb
SHL 34.05 297 iPc 42 05.20 -0.7
i 44 43.50
eS 48 25.50
GTA 35.04 325 Pc 42 14.50 0.4
1.5s 120.00nm 5.6mb
Z 18s 2.28um 5.0Msz
N 13s 0.57um
QIS 35.71 157 eP 42 19.00 -0.8
ASPA 36.89 167 iPc 42 28.80 -0.9
0.4s 31.40nm 5.5mb
eS 48 11.50
WARB 38.44 178 iPc 42 43.40 0.7
0.5s 27.00nm 5.3mb
GUN 39.85 299 P 42 55.00 0.1
PKI 40.17 298 P 42 57.30 -0.2
KKN 40.33 298 P 42 58.80 0.1
DMN 40.44 298 P 42 59.50 -0.2
CIT 40.54 349 eP 43 00.50 0.6
GKN 40.94 298 P 43 03.30 -0.3
ZAK 41.88 339 eP 43 10.00 -0.8
1.6s 16.00nm 4.5mb
e 44 55.20
MRWA 42.40 192 eP 43 14.50 -0.8
0.3s 3.00nm 4.5mb
KLB 44.40 189 eP 43 30.80 -0.7
WMQ 44.91 321 P 43 36.70 1.0
1.7s 53.00nm 5.2mb

Z 16s 2.43um 5.2MszX
E 16s 2.01um
PP 45 22.50
PcS 49 12.00
SS 53 21.50
MUN 45.04 191 eP 43 36.00 -0.7
HYB 45.34 282 ePc 43 39.80 0.4
NWAO 45.79 189 eP 43 42.40 -0.2
BOD 46.07 352 eP 43 43.90 -0.6
1.5s 27.00nm 5.0mb
GBA 46.57 277 Pc 43 50.00 0.9
STK 46.78 161 iPc 43 51.00 0.5
0.6s 9.50nm 5.0mb
KOD 46.89 272 eP 43 53.20 1.2
NDI 47.48 298 eP 43 53.50 -2.6X
0.5s 56.34nm 5.9mb
ADE 48.86 165 iPd 44 07.50 0.8
YAK 49.57 3 iPd 44 12.40 0.7
1.8s 84.00nm 5.5mb
eS 51 18.00
ARMA 49.61 150 eP 44 13.90 1.3
0.7s 7.00nm 4.8mb
POO 49.80 284 iPc 44 14.80 0.5
BWA 51.56 156 eP 44 29.30 2.0
CAN 52.57 156 eP 44 36.00 1.0
CNB 52.71 155 eP 44 37.10 1.0
DZM 52.99 130 iPc 44 38.90 0.6
TOO 53.27 160 eP 44 41.10 1.0
0.7s 22.00nm 5.2mb
QUE 56.55 298 eP 45 04.50 0.1
TIK 59.17 1 iPd 45 21.00 -0.8
1.5s 69.00nm 5.6mb
Z 18s 0.80um 4.9Msz
i 45 27.00 20km
e 47 35.00
iS 53 25.00
iPS 53 37.00
MAIO 63.26 304 iPc 45 50.20 0.0
0.9s 19.18nm 5.2mb
ASH 64.29 306 P 45 56.60 -0.2
1.5s 360.00nm 6.3mb X
ARU 66.84 326 ePc 46 13.00 0.1
1.5s 120.00nm 5.8mb
GRO 74.02 312 iPc+ 46 57.00 0.4
1.0s 160.00nm 6.0mb
Z 16s 1.50um 5.4MszX
N 16s 1.50um
E 18s 1.00um
IMA 75.05 25 eP 47 02.85 0.5
1.5s 16.50nm 4.8mb
PYA 75.89 313 iP 47 07.00 -0.4
e 47 27.00 74kmX
KIV 76.16 312 eP 47 00.10 -9.0X
1.1s 220.00nm 6.1mb
Z 17s 0.70um 5.0MszX
eS 56 43.50
FBA 77.50 26 eP 47 18.80 2.9X
MOS 78.49 325 eP 47 22.00 0.5
e 47 30.00 26km
OBN 79.14 324 iPc 47 25.00 -0.1
1.2s 88.00nm 5.7mb
ANN 79.91 314 eP 47 29.00 -0.4
1.1s 70.00nm 5.6mb
SDF 81.98 337 eP 47 40.00 0.1
KAF 83.24 332 iP 47 46.20 -0.3
0.6s 6.20nm 4.9mb
NUR 84.42 331 iP 47 52.70 0.2
0.8s 26.50nm 5.5mb
MNK 84.53 324 eP 47 52.00 -1.2
VRI 87.03 316 ePc 48 07.00 1.2
MLR 87.65 316 ePd 48 10.00 1.0
e 00 10.00
DAG 88.47 352 iPc 48 11.70 -0.5
0.8s 4.48nm 4.8mb
UZH 89.15 320 iPc 48 17.00 1.2
1.0s 100.00nm 6.1mb
e 48 24.50 23km
HFS 89.67 332 eP 48 17.40 -0.7
1.0s 21.60nm 5.4mb
OJC 90.18 322 eP 48 21.10 0.4
NB2 90.37 334 P 48 20.40 -1.0
1.1s 5.90nm 4.8mb
VAY 91.19 313 iP 48 23.70 -1.8
SKO 91.80 314 eP 48 28.00 -0.3
KSP 92.04 323 eP 48 29.00 -0.2
BRG 93.40 324 eP 48 35.60 0.1
1.2s 22.00nm 5.5mb
PRU 93.41 323 P 48 36.50 1.0
e 49 22.50 184kmX
CLL 93.75 324 iPc 48 36.20 -0.9
KHC 94.33 322 eP 48 50.50 10.6X
GEC2 94.38 322 P 48 39.50 -0.7
1.1s 4.34nm 4.8mb
e 48 48.90 29km
e 51 37.60
e 51 44.60
e 51 51.40
MOX 94.83 324 eP 48 41.80 -0.3
1.6s 44.00nm 5.6mb
GRF 95.48 323 iPc 48 45.40 0.3
1.3s 12.00nm 5.2mb
Z 18s 0.30um 4.8Msz
LKO 126.52 292 PKP 54 23.96 -0.8
1.1s 6.50nm
KIC 126.93 288 PKP 54 25.18 -0.4
1.2s 34.50nm
TIC 127.08 288 PKP 54 25.34 -0.5
1.4s 16.50nm
LIC 127.24 288 PKP 54 25.46 -0.7
1.5s 37.00nm
MOCB 166.38 131 PKP 55 28.50 2.0
LPB 166.42 109 PKP 55 24.00 -2.5
BAO 172.76 243 ePKP 55 30.40 0.7
S.D. = 0.9 on 88 of 101 obs.

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* DEC 28, 1993 04h 57m 11.71± 0.51s
0.972 N ±11.4km 121.764 E ±10.0km
DEPTH = 33.0km (normal)
4.4mb (4 obs.)
MINAHASSA PENINSULA, SULAWESI (265)

MNI 3.11 81 ePc 57 59.50 -0.1
eS 58 34.50
TSM 5.10 310 iPd 58 26.40 -1.4
KKM 7.49 312 ePd 59 02.50 1.0
WB2 24.17 150 eP 02 26.30 0.1
0.6s 9.20nm 4.5mb
i 02 38.40
ASPA 27.19 155 iPc 02 54.00 -0.4
0.8s 7.60nm 4.4mb
STK 37.69 152 eP 04 26.20 0.3
0.9s 3.40nm 4.2mb
GUN 43.55 311 P 05 15.20 0.4
0.8s 27.00nm 5.1mb
KKN 43.94 311 P 05 18.00 0.2
DMN 43.98 310 P 05 18.40 0.2
GKN 44.54 310 P 05 22.40 -0.2
S.D. = 0.7 on 10 of 10 obs.

% DEC 28, 1993 05h 05m 49.26± 0.69s
42.670 N ± 5.9km 1.738 E ± 5.5km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.7 (STR).

PAND 0.20 224 Pg 05 53.67 -0.2
Sg 05 57.10
GRBF 0.23 319 Pg 05 54.30 0.1
Sg 05 57.16
TRGS 0.24 135 Pg 05 54.76 0.3
LSPF 0.30 24 Pg 05 55.73 0.1
Sg 06 00.85
VDCF 0.47 100 Pg 05 58.83 0.0
MTHF 0.64 65 Pg 06 01.82 -0.4
S.D. = 0.3 on 6 of 6 obs.

? DEC 28, 1993 05h 34m 23.60± 2.06s
7.080 S ±17.3km 128.196 E ±16.8km
DEPTH = 116.4 ± 25.6 km
4.3mb (3 obs.)
BANDA SEA (280)

TLE 4.75 73 iPd 35 34.20 0.0
iS 36 16.80
MTN 6.42 153 eP 35 57.00 -0.1
0.2s 161.00nm 6.0mb X
eS 36 58.50
WB2 14.11 156 iPc 37 35.70 -3.8X
0.6s 19.20nm 4.5mb
eS 39 56.50
MBL 16.17 209 eP 38 05.00 -0.4
eS 41 06.00
ASPA 17.38 162 eP 38 20.90 0.5
eS 41 16.60
WARB 19.06 184 eP 38 45.00 5.5X
NANU 19.64 217 iPd 38 46.00 0.4
0.3s 3.00nm 4.1mb
STK 27.66 155 eP 40 02.00 -0.4
0.5s 3.70nm 4.3mb
S.D. = 0.6 on 6 of 8 obs.

DEC 28, 1993 05h 37m 37.48± 0.39s
43.404 N ± 5.2km 17.073 E ± 4.7km
DEPTH = 6.3 ± 2.8 km
NORTHWESTERN BALKAN REGION (383)
MD 4.1 (TRI). ML 3.8 (ZAG), 3.7
(TTG). Felt at Imotski, Ricice
and Makarska, Croatia.

HVAR 0.51 244 iPgc 37 46.20 -1.5
iSg 37 56.30
BRY 1.19 115 iPgc 37 58.40 -1.7
iSg 38 15.67
HCY 1.42 132 iPgd 38 02.75 -1.0
iSg 38 23.43
NKY 1.53 112 iPgd 38 05.07 -0.3
iSg 38 26.87
PLE 1.69 92 iPnd 38 08.01 0.2
iSn 38 32.46
BDV 1.71 130 iPnc 38 08.11 0.2
iSn 38 33.10
TTG 1.88 120 iPnd 38 11.13 0.8
iSn 38 37.36
IVA 2.14 103 iPnc 38 14.72 0.5
iSn 38 43.55
ULC 2.16 131 iPnd 38 15.11 0.7
iSn 38 44.10
PVY 2.28 110 iPnc 38 16.67 0.4
iSn 38 46.90
VBY 2.47 329 ePn 38 19.90 1.0
iSn 38 53.40
ZAG 2.54 343 ePn 38 20.00 0.2
i(Sn) 38 54.00
iSg 38 59.00
PTJ 2.62 343 iPn 38 21.10 0.0
iSn 38 53.30
RIY 2.73 316 ePn 38 24.00 1.4
CEY 3.00 322 e(Pn) 38 27.60 1.1
i 38 28.70
eSn 39 08.10
eSg 39 21.80
LJU 3.20 326 e(Pn) 38 30.10 0.9
e 39 02.80
eSg 39 18.70
TRI 3.30 315 ePn 38 24.30 -6.4X
ePg 38 34.70
ePgPg 38 39.70
eSn 39 07.50
iSg 39 26.30
UZD 3.36 18 e(Pn) 38 30.00 -1.6
VOY 3.47 320 ePnc 38 33.80 0.7
ePg 38 43.00
eSn 39 18.50
eSg 39 32.30
SKO 3.52 112 ePn 38 35.00 1.2
i 38 42.50
OHR 3.59 128 iPn 38 36.50 1.7
i 38 42.50
i 39 22.00
i 39 37.00
SOP 4.30 355 ePn 38 44.00 -0.8
SRO 4.50 11 iPn 38 46.20 -1.4
iSn 39 38.20
KBA 4.52 326 iPnd 38 48.80 0.7
i 39 06.40
i 39 35.60
iSn 39 41.90
iSg 40 06.20
VAY 4.57 115 iPn 38 49.00 0.3
VKA 4.89 354 e(Pn) 38 54.00 0.8
i 39 51.20
BHG 5.23 327 iPd 38 59.00 1.0
WTTA 5.44 317 iPnc 39 00.90 -0.3
i 39 53.00
iSn 40 02.90
iSg 40 38.60
OGA 5.50 311 ePn 39 01.70 -0.4
WATA 5.52 317 iPnd 39 02.40 0.1
0.9s 48.70nm 5.2mb
i 39 15.70
i 39 54.80

28d 05h

i(Sn) 40 09.40
i 40 29.30
SQTA 5.63 315 iPnd 39 04.30 0.5
i 40 12.10
i 40 34.30
MOTA 5.76 315 iPnc 39 05.70 0.0
i 40 15.60
i 40 35.20
KHC 6.22 338 ePn 39 11.10 -0.9
Sn 40 23.50
MLR 6.68 69 eP 40 38.00 79.3X
GRC1 6.79 327 iPnd 39 18.30 -1.7
PRU 6.81 346 ePn 39 22.00 1.7
e 40 02.00
e 40 36.00
eSn 40 50.00
e 41 42.00
KSP 7.46 356 eP 40 08.00 38.6X
BRG 7.77 345 e(P) 40 04.70 31.0X
e 41 24.30
MOX 8.15 335 eP 39 37.40 -1.6
1.1s 19.00nm 5.3mb
e 41 11.80
S.D. = 1.0 on 35 of 39 obs.

DEC 28, 1993 05h 42m 00.74± 0.96s
1.899 S ± 5.4km 120.925 E ± 7.3km
DEPTH = 60.5 ± 9.6 km
5.1mb (11 obs.)
SULAWESI, INDONESIA (268)

MKS 3.60 204 iPc 42 55.70 0.4
iS 43 41.00
MNI 5.13 50 ePc 43 19.50 2.6
TSM 6.87 334 ePc 43 39.50 -1.6
KKM 9.19 329 ePc 44 19.00 5.8X
DAV 10.06 27 eP 44 33.80 8.7X
KLI 16.31 259 eP 45 52.00 4.7X
BAG 18.20 359 eP 46 10.20 -0.8
MBL 19.17 183 eP 46 22.20 -0.2
IPM 20.90 288 ePc 46 40.90 0.5
NANU 21.20 194 eP 46 32.00 -11.4X
1.0s 87.00nm
WB2 22.22 145 eP 46 52.60 -1.1
0.7s 36.00nm 4.9mb
i 46 56.60
WARB 24.76 168 eP 47 19.00 0.7
ASPA 25.02 151 iPd 47 20.40 -0.4
0.8s 40.00nm 5.0mb
Z 23s 0.40um 3.9MszX
QIS 26.01 137 eP 47 29.00 -0.9
PMG 27.13 107 eP 47 38.00 -2.3
BDT 28.80 312 eP 47 54.10 -1.2
CHTO 29.85 315 ePc 48 05.30 0.6
1.2s 21.53nm 4.7mb
KMI 32.13 328 Pc+ 48 26.00 1.1
1.5s 110.00nm 5.5mb
pP 48 33.50 26kmX
sP 48 38.00
SSE 32.81 0 Pd 48 30.50 0.0
1.0s 30.00nm 5.1mb
pP 48 38.00 26kmX
STK 35.62 149 iPc 48 54.70 0.0
0.9s 15.60nm 4.9mb
ARMA 40.63 137 eP 49 42.40 5.7X
LZH 41.01 339 eP 49 40.50 0.7
2.0s 60.00nm 5.0mb
sP 49 54.50
BJI 41.96 355 eP 49 47.00 -0.3
1.2s 49.00nm 5.2mb
esP 50 42.00
ePP 51 38.00
eS 56 06.00
eSS 59 20.00
CAN 42.26 145 eP 49 50.20 0.3
GUN 44.86 314 P 50 12.20 0.7
PKI 45.01 313 P 50 12.40 -0.2
KKN 45.23 313 P 50 14.80 0.6
1.0s 50.00nm 5.3mb
DMN 45.25 313 P 50 15.00 0.5
GBA 45.79 291 P 50 19.00 0.5
GKN 45.82 313 P 50 19.20 0.4
HYB 45.96 296 eP 50 13.00 -6.9X
1.0s 40.00nm 5.3mb
e 50 20.00
DZM 48.56 118 iPc 50 45.50 5.2X
POO 50.55 296 eP 50 55.00 -0.5
NDI 51.75 309 eP 51 03.00 -1.5
QUE 60.50 306 eP 52 05.80 -1.5
YAK 64.10 5 eP 52 28.80 -1.6
1.0s 30.00nm 5.2mb
e 52 29.00
MAIO 68.49 310 eP 52 59.00 0.0
OBN 88.29 325 eP 54 42.00 -4.7X
e 54 46.20
KIC 125.65 276 PKP 00 58.70 0.6
1.3s 37.50nm
TIC 125.92 277 PKP 00 59.06 0.4
1.1s 9.00nm
LIC 125.94 276 PKP 00 59.08 0.4
1.6s 42.00nm
LKO 126.30 280 PKP 00 59.68 0.3
1.1s 19.50nm
RTCB 145.54 165 ePKPc 01 36.00 1.6
RTLL 145.77 166 ePKPc 01 36.20 1.4
S.D. = 1.1 on 36 of 44 obs.

& DEC 28, 1993 07h 25m 31.88s
58.306 N 153.482 W
DEPTH = 71.6km
KODIAK ISLAND REGION (13)
<AEIC>.

CDD 0.63 352 eP 25 45.59 -0.8
SYI 0.65 62 eP 25 45.45 -1.1
S 25 55.86
KDC 0.77 136 eP 25 46.39 -1.5
eS 25 58.35
AUI 1.03 2 iP 25 50.17 -1.0
eS 26 04.40
AGU 1.06 1 eP 25 50.72 -0.9
AUE 1.06 3 iP 25 50.75 -0.7
AUP 1.06 2 eP 25 49.97 -1.6
eS 26 05.21
AUH 1.06 1 eP 25 50.70 -0.9
AUL 1.08 1 eP 25 50.79 -0.9
OPT 1.36 5 iP 25 54.38 -1.0
eS 26 11.97
BGM 1.42 321 eP 25 55.28 -1.0
PDB 1.53 346 iP 25 56.25 -1.5
eS 26 14.88
HOM 1.66 34 eP 25 58.27 -1.1
eS 26 18.98
CNPM 1.69 43 iP 25 58.30 -1.6
eS 26 18.72
INE 1.77 7 eP 25 59.37 -1.8
ILIM 1.80 8 eP 25 59.60 -1.8
BRLK 1.99 41 eP 26 01.85 -2.1
eS 26 24.07
RED 2.15 9 eP 26 04.27 -2.0
eS 26 29.65
RS2 2.20 9 eP 26 05.29 -1.8
RSO 2.19 9 eP 26 05.27 -1.8
RDW 2.21 9 eP 26 05.64 -1.6
REF 2.23 10 eP 26 05.52 -1.9
NCT 2.28 7 eP 26 06.41 -1.7
DFR 2.33 10 eP 26 06.90 -1.9
NKA 2.70 24 eP 26 13.34 -0.5
SLKM 2.77 36 eP 26 12.10 -2.7
BKG 2.84 12 iP 26 13.99 -1.9
SPU 2.97 13 eP 26 15.48 -2.3
CKT 2.98 12 eP 26 15.54 -2.2
CKN 3.00 12 eP 26 16.43 -1.7
SVW 3.01 340 eP 26 16.05 -2.2
BGL 3.02 10 eP 26 16.38 -2.0
CP2 3.03 11 eP 26 16.22 -2.5
MPA 3.04 42 eP 26 15.72 -2.8
CRP 3.05 12 eP 26 16.26 -2.6
CGLM 3.10 13 eP 26 17.29 -2.3
NCG 3.18 12 iP 26 18.42 -2.2
MTU 3.44 58 eP 26 21.76 -2.5
SUA 3.46 22 eP 26 21.95 -2.6
PMS 3.55 32 P 26 23.10 -2.7
PWL 3.66 43 eP 26 24.00 -3.3
PWA 3.81 27 P 26 27.00 -2.4
SKT 3.81 14 eP 26 26.43 -3.0
PLRM 3.96 32 eP 26 27.89 -3.5
KNK 4.02 37 eP 26 28.70 -3.6
CFI 4.08 43 eP 26 29.41 -3.8
HIN 4.14 57 eP 26 31.06 -3.0
GHO 4.16 31 eP 26 31.53 -2.9
FID 4.33 53 eP 26 32.18 -4.5
SML 4.36 34 eP 26 33.55 -3.6
CUT 4.41 20 eP 26 35.49 -2.3
VZW 4.47 49 eP 26 34.71 -3.9
CVA 4.54 57 eP 26 36.29 -3.3
VLZ 4.60 49 eP 26 36.63 -3.7
SCM 4.69 38 eP 26 38.48 -3.4
KLU 4.97 47 eP 26 41.86 -3.9
BALM 6.27 59 eP 26 59.42 -4.4
IL1 7.21 23 eP 27 12.10 -4.6
ILB 7.21 23 eP 27 12.34 -4.4
BC3 7.46 45 eP 27 16.73 -3.5
IM3 7.71 359 eP 27 19.81 -3.8
61 obs. associated

? DEC 28, 1993 07h 28m 51.34± 3.96s
43.971 N ±23.6km 9.798 E ±24.6km
DEPTH = 10.0km (geophysicist)
CORSICA (380)
ML 2.6 (GEN).

BORS 0.27 4 P 28 57.29 0.2
S 29 01.73
PCP 1.07 303 P 29 11.21 -0.2
S 29 22.98
FIN 1.17 282 P 29 13.91 0.7
S 29 27.78
IMI 1.38 268 P 29 16.57 -0.1
ROB 1.43 284 P 29 17.62 0.3
PZZ 2.01 286 P 29 25.58 -0.3
BHB 2.01 296 P 29 25.26 -0.5
S.D. = 0.5 on 7 of 7 obs.

? DEC 28, 1993 07h 45m 39.17± 4.22s
16.835 N ±32.3km 100.413 W ±27.3km
DEPTH = 33.0km (normal)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX 0.53 86 iPd 45 49.92 -0.3
iS 45 58.76
CRX 2.65 15 (P) 46 20.00 -0.8
PPM 2.80 37 iP 46 23.73 0.7
iS 46 59.30
MRX 2.95 346 iP 46 24.96 0.2
iS 47 00.09
OXX 3.54 85 (P) 46 33.60 0.2
S.D. = 0.8 on 5 of 5 obs.

& DEC 28, 1993 08h 12m 58.51s
58.972 N 154.613 W
DEPTH = 121.6km
ALASKA PENINSULA (12)
<AEIC>.

MCNL 0.26 34 eP 13 15.00 0.8
eS 13 27.66
CDD 0.50 94 eP 13 15.93 -1.0
AUI 0.71 59 eP 13 17.42 -0.9
eS 13 32.21
AUH 0.72 56 eP 13 17.72 -0.8
AGU 0.72 57 eP 13 17.77 -0.8
AUP 0.73 57 eP 13 17.31 -1.3
AUL 0.73 55 eP 13 17.78 -0.8
AUE 0.75 58 eP 13 17.91 -0.7
PDB 0.85 15 iP 13 18.44 -1.1
eS 13 34.17
OPT 0.98 45 iP 13 20.02 -0.8
eS 13 36.20
SYI 1.21 106 eP 13 21.50 -1.6
INE 1.35 35 eP 13 23.66 -1.2
eS 13 42.99
ILIM 1.40 36 iP 13 24.32 -0.9
eS 13 44.59
KDC 1.66 137 eP 13 25.55 -2.7
HOM 1.67 64 eP 13 28.01 -0.4
RED 1.73 32 eP 13 27.84 -1.4
eS 13 51.33
RS2 1.77 31 iP 13 28.53 -1.3
RSO 1.77 31 eP 13 28.54 -1.3
RDW 1.77 30 eP 13 28.49 -1.4
REF 1.80 32 iP 13 28.85 -1.4
NCT 1.81 27 iP 13 28.87 -1.4
CNPM 1.82 71 eP 13 28.39 -1.9
eS 13 51.87
DFR 1.90 30 eP 13 29.80 -1.5
SVW 2.20 347 eP 13 33.45 -1.7
BKG 2.41 28 iP 13 36.30 -1.6
NKA 2.46 42 eP 13 38.58 0.2
CKT 2.54 27 eP 13 37.90 -1.6
BGL 2.55 25 eP 13 38.45 -1.3

SPU	2.56	29	eP	13 37.95	-1.8
CKN	2.57	27	eP	13 38.42	-1.4
CP2	2.59	26	eP	13 38.59	-1.7
CRP	2.61	27	eP	13 38.20	-2.3
CGLM	2.68	28	eP	13 39.69	-1.7
SLKM	2.71	53	eP	13 39.07	-2.6
NCG	2.73	26	eP	13 40.71	-1.3
SEW	2.86	64	eP	13 41.55	-2.1
MPA	3.06	58	eP	13 43.82	-2.5
SUA	3.16	36	eP	13 45.56	-2.2
SKT	3.38	26	eP	13 48.72	-1.9
PMS	3.40	46	P	13 48.20	-2.8
PWA	3.57	39	P	13 50.50	-2.6
PWL	3.68	56	eP	13 51.35	-3.3
MTU	3.69	71	eP	13 52.19	-2.6
PLRM	3.79	44	eP	13 52.02	-4.0
PMR	3.79	44	eP	13 51.84	-4.2
KNK	3.93	49	eP	13 54.22	-3.8
GHO	3.98	43	eP	13 55.45	-3.3
TTA	4.03	351	P	13 58.50	-0.9
CUT	4.05	30	eP	13 57.08	-2.5
CFI	4.08	54	eP	13 57.20	-2.8
SML	4.22	45	eP	13 57.88	-4.1
HIN	4.35	67	eP	14 01.03	-2.7
FID	4.47	63	eP	14 01.01	-4.3
VZW	4.55	59	eP	14 03.21	-3.3
VLZ	4.68	59	eP	14 05.17	-3.0
CVA	4.75	67	eP	14 05.03	-4.1
SDN	4.85	224	P	14 08.90	-1.5
TRF	4.96	23	eP	14 09.01	-3.1
KLU	5.02	56	eP	14 08.92	-3.9
TOA	5.22	49	P	14 12.10	-3.4
RND	5.25	30	eP	14 12.39	-3.6
KAIM	5.29	75	eP	14 14.72	-1.7
DHY	5.42	37	eP	14 14.24	-4.1
HMT	5.43	71	eP	14 15.07	-3.3
TZL	5.49	52	eP	14 16.51	-2.6
MCK	5.50	27	eP	14 16.13	-3.2
BWN	5.77	23	eP	14 19.57	-3.4
GLB	5.93	61	eP	14 21.73	-3.5
PAX	5.99	44	eP	14 22.31	-3.9
WAX	6.13	71	eP	14 24.53	-3.6
TGL	6.20	68	eP	14 25.45	-3.6
NEA	6.21	23	eP	14 25.25	-3.8
WRH	6.33	27	eP	14 26.05	-4.6
MLY	6.35	15	eP	14 27.63	-3.4
BALM	6.49	66	eP	14 29.56	-3.5
CCB	6.54	27	eP	14 28.91	-4.7
HDA	6.55	30	eP	14 29.42	-4.3
YAH	6.67	72	eP	14 32.91	-2.6
MDM	6.72	24	eP	14 31.63	-4.4
FBA	6.76	25	eP	14 31.57	-5.0
ILB	6.87	29	eP	14 33.23	-4.8
IL1	6.87	29	eP	14 33.19	-4.8
GLM	6.93	26	eP	14 34.40	-4.5
CTGM	6.96	68	eP	14 36.68	-2.7
IM3	7.05	3	eP	14 37.74	-2.7
BC3	7.46	51	eP	14 42.73	-3.3
BM3	9.59	24	eP	15 08.66	-6.1

87 obs. associated

% DEC 28, 1993 08h 37m 24.24± 1.02s
45.056 N ± 5.2km 7.281 E ±13.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

RSP	0.10	350	P	37 27.22	0.2
			S	37 28.87	
BHB	0.21	183	P	37 29.05	0.1
			S	37 32.34	
RRL	0.38	249	P	37 32.12	0.0
			S	37 37.15	
LSD	0.41	348	P	37 32.57	-0.2
			S	37 37.74	
PZZ	0.57	193	P	37 35.64	-0.2
			S	37 42.18	

S.D. = 0.2 on 5 of 5 obs.

DEC 28, 1993 08h 43m 45.06± 0.26s
56.780 N ± 2.5km 156.455 W ± 3.4km
DEPTH = 33.0km (normal)
4.6mb (19 obs.)
ALASKA PENINSULA (12)
ML 4.7 (AEIC), 4.8 (PMR).

KDC	2.36	64	ePc	44 20.95	-1.3
CDD	2.63	34	eP	44 26.01	-0.1
			eS	44 58.18	
MCNL	2.66	24	eP	44 26.32	-0.2
SDN	2.69	239	eP	44 28.65	1.8
SYI	2.85	48	eP	44 29.18	0.0
AUI	3.03	31	eP	44 32.25	0.5
			eS	45 10.10	
AUH	3.05	30	eP	44 33.20	1.1
AGU	3.05	31	eP	44 32.83	0.7
AUP	3.05	31	eP	44 29.84	-2.3
AUE	3.06	31	eP	44 33.29	1.1
AUL	3.06	30	eP	44 33.24	1.0
PDB	3.24	21	eP	44 34.92	0.1
			eS	45 15.40	
OPT	3.35	29	eP	44 36.78	0.4
XLV	3.67	41	eP	44 42.91	2.0
INE	3.74	27	eP	44 43.24	1.2
ILIM	3.79	28	eP	44 43.14	0.6
HOM	3.85	39	eP	44 43.93	0.6
CNPM	3.90	43	eP	44 43.63	-0.5
RED	4.13	26	eP	44 47.85	0.4
			eS	45 38.19	
RS2	4.17	26	eP	44 48.70	0.6
RSO	4.17	26	P	44 48.70	0.6
RDW	4.17	26	eP	44 48.57	0.4
BRLK	4.20	42	eP	44 47.53	-0.8
NCT	4.22	24	eP	44 49.18	0.5
DFR	4.30	26	eP	44 50.27	0.4
SVW	4.36	5	eP	44 50.51	-0.3
NKA	4.81	32	eP	44 58.73	1.7
BKG	4.82	25	eP	44 57.76	0.5
CKT	4.95	25	eP	44 59.56	0.5
SLKM	4.96	38	eP	44 57.63	-1.5
BGL	4.96	23	eP	45 00.09	0.8
SPU	4.97	25	eP	44 59.60	0.3
CKN	4.97	25	eP	45 00.43	1.0
CP2	5.00	24	eP	45 00.25	0.3
CRP	5.02	24	eP	44 59.66	-0.5
CGLM	5.09	25	eP	45 01.47	0.4
NCG	5.14	24	eP	45 02.89	1.1
MPA	5.25	42	eP	45 01.35	-1.9X
SUA	5.54	30	eP	45 07.12	-0.3
MTU	5.64	52	eP	45 06.23	-2.5X
PMS	5.72	36	P	45 08.60	-1.3
SKT	5.79	24	eP	45 10.88	0.0
PWL	5.87	42	eP	45 09.48	-2.6X
PWA	5.94	32	P	45 12.60	-0.3
MID	5.98	59	P	45 11.70	-1.9X
PLRM	6.12	35	eP	45 13.38	-2.1X
PMR	6.12	35	eP	45 12.63	-2.8X
TTA	6.17	2	eP	45 15.10	-1.3
KNK	6.21	38	eP	45 14.31	-2.5X
CFI	6.30	42	eP	45 15.17	-2.8X
GHO	6.32	34	eP	45 16.54	-1.9X
HIN	6.34	51	eP	45 15.76	-2.9X
CUT	6.45	27	eP	45 20.08	-0.1
SML	6.53	36	eP	45 18.79	-2.6X
FID	6.54	48	eP	45 17.69	-3.7X
CVA	6.74	51	eP	45 20.80	-3.4X
VLZ	6.81	46	eP	45 22.57	-2.6X
SCM	6.89	39	eP	45 23.80	-2.6X
KAIM	7.07	59	eP	45 25.71	-3.2X
RAGM	7.14	55	eP	45 26.78	-3.0X
KLU	7.19	45	eP	45 27.49	-3.0X
HMT	7.30	56	eP	45 28.64	-3.5X
KTH	7.33	20	eP	45 31.90	-0.7
TRF	7.36	22	eP	45 31.60	-1.5X
TOA	7.48	40	P	45 32.40	-2.2X
RND	7.65	27	eP	45 34.86	-2.2X
TZL	7.71	42	eP	45 36.18	-1.6X
DHY	7.78	32	eP	45 36.36	-2.6X
WAX	7.99	57	eP	45 38.16	-3.7X
GLB	8.01	49	eP	45 38.53	-3.4X
TGL	8.12	55	eP	45 39.90	-3.7X
BWN	8.17	22	eP	45 42.17	-2.1X
PAX	8.30	37	eP	45 43.04	-3.1X
BALM	8.45	54	eP	45 44.25	-4.0X
YAH	8.48	59	eP	45 45.07	-3.6X
THY	8.53	34	eP	45 47.71	-1.5X
NEA	8.61	22	eP	45 47.34	-3.0X
MLY	8.73	16	eP	45 50.08	-1.9X
WRH	8.73	25	eP	45 48.62	-3.4X
DDM	8.77	32	eP	45 50.72	-1.8X
CTGM	8.88	56	eP	45 50.64	-3.5X
ANM	8.94	334	eP	45 54.91	0.1
CCB	8.95	25	eP	45 51.42	-3.5X
HDA	8.95	27	eP	45 52.67	-2.4X
DJE	9.00	32	eP	45 53.98	-1.7X
MDM	9.12	23	eP	45 54.12	-3.3X
FBA	9.17	24	eP	45 54.15	-3.8X
DOT	9.23	37	eP	45 56.32	-2.6X
IL1	9.27	26	P	45 55.70	-3.7X
ILB	9.27	26	P	45 55.70	-3.7X
GLM	9.33	24	eP	45 56.65	-3.7X
TMW	9.38	40	eP	45 58.91	-2.1X
IMA	9.42	7	eP	45 58.36	-3.2X
FYU	11.15	24	eP	46 20.95	-4.1X
SIT	11.55	80	eP	46 25.67	-4.7X
BM3	12.00	22	eP	46 31.22	-5.4X
ADK	12.76	256	eP	46 48.11	1.4
MCW	21.73	98	eP	48 35.42	0.4
GMW	22.41	100	eP	48 42.18	0.3
BMW	22.83	103	eP	48 45.79	-0.3
RMW	23.00	99	eP	48 48.30	0.6
LON	23.43	101	(P)	48 52.37	0.5
SHW	23.55	102	(P)	48 54.71	1.6
VGB	24.76	102	eP	49 05.33	0.6
NEW	25.09	93	eP	49 07.30	-0.6
	0.9s		9.15nm		4.4mb
LBFM	27.04	110	eP	49 26.03	-0.1
ORV	28.56	112	eP	49 39.31	-0.3
LRM	29.11	93	eP	49 43.10	-1.8
PTI	31.06	98	eP	50 02.12	0.0
BONR	31.41	110	eP	50 05.67	0.4
HVU	31.58	99	eP	50 07.52	0.9
BCH	32.65	116	eP	50 16.38	0.4
BW06	32.66	95	eP	50 15.66	-0.5
	0.5s		3.48nm		4.5mb
DUG	32.67	102	eP	50 15.93	-0.2
	1.2s		5.74nm		4.3mb
TPNV	33.23	109	eP	50 21.63	0.6
	0.7s		8.27nm		4.7mb
DAU	33.36	100	eP	50 22.22	-0.1
EMUT	34.02	100	eP	50 28.23	0.3
ARUT	34.08	105	eP	50 28.45	0.0
GSC	34.21	112	eP	50 29.69	0.2
MSU	34.22	103	eP	50 30.20	0.5
SRU	34.68	101	eP	50 33.77	0.2
RSSD	34.82	88	eP	50 34.58	-0.2
	0.6s		8.49nm		4.9mb
PEC	35.14	114	eP	50 37.27	-0.1
	0.7s		6.08nm		4.6mb
PLM	35.72	114	eP	50 42.92	0.4
PV09	35.87	100	eP	50 43.65	-0.2
PV10	36.01	100	eP	50 45.07	0.1
PV08	36.08	100	eP	50 45.52	-0.1
GLA	36.99	112	eP	50 53.25	0.3
TUC	39.66	108	eP	51 17.34	1.9
ACO	42.63	93	e(P)	51 39.10	-0.6
DAG	44.05	13	eP	51 50.00	-0.7
	0.5s		4.93nm		4.6mb
MEO	44.35	94	iPd	52 04.80	11.2X
LTX	45.77	104	eP	52 04.47	-0.6
FVM	46.50	85	eP	52 10.57	-0.1
	0.9s		9.54nm		4.8mb
MIAR	47.28	90	eP	52 16.29	-0.6
	0.7s		5.78nm		4.7mb
ELC	47.66	84	eP	52 18.45	-1.3
CN2	48.85	290	eP	52 28.00	-0.9
	0.8s		7.10nm		4.7mb
OXF	49.60	87	eP	52 34.28	-0.5
MYNC	52.07	82	eP	52 52.10	-1.6
PRM	53.78	82	eP	53 05.60	-0.6
JSC	54.23	81	eP	53 08.01	-1.5
SDF	56.10	359	eP	53 21.00	-1.7
HHC	58.03	297	eP	53 36.80	-0.1
KAF	61.43	359	iP	53 58.20	-1.6
	0.4s		3.70nm		4.9mb
NB2	62.12	7	P	54 03.30	-1.3
	0.8s		3.40nm		4.5mb
NUR	63.05	359	iP	54 09.10	-1.5
	0.5s		7.20nm		5.1mb
HFS	63.17	6	eP	54 09.10	-2.3
	0.4s		2.30nm		4.6mb
XAN	64.64	294	P	54 20.50	-1.0
	1.0s		4.50nm		4.5mb
LZH	65.52	299	eP	54 26.00	-1.2
	1.5s		32.00nm		5.2mb
DCN	67.37	19	eP	54 46.00	7.5X
CD2	69.74	295	P	54 53.50	-0.1
GYA	71.89	291	P	55 08.80	2.1
MOX	72.49	8	e(P)	55 10.10	0.3
GRF	73.40	8	eP	55 15.90	0.8
	0.8s		4.00nm		4.5mb

28d 08h

KHC 74.13 7 eP 55 19.00 -0.4
KHC 74.13 7 eP 55 21.50 2.1X
e 55 28.50
e 55 52.00
GEC2 74.43 7 P 55 20.90 -0.3
0.6s 1.51nm 4.1mb
e 55 25.20
LSA 76.76 304 P 55 36.00 0.8
0.8s 7.00nm 4.7mb
GBA 96.91 308 P 57 19.00 4.9X
SLR 148.79 352 ePKP 03 20.00 -6.4X
S.D. = 0.9 on 104 of 160 obs.

% DEC 28, 1993 09h 42m 23.80± 1.18s
40.486 N ± 8.5km 21.917 E ± 8.0km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.9 (THE).

FNA 0.51 306 ePg 42 33.88 -0.1
eSg 42 41.14
LIT 0.58 131 ePg 42 35.44 0.0
eSg 42 43.98
GRG 0.60 38 ePg 42 34.92 -0.8
VAY 0.97 30 ePn 42 43.50 0.8
KNT 1.00 47 ePg 42 43.44 0.1
eSg 42 57.14
S.D. = 0.8 on 5 of 5 obs.

% DEC 28, 1993 10h 01m 48.39± 1.06s
43.080 N ± 7.5km 18.796 E ± 6.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (TTG).

BRY 0.26 226 iPgc 01 53.97 0.1
iSg 01 57.76
NKY 0.31 151 iPgd 01 54.61 -0.2
iSg 01 58.91
PLE 0.50 60 iPgc 01 58.61 0.0
iSg 02 05.97
HCY 0.67 199 iPgc 02 01.50 -0.2
iSg 02 11.25
TTG 0.73 152 iPgd 02 02.55 -0.2
iSg 02 12.90
BDV 0.80 178 iPgd 02 03.82 -0.1
iSg 02 15.41
IVA 0.84 104 iPgd 02 04.57 0.0
iSg 02 16.73
PVY 0.99 119 iPgd 02 07.40 0.1
iSg 02 21.82
ULC 1.17 163 iPgd 02 10.70 0.5
iSg 02 27.66
S.D. = 0.3 on 9 of 9 obs.

DEC 28, 1993 10h 29m 50.46± 1.27s
37.300 N ±10.0km 20.974 E ±11.0km
DEPTH = 33.0km (normal)
IONIAN SEA (399)
MD 3.8 (ATH). ML 3.5 (THE).

VLS 0.93 341 ePb 30 08.00 0.9
VLI 1.68 110 ePn 30 18.00 0.1
AGG 2.03 31 ePn 30 27.28 4.3X
eSn 30 50.28
ATH 2.28 72 ePb 30 28.00 1.5
IGT 2.29 347 ePn 30 28.36 1.7
eSn 30 55.96
KEK 2.58 339 ePn 30 32.50 1.7X
SRN 2.69 344 ePn 30 32.00 -0.3
LIT 3.04 23 iPn 30 38.46 1.1
iSn 31 15.44
KZN 3.07 11 ePn 30 38.50 0.7
TPE 3.08 346 ePn 30 37.50 -0.5
VAM 3.22 125 ePn 30 39.00 -0.8
KBN 3.32 358 ePn 30 41.00 -0.4
PAIG 3.37 38 ePn 30 42.98 0.9
FNA 3.49 5 ePn 30 43.58 -0.3
OHR 3.81 358 ePn 30 47.00 -1.3
GRG 3.82 16 ePn 30 47.84 -0.5
TIR 4.13 348 ePn 30 53.70 0.9
KNT 4.14 21 ePn 30 51.96 -0.9
VAY 4.20 17 iPn 30 53.00 -0.8
SRS 4.32 27 ePn 30 54.28 -1.2
LACI 4.44 348 ePn 30 57.40 0.2
SKO 4.68 4 ePn 30 59.50 -1.1
S.D. = 1.0 on 20 of 22 obs.

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* DEC 28, 1993 10h 32m 09.95± 1.00s
6.435 S ±14.6km 102.631 E ±11.1km
DEPTH = 33.0km (normal)
4.8mb (8 obs.)
SOUTHWEST OF SUMATERA, INDONESIA(273)

KLI 2.71 55 ePd 32 52.00 -0.1
eS 33 01.00
BDT 23.80 351 eP 37 17.20 -3.6X
CHTO 25.35 352 eP 37 36.00 0.3
KMI 31.37 0 eP 38 31.50 1.2
1.0s 20.00nm 4.9mb
sP 38 38.50
WB2 33.59 117 eP 38 40.80 -8.7X
0.7s 2.50nm 4.2mb
ASPA 34.59 123 eP 38 58.30 0.2
0.9s 4.60nm 4.4mb
PKI 37.68 335 P 39 24.20 -0.4
GUN 37.78 335 P 39 25.80 0.4
0.6s 29.00nm 5.3mb
DMN 37.85 334 P 39 25.40 -0.4
KKN 37.93 335 P 39 26.40 -0.1
0.6s 11.00nm 4.9mb
GKN 38.39 334 P 39 30.20 -0.1
0.6s 22.00nm 5.2mb
LZH 42.31 1 eP 40 02.50 0.0
1.5s 29.00nm 4.8mb
BJI 47.90 14 eP 40 46.00 -1.0
0.8s 4.00nm 4.5mb
S.D. = 0.6 on 11 of 13 obs.

? DEC 28, 1993 10h 49m 29.32± 1.37s
15.434 N ±10.8km 60.860 W ±51.2km
DEPTH = 120.0km (geophysicist)
LEEWARD ISLANDS (92)
MG 2.6 (FDF).

MGG 0.65 318 eP 49 48.50 0.0
CRM 0.68 185 iPd 49 48.83 0.1
S 50 02.70
FDF 0.75 202 iPd 49 49.31 -0.1
S 50 03.70
MVM 0.88 182 eP 49 50.31 -0.2
S 50 05.50
DEG 0.89 348 eP 49 50.70 0.0
BIM 0.93 193 eP 49 51.21 0.2
S.D. = 0.2 on 6 of 6 obs.

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* DEC 28, 1993 11h 05m 54.57± 1.62s
4.013 S ±17.7km 142.278 E ±11.4km
DEPTH = 10.0km (geophysicist)
4.3mb (2 obs.)
NEW GUINEA, PAPUA NEW GUINEA (202)

WWKK 1.40 74 eP 06 20.00 -0.1
MNDI 2.53 147 eP 06 35.50 -1.1
YYYY 4.29 121 eP 07 06.60 5.0X
LAT 5.39 119 ePd 07 20.10 3.1X
PMG 7.22 138 eP 07 44.00 1.2
MTN 14.09 231 eP 09 16.50 0.1
WB2 17.62 205 iPc 10 01.90 0.0
0.4s 13.80nm 4.4mb
eS 13 13.70
ASPA 21.15 202 eP 10 44.90 2.6X
0.8s 10.30nm 4.3mb
DZM 29.52 130 iPc 11 58.30 -3.3X
S.D. = 1.2 on 5 of 9 obs.

? DEC 28, 1993 12h 45m 06.48± 2.26s
34.518 S ±23.3km 70.459 W ±18.7km
DEPTH = 120.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)
MD 3.9 (SAN).

CACH 0.42 344 iP+ 45 24.34 0.0
iS 45 38.06
PCH 0.90 357 iP+ 45 27.98 0.1
iS 45 44.46
TACH 0.95 335 iP+ 45 28.37 0.0
iS 45 44.65
LNV 0.97 305 iPd 45 28.49 0.0
iS 45 44.69
FCH 1.20 7 iP+ 45 31.13 -0.1
eS 45 49.85
PEL 1.38 352 iP 45 33.04 0.0
iS 45 53.32
LCCH 1.39 318 iPd 45 32.89 -0.1
iS 45 52.47
ROCH 1.61 343 iP 45 35.87 0.0
JACH 1.84 356 iPd 45 38.43 0.0
eS 46 02.45
S.D. = 0.1 on 9 of 9 obs.

? DEC 28, 1993 13h 02m 22.63± 1.46s
31.636 S ±22.3km 68.829 W ±16.2km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.15 10 ePd 02 37.20 -0.1
S 02 48.00
ZON 0.16 55 iPd 02 37.40 0.2
eS 02 48.40
RTLL 0.43 45 ePd 02 38.00 -0.2
S 02 49.70
RTRS 1.56 339 iPd 02 50.00 0.0
S 03 11.00
RTPR 2.39 57 e(P) 03 01.00 0.1
S.D. = 0.2 on 5 of 5 obs.

DEC 28, 1993 13h 12m 28.81± 0.35s
43.376 N ± 5.5km 17.103 E ± 4.5km
DEPTH = 5.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.7 (TRI). ML 3.4 (TTG).

HVAR 0.52 248 iPgc 12 38.90 -0.3
iSg 12 48.10
BRY 1.16 114 iPgc 12 49.62 -1.4
iSg 13 08.95
HCY 1.38 132 iPgd 12 53.89 -0.8
iSg 13 16.04
NKY 1.50 111 iPnd 12 56.35 -0.1
iSn 13 20.51
PLE 1.67 91 iPnd 12 59.24 0.3
iSn 13 26.07
BDV 1.67 130 iPnc 12 59.01 0.1
iSn 13 25.32
TTG 1.85 120 iPnd 13 01.92 0.6
iSn 13 29.59
IVA 2.11 103 iPnd 13 06.07 0.8
iSn 13 37.12
ULC 2.12 131 iPnd 13 06.35 0.9
iSn 13 36.71
PVY 2.25 109 iPnd 13 07.67 0.3
iSn 13 40.39
VBY 2.51 329 ePn 13 11.30 0.4
iSn 13 44.40
ZAG 2.57 342 e(Pn) 13 13.70 2.0X
iSn 13 46.00
PTJ 2.65 342 iPn 13 12.00 -1.1
iSn 13 46.30
RIY 2.77 316 iPnd 13 15.30 0.7
CEY 3.04 322 ePn 13 20.50 2.0X
eSn 14 00.40
LJU 3.24 326 ePn 13 22.00 0.8
i 14 00.80
i(Sb) 14 08.70
eSg 14 15.50
TRI 3.34 315 ePn 13 22.70 0.0
ePg 13 31.80
eSn 14 04.20
e 14 12.30
eSg 14 20.20
UZD 3.38 18 e(Pn) 13 37.00 13.7X
SKO 3.49 112 ePn 13 19.50 -5.4X
VOY 3.50 320 ePnd 13 25.20 0.1
e 13 35.10
e(Sn) 14 04.40
e 14 09.30
eSg 14 27.30
OHR 3.56 128 ePn 13 18.50 -7.3X
SRO 4.52 10 eP 13 45.40 6.0X
VAY 4.54 115 ePn 13 39.40 -0.4
KBA 4.56 326 iPnc 13 40.60 0.5
i 14 18.90
i 14 49.60
WTTA 5.47 317 iPnd 13 52.70 -0.5
iSn 14 57.90
i 15 30.20
KHC 6.25 338 eP 14 03.00 -1.0
S.D. = 0.7 on 20 of 26 obs.

% DEC 28, 1993 13h 20m 51.42± 0.87s

43.008 N ± 6.6km 18.803 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.7 (TTG).

BRY 0.22 241 iPgd 20 56.58 0.4
iSg 21 00.37
NKY 0.24 144 iPgd 20 57.20 0.5
iSg 21 01.49
PLE 0.54 53 iPgc 21 02.26 -0.1
iSg 21 10.55
HCY 0.60 202 iPgd 21 03.17 -0.4
iSg 21 12.35
TTG 0.67 150 iPgd 21 04.46 -0.2
iSg 21 14.73
BDV 0.72 179 iPgd 21 05.35 -0.3
iSg 21 16.29
IVA 0.82 99 iPgd 21 07.23 -0.1
iSg 21 19.54
PVY 0.96 115 iPgc 21 09.72 0.0
iSg 21 24.20
ULC 1.10 162 iPgc 21 12.25 0.2
iSg 21 28.55
S.D. = 0.4 on 9 of 9 obs.

? DEC 28, 1993 13h 38m 53.68± 8.02s
6.939 N ±51.8km 126.136 E ±48.9km
DEPTH = 10.0km (geophysicist)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 1.28 5 iPd 39 17.00 -0.5
iS 39 35.50
CTB 1.94 278 eP 39 27.00 0.0
CGP 2.08 317 eP 39 28.00 -1.0
iS 39 58.00
MAP 3.98 328 eP 39 57.00 0.9
PLP 4.35 345 ePd 40 01.80 0.4
S.D. = 1.0 on 5 of 5 obs.

% DEC 28, 1993 14h 29m 20.37± 0.94s
44.382 N ± 9.5km 7.352 E ± 8.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

STV 0.14 188 P 29 23.77 0.0
S 29 25.56
ENR 0.16 162 P 29 24.41 0.2
S 29 26.79
PZZ 0.22 305 P 29 25.15 0.0
S 29 27.98
ROB 0.38 103 P 29 28.40 0.2
S 29 35.03
IMI 0.61 140 P 29 32.29 -0.4
S.D. = 0.4 on 5 of 5 obs.

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* DEC 28, 1993 15h 52m 25.52± 2.15s
12.493 N ±13.7km 125.330 E ±18.6km
DEPTH = 59.2 ± 18.9 km
4.7mb (5 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

PLP 1.36 195 ePd 53 02.80 14.2X
MAP 2.53 212 iPc 53 05.00 0.1
eS 53 39.00
CGP 4.06 189 eP 53 28.00 1.4
BIP 4.34 168 eP 53 29.00 -1.5
BJI 28.60 345 eP 58 19.00 0.8
LZH 30.44 324 eP 58 35.00 0.1
1.5s 27.00nm 4.8mb
WB2 33.43 164 eP 59 00.10 -0.8
0.7s 2.90nm 4.3mb
SHL 34.08 297 eP 59 05.00 -1.8
WARB 38.46 178 iPd 59 44.00 0.5
0.3s 3.00nm 4.7mb
GUN 39.87 299 P 59 56.20 0.5
0.4s 6.00nm 4.8mb
PKI 40.19 298 P 59 58.00 -0.3
KKN 40.36 298 P 00 00.50 1.0
DMN 40.46 298 P 00 00.20 -0.3
GKN 40.96 298 P 00 04.00 -0.4
0.3s 5.00nm 4.8mb
STK 46.79 161 eP 00 51.80 0.7
2.2s 1.50nm 3.5mb X
S.D. = 1.0 on 14 of 15 obs.

DEC 28, 1993 15h 55m 17.86± 0.54s
39.999 N ± 4.6km 19.565 E ± 4.7km
DEPTH = 26.0 ± 3.1 km
3.6mb (2 obs.)
GREECE-ALBANIA BORDER REGION (392)
MD 4.1 (ATH). ML 3.9 (TTG), 3.8
(TIR). Felt (IV) in Sarande and
Vlore Departments, Albania.

KEK 0.34 148 ePb 55 26.30 0.8
SRN 0.36 109 iPgc 55 23.40 -2.4
iSg 55 28.90
IGT 0.75 128 iPg 55 32.04 -0.2
eSg 55 40.68
LSK 0.81 79 iPgd 55 29.00 -4.3X
iSg 55 39.40
KBN 1.12 56 iPgc 55 33.10 -4.9X
OHR 1.46 40 iPnd 55 41.90 -0.8
iSn 56 01.00
FNA 1.59 60 iPb 55 44.20 -0.5
iSb 56 03.20
LACI 1.64 4 ePn 55 46.10 0.8
iSn 56 11.50
KZN 1.72 79 ePb 55 45.50 -1.0
ULC 1.98 353 iPnc 55 51.06 0.8
iSn 56 18.02
VLS 1.99 156 ePn 55 53.50 3.1X
LIT 2.25 86 ePb 55 54.98 0.9
eSb 56 22.04
BDV 2.35 347 iPnc 55 56.31 0.8
iSn 56 26.37
AGG 2.35 114 ePn 55 57.68 2.1
eSn 56 25.08
GRG 2.37 65 ePn 55 56.73 0.9
eSn 56 24.80
BCI 2.40 9 ePn 55 56.00 -0.2
iSn 56 23.50
SKO 2.43 35 iPnc 55 57.00 0.3
iPb 55 58.80
i 56 18.00
iSg 56 25.00
i 56 27.20
TTG 2.44 355 iPnc 55 57.52 0.8
iSn 56 29.61
HCY 2.57 342 iPnc 55 58.97 0.2
iSn 56 31.64
PVY 2.61 7 iPnc 56 00.69 1.3
iSn 56 34.46
VAY 2.64 59 iPn 56 00.50 0.8
i 56 34.60
i 56 48.50
THE 2.68 75 ePn 56 00.32 0.2
iSn 56 30.98
KNT 2.79 64 ePn 56 02.16 0.4
eSn 56 33.80
NKY 2.84 352 iPnd 56 03.41 0.8
iSn 56 38.96
IVA 2.88 5 iPnd 56 04.23 1.1
iSn 56 40.64
BRY 3.00 345 iPnc 56 04.93 0.1
iSn 56 42.19
SOH 3.01 73 ePn 56 05.64 0.7
iSn 56 40.42
PAIG 3.16 90 ePn 56 06.20 -0.9
eSn 56 40.96
KKB 3.25 54 iP 56 09.00 0.6
SRS 3.26 69 ePn 56 08.69 0.2
eSn 56 43.32
PLE 3.33 358 iPnc 56 10.37 0.8
iSn 56 51.28
OUR 3.40 83 ePn 56 10.28 -0.2
MMB 3.54 62 iP 56 13.00 0.5
ATH 3.82 121 ePn 56 17.00 0.7
HVAR 3.94 325 iPn 56 18.90 0.8
VLI 4.21 140 ePn 56 23.50 1.5
RZN 4.26 65 iP+ 56 24.00 1.2
PLD 4.42 60 iP 56 26.00 1.1
ALN 5.02 78 ePn 56 32.00 -1.5
VAM 5.87 140 ePn 56 45.00 -0.5
PTJ 6.46 337 e(P) 57 44.60 50.8X
RIY 6.56 326 iPn 56 54.80 -0.3
UZD 6.63 354 eP 57 04.00 7.9X
TRI 7.12 325 ePn 57 02.10 -0.8
eSg 58 18.70
MLR 7.22 38 eP 57 04.50 0.0
VOY 7.32 327 ePnd 57 05.20 -0.6
eSn 58 25.20
SRO 7.86 354 eP 57 30.20 16.9X
VRI 7.87 39 eP 57 12.00 -1.5
KBA 8.39 330 iPnd 57 30.30 9.4X
0.8s 8.10nm 5.0mb X
i 57 39.60
i(Sn) 58 45.80
i 59 12.40
i 59 17.30
WTTA 9.26 324 iPnd 57 32.10 -0.7
0.8s 9.60nm 5.1mb X
iSn 58 44.40
i 59 08.00
i 59 15.10
HFS 20.49 352 eP 59 53.80 -2.4
0.4s 1.00nm 3.5mb
NB2 21.69 349 P 00 07.80 -0.6
0.6s 1.50nm 3.6mb
S.D. = 1.0 on 45 of 52 obs.

& DEC 28, 1993 16h 28m 01.89s
60.090 N 152.352 W
DEPTH = 93.7km
SOUTHERN ALASKA (2)
<AEIC>.

ILIM 0.30 268 iP 28 15.48 -0.6
eS 28 26.21
INE 0.36 266 eP 28 15.74 -0.7
RED 0.39 328 eP 28 15.78 -0.8
eS 28 26.76
INW 0.39 267 eP 28 16.12 -0.5
eS 28 27.38
RSO 0.42 332 eP 28 16.27 -0.7
RS2 0.43 332 eP 28 16.26 -0.7
eS 28 27.57
REF 0.44 337 iP 28 16.34 -0.7
eS 28 27.83
RDW 0.46 330 eP 28 16.37 -0.8
DFR 0.53 342 eP 28 16.69 -0.9
eS 28 28.79
NCT 0.55 329 eP 28 16.74 -1.1
HOM 0.56 140 eP 28 17.31 -0.4
OPT 0.62 226 eP 28 17.44 -0.9
CNPM 0.80 135 eP 28 19.08 -0.9
eS 28 32.41
BRLK 0.81 113 eP 28 19.06 -1.0
eS 28 32.34
NKA 0.86 40 eP 28 21.46 0.9
AUE 0.90 216 eP 28 20.03 -0.9
AUL 0.90 218 eP 28 20.21 -0.8
AGU 0.91 217 eP 28 20.42 -0.9
AUH 0.91 218 eP 28 20.93 -0.3
AUW 0.92 219 eP 28 20.29 -0.9
PDB 0.97 253 iP 28 20.85 -1.0
eS 28 35.69
BKG 0.98 3 iP 28 21.26 -0.8
eS 28 36.67
SPU 1.11 7 iP 28 22.54 -0.9
eS 28 38.49
CKT 1.12 4 eP 28 22.66 -0.9
CKN 1.14 4 eP 28 23.16 -0.7
SLKM 1.14 68 eP 28 22.33 -1.5
BGL 1.18 359 iP 28 23.61 -0.7
CP2 1.18 3 eP 28 22.11 -2.4
eS 28 40.44
CRP 1.19 5 ePd 28 23.14 -1.3
eS 28 40.31
CGLM 1.23 8 eP 28 24.23 -0.8
NCG 1.32 4 eP 28 25.22 -0.9
CDD 1.34 210 eP 28 24.74 -1.5
SYI 1.48 181 eP 28 26.86 -1.1
MPA 1.54 74 eP 28 27.32 -1.4
SUA 1.59 29 iP 28 28.72 -0.8
eS 28 51.14
PMS 1.80 49 P 28 30.70 -1.4
SKT 1.94 12 eP 28 32.61 -1.3
PWA 1.98 37 P 28 33.70 -0.7
PWL 2.13 67 eP 28 34.87 -1.7
PLRM 2.18 45 eP 28 36.02 -1.1
PMR 2.18 45 (P) 28 34.09 -3.0
KNK 2.33 54 eP 28 37.09 -2.1
MTU 2.36 90 eP 28 37.85 -1.7
GHO 2.38 43 eP 28 38.27 -1.6
CFI 2.51 62 eP 28 39.63 -1.9
CUT 2.53 23 eP 28 40.58 -1.3
SML 2.61 47 eP 28 40.80 -2.2
HIN 2.93 81 eP 28 45.25 -2.2
FID 2.99 75 eP 28 45.62 -2.5

28d 16h

SCM 3.01 52 eP 28 46.32 -2.2
VZW 3.02 69 eP 28 47.15 -1.5
KLU 3.45 63 eP 28 51.70 -2.9
KTH 3.54 10 eP 28 54.73 -1.1
RND 3.72 25 eP 28 56.62 -1.7
DHY 3.83 36 eP 28 57.96 -1.9
BWN 4.31 17 eP 29 04.78 -1.6
HDA 5.01 28 eP 29 13.94 -2.1
MLY 5.02 8 eP 29 14.61 -1.6
BALM 5.03 75 eP 29 14.03 -2.4
CCB 5.04 23 eP 29 13.82 -2.6
MDM 5.25 20 eP 29 17.15 -2.2
FBA 5.27 22 eP 29 16.49 -3.1
IL1 5.34 26 eP 29 17.69 -2.9
ILB 5.34 26 eP 29 17.73 -2.9
IM3 5.95 354 eP 29 26.17 -2.9
BM3 8.11 22 eP 29 54.67 -4.1
66 obs. associated

% DEC 28, 1993 16h 52m 26.64± 0.63s
44.365 N ± 5.6km 7.353 E ± 5.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

STV 0.12 190 P • 52 29.73 0.0
S 52 31.28
ENR 0.15 161 P 52 30.17 0.0
S 52 32.20
PZZ 0.23 308 P 52 32.12 0.5
S 52 35.68
ROB 0.38 100 P 52 34.92 0.5
S 52 40.94
BHB 0.48 352 P 52 35.63 -0.8
S 52 42.82
IMI 0.60 139 P 52 38.10 -0.6
S 52 45.61
FIN 0.63 104 P 52 38.93 -0.5
S 52 47.62
PCP 0.87 78 P 52 43.96 0.5
S.D. = 0.6 on 8 of 8 obs.

? DEC 28, 1993 17h 35m 35.62± 0.94s
40.213 N ± 7.0km 19.931 E ± 8.3km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
ML 2.2 (TIR).

TPE 0.10 37 iPgd 35 38.00 0.1
iSg 35 41.60
SRN 0.34 171 ePg 35 42.40 0.0
iSg 35 47.40
VLO 0.42 308 ePg 35 44.00 0.0
KBN 0.77 58 ePg 35 51.00 -0.1
S.D. = 0.2 on 4 of 4 obs.

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* DEC 28, 1993 18h 26m 00.23± 0.48s
52.161 N ±12.6km 171.212 W ± 7.0km
DEPTH = 33.0km (normal)
4.7mb (8 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

ADK 3.39 267 eP 26 53.34 1.3
eS 27 33.51
SDN 7.11 59 eP 27 45.99 1.5
SVW 12.38 38 (P) 29 03.72 6.9X
0.6s 4.33nm 4.8mb
SLKM 14.28 46 (P) 29 25.47 3.6X
NEW 34.16 75 eP 32 44.29 0.2
BW06 41.55 78 eP 33 47.40 1.2
DAG 50.15 8 iPc 34 53.70 0.0
0.5s 4.23nm 4.7mb
ELC 57.07 70 eP 35 43.84 -1.4
KAF 65.23 351 iP 36 38.80 -1.2
0.5s 3.80nm 4.7mb
NUR 66.96 352 iP 36 50.30 -0.8
NB2 67.13 359 P 36 51.80 -0.4
0.5s 1.60nm 4.4mb
HFS 67.99 357 eP 36 56.40 -1.1
0.4s 4.00nm 4.9mb
CHTO 75.28 282 eP 37 41.80 0.1
GUN 75.82 297 P 37 45.80 0.7
KKN 76.24 298 P 37 47.80 0.5
PKI 76.34 297 P 37 48.00 0.0
GKN 76.42 298 P 37 48.40 0.2
DMN 76.48 298 P 37 49.20 0.5
GEC2 79.29 357 P 38 04.10 0.5
0.5s 0.71nm 3.9mb
WB2 85.99 230 eP 38 37.30 -1.0
0.9s 2.80nm 4.5mb
WRA 85.99 230 P 38 37.70 -0.6
HYB 88.23 296 eP 38 49.00 -0.4
ASPA 89.40 229 iPc 38 54.50 -0.2
0.6s 8.00nm 5.2mb
GBA 91.95 295 P 39 07.00 0.3
S.D. = 0.9 on 22 of 24 obs.

? DEC 28, 1993 19h 12m 03.38± 5.41s
5.556 S ±53.6km 146.895 E ±59.1km
DEPTH = 201.2 ± 19.9 km
4.5mb (2 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

LAT 1.11 175 iPd 12 34.10 -0.2
YYYY 1.15 233 eP 12 35.00 0.2
MDG 1.15 285 eP 12 34.50 -0.1
PMG 3.83 176 eP 13 00.00 -3.7X
WB2 18.80 219 eP 16 09.30 -0.8
0.4s 8.40nm 4.6mb
ASPA 21.93 214 iPc 16 42.10 0.8
0.5s 5.50nm 4.3mb
S.D. = 1.2 on 5 of 6 obs.

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* DEC 28, 1993 19h 22m 46.67± 1.19s
47.336 N ±17.2km 9.567 E ± 9.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 2.8 (VIE).

MOTA 1.05 89 iPnc 23 05.60 -0.9
iPg 23 07.40
iSn 23 22.50
iSg 23 24.60
OGA 1.10 115 ePg 23 08.50 1.0
SQTA 1.12 95 iPnd 23 06.30 -1.5
iPg 23 08.60
iSg 23 26.40
FEL 1.18 298 ePn 23 08.50 -0.3
WATA 1.37 89 iPnc 23 11.70 -0.2
iPg 23 12.40
iSg 23 33.00
WTTA 1.41 92 iPnc 23 12.30 -0.3
iPg 23 13.20
iSg 23 35.00
FUR 1.42 54 eP 23 13.50 0.9
KBA 2.59 94 iPnc 23 30.60 1.1
iPg 23 34.10
iSg 24 07.20
GRF 2.60 24 e(Pg) 23 40.30 10.8X
e(Sg) 24 16.10
WET 2.86 50 eP 23 42.20 9.0X
ABH 2.88 333 ePn 23 33.50 0.1
KHC 3.23 55 Pg 23 48.00 9.6X
e 23 49.60
e 24 20.00
Sg 24 32.00
S.D. = 1.0 on 9 of 12 obs.

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* DEC 28, 1993 19h 37m 34.45± 3.23s
24.859 N ±10.3km 125.311 E ±13.7km
DEPTH = 78.5 ± 28.7 km
4.2mb (9 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

BJI 16.97 335 eP 41 28.50 0.4
1.0s 6.00nm 3.8mb
Z 16s 0.29um
LZH 21.57 306 eP 42 18.50 -0.8
1.5s 19.00nm 4.3mb
CHTO 25.18 261 eP 42 54.00 -0.2
GUN 35.35 284 P 44 25.20 0.4
PKI 35.80 283 P 44 28.40 -0.1
KKN 35.89 284 P 44 29.40 0.2
0.6s 8.00nm 4.8mb
DMN 36.06 283 P 44 30.30 -0.3
GKN 36.44 284 P 44 33.80 0.1
WRA 45.39 168 P 45 46.30 -0.6
0.6s 0.90nm 3.8mb
WB2 45.39 168 eP 45 47.50 0.5
0.7s 3.30nm 4.3mb
GBA 46.36 265 P 45 55.00 0.3
ASPA 48.95 170 iPc 46 27.40 12.6X
0.5s 7.60nm
HFS 78.79 332 eP 49 28.70 -1.1
0.5s 1.40nm 4.2mb
NB2 79.36 333 P 49 32.40 -0.5
0.7s 2.80nm 4.3mb
CLL 83.74 324 e(P) 49 55.00 -0.9
GEC2 84.67 322 P 50 01.70 0.9
1.2s 2.60nm 4.1mb
GRF 85.58 324 iPd 50 07.00 1.8
0.7s 4.00nm 4.6mb
S.D. = 0.8 on 16 of 17 obs.

& DEC 28, 1993 20h 06m 11.28s
36.591 N 121.112 W
DEPTH = 8.5km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.8 (GM).

EKH 0.09 326 P 06 14.26 0.6
BCGM 0.22 302 P 06 16.06 0.1
SAO 0.32 303 eP 06 17.56 -0.3
HVC 0.32 133 P 06 18.11 0.2
BSRM 0.34 283 P 06 17.67 -0.5
PKH 0.35 318 P 06 19.51 1.0
MOP 0.45 146 P 06 20.54 0.1
PCL 0.48 343 P 06 21.18 0.2
PRCM 0.52 130 P 06 21.76 0.0
PTV 0.58 147 P 06 22.55 -0.3
HGWM 0.61 315 P 06 23.11 -0.4
HSPM 0.62 328 P 06 23.88 0.2
PDRM 0.65 113 P 06 24.80 0.4
JHLM 0.78 312 P 06 25.79 -0.8
COE 0.80 326 eP 06 26.78 -0.2
AMC 0.82 314 P 06 26.47 -0.8
PANM 0.83 168 P 06 27.13 -0.3
ARN 0.83 336 eP 06 27.50 0.0
eS 06 40.63
WKR 0.91 148 P 06 28.93 0.0
PHAM 0.95 142 eP 06 29.44 -0.1
JSMM 1.05 307 P 06 30.22 -1.0
PAGM 1.11 141 P 06 32.24 0.1
LT3 1.11 308 P 06 31.29 -0.9
CMB 1.55 22 eP 06 38.53 -0.7
eS 07 00.60
MNHM 1.57 9 P 06 38.84 -0.6
BCH 1.63 149 eP 06 38.75 -1.7
MMPM 1.95 58 eP 06 45.87 0.6
eS 07 12.29
MEMM 2.04 58 eP 06 47.77 1.5
MTUM 2.18 69 eP 06 49.12 0.7
NTYM 2.18 326 (P) 06 47.46 -0.7
ABL 2.32 138 eP 06 49.34 -1.2
ISA 2.33 113 eP 06 49.88 -0.6
eS 07 19.55
BONR 2.62 58 (P) 06 55.50 0.6
ORV 2.98 354 (P) 07 00.60 1.0
TNP 3.44 63 (P) 07 08.66 2.2
GSC 3.72 109 eP 07 09.73 -0.6
36 obs. associated

DEC 28, 1993 21h 02m 28.77± 0.31s
43.483 N ± 2.6km 110.132 W ± 2.7km
DEPTH = 8.0 ± 2.4 km
4.7mb (8 obs.)
WYOMING (460)
ML 4.7 (BUT). Felt (V) at Moose; (IV) at Dubois and Lander; (III) at Bondurant, Cora, Crowheart and Kelly; (II) at Thermopolis. Also felt at Hudson, Jackson and Rock Springs. Felt (III) at Driggs and St. Anthony, Idaho.

HAYW 0.21 317 iPc 02 33.58 0.1
ANGW 0.35 353 iPd 02 36.19 0.2
LOHW 0.37 291 iPc 02 35.78 -0.5
TRXW 0.41 311 iPc 02 36.87 -0.3
BEAW 0.42 237 iPc 02 37.44 0.1
SNOW 0.45 268 iPc 02 37.73 -0.3
PACW 0.49 329 iPd 02 38.44 -0.3
AVOW 0.51 285 iPc 02 38.33 -0.8
MOOW 0.52 301 iPc 02 38.43 -0.8
REDW 0.54 257 ePc 02 39.15 -0.5
TPAW 0.60 271 iPc 02 40.05 -0.7
COLW 0.62 319 iPd 02 40.64 -0.7
TARW 0.68 295 ePc 02 41.40 -1.2
STEW 0.69 325 ePd 02 41.97 -0.9
MUDI 0.70 281 ePc 02 41.92 -1.0
ALPW 0.71 243 ePc 02 42.27 -0.9

RAMW 0.72 305 ePc 02 42.09 -1.2
CHOI 0.81 258 ePc 02 43.81 -0.9
BW06 0.82 149 ePc 02 45.30 0.3
PINI 0.88 272 ePc 02 45.16 -0.9
GRAI 0.93 291 ePc 02 46.33 -0.6
TPMT 1.67 319 iPd 02 59.01 0.4
PTI 1.75 250 eP 02 59.97 0.2
LTMT 1.77 307 iPd 03 00.54 0.4
MEMT 2.20 345 iPd 03 07.81 1.4
BGMT 2.22 323 iPd 03 07.75 1.1
MCMT 2.37 305 iPd 03 09.60 0.8
HVU 2.59 230 eP 03 11.98 0.2
eS 03 49.85
SXM 2.77 344 ePnd 03 15.46 1.0
LRM 2.86 326 iPnd 03 16.46 0.6
HBMT 2.91 323 ePnd 03 17.13 0.7
BUT 3.07 326 ePn 03 19.30 0.8
eSg 04 03.20
DAU 3.18 196 eP 03 21.01 0.7
EMUT 3.70 188 eP 03 28.92 1.2
DUG 3.85 212 eP 03 29.82 0.1
SRU 4.38 184 eP 03 37.73 0.5
RSSD 4.46 80 eP 03 38.67 0.3
eS 04 48.84
PV08 5.03 167 eP 03 46.89 0.3
PV09 5.04 171 eP 03 47.54 0.8
PV10 5.17 170 eP 03 50.01 1.5
GOL 5.20 135 eP 03 49.95 1.0
MSU 5.20 198 (P) 03 48.50 -0.4
GLD 5.24 134 (P) 03 51.30 1.9
ARUT 6.22 205 eP 04 03.44 0.2
NEW 6.83 317 eP 04 11.17 -0.5
DPW 7.15 311 eP 04 16.49 0.2
KVN 7.46 236 eP 04 23.77 3.1X
TNP 7.61 227 eP 04 25.25 2.4X
VGB 7.88 289 eP 04 27.91 1.5
TPNV 8.03 218 eP 04 32.08 3.4X
BONR 8.30 231 eP 04 33.57 1.0
MRCM 8.62 230 P 04 36.60 -0.3
MEMM 8.87 232 (P) 04 42.91 2.9X
MTUM 8.88 229 (P) 04 42.16 1.7
LON 8.88 296 eP 04 41.13 0.8
MMPM 8.96 232 (P) 04 45.52 3.9X
LBFM 8.96 260 eP 04 45.47 3.9X
ALQ 8.99 160 eP 04 42.23 0.2
ORV 9.38 249 (P) 04 51.16 3.9X
CMB 9.49 238 eP 04 51.60 2.8X
ARN 10.63 239 eP 05 07.05 2.6X
ACO 10.80 125 iPc 05 04.50 -2.2
PCO 12.13 120 iPd 05 38.80 14.0X
WMOK 12.40 131 eP 05 26.09 -2.3
MEO 12.47 130 iPd 05 27.60 -1.8
TUL 13.37 120 iPd 05 44.80 3.5X
UYO 15.33 122 iPc 05 48.00 -19.0X
MIAR 15.64 119 eP 06 09.86 -1.1
FVM 15.90 104 eP 06 13.28 -1.2
0.7s 76.61nm 5.0mb
ELC 17.07 104 (P) 06 28.08 -1.1
OXF 18.39 112 (P) 06 43.56 -2.1
0.8s 138.82nm 5.2mb
MCWV 22.92 89 eP 07 33.51 -0.5
0.7s 13.35nm 4.6mb
GOGA 23.09 107 (P) 07 35.91 0.1
0.6s 9.47nm 4.5mb
RSNY 25.51 75 eP 07 59.80 0.8
1.3s 23.91nm 4.7mb
FBA 30.01 329 eP 08 40.75 1.0
0.6s 2.40nm 4.2mb
GEC2 75.70 34 P 14 16.40 0.1
0.8s 0.67nm 3.7mb
LKO 93.86 73 P 15 50.38 2.2
0.9s 4.50nm 4.9mb
S.D. = 1.0 on 65 of 77 obs.

? DEC 28, 1993 22h 02m 18.91± 1.83s
45.392 N ± 8.2km 14.426 E ±20.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)

RIY 0.06 211 iPgd 02 21.10 0.0
iSg 02 23.90
CEY 0.35 0 e(Pg) 02 26.00 -0.1
e(Sg) 02 32.50
TRI 0.56 305 e(Pg) 02 30.20 -0.1
e(Sg) 02 38.50
VOY 0.74 330 e(Pg) 02 33.70 0.2
eSg 02 44.00

S.D. = 0.2 on 4 of 4 obs.

DEC 28, 1993 22h 20m 47.58± 0.61s
49.356 N ± 3.7km 155.614 E ± 2.8km
DEPTH = 53.6 ± 5.5 km
5.1mb (64 obs.)
KURIL ISLANDS (221)

SKR 1.35 13 iPn 21 10.10 -0.3
iS 21 25.40
PET 4.13 26 iPnc 21 51.00 1.4
KUR 6.69 235 iPnd- 22 27.00 1.5
Z 14s 3.80um
N 14s 5.40um
E 14s 3.80um
iS 23 46.00
YSS 8.93 260 iPnc 22 59.30 2.8X
Z 20s 1.70um
N 20s 1.20um
eS 24 40.50
KUSJ 9.81 234 eP 23 03.50 -5.0X
eS 24 47.30
ASAJ 10.33 244 eP 23 17.70 2.1
HOOJ 11.06 236 eP 23 21.60 -4.0X
eS 25 20.60
SMY 12.11 67 eP 23 36.80 -2.9X
MRRJ 12.26 241 eP 23 38.80 -2.9X
OFUJ 14.31 229 eP 24 02.70 -6.0X
eS 26 32.60
YAMJ 15.83 231 eP 24 23.70 -4.5X
NIIJ 17.07 231 P 24 39.50 -4.3X
KAKJ 17.31 226 P 24 42.70 -4.1X
CHJJ 18.00 229 P 24 54.30 -1.1
MAT 18.01 231 eP 24 53.00 -2.5
0.9s 37.82nm 4.5mb
MTMJ 18.18 232 P 24 56.60 -1.1
MDJ 18.33 265 eP 24 59.10 -0.3
1.2s 81.00nm 4.8mb
IIDJ 18.99 230 P 25 06.90 -0.5
YAK 19.16 321 iPc 25 13.10 4.0X
0.9s 194.00nm 5.3mb
N 19s 0.40um
E 18s 0.70um
TSRJ 19.93 233 P 25 16.70 -0.8
WKYJ 21.15 232 eP 25 30.20 0.0
CN2 21.38 266 eP 25 28.80 -3.5X
0.8s 16.00nm 4.4mb
Z 22s 0.71um 4.0Msz
epP 25 36.50 28kmX
YONJ 21.55 237 eP 25 33.00 -1.1
TKSJ 22.14 234 P 25 40.30 0.3
SNY 23.51 264 Pd 25 53.90 0.7
1.2s 38.00nm 4.7mb
Z 30s 0.59um 3.9MszX
eS 30 06.00
TIK 25.49 341 iPc 26 11.00 -0.8
1.4s 22.00nm 4.5mb
Z 16s 0.60um 4.2MszX
e 26 18.00
ANM 25.60 39 eP 26 13.59 0.6
BOD 25.64 305 eP 26 14.70 1.2
0.6s 10.00nm 4.5mb
CIT 26.49 292 eP 26 22.00 0.6
BJI 29.25 267 eP 26 45.00 -1.3
1.4s 24.00nm 4.7mb
Z 18s 0.47um 4.2Msz
TTA 29.37 44 eP 26 46.98 -0.4
0.8s 11.63nm 4.6mb
SVW 29.46 48 eP 26 48.70 0.6
IMA 30.72 38 eP 26 58.86 -0.4
0.6s 17.95nm 5.0mb
TIA 30.80 259 P 27 00.00 -0.2
CP2 31.10 48 eP 27 02.39 -0.4
SSE 31.62 248 Pc 27 08.00 0.6
1.0s 35.00nm 5.1mb
Z 20s 0.60um 4.3Msz
HHC 31.85 271 Pd 27 08.80 -0.6
1.2s 32.00nm 5.0mb
SLKM 32.12 49 eP 27 10.62 -0.9
PWA 32.21 47 eP 27 11.80 -0.5
0.5s 8.10nm 4.8mb
NJ2 32.39 252 Pd 27 14.30 0.2
1.1s 39.00nm 5.1mb
Z 20s 0.71um 4.4Msz
PMR 32.58 47 eP 27 14.37 -1.0
0.3s 6.55nm 4.9mb
TIY 32.96 266 eP 27 19.00 -0.1

Z 25s 0.83um 4.3MszX
BTO 32.98 272 eP 27 18.20 -1.1
FBA 33.08 41 iP 27 19.82 0.0
0.6s 49.05nm 5.5mb
ZAK 33.17 292 eP 27 21.00 0.3
1.2s 21.00nm 4.9mb
e 27 35.00
TOA 33.93 46 e(P) 27 27.70 0.4
KLU 34.12 47 eP 27 28.65 -0.2
BALM 35.89 47 eP 27 44.11 0.1
XAN 37.44 264 P 27 56.50 -0.7
1.0s 5.40nm 4.4mb
LZH 39.52 270 Pc 28 14.70 -0.1
1.2s 80.00nm 5.4mb
Z 22s 0.66um 4.4Msz
E 12s 0.26um
GTA 40.26 277 P 28 21.40 0.6
0.8s 8.00nm 4.6mb
Z 16s 1.31um 4.9MszX
E 15s 0.48um
CD2 42.79 264 Pd 28 41.80 0.3
0.7s 26.00nm 5.1mb
GYA 43.93 257 iPd 28 51.00 0.2
1.0s 49.00nm 5.2mb
WMQ 45.58 290 eP 29 04.60 0.8
Z 16s 0.52um 4.6MszX
KMI 47.37 259 Pc 29 18.50 0.1
1.0s 80.00nm 5.6mb
pP 29 24.50 20kmX
sP 29 27.50
LSA 51.81 273 P 29 53.80 1.1
0.6s 11.00nm 5.1mb
Z 22s 1.30um 4.9Msz
LOE 53.63 253 eP 30 05.00 -0.7
DAG 54.10 358 eP 30 07.00 -1.4
0.6s 4.67nm 4.7mb
ipP 31 12.50 304kmX
SHL 54.12 268 iP 30 09.00 -0.4
ARU 54.23 317 eP 30 08.00 -1.7
CHTO 54.35 257 iPc 30 11.70 0.7
0.9s 125.75nm 5.9mb
KSH 55.25 292 eP 30 15.50 -2.0
Z 14s 1.19um 5.1MszX
BDT 55.47 256 eP 30 19.10 0.0
1.0s 41.40nm 5.4mb
LBFM 55.79 65 eP 30 21.62 0.2
NST 55.94 253 eP 30 23.50 1.0
GUN 56.45 275 P 30 26.60 0.1
0.6s 28.00nm 5.5mb
KKN 56.92 275 P 30 29.80 0.1
0.6s 34.00nm 5.6mb
PKI 56.98 275 P 30 30.20 -0.1
0.6s 27.00nm 5.5mb
ORV 57.15 66 eP 30 30.10 -0.8
DMN 57.15 275 P 30 31.80 0.4
GKN 57.19 276 P 30 31.60 0.0
LRM 58.31 55 ePc 30 39.30 0.0
KVN 59.49 64 eP 30 47.88 0.4
MEMM 59.90 66 (P) 30 49.37 -0.6
BONR 60.09 65 eP 30 52.04 0.3
PTI 60.27 58 eP 30 52.70 0.0
TNP 60.65 65 eP 30 55.27 -0.1
0.8s 6.88nm 4.8mb
HVU 60.76 59 eP 30 56.53 0.4
KAF 61.77 336 iP 31 00.30 -2.1
0.6s 3.70nm 4.7mb
DUG 61.79 60 eP 31 03.48 0.4
0.9s 10.79nm 5.0mb
BW06 61.87 56 eP 31 03.58 -0.1
1.0s 23.16nm 5.3mb
TPNV 61.97 65 eP 31 04.28 -0.1
0.7s 6.37nm 4.9mb
DAU 62.53 59 eP 31 07.94 -0.2
GSC 62.75 67 eP 31 09.44 0.0
MSU 63.30 61 eP 31 13.17 0.0
NUR 63.55 335 iP 31 12.20 -2.0
0.5s 6.10nm 4.9mb
SRU 63.83 60 eP 31 16.72 0.1
RSSD 63.88 52 eP 31 16.89 0.0
1.1s 62.74nm 5.6mb
OBN 64.10 326 eP 31 16.00 -1.8
1.0s 18.00nm 5.0mb
e 31 52.00
PV08 65.25 59 eP 31 26.06 0.0
NB2 66.29 342 P 31 30.10 -1.8
0.5s 5.50nm 4.8mb
GLD 66.32 56 eP 31 32.80 0.2

28d 22h

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       0.9s     23.17nm            5.2mb
HFS    66.58 340 eP     31 32.00  -1.7
       0.4s      5.90nm            4.9mb
     Z 21s      0.18um             4.3Msz
                   LR    57 56.00
QUE    66.94 290 eP     31 37.50   0.8
HYB    68.60 272 ePc    31 47.00   0.0
       0.8s     69.20nm            5.7mb
KIV    70.16 315 eP     31 46.90  -9.4X
POO    70.86 276 iPd    32 03.00   2.2
       1.0s     50.00nm            5.4mb
WB2    71.53 201 eP     32 03.50  -1.1
       0.7s     11.60nm            4.9mb
WRA    71.54 201 P      32 04.19  -0.4
GBA    72.12 270 Pc     32 09.00   0.7
WMOK   73.48  56 eP     32 16.05   0.0
       0.8s     13.34nm            4.9mb
TUL    74.18  53 iPc    32 20.10   0.0
KSP    74.29 335 eP     32 20.00  -0.5
KOD    74.59 268 eP     32 25.00   1.9
CLL    74.76 337 iP     32 22.50  -0.6
       1.0s     24.00nm            5.1mb
LTX    74.78  63 eP     32 23.44  -0.3
BRG    74.91 336 eP     32 23.60  -0.4
ASPA   75.23 201 iPd    32 26.40   0.3
       0.5s     12.80nm            5.1mb
VRI    75.26 326 ePc    32 27.50   1.4
PRU    75.55 335 Pd     32 28.10   0.4
       0.6s     13.40nm            5.0mb
WTS    75.59 341 eP     32 29.00   1.1
       0.9s     17.00nm            5.0mb
MOX    75.72 337 eP     32 29.20   0.5
       0.9s     17.00nm            5.0mb
MLR    75.87 326 eP     32 30.00   0.3
HOF    75.96 337 eP     32 30.60   0.6
UYO    76.22  53 iPd    32 31.50  -0.3
SRO    76.41 332 iP     32 33.40   0.9
KHC    76.59 335 iPd    32 34.60   1.0
       0.9s     13.60nm            4.9mb
                  i     32 39.50
                  e     32 42.80
                  e     32 48.50
                  e     33 00.50
                  e     33 29.00
DLF    76.61 349 iPd    32 34.10   0.5
DCN    76.66 350 iPd    32 34.30   0.5
GRF    76.70 337 iPc    32 34.70   0.5
       0.8s     22.00nm            5.2mb
WET    76.77 336 eP     32 35.00   0.4
       1.0s     32.00nm            5.3mb
GEC2   76.82 335 P      32 34.90  -0.1
       0.6s      8.65nm            5.0mb
ENN    76.94 341 eP     32 36.00   0.6
       0.9s     37.30nm            5.4mb
YSNY   76.95  38 eP     32 35.83   0.1
       1.1s     25.97nm            5.2mb
SNF    77.53 342 P      32 38.20  -0.5
ECP    77.69 349 eP     32 40.20   0.7
DOU    77.86 341 Pc     32 41.20   0.7
BHG    78.07 335 iPd    32 43.20   1.4
       0.6s     15.00nm            5.2mb
FUR    78.09 336 iPc    32 40.60  -1.3
LANF   78.19 339 P      32 42.93   0.5
KBA    78.53 335 iPc    32 45.30   0.8
       0.5s     69.20nm            5.9mb
                  i     32 46.00
WATA   78.78 336 iPc    32 46.70   0.9
WTTA   78.83 336 iPc    32 47.10   1.0
       1.0s     59.80nm            5.5mb
                  i     32 47.50
                  i     32 58.80
WLS    78.83 339 P      32 46.22   0.2
PTJ    78.84 333 iPc    32 46.10   0.0
CDF    78.85 339 P      32 46.43   0.3
MOTA   78.89 336 iPc    32 47.20   0.7
SQTA   78.98 336 iPc    32 47.50   0.6
       0.7s     20.60nm            5.2mb
                  i     32 48.10
                  i     33 00.90
LJU    79.13 334 iPc    32 47.60   0.0
FEL    79.18 338 P      32 47.97   0.0
VITF   79.33 340 P      32 49.17   0.5
VOY    79.33 334 eP     32 48.20  -0.6
OGA    79.35 336 iPc    32 50.10   1.1
       0.7s     16.00nm            5.1mb
MOF    79.41 339 P      32 49.17   0.0
ARMA   79.50 184 iPd    32 50.70   1.0
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       0.9s     12.00nm            4.8mb
BSF    79.51 339 P      32 49.73   0.0
WARB   79.51 206 eP     32 51.00   1.2
TRI    79.66 334 ePd    32 50.30  -0.1
BBS    79.68 339 P      32 51.04   0.5
ALN    79.77 324 eP     32 51.16   0.1
RIY    79.81 333 iPc    32 50.90  -0.3
LOMF   79.95 339 P      32 52.58   0.5
NANU   79.99 217 eP     32 42.50  -9.9X
PLE    80.05 329 iPc    32 53.25   0.6
IVA    80.28 329 iPc    32 54.25   0.3
PVY    80.50 328 iPc    32 55.04  -0.1
SRS    80.51 325 eP     32 54.76  -0.3
SKO    80.54 327 iP     32 55.30   0.1
NKY    80.64 329 iPc    32 55.37  -0.5
VAY    80.71 326 iP     32 56.40   0.4
       0.7s     60.00nm            5.6mb
BRY    80.71 330 iPc    32 55.75  -0.5
KNT    80.73 326 iP     32 56.04  -0.1
CVL    80.76  40 (P)    32 56.51   0.1
SOH    80.85 325 eP     32 55.84  -1.1
TTG    80.89 329 iPc    32 56.68  -0.3
OUR    81.04 325 eP     32 57.68  -0.1
GRG    81.09 326 eP     32 58.04  -0.1
HCY    81.13 329 iPc    32 57.65  -0.6
HVAR   81.14 331 iPd    32 57.50  -0.8
BDV    81.17 329 eP     32 57.62  -0.9
ORX    81.28 338 P      32 59.44   0.3
ULC    81.31 329 iPc    32 58.45  -0.8
PAIG   81.51 325 eP     32 59.24  -1.0
FNA    81.61 327 eP     33 00.08  -0.8
LSD    81.65 338 P      33 02.50   1.2
CIN    81.76 320 eP     33 02.00   0.4
LIT    81.80 326 eP     32 59.40  -2.4
RSP    81.91 338 P      33 02.55   0.1
PCP    82.16 337 P      33 04.06   0.4
BHB    82.20 338 P      33 03.14  -0.7
RRL    82.24 338 P      33 05.66   1.3
CEH    82.25  42 eP     33 04.95   0.7
       0.8s     21.39nm            5.2mb
PRM    82.28  45 eP     33 05.34   0.9
FIN    82.56 337 P      33 05.48  -0.2
PZZ    82.56 338 P      33 05.52  -0.3
ROB    82.56 337 P      33 05.71  -0.1
ENR    82.74 338 P      33 05.48  -1.3
STV    82.75 338 P      33 05.57  -1.2
AGG    82.81 325 eP     33 05.68  -1.4
IMI    82.92 337 P      33 07.90   0.3
SAOF   82.93 337 P      33 08.06   0.4
AUTN   82.95 337 P      33 08.45   0.4
TOUF   82.98 338 P      33 08.30   0.2
SBF    83.08 337 P      33 08.97   0.5
AURF   83.08 337 P      33 09.21   0.7
MVIF   83.12 338 P      33 09.49   0.7
REVF   83.21 337 P      33 09.47   0.4
CALN   83.32 338 P      33 10.34   0.5
PGF    83.90 336 P      33 13.35   0.6
PAB    89.73 345 iPc    33 40.70  -0.5
TIC   121.72 337 PKP    39 37.18   0.1
       0.9s      6.00nm
KIC   121.93 337 PKP    39 37.62   0.2
       0.9s      5.00nm
LIC   122.13 337 PKP    39 38.00   0.2
       1.2s     10.50nm
     Z 20s      0.08um             4.3Msz
SYO   144.04 213 ePKPc  40 14.80  -2.4X
NVL   152.71 205 PKP    40 37.00   6.2X
       1.0s     23.00nm
    S.D. = 0.8  on 190 of 205 obs.
--------------------------------------
% DEC 29, 1993  00h 19m 47.28± 0.83s
  31.305 S ±12.6km   68.796 W ±14.3km
  DEPTH = 100.0km  (geophysicist)
SAN JUAN PROVINCE, ARGENTINA     (137)

RTCB    0.18 181 ePd    20 02.00   0.0
                 (S)    20 14.00
RTLL    0.28  95 ePd    20 02.20   0.2
                 (S)    20 15.00
RTCV    0.60 158 eP     20 04.00  -0.1
RTRS    1.27 333 iPc    20 11.00   0.0
                 S      20 29.90
RTPR    2.21  64 iPc    20 23.00   0.0
                 S      20 51.00
    S.D. = 0.1  on   5 of   5 obs.
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  DEC 29, 1993  01h 15m 05.00± 0.45s
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  1.067 S ±11.4km   23.082 W ± 7.6km
  DEPTH =  10.0km  (geophysicist)
  4.8mb ( 16 obs.)
CENTRAL MID-ATLANTIC RIDGE       (406)

LIC    19.42  68 Pc     19 34.59   0.0
       1.4s    144.00nm            5.1mb
SOB1   19.48 245 eP     19 34.60  -0.7
TIC    19.59  67 P      19 35.95  -0.5
       1.3s     83.00nm            4.9mb
KIC    19.74  68 Pc     19 38.01  -0.1
       1.1s     66.50nm            4.8mb
BAO    28.52 238 eP     21 04.00   0.8
BDFB   28.54 238 eP     21 02.77  -0.6
       0.9s      5.95nm            4.4mb
LPB    46.91 248 P      23 40.00   1.6
EPF    48.69  23 eP     23 52.80   1.3
       1.2s     16.35nm            5.0mb
AVF    53.01  23 eP     24 24.60   0.4
       1.0s      5.60nm            4.4mb
SSF    53.29  22 iPc    24 26.70   0.4
       1.2s     10.70nm            4.7mb
LPG    53.35  26 eP     24 28.20   1.1
       1.4s     17.85nm            4.8mb
LPL    53.36  26 eP     24 28.10   1.0
       1.4s     19.60nm            4.9mb
LOR    53.60  23 eP     24 28.80   0.3
       0.8s      5.50nm            4.6mb
     Z 19s      0.10um             3.9Msz
BLF    54.56 126 eP     24 25.50 -10.6X
HAU    55.17  24 iPc    24 40.10   0.0
       0.9s     17.85nm            5.1mb
     Z 22s      0.17um             4.1MszX
BSF    55.22  24 eP     24 40.20  -0.3
       0.8s      5.65nm            4.6mb
CDF    55.87  24 eP     24 44.90  -0.3
       1.3s     16.25nm            4.9mb
PTJ    58.06  31 eP     25 00.90   0.1
GRF    58.51  25 eP     25 03.60  -0.2
SKO    58.72  38 eP     25 05.00  -0.4
GEC2   59.00  27 P      25 06.80  -0.5
       1.0s      3.36nm            4.4mb
                  e     25 12.80
                  e     27 13.80
                  e     27 21.80
                  e     27 27.50
KHC    59.14  27 P      25 07.80  -0.5
MOX    59.40  25 ePd    25 10.40   0.5
CLL    60.48  25 iP     25 16.20  -1.1
       1.4s     11.00nm            4.8mb
SRO    60.54  31 eP     25 17.60  -0.1
BRG    60.57  26 i(P)   25 17.60  -0.3
MYNC   67.27 309 eP     26 01.61  -0.6
       1.0s     16.07nm            5.2mb
TUL    76.68 307 iPd    26 57.50  -0.7
LTX    82.31 300 eP     27 27.59  -1.2
PV10   87.48 308 eP     27 55.21   0.5
PV09   87.56 308 eP     27 55.52   0.3
ASPA  146.76 139 ePKP   34 52.00   4.0X
       1.1s      5.60nm
WRA   149.57 135 PKP    35 03.20  10.7X
       0.6s      1.10nm
    S.D. = 0.7  on  30 of  33 obs.
--------------------------------------
% DEC 29, 1993  02h 26m 35.71± 2.08s
  40.329 N ±21.5km   25.524 E ±13.3km
  DEPTH =  10.0km  (geophysicist)
AEGEAN SEA                       (365)
  ML 2.8 (THE).

ALN     0.69  35 iPg    26 49.37   0.0
                 eSg    26 58.44
OUR     1.18 271 iPg    26 57.62  -0.1
PAIG    1.47 255 ePb    27 02.28   0.1
                 eSb    27 22.88
SRS     1.67 299 ePb    27 05.04   0.0
                 eSb    27 26.62
SOH     1.72 287 iPb    27 05.68  -0.3
                 eSb    27 28.32
KNT     2.16 293 ePn    27 12.60   0.3
                 eSn    27 39.30
    S.D. = 0.3  on   6 of   6 obs.
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  DEC 29, 1993  02h 35m 21.74± 0.46s
  49.147 N ± 3.7km    6.871 E ± 5.6km
  DEPTH =   5.0km  (geophysicist)
GERMANY                          (543)
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ML 2.6 (STR), 1.9 (UCC).

RUP 0.57 12 ePg 35 33.00 -0.1
LANF 0.64 105 Pg 35 34.34 -0.1
WLF 0.70 318 iPd 35 35.53 -0.2
iS 35 45.33
CDF 0.78 160 Pg 35 36.61 -0.9
Sg 35 47.25
ABH 0.86 31 ePg 35 38.20 -0.5
VITF 1.10 213 Pg 35 42.53 -0.3
MOF 1.31 172 Pg 35 46.81 0.3
Sg 36 04.23
BSF 1.32 182 Pg 35 46.81 0.2
FEL 1.48 149 Pg 35 50.10 0.9
ENN 1.73 340 ePg 35 54.00 1.3
0.5s 6.70nm
eSg 36 18.00
DOU 1.76 304 P 35 52.50 -0.5
iS 36 14.40
LOMF 1.80 181 Pg 35 55.69 2.0X
GRF 2.89 77 ePg 36 17.30 8.0X
eSg 36 53.60
S.D. = 0.7 on 11 of 13 obs.

? DEC 29, 1993 02h 37m 34.92± 3.63s
31.751 S ±35.9km 67.937 W ±10.0km
DEPTH = 5.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.62 313 iPd 37 47.00 -0.3
S 37 57.00
RTCB 0.78 289 iPd 37 50.50 -0.2
S 38 00.70
RTPR 1.89 41 e(P) 38 08.00 -0.1
S 38 30.70
RTRS 2.05 320 eP 38 11.00 0.6
S 38 37.00
S.D. = 0.7 on 4 of 4 obs.

DEC 29, 1993 02h 58m 50.11± 1.02s
44.707 N ± 3.4km 6.759 E ± 8.9km
DEPTH = 11.0 ± 5.0 km
FRANCE (538)
ML 2.5 (GEN).

RRL 0.21 5 P 58 55.17 0.2
S 58 58.52
PZZ 0.32 129 P 58 56.51 -0.3
S 59 01.04
BHB 0.38 69 P 58 58.10 0.1
S 59 03.10
RSP 0.57 38 P 59 01.66 0.0
S 59 08.87
STV 0.61 139 P 59 02.33 -0.1
S 59 09.84
ENR 0.67 135 P 59 03.25 -0.2
S 59 11.13
TOUF 0.78 153 Pg 59 04.23 -1.1
LSD 0.80 20 P 59 05.42 -0.3
S 59 14.89
MVIF 0.86 161 Pg 59 07.39 0.7
ROB 0.90 117 P 59 07.32 0.1
AURF 0.92 153 Pg 59 07.72 0.1
Sg 59 20.27
SAOF 0.92 141 Pg 59 07.84 0.2
Sg 59 20.27
IMI 1.14 134 P 59 11.90 0.5
FIN 1.15 115 P 59 11.44 -0.1
PCP 1.29 97 P 59 14.17 0.3
S.D. = 0.5 on 15 of 15 obs.

& DEC 29, 1993 03h 23m 47.08s
60.210 N 153.098 W
DEPTH = 124.2km
SOUTHERN ALASKA (2)
<AEIC>.

INW 0.14 187 eP 24 03.53 0.7
ILIM 0.15 152 eP 24 03.26 0.5
eS 24 16.67
INE 0.15 173 eP 24 03.65 0.7
eS 24 17.04
RED 0.27 38 eP 24 03.20 0.1
eS 24 16.84
RS2 0.31 34 eP 24 04.35 0.9
RDW 0.31 28 eP 24 04.19 0.8
eS 24 18.30
REF 0.34 35 eP 24 04.24 0.7
eS 24 17.52
NCT 0.36 13 eP 24 04.48 -0.7
eS 24 18.02
DFR 0.43 28 eP 24 04.52 -1.0
PDB 0.69 233 eP 24 05.69 -1.4
AUL 0.85 192 eP 24 08.00 -0.3
AUW 0.86 193 eP 24 08.01 -0.5
AUE 0.86 189 eP 24 07.21 -1.3
AUH 0.87 192 eP 24 07.66 -0.9
HOM 0.92 126 eP 24 07.89 -1.1
BKG 0.96 25 eP 24 08.82 -0.6
NKA 1.07 59 eP 24 11.18 0.8
CKT 1.09 23 eP 24 10.05 -0.7
SPU 1.10 27 eP 24 10.16 -0.7
BGL 1.11 18 eP 24 10.82 -0.2
CP2 1.14 21 eP 24 11.17 -0.2
CNPM 1.16 125 eP 24 10.01 -1.4
eS 24 27.75
BRLK 1.20 111 eP 24 10.76 -1.1
eS 24 28.04
CGLM 1.22 25 eP 24 11.63 -0.5
NCG 1.28 21 eP 24 12.31 -0.5
SLKM 1.46 77 eP 24 13.37 -1.4
eS 24 33.05
SVW 1.54 307 P 24 14.80 -0.8
SUA 1.71 41 eP 24 17.27 -0.4
eS 24 40.88
MPA 1.88 80 eP 24 17.79 -1.9
SKT 1.93 23 eP 24 19.52 -0.9
PMS 2.02 58 P 24 20.10 -1.5
PWA 2.14 46 P 24 22.60 -0.3
PWL 2.44 72 eP 24 25.75 -1.1
KDC 2.49 172 P 24 24.10 -3.3
KNK 2.58 60 eP 24 26.21 -2.4
CFI 2.80 67 eP 24 30.39 -1.0
FID 3.32 78 eP 24 36.00 -2.4
KLU 3.74 67 eP 24 41.13 -3.0
GLB 4.71 71 eP 24 55.39 -1.8
39 obs. associated

% DEC 29, 1993 03h 35m 02.44± 0.61s
44.334 N ± 8.0km 9.177 E ± 4.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.7 (GEN).

BORS 0.47 101 P 35 11.92 -0.2
S 35 18.20
PCP 0.50 295 P 35 11.93 -0.6
S 35 19.44
FIN 0.71 260 P 35 16.92 0.5
S 35 25.94
ROB 0.94 268 P 35 20.32 -0.1
S 35 32.40
IMI 1.02 246 P 35 21.95 0.2
S 35 34.73
ENR 1.27 266 P 35 25.60 -0.4
S 35 41.27
STV 1.33 267 P 35 26.80 -0.3
BHB 1.46 291 P 35 29.00 0.2
PZZ 1.50 277 P 35 29.69 0.2
ORX 1.55 327 P 35 30.58 0.3
RSP 1.59 302 P 35 31.02 0.2
S.D. = 0.4 on 11 of 11 obs.

% DEC 29, 1993 04h 03m 53.80± 3.02s
44.210 N ±15.2km 7.105 E ±18.3km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

STV 0.16 78 P 03 57.58 0.4
S 03 59.09
ENR 0.23 86 P 03 58.54 0.1
S 04 00.97
PZZ 0.29 359 P 03 59.78 0.0
S 04 02.93
ROB 0.56 81 P 04 04.49 -0.5
IMI 0.64 118 P 04 06.60 0.0
S.D. = 0.4 on 5 of 5 obs.

% DEC 29, 1993 04h 11m 00.62± 0.89s
37.449 N ± 9.4km 4.064 W ± 7.2km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.6 (MDD).

ECOG 0.43 113 eP 11 09.88 0.4
e 11 16.00
EGUA 0.73 147 eP 11 14.79 -0.2
e 11 26.00
EHOR 1.01 292 eP 11 19.79 0.0
e 11 34.60
EHUE 1.22 72 eP 11 23.04 -0.4
e 11 37.30
EVIA 1.71 46 eP 11 30.93 0.2
S.D. = 0.5 on 5 of 5 obs.

DEC 29, 1993 05h 54m 25.29± 0.46s
49.147 N ± 3.6km 6.842 E ± 5.2km
DEPTH = 5.0km (geophysicist)
GERMANY (543)
ML 2.6 (STR), 1.9 (UCC).

RUP 0.57 14 ePg 54 36.50 -0.3
LANF 0.66 104 Pg 54 38.77 0.4
WLF 0.69 319 iPd 54 39.12 0.1
iS 54 48.48
CDF 0.79 159 Pg 54 40.20 -1.0
Sg 54 49.52
ABH 0.87 32 ePg 54 42.20 -0.3
VITF 1.09 212 Pg 54 45.90 -0.4
MOF 1.31 171 Pg 54 50.28 0.2
Sg 55 08.26
BSF 1.32 181 Pg 54 50.39 0.2
FEL 1.49 148 Pg 54 53.46 0.6
DOU 1.74 304 P 54 56.70 0.3
iS 55 17.90
LOMF 1.80 180 Pg 54 59.05 1.8X
S.D. = 0.5 on 10 of 11 obs.

% DEC 29, 1993 06h 27m 22.17± 0.85s
42.983 N ± 6.7km 18.790 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.3 (TTG).

BRY 0.20 246 iPgd 27 26.99 0.4
iSg 27 30.68
NKY 0.23 138 iPgc 27 27.78 0.6
iSg 27 31.98
PLE 0.56 52 iPgc 27 33.51 -0.2
iSg 27 42.01
HCY 0.58 202 iPgd 27 33.36 -0.5
iSg 27 42.15
TTG 0.65 148 iPgd 27 34.60 -0.6
iSg 27 44.86
BDV 0.70 178 iPgc 27 35.77 -0.2
iSg 27 46.31
IVA 0.82 97 iPgc 27 38.10 0.0
iSg 27 50.58
PVY 0.95 114 iPgd 27 40.49 0.1
iSg 27 55.08
ULC 1.07 161 iPgd 27 42.81 0.4
iSg 27 58.72
S.D. = 0.5 on 9 of 9 obs.

? DEC 29, 1993 07h 09m 44.58± 4.40s
4.014 S ±72.4km 151.371 E ±22.1km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 0.81 103 iPd 09 59.50 0.0
0.3s 3948.05nm
iS 10 07.00
PMG 6.80 218 eP 11 24.50 -0.1
WB2 22.93 225 eP 14 46.40 -0.7
0.3s 5.70nm 4.5mb
ASPA 25.81 219 eP 15 15.50 0.8
1.4s 5.40nm 4.0mb
S.D. = 1.0 on 4 of 4 obs.

? DEC 29, 1993 07h 25m 53.37±15.75s
38.109 N ±61.4km 25.089 W ±80.3km
DEPTH = 10.0km (geophysicist)
AZORES ISLANDS (405)

SDCA 0.36 210 eP 26 00.00 -0.9
LFA 0.46 223 eP 26 02.00 -0.7
CML 0.49 227 eP 26 02.50 -0.9
eS 26 08.25
FAC 0.56 233 eP 26 04.00 -0.7
eS 26 12.00

29d 07h

S.D. = 0.2 on 4 of 4 obs.

& DEC 29, 1993 07h 44m 27.93s
61.747 N 150.471 W
DEPTH = 41.7km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.7 (AEIC).

PWA 0.30 109 P 44 36.50 0.2
SUA 0.31 205 iPd 44 36.82 0.2
SKT 0.55 295 iPd 44 38.67 -0.8
eS 44 47.77
PLRM 0.66 103 ePc 44 39.90 -1.0
eS 44 50.65
PMR 0.66 103 ePc 44 39.58 -1.3
iS 44 49.91
CUT 0.67 8 iPc 44 40.18 -0.8
PMS 0.67 139 P 44 40.00 -1.1
GHO 0.74 87 ePc 44 41.38 -0.7
eS 44 53.17
CGLM 0.86 240 ePd 44 42.99 -0.8
NCG 0.88 248 eP 44 42.92 -1.1
eS 44 55.54
CRP 0.94 240 eP 44 43.61 -1.4
eS 44 55.92
SPU 0.95 234 ePd 44 44.09 -0.9
eS 44 57.20
CKN 0.97 238 eP 44 44.88 -0.5
CP2 0.98 241 eP 44 44.42 -1.2
eS 44 57.47
CKT 1.00 237 eP 44 44.80 -0.9
SML 1.02 86 ePc 44 44.98 -1.0
KNK 1.02 108 eP 44 45.37 -0.6
eS 45 00.17
BGL 1.04 243 eP 44 45.57 -0.8
CKL 1.05 239 eP 44 45.94 -0.6
NKA 1.07 201 eP 44 47.69 1.0
BKG 1.10 233 ePc 44 46.15 -1.0
eS 45 01.23
SLKM 1.25 174 eP 44 47.72 -1.5
HUR 1.30 17 eP 44 49.49 -0.4
eS 45 05.87
PWL 1.36 130 eP 44 49.89 -1.0
MPA 1.37 156 eP 44 50.29 -0.6
CFI 1.42 112 eP 44 50.60 -0.9
SCM 1.50 85 eP 44 51.95 -0.8
eS 45 11.55
DFR 1.58 224 eP 44 53.10 -0.9
REF 1.66 222 eP 44 54.34 -0.9
NCT 1.68 226 eP 44 54.86 -0.6
RDW 1.70 223 eP 44 55.03 -0.8
TRF 1.71 3 P 44 55.20 -0.8
SEW 1.72 163 P 44 55.70 -0.2
RED 1.74 221 eP 44 55.33 -0.9
eS 45 17.08
KTH 1.82 354 eP 44 56.63 -0.8
eS 45 19.44
RND 1.83 24 eP 44 56.53 -0.9
DHY 1.96 46 eP 44 58.35 -1.2
VZW 2.01 108 eP 44 58.72 -1.3
TOA 2.06 78 eP 45 00.27 -0.6
ILIM 2.07 217 eP 44 59.99 -0.9
VLZ 2.08 105 eP 44 59.19 -1.8
eS 45 23.61
INE 2.11 218 eP 45 00.74 -0.9
MCK 2.11 19 eP 45 00.89 -0.7
eS 45 27.01
KLU 2.19 95 eP 45 00.78 -1.9
eS 45 27.60
CNPM 2.26 190 eP 45 01.98 -1.7
TZL 2.41 81 eP 45 04.97 -0.7
SVW 2.56 258 eP 45 04.80 -3.1
CVA 2.59 116 eP 45 09.96 1.8
PDB 2.68 225 eP 45 05.90 -3.7
DDM 2.95 44 eP 45 14.99 1.5
HDA 3.11 29 eP 45 14.14 -1.6
CCB 3.15 21 eP 45 14.15 -2.1
GLB 3.20 93 eP 45 14.91 -2.1
MLY 3.30 358 eP 45 16.03 -2.4
FBA 3.39 20 eP 45 17.17 -2.4
ILB 3.44 27 eP 45 17.80 -2.6
GLM 3.54 22 eP 45 19.64 -2.2
TGL 3.82 102 eP 45 25.25 -0.7
BALM 3.97 97 eP 45 26.34 -1.7
BC3 4.25 68 eP 45 29.47 -2.5
IM3 4.49 343 eP 45 32.19 -3.1
61 obs. associated

DEC 29, 1993 07h 48m 14.20± 0.14s
20.230 S ± 4.4km 169.789 E ± 3.3km
DEPTH = 33.0km (normal)
6.1mb (87 obs.) 6.7Msz (42 obs.)
VANUATU ISLANDS (186)
Mw 6.4 (GS), 7.0 (HRV). Ms 6.8
(BRK). Mo=7.3*10**19 Nm (PPT).
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=204 Dip=75 Slip= -20
NP2: 299 71 -164
Principal Axes:
T Plg= 3 Azm=252
P 25 161
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: 13 Focal mech. F
Energy 9.5±2.5*10**14 Nm
MOMENT TENSOR SOLUTION
Dep 20 No. of sta: 16
Moment Tensor; Scale 10**18 Nm
Mrr=-2.06 Mtt= 2.38
Mff=-0.32 Mrt= 0.87
Mrf= 2.55 Mtf= 1.75
Principal axes:
T Val= 3.93 Plg=20 Azm=326
N -0.03 30 224
P -3.90 53 85
Best Double Couple:Mo=3.9*10**18
NP1:Strike= 95 Dip=37 Slip= -33
NP2: 213 71 -122
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 43S, **C M.W.: 46S, **C
Centroid Location:
Origin Time 07:48:24.4 0.1
Lat 20.39S 0.01 Lon 169.94E 0.00
Dep 15.0 FIX Half-duration 8.0
Moment Tensor; Scale 10**19 Nm
Mrr=-1.34 0.01 Mtt=-1.70 0.01
Mff= 3.04 0.01 Mrt= 1.71 0.05
Mrf=-0.28 0.05 Mtf=-1.94 0.01
Principal Axes:
T Val= 3.88 Plg=10 Azm= 68
N -0.38 52 325
P -3.50 36 165
Best Double Couple:Mo=3.7*10**19
NP1:Strike=200 Dip=58 Slip= -21
NP2: 302 73 -146

PVC 2.84 330 iP 48 58.00 -0.3
BKM 2.94 330 iP 49 00.00 0.3
DZM 3.62 239 iPc 49 08.40 -1.0
SVA 8.46 77 ePd 50 14.60 -2.8X
HNR 14.33 317 eP 51 42.00 5.1X
AFI 18.70 73 eP 52 30.00 -2.3X
ARMA 19.27 235 eP 52 40.70 1.5
RIV 21.37 227 iPc+ 53 03.80 2.8X
eS 56 52.00
SNZO 21.43 170 P 53 02.00 0.5
CTAO 22.09 266 eP 53 10.50 2.2
1.0s 585.16nm 6.0mb
RAB 23.42 311 e(P) 53 22.00 0.6
iS 57 40.00
CNB 23.44 226 iPc 53 24.00 2.5
BWA 23.61 229 eP 53 21.70 -1.4
i 53 26.10
CAN 23.68 226 eP 53 25.90 2.0
i 53 31.70
PMG 24.35 293 iPd+ 53 31.60 1.2
0.6s 426.67nm 6.2mb
LAT 25.89 298 eP 53 46.30 1.3
TOO 27.28 226 eP 53 58.20 0.5
1.3s 935.00nm 6.3mb
MDG 27.68 299 eP 54 03.00 1.5
STK 27.78 240 eP 54 03.10 0.9
1.2s 65.50nm 5.2mb
i 54 09.40
e 54 17.20
eS 58 57.80
QIS 28.28 264 eP 54 07.60 0.8
RAR 28.47 97 eP 54 11.33 2.9X
1.6s 736.46nm 6.1mb
WWKK 30.37 299 eP 54 28.00 2.3
ADE 31.06 235 iPc+ 54 32.00 0.5
WB2 33.25 264 iPc 54 48.90 -1.8
1.0s 123.00nm 5.8mb
i 54 52.80
WRA 33.26 264 P 54 49.30 -1.5
1.0s 28.20nm 5.1mb
ASPA 33.41 257 eP 54 50.80 -1.3
0.8s 860.80nm 6.7mb
Z 23s 807.30um 7.4MszX
ePcP 56 29.70
eS 59 52.70
MCQ 35.19 191 eP 55 05.80 -1.2
epP 55 14.80 30kmX
MTN 37.71 275 eP 55 28.50 -0.2
KNA 39.20 270 eP 55 41.80 0.6
1.0s 405.00nm 6.1mb
WARB 39.96 253 iPc 55 47.70 0.2
0.3s 20.00nm 5.4mb
GUMO 41.60 322 eP 56 01.00 0.2
1.5s 421.70nm 5.9mb
e 56 16.20
COOL 44.85 246 iPc 56 26.20 -1.1
MBL 46.58 260 eP 56 40.60 -0.5
KLB 47.76 245 eP 56 48.80 -1.5
0.3s 31.00nm 5.8mb
NWAO 48.23 244 eP 56 53.30 -0.6
RKG 48.48 241 eP 56 55.50 -0.3
BAL 48.66 247 eP 56 56.20 -1.1
MUN 49.08 245 eP 57 00.00 -0.5
MRWA 49.32 248 eP 57 01.20 -1.2
1.0s 266.00nm 6.2mb
NANU 50.34 257 eP 56 59.00 -11.3X
0.8s 227.00nm
MKS 51.08 280 iPc 57 18.00 2.0
DAV 51.25 297 ePc 57 17.00 -0.3
BIP 51.32 299 eP 57 18.00 0.2
HON 51.94 39 P 57 30.00 7.7X
Z 21s 37.56um 6.4Msz
DHH 52.01 39 eP 57 22.39 -0.4
OPA 52.21 39 eP 57 23.22 -1.1
MHA 52.36 42 eP 57 22.41 -3.1X
CTB 52.46 297 ePc 57 27.00 0.6
HKL 52.53 41 eP 57 24.47 -2.7X
PLP 54.01 301 ePc 57 38.80 1.1
TSM 56.49 290 ePc 57 57.30 1.5
SBA 57.68 181 iPc 58 03.50 0.1
KKM 58.76 291 ePc 58 15.00 3.1X
1.8s 766.50nm 6.5mb
QCP 59.10 302 eP 58 28.00 13.9X
CSY 59.44 204 eP 58 12.80 -3.0X
0.9s 64.70nm 5.8mb
BAG 60.51 303 ePc 58 22.90 -1.0
1.3s 115.38nm 5.8mb
KAKJ 62.73 333 P 58 36.80 -1.5
TPI 62.95 277 ePc 58 39.00 -1.2
e 00 00.00
CHJJ 63.11 332 eP 58 39.90 -0.9
IIDJ 63.11 331 eP 58 40.10 -0.8
WKYJ 63.18 329 eP 58 40.30 -1.1
KAGJ 63.31 323 eP 58 42.20 0.0
TKSJ 63.76 327 eP 58 44.50 -0.7
MAJO 63.86 332 eP 58 44.37 -1.5
MAT 63.86 332 (P) 58 45.00 -0.8
2.0s 376.47nm 6.1mb
Z 20s 28.37um 6.4Msz
eS 07 20.00
TSRJ 64.05 330 eP 58 47.30 0.2
MTMJ 64.08 332 eP 58 45.90 -1.5
NIIJ 64.11 333 eP 58 47.00 -0.4
KUMJ 64.35 324 eP 58 48.60 -0.5
YAMJ 64.47 334 eP 58 50.00 0.3
OFUJ 64.61 336 eP 58 49.60 -1.0
SHK 64.89 327 eP 58 52.20 -0.4
TATO 65.00 312 eP 58 52.83 -0.6
1.4s 1421.57nm 6.9mb
YONJ 65.01 328 eP 58 52.80 -0.5
SHNJ 65.41 325 P 58 54.90 -0.9
HOOJ 66.93 339 eP 59 05.80 0.4
QZH 67.04 310 Pc 59 10.00 3.5X
Z 34s 54.30um 6.5MszX
N 20s 28.70um
KUSJ 67.11 340 eP 59 06.10 -0.5
KSI 67.36 275 P 59 10.50 1.7
MRRJ 67.74 337 eP 59 11.60 1.1

KUR 68.14 343 iPd 59 13.50 0.5
1.2s 640.00nm 6.6mb
Z 18s 38.40um 6.7Msz
N 18s 56.10um
E 18s 17.70um
e 59 29.00
eS 08 28.00
ASAJ 68.69 339 eP 59 16.10 -0.4
KGM 68.74 281 ePc 59 18.20 0.8
1.2s 422.70nm 6.4mb
e 59 32.20
HKC 68.81 305 iP 59 20.00 2.4
SSE 69.14 316 P 59 18.50 -1.0
1.5s 210.00nm 6.0mb
Z 22s 43.00um 6.6Msz
N 18s 25.90um
E 20s 19.40um
sP 59 34.50
S 08 24.00
MCO 69.19 304 eP 59 20.50 0.5
GZH 69.88 305 Pc 59 25.20 1.0
Z 40s 41.40um 6.4MszX
N 19s 24.40um
E 20s 16.70um
QIZ 70.52 300 eP 59 29.00 0.8
N 16s 13.40um
E 20s 18.60um
YSS 71.25 341 iPc+ 59 32.00 0.0
2.0s 530.00nm 6.2mb
e 59 47.50
i 02 10.00
ePPP 03 50.00
NJ2 71.28 316 Pc 59 32.20 -0.3
1.3s 79.00nm 5.6mb
Z 28s 28.00um 6.4MszX
N 18s 47.00um
E 21s 51.00um
pP 59 45.60 47kmX
IPM 71.83 282 ePc 59 35.90 -0.3
0.6s 60.90nm 5.8mb
VLA 72.03 332 iPd 59 38.00 1.3
2.0s 228.00nm 5.8mb
i 59 50.00
SMY 72.75 3 eP 59 40.79 0.1
1.4s 731.04nm 6.5mb
Z 20s 38.54um 6.7Msz
ADK 72.77 9 eP 59 38.90 -2.0
1.5s 48.35nm 5.3mb
SNG 73.22 284 iPc 59 45.40 1.1
1.1s 154.43nm 5.9mb
eS 09 11.20
e 12 25.70
WHN 73.39 312 Pc 59 45.00 0.0
1.0s 160.00nm 6.0mb
Z 26s 40.80um 6.6MszX
N 16s 9.66um
E 15s 5.95um
sP 00 00.00
PET 73.57 353 eP 59 45.00 -0.5
1.5s 140.00nm 5.7mb
DL2 74.11 323 Pd 59 48.00 -1.0
1.2s 930.00nm 6.7mb
Z 26s 27.40um 6.4MszX
N 20s 22.00um
E 23s 50.00um
MDJ 74.24 331 iPc 59 50.00 0.4
2.0s 880.00nm 6.4mb
Z 28s 53.50um 6.7MszX
N 14s 15.00um
E 15s 8.37um
TIA 75.02 318 Pc 59 54.50 0.1
1.7s 450.00nm 6.2mb
Z 28s 35.30um 6.5MszX
N 24s 24.40um
E 15s 14.40um
sP 00 09.00
SNY 75.09 326 Pc 59 52.00 -2.6
2.1s 220.00nm 5.8mb
Z 20s 48.40um 6.8Msz
N 15s 13.60um
E 17s 14.90um
sP 00 05.50
CN2 75.57 328 Pd 59 56.50 -0.8
1.0s 170.00nm 6.0mb
Z 34s 48.40um 6.6MszX
N 20s 18.80um
E 20s 29.40um
eS 09 40.00
NNT 76.21 289 eP 00 03.60 2.1
GYA 76.81 305 iPc 00 05.40 0.6
1.4s 180.00nm 5.9mb
Z 22s 30.00um 6.6Msz
N 20s 17.10um
E 20s 16.10um
PP 03 04.00
S 09 54.00
NST 77.16 292 eP 00 08.50 1.8
MAW 77.72 202 iPc 00 09.40 0.5
1.0s 151.67nm 6.0mb
BJI 78.03 321 Pc 00 11.50 0.4
1.8s 380.00nm 6.1mb
Z 20s 30.20um 6.6Msz
N 18s 22.60um
BDT 78.81 293 iPc 00 16.00 0.2
1.1s 183.00nm 6.0mb
TIY 78.91 317 Pd 00 16.50 0.4
Z 20s 28.70um 6.6Msz
N 17s 11.70um
pP 00 22.00 18kmX
sP 00 30.00
XAN 79.16 312 P 00 12.40 -5.1X
1.0s 170.00nm 6.0mb
Z 25s 29.30um 6.5MszX
N 20s 3.32um
E 12s 6.44um
pP 00 23.50 36kmX
sP 00 30.00
SKS 10 25.00
KMI 79.23 302 Pd 00 18.50 0.2
2.0s 1130.00nm 6.5mb
Z 30s 51.80um 6.7MszX
N 17s 9.00um
E 18s 16.00um
sP 00 34.50
SKS 10 30.00
SDN 79.41 17 eP 00 16.73 -1.5
1.9s 1463.29nm 6.7mb
Z 20s 45.24um 6.8Msz
CHTO 79.53 295 eP 00 20.30 0.5
1.1s 176.68nm 6.0mb
CD2 81.25 307 Pc 00 29.40 0.7
2.0s 450.00nm 6.1mb
Z 20s 42.20um 6.8Msz
E 21s 95.60um
isP 00 45.00
iSKS 10 41.00
HHC 81.31 319 Pc 00 29.80 0.9
1.4s 130.00nm 5.7mb
Z 28s 94.90um 7.0MszX
N 14s 9.90um
E 14s 16.70um
pP 00 42.60 43kmX
BTO 82.11 318 eP 00 33.70 0.6
2.0s 730.00nm 6.4mb
LZH 83.77 312 Pd 00 42.50 0.7
2.0s 73.00nm 5.5mb
Z 34s 35.30um 6.5MszX
E 11s 5.15um
S 11 06.00
KDC 83.79 19 eP 00 41.12 0.0
1.2s 388.80nm 6.4mb
SYO 84.16 196 ePd- 00 39.40 -3.6X
AUP 84.84 18 eP 00 46.04 -0.5
SVW 85.70 16 eP 00 50.62 -0.1
1.5s 898.26nm 6.8mb
NTYM 86.03 47 eP 00 53.19 0.5
KMPM 86.07 44 ePc 00 54.11 1.1
BKS 86.07 47 eP 00 50.37 -2.6X
1.4s 520.00nm 6.6mb
Z 17s 55.00um 7.0MszX
eSKS 11 21.37
eS 11 23.37
eSP 12 29.37
e 16 33.37
eSS 17 20.37
e 20 41.37
eLQ 23 17.37
eLR 27 03.37
SAO 86.09 49 eP 00 53.58 0.5
1.1s 146.70nm 6.1mb
ZSP 86.09 47 eP 00 54.14 1.1
COE 86.16 48 eP 00 54.38 0.9
MHC 86.22 48 eP 00 53.19 -0.8
1.4s 440.00nm 6.5mb
Z 17s 66.00um 7.1MszX
eSKS 11 24.19
eS 11 41.19
e 16 42.19
eSS 17 18.19
eLQ 23 23.19
eLR 27 16.19
ARN 86.30 48 eP 00 54.37 0.1
BCH 86.31 51 eP 00 54.91 0.5
ARC 86.33 44 eP 00 56.96 2.8X
1.5s 560.00nm 6.6mb
PRI 86.34 49 eP 00 55.62 1.1
FHC 86.35 44 eP 00 55.35 1.0
PHAM 86.39 50 eP 00 57.28 2.6X
HMR 86.51 47 eP 00 56.54 1.4
ANM 86.68 10 P 00 56.32 0.9
SLKM 86.71 19 eP 00 54.55 -1.2
CP2 86.74 17 eP 00 54.41 -1.7
CRP 86.77 17 eP 00 53.98 -2.2
ABL 86.79 51 ePc 00 57.28 0.4
CIT 86.97 329 eP 00 57.00 -0.1
TTA 87.15 15 eP 00 57.60 -0.2
1.1s 77.94nm 5.9mb
WDC 87.19 45 eP 00 59.17 0.8
1.8s 746.17nm 6.6mb
Z 20s 36.58um 6.8Msz
ORV 87.39 46 eP 01 01.34 2.0
1.6s 600.00nm 6.6mb
Z 18s 26.00um 6.7Msz
eSKS 11 24.40
eS 11 50.40
eSS 17 34.40
eLQ 23 45.40
eLR 27 15.40
FRI 87.42 49 eP 01 00.07 0.5
CMB 87.43 48 eP 00 59.31 -0.4
1.4s 400.00nm 6.5mb
Z 17s 50.00um 7.0MszX
eSKS 11 31.31
eS 11 45.31
eSS 16 58.31
eLQ 23 48.31
eLR 27 39.31
SSK 87.63 52 eP 01 00.95 0.1
YBH 87.65 44 eP 01 00.52 -0.2
1.7s 750.00nm 6.7mb
Z 18s 25.00um 6.7Msz
eSKS 11 32.52
eS 11 54.52
e 17 31.52
eLQ 23 52.52
eLR 28 07.52
MIN 87.70 45 eP 01 01.60 0.6
1.6s 590.00nm 6.6mb
ISA 87.70 51 eP 01 00.56 -0.5
1.0s 175.78nm 6.3mb
LMEM 87.82 45 eP 01 02.34 0.7
PLM 87.87 53 eP 01 01.48 -0.6
PEC 87.88 53 eP 01 01.43 -0.5
1.4s 364.88nm 6.5mb
PMR 87.90 18 eP 00 59.94 -1.4
1.3s 388.94nm 6.5mb
Z 20s 37.65um 6.8Msz
NVL 87.95 187 iPd 00 59.00 -2.6X
1.0s 325.00nm 6.6mb
N 16s 35.00um
E 16s 43.00um
ePP 05 10.00
e 05 34.00
ePPP 07 22.00
eSKS 11 32.00
eS 12 24.00
e 18 00.00
e 21 10.00
YAK 87.94 342 eP 01 00.00 -1.5
2.2s 370.00nm 6.3mb
i 11 32.00
isS 13 22.00
LBFM 88.00 44 eP 01 02.79 0.3
DBO 88.00 42 P 01 04.34 2.0
RNO 88.09 42 P 01 04.82 2.1
GTA 88.18 313 Pc 01 04.20 0.9
1.6s 67.00nm 5.7mb
Z 18s 10.80um 6.3Msz
E 12s 8.44um
pP 01 09.40 16kmX
sP 01 11.60

29d 08h

MMPM 88.19 49 eP 01 03.98 0.3
BBOR 88.24 43 P 01 04.03 0.4
VRC 88.27 43 P 01 04.50 1.0
SHL 88.27 298 iP 01 04.60 0.5
eS 11 32.50
MEMM 88.27 49 eP 01 04.83 1.2
ILT 88.28 4 iPd 01 02.80 -0.1
iS 11 36.00
HSO 88.30 42 P 01 04.82 1.1
LAB 88.33 44 P 01 06.06 2.0
MTUM 88.40 49 eP 01 05.10 0.6
MPOR 88.51 41 P 01 06.21 1.4
GSC 88.76 52 eP 01 05.67 -0.5
KLU 88.80 20 eP 01 03.48 -2.3
BONR 88.85 49 eP 01 07.20 0.4
HBO 88.94 42 P 01 07.72 0.8
FBO 89.01 42 P 01 08.24 1.1
GLA 89.29 54 eP 01 09.12 0.5
SSOR 89.35 41 P 01 09.50 0.7
KVN 89.49 48 eP 01 09.64 0.0
TCO 89.52 42 P 01 10.70 1.0
SIT 89.58 27 (P) 01 07.71 -1.7
Z 21s 21.09um 6.5Msz
GT2 89.62 41 P 01 11.00 1.0
NCOR 89.62 43 P 01 11.41 1.2
BALM 89.63 21 eP 01 08.50 -1.3
TNP 89.68 49 eP 01 10.76 0.2
1.3s 276.12nm 6.4mb
BMW 89.69 40 eP 01 10.78 0.5
BPO 89.73 42 P 01 11.64 0.9
TPNV 89.88 50 eP 01 12.14 0.6
0.9s 141.17nm 6.2mb
Z 19s 24.40um 6.7Msz
VBEM 89.99 41 P 01 10.88 -1.0
SHW 90.15 40 eP 01 13.35 0.8
CROR 90.33 42 P 01 14.16 0.9
VIPM 90.33 42 P 01 14.25 0.8
IMA 90.35 14 eP 01 12.35 -0.6
1.6s 82.41nm 5.8mb
BOD 90.39 334 eP 01 11.60 -1.5
2.0s 265.00nm 6.2mb
LSA 90.49 301 Pc 01 15.30 0.5
1.5s 77.00nm 5.8mb
N 22s 12.50um
sP 01 31.00
S 12 10.00
GMW 90.49 39 ePc 01 14.51 0.6
LON 90.68 40 ePc 01 14.82 0.0
VGB 90.71 41 eP 01 15.32 0.3
COL 90.87 17 ePc 01 13.74 -1.5
0.9s 104.13nm 6.2mb
FBA 90.87 17 eP 01 13.48 -1.8
0.8s 68.14nm 6.0mb
RMW 91.03 39 ePc 01 16.84 0.4
MCW 91.03 38 ePc 01 17.14 0.8
ZAK 91.40 324 ePc 01 17.00 -0.9
1.5s 337.00nm 6.5mb
IRK 91.82 326 eP 01 18.80 -1.0
2.0s 58.00nm 5.6mb
Z 20s 18.16um 6.5Msz
N 20s 7.50um
E 21s 12.83um
e 01 32.60
eS 11 50.00
e 14 08.00
TUC 92.12 56 eP 01 23.54 1.7
1.2s 173.14nm 6.4mb
ARUT 92.26 51 ePc 01 23.02 0.6
CRZF 93.21 218 iP 01 33.00 6.4X
iS 12 23.00
DPW 93.37 40 ePc 01 27.07 -0.1
ePP 05 12.68
MSU 93.47 50 eP 01 28.38 0.3
DUG 93.67 49 eP 01 28.73 -0.1
1.4s 75.71nm 5.9mb
Z 19s 38.94um 6.9Msz
BRW 94.17 10 eP 01 29.61 -0.6
NEW 94.20 40 ePd 01 30.55 -0.4
1.4s 54.13nm 5.8mb
Z 19s 29.98um 6.8Msz
HVU 94.32 47 eP 01 31.59 -0.3
DAU 94.85 49 eP 01 34.55 0.0
ePP 05 27.52
SRU 94.89 50 eP 01 33.82 -0.7
EMUT 94.94 49 eP 01 35.09 0.2
PTI 95.03 46 eP 01 35.52 0.5
KOD 95.63 279 eP 01 40.00 1.4
eS 13 08.00
PV09 95.67 51 eP 01 38.22 -0.1
PV10 95.70 51 eP 01 37.86 -0.5
TIK 95.80 348 eP 01 36.00 -1.8
2.0s 28.00nm 5.4mb
Z 18s 14.00um 6.5Msz
i 05 30.00
eS 12 48.00
ePS 14 23.00
PV08 96.05 51 eP 01 40.11 0.0
LRM 96.11 43 eP 01 39.80 -0.3
ALQ 96.43 55 eP 01 41.00 -0.7
1.3s 36.88nm 5.7mb
GBA 96.77 282 P 01 43.70 0.4
LTX 96.78 61 eP 01 42.56 -0.7
BW06 96.91 47 eP 01 43.90 0.2
1.3s 32.13nm 5.7mb
HYB 96.98 286 eP 01 44.30 0.0
1.2s 57.10nm 6.0mb
eSKS 12 23.00
eS 12 56.00
UER 97.11 322 iP 01 41.50 -2.5X
1.8s 97.00nm 6.0mb
e 19 46.00
WMQ 98.26 314 P 01 49.50 -0.1
1.5s 25.00nm 5.5mb
Z 30s 37.00um 6.7MszX
E 16s 10.70um
SKS 12 28.00
sS 13 32.90
GOL 98.83 51 eP 01 52.33 -0.1
1.2s 24.11nm 5.6mb
Z 19s 25.67um 6.7Msz
GLD 98.96 51 eP 01 54.30 1.4
1.6s 37.93nm 5.7mb
Z 19s 27.54um 6.8Msz
RSSD 101.15 47 ePdiff02 02.46 -0.4
1.2s 36.06nm 5.8mb
YKA 101.31 27 ePdiff02 02.40 -0.4
0.9s 14.80nm 5.6mb
POO 101.58 286 ePdiff02 07.00 1.9
WMOK 102.37 57 Pdiff 02 20.00 11.7X
Z 20s 34.32um 6.9Msz
MEO 102.54 57 iPdiff02 10.10 1.1
ACO 102.62 55 iPdiff02 15.50 6.1X
RTRS 104.12 130 iPdiff02 36.00 19.9X
UYO 105.68 59 iPKPc 06 17.30 -18.8X
RTPR 106.14 131 ePdiff02 28.50 3.4X
MIAR 106.47 59 PKP 06 50.00 12.4X
Z 19s 22.01um 6.7Msz
LPA 108.87 140 ePKP+ 06 46.00 3.9X
CCM 109.06 56 (Pdiff02 38.52 0.6
OXF 109.83 60 PKP 06 50.00 6.1X
Z 20s 11.75um 6.5Msz
QUE 110.65 296 ePdiff02 49.50 4.0X
LPB 112.43 118 PKP 06 32.00 -17.9X
Z 24s 18.60um 6.6MszX
e 34 15.00
LR 41 09.00
MYNC 114.21 60 PKP 07 00.00 7.6X
Z 21s 27.92um 6.8Msz
GOGA 114.50 62 PKP 07 00.00 7.1X
Z 20s 26.48um 6.8Msz
BOG 116.10 95 ePKP 07 14.00 17.0X
SVE 117.16 324 ePKP 06 57.00 -0.2
e 07 03.20
ePP 08 05.00
MAIO 117.76 301 ePKP 06 58.00 -1.2
BMG 117.85 93 ePKP 07 02.00 2.0
MCWV 118.08 55 PKP 07 10.00 10.4X
Z 21s 29.91um 6.9Msz
ARU 118.32 324 ePKP 06 58.00 -1.5
e 07 05.00
ePP 08 19.00
CEH 118.38 59 PKP 07 10.00 9.8X
Z 19s 21.76um 6.8Msz
ASH 118.81 303 ePKP 07 08.00 7.0X
e 08 22.00
i 10 53.00
YSNY 119.20 52 PKP 07 10.00 8.3X
Z 20s 25.90um 6.9Msz
SSPA 119.63 54 PKP 07 10.00 7.5X
Z 19s 0.00um 2.8MszX
BOSA 120.49 216 ePKP 07 03.54 -0.9
SDV 120.72 92 ePKP 07 03.70 -1.8
SLR 120.96 221 ePdiff03 10.60 -20.8X
Z 18s 57.73um 7.3Msz
e 17 06.40
RSTA 121.54 138 ePKP 07 04.90 -1.7
TOV 121.78 91 ePKP 07 05.50 -1.9
RSNY 122.09 50 (PKP) 07 09.26 2.2
SHI 122.93 293 ePKP 07 03.00 -6.3X
DAG 123.26 2 iPKPd 07 05.90 -2.4X
0.6s 6.67nm
ipP 07 13.60
LBNH 123.97 50 PKP 07 20.00 9.3X
Z 18s 51.57um 7.2Msz
CAR 124.69 91 ePKP 07 28.00 15.0X
KEV 125.63 345 PKP 07 19.00 5.9X
KEV 125.63 345 (PKP) 07 14.60 1.5
CBM 126.31 46 PKP 07 30.00 14.8X
Z 19s 24.74um 6.9Msz
SJG 127.33 82 ePKP 07 15.96 -2.0
SDF 127.46 343 ePKP 07 24.00 7.3X
KER 127.78 298 ePKP 07 16.00 -2.5X
GRO 128.26 310 ePKP 07 18.00 -0.9
i 09 18.00
TAB 128.30 303 ePKP 07 31.00 11.6X
i 08 38.00
ARO 128.42 269 ePKP 07 27.00 6.8X
BDFB 128.52 131 ePKP 07 18.61 -1.8
BAO 128.54 131 ePKP 07 18.50 -1.9
KMSA 128.90 280 ePKPc 07 19.86 -1.1
MJMA 128.93 287 ePKPc 07 20.40 -0.5
MTA 129.13 308 ePKP 07 19.00 -1.6
NAI 129.24 251 PKP 07 27.50 5.5X
MOS 129.79 327 ePKP 07 22.00 0.6
i 09 34.00
PYA 130.03 311 ePKP 07 20.40 -2.0
ABHA 130.13 277 ePKPc 07 24.60 1.0
KIV 130.30 311 ePKP 07 13.40 -9.6X
QASM 130.52 287 ePKPc 07 23.00 -0.9
OBN 130.59 327 ePKPd 07 23.00 0.0
2.0s 210.00nm
i 07 35.00
i 09 45.00
i 32 00.00
AFIF 130.64 285 ePKPc 07 23.40 -0.8
PUL 131.12 334 iPKP 07 26.00 2.2
2.5s 360.00nm
e 09 48.00
KAF 131.16 338 iPKP 07 22.00 -1.9
0.7s 8.80nm
UQSK 131.55 287 ePKPc 07 25.30 -0.6
SOC 132.49 311 iPKP 07 36.00 9.0X
NUR 132.84 337 iPKP 07 27.70 0.6
0.6s 15.90nm
ANN 133.84 313 ePKP 07 44.00 14.5X
SIM 135.98 314 iPKP 07 38.00 4.4X
Z 28s 37.20um 7.0MszX
NB2 136.53 345 PKP 07 26.20 -8.0X
0.9s 8.90nm
HFS 136.66 343 ePKP 07 25.90 -8.5X
0.4s 0.90nm
Z 21s 17.56um 6.8Msz
LR 53 52.00
BHL 137.28 298 PKP 07 38.00 1.4
KAS 137.30 310 ePKP 07 49.00 12.7X
AYN 137.31 291 ePKPc 07 32.00 -4.6X
SOB1 137.96 131 ePKP 07 24.90 -13.4X
KONO 138.14 345 PKP 07 53.90 16.7X
KIS 138.54 319 ePKP 07 34.00 -4.3X
Z 18s 14.40um 6.8Msz
N 22s 9.90um
E 21s 15.50um
i 07 48.00
CLI 139.73 319 ePKP 07 52.00 11.5X
LVV 139.88 326 ePKP 07 35.00 -5.6X
Z 22s 17.40um 6.8Msz
N 20s 12.00um
E 22s 12.40um
ePPP 13 48.00
i 14 38.00
ITU 140.79 311 ePKP 07 40.00 -2.5X
MLR 141.05 319 ePKP 07 42.00 -1.1
e 20 20.00
BUC 141.45 317 ePKPd 07 50.00 6.4X
UZH 141.49 325 iPKP 07 38.00 -5.6X
i 07 47.00
SPC 142.23 327 ePKP 07 40.40 -4.7X
RAC 142.66 330 iPKP 07 40.70 -4.9X
ALN 142.96 312 ePKP 07 38.18 -8.2X
KSP 143.00 332 ePKPc 07 41.00 -5.1X
GZR 143.03 320 ePKPd 07 42.00 -4.5X

DPC 143.29 331 ePKP 07 41.84 -4.9X
PLD 143.38 314 iPKPc 07 43.00 -4.0X
PRK 143.41 309 ePKP 07 43.00 -4.2X
PGB 143.54 315 iPKPc 07 44.00 -3.4X
RZN 143.55 314 iPKPc 07 44.00 -3.6X
EDI 143.97 353 ePKP 07 56.40 8.8X
BRG 143.98 334 iPKPd 07 44.40 -3.4X
1.4s 300.00nm
i 07 58.30
i 08 31.60
CLL 144.03 335 iPKP 07 44.90 -2.9X
2.0s 320.00nm
Z 20s 15.50um 6.8Msz
i 07 58.00
i 08 30.70
EAU 144.08 353 ePKP 07 46.30 -1.5
SRO 144.10 327 iPKPc 07 46.00 -2.1
EBL 144.10 353 ePKP 07 44.10 -3.8X
VTS 144.15 316 iPKP 07 46.00 -2.6X
MMB 144.26 314 iPKPc 07 46.00 -2.6X
PRU 144.39 332 PKP 07 45.90 -2.6X
1.5s 223.00nm
e 07 58.50
e 08 50.00
PP 10 55.20
SRS 144.56 314 ePKP 07 45.98 -3.1X
ESK 144.57 353 ePKP 07 48.00 -0.6
1.0s 100.00nm
KKB 144.57 315 iPKPc 07 47.00 -2.1
OUR 144.62 312 ePKP 07 46.58 -2.6X
UZD 144.73 325 iPKP 07 47.00 -2.2
VKA 144.80 329 iPKPc 07 48.50 -0.8
SOH 144.85 313 ePKP 07 45.90 -3.8X
WIT 144.95 342 ePKP 07 49.00 -0.3
PAIG 145.00 312 ePKP 07 45.54 -4.3X
KNT 145.01 314 ePKP 07 47.62 -2.3
MOX 145.09 336 iPKPc 07 48.70 -1.0
1.8s 355.00nm
GCD 145.10 354 ePKP 07 46.30 -3.2X
NPS 145.15 303 ePKP 07 49.00 -1.3
THE 145.20 313 ePKP 07 47.94 -2.2
HOF 145.25 335 iPKPc 07 49.20 -0.8
XDE 145.40 353 ePKP 07 48.90 -1.2
GRG 145.44 314 ePKP 07 48.42 -2.2
KHC 145.45 332 PKPd 07 49.80 -0.6
1.1s 352.00nm
e 08 02.00
SKO 145.60 316 iPKP 07 50.00 -0.9
7.0s ******nm
Z 20s 28.04um 7.0Msz
i 07 56.00
i 08 07.00
i 08 50.00
i 12 22.50
GEC2 145.60 332 PKP 07 49.00 -1.8
0.8s 80.96nm
e 07 58.90
e 08 04.10
e 08 07.00
e 11 52.90
WTS 145.62 341 iPKPc 07 50.10 -0.4
1.0s 292.30nm
LMI 145.66 353 ePKP 07 45.30 -5.2X
GIM 145.71 354 ePKP 07 50.10 -0.5
ATH 145.73 308 ePKP 08 04.00 12.8X
LIT 145.76 313 iPKP 07 48.10 -3.1X
WIM 145.88 354 ePKP 07 50.10 -0.8
KMR 145.99 330 iPKP- 07 51.30 0.0
DBN 146.00 343 ePKP 07 54.00 2.9X
Z 20s 16.50um 6.8Msz
GRF 146.00 335 iPKPd 07 52.00 0.7
IVA 146.12 319 iPKPc 07 52.20 0.4
KZN 146.16 313 ePKP 07 50.50 -1.5
PLE 146.18 320 iPKPc 07 52.56 0.6
FNA 146.21 314 ePKP 07 48.86 -3.1X
VAM 146.22 304 ePKP 07 52.30 0.2
BCI 146.28 318 iPKP 07 51.60 -0.4
AGG 146.33 311 ePKP 07 49.38 -2.8X
BNS 146.41 340 iPKPc 07 52.80 0.9
OHR 146.44 315 iPKP 07 52.30 0.0
0.9s 290.00nm
i 08 01.00
i 08 07.20
PTJ 146.57 326 ePKP 07 51.10 -1.3
WME 146.58 354 ePKP 07 52.30 0.3
ZAG 146.62 326 ePKP 07 52.00 -0.4
KBN 146.68 314 ePKP 07 51.30 -1.4
NKY 146.71 319 iPKPc 07 53.61 0.8
YRC 146.75 354 ePKP 07 52.60 0.3
TTG 146.76 318 iPKPc 07 53.61 0.9
SDA 146.81 318 iPKPc 07 53.00 0.2
DCN 146.87 357 ePKP 07 53.60 1.1
1.0s 325.00nm
DLF 146.87 356 ePKP 07 54.20 1.7
LACI 146.89 317 iPKPc 07 53.00 0.1
TIR 146.94 316 iPKPd 07 53.20 0.2
BRY 146.94 320 iPKPc 07 54.03 0.8
ENN 146.97 341 iPKPc 07 54.20 1.5
1.0s 118.00nm
ULC 147.01 318 iPKPc 07 53.73 0.6
LSK 147.03 314 iPKPc 07 53.50 0.2
KBA 147.06 330 iPKPc 07 53.80 0.5
i 08 06.20
BDV 147.11 318 iPKPc 07 54.34 1.0
FUR 147.17 333 iPKPc 07 55.40 2.2
LJU 147.21 327 ePKPc 07 52.00 -1.3
i 07 54.80
HCY 147.22 319 iPKPc 07 54.59 1.1
TPE 147.36 314 ePKP 07 52.60 -1.1
UCC 147.40 343 PKP+ 07 55.00 1.6
IGT 147.50 313 ePKP 07 53.62 -0.4
VOY 147.54 328 ePKP 07 55.20 1.2
HCG 147.56 352 ePKP 07 54.50 0.8
SRN 147.56 314 ePKP 07 55.30 1.3
SNF 147.68 343 PKP 07 54.60 0.7
WATA 147.68 332 iPKPc 07 52.20 -2.0
i 07 55.80
HAE 147.69 351 ePKP 07 55.80 1.9
WTTA 147.71 332 iPKPc 07 52.60 -1.7
i 07 56.20
i 08 16.00
HTR 147.75 352 ePKP 07 55.90 1.9
RIY 147.77 327 iPKPc 07 56.00 1.8
KEK 147.78 314 ePKP 07 51.50 -2.9X
TRI 147.83 328 ePKPc 07 56.30 2.0
e 08 03.50
e 20 36.40
WLF 147.86 340 iPKPc 07 57.22 3.0X
LANF 147.88 337 PKP 07 56.19 1.9
MOTA 147.88 332 iPKPc 07 52.30 -2.3
i 07 56.50
i 08 12.10
VLS 147.92 311 ePKP 07 56.00 1.3
SQTA 147.93 332 iPKPc 07 52.60 -2.0
i 07 56.80
DOU 147.96 342 PKPc 07 56.40 2.0
Z 19s 19.70um 6.9Msz
e 09 06.00
e 10 09.00
e 24 14.00
ECP 147.97 356 ePKP 07 55.90 1.6
HVAR 148.03 322 iPKP 07 56.40 1.7
HGH 148.12 351 ePKP 07 56.50 1.9
OGA 148.28 332 iPKPc 07 53.90 -1.4
WLS 148.52 337 PKP 07 54.97 -0.5
CDF 148.55 337 PKP 07 54.97 -0.6
LIBD 148.65 337 PKP 07 54.43 -1.1
FEL 148.72 336 PKP 07 55.08 -0.8
MOF 149.07 337 PKP 07 55.74 -0.6
BSF 149.21 337 PKP 07 56.07 -0.5
HAU 149.22 338 iPKPc 08 00.00 3.5X
0.7s 37.50nm
BBS 149.25 336 PKP 07 55.96 -0.6
LOMF 149.60 337 PKP 07 56.95 -0.2
FIR 150.46 327 ePKP 08 03.00 4.6X
FLN 150.48 347 ePKP 08 02.70 4.4X
0.7s 52.05nm
LDF 150.56 346 ePKP 08 02.90 4.5X
0.9s 57.00nm
ORX 150.56 334 PKP 08 02.47 3.8X
LOR 150.70 340 iPKPc 08 03.60 4.9X
GRR 150.91 347 ePKP 08 03.80 4.8X
0.6s 29.50nm
SSF 150.99 340 iPKPc 08 04.40 5.2X
0.8s 45.55nm
LSD 151.04 334 PKP 08 04.67 5.0X
HYF 151.07 342 ePKP 08 04.80 5.5X
LPL 151.17 335 ePKP 08 05.30 5.5X
0.8s 18.65nm
LPG 151.17 335 ePKP 08 05.40 5.5X
0.6s 19.30nm
PCP 151.18 332 PKP 08 02.06 2.5
RSP 151.25 334 PKP 08 04.99 5.2X
SMF 151.25 340 iPKPc 08 04.60 5.0X
1.0s 22.40nm
AVF 151.28 340 iPKPc 08 04.70 5.1X
0.9s 16.40nm
LPF 151.29 347 ePKP 08 04.90 5.4X
0.7s 51.60nm
BHB 151.50 333 PKP 08 03.66 3.6X
FIN 151.59 331 PKP 08 04.39 4.2X
RRL 151.63 334 PKP 08 05.58 5.1X
BGF 151.65 341 iPKPc 08 05.70 5.5X
0.7s 22.70nm
ROB 151.67 332 PKP 08 04.99 4.6X
PZZ 151.84 333 PKP 08 05.31 4.6X
ENR 151.93 332 PKP 08 04.39 3.6X
STV 151.95 333 PKP 08 05.31 4.5X
IMI 151.97 331 PKP 08 05.22 4.4X
SAOF 152.06 332 PKP 08 00.90 0.0
TCF 152.08 341 iPKPc 08 06.80 6.0X
1.2s 52.95nm
AUTN 152.11 332 PKP 08 01.13 -0.1
TOUF 152.17 332 PKP 08 01.57 0.3
SBF 152.21 332 PKP 08 01.13 0.0
AURF 152.24 332 PKP 08 01.13 -0.1
MVIF 152.31 332 PKP 08 01.13 -0.3
LSF 152.32 342 ePKP 08 06.90 5.8X
PGF 152.48 328 PKP 08 03.54 1.9
CALN 152.53 332 PKP 08 01.00 -0.7
LRG 153.00 333 ePKP 08 08.70 6.6X
RJF 153.18 341 ePKP 08 09.20 6.8X
LFF 153.74 342 ePKP 08 10.60 7.5X
PDA 157.98 34 ePKP 08 22.00 13.1X
PAB 160.10 347 ePKPc 08 17.80 6.5X
ePP 13 43.00
TAF 163.92 336 e(PKP)08 30.00 14.7X
LIC 165.20 201 PKP 08 15.79 -1.1
1.5s 66.00nm
KIC 165.23 202 PKP 08 15.89 -1.0
1.8s 108.50nm
TIC 165.59 201 PKP 08 15.85 -1.3
1.0s 16.50nm
IFR 166.01 342 iPKP 08 29.00 11.8X
LKO 168.48 203 PKP· 08 18.23 -1.1
1.6s 88.00nm
TIO 169.02 347 iPKP 08 19.00 -0.4
MBO 171.33 131 ePKP 08 21.50 0.8
i 13 40.50
S.D. = 1.1 on 339 of 470 obs.

DEC 29, 1993 08h 00m 55.34± 0.16s
20.076 S ± 5.3km 169.680 E ± 3.9km
DEPTH = 33.0km (normal)
5.9mb (46 obs.)
VANUATU ISLANDS (186)

AFI 18.76 74 eP 05 08.00 -6.2X
ARMA 19.28 234 eP 05 22.10 1.7
1.2s 626.00nm 5.7mb
RIV 21.41 226 eP 05 45.40 2.9X
SNZO 21.60 170 P 05 41.00 -3.3X
CTAO 22.00 266 eP 05 49.64 1.1
1.2s 499.58nm 5.8mb
RAB 23.25 310 e(P) 06 05.00 4.1X
CNB 23.47 225 iPd 06 04.60 1.7
1.3s 975.00nm 6.2mb
BWA 23.63 228 eP 06 04.50 0.0
i 06 10.20
CAN 23.72 226 eP 06 07.00 1.7
i 06 13.20
PMG 24.19 293 eP 06 11.00 1.0
LAT 25.73 298 eP 06 26.00 1.3
TOO 27.32 225 eP 06 38.10 -1.0
1.1s 403.00nm 6.0mb
MDG 27.52 299 eP 06 41.00 -0.1
WRA 33.17 264 P 07 30.89 -0.3
0.8s 30.70nm 5.3mb
ASPA 33.34 257 iPd 07 32.10 -0.6
0.7s 380.60nm 6.4mb
Z 22s 171.00um 6.7Msz
eS 12 57.70
MCQ 35.32 191 eP 07 47.70 -1.6
MTN 37.59 275 eP 08 09.00 0.1
KNA 39.10 270 eP 08 22.00 0.5
WARB 39.91 253 eP 08 28.50 0.3
GUMO 41.41 322 eP 08 37.10 -3.4X
0.9s 193.60nm 5.8mb
COOL 44.81 246 iPc 09 06.90 -1.3
MBL 46.51 260 iPc 09 22.00 0.3
KLB 47.73 245 eP 09 29.50 -1.7

29d 08h

0.3s 16.00nm 5.5mb
NWAO 48.21 243 iPc 09 33.90 -1.0
RKG 48.46 241 eP 09 36.20 -0.6
BAL 48.63 247 iPc 09 37.00 -1.2
MUN 49.06 245 eP 09 40.40 -1.0
MRWA 49.28 248 iPc 09 42.20 -1.0
1.0s 170.00nm 6.0mb
NANU 50.28 257 eP 09 39.50 -11.4X
MKS 50.96 280 iPd 09 57.40 1.3
DAV 51.09 297 eP 09 39.60 -17.6X
OPA 52.16 39 eP 10 03.87 -1.2
MHA 52.31 42 eP 10 06.05 -0.2
HKL 52.48 41 (P) 10 06.73 -1.3
TSM 56.34 290 ePd 10 36.80 0.9
SBA 57.84 181 iPc 10 44.70 -0.9
CSY 59.54 204 eP 10 54.70 -2.9X
0.9s 68.30nm 5.8mb
BAG 60.34 303 ePd 11 02.80 -1.1
1.0s 42.00nm 5.5mb
e 18 02.40
KAKJ 62.55 333 eP 11 17.10 -1.1
TPI 62.82 277 ePd 11 25.00 4.4X
e 13 00.00
CHJJ 62.92 332 eP 11 19.90 -0.9
IIDJ 62.93 331 eP 11 21.50 0.6
WKYJ 62.99 329 eP 11 26.10 4.8X
KAGJ 63.12 323 eP 11 20.60 -1.6
TKSJ 63.58 327 eP 11 24.10 -1.0
MAJO 63.68 332 eP 11 25.37 -0.4
1.0s 134.17nm 6.0mb
MAT 63.68 332 eP 11 25.00 -0.8
1.3s 48.08nm 5.4mb
TSRJ 63.87 330 eP 11 25.00 -2.0
MTMJ 63.90 332 eP 11 26.20 -1.1
NIIJ 63.92 333 eP 11 26.20 -1.1
KUMJ 64.17 324 eP 11 29.90 0.9
YAMJ 64.29 334 eP 11 30.90 1.2
OFUJ 64.43 336 eP 11 30.00 -0.6
SHK 64.71 327 eP 11 32.00 -0.5
YONJ 64.82 328 eP 11 37.00 3.8X
SHNJ 65.22 325 eP 11 38.80 3.0X
HOOJ 66.75 339 eP 11 46.70 1.3
KUSJ 66.93 340 eP 11 45.70 -0.9
KUR 67.96 344 iPc 11 54.00 1.0
1.0s 490.00nm 6.6mb
ASAJ 68.51 339 eP 11 57.70 1.2
KGM 68.61 280 ePd 11 58.00 0.3
e 12 44.00
YSS 71.07 341 ePd 12 11.90 -0.1
SKR 71.44 351 eP 12 11.60 -2.6X
1.0s 270.00nm 6.2mb
e 12 20.10
IPM 71.70 282 ePd 12 16.00 -0.5
0.9s 58.30nm 5.6mb
VLA 71.85 332 iPc 12 21.00 4.2X
3.0s 397.00nm 5.9mb
i 12 40.00
i 14 58.00
ADK 72.64 9 eP 12 22.11 0.9
1.3s 96.70nm 5.6mb
PET 73.41 353 eP 12 25.00 -0.7
2.0s 470.00nm 6.1mb
NNT 76.07 289 eP 12 43.50 1.7
NST 77.01 292 eP 12 48.00 1.0
MAW 77.82 202 eP 12 51.00 0.3
1.0s 80.00nm 5.7mb
BJI 77.85 321 eP 12 41.00 -10.2X
BDT 78.66 293 eP 12 52.50 -3.6X
1.1s 99.90nm 5.7mb
KMI 79.07 302 Pd 12 59.50 0.9
2.0s 1080.00nm 6.5mb
pP 13 18.00 68kmX
sP 13 26.50
SDN 79.29 17 eP 12 57.27 -1.5
1.0s 77.38nm 5.7mb
CHTO 79.38 295 iPd 13 01.20 1.1
1.1s 176.68nm 6.0mb
LZH 83.59 312 P 13 22.50 0.5
2.0s 518.00nm 6.3mb
Z 22s 28.43um 6.6Msz
E 15s 10.89um
pP 13 36.00 46kmX
eS 23 46.00
KDC 83.68 19 eP 13 22.01 0.3
1.3s 145.46nm 6.0mb
SYO 84.28 196 iPc 13 22.60 -2.1
eS 23 44.00
SVW 85.58 16 eP 13 31.09 -0.2
1.7s 394.19nm 6.4mb
STAN 85.86 48 eP 13 34.14 1.1
4.2s 6640.00nm 7.2mb X
NTYM 86.00 47 eP 13 33.95 0.2
KMPM 86.03 44 eP 13 34.39 0.4
BKS 86.04 47 eP 13 34.71 0.7
1.4s 290.00nm 6.3mb
SAO 86.06 49 eP 13 33.35 -0.8
1.0s 40.33nm 5.6mb
COE 86.14 48 eP 13 34.79 0.3
MHC 86.20 48 eP 13 35.79 0.8
4.5s 6750.00nm 7.2mb X
ARN 86.28 48 eP 13 35.58 0.3
BCH 86.29 51 P 13 35.00 -0.5
FHC 86.31 44 eP 13 35.13 -0.2
0.9s 76.64nm 5.9mb
HMR 86.48 47 (P) 13 35.71 -0.4
ANM 86.54 11 eP 13 35.96 0.1
SLKM 86.60 19 eP 13 35.07 -1.2
ABL 86.77 51 P 13 37.70 -0.2
CIT 86.78 329 eP 13 41.00 3.6X
TTA 87.03 15 P 13 37.70 -0.7
1.8s 119.92nm 5.8mb
WDC 87.15 45 eP 13 39.34 0.0
1.6s 140.85nm 6.0mb
ORV 87.36 46 P 13 40.50 0.1
CMB 87.40 48 eP 13 40.85 0.2
3.9s 2610.00nm 6.8mb X
YBH 87.61 44 eP 13 42.71 1.1
2.8s 1300.00nm 6.7mb
SSK 87.61 52 eP 13 42.29 0.3
MIN 87.66 45 eP 13 41.95 -0.1
4.6s 4280.00nm 7.0mb X
ISA 87.68 51 eP 13. 41.92 -0.2
0.9s 54.61nm 5.8mb
PMR 87.79 18 eP 13 40.50 -1.4
1.9s 341.13nm 6.3mb
PLM 87.86 53 eP 13 42.44 -0.7
PEC 87.87 53 eP 13 42.57 -0.4
2.0s 430.01nm 6.4mb
LBFM 87.96 44 eP 13 43.39 -0.1
NVL 88.08 187 iPd 13 40.00 -3.4X
2.0s 197.00nm 6.1mb
ePP 17 40.00
e 18 18.00
ePPP 19 40.00
e 21 58.00
e 23 20.00
e 24 23.00
e 24 32.00
e 24 58.00
e 25 52.00
e 28 18.00
SHL 88.11 298 eP 13 44.50 0.0
eS 24 13.00
MMPM 88.16 49 (P) 13 45.11 0.4
MEMM 88.25 49 (P) 13 45.53 0.9
MTUM 88.38 49 (P) 13 46.14 0.6
KLU 88.69 20 eP 13 45.72 -0.7
GSC 88.75 52 eP 13 47.34 0.1
BONR 88.83 49 eP 13 48.01 0.1
KMOR 89.06 40 P 13 49.19 0.7
GLA 89.28 54 eP 13 49.96 0.2
SSOR 89.31 41 P 13 50.91 1.2
KVN 89.46 48 eP 13 50.90 0.2
ONR 89.52 39 P 13 52.58 2.1
BALM 89.53 21 eP 13 48.65 -1.8
BMW 89.64 40 eP 13 50.52 -0.7
TNP 89.65 49 eP 13 50.45 -1.2
1.1s 48.45nm 5.7mb
TPNV 89.86 50 eP 13 52.84 0.3
1.0s 60.23nm 5.8mb
VBEM 89.95 41 P 13 53.05 0.3
SHW 90.10 40 eP 13 53.47 0.1
BOD 90.21 334 eP 13 52.10 -1.3
2.0s 281.00nm 6.2mb
IMA 90.22 14 eP 13 52.00 -1.6
1.0s 19.57nm 5.3mb
STW 90.22 38 P 13 55.05 1.3
CROR 90.28 42 P 13 54.65 0.4
VIPM 90.29 42 P 13 54.90 0.5
GMW 90.44 39 eP 13 54.73 0.0
ASR 90.47 40 P 13 55.55 0.5
LON 90.63 40 eP 13 54.41 -1.3
VGB 90.67 41 eP 13 55.78 -0.1
FBA 90.75 17 eP 13 54.23 -1.6
0.9s 40.90nm 5.8mb
FMW 90.80 40 P 13 57.22 0.5
MCW 90.97 38 eP 13 57.00 -0.2
RMW 90.97 39 eP 13 57.54 0.2
ZAK 91.21 324 eP 13 57.30 -0.9
1.7s 245.00nm 6.3mb
JBO 91.23 42 P 13 58.77 0.3
JCW 91.26 38 P 13 59.47 0.9
EBG 91.45 40 P 14 00.33 0.8
TUC 92.12 56 eP 14 03.58 0.6
1.1s 36.55nm 5.7mb
ARUT 92.24 51 eP 14 03.42 -0.1
SAW 92.52 40 P 14 04.52 0.1
DPW 93.32 40 eP 14 08.42 0.3
MSU 93.45 50 eP 14 09.49 0.4
GUN 93.96 298 PKP 14 12.00 0.1
PKI 94.23 298 PKP 14 12.80 -0.3
HVU 94.29 47 eP 14 12.76 -0.1
KKN 94.42 298 PKP 14 13.60 -0.2
DMN 94.50 298 PKP 14 14.20 0.0
DAU 94.83 49 (P) 14 14.44 -1.1
SRU 94.87 50 (P) 14 15.07 -0.5
EMUT 94.92 49 (P) 14 16.32 0.4
PTI 94.99 46 eP 14 15.67 -0.4
GKN 95.02 298 PKP 14 15.60 -0.9
PV09 95.65 51 eP 14 18.97 -0.4
PV10 95.68 51 eP 14 19.28 -0.2
PV08 96.04 51 eP 14 21.34 0.2
GBA 96.63 282 P 14 27.00 3.2X
HYB 96.84 286 eP 14 24.50 -0.3
RSSD 101.12 47 ePdiff14 44.10 0.2
1.0s 9.92nm 5.3mb
YKA 101.22 27 ePdiff14 36.70 -6.8X
0.8s 3.10nm 4.9mb
SDV 120.82 92 ePKP 19 44.00 -2.9X
RSNY 122.07 49 ePKP 19 46.89 -1.3
DAG 123.11 2 ePKP 19 46.50 -2.7X
0.5s 3.52nm
Z 20s 19.86um 6.8Msz
ipP 19 55.90
GDH 124.26 17 iPdiff16 10.00 -15.9X
i 26 00.00
i 40 12.00
SDF 127.28 343 ePKP 20 03.00 5.5X
BDFB 128.70 131 ePKP 20 00.37 -1.5
BAO 128.72 131 (PKP) 20 07.50 5.6X
MOS 129.61 327 ePKP 19 52.00 -10.2X
e 22 13.00
ePPP 24 56.00
KIV 130.13 311 ePKP 19 43.50 -20.3X
2.0s 43.00nm
e 20 01.30
OBN 130.41 327 ePKPd 20 10.00 6.2X
2.0s 180.00nm
NUR 132.66 337 ePKP 20 12.00 4.1X
APO 136.08 343 ePKP 20 04.80 -9.6X
0.5s 1.00nm
NB2 136.36 345 PKP 20 12.20 -2.8X
0.9s 3.90nm
CFR 139.61 317 ePKP 20 29.00 7.6X
SPC 142.05 327 ePKP 20 20.10 -5.9X
KSP 142.81 332 ePKPc 20 21.80 -5.2X
e 23 31.00
PRK 143.23 309 ePKP 20 22.50 -5.5X
ELO 143.33 354 ePKP 20 27.10 -0.6
PGB 143.36 315 iPKP 20 24.00 -4.2X
RZN 143.37 314 iPKPd 20 24.00 -4.5X
BRG 143.80 334 iPKP 20 24.60 -4.0X
1.6s 280.00nm
i 20 32.40
e 26 59.20
CLL 143.84 335 iPKP 20 24.50 -4.2X
1.7s 89.00nm
Z 20s 16.00um 6.8MszX
i 20 32.10
SRO 143.92 327 ePKP 20 25.20 -3.7X
e 27 05.20
EBL 143.94 353 ePKP 20 28.00 -0.7
VTS 143.97 316 iPKPd 20 26.00 -3.4X
MMB 144.08 314 iPKPd 20 26.00 -3.5X
PRU 144.21 332 PKPc 20 26.30 -3.0X
1.3s 62.50nm
Z 19s 18.90um 6.9Msz
N 20s 11.00um
E 19s 14.30um
i 20 34.50
i 20 36.50

e 21 28.00
KKB 144.39 315 iPKP 20 27.00 -3.0X
UZD 144.55 325 ePKP 20 27.00 -3.0X
VKA 144.62 329 iPKPc 20 28.70 -1.4
WIT 144.77 342 ePKP 20 29.00 -1.2
MOX 144.91 336 iPKPc 20 28.80 -1.8
1.8s 595.00nm
NPS 144.98 303 ePKP 20 30.00 -1.2
VAY 144.98 315 iPKP 20 29.00 -1.9
1.4s 350.00nm
i 20 36.30
HOF 145.07 335 ePKP 20 29.00 -1.9
KHC 145.26 332 PKP 20 29.50 -1.7
1.2s 270.00nm
e 20 38.00
GEC2 145.42 332 PKP 20 30.30 -1.3
0.8s 46.30nm
e 20 38.50
SKO 145.42 316 iPKP 20 30.50 -1.2
1.7s 1820.00nm
i 20 40.00
i 21 06.50
WTS 145.45 341 ePKP 20 30.00 -1.3
1.1s 227.60nm
KMR 145.80 330 iPKP+ 20 33.30 1.2
GRF 145.82 335 ePKPc 20 31.30 -0.8
DBN 145.82 343 ePKP 20 31.00 -1.0
IVA 145.94 319 iPKPc 20 32.57 -0.1
KZN 145.98 313 ePKP 20 32.00 -0.8
PLE 146.00 320 iPKPc 20 32.88 0.1
PVY 146.04 318 iPKPc 20 32.43 -0.5
VAM 146.05 304 ePKP 20 33.00 0.1
BNS 146.23 340 ePKPc 20 32.00 -0.7
OHR 146.26 315 iPKPd 20 32.00 -1.2
1.0s 410.00nm
i 20 37.10
PTJ 146.39 326 ePKP 20 31.90 -1.4
WME 146.42 353 ePKP 20 33.80 0.9
ZAG 146.43 326 ePKP 20 36.00 2.8X
NKY 146.53 319 iPKPc 20 33.85 0.2
TTG 146.57 318 iPKPc 20 33.75 0.2
VLI 146.59 307 ePKP 20 32.70 -1.1
YRC 146.59 354 ePKP 20 34.30 1.1
BHG 146.62 331 ePKP 20 33.60 0.1
DCN 146.71 357 iPKPd 20 35.40 2.0
1.2s 408.00nm
DLF 146.71 356 iPKPd 20 35.30 1.9
1.1s 189.00nm
BRY 146.76 320 iPKPc 20 34.29 0.3
ENN 146.79 341 ePKP 20 34.00 0.4
1.0s 100.00nm
ULC 146.83 318 iPKPc 20 33.66 -0.4
KBA 146.88 330 iPKPd 20 33.80 -0.4
i 20 43.00
i 20 48.80
BDV 146.92 319 iPKPc 20 34.41 0.3
FUR 146.99 333 ePKP 20 33.70 -0.4
LJU 147.03 327 ePKPc 20 33.20 -1.0
iPKPab20 35.00
HCY 147.04 319 iPKPc 20 34.84 0.5
UCC 147.22 343 PKPd 20 36.60 2.3
VOY 147.36 328 ePKPd 20 35.20 0.4
HCG 147.40 352 ePKP 20 35.30 0.7
WATA 147.50 332 iPKPd 20 35.90 0.8
i 20 44.50
SNF 147.50 343 iPKPc 20 36.20 1.5
WTTA 147.52 332 iPKPd 20 36.20 1.0
i 20 44.70
HAE 147.53 351 ePKP 20 36.80 2.0
RIY 147.58 327 iPKP 20 35.60 0.6
WLF 147.68 340 iPKPc 20 37.40 2.4X
MOTA 147.70 332 iPKPd 20 36.40 1.0
i 20 45.00
LANF 147.70 337 PKP 20 36.38 1.2
VLS 147.74 311 ePKP 20 37.50 1.9
SQTA 147.75 332 iPKPd 20 36.70 1.2
i 20 45.20
DOU 147.78 342 PKPd 20 37.10 1.9
ECP 147.81 355 ePKP 20 43.40 8.2X
HVAR 147.84 322 iPKP 20 36.50 0.9
HGH 147.95 351 ePKP 20 37.90 2.4X
OGA 148.10 332 iPKPc 20 38.50 2.4X
WLS 148.34 337 PKP 20 37.80 1.5
CDF 148.37 337 ePKP 20 38.50 2.1
1.1s 48.85nm
FEL 148.54 336 PKP 20 38.46 1.7
MOF 148.89 337 PKP 20 38.57 1.3
VITF 148.99 339 PKP 20 39.02 1.8
BSF 149.03 337 ePKP 20 40.10 2.6X
0.9s 29.15nm
HAU 149.04 338 ePKP 20 40.20 2.8X
0.9s 40.60nm
BBS 149.07 336 PKP 20 39.02 1.6
LOMF 149.42 337 PKP 20 40.54 2.5X
FIR 150.28 328 ePKP 20 41.00 1.7
FLN 150.30 347 ePKP 20 42.90 3.7X
1.1s 72.05nm
ORX 150.38 334 PKP 20 42.09 2.5X
LDF 150.39 346 ePKP 20 42.90 3.6X
0.7s 17.85nm
LOR 150.52 340 ePKP 20 43.70 4.1X
GRR 150.74 347 ePKP 20 44.10 4.3X
0.9s 43.75nm
SSF 150.81 340 ePKP 20 44.50 4.5X
0.7s 20.50nm
LSD 150.86 334 PKP 20 44.97 4.5X
LPL 150.98 335 ePKP 20 45.40 4.8X
0.7s 12.90nm
PCP 151.00 332 PKP 20 45.29 4.8X
RSP 151.07 334 PKP 20 45.57 4.9X
LPF 151.12 347 ePKP 20 45.00 4.6X
0.8s 57.75nm
FIN 151.41 331 PKP 20 44.75 3.7X
RRL 151.45 334 PKP 20 46.12 4.8X
BGF 151.47 341 ePKP 20 45.80 4.8X
0.6s 16.25nm
ROB 151.49 332 PKP 20 44.88 3.7X
PZZ 151.66 333 PKP 20 46.85 5.3X
ENR 151.74 332 PKP 20 46.12 4.5X
IMI 151.78 331 PKP 20 45.84 4.2X
MAF 151.86 341 ePKP 20 46.70 5.1X
SAOF 151.87 332 PKP 20 49.08 7.3X
AUTN 151.92 332 PKP 20 46.37 4.3X
TOUF 151.99 332 PKP 20 48.58 6.4X
SBF 152.02 332 PKP 20 48.08 6.1X
AURF 152.05 332 PKP 20 49.82 7.7X
LSF 152.14 342 ePKP 20 47.00 5.0X
PGF 152.30 328 ePKP 20 47.80 5.3X
0.7s 16.75nm
CALN 152.35 332 PKP 20 47.84 5.2X
FRF 152.61 333 ePKP 20 48.80 6.0X
S.D. = 1.0 on 206 of 287 obs.

? DEC 29, 1993 08h 07m 45.47± 0.80s
20.117 S ±15.9km 170.254 E ±18.9km
DEPTH = 33.0km (normal)
5.2mb (5 obs.)
VANUATU ISLANDS (186)

ARMA 19.70 235 eP 12 16.00 0.8
SNZO 21.46 171 P 12 32.00 -1.1
CNB 23.83 226 eP 13 01.00 4.5X
1.2s 111.00nm 5.3mb
TOO 27.67 226 eP 13 33.60 1.1
1.2s 88.00nm 5.3mb
WB2 33.69 264 eP 14 25.90 0.0
1.3s 9.60nm 4.6mb
ASPA 33.86 257 eP 14 25.50 -1.8
0.8s 53.80nm 5.5mb
MAT 63.97 332 eP 18 17.00 -0.8
1.1s 16.46nm 5.0mb
CLL 144.11 336 ePKP 27 23.40 4.1X
1.9s 40.00nm
PRU 144.49 333 PKP 27 22.10 2.1X
e 27 26.50
i 27 32.20
MOX 145.17 336 ePKP 27 21.80 0.7
1.4s 37.00nm
e 27 29.00
VAY 145.39 315 iPKP 27 21.00 -0.8
KHC 145.55 333 ePKP 27 23.00 1.1
1.3s 54.30nm
e 27 30.50
GEC2 145.71 332 PKP 27 22.90 0.7
1.0s 14.06nm
e 27 30.80
e 32 04.90
e 32 20.20
SKO 145.82 317 iPKP 27 25.50 3.0X
i 27 28.00
i 27 31.00
OHR 146.67 316 iPKP 27 25.70 1.7
1.0s 60.00nm
PTJ 146.72 326 e(PKP)27 22.30 -1.6
KBA 147.18 330 i(PKP)27 39.40 14.6X
i 27 40.70
FUR 147.27 334 ePKPd 27 34.70 10.0X
WTTA 147.81 332 i(PKP)27 39.70 13.9X
WLF 147.90 340 iPKPd 27 32.89 7.4X
DOU 147.99 342 PKP 27 31.70 6.0X
e 27 37.70
FIR 150.60 328 ePKP 27 38.00 8.1X
S.D. = 1.3 on 12 of 22 obs.

& DEC 29, 1993 08h 32m 15.64s
36.706 N 122.470 W
DEPTH = 16.5km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.9 (GM).

JUCM 0.45 49 P 32 24.47 -0.2
MTR 0.46 103 P 32 24.50 -0.3
JBLM 0.49 30 P 32 25.17 -0.2
PSD 0.50 11 P 32 25.75 0.1
JRGM 0.52 51 P 32 25.71 -0.3
JSMM 0.56 26 P 32 26.63 0.0
JELM 0.56 67 P 32 26.77 0.1
JTGM 0.57 56 P 32 26.76 -0.1
PEV 0.58 62 P 32 26.97 0.0
LT3 0.59 20 P 32 26.88 -0.3
LXR 0.63 38 P 32 27.42 -0.4
JBZM 0.63 60 P 32 27.54 -0.3
EUC 0.63 57 P 32 27.97 0.1
SOS 0.63 43 P 32 27.48 -0.4
SEC 0.64 26 P 32 27.68 -0.3
JBMM 0.66 22 P 32 27.89 -0.5
BPRM 0.67 116 P 32 24.54 -3.9
AMC 0.67 48 P 32 28.18 -0.4
SJH 0.70 26 P 32 28.54 -0.4
HJGM 0.73 82 P 32 29.05 -0.4
BPOM 0.74 130 P 32 28.76 -0.9
HBTM 0.75 79 P 32 29.48 -0.4
BSRM 0.77 93 P 32 29.50 -0.6
FRP 0.79 86 P 32 29.79 -0.8
OCR 0.80 74 P 32 30.55 -0.2
JEGM 0.81 0 eP 32 30.44 -0.4
ADR 0.82 56 P 32 30.69 -0.3
COE 0.84 49 iPd 32 31.75 0.3
HSPM 0.87 62 P 32 31.65 -0.3
GHS 0.91 64 P 32 32.22 -0.4
CVR 0.92 36 P 32 32.34 -0.4
MSJ 0.94 30 P 32 32.68 -0.5
ARN 0.99 49 eP 32 33.63 -0.3
PCL 1.01 70 P 32 33.66 -0.6
EKH 1.04 92 P 32 34.38 -0.5
CMMM 1.08 46 P 32 36.32 0.7
MNR 1.11 37 P 32 35.50 -0.5
PAPM 1.19 131 P 32 35.10 -2.4
CSTL 1.21 40 P 32 37.29 -0.4
BMSM 1.35 92 P 32 41.18 1.4
HVC 1.37 104 P 32 38.99 -1.1
HMR 1.54 20 eP 32 43.37 1.0
PADM 1.68 129 P 32 42.38 -2.1
NTYM 1.69 355 eP 32 45.07 0.5
44 obs. associated

DEC 29, 1993 08h 38m 07.47± 0.22s
20.132 S ± 6.3km 169.653 E ± 5.1km
DEPTH = 33.0km (normal)
5.4mb (32 obs.)
VANUATU ISLANDS (186)

BKM 2.79 331 iP 38 50.50 -0.3
DZM 3.56 237 iP 39 03.00 1.1
iS 39 47.90
SVA 8.56 78 eP 40 03.20 -8.9X
e 41 37.80
e 44 17.80
HNR 14.18 317 P 41 34.00 5.9X
ARMA 19.23 234 iPc 42 33.70 1.8
1.0s 116.00nm 5.1mb
RIV 21.35 227 eP 43 01.70 7.7X
CTAO 21.97 266 P 43 02.00 1.6
1.4s 263.02nm 5.5mb
CNB 23.41 226 eP 43 16.50 2.0
1.3s 127.00nm 5.3mb
BWA 23.57 228 eP 43 15.60 -0.5
i 43 17.70
CAN 23.66 226 eP 43 18.40 1.5
LAT 25.73 298 eP 43 38.00 1.2
TOO 27.26 225 eP 43 52.10 1.4

29d 08h

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     0.8s   25.00nm          4.9mb
MDG  27.53 299 eP    43 49.00  -4.3X
STK  27.72 239 eP    43 55.50   0.6
     1.1s   14.90nm          4.6mb
WB5  33.12 264 eP    44 58.20  15.3X
               i     45 01.70
WB2  33.13 264 iPd   44 41.40  -1.6
     1.3s   23.70nm          4.9mb
               i     44 45.70
WRA  33.14 264 P     44 41.70  -1.4
     0.6s    5.60nm          4.6mb
ASPA 33.30 257 iPd   44 43.20  -1.3
     0.8s  117.70nm          5.8mb
MTN  37.57 275 eP    45 20.40  -0.4
WARB 39.87 253 eP    45 39.80  -0.2
MBL  46.48 260 eP    46 33.00  -0.5
KLB  47.68 245 iPc   46 41.60  -1.4
NWAO 48.16 243 eP    46 45.60  -1.1
RKG  48.41 241 eP    46 48.50  -0.1
BAL  48.59 247 eP    46 52.50   2.5
MUN  49.01 245 eP    46 53.00  -0.2
MRWA 49.24 248 eP    46 54.00  -1.0
NANU 50.24 257 eP    46 50.50 -12.3X
MKS  50.94 280 iPc   47 13.50   5.3X
SBA  57.78 181 iPc   47 56.80  -0.5
CSY  59.47 204 eP    48 05.70  -3.6X
     0.9s   22.30nm          5.3mb
BAG  60.35 303 ePc   48 14.50  -1.6
KAKJ 62.59 333 eP    48 32.30   1.7
CHJJ 62.96 332 eP    48 34.20   1.1
WKYJ 63.03 329 eP    48 36.10   2.4
KAGJ 63.15 323 P     48 39.60   5.1X
TKSJ 63.61 327 eP    48 37.00  -0.5
MAT  63.72 332 (P)   48 38.00  -0.2
     1.5s   50.00nm          5.4mb
MTMJ 63.93 332 eP    48 38.00  -1.7
KUMJ 64.20 324 eP    48 40.10  -1.3
TATO 64.84 312 P     48 48.70   3.1X
     1.5s  438.82nm          6.3mb
YONJ 64.86 328 eP    48 50.00   4.4X
SHNJ 65.25 325 eP    48 50.00   1.9
KUSJ 66.97 340 eP    49 03.40   4.4X
ASAJ 68.56 339 eP    49 12.30   3.4X
KGM  68.59 281 ePd   49 09.80   0.1
               e     50 48.90
SSE  68.98 317 eP    49 14.00   2.2
     1.2s   33.00nm          5.3mb
QIZ  70.36 300 eP    49 20.70   0.2
NJ2  71.12 316 Pc    49 29.40   4.6X
     1.1s   39.00nm          5.4mb
WHN  73.23 312 eP    49 38.00   0.6
MDJ  74.09 331 eP    49 41.90  -0.1
     1.4s   81.00nm          5.5mb
CN2  75.42 329 eP    49 48.00  -1.7
     1.0s   45.00nm          5.4mb
GYA  76.65 305 P     49 57.00  -0.2
NST  77.01 292 eP    49 59.00  -0.2
               e     51 38.50
               e     54 13.00
BJI  77.87 321 eP    50 02.50  -1.0
     1.5s   28.00nm          5.1mb
BDT  78.66 293 eP    50 07.00  -1.2
     1.0s   41.40nm          5.4mb
TIY  78.75 317 eP    50 09.20   0.7
XAN  79.00 312 P     50 09.00  -0.9
     1.0s   63.00nm          5.6mb
               pP    50 15.20  20kmX
KMI  79.07 302 eP    50 10.00  -0.7
     1.4s  300.00nm          6.1mb
               pP    50 22.00  40kmX
CHTO 79.38 295 iPc   50 12.40   0.2
     1.0s   97.50nm          5.8mb
CD2  81.09 307 P     50 22.00   0.9
     1.2s   60.00nm          5.5mb
HHC  81.15 319 P     50 21.60   0.3
     1.4s   17.00nm          4.9mb
LZH  83.61 312 eP    50 34.50   0.3
     1.5s  110.00nm          5.8mb
               pP    50 41.50  22kmX
SYO  84.21 196 ePc   50 34.30  -2.2
KMPM 86.09  44 P     50 47.70   1.3
COE  86.19  48 P     50 48.20   1.3
ARN  86.33  48 P     50 47.20  -0.4
BCH  86.35  51 P     50 47.50  -0.4
CIT  86.82 329 eP    50 50.00   0.3
ABL  86.83  51 P     50 51.70   1.4
ORV  87.41  46 P     50 52.40  -0.4
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SSK   87.67  52 P      50 56.00   1.6
ISA   87.74  51 P      50 53.40  -1.1
      1.2s   51.24nm           5.7mb
LMEM  87.84  45 P      50 57.00   2.0
PLM   87.92  53 P      50 54.70  -0.9
PEC   87.93  53 P      50 54.60  -0.8
      1.5s   76.27nm           5.8mb
LBFM  88.02  44 P      50 57.20   1.3
GTA   88.02 313 eP     50 55.00  -0.8
      1.5s   19.00nm           5.2mb
                pP     51 01.50  20kmX
NVL   88.03 187 iPc    50 53.00  -2.2
      1.4s   56.00nm           5.7mb
SHL   88.11 298 eP     50 56.00  -0.7
MMPM  88.22  49 P      51 02.30   5.2X
MTUM  88.43  49 P      50 57.60  -0.4
GSC   88.80  52 P      51 00.40   0.8
BONR  88.89  49 P      51 00.10  -0.2
GLA   89.34  54 P      51 02.10  -0.1
KVN   89.52  48 P      51 03.40   0.3
BMW   89.70  40 P      51 03.30  -0.3
TNP   89.71  49 P      51 03.80  -0.2
TPNV  89.92  50 P      51 04.80  -0.1
      1.0s   39.12nm           5.6mb
VBEM  90.01  41 P      51 09.54   4.4X
SHW   90.16  40 P      51 06.70   0.9
STW   90.28  38 P      51 10.89   4.7X
VIPM  90.35  42 P      51 11.21   4.4X
GMW   90.50  39 P      51 07.00  -0.2
ASR   90.53  40 P      51 12.20   4.7X
LON   90.69  40 P      51 08.20   0.1
LON   90.69  40 P      51 12.63   4.5X
VGB   90.73  41 P      51 07.70  -0.6
FBA   90.81  17 P      51 04.40  -3.9X
      1.0s   11.18nm           5.2mb
FMW   90.86  40 P      51 13.67   4.6X
MCW   91.03  38 P      51 13.40   3.8X
RMW   91.03  39 P      51 09.50  -0.2
ZAK   91.24 324 eP     51 10.20  -0.2
      1.4s   69.00nm           5.8mb
EBG   91.51  40 P      51 16.55   4.6X
WTV   92.25  40 P      51 19.84   4.5X
ARUT  92.30  51 P      51 14.90  -1.0
MSU   93.50  50 P      51 21.30  -0.2
GUN   93.96 298 PKP    51 24.00   0.0
PKI   94.24 298 PKP    51 24.00  -1.2
KKN   94.42 298 PKP    51 26.20   0.3
DMN   94.50 298 PKP    51 25.80  -0.6
GKN   95.03 298 PKP    51 27.40  -1.3
PV09  95.71  51 P      51 32.50   0.7
PV10  95.73  51 P      51 31.00  -0.8
GBA   96.62 282 P      51 42.00   6.1X
HYB   96.83 286 eP     51 41.80   4.9X
WMQ   98.10 314 P      51 47.50   5.4X
      1.2s   17.00nm           5.5mb
YKA  101.28  27 ePdiff51 54.20  -1.8X
      1.2s    2.10nm           4.6mb
NB2  136.40 345 PKP    57 25.40  -1.8
      0.9s    2.80nm
SPC  142.08 327 e(PKP)57 41.10   2.9X
KSP  142.85 332 ePKP   57 34.00  -5.2X
BRG  143.84 334 ePKP   57 36.60  -4.2X
      1.2s   64.00nm
                i      57 42.40
CLL  143.89 335 iPKP   57 36.40  -4.5X
      2.1s   55.00nm
                i      57 42.50
SRO  143.95 327 ePKP   57 37.00  -4.1X
VTS  144.00 316 iPKP   57 38.00  -3.6X
MMB  144.11 314 iPKPc  57 38.00  -3.6X
PRU  144.24 332 PKP    57 37.70  -3.8X
      1.2s   74.70nm
                i      57 43.80
SRS  144.40 314 ePKP   57 37.32  -4.8X
KKB  144.41 315 iPKP   57 39.00  -3.1X
OUR  144.46 312 ePKP   57 37.68  -4.5X
UZD  144.58 325 e(PKP)57 38.00  -4.2X
VKA  144.65 329 ePKP   57 39.00  -3.3X
SOH  144.69 313 ePKP   57 39.64  -3.0X
PAIG 144.84 312 ePKP   57 38.00  -4.9X
KNT  144.85 314 ePKP   57 38.76  -4.1X
MOX  144.95 336 ePKP   57 39.90  -2.8X
      1.5s  129.00nm
                e      57 46.40
VAY  145.00 314 iPKP   57 39.60  -3.5X
      1.4s  220.00nm
                i      57 46.30
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GRG  145.28 314 ePKP  57 40.12  -3.5X
KHC  145.30 332 PKPd  57 40.90  -2.5X
      1.1s  120.00nm
                e     57 47.00
SKO  145.44 316 iPKP  57 42.00  -1.9
      1.7s  480.00nm
                i     57 43.70
                i     57 48.70
                i     57 55.00
GEC2 145.46 332 PKP   57 40.90  -2.9X
      0.8s   12.27nm
                e     57 48.40
WTS  145.49 341 ePKP  57 48.50   5.0X
      0.8s   23.50nm
LIT  145.60 313 iPKP  57 40.96  -3.3X
GRF  145.86 335 ePKP  57 43.40  -0.9
                e     57 49.00
IVA  145.97 319 iPKPc 57 43.66  -1.2
PLE  146.03 320 iPKPc 57 44.14  -0.8
PVY  146.06 318 iPKPc 57 43.60  -1.5
OHR  146.28 315 iPKP  57 44.30  -1.1
      0.9s  190.00nm
                i     57 51.00
PTJ  146.42 326 ePKP  57 43.70  -1.8
ZAG  146.46 326 ePKP  57 45.80   0.4
NKY  146.55 319 iPKPc 57 45.10  -0.7
TTG  146.60 318 iPKPc 57 45.02  -0.7
BHG  146.66 331 ePKP  57 45.10  -0.6
BRY  146.78 320 ePKP  57 45.95  -0.3
ENN  146.84 341 ePKP  57 52.50   6.7X
      1.0s   39.00nm
ULC  146.85 318 iPKPc 57 45.57  -0.6
KBA  146.91 330 iPKPc 57 45.30  -1.0
BDV  146.95 318 iPKPc 57 45.84  -0.5
FUR  147.03 333 iPKPc 57 47.80   1.5
LJU  147.06 327 ePKP  57 46.00  -0.4
HCY  147.06 319 iPKPc 57 46.75   0.3
WATA 147.53 332 iPKPc 57 47.30   0.0
                i     57 53.90
SNF  147.55 343 PKP   57 43.20  -3.7X
WTTA 147.56 332 iPKPc 57 47.50   0.1
                i     57 54.10
RIY  147.61 327 iPKP  57 48.00   0.8
TRI  147.68 328 ePKP  57 54.20   6.9X
WLF  147.73 340 iPKPc 57 48.66   1.4
      1.1s   64.00nm
MOTA 147.74 332 iPKPc 57 47.90   0.3
                i     57 54.10
LANF 147.74 337 PKP   57 47.93   0.5
SQTA 147.78 332 iPKPc 57 47.60  -0.1
                i     57 55.30
HVAR 147.87 322 ePKP  57 47.80   0.1
OGA  148.13 332 ePKP  57 49.80   1.5
CDF  148.41 337 ePKP  57 49.60   1.0
      1.3s   92.40nm
FEL  148.58 336 PKP   57 50.56   1.6
MOF  148.93 337 PKP   57 51.21   1.8
BSF  149.07 337 ePKP  57 51.30   1.6
      1.2s   56.25nm
HAU  149.09 338 ePKP  57 51.30   1.7
      1.0s   49.40nm
LOMF 149.47 337 PKP   57 53.19   2.9X
FIR  150.31 327 ePKP  57 53.00   1.5
FLN  150.35 347 ePKP  57 54.00   2.6X
      1.0s   61.20nm
LDF  150.43 346 ePKP  57 54.20   2.7X
      1.0s   38.80nm
LOR  150.56 340 ePKP  57 54.90   3.1X
      0.9s   41.45nm
GRR  150.79 347 ePKP  57 55.20   3.2X
      0.7s   27.65nm
SSF  150.86 340 ePKP  57 55.70   3.5X
      1.1s   65.70nm
LPL  151.02 335 ePKP  57 56.70   3.9X
      1.1s   37.35nm
LPG  151.03 335 ePKP  57 56.80   3.9X
      1.0s   36.20nm
LPF  151.17 347 ePKP  57 56.20   3.6X
      0.9s   62.75nm
BGF  151.51 341 ePKP  57 57.00   3.8X
      1.0s   28.20nm
TCF  151.95 341 ePKP  57 58.00   4.1X
      1.0s   29.40nm
PGF  152.34 328 ePKP  57 59.00   4.3X
      1.1s   53.70nm
KIC  165.27 202 ePKP  58 13.30   3.1X
      1.3s   36.00nm
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LKO    168.52 204 PKP    58 16.10   3.5X
         1.2s     11.50nm
       S.D. = 1.1  on 123 of 192 obs.
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   DEC 29, 1993  08h 39m 44.83± 0.14s
   19.990 S ± 4.7km  169.857 E ± 3.7km
   DEPTH =  33.0km  (normal)
  6.1mb ( 64 obs.)  6.5Msz ( 17 obs.)
 VANUATU ISLANDS                  (186)
      Mw 6.5 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 19C  M.W.: 20S, 32C
      Centroid Location:
      Origin Time         08:39:46.2 0.5
      Lat 20.06S 0.08 Lon 170.04E 0.06
      Dep  15.0 FIX Half-duration  4.0
      Moment Tensor;    Scale 10**18 Nm
        Mrr=-4.40 0.26  Mtt=-1.07 0.28
        Mff= 5.47 0.24  Mrt=-0.43 0.65
        Mrf= 0.19 0.65  Mtf=-2.77 0.23
       Principal Axes:
        T  Val=  6.49   Plg= 2  Azm=250
        N       -2.04        8      160
        P       -4.45       82      352
      Best Double Couple:Mo=5.5*10**18
        NP1:Strike=348 Dip=44 Slip= -78
        NP2:       152     47      -101
PVC      2.67 327 iP     39 49.50 -37.0X
AFI     18.57  74 e(P)   44 00.00  -1.4
                  e(S)   46 35.00
ARMA    19.46 234 eP     44 13.60   1.6
        0.9s   320.00nm          5.6mb
RIV     21.58 227 eP     44 38.30   4.5X
SNZO    21.65 170 P      44 34.00  -0.3
CTAO    22.17 266 eP     44 41.63   1.9
        1.0s   408.87nm          5.8mb
CNB     23.65 226 eP     44 55.00   0.8
        1.2s   583.00nm          6.0mb
BWA     23.81 228 eP     44 54.30  -1.4
                  i      44 59.00
CAN     23.90 226 eP     44 58.20   1.6
                  i      45 01.70
PMG     24.31 292 eP     45 01.00   0.3
TOO     27.49 225 eP     45 30.30   0.1
        1.0s   255.00nm          5.8mb
STK     27.96 239 eP     45 35.10   0.7
        0.7s    40.40nm          5.2mb
QIS     28.37 264 eP     45 39.00   0.8
RAR     28.43  98 eP     45 36.44  -2.3
WRA     33.35 264 P      46 14.89  -7.3X
        0.5s     4.70nm          4.7mb X
ASPA    33.52 257 iPc    46 22.00  -1.8
        0.7s   338.20nm          6.4mb
     Z  22s    176.80um          6.7Msz
MCQ     35.44 191 eP     46 40.50   0.7
MTN     37.75 275 eP     46 58.50  -1.2
                  e      49 34.00
PPT     38.42  93 P      47 02.20  -3.1X
KNA     39.27 269 eP     47 12.20  -0.2
WARB    40.09 253 eP     47 18.20  -1.0
GUMO    41.45 322 (P)    47 28.57  -1.7
        1.3s   858.00nm          6.3mb
PJG     41.45 322 eP     47 32.20   1.9
COOL    45.00 246 eP     47 58.00  -1.2
KLB     47.92 245 eP     48 20.00  -2.2
NWAO    48.39 243 eP     48 23.70  -2.1
RKG     48.65 241 eP     48 27.00  -0.8
BAL     48.82 246 eP     48 28.00  -1.1
MUN     49.24 245 eP     48 31.50  -0.9
MRWA    49.47 248 eP     48 32.50  -1.6
MKS     51.10 280 iPd    48 47.20   0.4
DHH     51.79  39 eP     48 51.13  -0.6
OPA     51.99  39 eP     48 52.93  -0.3
MHA     52.14  42 eP     48 53.36  -1.1
HKL     52.31  41 eP     48 54.72  -1.5
MAP     54.28 300 eP     49 11.00   0.6
TSM     56.47 290 eP     49 27.00   0.7
SBA     57.92 181 iPc    49 37.30   1.6
KKM     58.74 290 ePc    49 48.90   6.5X
        1.9s  1178.10nm          6.7mb
TGY     58.85 301 ePd    49 44.00   0.9
CSY     59.68 204 P      49 48.70   0.6
BAG     60.43 303 ePc    49 52.20  -1.8
        1.0s    70.00nm          5.7mb
                  e      52 31.00
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KAKJ    62.55 333 eP     50 07.20  -0.5
CHJJ    62.92 332 eP     50 08.50  -1.8
IIDJ    62.94 331 eP     50 09.30  -1.1
TPI     62.98 277 ePd    50 12.50   1.4
                  e      52 00.00
KAGJ    63.16 323 eP     50 13.50   1.6
MAJO    63.68 332 eP     50 14.31  -1.0
        1.1s    63.94nm          5.6mb
MAT     63.68 332 eP     50 14.00  -1.3
        1.3s   307.69nm          6.3mb
TSRJ    63.88 330 eP     50 13.50  -3.1X
MTMJ    63.90 332 eP     50 16.30  -0.5
NIIJ    63.92 333 eP     50 16.70  -0.1
KUMJ    64.20 324 eP     50 18.40  -0.3
YAMJ    64.28 334 eP     50 19.40   0.2
OFUJ    64.42 336 eP     50 19.50  -0.5
SHK     64.73 327 eP     50 21.40  -0.7
TATO    64.89 311 eP     50 23.39   0.1
        1.4s   701.07nm          6.6mb
SHNJ    65.25 325 eP     50 25.70   0.3
HOOJ    66.73 339 eP     50 36.60   1.8
KUSJ    66.91 340 P      50 35.30  -0.6
MRRJ    67.55 337 eP     50 41.30   1.3
KUR     67.93 343 iPc    50 42.50   0.2
        1.0s   940.00nm          6.8mb
ASAJ    68.49 339 P      50 47.00   1.1
HKC     68.73 305 iP     50 51.30   3.6X
SSE     69.01 316 P      50 48.80  -0.5
        1.4s   150.00nm          5.9mb
     Z  20s     12.80um          6.2Msz
     N  14s      3.20um
     E  16s      4.80um
                  pP     51 02.00  46kmX
GZH     69.80 305 iPd    50 57.80   3.5X
QIZ     70.46 300 eP     50 59.10   0.7
YSS     71.04 341 iP     51 01.30  -0.1
        1.2s   320.00nm          6.3mb
                  e      51 17.20
NJ2     71.15 316 Pd     51 01.80  -0.5
        1.3s   130.00nm          5.8mb
SKR     71.38 351 eP     51 04.00   0.6
        1.4s  1290.00nm          6.8mb
                  e      51 15.50
IPM     71.84 282 ePc    51 05.60  -1.3
        1.6s   325.20nm          6.1mb
VLA     71.85 332 iPc    51 07.50   1.2
        2.0s   228.00nm          5.8mb
                  i      51 23.00
                  i      53 46.00
ADK     72.53   9 eP     51 08.08  -2.0
        1.3s   110.85nm          5.7mb
SNG     73.23 284 eP     51 16.00   1.0
        1.3s   292.31nm          6.1mb
WHN     73.28 312 P      51 14.80  -0.2
        1.5s   370.00nm          6.2mb
PET     73.35 353 eP     51 14.00  -0.8
        1.5s   450.00nm          6.2mb
MDJ     74.06 331 eP     51 19.50   0.3
        1.5s   420.00nm          6.2mb
TIA     74.89 318 eP     51 24.20   0.0
        2.0s   530.00nm          6.2mb
SNY     74.93 326 iPc    51 26.10   1.8
        1.9s   430.00nm          6.1mb
CN2     75.40 328 Pd     51 26.40  -0.6
        1.2s   240.00nm          6.1mb
     N  14s      3.86um
     E  14s      5.98um
                  epP    51 36.00  31kmX
NNT     76.20 289 eP     51 34.30   2.3X
BJI     77.88 321 eP     51 41.50   0.6
        1.4s   160.00nm          5.9mb
     Z  20s      8.46um          6.1Msz
     N  17s      7.26um
                  S      01 36.00
MAW     77.96 202 iPd    51 40.80  -0.1
        1.0s   157.10nm          6.0mb
     Z  17s     21.48um          6.5MszX
                  iS     01 25.70
BDT     78.78 293 eP     51 45.50  -0.7
        1.0s    96.60nm          5.8mb
TIY     78.78 317 eP     51 47.00   1.0
XAN     79.04 312 P      51 47.20  -0.3
        1.4s   220.00nm          6.0mb
KMI     79.16 302 Pd     51 49.00   0.4
        1.5s   970.00nm          6.6mb
SDN     79.16  17 eP     51 46.21  -1.4
        1.5s   253.38nm          6.0mb
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HHC     81.17 319 P      51 58.80   0.0
        1.4s    49.00nm          5.3mb
BTO     81.98 318 eP     52 04.60   1.6
KDC     83.54  19 eP     52 10.39  -0.1
        1.8s   713.82nm          6.5mb
LZH     83.66 312 Pc     52 13.00   1.2
        2.0s   580.00nm          6.4mb
     Z  20s     19.90um          6.5Msz
     E  16s     12.40um
                  pP     52 26.50  46kmX
                  eS     02 36.00
SYO     84.40 196 ePc    52 11.50  -3.3X
                  eSKS   02 38.00
                  eS     05 11.00
SVW     85.45  16 eP     52 20.12   0.0
        2.0s   960.54nm          6.7mb
STAN    85.68  48 eP     52 23.44   1.8
        2.2s  1440.00nm          6.8mb
NTYM    85.82  47 eP     52 18.51  -3.8X
KMPM    85.85  44 iPc    52 24.62   2.0
BKS     85.86  47 ePc    52 24.36   1.8
        1.7s   540.00nm          6.5mb
SAO     85.88  49 eP     52 23.43   0.7
        2.6s   890.00nm          6.5mb
COE     85.96  48 eP     52 23.96   0.9
MHC     86.02  48 eP     52 24.29   0.7
        3.5s  2750.00nm          6.9mb X
ARN     86.10  48 ePc    52 23.54  -0.3
BCH     86.11  51 eP     52 24.70   0.6
FHC     86.14  44 eP     52 25.76   1.8
        1.3s   288.79nm          6.3mb
PHAM    86.19  50 (P)    52 26.14   1.9
ANM     86.43  10 eP     52 24.95   0.1
SLKM    86.47  19 eP     52 23.32  -1.8
CP2     86.50  17 eP     52 23.81  -1.7
CRP     86.52  17 eP     52 25.16  -0.4
ABL     86.59  51 eP     52 27.55   1.0
WDC     86.98  45 eP     52 28.60   0.6
        2.4s  1100.00nm          6.7mb
ORV     87.18  46 eP     52 30.34   1.3
        2.0s   670.00nm          6.5mb
CMB     87.22  48 P      52 27.50  -1.8
        1.8s   218.51nm          6.1mb
     Z  20s     24.17um          6.6Msz
SSK     87.43  52 eP     52 30.87   0.3
YBH     87.43  44 eP     52 29.16  -1.1
        2.5s  1060.00nm          6.6mb
MIN     87.49  45 eP     52 31.50   0.8
        2.5s   710.00nm          6.5mb
ISA     87.50  51 P      52 30.80   0.1
        1.2s    83.85nm          5.9mb
     Z  19s     21.38um          6.6Msz
LMEM    87.60  45 eP     52 31.33   0.1
PMR     87.65  18 eP     52 29.24  -1.5
        1.7s   383.77nm          6.4mb
     Z  18s      8.96um          6.2Msz
PLM     87.68  53 eP     52 31.80   0.0
PEC     87.69  53 P      52 30.80  -0.8
        2.7s   917.16nm          6.6mb
YAK     87.74 342 iPc    52 32.00   0.8
        2.0s   560.00nm          6.5mb
DBO     87.78  42 P      52 31.92   0.0
LBFM    87.78  44 eP     52 32.28   0.2
MMPM    87.98  49 eP     52 34.63   1.3
GTA     88.06 313 eP     52 33.50   0.1
        1.8s   200.00nm          6.1mb
     Z  20s     32.20um          6.7Msz
     N  16s      8.87um
                  pP     52 40.80  23kmX
MEMM    88.07  49 eP     52 33.74   0.5
NVL     88.19 187 iPc    52 31.00  -2.4
        1.6s   295.00nm          6.3mb
                  e      03 17.00
MTUM    88.19  49 eP     52 35.70   1.5
KLU     88.56  20 eP     52 34.22  -1.0
GSC     88.56  52 eP     52 35.45  -0.4
BONR    88.65  49 eP     52 35.82  -0.7
KMOR    88.89  40 P      52 37.00  -0.2
GLA     89.10  54 eP     52 39.34   0.9
SSOR    89.13  41 P      52 36.86  -1.5
KVN     89.28  48 P      52 39.30   0.0
SIT     89.34  27 P      52 50.00  11.1X
     Z  21s     13.42um          6.3Msz
BALM    89.39  21 eP     52 37.97  -1.3
BMW     89.47  39 eP     52 39.89   0.0
TNP     89.47  49 eP     52 39.54  -0.7
        1.3s    90.00nm          5.9mb
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29d 08h

TPNV 89.68 50 eP 52 42.16 1.0
0.7s 19.11nm 5.5mb
Z 18s 19.59um 6.6Msz
VBEM 89.77 41 P 52 41.13 -0.3
SHW 89.93 40 eP 52 43.88 1.8
STW 90.06 38 P 52 41.87 -0.6
IMA 90.10 14 P 52 40.00 -2.5
2.1s 187.34nm 6.0mb
CROR 90.11 42 P 52 42.90 0.0
VIPM 90.11 42 P 52 42.97 -0.1
BOD 90.21 334 eP 52 38.30 -4.6X
1.5s 196.00nm 6.2mb
GMW 90.27 39 eP 52 43.52 0.0
ASR 90.30 40 P 52 43.03 -0.8
LON 90.46 40 P 52 43.90 -0.5
VGB 90.49 41 P 52 45.90 1.3
FBA 90.62 17 eP 52 42.71 -2.0
1.0s 60.67nm 5.9mb
FMW 90.63 40 P 52 45.27 -0.1
MCW 90.80 38 P 52 43.90 -2.0
RMW 90.80 39 P 52 45.90 -0.1
JCW 91.09 38 P 52 47.80 0.5
ZAK 91.24 324 eP 52 48.50 0.7
1.7s 193.00nm 6.2mb
EBG 91.28 40 P 52 48.15 -0.1
IRK 91.65 326 ePc• 52 49.50 -0.2
1.2s 90.00nm 6.1mb
TUC 91.93 56 P 53 00.00 8.4X
Z 18s 14.16um 6.4Msz
WTV 92.02 39 P 52 51.07 -0.5
ARUT 92.06 50 eP 52 52.64 0.5
SAW 92.35 40 P 52 52.31 -0.8
DPW 93.15 40 eP 52 57.15 0.3
MSU 93.26 50 eP 52 57.85 0.1
DUG 93.47 48 P 53 10.00 11.5X
Z 21s 22.54um 6.6Msz
BRW 93.92 10 eP 53 00.47 0.7
GUN 94.07 298 PKP 53 01.60 -0.2
HVU 94.11 47 eP 53 02.12 0.6
PKI 94.34 298 PKP 53 01.80 -1.3
KKN 94.52 298 PKP 53 03.80 0.0
DMN 94.61 298 PKP 53 03.80 -0.4
SRU 94.68 50 eP 53 04.79 0.6
PTI 94.81 46 eP 53 06.14 1.4
GKN 95.13 298 PKP 53 05.20 -1.3
PV09 95.47 51 ePc 53 08.91 0.9
PV10 95.50 51 eP 53 08.39 0.3
TIK 95.58 348 eP 53 07.00 -0.4
1.4s 22.00nm 5.4mb
e 56 54.00
PV08 95.86 51 eP 53 10.82 1.0
LRM 95.90 43 eP 53 10.30 0.6
GBA 96.78 282 Pd 53 19.00 5.0X
HYB 96.98 286 eP 53 15.00 0.1
WMQ 98.14 314 P 53 21.00 1.3
1.5s 64.00nm 5.9mb
GLD 98.76 51 eP 53 22.15 -0.5
2.0s 58.29nm 5.8mb
RSSD 100.94 47 ePdiff53 31.40 -1.2X
1.7s 27.56nm 5.5mb
YKA 101.06 27 ePdiff53 30.30 -2.1
1.2s 10.90nm 5.3mb
POO 101.58 286 ePdiff53 36.40 0.6
MBC 104.82 14 Pdiff 53 50.30 1.5
UYO 105.50 59 iPKPc 58 11.90 5.5X
OXF 109.65 59 PKP 58 20.00 5.8X
Z 18s 5.05um 6.1Msz
LPB 112.49 118 PKP 58 16.00 -4.6X
MYNC 114.03 60 PKP 58 30.00 7.3X
Z 19s 17.97um 6.7Msz
GOGA 114.33 62 PKP 58 30.00 6.7X
Z 20s 17.35um 6.7Msz
MAIO 117.69 301 ePKP 58 31.00 1.3
ARU 118.17 324 (PKP) 58 29.35 -0.4
CEH 118.21 59 PKP 58 40.00 9.5X
Z 20s 15.41um 6.6Msz
YSNY 119.00 52 PKP 58 40.00 8.1X
Z 20s 28.93um 6.9Msz
SDV 120.66 91 ePKP 58 34.20 -1.9
RSTA 121.68 138 (PKP) 58 38.00 0.5
TOV 121.72 91 ePKP 58 36.00 -1.9
RSNY 121.89 49 ePKP 58 37.18 -0.1
GMTN 122.26 54 ePKP 58 39.40 1.3
DAG 123.02 2 ePKP 58 36.00 -2.5
1.2s 62.50nm
SDF 127.25 343 ePKP 58 48.00 1.1
TRO 127.31 348 iPKP 58 48.00 1.0
BAO 128.65 131 ePKP 58 51.00 -0.3
i 58 58.00
BDF 128.69 131 ePKP 58 49.30 -2.1
1.2s 0.55nm
i 58 51.90
e 58 58.50
i 59 09.50
KIV 130.20 311 ePKP 58 54.23 0.8
OBN 130.43 327 ePKP 58 53.20 -0.1
1.9s 387.40nm
Z 21s 8359.20um 9.4MszX
e 59 19.50
e 59 34.20
ePP 01 08.30
ePKS 02 16.90
(SKS) 05 36.80
KAF 130.97 338 iPKP 58 53.20 -0.9
1.7s 144.80nm
PAG 130.98 86 ePKP 58 56.00 0.4
DEG 131.62 86 ePKP 58 56.50 -0.3
NUR 132.65 337 ePKP 58 57.10 -0.3
0.9s 28.90nm
NB2 136.32 345 PKP 58 57.10 -7.3X
1.2s 31.70nm
SOB1 138.07 131 ePKP 58 58.20 -10.9X
CFR 139.66 317 ePKP 59 08.50 -2.5
VRI 140.25 319 ePKP 59 06.00 -6.1X
e 25 30.00
MLR 140.91 319 ePKPc 59 12.00 -1.5
e 25 32.00
UZH 141.34 325 iPKPc 59 11.20 -2.7X
1.0s 105.00nm
i 01 50.50
SPC 142.07 327 iPKP 59 12.70 -2.8X
KSP 142.82 332 ePKP 59 07.00 -9.5X
1.4s 99.00nm
e 59 12.00
i 59 15.00
e 01 48.00
e 02 30.90
KDZ 142.98 314 iPKP 59 13.00 -4.0X
PLD 143.26 315 iPKP 59 14.00 -3.5X
PRK 143.31 310 ePKP 59 13.50 -4.1X
RZN 143.44 314 iPKP 59 14.00 -4.1X
EDI 143.74 353 ePKP 59 23.80 6.0X
BUD 143.78 326 e(PKP)59 15.00 -3.2X
BRG 143.79 334 iPKP 59 14.40 -3.7X
1.5s 380.00nm
i 01 52.30
i 05 44.80
CLL 143.84 335 iPKP 59 14.30 -3.9X
1.8s 410.00nm
i 59 41.90
SRO 143.94 327 iPKP 59 15.70 -2.7X
i 02 53.00
VTS 144.03 316 iPKP 59 15.00 -4.0X
MMB 144.14 314 iPKP 59 15.00 -4.1X
PRU 144.21 333 PKP 59 16.30 -2.5
1.5s 490.00nm
ESK 144.34 353 ePKP 59 18.50 -0.4
1.5s 250.00nm
UZD 144.57 325 iPKP 59 17.60 -2.0
VKA 144.63 329 iPKPc 59 18.40 -1.2
WIT 144.74 342 ePKP 59 19.00 -0.6
MOX 144.90 336 ePKP 59 17.90 -2.1
1.6s 696.00nm
VAY 145.04 315 iPKP 59 19.70 -0.8
1.3s 580.00nm
HOF 145.06 335 ePKP 59 19.10 -1.2
NPS 145.07 303 ePKP 59 19.50 -1.3
KHC 145.27 332 ePKP 59 19.70 -1.0
1.2s 410.00nm
WTS 145.42 341 iPKPc 59 20.30 -0.5
1.3s 428.60nm
GEC2 145.43 332 PKP 59 19.20 -1.9
0.9s 48.50nm
e 59 24.00
SKO 145.47 316 iPKPc 59 21.10 -0.2
1.8s 2430.00nm
WIM 145.65 354 ePKP 59 20.50 -0.7
DBN 145.79 343 ePKP 59 25.00 3.6X
KMR 145.81 331 iPKP- 59 22.00 0.3
GRF 145.81 335 ePKPc 59 21.80 0.2
IVA 145.99 319 iPKPc 59 22.24 0.0
PLE 146.04 320 iPKPc 59 22.00 -0.3
KZN 146.05 314 ePKP 59 21.00 -1.4
PVY 146.09 318 iPKPc 59 22.30 -0.2
VAM 146.14 304 ePKP 59 22.50 -0.1
BCI 146.15 318 ePKP 59 22.10 -0.3
BNS 146.20 340 iPKPc 59 22.60 0.4
OHR 146.32 316 iPKP 59 21.70 -1.1
1.5s 980.00nm
WME 146.35 354 ePKP 59 20.80 -1.5
YRC 146.52 354 ePKP 59 21.90 -0.7
KBN 146.56 315 ePKP 59 21.50 -1.7
NKY 146.57 319 iPKPc 59 23.01 -0.2
TTG 146.62 319 iPKPc 59 23.71 0.6
BHG 146.63 331 iPKPc 59 23.00 0.0
DCN 146.63 357 iPKPc 59 23.40 0.6
1.4s 1401.00nm
DLF 146.64 356 iPKPc 59 25.50 2.7X
1.5s 855.00nm
VLI 146.67 307 ePKP 59 23.00 -0.4
SDA 146.67 318 iPKPd 59 35.00 11.8X
LACI 146.76 317 ePKP 59 25.00 1.7
ENN 146.76 341 ePKP 59 24.00 0.9
1.1s 203.90nm
BRY 146.80 320 iPKPc 59 24.29 0.7
TIR 146.81 317 ePKP 59 22.20 -1.3
ULC 146.88 318 iPKPc 59 24.39 0.8
KBA 146.89 330 iPKPc 59 24.30 0.6
i 59 26.70
LSK 146.91 314 iPKPc 59 23.50 -0.3
YRH 146.94 354 ePKP 59 25.30 2.0
BDV 146.97 319 iPKPc 59 24.51 0.8
FUR 146.99 333 iPKPd 59 24.90 1.3
e 59 52.40
LJU 147.04 328 ePKPc 59 22.20 -1.5
HCY 147.08 319 iPKPc 59 24.88 1.0
UCC 147.19 343 PKP+ 59 28.00 4.3X
HCG 147.34 353 ePKP 59 23.70 -0.3
VOY 147.37 328 ePKP 59 24.60 0.2
SRN 147.44 314 ePKP 59 21.30 -3.2X
SNF 147.47 343 iPKPc 59 25.24 1.1
HAE 147.47 351 ePKP 59 25.80 1.6
VLO 147.49 315 ePKP 59 30.10 5.5X
WATA 147.50 332 iPKPc 59 25.10 0.5
i 59 28.80
WTTA 147.53 332 iPKPc 59 24.10 -0.6
i 59 26.00
RIY 147.60 327 iPKP 59 25.50 0.9
WLF 147.66 340 iPKPd 59 26.73 2.2
KEK 147.66 314 ePKP 59 26.00 1.1
TRI 147.66 328 ePKPc 59 26.30 1.6
MOTA 147.70 333 (PKP) 59 26.70 1.8
i 59 29.20
ECP 147.74 356 ePKP 59 25.60 1.1
SQTA 147.75 332 iPKPc 59 24.90 -0.1
i 59 26.90
i 59 30.00
VLS 147.81 311 ePKP 59 27.00 1.8
HVAR 147.88 322 ePKP 59 26.30 1.2
OGA 148.10 332 ePKP 59 25.20 -0.4
CDF 148.35 338 ePKP 59 25.90 0.1
BSF 149.02 338 ePKP 59 27.00 0.1
HAU 149.03 338 ePKP 59 27.30 0.5
FIR 150.29 328 ePKP 59 30.00 1.2
LDF 150.34 346 ePKP 59 33.64 4.9X
ORX 150.38 334 PKP 59 28.88 -0.2
LOR 150.49 340 ePKP 59 29.70 0.6
1.6s 69.05nm
GRR 150.69 347 ePKP 59 34.66 5.4X
LBF 150.71 340 ePKP 59 30.00 0.6
1.9s 109.70nm
SSF 150.79 341 ePKP 59 30.40 0.9
1.0s 29.60nm
LSD 150.86 335 PKP 59 31.08 1.1
HYF 150.86 342 ePKP 59 35.57 6.0X
LPL 150.98 335 ePKP 59 30.80 0.7
LPG 150.99 335 ePKP 59 31.10 0.9
PCP 151.00 332 PKP 59 29.34 -0.6
SMF 151.05 340 ePKP 59 35.46 5.6X
RSP 151.07 334 PKP 59 29.93 -0.2
LPF 151.07 347 ePKP 59 30.70 0.9
1.6s 148.00nm
AVF 151.08 341 ePKP 59 30.30 0.4
BHB 151.31 334 PKP 59 30.89 0.5
FIN 151.41 332 PKP 59 29.48 -1.1
BGF 151.44 341 ePKP 59 31.20 0.7
RRL 151.45 334 PKP 59 30.99 0.1
ROB 151.49 332 PKP 59 29.98 -0.7
PZZ 151.66 333 PKP 59 32.68 1.6
ENR 151.74 333 PKP 59 30.44 -0.7
STV 151.77 333 PKP 59 32.63 1.5

IMI 151.79 332 PKP 59 30.39 -0.8
MAF 151.83 341 ePKP 59 37.45 6.4X
TCF 151.88 342 ePKP 59 31.90 0.7
1.8s 158.80nm
SBF 152.03 332 ePKP 59 31.70 0.2
LSF 152.11 343 ePKP 59 32.00 0.5
1.9s 136.90nm
MFF 152.22 345 ePKP 59 40.31 8.7X
PGF 152.32 329 ePKP 59 32.30 0.3
LRG 152.82 333 ePKP 59 39.61 7.1X
RJF 152.97 342 ePKP 59 33.70 1.0
1.9s 206.35nm
CAF 153.15 341 ePKP 59 34.30 1.3
1.8s 113.05nm
LFF 153.53 342 ePKP 59 41.21 7.7X
LPO 153.64 342 ePKP 59 41.55 7.9X
PAB 159.88 347 ePKP 59 43.00 1.3
KIC 165.47 202 e(PKP)59 48.80 1.1
AVE 166.52 350 ePKP 59 49.00 1.0
i 00 55.30
TIO 168.80 347 i(PKP)59 52.00 2.1
S.D. = 1.1 on 286 of 342 obs.

DEC 29, 1993 08h 42m 20.70± 0.25s
19.983 S ± 8.3km 169.756 E ± 7.0km
DEPTH = 33.0km (normal)
5.8mb (36 obs.)
VANUATU ISLANDS (186)

ARMA 19.39 234 eP 46 50.00 2.9X
1.2s 613.00nm 5.7mb
RIV 21.52 226 eP 47 14.00 5.0X
SNZO 21.67 170 P 47 11.00 0.6
CNB 23.58 225 eP 47 29.70 0.3
1.3s 408.00nm 5.8mb
BWA 23.74 228 eP 47 29.90 -1.1
ipP 47 41.10 43kmX
CAN 23.83 226 eP 47 31.10 -0.7
ipP 47 39.50 30kmX
PMG 24.22 292 eP 47 36.00 0.3
TOO 27.43 225 eP 48 06.90 1.4
0.9s 200.00nm 5.8mb
STK 27.88 239 eP 48 11.30 1.7
0.3s 30.00nm 5.5mb
WB2 33.24 264 eP 48 58.40 1.2
0.7s 62.50nm 5.6mb
WRA 33.25 264 P 49 18.00 20.7X
ASPA 33.43 257 iPc 48 56.90 -1.9
0.8s 158.90nm 6.0mb
MCQ 35.43 191 eP 49 16.50 1.0
WARB 40.00 253 eP 49 56.00 1.7
GUMO 41.38 322 eP 50 06.19 0.6
1.3s 716.20nm 6.2mb
COOL 44.92 246 eP 50 35.50 1.1
KLB 47.83 245 eP 50 57.50 0.1
NWAO 48.31 243 eP 50 59.20 -1.9
RKG 48.57 241 eP 51 03.50 0.5
MUN 49.16 245 eP 51 08.50 0.9
MRWA 49.38 248 eP 51 10.50 1.2
MKS 51.01 280 iPc 51 15.50 -6.4X
DHH 51.84 40 (P) 51 24.83 -3.2X
OPA 52.04 39 (P) 51 25.41 -4.1X
MHA 52.20 42 eP 51 27.04 -3.7X
CSY 59.65 204 eP 52 17.70 -6.0X
1.2s 19.30nm 5.1mb
KAKJ 62.50 333 eP 52 47.80 4.5X
CHJJ 62.87 332 eP 52 49.50 3.7X
IIDJ 62.88 331 eP 52 50.10 4.2X
TPI 62.88 277 eP 52 45.50 -0.8
e 54 00.00
KAGJ 63.09 323 eP 52 52.40 5.1X
MAJO 63.63 332 eP 52 50.92 0.1
1.1s 63.94nm 5.6mb
MAT 63.63 332 eP 52 50.00 -0.8
1.3s 48.08nm 5.4mb
TSRJ 63.83 330 eP 52 57.50 5.4X
MTMJ 63.85 332 eP 52 54.30 2.0
NIIJ 63.87 333 eP 52 56.20 3.9X
KUMJ 64.14 324 eP 52 58.50 4.3X
SHNJ 65.19 325 eP 53 05.50 4.6X
HOOJ 66.69 339 eP 53 13.70 3.3X
KUSJ 66.87 340 eP 53 11.20 -0.3
MRRJ 67.51 337 eP 53 18.40 2.8X
ASAJ 68.45 339 eP 53 22.20 0.7
HKC 68.65 305 iP 53 29.90 6.8X
KGM 68.66 280 eP 53 23.10 -0.3
YSS 71.01 341 eP 53 41.70 4.7X

e 53 58.00
NJ2 71.08 316 eP 53 37.00 -0.8
SKR 71.36 351 eP 53 41.50 2.4
1.2s 400.00nm 6.3mb
IPM 71.75 282 ePc 53 40.50 -1.7
0.8s 29.20nm 5.3mb
ADK 72.53 9 eP 53 43.05 -3.0X
1.4s 92.33nm 5.6mb
PET 73.33 353 eP 53 50.00 -0.6
1.5s 180.00nm 5.8mb
MDJ 74.01 331 eP 54 00.40 5.6X
1.5s 220.00nm 5.9mb
TIA 74.82 318 Pc 54 04.30 4.6X
SNY 74.87 326 Pc 54 04.10 4.3X
CN2 75.34 328 eP 54 00.50 -2.0
1.2s 95.00nm 5.7mb
NNT 76.11 289 eP 54 12.60 5.2X
GYA 76.64 305 P 54 16.40 6.0X
1.0s 29.00nm 5.3mb
BJI 77.82 321 eP 54 21.00 4.6X
1.8s 170.00nm 5.8mb
MAW 77.93 202 eP 54 15.00 -1.6
1.0s 113.33nm 5.9mb
BDT 78.69 293 eP 54 22.00 0.4
1.0s 75.90nm 5.7mb
TIY 78.71 317 eP 54 22.00 0.5
XAN 78.97 312 P 54 27.20 4.2X
1.0s 58.00nm 5.5mb
pP 54 34.30 23kmX
KMI 79.08 302 eP 54 26.00 2.0
1.5s 470.00nm 6.3mb
CHTO 79.40 294 iPc 54 24.80 -0.8
1.5s 194.26nm 5.9mb
HHC 81.10 319 P 54 36.00 1.7
1.4s 39.00nm 5.2mb
KDC 83.57 19 eP 54 44.49 -2.0
1.4s 190.23nm 6.0mb
LZH 83.58 312 P 54 51.00 3.7X
2.0s 300.00nm 6.1mb
Z 18s 7.30um 6.1Msz
E 15s 4.84um
SVW 85.47 16 eP 54 53.34 -2.8X
1.7s 377.30nm 6.3mb
NTYM 85.88 47 eP 55 00.32 1.8
KMPM 85.91 44 eP 55 01.09 2.3
SAO 85.95 49 eP 54 58.57 -0.4
1.0s 47.84nm 5.7mb
COE 86.02 48 eP 55 01.26 2.0
ARN 86.16 48 eP 54 59.70 -0.3
BCH 86.18 51 eP 54 59.84 -0.4
ANM 86.44 10 eP 55 01.72 1.0
SLKM 86.49 19 eP 54 59.52 -1.6
CP2 86.52 17 eP 54 59.64 -1.8
ABL 86.66 51 eP 55 02.23 -0.5
ORV 87.24 46 eP 55 04.52 -0.7
SSK 87.50 52 eP 55 08.11 1.3
LMEM 87.66 45 eP 55 09.59 2.2
PMR 87.68 18 eP 55 07.71 1.0
1.4s 107.16nm 5.9mb
PLM 87.75 53 eP 55 06.82 -1.2
PEC 87.76 53 eP 55 06.07 -1.8
1.9s 242.13nm 6.2mb
LBFM 87.84 44 eP 55 08.05 -0.2
MMPM 88.05 49 eP 55 11.47 1.9
MEMM 88.14 49 eP 55 12.38 2.9X
NVL 88.19 187 eP 55 08.00 -1.2
1.4s 160.00nm 6.1mb
e 05 54.00
MTUM 88.26 49 eP 55 12.41 2.0
KLU 88.58 20 (P) 55 09.35 -1.9
GSC 88.63 52 eP 55 14.21 2.1
BONR 88.72 49 eP 55 11.69 -1.0
GLA 89.17 54 P 55 14.10 -0.5
KVN 89.35 48 eP 55 15.41 -0.1
BALM 89.42 21 eP 55 14.05 -1.2
BMW 89.52 40 P 55 14.10 -1.9
TNP 89.54 49 eP 55 14.97 -1.5
TPNV 89.75 50 eP 55 15.90 -1.5
0.8s 24.19nm 5.5mb
SHW 89.98 40 eP 55 20.43 2.2
IMA 90.11 14 eP 55 16.80 -1.6
1.3s 23.03nm 5.3mb
BOD 90.16 334 eP 55 12.90 -5.7X
1.6s 94.00nm 5.8mb
GMW 90.32 39 eP 55 19.34 -0.3
LON 90.51 40 eP 55 21.56 1.0
VGB 90.55 41 eP 55 21.82 1.1

FBA 90.64 17 eP 55 17.39 -3.3X
0.8s 31.02nm 5.7mb
MCW 90.86 38 eP 55 20.86 -1.2
RMW 90.86 39 eP 55 20.96 -1.2
ZAK 91.18 324 iPd 55 23.80 0.4
1.8s 150.00nm 6.1mb
ARUT 92.13 51 eP 55 27.99 -0.4
MSU 93.33 50 eP 55 33.88 -0.1
BRW 93.93 10 eP 55 36.61 0.9
SRU 94.75 50 eP 55 40.22 -0.2
PTI 94.88 46 (P) 55 42.71 1.8
PV09 95.54 51 eP 55 45.01 0.8
PV10 95.57 51 eP 55 44.88 0.6
PV08 95.92 51 eP 55 47.70 1.7
GBA 96.69 282 P 55 52.00 2.6
HYB 96.89 286 eP 55 48.50 -1.8
GLD 98.83 51 (P) 56 02.89 4.0X
RSSD 101.00 47 (Pdiff56 08.90 0.2
CER 119.93 208 ePdiff57 30.00 -3.0X
0.5s 8.11nm
SUR 120.05 210 iPdiff57 50.00 16.3X
1.0s 40.00nm
BAO 128.72 131 ePKP 01 27.10 -0.2
i 01 34.50
i 01 42.40
KONO 137.90 345 ePdiff58 33.39 -18.8X
PGB 143.35 316 iPKP 01 49.00 -4.6X
RZN 143.36 314 iPKP 01 50.00 -3.8X
CLL 143.79 335 iPKP 01 50.00 -3.9X
1.6s 68.00nm
i 01 55.00
VTS 143.96 316 iPKP 01 50.00 -4.7X
MMB 144.07 314 iPKP 01 50.00 -4.8X
PRU 144.16 332 PKP 01 53.10 -1.5
1.2s 117.00nm
SRS 144.37 314 ePKP 01 50.36 -4.9X
KKB 144.38 315 iPKP 01 51.00 -4.3X
OUR 144.44 312 ePKP 01 50.16 -5.2X
VKA 144.57 329 iPKPc 01 56.50 1.1
SOH 144.66 313 ePKP 01 53.08 -2.8
WIT 144.70 342 ePKP 01 59.00 3.6X
PAIG 144.82 312 ePKP 01 48.88 -7.2X
KNT 144.82 314 ePKP 01 53.04 -3.0X
VAY 144.97 315 iPKP 01 55.40 -0.9
1.3s 230.00nm
KHC 145.22 332 ePKP 01 54.00 -2.5X
1.1s 125.00nm
GRG 145.25 314 ePKP 01 53.08 -3.8X
GEC2 145.37 332 PKP 01 54.30 -2.6X
0.8s 12.11nm
e 01 57.10
e 02 00.00
e 10 09.00
WTS 145.38 341 ePKP 01 56.00 -0.6
1.2s 156.80nm
SKO 145.40 316 iPKP 01 55.00 -2.0
1.7s 850.00nm
i 01 57.50
i 02 16.80
LIT 145.57 313 ePKP 01 54.32 -3.1X
WIM 145.63 354 ePKP 01 54.70 -2.3
DBN 145.76 343 ePKP 02 02.00 4.8X
GRF 145.77 335 ePKP 01 56.00 -1.4
e 01 58.80
IVA 145.92 319 iPKPc 01 58.21 0.2
PLE 145.98 320 iPKPc 01 56.91 -1.2
FNA 146.02 315 ePKP 01 57.32 -0.9
PVY 146.02 318 iPKPc 01 57.36 -0.8
AGG 146.14 311 ePKP 01 56.16 -2.2
BNS 146.17 340 ePKPc 01 55.70 -2.3
OHR 146.24 315 iPKP 01 57.00 -1.5
1.5s 450.00nm
NKY 146.50 319 iPKPc 01 57.76 -1.2
YRC 146.51 354 ePKP 01 57.20 -1.2
TTG 146.55 319 iPKPc 01 57.77 -1.1
DCN 146.62 357 ePKP 01 59.60 1.0
0.8s 174.00nm
DLF 146.62 356 ePKP 01 59.50 0.9
ENN 146.73 341 ePKP 02 02.00 3.1X
1.1s 117.10nm
BRY 146.73 320 iPKPc 01 55.91 -3.4X
ULC 146.81 318 iPKPc 01 58.47 -0.9
KBA 146.83 330 iPKPc 02 01.50 2.1
i 02 06.60
BDV 146.90 319 iPKPc 01 57.77 -1.7
YRH 146.92 354 ePKP 01 58.90 -0.2
FUR 146.94 333 iPKPc 02 03.20 3.8X

29d 09h

LJU 146.99 328 iPKP 02 01.50 2.0
LJU 146.99 328 i(PKP)02 02.80 3.3X
i 02 06.50
HCY 147.01 319 iPKPc 01 58.20 -1.4
UCC 147.15 343 PKP+ 02 04.00 4.5X
IGT 147.31 313 iPKP 02 01.24 1.0
VOY 147.32 328 ePKP 02 01.50 1.4
i 02 04.10
SNF 147.43 343 iPKPc 02 02.81 2.8X
WATA 147.45 332 iPKPc 02 00.10 -0.3
i 02 05.10
i 02 07.80
WTTA 147.48 332 iPKPc 02 00.50 0.0
i 02 05.20
i 02 08.00
WLF 147.62 340 iPKPc 02 01.58 1.3
LANF 147.64 338 PKP 02 00.90 0.4
MOTA 147.65 332 iPKPc 02 00.80 0.1
i 02 13.50
SQTA 147.70 332 iPKPc 02 01.10 0.4
i 02 13.90
ECP 147.72 356 ePKP 02 00.80 0.4
HVAR 147.81 322 iPKP 02 03.30 2.4
OGA 148.05 332 iPKPc 02 05.20 3.8X
WLS 148.28 337 PKP 02 02.87 1.3
CDF 148.31 338 PKP 02 02.33 0.7
FEL 148.49 336 PKP 02 03.97 2.0
MOF 148.83 337 PKP 02 04.30 1.8
BSF 148.97 337 PKP 02 04.63 1.9
LOMF 149.37 337 PKP 02 03.75 0.4
S.D. = 1.4 on 128 of 188 obs.

% DEC 29, 1993 08h 46m 17.15± 1.22s
39.999 N ± 8.0km 20.520 E ±14.2km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
ML 2.6 (THE).

IGT 0.49 197 ePg 46 26.68 -0.4
eSg 46 36.20
FNA 1.02 40 ePb 46 35.36 -1.1
eSb 46 52.32
OHR 1.13 11 iPn 46 39.50 1.1
LIT 1.52 86 ePn 46 45.24 0.9
AGG 1.71 124 ePn 46 47.64 0.5
eSn 47 13.72
GRG 1.72 56 ePn 46 46.32 -1.1
S.D. = 1.3 on 6 of 6 obs.

DEC 29, 1993 09h 27m 48.82± 0.69s
40.443 N ± 5.7km 21.871 E ± 5.8km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

FNA 0.51 312 iPg 27 58.88 -0.1
eSg 28 05.88
LIT 0.58 126 ePg 28 00.48 0.0
eSg 28 08.92
GRG 0.65 38 ePg 28 01.32 -0.6
VAY 1.02 31 eP 28 10.00 1.4
OHR 1.05 310 iP 28 09.00 -0.2
KNT 1.06 47 iPg 28 08.72 -0.5
AGG 1.46 166 ePb 28 16.16 0.2
PAIG 1.48 110 ePb 28 15.88 -0.2
S.D. = 0.7 on 8 of 8 obs.

% DEC 29, 1993 09h 33m 41.14± 2.89s
40.185 N ±25.0km 25.638 E ±17.2km
DEPTH = 5.0km (geophysicist)
AEGEAN SEA (365)
ML 2.7 (THE).

ALN 0.78 23 iPg 33 56.58 -0.1
eSg 34 06.36
OUR 1.28 277 ePb 34 04.63 -0.6
eSb 34 22.54
PAIG 1.52 261 iPb 34 09.10 0.0
SRS 1.81 302 iPb 34 13.22 0.0
eSb 34 36.58
SOH 1.85 291 iPb 34 14.56 0.7
KNT 2.30 296 ePn 34 20.16 -0.2
GRG 2.58 288 ePn 34 24.58 0.2
S.D. = 0.5 on 7 of 7 obs.

& DEC 29, 1993 09h 34m 38.24s
64.419 N 146.901 W
DEPTH = 9.6km
3.9mb (3 obs.)
CENTRAL ALASKA (1)
<AEIC>. ML 4.5 (AEIC), 4.8
(PMR). Slight damage (VI) at
Salcha. Felt (V) at North Pole
and in the Fairbanks area.

HDA 0.03 240 iPc 34 39.80 -0.4
IL1 0.35 1 ePd 34 45.06 -0.5
ILB 0.35 1 eP 34 45.29 -0.2
CCB 0.45 301 iPc 34 47.04 -0.4
WRH 0.52 276 iPc 34 48.36 -0.4
GLM 0.61 340 iPd 34 49.87 -0.7
FBA 0.62 322 iPd 34 49.62 -1.1
DJE 0.66 126 iPc 34 50.63 -0.8
DDM 0.78 144 iPd 34 53.39 -0.2
MDM 0.79 314 ePd 34 53.22 -0.4
NEA 0.96 281 iPc 34 56.19 -0.3
THY 1.13 153 ePd 34 59.29 -0.1
MCK 1.13 233 iPc 34 59.38 -0.1
BWN 1.15 259 iPc 34 58.59 -1.1
RND 1.33 221 iPc 35 03.29 0.4
eS 35 20.78
DHY 1.36 189 P 35 03.90 0.4
S 35 22.10
DOT 1.47 120 eP 35 03.77 -1.1
PAX 1.59 156 P 35 06.50 -0.1
MLY 1.76 292 iPc 35 08.04 -1.0
HUR 1.89 221 eP 35 12.33 1.4
eS 35 38.00
KTH 1.97 246 P 35 11.30 -0.9
TMW 2.05 121 eP 35 11.91 -1.3
FYU 2.27 17 ePd 35 15.80 -0.5
TOA 2.35 172 P 35 19.00 1.4
TZL 2.48 164 eP 35 20.40 1.1
CUT 2.53 218 eP 35 20.02 0.0
SCM 2.60 184 eP 35 22.23 1.0
BC3 2.65 119 eP 35 19.82 -2.0
SML 2.70 195 eP 35 23.07 0.5
GHO 2.81 200 eP 35 24.38 0.2
KLU 2.97 171 eP 35 27.45 1.0
PLRM 3.01 201 eP 35 29.24 2.4
PMR 3.01 201 eP 35 26.63 -0.3
eS 36 10.53
PWA 3.09 207 P 35 28.20 0.2
KNK 3.10 194 eP 35 29.68 1.5
BM3 3.16 16 ePd 35 27.75 -1.2
SKT 3.22 223 iPc 35 29.70 -0.2
eS 36 08.76
CFI 3.27 187 P 35 32.50 1.9
IM3 3.29 302 ePc 35 29.23 -1.6
IMA 3.30 303 eP 35 29.15 -2.0
GLB 3.31 153 P 35 30.80 -0.4
VLZ 3.31 175 eP 35 31.84 0.7
PMS 3.41 202 P 35 33.70 1.1
SUA 3.45 212 eP 35 33.25 0.1
PWL 3.63 191 eP 35 37.38 1.6
FID 3.69 177 eP 35 37.07 0.5
NCG 3.86 221 eP 35 38.76 -0.4
CGLM 3.90 219 eP 35 39.42 -0.2
CVA 3.92 172 eP 35 41.06 1.2
CRP 3.98 220 eP 35 40.83 0.1
BALM 3.99 146 eP 35 40.88 0.0
CP2 4.00 220 eP 35 41.00 -0.1
CKN 4.02 219 eP 35 42.19 1.0
SPU 4.02 218 eP 35 41.43 0.2
HIN 4.04 177 eP 35 42.63 1.1
BGL 4.04 221 eP 35 41.66 0.0
CKT 4.04 219 eP 35 42.45 0.8
MPA 4.11 197 P 35 43.90 1.5
TGL 4.13 151 eP 35 43.11 0.3
BKG 4.17 219 eP 35 44.06 0.7
NKA 4.20 210 P 35 45.20 1.5
SLKM 4.22 203 eP 35 46.17 2.1
CTGM 4.31 141 eP 35 45.08 -0.4
TTA 4.32 254 eP 35 42.45 -3.2
e 35 57.17
WAX 4.41 153 eP 35 48.78 2.0
DFR 4.68 218 eP 35 51.54 0.8
YAH 4.72 147 eP 35 52.86 1.4
NCT 4.77 219 eP 35 53.41 1.4
REF 4.77 217 eP 35 53.25 1.1
RDW 4.81 217 eP 35 53.63 1.0
RS2 4.81 217 eP 35 54.03 1.4
RSO 4.81 217 eP 35 54.20 1.5
RED 4.85 217 eP 35 54.43 1.3
BRLK 5.03 204 eP 35 56.84 1.3
ILIM 5.19 216 eP 35 58.97 1.1
SVW 5.20 234 eP 35 57.27 -0.7
eS 37 19.79
INE 5.24 216 eP 36 00.19 1.6
HOM 5.27 207 eP 36 00.77 1.8
CNPM 5.32 205 eP 36 00.69 1.0
OPT 5.63 215 eP 36 03.52 -0.6
PDB 5.77 220 eP 36 05.93 0.0
AUW 5.94 214 eP 36 09.68 1.4
CDD 6.37 213 eP 36 14.50 0.0
BRW 7.84 336 P 36 31.80 -3.1
ANM 7.97 279 eP 36 33.77 -3.1
YKA 14.48 83 eP 38 01.30 -3.6
0.6s 1.20nm 3.7mb
NEW 22.78 121 eP 39 44.00 2.3
LRM 26.58 118 eP 40 20.90 2.6
BW06 30.26 118 eP 40 53.29 1.8
MSU 33.01 125 eP 41 16.75 1.2
SRU 33.08 122 eP 41 17.25 1.1
ARUT 33.22 127 eP 41 18.40 1.1
GOL 34.52 116 eP 41 31.50 2.8
1.0s 1.75nm 3.9mb
ALQ 38.27 121 eP 42 02.00 1.7
1.0s 4.63nm 4.2mb
94 obs. associated

DEC 29, 1993 09h 45m 51.82± 0.99s
17.470 N ± 7.2km 61.941 W ± 6.6km
DEPTH = 24.2 ± 9.8 km
LEEWARD ISLANDS (92)
ML 2.3 (FDF). MD 2.7 (TRN).

CPB 0.20 33 eP 45 57.32 -0.1
eS 46 02.47
ANG 0.33 161 iP 45 59.80 0.6
eS 46 05.77
BPA 0.43 169 eP 46 00.75 -0.1
S 46 06.80
NEV 0.69 241 eP 46 06.25 1.2
eS 46 15.86
SKI 0.77 260 eP 46 05.95 -0.6
eS 46 15.90
MGH 0.79 199 eP 46 06.00 -0.8
S 46 16.50
DEG 1.43 144 eP 46 16.50 0.1
PAG 1.45 170 eP 46 16.50 -0.3
DOG 1.46 168 eP 46 17.13 0.2
S 46 35.51
MGG 1.66 159 eP 46 19.50 -0.1
S 46 39.00
S.D. = 0.7 on 10 of 10 obs.

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* DEC 29, 1993 09h 47m 56.90± 0.68s
27.517 N ± 8.9km 128.903 E ± 8.8km
DEPTH = 33.0km (normal)
4.0mb (6 obs.)
RYUKYU ISLANDS (238)

KAGJ 4.05 25 eP 48 57.50 -0.6
KUMJ 5.27 18 eP 49 17.00 1.6
SHNJ 6.85 16 eP 49 40.10 2.4X
TKSJ 7.82 33 eP 49 49.50 -1.7
NJ2 9.83 300 Pc 50 19.70 0.7
0.9s 28.00nm 5.5mb X
MAT 11.96 39 eP 50 43.00 -5.1X
BJI 16.35 323 eP 51 47.50 2.1
E 19s 3.82um
TIY 17.18 310 eP 52 01.40 5.4X
XAN 18.35 296 P 52 09.70 -0.8
0.5s 4.50nm 3.9mb
CD2 22.19 285 Pd 52 57.90 6.0X
GTA 26.89 304 eP 53 35.50 -1.3
1.0s 5.00nm 4.1mb
GUN 37.94 281 P 55 13.80 0.1
PKI 38.41 280 P 55 16.60 -1.0
GKN 39.01 281 P 55 21.40 -1.0
WRA 47.47 173 P 56 31.50 0.9
0.6s 1.30nm 4.1mb
WB2 47.47 173 eP 56 30.90 0.3
0.7s 3.90nm 4.5mb
GBA 49.81 265 P 56 49.00 0.2
YKA 77.11 25 eP 59 48.60 0.3
0.6s 0.40nm 3.6mb
GEC2 84.54 323 P 00 28.30 0.3
0.9s 0.95nm 4.0mb
e 00 33.80

S.D. = 1.2 on 15 of 19 obs.

? DEC 29, 1993 10h 01m 04.79± 1.28s
8.562 N ±35.8km 81.764 W ± 8.0km
DEPTH = 10.0km (geophysicist)
PANAMA (81)
MD 3.7 (UPA).

DVD 0.69 260 ePd 01 18.73 0.3
iS 01 28.54
BRU 0.82 287 iPc 01 20.72 -0.3
iS 01 29.92
ECO 2.20 69 ePd 01 42.85 1.0
iS 02 09.57
UPA 2.24 79 ePc 01 41.58 -0.9
eS 02 10.33
S.D. = 1.4 on 4 of 4 obs.

& DEC 29, 1993 11h 38m 14.10s
63.292 N 150.853 W
DEPTH = 12.1km
CENTRAL ALASKA (1)
<AEIC>. ML 2.7 (AEIC).

KTH 0.26 353 eP 38 19.69 -0.2
TRF 0.30 58 iP 38 19.82 -0.8
HUR 0.64 119 eP 38 27.66 1.0
RND 0.91 82 eP 38 32.71 1.4
CUT 0.93 163 eP 38 31.94 0.3
MCK 0.97 62 eP 38 33.72 1.4
eS 38 48.35
BWN 1.08 34 eP 38 35.50 1.3
SKT 1.35 194 eP 38 37.88 -0.9
eS 38 56.11
NEA 1.51 31 eP 38 42.14 1.2
DHY 1.59 96 eP 38 44.07 1.8
WRH 1.70 45 eP 38 44.95 1.2
PWA 1.71 164 P 38 44.00 0.2
MLY 1.75 2 eP 38 43.46 -1.0
GHO 1.77 149 eP 38 45.53 0.8
eS 39 08.97
SUA 1.84 178 eP 38 45.81 0.0
eS 39 10.35
PLRM 1.88 154 eP 38 46.52 0.2
PMR 1.88 154 eP 38 45.78 -0.5
SML 1.89 141 eP 38 46.81 0.3
CCB 1.91 43 eP 38 46.19 -0.6
NCG 1.99 198 eP 38 47.22 -0.8
MDM 2.03 33 eP 38 47.70 -0.8
HDA 2.06 55 eP 38 50.85 2.0
CGLM 2.06 196 eP 38 48.46 -0.6
FBA 2.10 38 eP 38 48.40 -1.1
CRP 2.12 197 eP 38 48.47 -1.5
CP2 2.14 198 eP 38 49.99 -0.2
eS 39 17.56
PMS 2.14 163 P 38 51.90 1.8
S 39 19.50
BGL 2.16 200 eP 38 50.34 -0.1
CKN 2.17 197 eP 38 50.61 0.1
CKT 2.19 197 eP 38 50.87 0.0
SPU 2.19 195 eP 38 50.19 -0.7
KNK 2.19 148 eP 38 51.88 1.0
eS 39 20.84
SCM 2.19 130 eP 38 52.18 1.3
IL1 2.29 48 eP 38 51.40 -0.9
ILB 2.29 48 eP 38 51.31 -1.0
BKG 2.33 197 eP 38 52.15 -0.7
TTA 2.37 263 eP 38 54.63 1.2
TOA 2.46 117 P 38 56.20 1.5
PWL 2.71 153 eP 38 59.22 0.9
SLKM 2.81 174 eP 39 00.73 1.1
DFR 2.85 199 eP 39 02.23 2.0
KLU 2.92 126 eP 39 03.03 1.8
IMA 3.04 338 eP 39 00.80 -2.2
BM3 4.90 29 eP 39 26.74 -2.5
44 obs. associated
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* DEC 29, 1993 11h 45m 32.44± 0.87s
20.093 S ±12.5km 169.965 E ±14.7km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
VANUATU ISLANDS (186)

BKM 2.91 326 iPd 46 17.70 0.2
iS 46 52.00
DZM 3.83 238 iPd 46 30.10 -0.5
iS 47 12.50
ARMA 19.49 235 eP 50 01.20 1.3
1.1s 17.00nm 4.2mb
WB2 33.42 264 eP 52 13.50 3.0X
0.8s 2.20nm 4.1mb
WRA 33.44 264 P 52 21.50 10.9X
1.0s 1.20nm
ASPA 33.60 257 eP 52 11.50 -0.5
0.7s 13.20nm 5.0mb
YKA 101.11 27 ePdiff59 20.70 0.5
0.8s 0.30nm 3.9mb
KHC 145.40 332 ePKP 05 08.00 -0.6
GEC2 145.56 332 PKP 05 08.70 -0.3
0.8s 2.48nm
e 05 15.00
SKO 145.62 316 ePKP 05 09.00 -0.1
e 05 15.50
S.D. = 0.8 on 8 of 10 obs.

DEC 29, 1993 12h 45m 25.38± 0.43s
39.772 N ± 5.3km 15.926 E ± 3.5km
DEPTH = 266.6 ± 5.8 km
4.4mb (37 obs.)
SOUTHERN ITALY (390)
MD 4.1 (TTG).

SRN 3.14 87 eP 46 20.10 -0.6
HCY 3.31 35 iPnd 46 22.18 -0.4
iSn 47 04.90
BDV 3.33 40 iPnd 46 22.71 -0.2
iSn 47 06.01
ULC 3.34 48 iPnd 46 22.59 -0.3
iSn 47 06.16
HVAR 3.43 6 iPd 46 22.50 -1.3
LACI 3.43 56 iPd 46 23.10 -0.8
SDA 3.54 49 iPd 46 25.00 -0.1
LSK 3.61 83 eP 46 25.00 -1.1
TTG 3.66 42 iPnd 46 26.39 -0.1
iSn 47 12.63
BRY 3.70 31 iPnd 46 26.62 -0.4
iSn 47 12.92
NKY 3.82 36 iPnd 46 28.28 -0.1
iSn 47 16.19
OHR 3.95 69 iPd 46 30.50 0.6
0.6s 320.00nm
PVY 4.16 46 iPnd 46 32.90 0.6
IVA 4.31 43 iPnd 46 34.84 0.8
PLE 4.41 35 iPnd 46 35.90 0.7
SKO 4.72 60 iPd 46 39.20 0.3
1.0s 170.00nm
VAY 5.29 71 iP 46 45.50 -0.3
0.6s 70.00nm 4.7mb
FIR 5.31 320 eP 46 47.50 1.6
RIY 5.68 349 iPc 46 50.40 -0.1
PGF 5.92 300 iPc 46 53.80 0.3
0.6s 8.85nm 3.9mb
PTJ 6.13 0 e(Pn) 46 54.10 -1.9
i(Sn) 47 44.20
TRI 6.14 346 ePc 46 56.00 -0.1
LJU 6.35 351 iPc 46 58.90 0.2
iS 48 13.50
VOY 6.43 347 iPc 47 00.00 0.2
eS 48 14.40
e 48 19.60
FIN 7.26 310 P 47 10.85 0.7
PCP 7.26 313 P 47 09.89 -0.3
IMI 7.29 307 P 47 12.41 1.9
ROB 7.51 310 P 47 14.42 1.1
SAOF 7.53 307 P 47 13.85 0.3
KBA 7.54 346 iPc 47 14.20 0.4
0.5s 29.30nm 4.6mb
i 47 24.70
SBF 7.54 306 eP 47 15.00 1.3
0.6s 26.05nm 4.4mb
TOUF 7.74 306 P 47 17.36 1.1
ENR 7.74 308 P 47 17.44 1.2
STV 7.81 308 P 47 18.22 1.1
OGA 7.94 335 iPc 47 19.20 0.4
LRG 8.05 300 iPc 47 20.40 0.3
0.6s 12.10nm 4.1mb
PZZ 8.08 309 P 47 20.32 -0.3
WTTA 8.11 339 iPc 47 22.90 2.0
0.6s 14.50nm 4.2mb
i 47 33.70
i 47 36.90
BHB 8.18 311 P 47 21.15 -0.5
SQTA 8.20 337 iPc 47 22.30 0.4
0.5s 35.50nm 4.7mb
i 47 38.80
SRO 8.22 11 iP 47 22.70 0.6
BHG 8.25 346 iPc 47 23.10 0.6
0.7s 18.00nm 4.2mb
RSP 8.36 313 P 47 22.06 -2.0
RRL 8.50 310 P 47 26.18 0.2
LSD 8.60 314 P 47 25.68 -1.6
LPG 8.85 313 eP 47 32.30 1.8
0.5s 20.05nm 4.4mb
LPL 8.88 313 eP 47 32.70 2.0
0.8s 37.75nm 4.5mb
FUR 9.03 340 iPc 47 33.20 0.8
0.7s 91.00nm 4.9mb
GEC2 9.21 351 Pn 47 34.80 0.0
0.4s 2.14nm 3.6mb
e 47 44.90
MLR 9.33 49 eP 47 40.00 3.6X
KHC 9.51 351 Pd 47 37.50 -0.9
1.1s 16.00nm 4.0mb
e 47 46.00
WET 9.62 348 iPc 47 39.50 -0.4
0.8s 33.00nm 4.5mb
BBS 9.81 324 P 47 41.51 -0.8
SPC 9.91 17 eP 47 45.20 1.6
FEL 9.91 327 eP 47 43.00 -0.6
LOMF 10.04 322 P 47 44.03 -1.2
PRU 10.26 355 Pc 47 48.60 0.7
0.9s 16.80nm 4.2mb
i 47 54.00
MOF 10.27 325 P 47 46.88 -1.2
BSF 10.41 324 iPc 47 48.60 -1.2
0.6s 37.00nm 4.7mb
GRF 10.47 343 i(Pn)c47 50.20 -0.2
1.1s 74.00nm 4.7mb
WLS 10.61 327 P 47 51.81 -0.4
CDF 10.64 327 eP 47 52.20 -0.5
0.3s 16.05nm 4.6mb
HAU 10.74 323 eP 47 52.70 -1.2
0.4s 14.95nm 4.5mb
KSP 11.08 1 iPc 47 58.60 0.6
i 48 04.10
SMF 11.17 312 iPc 47 57.40 -1.9
0.5s 6.40nm 4.1mb
BRG 11.19 354 iP 48 00.20 0.8
0.6s 38.00nm 4.7mb
i 48 05.40
i 48 14.00
LBF 11.29 314 iPc 47 59.50 -1.2
0.6s 6.05nm 4.0mb
MOX 11.29 346 e(P) 48 01.40 0.7
LOR 11.52 315 eP 48 01.50 -2.1
0.6s 9.00nm 4.1mb
AVF 11.53 312 eP 48 01.90 -1.8
0.4s 5.20nm 4.1mb
SSF 11.59 313 eP 48 02.50 -2.0
0.6s 4.25nm 3.8mb
BGF 11.71 310 eP 48 05.30 -0.6
0.8s 16.40nm 4.3mb
MAF 11.71 308 eP 48 05.50 -0.5
0.9s 30.95nm 4.5mb
CLL 11.72 351 iPd 48 07.30 1.3
1.2s 19.00nm 4.2mb
i 48 10.80
DOU 13.06 326 iPc 48 24.80 2.3X
e 48 36.80
SNF 13.50 327 Pc 48 29.60 1.7
HFS 20.43 357 eP 49 42.30 -0.9
0.4s 13.50nm 4.8mb
NUR 21.46 12 iP 49 53.50 0.3
0.4s 5.10nm 4.3mb
NB2 21.49 354 P 49 53.30 -0.2
0.5s 5.20nm 4.3mb
KAF 23.25 12 iP 50 10.30 0.0
0.4s 4.40nm 4.3mb
LKO 35.69 218 Pd 52 00.64 0.4
0.5s 16.50nm 4.8mb
TIC 37.98 215 P 52 19.33 0.0
0.8s 6.00nm 4.2mb
KIC 38.11 215 Pd 52 20.83 0.4
0.3s 6.50nm 4.5mb
LIC 38.35 215 Pd 52 22.87 0.4
0.6s 15.50nm 4.7mb
YKA 70.62 338 eP 56 13.50 0.2
0.5s 0.70nm 3.6mb
S.D. = 1.0 on 83 of 85 obs.
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* DEC 29, 1993 12h 57m 19.70± 1.27s

29d 12h

32.003 N ± 7.2km 49.029 E ±11.3km
DEPTH = 79.0 ± 15.4 km
4.2mb (3 obs.)
WESTERN IRAN (347)

KER 2.84 326 eP 58 04.00 0.1
MJMA 6.95 209 eP 59 01.00 0.1
eS 00 20.00
QASM 7.60 221 eP 59 10.30 0.3
eS 00 37.00
UQSK 8.51 225 eP 59 22.00 -0.5
AFIF 9.41 215 eP 59 38.00 3.2X
eS 01 23.00
GKN 31.01 88 P 03 32.00 -0.1
GUN 32.09 88 P 03 41.60 -0.1
HFS 36.54 331 eP 04 18.90 -0.1
0.4s 3.40nm 4.6mb
NB2 38.06 331 P 04 31.40 -0.4
0.8s 3.30nm 4.3mb
YKA 84.92 352 eP 09 47.40 0.7
1.1s 0.70nm 3.6mb
S.D. = 0.5 on 9 of 10 obs.

DEC 29, 1993 13h 31m 40.91± 1.14s
32.848 S ± 6.5km 71.583 W ± 8.8km
DEPTH = 14.5 ± 4.6 km
NEAR COAST OF CENTRAL CHILE (135)
MD 4.3 (SAN).

IHA 0.18 195 iPc 31 46.20 0.8
iS 31 50.60
ROCH 0.50 105 iPd 31 51.45 0.4
iS 32 00.51
LCCH 0.63 179 iP+ 31 52.72 -0.3
iS 32 02.66
PEL 0.81 112 iP+ 31 56.66 0.4
iS 32 10.00
JACH 0.85 79 iP+ 31 56.02 -0.9
iS 32 09.61
TACH 0.97 146 eP 31 58.91 0.0
iS 32 13.15
LNV 1.11 173 iP 32 00.05 -1.3
iS 32 16.12
PCH 1.18 131 eP 32 02.51 -0.1
FCH 1.19 114 iP+ 32 02.57 -0.3
iS 32 20.25
CACH 1.51 147 iP+ 32 08.32 0.8
CFA 3.09 67 eP 32 29.80 -0.3
(S) 33 13.40
RTRS 3.23 35 eP 32 32.00 0.0
S 33 18.00
S.D. = 0.7 on 12 of 12 obs.

? DEC 29, 1993 15h 39m 57.51± 3.49s
31.740 S ±30.1km 68.320 W ± 8.7km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.15 27 ePc 40 00.60 -0.4
(S) 40 06.00
ZON 0.36 302 eP 40 03.90 -1.1
RTLL 0.43 343 eP 40 06.00 -0.3
RTCB 0.48 302 eP 40 07.00 -0.3
RTRS 1.85 328 iPd 40 31.50 2.0
S 40 59.00
RTPR 2.11 48 eP 40 33.00 -0.3
S 41 01.00
S.D. = 1.4 on 6 of 6 obs.

? DEC 29, 1993 17h 05m 11.43± 2.71s
12.346 N ±20.8km 125.037 E ±31.7km
DEPTH = 66.5 ± 16.3 km
4.1mb (4 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

PLP 1.17 183 ePd 05 31.00 -1.3
eS 05 46.50
MAP 2.26 207 iPc 05 48.00 0.8
iS 06 10.00
GQP 2.96 302 eP 05 58.00 0.9
eS 06 32.50
BIP 4.27 164 eP 06 19.00 3.6X
eS 07 53.00
WRA 33.37 164 P 11 54.80 9.2X
0.9s 0.70nm 3.5mb
ASPA 36.83 166 eP 12 15.30 0.3
0.4s 3.10nm 4.6mb
WARB 38.33 178 eP 12 27.20 -0.4
0.5s 7.00nm 4.8mb
GUN 39.69 299 P 12 39.30 -0.1
PKI 40.01 298 P 12 41.40 -0.6
KKN 40.18 299 P 12 43.40 0.2
DMN 40.28 298 P 12 43.90 -0.3
GKN 40.78 299 P 12 47.40 -0.7
STK 46.75 161 eP 13 37.20 1.3
1.1s 0.80nm 3.6mb
S.D. = 0.9 on 11 of 13 obs.

DEC 29, 1993 17h 26m 10.26± 0.97s
10.177 S ± 5.8km 161.017 E ± 6.8km
DEPTH = 54.4 ± 9.1 km
4.8mb (10 obs.) 4.5Msz (1 obs.)
SOLOMON ISLANDS (193)
Felt at Honiara.

HNR 1.29 305 iP 26 32.50 0.3
iS 26 48.00
BKM 10.23 138 iPd 28 36.20 -0.9
DZM 12.92 157 iPc 29 14.00 0.6
iS 29 57.10
ARMA 21.96 202 iPc 31 01.20 0.0
0.8s 38.00nm 4.9mb
QIS 23.05 241 eP 31 13.00 1.1
BWA 26.75 204 eP 31 46.20 -0.6
e 32 01.50
CNB 27.18 201 iPc 31 51.10 0.3
1.0s 52.00nm 5.1mb
CAN 27.32 202 eP 31 52.50 0.5
e 32 08.50
WB2 27.48 246 iPc 31 53.20 -0.4
0.7s 9.10nm 4.5mb
e 32 00.90
i 32 08.60
eS 37 01.00
STK 28.10 217 eP 31 59.20 0.2
0.9s 4.10nm 4.1mb
eS 37 06.70
ASPA 29.13 239 eP 32 06.80 -1.7
0.4s 6.10nm 4.6mb
Z 20s 1.10um 4.5Msz
ipP 32 21.40 59kmX
eS 36 44.70
TOO 30.65 205 iPc 32 22.20 0.4
0.7s 80.00nm 5.6mb
KNA 31.89 257 eP 32 32.20 -0.6
ADE 31.99 216 eP 32 34.00 0.5
WARB 36.18 239 eP 33 09.50 -0.2
MBL 41.01 249 eP 33 50.00 0.0
0.5s 16.00nm 5.0mb
BAL 45.87 237 eP 34 29.20 0.0
MRWA 46.09 239 eP 34 30.50 -0.4
0.3s 4.00nm 4.8mb
NWAO 46.15 234 eP 34 31.30 -0.1
MUN 46.68 235 eP 34 36.00 0.5
MAT 51.19 336 eP 35 10.00 -0.2
KMI 66.73 303 Pd 37 10.50 12.0X
1.5s 50.00nm
FBA 84.01 20 eP 38 36.49 0.8
0.3s 2.66nm 4.7mb
HYB 85.93 288 eP 38 45.00 -1.3
e 38 58.00
GBA 86.22 284 P 38 49.00 1.3
YKA 96.35 28 eP 39 33.90 -0.1
0.6s 0.80nm 4.4mb
GEC2 132.78 331 PKP 45 20.90 -0.1
0.6s 0.49nm
e 45 34.90
e 45 47.80
SOB1 150.91 131 ePKP 45 59.30 5.8X
S.D. = 0.7 on 26 of 28 obs.

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* DEC 29, 1993 17h 30m 26.29± 1.66s
12.645 N ± 9.3km 125.618 E ±15.2km
DEPTH = 31.6 ± 9.0 km
4.8mb (9 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

PLP 1.60 203 ePd 30 53.00 0.3
eS 31 09.30
MAP 2.81 215 iPd 31 10.00 0.0
iS 31 40.00
GQP 3.33 292 ePd 31 17.00 -0.5
eS 31 55.00
BIP 4.44 172 eP 31 33.00 -0.2
eS 32 24.00
TGY 4.78 288 ePd 31 33.00 -5.1X
QCP 4.84 295 eP 31 52.00 13.2X
QVP 4.90 294 eP 31 46.00 6.3X
DAV 5.52 180 eP 31 58.00 9.5X
BAG 6.15 308 ePd 31 57.80 0.3
0.6s 93.33nm 5.7mb
KMI 24.90 303 Pd 35 49.00 0.7
1.5s 50.00nm 4.9mb
pP 35 54.00 18kmX
BJI 28.53 345 eP 36 17.00 -4.1X
LZH 30.48 324 eP 36 39.00 0.1
1.4s 26.00nm 4.8mb
Z 16s 0.44um 4.2MszX
E 12s 0.26um
pP 36 48.50 33kmX
PP 37 35.00
ASPA 36.99 167 eP 37 34.20 -0.7
0.7s 7.00nm 4.6mb
eS 43 13.20
WARB 38.61 179 iPd 37 49.10 0.7
0.6s 27.00nm 5.2mb
GUN 40.05 298 P 38 01.00 0.1
0.8s 21.00nm 4.9mb
PKI 40.37 298 P 38 03.10 -0.4
0.6s 8.00nm 4.6mb
KKN 40.53 298 P 38 04.60 -0.1
1.0s 24.00nm 4.9mb
DMN 40.64 298 P 38 05.50 -0.2
GKN 41.14 298 P 38 09.00 -0.6
STK 46.84 161 eP 39 02.60 7.3X
1.0s 4.20nm 4.4mb
MAIO 63.43 304 eP 40 56.00 0.4
S.D. = 0.5 on 15 of 21 obs.

& DEC 29, 1993 17h 46m 14.00s
37.629 N 122.478 W
DEPTH = 6.1km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 2.4 (GM). ML 2.3
(GS). Felt in the Daly City-
Pacifica area.

COE 0.74 120 eP 46 28.72 -0.1
HMR 0.75 45 eP 46 29.29 0.3
eS 46 42.23
NTYM 0.77 349 eP 46 28.93 -0.4
eS 46 39.27
ARN 0.80 110 eP 46 29.40 -0.6
eS 46 40.40
SAO 1.19 136 eP 46 36.70 0.1
CMB 1.71 76 eP 46 43.27 -1.2
eS 47 04.61
ORV 2.07 21 (P) 46 52.77 3.1
7 obs. associated

DEC 29, 1993 18h 03m 05.75± 1.05s
43.070 N ± 7.5km 18.809 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.4 (TTG).

BRY 0.26 229 iPgd 03 11.44 0.2
iSg 03 15.33
NKY 0.29 152 iPgc 03 12.15 0.2
iSg 03 16.61
PLE 0.50 59 iPgd 03 15.82 -0.1
iSg 03 23.68
HCY 0.66 200 ePg 03 18.83 -0.1
iSg 03 28.37
TTG 0.72 152 iPgc 03 19.06 -0.9
iSg 03 30.32
BDV 0.79 179 iPgc 03 20.91 -0.1
iSg 03 32.46
IVA 0.82 104 iPgc 03 21.70 0.0
iSg 03 34.27
PVY 0.98 119 iPgc 03 24.90 0.5
iSg 03 39.52
ULC 1.15 163 iPgd 03 27.68 0.4
iSg 03 44.65
SKO 2.23 119 ePn 04 39.00 55.7X
OHR 2.45 142 iPg 04 24.30 37.8X
iSg 04 34.00
S.D. = 0.5 on 9 of 11 obs.

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* DEC 29, 1993 18h 06m 00.40± 1.03s
27.069 N ±12.5km 66.464 E ±11.1km

DEPTH = 33.0km (normal)
4.1mb (7 obs.)
PAKISTAN (710)

POO 10.89 140 eP 08 38.00 1.0
iS 10 44.00
MAIO 10.95 329 eP 08 52.00 14.1X
HYB 14.74 128 eP 09 25.00 -3.3X
eS 12 04.00
GKN 16.15 83 P 09 46.60 -0.1
0.6s 14.00nm 4.3mb
DMN 16.58 84 P 09 52.60 0.4
0.9s 35.00nm 4.5mb
KKN 16.72 83 P 09 54.00 0.0
0.6s 17.00nm 4.4mb
PKI 16.85 84 P 09 55.00 -0.7
0.6s 17.00nm 4.4mb
GBA 16.88 140 P 09 54.20 -1.5
0.4s 2.00nm 3.6mb
GUN 17.25 83 P 10 00.90 0.1
SHL 22.83 88 eP 11 05.50 3.6X
eS 15 19.50
GEC2 45.87 313 P 14 21.10 -0.3
0.9s 0.78nm 3.6mb
WRA 80.65 118 P 18 12.90 1.1
1.0s 0.50nm 3.5mb
S.D. = 0.9 on 9 of 12 obs.

? DEC 29, 1993 19h 29m 46.15± 1.10s
43.064 N ±14.0km 0.679 W ± 8.5km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 1.0 (STR).

ATE 0.03 324 Pg 29 47.81 -0.4
Sg 29 48.76
ESCF 0.08 79 Pg 29 48.52 -0.1
Sg 29 50.06
ISSF 0.09 247 Pg 29 48.78 -0.1
MADF 0.13 308 Pg 29 49.26 -0.1
Sg 29 51.41
S.D. = 0.2 on 4 of 4 obs.

? DEC 29, 1993 19h 48m 03.32± 0.91s
44.515 N ± 6.7km 7.225 E ±11.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

PZZ 0.09 263 P 48 06.03 0.0
S 48 07.69
STV 0.28 165 P 48 09.30 0.1
S 48 13.22
ENR 0.32 154 P 48 09.97 -0.1
S 48 14.51
BHB 0.33 5 P 48 10.12 0.0
S 48 14.91
S.D. = 0.1 on 4 of 4 obs.

DEC 29, 1993 20h 16m 02.70± 0.51s
38.736 N ± 6.8km 75.566 E ± 7.6km
DEPTH = 33.0km (normal)
4.4mb (15 obs.)
SOUTHERN XINJIANG, CHINA (321)

KSH 0.79 24 iPgd 16 18.50 1.0
WMQ 10.44 57 P 18 32.50 -0.8
QUE 11.10 222 eP 18 42.60 0.3
eS 20 47.60
MAIO 12.99 264 eP 19 07.00 -0.7
eS 21 27.00
GKN 13.11 142 P 19 08.00 -1.3
0.6s 22.00nm 5.4mb
KKN 13.60 141 P 19 15.60 -0.2
0.6s 20.00nm 5.2mb
DMN 13.66 141 P 19 16.20 -0.5
0.7s 19.00nm 5.0mb
GUN 13.80 138 P 19 18.00 -0.7
0.5s 12.00nm 4.9mb
PKI 13.84 141 P 19 17.20 -2.0
0.7s 28.00nm 5.2mb
GTA 18.83 80 eP 20 26.50 4.2X
1.2s 6.00nm 3.7mb
Z 14s 0.29um 4.8Msz
pP 20 32.50
HYB 21.40 172 eP 20 51.50 1.7
LZH 22.58 88 eP 21 04.00 2.4
1.2s 18.00nm 4.4mb
GBA 25.09 176 P 21 27.90 2.1
0.8s 4.00nm 4.1mb
XAN 27.17 90 P 21 53.00 8.0X
0.7s 2.00nm 3.9mb
HFS 43.61 320 eP 24 04.50 -0.7
0.5s 2.30nm 4.2mb
GEC2 44.65 304 P 24 14.30 0.5
0.6s 1.29nm 4.0mb
NB2 44.83 322 P 24 14.30 -0.8
0.7s 3.00nm 4.3mb
DAG 53.64 343 iPc 25 22.30 -0.3
0.7s 4.79nm 4.6mb
YKA 78.78 5 eP 28 02.20 -0.9
0.7s 2.60nm 4.3mb
WRA 80.20 125 P 28 12.40 0.9
0.6s 0.60nm 3.8mb
S.D. = 1.3 on 18 of 20 obs.

? DEC 29, 1993 22h 19m 45.39± 5.13s
34.151 S ±28.6km 70.171 W ±25.8km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

CACH 0.36 275 iP+ 19 52.71 -0.1
iS 20 00.45
PCH 0.60 332 iPd 19 57.48 -0.1
iS 20 09.09
TACH 0.81 308 iPd 20 01.27 0.2
iS 20 15.67
FCH 0.83 353 iPd 20 01.02 -0.6
LNV 1.05 280 iP 20 04.88 -0.2
eS 20 20.74
PEL 1.09 337 iPd 20 06.18 0.2
iS 20 24.27
LCCH 1.35 300 iP 20 10.35 0.2
eS 20 30.43
JACH 1.51 346 eP 20 12.98 0.4
iS 20 35.89
S.D. = 0.4 on 8 of 8 obs.

DEC 29, 1993 22h 34m 04.61± 0.46s
51.468 N ±10.3km 177.990 E ± 5.2km
DEPTH = 33.0km (normal)
4.6mb (19 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

SMY 2.71 299 eP 34 47.65 0.9
eS 35 23.01
ADK 3.34 81 eP 34 56.50 0.8
eS 35 34.98
SDN 13.39 65 eP 37 12.72 -1.8
CP2 19.01 47 eP 38 27.14 1.0
CRP 19.05 47 eP 38 27.35 0.8
SLKM 19.77 50 eP 38 33.79 -0.6
IMA 20.46 34 eP 38 42.17 0.5
0.9s 20.35nm 4.5mb
PMR 20.54 48 (P) 38 43.47 1.1
0.5s 8.61nm 4.4mb
KLU 22.02 49 eP 38 55.78 -1.7
FBA 22.13 40 eP 38 57.43 -1.1
0.8s 5.74nm 4.1mb
YKA 36.62 46 eP 41 08.40 -0.7
0.8s 1.60nm 4.0mb
NEW 40.73 68 P 41 43.70 0.1
LBFM 41.57 80 eP 41 52.19 1.4
BONR 45.82 81 eP 42 26.39 1.1
SSE 45.99 266 eP 42 26.50 0.2
1.0s 9.00nm 4.7mb
TNP 46.41 80 eP 42 30.12 0.3
0.8s 5.04nm 4.5mb
TPNV 47.72 81 eP 42 40.97 0.8
0.6s 5.19nm 4.7mb
e 42 50.92
BW06 48.18 70 eP 42 42.24 -1.5
0.7s 3.45nm 4.5mb
GSC 48.44 83 eP 42 46.15 0.5
ARUT 48.92 78 eP 42 49.87 0.5
PV10 51.22 75 eP 43 06.92 -0.2
LZH 53.42 284 eP 43 22.50 -0.9
1.2s 20.00nm 5.0mb
ALQ 55.04 76 P 43 35.90 0.5
1.3s 1.92nm 4.0mb
SDF 59.52 348 eP 44 05.00 -1.4
LTX 60.62 79 eP 44 12.66 -1.8
KAF 64.55 346 iP 44 38.90 -1.2
0.3s 4.70nm 5.1mb
PMG 66.21 214 eP 44 42.00 -9.2X
NUR 66.33 346 iP 44 50.60 -0.9
0.6s 9.20nm 5.1mb
NB2 67.34 353 P 44 58.10 0.1
0.7s 5.00nm 4.7mb
HFS 68.03 352 eP 45 00.70 -1.5
0.6s 2.20nm 4.4mb
OBN 69.05 337 iPd 45 09.00 0.4
1.0s 35.00nm 5.4mb
e 45 30.00
GEC2 79.17 350 P 46 07.50 0.2
0.7s 0.72nm 3.8mb
e 46 11.00
e 46 14.80
MLR 80.45 340 ePd 46 16.50 2.2
WRA 80.72 221 P 46 14.80 -1.0
KBA 80.95 349 iPc 46 18.30 1.3
0.9s 11.40nm 4.9mb
WTTA 80.95 351 iPc 46 17.90 0.9
0.6s 4.00nm 4.6mb
SQTA 81.04 351 iPc 46 18.10 0.8
HYB 82.29 288 eP 46 23.50 -0.7
ASPA 84.23 220 P 46 34.09 0.3
0.7s 1.90nm 4.4mb
SKO 84.73 343 eP 46 37.50 1.3
GBA 85.93 287 P 46 42.00 -0.5
BLF 149.32 306 e(PKP)53 50.50 3.6X
S.D. = 1.1 on 40 of 42 obs.

DEC 29, 1993 23h 08m 31.06± 0.92s
12.956 N ± 5.8km 145.334 E ± 6.7km
DEPTH = 69.0 ± 7.4 km
5.0mb (21 obs.)
SOUTH OF MARIANA ISLANDS (210)
Felt in the Sinajana area, Guam.

GUMO 0.78 324 ePd 08 47.60 0.6
eS 09 00.30
PJG 0.78 324 eP 08 47.50 0.5
PMG 22.29 175 eP 13 22.00 -1.9
KAGJ 22.50 326 P 13 26.80 0.9
WKYJ 22.95 339 P 13 30.10 -0.1
TKSJ 23.32 336 eP 13 33.70 0.0
IIDJ 23.41 345 eP 13 32.60 -2.1
KUMJ 23.59 328 P 13 37.00 0.6
KAKJ 23.61 350 P 13 36.10 -0.4
CHJJ 23.69 347 P 13 35.50 -1.9
BAG 24.19 281 eP 13 43.00 0.5
MTMJ 24.48 345 P 13 44.10 -1.0
YONJ 24.60 336 eP 13 43.00 -3.2X
NIIJ 24.84 348 P 13 47.00 -1.4
SSE 28.65 313 P 14 22.80 -0.5
WB2 34.43 198 iPc 15 13.50 -0.6
0.7s 10.10nm 4.9mb
WRA 34.44 198 P 15 13.89 -0.3
0.7s 3.30nm 4.4mb
BJI 37.22 322 eP 15 37.00 -0.5
1.1s 29.00nm 5.1mb
ASPA 38.08 197 eP 15 44.30 -0.6
0.7s 9.40nm 4.8mb
Z 23s 0.30um 4.0MszX
KMI 41.87 293 Pc 16 18.00 1.4
1.2s 40.00nm 5.1mb
pP 16 25.00 24kmX
LOE 42.25 282 eP 16 20.00 0.6
LZH 43.77 309 Pc 16 32.00 0.2
1.0s 24.00nm 5.0mb
NST 43.82 279 eP 16 33.60 1.4
STK 44.72 185 eP 16 38.10 -1.1
1.7s 2.40nm 3.7mb X
GUN 57.17 295 Pc 18 13.80 -0.1
PKI 57.57 294 Pc 18 16.00 -0.7
0.6s 15.00nm 5.3mb
KKN 57.69 295 Pc 18 16.90 -0.5
1.0s 43.00nm 5.5mb
DMN 57.84 295 Pc 18 18.00 -0.5
0.7s 31.00nm 5.5mb
GKN 58.27 295 Pc 18 20.80 -0.5
ANM 61.61 22 eP 18 42.54 -0.9
SVW 64.01 28 eP 18 59.16 -0.2
0.6s 16.59nm 5.2mb
HYB 64.33 283 ePc 19 02.30 0.1
0.8s 38.50nm 5.4mb
e 19 26.00
TTA 64.53 26 eP 19 01.86 -0.9
1.1s 14.68nm 4.8mb
CP2 65.60 28 (P) 19 09.85 0.0

29d 23h

GBA 65.88 279 Pd 19 12.30 0.2
1.0s 5.00nm 4.4mb
KOD 66.37 276 eP 19 17.60 1.9
IMA 66.65 23 eP 19 15.58 -0.9
1.0s 8.44nm 4.7mb
FBA 68.60 25 eP 19 26.88 -1.6
1.0s 9.83nm 4.7mb
POO 68.65 285 eP 19 29.60 0.0
MAIO 79.14 305 eP 20 32.00 1.8
GMW 81.82 43 eP 20 45.45 1.4
YKA 83.21 27 eP 20 50.20 -0.7
0.6s 3.80nm 4.5mb
VGB 83.57 45 eP 20 54.36 1.2
LBFM 83.62 49 (P) 20 55.24 1.5
ORV 84.28 51 eP 20 58.00 1.2
NEW 85.40 42 eP 21 03.00 0.7
BONR 87.08 52 (P) 21 12.52 1.5
GSC 88.91 54 eP 21 20.79 1.2
OBN 89.87 327 iPd 21 24.00 0.5
1.5s 49.00nm 5.5mb
e 21 49.00
DAG 89.95 356 eP 21 23.00 -0.6
0.7s 8.90nm 5.1mb
HVU 90.14 47 (P) 21 26.71 1.4
KAF 91.48 336 iP 21 29.80 -1.0
0.5s 7.40nm 5.3mb
MSU 91.56 50 eP 21 33.31 1.3
NUR 93.01 335 eP 21 37.50 -0.4
HFS 97.55 338 eP 21 56.80 -1.9X
0.4s 1.50nm 4.9mb
NB2 97.80 339 P 21 58.90 -1.0
0.8s 4.40nm 5.0mb
GEC2 105.11 329 PKP 26 50.30 3.2X
0.7s 0.57nm
e 26 54.40
e 27 01.80
LKO 143.48 306 PKP 27 57.65 -2.8X
0.9s 9.50nm
KIC 144.61 301 PKPc 28 02.24 -0.1
0.8s 45.00nm
TIC 144.69 302 PKPc 28 02.42 -0.1
0.9s 48.00nm
LIC 144.93 301 PKPc 28 03.22 0.3
0.8s 71.00nm
S.D. = 1.0 on 57 of 61 obs.

% DEC 29, 1993 23h 11m 11.87± 0.59s
44.370 N ± 4.6km 7.339 E ± 5.2km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

STV 0.13 185 P 11 14.49 -0.1
S 11 15.96
ENR 0.15 158 P 11 15.23 0.1
S 11 17.33
PZZ 0.22 309 P 11 16.51 0.2
S 11 19.44
ROB 0.39 101 P 11 20.18 0.5
S 11 25.76
BHB 0.47 353 P 11 21.31 -0.1
S 11 27.49
IMI 0.61 139 P 11 23.75 -0.3
FIN 0.64 104 P 11 24.89 0.1
PCP 0.88 78 P 11 28.87 -0.4
S.D. = 0.3 on 8 of 8 obs.

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* DEC 29, 1993 23h 38m 36.24± 2.27s
34.095 S ±16.1km 70.305 W ± 9.2km
DEPTH = 124.3 ± 17.9 km
CHILE-ARGENTINA BORDER REGION (127)
MD 4.4 (SAN).

CACH 0.25 265 iP+ 38 54.15 0.1
PCH 0.50 340 iP+ 38 55.06 0.0
iS 39 07.61
TACH 0.69 310 iPd 38 56.24 0.0
SAN 0.71 335 iP+ 38 56.15 -0.2
iS 39 09.55
FCH 0.77 1 iP+ 38 57.20 0.0
iS 39 12.39
LNV 0.93 278 iPd 38 58.13 -0.1
PEL 1.00 341 iP+ 38 59.02 0.0
iS 39 14.86
LCCH 1.22 300 iPd 39 01.04 -0.1
iS 39 18.00
ROCH 1.27 332 iP+ 39 01.71 -0.2
iS 39 19.25
JACH 1.43 350 iPd 39 03.85 0.2
iS 39 23.10
IHA 1.54 313 iPd 39 05.00 0.2
iS 39 24.80
ZON 2.89 29 eP 39 22.00 0.1
CFA 3.03 36 ePc 39 23.60 -0.2
S 39 58.20
S.D. = 0.2 on 13 of 13 obs.

? DEC 29, 1993 23h 51m 19.77± 2.07s
36.750 N ±22.5km 2.993 W ± 7.5km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
mbLg 2.3 (MDD).

EGUA 0.47 280 iPd 51 29.51 0.2
e 51 34.90
ENIJ 0.67 70 eP 51 32.84 -0.2
e 51 44.00
ECOG 0.70 319 eP 51 33.06 -0.6
e 51 39.60
EVIA 1.92 12 eP 51 53.54 0.6
e 52 16.20
S.D. = 0.9 on 4 of 4 obs.

& DEC 30, 1993 00h 39m 57.56s
35.060 N 118.944 W
DEPTH = 17.2km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 2.8 (PAS).

BCH 0.94 278 iPc 40 13.82 -1.3
SSK 1.33 129 eP 40 21.10 -0.5
GSC 1.77 82 eP 40 30.21 2.5
PEC 1.88 128 eP 40 31.15 1.9
eS 40 55.80
MTUM 2.31 8 eP 40 37.75 2.2
eS 41 07.52
PLM 2.42 134 (P) 40 40.34 3.1
MMPM 2.55 358 eP 40 41.51 2.4
eS 41 12.79
MEMM 2.60 0 eP 40 42.13 2.6
eS 41 16.38
TPNV 2.89 48 eP 40 48.53 4.8
BONR 2.94 10 eP 40 48.98 4.4
eS 41 28.34
TNP 3.32 24 (P) 40 53.16 3.2
11 obs. associated

% DEC 30, 1993 00h 51m 58.96± 0.90s
30.913 S ±13.8km 68.937 W ±14.9km
DEPTH = 120.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.58 136 e(P) 52 18.00 0.3
(S) 52 30.00
RTCB 0.58 168 e(P) 52 17.50 -0.3
(S) 52 29.50
RTRS 0.87 329 iPc 52 20.00 0.0
CFA 0.91 139 iPd 52 20.60 0.1
S 52 35.00
RTPR 2.18 74 iPc 52 35.00 -0.1
(S) 53 02.00
S.D. = 0.3 on 5 of 5 obs.

? DEC 30, 1993 01h 21m 32.48± 3.29s
16.703 N ±31.2km 99.233 W ±18.5km
DEPTH = 88.5 ± 20.4 km
3.6mb (1 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

PPM 2.42 14 iP 22 10.00 -1.4
iS 22 46.50
OXX 2.43 81 iP 22 11.00 -0.2
iS 22 38.50
UNM 2.61 1 iP 22 14.20 0.4
(S) 22 53.50
CRX 2.72 351 iP 22 15.00 -0.3
(S) 22 53.00
MRX 3.52 328 iP 22 26.50 0.6
(S) 23 04.00
LVVM 4.01 41 (P) 22 34.00 1.2
YKA 47.00 350 eP 29 56.00 -0.2
0.8s 0.80nm 3.6mb
S.D. = 1.1 on 7 of 7 obs.

& DEC 30, 1993 01h 37m 08.43s
63.148 N 150.530 W
DEPTH = 123.2km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.44 112 eP 37 26.28 -0.4
eS 37 40.23
KTH 0.44 337 eP 37 26.42 -0.3
eS 37 39.90
RND 0.80 70 eP 37 28.89 -0.4
eS 37 44.61
MCK 0.93 50 eP 37 29.98 -0.4
eS 37 45.33
BWN 1.13 24 eP 37 32.09 -0.3
SKT 1.26 202 eP 37 33.31 -0.4
eS 37 52.14
DHY 1.44 91 eP 37 35.59 -0.3
eS 37 56.47
PWA 1.53 168 P 37 36.70 -0.1
GHO 1.57 151 eP 37 37.05 -0.3
NEA 1.57 24 eP 37 36.13 -1.1
SML 1.69 142 eP 37 37.92 -0.8
PLRM 1.69 157 eP 37 37.88 -0.8
PMR 1.69 157 ePn 37 37.16 -1.5
S 37 59.92
SUA 1.69 183 eP 37 39.10 0.2
WRH 1.71 38 eP 37 38.03 -0.9
MLY 1.89 357 eP 37 40.13 -1.1
NCG 1.91 204 eP 37 40.82 -0.7
CCB 1.93 37 eP 37 40.57 -1.0
PMS 1.96 166 P 37 41.50 -0.6
CGLM 1.97 201 eP 37 42.19 -0.1
SCM 1.99 130 eP 37 41.44 -1.0
eS 38 08.48
KNK 1.99 150 eP 37 41.65 -0.8
eS 38 07.93
HDA 2.03 50 eP 37 41.86 -1.0
CRP 2.04 203 eP 37 42.38 -0.7
S 38 07.85
CP2 2.05 204 eP 37 42.64 -0.8
eS 38 11.18
MDM 2.08 28 eP 37 42.47 -1.1
BGL 2.08 206 eP 37 43.27 -0.4
FBA 2.13 33 eP 37 42.58 -1.6
DDM 2.19 71 eP 37 44.79 -0.2
TOA 2.27 116 P 37 45.70 -0.3
ILB 2.29 43 eP 37 44.95 -1.2
eS 38 12.52
IL1 2.29 43 eP 37 44.98 -1.2
GLM 2.31 35 eP 37 45.50 -0.9
PAX 2.31 92 eP 37 46.18 -0.4
CFI 2.36 145 eP 37 46.11 -0.9
NKA 2.44 188 eP 37 48.09 0.1
TTA 2.51 267 eP 37 46.89 -2.2
PWL 2.52 155 eP 37 48.15 -1.0
TZL 2.61 113 eP 37 50.37 0.1
SLKM 2.65 177 eP 37 50.70 -0.2
KLU 2.72 126 eP 37 50.42 -1.4
MPA 2.73 168 eP 37 50.75 -1.1
VZW 2.81 137 eP 37 51.35 -1.6
VLZ 2.82 134 eP 37 51.49 -1.6
eS 38 25.12
RED 2.94 202 eP 37 55.20 0.5
SEW 3.10 170 eP 37 55.86 -0.9
SVW 3.15 232 eP 37 56.03 -1.5
IM3 3.17 335 eP 37 56.18 -1.5
IMA 3.23 337 eP 37 57.31 -1.4
GLB 3.57 116 eP 38 02.09 -1.1
eS 38 43.30
CNPM 3.65 186 eP 38 03.34 -0.9
OPT 3.74 202 eP 38 05.32 -0.1
BC3 3.97 87 eP 38 06.82 -1.8
AUL 4.03 202 P 38 12.50 3.2
AUW 4.05 202 P 38 12.00 2.5
HMT 4.10 131 eP 38 08.91 -1.4
TGL 4.36 120 eP 38 11.97 -1.8
BALM 4.39 115 eP 38 12.40 -1.9
WAX 4.54 123 eP 38 14.73 -1.5
SYI 4.64 192 eP 38 16.41 -1.1
BM3 4.96 27 eP 38 19.72 -2.1
61 obs. associated

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* DEC 30, 1993 02h 06m 37.94± 0.83s
27.920 S ± 8.3km 70.050 W ±11.5km
DEPTH = 100.0km (geophysicist)
4.1mb (1 obs.)

NEAR COAST OF NORTHERN CHILE (122)
RTRS 2.30 167 iPd 07 16.10 1.1
S 07 40.20
CYA 3.79 99 iPc 07 35.00 -0.4
S 08 16.50
ZON 3.81 162 eP 07 36.30 0.8
RTPR 3.90 128 iPc 07 36.00 -0.8
CFA 4.00 157 ePc 07 37.40 -0.8
(S) 08 06.40
SLA 5.18 53 iP 07 55.50 0.9
YJA 7.05 37 e(P) 08 13.40 -7.3X
YKA 96.88 341 eP 19 58.00 -0.3
0.5s 0.30nm 4.1mb
WB2 126.88 209 ePKP 25 31.50 -0.6
0.4s 1.80nm
WRA 126.89 209 PKP 25 32.20 0.0
0.7s 1.20nm
S.D. = 0.9 on 9 of 10 obs.

DEC 30, 1993 03h 13m 38.55± 1.21s
35.419 N ±11.4km 23.093 E ±10.1km
DEPTH = 74.3 ± 7.0 km
4.3mb (4 obs.)
CRETE (370)
MD 3.8 (ATH).

VAM 0.90 90 ePn 13 56.00 -0.3
VLI 1.30 354 ePb 14 03.00 1.6
NPS 2.07 94 ePn 14 12.00 0.2
ATH 2.60 11 ePb 14 20.50 1.4
VLS 3.41 325 ePn 14 30.00 -0.4
AGG 3.65 351 ePn 14 35.00 1.2
eSn 15 14.56
PAIG 4.52 6 ePn 14 46.29 0.2
eSn 15 36.24
IGT 4.66 333 ePn 14 47.92 0.0
LIT 4.70 354 ePn 14 48.64 0.1
eSn 15 40.84
OUR 4.96 8 ePn 14 52.16 0.1
eSn 15 46.24
KZN 4.99 348 ePn 14 52.50 -0.2
KEK 5.02 330 ePn 14 52.50 -0.5
SOH 5.40 2 ePn 14 58.16 -0.2
FNA 5.52 346 ePn 14 59.76 -0.3
GRG 5.56 355 ePn 14 59.56 -0.9
SRS 5.70 4 ePn 15 02.04 -0.5
KNT 5.74 359 ePn 15 02.50 -0.5
VAY 5.91 356 ePn 15 05.00 -0.3
OHR 5.96 343 iPn 15 05.50 -0.7
SKO 6.67 349 ePn 15 14.80 -1.1
KHC 15.39 336 eP 17 18.10 5.6X
HFS 25.47 349 eP 19 01.40 0.4
0.3s 1.10nm 3.8mb
GKN 52.15 80 P 22 43.00 -0.8
0.4s 4.00nm 4.8mb
DMN 52.69 80 P 22 48.20 0.2
KKN 52.76 80 P 22 48.00 -0.4
0.4s 5.00nm 4.9mb
PKI 52.95 80 P 22 49.60 -0.4
GUN 53.19 79 P 22 51.80 0.1
YKA 76.67 341 eP 25 24.50 1.9
0.7s 0.40nm 3.5mb
S.D. = 0.8 on 27 of 28 obs.

DEC 30, 1993 03h 35m 38.49± 0.61s
41.835 N ± 5.7km 25.152 E ± 4.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.9 (THE).

KDZ 0.27 133 iPgd 35 43.00 -1.2
Sg 35 47.00
DIM 0.36 53 iPg 35 46.00 0.2
Sg 35 51.00
RZN 0.36 246 iPg 35 44.00 -1.9
Sg 35 49.00
PLD 0.43 309 iPgd 35 46.00 -1.2
Sg 35 51.00
PGB 1.02 315 iPg 35 59.00 1.1
Sg 36 09.00
MMB 1.09 257 iPg 35 58.00 -1.1
ALN 1.15 144 ePg 36 00.13 0.1
eSg 36 16.88
SRS 1.37 239 ePb 36 03.28 -0.4
eSb 36 22.28
KKB 1.55 272 iPgc 36 07.00 0.9
Sg 36 26.00
VTS 1.63 298 iPc 36 07.00 -0.5
Sg 36 29.00
SOH 1.69 234 iPb 36 09.17 0.9
eSb 36 32.04
OUR 1.74 211 ePb 36 09.76 0.9
KNT 1.82 249 ePb 36 10.36 0.2
eSb 36 35.60
PAIG 2.21 211 ePn 36 16.48 0.8
GRG 2.25 248 ePn 36 17.48 1.2
eSn 36 47.04
S.D. = 1.1 on 15 of 15 obs.

? DEC 30, 1993 03h 57m 23.80± 3.06s
19.577 S ±22.5km 168.144 E ±53.5km
DEPTH = 33.0km (normal)
3.9mb (4 obs.) 3.8Msz (1 obs.)
VANUATU ISLANDS (186)

BKM 1.90 3 iP 57 54.50 0.0
iS 58 41.50
DZM 2.95 212 iP 58 09.10 -0.3
iS 58 52.60
ARMA 18.43 231 eP 01 38.80 0.2
0.9s 13.00nm 4.1mb
STK 26.80 238 eP 03 04.00 1.1
1.0s 1.60nm 3.6mb
WRA 31.79 264 P 03 48.70 1.1
1.0s 0.60nm 3.4mb
ASPA 32.05 256 eP 03 47.80 -2.1
1.0s 4.40nm 4.3mb
Z 20s 0.20um 3.8Msz
BRG 142.71 333 ePKP 17 03.80 8.6X
1.3s 13.00nm
CLL 142.78 334 e(PKP)16 43.00 -12.3X
MOX 143.85 335 ePKP 17 07.60 10.4X
SKO 144.06 316 ePKP 16 55.00 -2.8X
KHC 144.14 331 ePKP 16 46.50 -11.3X
e 16 51.00
GEC2 144.29 331 PKP 16 56.40 -1.7X
1.4s 3.01nm
OHR 144.89 315 ePKP 17 01.50 2.1X
S.D. = 1.5 on 6 of 13 obs.

DEC 30, 1993 05h 05m 45.82± 0.81s
44.345 N ± 3.1km 6.894 E ± 6.6km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN).

PZZ 0.22 43 P 05 50.91 0.6
S 05 54.16
STV 0.33 108 P 05 52.78 0.4
S 05 57.09
ENR 0.40 107 P 05 53.97 0.2
S 05 58.87
TOUF 0.42 142 Pg 05 54.47 0.2
MVIF 0.49 157 Pg 05 55.65 0.1
Sg 06 03.77
AURF 0.55 146 Pg 05 57.06 0.1
Sg 06 05.64
BHB 0.56 28 P 05 56.99 -0.1
S 06 03.68
RRL 0.58 352 P 05 57.54 0.1
S 06 05.14
SAOF 0.60 127 Pg 05 57.26 -0.5
Sg 06 06.77
ROB 0.70 94 P 05 59.79 -0.1
S 06 08.76
IMI 0.84 121 P 06 02.58 0.0
S 06 14.16
RSP 0.85 18 P 06 02.39 -0.3
S 06 12.51
FIN 0.95 98 P 06 04.04 -0.4
S 06 16.69
PCP 1.20 80 P 06 08.57 -0.1
S.D. = 0.3 on 14 of 14 obs.

DEC 30, 1993 05h 55m 39.12± 0.45s
30.922 N ± 5.6km 103.989 E ± 8.2km
DEPTH = 33.0km (normal)
4.4mb (8 obs.)
SICHUAN, CHINA (307)
ML 4.7 (BJI).

CD2 0.20 267 iPgc 55 38.90 -6.9X
GYA 5.03 151 iPnc 56 55.00 0.6
Sn 57 55.00
LZH 5.15 359 ePn 56 57.50 1.4
Pg 57 12.00
Sg 58 24.00
XAN 5.20 52 Pnc 56 56.70 0.0
Z 10s 1.53um
Pg 57 16.50
Sn 57 57.50
Sg 58 24.50
KMI 5.88 191 Pnd 57 06.00 -0.5
Sn 58 13.00
GTA 9.13 339 eP 57 58.00 6.3X
Z 10s 0.96um
TIY 9.73 44 eP 57 58.00 -1.9
TIA 12.16 61 eP 58 33.10 0.2
CHTO 12.89 202 eP 58 44.00 1.3
e 02 35.90
BJI 13.45 44 eP 58 50.00 0.0
BDT 14.35 200 eP 59 07.80 5.9X
NST 15.58 194 eP 59 21.50 3.5X
PKI 16.56 263 P 59 22.00 -8.7X
WMQ 18.22 319 eP 59 53.00 1.9
NNT 18.66 193 eP 59 56.30 -0.3
e 07 04.80
CN2 21.28 47 P 00 26.70 1.9
1.0s 20.00nm 4.5mb
Z 20s 0.31um 3.7Msz
WRA 58.38 146 P 05 33.70 0.0
0.8s 4.00nm 4.6mb
WB2 58.38 146 iPd 05 33.40 -0.4
0.5s 21.00nm 5.5mb X
ASPA 61.39 149 eP 05 54.60 0.2
1.1s 3.60nm 4.4mb
HFS 63.87 326 eP 06 08.30 -2.1
0.4s 1.20nm 4.3mb
GEC2 67.60 314 P 06 33.50 -1.2
1.4s 2.23nm 4.1mb
e 06 36.80
e 15 39.20
LPG 73.30 313 eP 07 08.90 -0.6
0.7s 4.30nm 4.6mb
LPL 73.31 313 eP 07 08.90 -0.5
0.7s 5.30nm 4.6mb
YKA 81.89 17 eP 07 56.20 0.0
0.7s 1.10nm 4.0mb
S.D. = 1.2 on 19 of 24 obs.

DEC 30, 1993 06h 02m 30.75± 0.23s
12.201 N ± 3.9km 120.567 E ± 3.9km
DEPTH = 15.1km (4 depth phases)
4.9mb (30 obs.) 4.4Msz (2 obs.)
MINDORO, PHILIPPINE ISLANDS (250)

TGY 1.92 11 iPc 03 03.00 -0.3
iS 03 33.00
QVP 2.44 10 ePc 03 11.20 0.5
iS 03 39.00
QCP 2.47 12 eP 03 16.00 4.9X
GQP 2.49 47 ePd 03 12.50 1.1
eS 03 43.50
MAP 3.83 119 ePd 03 32.00 1.6
eS 04 04.00
BAG 4.18 0 ePc 03 34.00 -1.6X
PLP 4.44 103 eP 03 40.00 0.9
SZP 5.32 359 eP 03 57.00 5.5X
CGP 5.51 132 eP 03 07.00 -47.2X
eS 03 39.00
CVP 5.60 12 ePd 03 56.60 1.1
CTB 6.12 144 ePd 04 04.00 1.2
BIP 6.85 125 ePc 04 18.00 4.9X
DAV 7.08 135 eP 03 18.00 -58.4X
KKM 7.48 215 ePc 04 39.50 17.5X
TSM 8.30 199 eP 04 39.50 6.1X
QIZ 12.36 305 P 05 27.20 -1.8
N 12s 1.22um
E 14s 1.07um
eS 07 41.40
LOE 18.93 288 iPc 06 54.90 1.4
GYA 19.29 319 iPc 06 59.00 0.9
1.2s 20.00nm 4.3mb
Z 18s 0.91um 4.1MszX
N 12s 1.08um
E 12s 0.73um
NST 20.13 282 eP 07 08.00 0.9
SNG 20.28 258 eP 07 10.50 1.8
KMI 21.19 310 Pc 07 20.00 1.7
1.4s 90.00nm 5.0mb

30d 06h

Z 13s 1.10um 4.4MszX
N 12s 0.70um
E 12s 0.50um
pP 07 25.50 20km
BDT 21.44 286 eP 07 21.00 0.4
CHTO 21.84 290 eP 07 25.10 0.5
1.0s 10.25nm 4.2mb
TIA 24.11 353 eP 07 46.50 -0.2
XAN 24.19 336 P 07 48.50 0.9
1.0s 11.00nm 4.4mb
Z 18s 0.48um 4.0Msz
E 11s 0.46um
pP 07 53.20 17km
TKSJ 24.93 27 eP 07 54.30 -0.3
YONJ 25.70 25 eP 08 01.40 -0.5
WKYJ 25.84 30 eP 08 02.50 -0.8
TIY 26.43 345 eP 08 06.50 -2.3
LZH 28.16 330 eP 08 24.00 -0.7
2.0s 63.00nm 5.0mb
Z 17s 0.64um 4.3MszX
sP 08 37.00
LSA 32.38 307 P 09 03.20 0.6
1.2s 20.00nm 4.9mb
GTA 32.75 330 P 09 05.00 -0.2
1.0s 12.00nm 4.8mb
Z 18s 1.37um 4.7Msz
E 10s 0.43um
WRA 34.70 157 P 09 20.50 -1.7
0.7s 9.70nm 4.8mb
WB2 34.70 157 iPc 09 20.40 -1.8
0.7s 25.80nm 5.2mb
i 09 24.20 13km
eS 14 47.30
GUN 35.98 301 P 09 33.80 0.3
PKI 36.27 300 P 09 35.20 -0.7
0.8s 27.00nm 5.2mb
KKN 36.44 301 P 09 36.90 -0.3
0.8s 30.00nm 5.2mb
DMN 36.54 300 P 09 37.80 -0.3
1.0s 54.00nm 5.3mb
ASAJ 37.04 27 eP 09 41.30 -0.4
GKN 37.05 301 P 09 41.20 -1.1
0.9s 23.00nm 5.0mb
KUSJ 37.21 30 eP 09 43.30 0.2
ASPA 37.96 160 eP 09 48.80 -0.9
Z 23s 0.10um 3.6MszX
eS 15 34.60
WARB 38.61 171 eP 09 55.50 0.4
YSS 39.40 24 eP 10 07.50 6.0X
ZAK 40.63 343 eP 10 11.00 -0.5
1.6s 11.00nm 4.3mb
HYB 40.89 283 iPc 10 14.60 0.4
1.2s 71.40nm 5.3mb
GBA 42.03 277 Pc 10 24.10 0.6
1.0s 8.00nm 4.4mb
KOD 42.29 272 eP 10 24.50 -1.6
WMQ 42.33 324 eP 10 26.70 1.0
BOD 45.81 355 eP 11 05.90 12.4X
1.3s 9.00nm
STK 48.24 156 eP 11 12.20 -0.7
0.6s 3.00nm 4.5mb
ePP 13 08.10
ADE 49.96 160 eP 11 26.70 0.4
FRU 50.04 316 eP 11 27.20 0.4
e 11 46.50 77kmX
YAK 50.17 6 eP 11 24.50 -2.9X
1.0s 25.00nm 5.1mb
ARMA 51.85 145 eP 11 40.70 -0.1
0.7s 8.00nm 4.8mb
MAIO 59.62 305 eP 12 37.00 0.3
SVE 63.59 328 ePc 13 02.90 0.0
2.0s 40.00nm 5.2mb
ARU 64.53 327 eP 13 08.00 -1.1
KIV 72.93 312 eP 14 02.10 0.5
0.8s 11.00nm 5.0mb
OBN 76.65 324 eP 14 22.00 -0.5
IMA 77.22 25 (P) 14 29.39 3.7X
1.4s 15.34nm 4.9mb
FBA 79.75 26 (P) 14 43.29 4.0X
0.8s 3.10nm 4.4mb
KAF 81.31 332 iP 14 47.00 -0.6
0.8s 11.40nm 5.0mb
NUR 82.38 330 eP 14 53.00 -0.2
VRI 84.00 315 eP 15 03.00 1.1
MLR 84.62 315 eP 15 05.50 0.4
UZH 86.34 319 eP 15 13.50 0.1
1.2s 40.00nm 5.5mb
e 15 28.70 53kmX
HFS 87.72 331 eP 15 18.50 -1.4
0.4s 0.90nm 4.4mb
KSP 89.45 322 ePc 15 28.80 0.4
BRG 90.84 323 eP 15 35.00 0.2
1.0s 18.00nm 5.3mb
MOX 92.31 323 e(P) 15 38.30 -3.3X
GRB5 92.85 322 e(PKP)15 45.00 0.9
e 15 48.50 11km
WTTA 93.57 320 iPc 15 47.40 -0.3
1.0s 10.80nm 5.2mb
WATA 93.58 320 iPc 15 47.40 -0.3
SQTA 93.86 320 iPc 15 48.50 -0.5
0.9s 5.40nm 5.0mb
MOTA 93.88 320 iPc 15 48.80 -0.3
YKA 94.20 22 eP 15 50.00 -0.1
1.0s 1.50nm 4.3mb
KIC 122.58 286 PKP 21 27.70 -0.6
0.9s 5.50nm
S.D. = 0.9 on 64 of 78 obs.

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* DEC 30, 1993 06h 28m 03.08± 3.87s
55.762 N ±13.1km 162.064 E ± 8.2km
DEPTH = 211.4 ± 36.0 km
4.3mb (20 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

YAK 17.70 304 eP 32 00.00 2.9
1.5s 30.00nm 4.5mb
TTA 22.19 54 e(P) 32 41.50 -0.7
SVW 22.47 59 eP 32 44.30 -0.5
IMA 23.32 46 eP 32 52.10 -1.0
0.6s 10.35nm 4.6mb
CRP 24.12 58 eP 33 00.08 -0.6
MAT 25.13 230 eP 33 04.00 -6.0X
0.7s 7.53nm 4.4mb
FBA 25.76 49 eP 33 14.26 -1.2
0.6s 3.15nm 4.2mb
TOA 26.81 55 eP 33 24.30 -0.8
KLU 27.04 56 (P) 33 26.97 -0.2
YKA 40.44 45 eP 35 21.10 -0.5
0.8s 2.80nm 3.8mb
NEW 47.62 63 eP 36 18.50 -0.7
BONR 54.15 74 eP 37 09.05 0.4
BW06 55.25 64 eP 37 16.75 0.3
0.8s 5.36nm 4.3mb
DAU 56.10 67 eP 37 23.48 0.8
RSSD 57.00 59 eP 37 29.50 0.7
0.7s 3.81nm 4.2mb
MSU 57.02 69 eP 37 30.12 1.2
SRU 57.44 67 eP 37 32.62 0.8
KAF 57.48 337 iP 37 30.10 -1.4
0.3s 2.30nm 4.4mb
PV10 58.76 67 eP 37 42.04 0.9
PV08 58.82 66 eP 37 42.09 0.5
NUR 59.27 337 iP 37 41.60 -2.3
0.7s 9.90nm 4.6mb
NB2 61.29 344 P 37 56.30 -1.4
0.6s 6.90nm 4.6mb
HFS 61.75 343 eP 37 58.80 -1.8
0.4s 5.30nm 4.6mb
ALQ 62.72 68 iP 38 08.69 1.1
0.7s 2.23nm 4.1mb
LTX 68.57 69 eP 38 44.75 0.1
EKA 68.61 351 P 38 45.00 0.6
2.0s 109.90nm 5.2mb
OXF 71.52 56 (P) 39 03.20 0.9
GEC2 72.46 339 P 39 07.80 0.1
0.8s 1.57nm 3.8mb
e 39 12.70
CDF 74.07 343 eP 39 17.20 0.2
HAU 74.62 343 eP 39 20.10 0.0
LOR 75.72 345 eP 39 26.20 -0.1
0.7s 4.30nm 4.3mb
LPL 76.97 342 eP 39 34.80 1.3
0.8s 4.05nm 4.2mb
LPG 76.99 342 eP 39 35.00 1.3
0.9s 6.40nm 4.4mb
WB2 78.99 206 eP 39 42.60 -1.8
1.1s 1.90nm 3.7mb
i 39 59.80
WRA 78.99 206 P 39 43.50 -0.9
0.7s 1.70nm 3.9mb
ASPA 82.67 206 P 40 03.70 0.1
0.8s 6.00nm 4.4mb
S.D. = 1.1 on 35 of 36 obs.

? DEC 30, 1993 06h 38m 14.33± 6.46s
34.064 S ±28.1km 70.490 W ±21.7km
DEPTH = 101.6 ± 48.1 km
CHILE-ARGENTINA BORDER REGION (127)
MD 3.8 (SAN).

CACH 0.11 240 iP+ 38 29.02 0.1
iS 38 40.46
PCH 0.44 357 iP+ 38 30.29 0.1
iS 38 42.83
TACH 0.55 318 iP+ 38 31.17 0.2
iS 38 44.17
SAN 0.63 347 eP 38 31.24 -0.3
iS 38 44.35
FCH 0.75 13 iP+ 38 32.90 -0.1
iS 38 47.82
LNV 0.77 278 iPd 38 32.69 -0.1
eS 38 47.18
PEL 0.93 350 iP+ 38 34.55 0.1
iS 38 50.18
LCCH 1.07 303 iPd 38 35.88 -0.1
iS 38 52.43
ROCH 1.17 338 iP+ 38 37.42 0.1
eS 38 54.39
JACH 1.38 356 iP 38 39.81 0.1
eS 38 58.94
S.D. = 0.2 on 10 of 10 obs.

& DEC 30, 1993 07h 02m 34.74s
59.786 N 151.452 W
DEPTH = 51.4km
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 2.5 (AEIC).

HOM 0.16 217 P 02 42.70 -0.4
S 02 49.90
CNPM 0.28 157 P 02 43.20 -0.8
S 02 50.00
ILIM 0.81 292 P 02 49.20 -1.0
S 03 01.00
INE 0.86 289 P 02 49.70 -1.2
OPT 0.91 262 P 02 50.50 -1.0
S 03 04.30
RED 0.92 314 P 02 50.90 -0.7
S 03 04.50
REF 0.94 319 P 02 51.40 -0.7
S 03 04.80
SLKM 0.95 40 P 02 51.40 -0.7
NKA 0.97 6 P 02 53.50 1.3
SEW 1.06 72 P 02 52.70 -0.7
AUE 1.07 247 P 02 52.70 -0.9
AUL 1.09 249 P 02 53.20 -0.7
AUP 1.09 248 eP 02 52.97 -1.0
AUH 1.10 248 P 02 53.40 -0.7
AUI 1.10 247 P 02 53.20 -0.9
AUW 1.11 249 P 02 53.50 -0.7
SYI 1.27 203 P 02 55.00 -1.5
PDB 1.39 271 P 02 57.20 -0.9
CKT 1.47 346 P 02 58.70 -0.6
S 03 18.20
CRP 1.53 347 eP 02 58.78 -1.4
NCG 1.66 348 P 03 01.80 -0.2
SUA 1.72 11 P 03 02.70 -0.2
PMS 1.74 32 P 03 02.70 -0.3
PWL 1.89 54 P 03 03.70 -1.4
PLRM 2.14 31 P 03 07.40 -1.3
KNK 2.20 41 P 03 08.10 -1.5
CFI 2.30 51 P 03 09.00 -1.9
SML 2.54 36 P 03 13.50 -0.9
VZW 2.74 60 P 03 14.80 -2.5
SCM 2.88 43 P 03 18.20 -1.1
KLU 3.22 55 P 03 22.10 -2.0
TOA 3.47 46 P 03 26.30 -1.3
32 obs. associated

? DEC 30, 1993 08h 59m 40.79± 8.54s
6.746 S ±40.7km 149.791 E ±70.8km
DEPTH = 88.6 ± 36.8 km
3.6mb (2 obs.)
NEW BRITAIN REGION, P.N.G. (192)

LAT 2.77 271 eP 00 24.00 0.0
PMG 3.71 224 iPc 00 37.00 0.0
eS 01 36.00
WB2 19.92 227 eP 04 07.50 -0.5
0.4s 14.60nm 4.7mb X
e 04 10.90

ASPA 22.72 221 eP 04 36.70 0.6
1.1s 3.80nm 3.7mb
STK 26.15 196 eP 05 08.40 -0.2
0.9s 1.80nm 3.6mb
S.D. = 0.8 on 5 of 5 obs.
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* DEC 30, 1993 08h 59m 55.32± 0.97s
4.396 S ±13.8km 152.701 E ±12.9km
DEPTH = 10.0km (geophysicist)
4.8mb (2 obs.)
NEW BRITAIN REGION, P.N.G. (192)

RAB 0.57 291 iPd 00 07.00 0.1
0.5s 1577.46nm
iS 00 30.00
YYYY 6.95 254 e(P) 01 41.00 1.1
PMG 7.42 228 e(P) 02 02.00 15.7X
DZM 22.05 144 iPd 04 53.10 0.9
MTN 22.90 247 eP 05 03.00 2.5X
WB2 23.63 228 eP 05 06.40 -1.2
0.4s 16.80nm 5.0mb
KNA 26.09 243 eP 05 32.60 1.5
ASPA 26.38 222 eP 05 32.10 -1.7
0.6s 10.70nm 4.7mb
GUN 71.83 301 P 11 19.90 -1.2
PKI 72.14 301 P 11 22.60 -0.4
KKN 72.31 301 P 11 24.20 0.4
DMN 72.41 301 P 11 24.40 -0.1
GKN 72.91 301 P 11 27.80 0.5
S.D. = 1.2 on 11 of 13 obs.

DEC 30, 1993 09h 43m 29.59± 0.59s
52.114 N ± 4.2km 158.154 E ± 3.4km
DEPTH = 120.0 ± 5.6 km
5.0mb (88 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

PET 0.95 18 iPnd 43 53.00 1.6
eS 44 09.00
SKR 1.94 222 iPnc 44 01.70 -1.0
eS 44 25.50
YSS 11.24 249 ePnc 46 09.00 1.3
KUSJ 12.77 230 eP 46 21.40 -6.3X
eS 48 31.50
ASAJ 13.07 238 eP 46 32.60 0.9
HOOJ 14.00 232 eP 46 38.80 -4.8X
eS 49 01.70
MRRJ 15.08 237 eP 46 53.60 -3.7X
AOMJ 16.81 234 eP 47 14.50 -4.3X
OFUJ 17.35 228 eP 47 26.10 0.7
eS 50 20.10
YAK 18.21 314 iPc 47 34.00 -1.5
0.9s 409.00nm 5.7mb
YAMJ 18.84 229 eP 47 41.70 -0.8
NIIJ 20.07 230 P 47 54.60 -0.7
MDJ 20.31 260 eP 47 56.40 -1.3
KAKJ 20.39 226 P 47 57.20 -1.3
MAT 21.01 230 iPc 48 04.50 -0.3
0.9s 44.54nm 4.8mb
CHJJ 21.05 228 P 48 05.70 0.5
IIDJ 22.01 229 P 48 16.10 1.3
ANM 22.46 42 eP 48 19.28 0.5
TSRJ 22.89 232 eP 48 25.20 2.0
CN2 23.26 262 eP 48 25.00 -1.8
1.0s 9.80nm 4.2mb
WKYJ 24.14 231 P 48 35.80 0.4
YONJ 24.42 236 P 48 38.30 0.3
TKSJ 25.08 233 eP 48 44.70 0.5
BOD 25.51 300 iPc 48 46.80 -1.1
0.8s 31.00nm 4.9mb
TTA 26.29 48 eP 48 54.27 -0.9
0.5s 3.24nm 4.2mb
SVW 26.45 52 eP 48 56.30 -0.3
SHNJ 26.46 238 eP 48 57.90 1.0
CIT 27.07 288 eP 49 03.00 0.6
IMA 27.56 41 eP 49 05.90 -0.8
0.8s 8.10nm 4.4mb
KUMJ 27.86 236 eP 49 10.90 1.4
KAGJ 28.91 234 P 49 20.70 1.7
PMS 29.37 51 eP 49 20.90 -2.0
0.4s 3.90nm 4.5mb
FBA 29.95 44 eP 49 27.03 -0.9
0.8s 9.22nm 4.6mb
TOA 30.88 49 eP 49 35.50 -0.7
KLU 31.08 50 eP 49 37.04 -0.9
ZAK 33.70 289 eP 50 00.50 -0.2
1.0s 17.00nm 4.8mb

e 50 28.00
TIY 34.82 264 eP 50 08.50 -2.0
Z 12s 0.48um 4.5MszX
LZH 41.14 269 Pd 51 03.20 -0.1
1.5s 45.00nm 5.0mb
GTA 41.54 276 Pc 51 05.50 -1.0
1.5s 35.00nm 4.9mb
YKA 44.68 41 eP 51 21.90 -9.6X
0.8s 3.40nm 4.1mb
GYA 46.13 257 iPd 51 42.80 -0.6
1.0s 29.00nm 5.0mb
KMI 49.48 259 Pd 52 09.00 -0.6
1.2s 40.00nm 5.2mb
QIZ 49.97 247 Pd 52 14.80 1.6
DAG 51.37 359 iPc 52 22.80 -0.3
0.9s 23.53nm 5.1mb
SVE 52.19 316 eP 52 28.00 -1.5
LBFM 53.20 68 eP 52 37.86 0.5
LSA 53.30 273 P 52 38.40 -0.1
1.0s 9.00nm 4.7mb
ORV 54.60 69 eP 52 46.72 -0.7
COE 56.05 71 eP 52 57.05 -0.8
ARN 56.07 71 eP 52 57.45 -0.6
CHTO 56.54 257 iPc 53 00.70 -0.9
0.9s 26.43nm 5.2mb
KVN 56.89 68 eP 53 04.28 0.2
MEMM 57.35 69 eP 53 07.88 0.8
PTI 57.47 61 eP 53 08.92 0.9
BONR 57.52 69 eP 53 08.57 -0.1
BDT 57.72 256 eP 53 09.00 -0.8
GUN 57.81 275 Pc 53 09.20 -1.6
0.8s 35.00nm 5.4mb
HVU 57.99 62 eP 53 11.92 0.2
TNP 58.06 68 eP 53 11.84 -0.4
0.7s 11.88nm 5.0mb
KKN 58.27 275 Pc 53 12.40 -1.5
0.6s 29.00nm 5.5mb
PKI 58.34 275 Pc 53 12.80 -1.8
0.8s 31.00nm 5.4mb
DMN 58.50 275 Pc 53 14.40 -1.2
0.8s 61.00nm 5.7mb
GKN 58.51 276 Pc 53 13.80 -1.7
0.8s 46.00nm 5.6mb
DUG 59.07 63 eP 53 19.09 -0.1
1.0s 12.92nm 4.9mb
TPNV 59.40 68 eP 53 21.46 -0.1
0.8s 13.32nm 5.0mb
KAF 59.91 336 iP 53 22.60 -1.9
0.4s 3.70nm 4.8mb
GSC 60.23 70 ePd 53 26.73 -0.4
ARUT 60.40 66 eP 53 28.35 0.0
MSU 60.60 64 eP 53 29.49 -0.3
PEC 61.02 71 eP 53 31.55 -0.9
0.8s 9.90nm 4.9mb
SRU 61.09 63 iPd 53 32.88 -0.2
NUR 61.70 336 iP 53 35.30 -1.3
0.3s 2.20nm 4.6mb
PV09 62.28 62 eP 53 41.11 0.0
PV10 62.42 62 eP 53 42.15 0.1
PV08 62.49 62 ePd 53 42.15 -0.4
NB2 64.14 343 P 53 51.10 -1.6
0.9s 34.30nm 5.3mb
NAO 64.41 343 P 53 45.77 -8.6X
HFS 64.51 341 eP 53 53.30 -1.7
0.3s 7.60nm 5.0mb
HYB 70.09 273 eP 54 26.00 -4.6X
EKA 71.80 349 P 54 42.00 1.8
1.5s 24.80nm 4.8mb
LTX 72.12 65 eP 54 41.47 -1.2
KSP 72.47 336 iPc 54 43.60 -0.6
0.9s 29.00nm 5.1mb
WIT 72.74 342 eP 54 47.50 1.8
UZH 72.81 331 eP 54 46.00 -0.2
CLL 72.83 338 iPc 54 45.30 -1.0
1.1s 58.00nm 5.3mb
BRG 73.01 337 iP 54 47.20 -0.2
1.0s 24.00nm 4.9mb
ELC 73.40 50 eP 54 49.15 -0.7
i 54 57.35
WTS 73.49 342 eP 54 50.50 0.4
1.0s 55.10nm 5.3mb
PRU 73.69 336 P 54 51.50 0.2
0.9s 1.00nm 3.6mb X
GBA 73.70 271 Pc 54 50.90 -0.9
MOX 73.77 339 eP 54 51.70 -0.1
1.3s 31.00nm 4.9mb
HOF 74.02 338 eP 54 53.40 0.1

MLR 74.45 327 eP 54 53.00 -3.0
WB2 74.70 203 eP 54 57.00 -0.4
0.6s 2.00nm 4.1mb
e 55 26.50
WRA 74.70 203 P 54 57.50 0.0
0.6s 1.10nm 3.8mb X
KHC 74.72 337 Pc 54 57.80 0.4
1.0s 32.10nm 5.1mb
e 55 06.00
GRF 74.75 338 iPc 54 58.10 0.6
1.0s 54.00nm 5.3mb
ENN 74.83 342 eP 54 58.50 0.6
1.0s 52.00nm 5.3mb
TNS 74.85 340 ePc 54 58.00 -0.1
WET 74.88 337 iPc 54 58.60 0.4
1.0s 56.00nm 5.3mb
GEC2 74.96 337 Pc 54 58.60 -0.2
0.6s 10.50nm 4.8mb
DOU 75.72 343 Pc 55 03.90 0.9
FUR 76.17 338 eP 55 05.80 0.2
1.0s 61.00nm 5.3mb
BHG 76.21 337 iPd 55 06.60 0.9
1.1s 38.00nm 5.1mb
KBA 76.69 336 iPc 55 09.50 0.8
0.8s 77.40nm 5.5mb
i 55 19.50
CDF 76.81 341 eP 55 09.10 -0.1
0.9s 28.15nm 5.1mb
WATA 76.88 337 iPc 55 10.10 0.4
WTTA 76.93 337 iPc 55 10.60 0.6
0.9s 40.20nm 5.2mb
MOTA 76.98 338 iPc 55 10.40 0.2
SQTA 77.07 338 iPc 55 11.20 0.5
0.9s 35.30nm 5.2mb
FVI 77.28 336 P 55 11.97 0.3
LJU 77.35 335 eP 55 12.00 -0.1
HAU 77.39 341 eP 55 12.30 0.0
0.9s 24.90nm 5.0mb
OGA 77.45 338 eP 55 13.80 0.9
0.8s 18.00nm 4.9mb
BSF 77.47 341 eP 55 12.50 -0.3
1.0s 16.60nm 4.8mb
VOY 77.52 335 iP 55 12.70 -0.4
e 55 21.50
FLN 77.86 346 eP 55 14.60 -0.2
VVI 77.94 336 P 55 15.14 -0.2
0.8s 19.20nm 4.9mb
LDF 77.97 345 eP 55 15.40 0.0
CTI 78.07 337 P 55 16.06 -0.1
1.2s 42.90nm 5.1mb
GRR 78.29 346 eP 55 17.20 0.0
0.7s 10.80nm 4.7mb
ASPA 78.39 203 P 55 19.20 1.2
PLE 78.47 331 iPc 55 18.64 0.2
LOR 78.58 342 eP 55 19.00 0.2
1.1s 49.55nm 5.2mb
LPF 78.66 346 eP 55 20.10 0.9
0.7s 16.55nm 4.9mb
IVA 78.73 330 eP 55 19.70 -0.1
LBF 78.83 342 eP 55 20.30 0.1
0.7s 10.45nm 4.7mb
SSF 78.84 343 eP 55 20.60 0.4
0.9s 22.75nm 5.0mb
VAI 78.91 339 P 55 21.22 0.7
0.7s 38.20nm 5.3mb
PVY 78.96 330 iPc 55 20.61 -0.5
NKY 79.06 331 iPc 55 20.61 -1.0
SKO 79.06 329 iPc 55 21.00 -0.5
BRY 79.12 331 iPc 55 20.77 -1.2
AVF 79.13 343 eP 55 22.30 0.5
0.8s 19.90nm 5.0mb
SMF 79.18 342 eP 55 22.50 0.4
VAY 79.28 328 iP 55 22.50 -0.1
1.2s 50.00nm 5.2mb
ORX 79.31 339 P 55 22.98 0.1
TTG 79.33 330 iPc 55 22.09 -0.8
BGF 79.45 343 eP 55 24.40 0.9
0.7s 12.25nm 4.8mb
HVAR 79.47 333 iP 55 22.40 -1.3
HCY 79.54 331 iPc 55 22.62 -1.4
BDV 79.59 331 iPc 55 23.35 -1.0
LSD 79.65 340 P 55 25.59 0.6
LPL 79.69 340 eP 55 26.10 1.0
0.5s 8.45nm 4.8mb
LPG 79.70 340 eP 55 26.40 1.1
0.7s 17.75nm 5.0mb
ULC 79.76 330 eP 55 24.33 -0.9

30d 09h

BOB 79.80 338 P 55 26.42 0.9
0.5s 22.00nm 5.2mb
TCF 79.82 343 eP 55 26.40 0.8
0.8s 14.90nm 4.8mb
MAF 79.82 343 eP 55 26.70 1.2
0.9s 39.95nm 5.2mb
RSM 79.86 336 P 55 26.60 0.9
MFF 79.91 345 eP 55 26.80 0.8
RSP 79.92 340 P 55 27.10 0.9
LSF 79.98 344 eP 55 27.20 0.8
0.7s 24.25nm 5.1mb
SFI 80.01 336 P 55 28.30 1.8
1.0s 41.30nm 5.2mb
MME 80.04 337 P 55 28.38 1.4
1.1s 88.50nm 5.5mb
OHR 80.04 329 iP 55 25.70 -1.1
0.9s 80.00nm 5.5mb
PGD 80.09 336 P 55 28.64 1.5
1.1s 64.50nm 5.3mb
ARV 80.13 335 P 55 27.95 0.7
1.0s 107.80nm 5.6mb
BDI 80.19 337 P 55 28.10 0.5
0.5s 7.80nm 4.8mb
BHB 80.22 339 P 55 28.29 0.6
PCP 80.22 338 P 55 28.29 0.6
RRL 80.24 340 P 55 28.84 0.8
CRE 80.26 336 P 55 28.79 0.8
1.1s 21.30nm 4.8mb
DOI 80.54 339 P 55 29.36 -0.1
0.7s 15.90nm 4.9mb
PZZ 80.57 339 P 55 29.62 -0.1
ASS 80.60 335 P 55 30.80 1.0
1.0s 29.00nm 5.0mb
ROB 80.60 339 P 55 28.89 -0.9
FIN 80.61 339 P 55 29.07 -0.7
ENR 80.77 339 P 55 29.71 -0.9
STV 80.77 339 P 55 30.12 -0.6
RJF 80.90 344 eP 55 32.60 1.4
1.0s 29.60nm 5.0mb
IMI 80.97 339 P 55 31.59 -0.1
AQU 81.08 334 P 55 33.61 1.4
1.0s 113.50nm 5.6mb
SBF 81.11 339 eP 55 32.50 0.1
0.5s 6.50nm 4.7mb
CAF 81.17 343 eP 55 34.30 1.6
0.9s 20.00nm 4.9mb
MNS 81.24 335 P 55 33.11 0.0
1.2s 117.50nm 5.6mb
LFF 81.39 344 eP 55 34.60 0.9
0.7s 21.05nm 5.0mb
LPO 81.56 344 eP 55 36.30 1.7
0.7s 33.05nm 5.2mb
SDI 81.57 334 P 55 35.13 0.3
0.9s 26.80nm 5.0mb
FRF 81.57 339 eP 55 35.50 0.8
LRG 81.73 340 eP 55 36.40 0.9
0.8s 18.55nm 4.9mb
LMR 81.82 340 eP 55 36.90 0.9
1.2s 36.30nm 5.0mb
EPF 83.31 344 eP 55 44.90 1.1
0.8s 11.55nm 4.8mb
S.D. = 0.9 on 176 of 183 obs.

? DEC 30, 1993 09h 55m 59.03± 3.29s
53.720 N ±39.4km 157.894 E ±80.1km
DEPTH = 33.0km (normal)
4.4mb (6 obs.)
KAMCHATKA (217)

MAT 21.96 226 (P) 00 51.00 -0.5
0.8s 5.22nm 4.0mb
NB2 62.56 342 P 06 20.70 -0.8
0.5s 1.00nm 4.2mb
HFS 62.94 341 eP 06 22.90 -1.0
0.4s 1.70nm 4.6mb
GEC2 73.42 336 P 07 29.50 0.1
0.4s 0.68nm 4.0mb
GBA 73.52 271 P 07 31.00 0.8
CDF 75.25 340 eP 07 39.80 -0.1
HAU 75.82 341 eP 07 42.80 -0.3
LBF 77.25 342 eP 07 51.10 0.0
SSF 77.26 342 eP 07 51.50 0.4
AVF 77.55 342 eP 07 52.40 -0.3
LPL 78.12 340 eP 07 57.00 0.8
0.4s 2.60nm 4.6mb
LPG 78.14 340 eP 07 57.20 0.9
0.6s 3.95nm 4.6mb
MAF 78.24 343 eP 07 56.60 0.1
LFF 79.80 344 eP 08 05.10 0.1
S.D. = 0.6 on 14 of 14 obs.

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* DEC 30, 1993 10h 29m 26.48± 1.23s
20.417 S ±14.5km 169.806 E ±17.4km
DEPTH = 33.0km (normal)
4.0mb (3 obs.)
VANUATU ISLANDS (186)

BKM 3.11 331 iP 30 14.50 0.1
iS 30 51.50
DZM 3.54 242 iPd 30 21.30 0.7
iS 31 04.00
ARMA 19.18 235 eP 33 59.10 8.7X
WRA 33.25 265 P 36 02.50 -0.6
0.5s 0.30nm 3.5mb
ASPA 33.38 258 iPc 36 03.90 -0.3
0.8s 5.70nm 4.5mb
YKA 101.46 27 ePdiff43 16.50 0.7
0.8s 0.30nm 3.9mb
GEC2 145.78 332 PKP 49 02.70 -0.6
0.7s 1.29nm
e 49 04.00
PcP 49 09.40
S.D. = 0.8 on 6 of 7 obs.

? DEC 30, 1993 10h 38m 00.78± 4.32s
33.397 S ± 9.8km 72.247 W ±32.1km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)
MD 3.9 (SAN).

LCCH 0.57 98 iP+ 38 12.46 0.1
iS 38 20.78
LNV 0.89 129 iP+ 38 17.69 -0.2
iS 38 30.71
ROCH 1.12 68 iPd 38 21.98 0.0
eS 38 38.74
TACH 1.12 104 iPd 38 21.47 -0.4
iS 38 37.03
PEL 1.33 80 eP 38 25.59 0.2
eS 38 44.60
PCH 1.47 99 eP 38 26.97 -0.4
eS 38 48.20
CACH 1.55 118 eP 38 29.05 0.5
iS 38 50.57
JACH 1.56 63 eP 38 28.47 -0.3
eS 38 49.18
FCH 1.64 88 iP+ 38 30.44 0.4
iS 38 52.89
S.D. = 0.4 on 9 of 9 obs.

% DEC 30, 1993 11h 30m 26.51± 0.81s
44.550 N ± 6.1km 7.279 E ± 8.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

PZZ 0.14 250 P 30 29.97 0.1
S 30 32.26
BHB 0.29 358 P 30 32.56 -0.1
S 30 36.29
STV 0.31 174 P 30 32.92 0.0
S 30 37.16
ENR 0.34 163 P 30 33.45 -0.1
ROB 0.49 121 P 30 36.70 0.1
S.D. = 0.2 on 5 of 5 obs.

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* DEC 30, 1993 11h 34m 33.35± 0.77s
34.245 N ±12.9km 3.995 W ±10.5km
DEPTH = 10.0km (geophysicist)
MOROCCO (395)
MG 2.5 (RTC).

TZK 0.22 225 iP 34 39.00 0.9
iS 34 44.00
TOU 0.74 15 iP 34 48.00 0.1
eS 34 56.50
TGT 0.90 259 iP 34 51.50 1.0
iS 35 03.50
ZAI 1.17 61 eP 34 56.50 1.3
iS 35 12.00
IFR 1.19 233 iPgd 34 56.00 0.3
iSg 35 12.00
i 35 13.00
TAF 1.42 66 iPgd 34 58.00 -1.3
iSg 35 15.00
i 35 17.00
BMK 1.68 295 iP 34 51.00 -11.8X
iS 35 04.00
AVE 3.00 253 ePn 35 20.00 -1.8
e 35 28.00
eSn 35 52.00
e 35 57.00
i 36 07.00
TIO 4.31 221 ePn 35 40.00 -0.5
e 35 51.00
i 35 54.00
eSn 36 28.00
e 36 32.00
S.D. = 1.3 on 8 of 9 obs.

? DEC 30, 1993 11h 39m 21.90± 2.77s
5.330 S ±23.1km 146.458 E ±30.0km
DEPTH = 136.1 ± 12.1 km
4.2mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

MDG 0.68 277 eP 39 42.50 -0.5
YYYY 1.03 208 eP 39 46.40 0.3
LAT 1.43 158 eP 39 53.80 3.8X
MNDI 2.90 253 eP 40 08.50 0.2
eS 40 45.00
WWKK 3.30 301 eP 40 13.50 0.2
PMG 4.11 170 iPd 40 24.00 0.0
eS 41 09.00
WB2 18.70 218 eP 43 30.90 -1.6
i 43 32.70
ASPA 21.88 212 iPd 44 06.20 1.4
0.8s 8.90nm 4.2mb
S.D. = 1.3 on 7 of 8 obs.

& DEC 30, 1993 11h 43m 46.01s
37.342 N 118.435 W
DEPTH = 10.8km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.8 (GM).

BHPR 0.06 225 P 43 48.29 -0.3
MTUM 0.10 276 iPd 43 48.79 -0.3
eS 43 50.77
CWCR 0.18 34 P 43 49.15 -1.2
CASR 0.25 338 P 43 51.84 0.4
HTCR 0.33 305 P 43 52.77 -0.2
ORC 0.34 329 P 43 52.95 -0.3
BCKR 0.36 8 P 43 53.32 -0.2
MCSM 0.49 310 P 43 55.82 -0.2
MEMM 0.52 309 eP 43 56.24 -0.2
eS 44 03.78
MMPM 0.54 300 ePc 43 56.43 -0.6
BONR 0.62 10 eP 43 58.25 -0.4
WLHM 1.19 175 P 44 08.17 -0.2
TNP 1.22 52 eP 44 09.07 0.4
eS 44 25.13
WASM 1.60 184 P 44 16.10 1.5
ISA 1.68 181 (P) 44 17.33 1.9
eS 44 38.18
CMB 1.69 295 eP 44 16.28 0.5
eS 44 38.70
PHBM 1.71 231 P 44 17.81 1.9
KVN 1.73 9 eP 44 18.14 1.8
TPNV 1.79 102 eP 44 17.80 0.6
WOFM 1.82 187 P 44 19.43 1.8
PDRM 1.85 238 P 44 19.95 2.0
PARM 1.88 235 P 44 20.50 2.1
BRMM 1.98 256 P 44 21.98 2.2
BMSM 2.01 251 P 44 22.12 1.8
MNHM 2.05 294 P 44 23.31 2.5
ARN 2.47 271 ePn 44 28.86 2.0
eS 45 02.48
BCH 2.53 212 ePn 44 28.45 0.6
ABL 2.57 195 eP 44 31.13 2.7
28 obs. associated

% DEC 30, 1993 12h 35m 14.59± 0.99s
38.217 N ±11.4km 3.491 W ± 6.8km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.6 (MDD).

EBAN 0.24 257 iPc 35 19.32 -0.4
e 35 23.10
EHUE 0.82 119 iPd 35 29.06 -1.4

```
                e       35 42.70
EVIA    0.88  61 eP     35 32.50    0.9
                e       35 45.10
ELUQ    0.90 223 eP     35 32.34    0.5
                e       35 44.00
ECOG    0.94 184 eP     35 33.54    0.9
                e       35 43.10
EHOR    1.44 255 eP     35 40.15   -0.6
                e       35 59.50
   S.D. = 1.2  on    6 of    6 obs.
---------------------------------------
% DEC  30, 1993  12h 47m 16.41± 1.70s
  40.475 N ± 7.1km    23.711 E ±14.9km
  DEPTH =   5.0km  (geophysicist)
 GREECE                           (364)
    ML 2.5 (THE).

SOH     0.44 322 ePg   47 25.44    0.2
                 eSg   47 31.96
PAIG    0.55 182 iPg   47 27.36    0.0
                 eSg   47 34.64
THE     0.59 286 ePg   47 28.18    0.0
                 eSg   47 36.70
KNT     0.92 318 ePg   47 34.40   -0.1
                 eSg   47 47.66
LIT     1.01 249 ePg   47 36.04    0.1
                 eSg   47 50.76
GRG     1.11 296 ePg   47 37.52   -0.1
                 eSg   47 53.56
   S.D. = 0.2  on    6 of    6 obs.
---------------------------------------
* DEC  30, 1993  13h 26m 52.54± 0.88s
  71.795 N ±14.8km    2.516 W ±16.7km
  DEPTH =  10.0km  (geophysicist)
 JAN MAYEN ISLAND REGION          (639)

DAG      6.64 326 iPc   28 31.50   -0.9
   0.3s    27.27nm          5.7mb X
ARA0     9.51  90 Pn    29 12.73    0.3
                  Sn    30 54.45
NRA0    12.41 146 Pn    29 51.38   -0.5
                  Sn    32 01.26
HFS     13.36 143 eP    30 03.30   -1.2
   0.3s     1.70nm          4.5mb
GEC2    24.21 153 P     32 11.29    1.4
YKA     38.20 316 eP    34 14.10    0.8
   0.9s     0.80nm          3.5mb X
   S.D. = 1.3  on    6 of    6 obs.
---------------------------------------
? DEC  30, 1993  13h 47m 18.09± 2.24s
   6.156 S ±15.4km  154.673 E ±20.3km
  DEPTH =  98.3 ± 25.5 km
  3.8mb (  3 obs.)
 SOLOMON ISLANDS                  (193)

RAB      3.17 308 e(P)  48 07.00    0.1
PMG      8.12 246 eP    49 11.00   -4.0X
                  eS    50 44.00
DZM     19.49 145 iPd   51 39.70   -0.4
WB2     24.03 233 eP    52 24.80   -0.5
   1.2s     4.10nm          3.7mb
                  i     52 36.00
ARMA    24.31 186 eP    52 28.60    0.7
   0.9s     7.00nm          4.1mb
YKA     95.75  28 eP    00 34.00    0.1
   0.9s     0.30nm          3.8mb
HFS    118.61 339 ePdiff02 14.80   -1.2X
   0.1s     0.50nm
   S.D. = 0.9  on    5 of    7 obs.
---------------------------------------
  DEC 30, 1993  14h 24m 04.54± 0.09s
  44.735 N ± 2.2km    78.793 E ± 1.4km
  DEPTH =  14.9km  (geophysicist)
  5.7mb (153 obs.)  5.2Msz ( 35 obs.)
 EASTERN KAZAKHSTAN               (329)
    Mw 5.5 (HRV). Felt (IV) at
    Almaty. Also felt (III) at
    Bishkek, Kyrgyzstan. Depth from
    broadband displacement
    seismograms.
    CENTROID, MOMENT TENSOR     (HRV)
    Data Used: GDSN
    L.P.B.: 24S, 34C
    Centroid Location:
    Origin Time        14:24:10.2 0.6
    Lat 44.95N 0.05 Lon  78.76E 0.09
    Dep  21.0 FIX Half-duration  1.4
  Moment Tensor;   Scale 10**17 Nm
    Mrr= 1.02 0.05  Mtt=-1.73 0.06
    Mff= 0.71 0.07  Mrt=-0.04 0.15
    Mrf= 0.88 0.14  Mtf=-0.69 0.08
  Principal Axes:
    T  Val=  1.82   Plg=47  Azm=258
    N        0.10       43       70
    P       -1.92        4      164
  Best Double Couple:Mo=1.9*10**17
  NP1:Strike=290 Dip=55 Slip= 145
  NP2:         41     62       40

AAA      1.98 223 iPnd  24 42.50    4.6X
                  iS    25 05.50
FRU      3.57 239 iPnc+ 25 04.00    3.4X
                  i     25 12.00
                  i     25 54.00
                  e     26 00.00
KSH      5.68 203 Pn    25 34.50    4.1X
   1.0s   330.00nm          6.0mb
 Z 10s     50.80um          5.1Msz
                  Sn    26 38.70
                  Sg    27 06.00
WMQ      6.46  95 iPnc  25 42.20    0.8
 Z 13s     26.80um
                  Sn    26 54.00
NIL     11.87 203 iPc   26 59.60    3.4X
   0.8s     0.14nm          3.3mb X
                  (S)   28 51.20
UER     12.27  51 iP    26 58.70   -2.7X
   1.0s    80.00nm          5.9mb
GTA     16.48 102 P     27 56.20   -0.5
   1.5s    65.00nm          4.5mb X
 Z 16s     18.30um          4.1Msz
                  pP    28 04.00
SVE     16.60 323 iPd   27 56.50   -1.5
                  eS    30 52.00
ASH     16.76 253 P     27 58.00   -2.1
   1.5s   990.00nm          5.7mb
MAIO    16.89 247 iPc   28 00.20   -1.7
                  eS    32 48.00
ARU     17.27 320 eP    28 05.50   -0.8
 Z 11s     28.00um
 N 12s      9.00um
 E 11s     18.00um
                  eS    31 06.50
QUE     17.27 217 eP    28 05.00   -1.8
                  eS    31 32.00
GKN     17.34 162 Pc    28 06.60   -1.0
ZAK     17.43  62 eP    28 07.40   -1.0
   1.3s   320.00nm          5.3mb
 Z 11s     18.08um          4.4MszX
 N 13s     10.49um
 E 11s     13.10um
                  iS    31 25.00
KAT     17.62 260 iPc   28 09.00   -1.9
KKN     17.69 161 Pc    28 11.20   -0.9
GUN     17.72 159 Pc    28 11.80   -0.8
DMN     17.82 161 Pc    28 13.00   -0.8
LSA     17.91 143 P     28 17.20    2.1
   0.8s    47.00nm          4.7mb X
 Z 14s     16.60um          4.0MszX
 N 12s      4.39um
 E 13s      5.58um
                  pP    28 24.00
                  S     31 39.00
PKI     17.93 161 Pc    28 14.40   -0.8
IRK     18.44  57 eP+   28 21.00    0.0
   1.8s   101.00nm          4.7mb X
 Z 14s     16.20um          4.4MszX
 N 12s      7.49um
 E 14s     15.83um
                  eS    31 46.00
LZH     20.88 106 ePc   28 48.49   -0.1
   2.0s   440.00nm          5.5mb
 N 11s      9.06um
 E 13s     10.50um
                  pP    29 01.00   53kmX
                  PP    29 15.00
                  S     32 37.00
                  SS    33 14.00
BAK     21.67 269 iPc   28 58.00    1.7
                  iS    33 02.00
SHL     21.86 147 iP    28 58.60    0.0
                  iS    33 00.00
MAK     22.60 277 iP-   29 06.20    0.6
 Z 12s     17.00um          5.7MszX
 N 12s     18.00um
 E 12s     26.00um
                  e     29 36.00 150kmX
                  iS    33 14.90
BTO     23.25  89 eP    29 13.00    0.9
GRO     23.75 278 iPc+  29 18.00    1.2
   2.0s  1680.00nm          6.3mb
 Z 16s     45.00um          6.0MszX
 E 14s     16.00um
CD2     23.95 117 Pc    29 20.60    1.7
   1.4s   130.00nm          5.3mb
 Z 11s     10.80um          5.6MszX
 E 10s      7.95um
                  epP   29 31.50  42kmX
                  PP    29 54.50
                  eS    33 35.00
CIT     24.06  60 eP    29 21.00    1.2
 Z 15s     14.44um          5.6MszX
HHC     24.27  88 P     29 23.00    1.0
   1.0s    34.00nm          4.9mb
 Z 12s      8.68um          5.5MszX
MTA     24.85 275 iPc+  29 28.00    0.5
   0.8s   400.00nm          6.1mb
 N 14s      3.50um
 E 14s      4.00um
                  i     30 08.00 205kmX
                  iPPP  30 20.00
                  eSS   34 50.00
TAB     25.13 266 iPc+  29 32.40    2.0
                  i     29 39.00  23kmX
BOD     25.39  46 iPc   29 31.50   -0.9
   1.5s   368.00nm          5.8mb
PYA     25.43 281 iPc+  29 33.00    0.1
 Z 16s     16.50um          5.6MszX
 N 16s      5.50um
 E 16s     10.00um
                  i     29 40.00  25kmX
                  i     30 20.00
XAN     25.48 104 ePc   29 33.35   -0.2
   0.5s    55.00nm          5.5mb
 Z 10s      8.28um          5.6MszX
 N 12s      3.90um
 E 12s      6.19um
                  pP    29 38.50  18kmX
SHI     25.63 243 iP    29 36.00    0.8
TIY     26.12  94 Pc    29 40.00    0.4
   1.6s   230.00nm          5.6mb
 Z 20s      8.98um          5.3Msz
 N 10s      2.94um
 E 11s      3.44um
                  pP    29 46.00  21kmX
BOM     26.24 193 eP    29 40.00   -0.7
                  eS    34 14.00
KER     26.39 258 eP    29 43.00    0.8
POO     26.45 191 iPc   29 43.80    1.2
   1.5s   138.89nm          5.4mb
HYB     27.24 181 iPc   29 49.50   -0.3
   1.2s   121.40nm          5.5mb
                  i     30 08.00  81kmX
                  eS    34 28.00
KMI     27.55 127 ePc   29 53.07    0.2
   2.0s   380.00nm          5.8mb
 Z 15s      3.30um          5.0MszX
 N 20s      3.20um
 E 11s      2.20um
                  pP    30 04.00  41kmX
                  eS    34 27.00
                  sS    34 45.00
                  SS    35 47.00
BJI     27.84  86 ePc   29 55.58    0.5
   1.5s    42.00nm          5.0mb
 Z 12s      5.13um          5.3MszX
 N 13s      5.08um
                  epP   30 07.00  44kmX
                  eS    34 40.00
SOC     27.88 282 iPc+  29 56.00    0.6
   1.6s   150.00nm          5.5mb
 Z 15s      8.00um          5.4MszX
 N 15s      6.00um
 E 15s      8.00um
HIA     28.04  66 ePc   29 57.10    0.2
ENH     28.11 110 ePc   29 57.60    0.0
MOS     28.13 308 iPc   29 57.00   -0.5
   1.8s   800.00nm          6.2mb
                  i     30 04.00  25kmX
                  eS    34 33.00
OBN     28.66 306 ePc   30 01.86   -0.5
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30d 14h

1.2s 220.00nm 5.8mb
Z 14s 9.10um 5.5MszX
N 12s 6.50um
E 12s 6.08um
e 30 56.00 279kmX
ePPP 31 10.00
e 33 10.00
eS 34 48.00
eSS 36 16.00
eSSS 36 30.00
GYA 28.88 120 iPc 30 10.00 5.3X
1.0s 38.00nm 5.1mb
Z 15s 3.79um 5.1MszX
N 12s 2.92um
E 12s 1.19um
ANN 29.21 285 iPc 30 06.60 -0.8
1.2s 100.00nm 5.5mb
Z 13s 5.00um 5.3MszX
N 12s 3.50um
E 12s 3.00um
e 30 58.00 262kmX
DHR 29.48 241 iPc 30 06.50 -3.5X
TIA 30.15 93 eP 30 15.20 -0.7
Z 18s 5.76um 5.3Msz
E 13s 4.86um
eS 35 07.00
CHTO 30.84 140 ePc 30 21.48 -0.6
1.1s 21.50nm 4.9mb
epPd 30 25.45 14kmX
GBA 31.05 183 Pc 30 23.40 -0.5
0.9s 24.00nm 5.0mb
WHN 31.25 105 eP 30 25.00 -0.6
1.5s 120.00nm 5.6mb
Z 16s 6.04um 5.4MszX
N 14s 8.51um
pP 30 33.50 30kmX
S 35 32.00
BDT 32.24 142 eP 30 33.80 -0.6
0.8s 30.00nm 5.3mb
e 35 26.00
CTK 32.26 279 iP 30 35.10 0.5
SNY 32.42 79 Pc 30 35.60 -0.2
1.6s 83.00nm 5.4mb
Z 14s 9.07um 5.6MszX
E 12s 4.85um
S 35 48.00
sS 36 03.00
PUL 32.42 315 ePc 30 35.00 -0.6
1.8s 370.00nm 6.0mb
Z 12s 20.00um 6.0MszX
N 11s 4.50um
E 11s 19.00um
e 30 40.00 17kmX
e 31 46.00
ePPP 31 56.00
e 33 28.00
eS 35 45.00
eSS 37 36.00
KAS 32.76 280 eP 30 38.00 -0.8
RYD 32.83 243 eP 30 38.50 -1.1
MJMA 32.89 246 iPc 30 39.00 -1.1
CN2 33.07 75 Pc 30 41.30 -0.1
0.6s 24.00nm 5.3mb
Z 10s 4.14um 5.4MszX
N 10s 1.46um
E 10s 4.18um
epP 30 45.00 13kmX
eS 36 02.00
MRFT 33.30 279 eP 30 45.00 1.4
LOE 33.36 137 eP 30 43.90 -0.2
NJ2 33.52 98 Pc 30 49.00 3.6X
Z 21s 4.20um 5.1Msz
N 11s 6.09um
E 11s 3.07um
YAK 33.86 41 iPd 30 47.20 -0.8
1.8s 544.00nm 6.2mb
ipP 30 57.00 34kmX
e 41 12.00
QASM 33.89 249 eP 30 48.30 -0.4
MNK 33.95 304 iP 30 47.00 -1.9
DVR 34.07 281 eP 30 50.70 0.5
NST 34.13 141 eP 30 51.50 0.7
SGKT 34.26 280 iP 30 52.30 0.3
KIS 34.36 292 iP+ 30 53.00 0.4
Z 16s 3.70um 5.2MszX
E 12s 3.90um
i 30 58.00 17kmX

i 32 16.00
iS 36 16.00
iSS 38 33.00
KOD 34.40 182 iPc 30 55.20 1.7
0.9s 31.93nm 5.2mb
KAF 34.60 319 iP 30 54.20 -0.3
0.5s 20.60nm 5.3mb
BHL 34.72 267 P 30 54.00 -1.9
S 39 40.00
NAL 34.93 280 iP 30 58.10 0.4
NUR 35.30 316 iP 31 00.30 -0.1
0.8s 84.60nm 5.7mb
FAM 35.34 270 eP 31 00.00 -1.1
CFR 35.36 289 iPc 31 01.50 0.4
SDF 35.42 328 iP 31 01.10 -0.3
AFIF 35.48 246 eP 31 05.60 3.1X
MDJ 35.64 72 eP 31 04.00 0.5
Z 14s 5.66um 5.5MszX
N 10s 5.14um
E 10s 3.45um
eS 36 40.00
MDJ 35.64 72 eP 31 08.41 4.9X
Z 14s 5.66um 5.5MszX
N 10s 5.14um
E 10s 3.45um
epPd 31 13.13 16kmX
eS 36 40.00
SSE 35.71 98 Pc 31 04.60 0.4
1.3s 28.00nm 5.0mb
Z 16s 6.80um 5.5MszX
N 12s 2.20um
E 14s 4.20um
S 36 40.00
PSN 35.82 287 iP 31 06.00 1.0
CSS 35.83 270 eP 31 04.50 -0.8
GBZT 36.00 281 ePg 31 06.60 0.0
VRI 36.10 291 iPc 31 08.50 1.0
QIZ 36.39 125 P 31 10.60 0.5
E 17s 4.92um
eS 36 50.00
ISR 36.45 290 iPc 31 12.50 2.1
PPCY 36.58 271 eP 31 11.00 -0.5
NNT 36.70 144 eP 31 13.30 0.6
MLR 36.74 290 iPc 31 14.00 1.0
BUC1 37.06 289 iPc 31 16.00 0.6
AYN 37.28 260 iPc 31 18.30 0.8
KMSA 37.33 241 iPc 31 17.60 -0.5
PVL 37.92 287 iPc 31 25.00 2.3
KSL 37.94 274 ePg 31 21.50 -1.4
UZH 38.20 297 ePc 31 25.50 0.5
1.2s 110.00nm 5.5mb
Z 16s 3.70um 5.3MszX
E 16s 4.50um
i 31 41.50 64kmX
e 32 53.00
iPPP 33 16.00
ALN 38.32 283 iP 31 26.60 0.5
KDZ 38.46 285 iPc 31 29.00 1.7
TRO 38.53 331 eP 31 27.80 0.3
RDO 38.58 284 ePg 31 28.60 0.4
PRK 38.86 281 ePg 31 31.00 0.4
RZN 38.93 285 iPc 31 32.00 0.6
PGB 38.97 287 iPc 31 33.00 1.4
SPC 39.34 298 eP 31 35.50 0.7
iPP 33 03.00
VTS 39.61 287 iPc 31 38.00 1.0
MMB 39.65 285 iP 31 38.00 0.8
SSR 39.75 291 eP 31 27.00 -11.0X
SRS 39.93 285 eP 31 39.76 0.2
KKB 39.98 286 iPc 31 41.00 1.1
MOR8 39.98 325 iPc 31 37.88 -1.8
OUR 39.99 284 eP 31 40.68 0.7
KMTA 40.00 240 iPc 31 42.00 1.4
ABHA 40.00 240 ePc 31 43.30 2.6
SOH 40.22 285 eP 31 42.12 0.2
RAC 40.37 300 iP+ 31 44.20 1.2
i 31 49.50 18kmX
i 33 17.50
e(S) 37 52.00
PAIG 40.37 283 iP 31 43.10 0.0
KNT 40.39 285 iP 31 44.21 0.9
VAY 40.55 286 iPd 31 45.60 1.0
1.1s 350.00nm 6.0mb
i 31 52.70 24kmX
HFS 40.76 316 eP 31 45.80 -0.3
1.0s 124.10nm 5.6mb
Z 15s 5.07um 5.5MszX

LR 45 59.00
GRG 40.82 285 eP 31 46.60 -0.2
SRO 40.99 297 iPc 31 49.40 1.3
iPP 33 24.30
BSD 41.03 308 iP 31 47.50 -0.8
0.9s 46.00nm 5.2mb
e 33 14.00 459kmX
SKO 41.06 287 iPc 31 49.50 0.8
Z 12s 1.46um 5.1MszX
i 32 13.50 103kmX
i 33 27.00
i 33 35.00
LR 51 40.00
LIT 41.12 284 eP 31 48.84 -0.5
SHNJ 41.14 86 P 31 50.30 0.8
NPS 41.18 276 ePg 31 49.20 -0.6
UZD 41.22 295 eP 31 50.80 0.8
KSP 41.31 302 iPc 31 51.50 0.7
1.0s 115.00nm 5.6mb
i 31 57.00 19kmX
i 33 25.60
e 41 27.70
e 45 52.50
KZN 41.53 285 ePg 31 53.00 0.3
FNA 41.59 285 eP 31 52.86 -0.4
ZST 41.63 298 iP 31 54.40 1.0
i 32 00.80 22kmX
ePP 33 27.00
AGG 41.71 283 eP 31 53.46 -0.7
NRAO 41.73 317 P 31 53.90 -0.1
pP 31 58.50 15kmX
PP 33 30.50
ScS 41 58.00
NREO 41.73 317 P 31 53.30 -0.7
PcP 33 47.00
S 38 32.50
SS 41 12.90
IVA 41.74 289 iPc 31 55.57 1.1
KUMJ 41.77 89 eP 31 55.10 0.4
PVY 41.80 289 iPc 31 55.89 0.9
BCI 41.83 288 eP 31 54.80 -0.3
NB2 41.84 318 P 31 55.00 0.0
0.6s 36.70nm 5.3mb
OHR 41.85 286 iP 31 55.00 -0.3
1.7s 160.00nm 5.5mb
i 32 03.80 30kmX
PLE 41.90 290 iPc 31 56.64 0.9
SNG 41.96 147 eP 32 03.80 7.5X
VKA 42.10 298 iPc 31 58.80 1.6
1.5s 448.00nm 6.0mb
VAM 42.11 277 ePn 31 56.50 -0.9
YONJ 42.27 83 P 31 48.90 -9.9X
COP 42.27 310 iPc 31 59.90 1.4
1.0s 168.00nm 5.7mb
i 32 06.00 20kmX
e 33 28.00
SDA 42.34 288 iPc 32 00.60 1.3
TTG 42.35 289 iPc 32 00.01 0.7
VLI 42.35 279 ePg 31 57.50 -1.9
NKY 42.37 289 iPc 32 00.05 0.4
LACI 42.37 287 iP 31 59.80 0.3
TIR 42.39 287 eP 31 59.80 0.1
LSK 42.40 285 iPd 32 00.20 0.3
ULC 42.55 288 iPc 32 01.33 0.3
BRY 42.64 290 iPc 32 01.90 0.0
PRU 42.64 301 iPc 32 02.50 0.9
1.1s 98.80nm 5.5mb
ipP 32 08.70 21kmX
PP 33 44.90
PcP 33 50.80
eS 38 24.00
BDV 42.70 289 iPc 32 02.51 0.3
BRN 42.70 305 eP 32 03.50 1.4
BRG 42.73 302 iPd 32 03.20 0.9
1.6s 270.00nm 5.7mb
i 32 09.40 21kmX
TPE 42.74 285 eP 32 00.00 -2.6X
HCY 42.85 289 iPc 32 03.73 0.3
IGT 42.86 284 eP 32 02.52 -1.1
KONO 42.88 316 eP 32 03.32 -0.1
VLO 43.02 286 iP 32 04.80 0.0
CLL 43.15 303 iPc 32 06.30 0.5
1.2s 210.00nm 5.8mb
i 32 12.90 22kmX
PTJ 43.17 295 iPc 32 06.40 0.3
ZAG 43.19 295 iPc 32 07.10 1.0
MOL 43.30 320 eP 32 06.86 0.1

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TKSJ   43.30  85 P     32 07.60   0.4
YSS    43.46  63 eP    32 08.68   0.4
   Z  18s     5.30um        5.5Msz
   N  13s     1.90um
   E  13s     3.90um
              epPd  32 13.15  15kmX
              esPc  32 15.47
              e     33 45.00
              (S)   38 38.00
              eSS   41 48.00
KHC    43.52 300 Pc    32 09.50   0.7
       1.2s   70.00nm       5.3mb
   Z  10s     3.70um        5.6MszX
   N  16s     2.80um
              e     32 16.00  22kmX
              e     33 46.00
              e     35 39.50
GEC2   43.54 300 Pc    32 09.80   0.7
       0.7s   15.51nm       4.9mb
              e     32 17.10  24kmX
KMR    43.55 298 iP+   32 10.30   1.2
VBY    43.78 294 iPc   32 11.50   0.6
              i     32 18.10  22kmX
MUD    43.85 311 iPc   32 11.40   0.1
       0.9s  131.00nm       5.7mb
              i     33 55.00 582kmX
              i     35 37.00
MUD    43.85 311 iPc   32 13.20   1.9
       0.9s  126.00nm       5.7mb
TSRJ   43.88  82 P     32 11.80   0.0
HVAR   43.93 291 iPc   32 10.40  -1.7
WET    43.94 300 iPc   32 13.00   0.7
       1.2s  152.00nm       5.7mb
              i     32 19.60  22kmX
LJU    44.04 295 iPc   32 13.30   0.3
              i     32 18.90  19kmX
              iPP   33 58.10
              i     34 03.60
              i     34 07.60
HOF    44.15 302 iPc   32 14.70   0.7
MOX    44.20 303 iPc   32 15.20   0.9
       1.4s  187.00nm       5.7mb
              i     32 21.80  22kmX
              e     33 56.40
WKYJ   44.27  83 P     32 15.60   0.4
KBA    44.40 297 iPc   32 16.40   0.2
       1.2s   92.60nm       5.5mb
              i     32 23.40  23kmX
              i     33 47.90
              i     33 54.00
              i     34 03.40
BRT    44.40 288 P     32 16.70   0.6
       1.4s  733.50nm       6.4mb
RIY    44.40 295 iPc   32 15.80  -0.2
VOY    44.45 296 iPc   32 16.00  -0.5
              i     32 22.80  23kmX
              e     32 23.00
              e     32 42.30
BHG    44.46 298 iPc   32 17.40   1.0
       1.6s  270.00nm       5.9mb
IPM    44.50 147 ePc   32 16.90  -0.1
ASAJ   44.53  67 eP    32 17.20   0.1
TRI    44.66 295 P     32 18.04   0.0
       1.4s  372.00nm       6.1mb
GRF    44.77 302 iPc   32 20.50   1.6
       1.3s  379.00nm       6.1mb
              ipP   32 27.10  22kmX
              ePP   34 03.00
MAJO   44.94  79 (P)   32 18.50  -2.0
       1.3s   27.68nm       5.0mb
              epPd  32 23.47  17kmX
MAT    44.94  79 eP    32 19.00  -1.5
       1.3s   23.08nm       4.9mb
              eS    38 56.00
FVI    44.95 297 P     32 20.10  -0.2
       1.1s   81.80nm       5.6mb
BAG    45.01 115 eP    32 21.00  -0.4
ARO    45.19 234 eP+   32 24.00   1.3
IIDJ   45.26  80 P     32 24.10   1.0
ORI    45.29 287 P     32 24.34   1.2
       1.2s  414.80nm       6.3mb
FUR    45.29 299 iPc   32 24.60   1.5
       1.2s  378.00nm       6.2mb
              i     32 30.80  21kmX
WTTA   45.41 298 iPc   32 24.70   0.4
       1.0s  326.00nm       6.2mb
              i     32 31.40  22kmX
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                     i     34 15.80
VVI    45.41 296 P     32 23.62  -0.5
       1.1s  100.30nm       5.7mb
YAMJ   45.42  76 P     32 24.00  -0.2
WATA   45.42 298 iPc   32 24.60   0.3
                 i     32 31.30  22kmX
SQTA   45.69 298 iPc   32 26.60   0.2
       1.1s  277.00nm       6.1mb
                 i     32 33.50  23kmX
HOOJ   45.69  69 eP    32 26.60   0.3
MOTA   45.71 298 iPc   32 26.90   0.3
                 i     32 33.50  22kmX
CHJJ   45.73  79 P     32 25.90  -0.8
SGO    45.83 288 P     32 28.38   1.0
MGR    45.86 287 P     32 28.22   0.6
       0.9s  181.20nm       6.0mb
CTI    45.88 297 P     32 27.22  -0.7
       1.4s  148.70nm       5.8mb
GRI    45.89 285 P     32 28.50   0.6
       1.0s  192.40nm       6.0mb
DUI    45.91 290 P     32 28.95   0.8
       1.2s  221.00nm       6.0mb
OGA    45.95 298 iPc   32 28.80   0.2
OFUJ   46.11  74 P     32 29.10  -0.5
ARV    46.11 293 P     32 29.87   0.2
       1.1s  225.90nm       6.1mb
TNS    46.24 303 iPc   32 31.20   0.5
RSM    46.25 294 P     32 31.12   0.5
       1.8s  902.70nm       6.5mb
AQU    46.30 291 P     32 31.94   0.7
       1.1s  312.60nm       6.2mb
SDI    46.32 290 P     32 31.70   0.4
       0.9s  104.00nm       5.8mb
KUSJ   46.33  68 eP    32 30.90  -0.4
WIT    46.35 307 eP    32 33.00   1.7
                 e     32 39.50  22kmX
                 e     34 08.00
ASS    46.48 292 P     32 33.38   0.8
       1.8s  520.60nm       6.2mb
KAKJ   46.48  78 P     32 31.30  -1.3
OSS    46.58 298 P     32 33.75   0.3
SFI    46.64 294 P     32 34.88   1.1
       1.0s  247.10nm       6.2mb
CRE    46.70 293 P     32 35.06   0.7
       1.6s  269.50nm       6.0mb
BNS    46.72 304 iPc   32 34.60   0.3
PGD    46.74 294 P     32 35.97   1.1
       1.1s  250.40nm       6.2mb
MNS    46.77 292 P     32 34.81  -0.1
       1.2s  237.10nm       6.1mb
SAL    46.78 297 P     32 35.09   0.3
       1.1s  444.50nm       6.4mb
RMP    47.01 291 P     32 37.08   0.3
       1.3s  409.10nm       6.3mb
RDP    47.03 291 P     32 37.25   0.3
       1.6s 1216.20nm       6.7mb
VDL    47.08 298 P     32 37.52   0.0
FIR    47.09 294 eP    32 38.00   0.7
                 i     34 30.00 637kmX
LANF   47.11 302 P     32 37.83   0.4
SLE    47.17 300 P     32 38.38   0.4
LLS    47.22 299 P     32 38.45  -0.2
MDI    47.23 297 P     32 37.45  -0.9
       0.9s   17.00nm       5.1mb
MME    47.27 295 P     32 40.27   1.2
       1.3s  397.80nm       6.3mb
BDI    47.39 295 P     32 40.00   0.1
       0.9s   32.60nm       5.4mb
FEL    47.42 300 P     32 40.13   0.1
MNO    47.50 285 P     32 41.47   0.5
       0.5s   23.90nm       5.5mb
ENN    47.53 305 eP    32 41.00   0.3
       0.9s   32.10nm       5.4mb
                 e     32 47.50  22kmX
                 e     34 20.00
LIBD   47.56 301 P     32 41.34   0.3
PII    47.59 294 P     32 40.65  -0.6
       1.4s  383.40nm       6.3mb
WLS    47.61 301 P     32 41.45   0.0
TMA    47.62 298 P     32 40.90  -0.8
CDF    47.65 301 P     32 41.77  -0.1
KGM    47.74 146 eP    32 44.00   1.3
MEU    47.75 284 P     32 43.59   0.8
       1.2s   71.60nm       5.6mb
VAI    47.78 298 P     32 41.63  -1.1
       0.9s  386.30nm       6.5mb
PZI    47.80 284 P     32 43.15   0.0
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       0.4s   24.70nm       5.6mb
BOB    47.83 296 P     32 43.90   0.6
       1.1s  316.10nm       6.3mb
WLF    47.83 303 iPc   32 43.90   0.8
       1.3s   40.00nm       5.3mb
                 ic    32 50.84  23kmX
                 e     49 43.00
BBS    47.90 300 P     32 43.64  -0.1
MOF    47.97 301 P     32 44.62   0.3
BSF    48.19 301 eP    32 46.10   0.0
       0.9s   97.60nm       5.9mb
MMK    48.21 298 P     32 46.36  -0.1
LOMF   48.37 300 P     32 47.47   0.0
ORX    48.38 298 P     32 45.05  -2.6X
HAU    48.39 301 eP    32 47.60   0.1
       0.6s   60.05nm       5.8mb
   Z  22s     1.75um        5.0Msz
ORO    48.39 298 P     32 45.38  -2.2
       0.9s   29.60nm       5.3mb
UCC    48.44 305 P     32 48.00   0.2
PCP    48.50 296 P     32 48.02  -0.5
VITF   48.52 301 P     32 48.79   0.3
FAI    48.53 285 P     32 49.18   0.5
       1.3s  130.40nm       5.8mb
DIX    48.55 298 P     32 49.08   0.0
DOU    48.58 304 Pc    32 49.30   0.4
                 ed    32 56.60  24kmX
                 e     50 21.00
SNF    48.59 305 P     32 49.20   0.2
DAG    48.63 342 iPd   32 48.60  -0.3
       0.8s   40.30nm       5.5mb
                 ipP   32 53.90  18kmX
                 isP   34 12.70
CKI    48.73 296 P     32 49.70  -0.4
       1.1s  263.80nm       6.2mb
EMS    48.85 299 P     32 51.09  -0.2
FIN    48.87 296 Pc    32 49.94  -1.3
LSD    48.98 298 Pc    32 51.91  -0.5
ROB    49.05 296 P     32 51.27  -1.4
RSP    49.05 297 P     32 50.17  -2.6X
PGF    49.12 293 P     32 53.21  -0.1
BHB    49.19 297 P     32 51.09  -2.6X
IMI    49.21 296 P     32 53.33  -0.6
LPG    49.22 298 eP    32 54.80   0.5
       0.9s  298.75nm       6.3mb
LPL    49.22 298 eP    32 54.80   0.6
       0.8s  270.80nm       6.3mb
DOI    49.35 297 P     32 53.47  -1.6
       1.4s  184.90nm       5.9mb
ENR    49.37 296 P     32 53.88  -1.3
SAOF   49.39 296 P     32 55.40   0.1
STV    49.42 296 P     32 53.97  -1.6
PZZ    49.44 297 P     32 53.47  -2.3
RRL    49.46 297 P     32 55.89  -0.1
BNI    49.47 297 P     32 56.00   0.0
       0.8s  189.40nm       6.2mb
AUTN   49.47 296 P     32 56.07   0.0
SBF    49.52 296 P     32 56.29  -0.1
TOUF   49.57 296 P     32 56.29  -0.6
AURF   49.58 296 P     32 56.72  -0.1
MVIF   49.69 296 P     32 57.40  -0.3
CALN   49.92 296 P     32 59.37  -0.2
FRF    50.17 296 eP    33 01.10  -0.1
       0.9s  172.30nm       6.0mb
LOR    50.22 301 iPc   33 00.80  -0.8
       0.6s   33.65nm       5.5mb
   Z  23s     1.23um        4.8MszX
LBF    50.28 301 eP    33 01.20  -0.9
       0.9s   39.65nm       5.4mb
LMR    50.37 296 eP    33 02.70   0.0
       1.2s  211.85nm       6.0mb
LRG    50.40 296 eP    33 02.90  -0.1
       1.1s  128.95nm       5.8mb
   Z  22s     1.90um        5.1Msz
SMF    50.51 300 eP    33 03.50  -0.3
       0.9s   96.95nm       5.8mb
EDI    50.53 314 eP    33 13.80  10.1X
SSF    50.53 301 iPc   33 03.30  -0.6
       1.0s   69.40nm       5.6mb
PET    50.60  50 eP    33 14.00   9.7X
   Z  16s     3.90um        5.5MszX
                 e     33 26.00  43kmX
                 e     40 34.00
SSB    50.70 299 P     33 05.11  -0.2
AVF    50.75 301 eP    33 05.30  -0.2
       1.2s  258.25nm       6.0mb
EKA    50.75 313 P     33 05.00  -0.5
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30d 14h

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        2.2s    32.20nm              4.9mb
ESK     50.78 313 eP     33 04.76  -0.9
HYF     50.97 302 eP     33 07.20   0.0
BGF     51.16 301 eP     33 08.50  -0.2
        0.8s    86.25nm              5.7mb
MAF     51.49 300 eP     33 11.40   0.1
        1.2s   299.90nm              6.1mb
TCF     51.68 301 eP     33 12.60  -0.1
        0.9s   118.60nm              5.8mb
HAE     51.84 309 ePc    33 13.30  -0.5
LDF     52.01 304 eP     33 14.50  -0.6
        1.2s   154.70nm              5.8mb
LSF     52.11 301 eP     33 15.30  -0.7
        0.8s    52.25nm              5.5mb
FLN     52.14 305 eP     33 15.40  -0.7
        1.0s    86.40nm              5.6mb
     Z  22s      1.52um              5.0Msz
HGH     52.16 309 ePc    33 14.80  -1.4
HTR     52.22 309 ePc    33 15.70  -1.0
HCG     52.32 310 eP     33 17.00  -0.5
CAF     52.42 299 eP     33 18.50   0.2
        1.3s   148.00nm              5.8mb
GRR     52.54 304 eP     33 18.40  -0.7
        0.7s    56.00nm              5.6mb
RJF     52.57 300 eP     33 19.70   0.3
        0.8s   160.65nm              6.0mb
LPF     52.82 304 eP     33 20.40  -0.8
        0.6s    32.85nm              5.4mb
TSM     52.85 128 eP     33 22.00   0.3
MFF     52.96 302 eP     33 21.50  -0.8
        0.9s    75.35nm              5.6mb
LPO     53.08 299 eP     33 23.30   0.1
        0.7s    83.35nm              5.8mb
PERF    53.11 296 P      33 22.58  -0.9
ETER    53.21 296 iPd    33 24.00  -0.2
LFF     53.23 300 eP     33 24.60   0.3
        0.9s   209.00nm              6.1mb
DLF     53.42 312 eP     33 30.00   4.5X
LSPF    53.49 297 P      33 26.18  -0.1
GRBF    53.78 297 P      33 27.66  -0.8
DCN     53.80 312 eP     33 28.00  -0.3
        1.0s   162.00nm              6.0mb
ECP     53.86 311 eP     33 27.00  -1.8
PAND    53.94 297 P      33 29.39  -0.3
EPF     54.44 298 eP     33 32.30  -1.0
        0.9s    77.00nm              5.7mb
ESEL    54.50 293 iPc    33 33.84   0.2
ENSF    54.56 298 P      33 34.24   0.0
OGE     54.88 298 P      33 35.41  -1.1
JAU     54.88 298 P      33 36.59  -0.1
ESCF    54.99 298 P      33 36.12  -1.2
ATE     55.07 299 P      33 35.71  -2.1
MADF    55.11 299 P      33 35.32  -2.8X
ISSF    55.16 299 P      33 38.55   0.0
ELYF    55.20 299 P      33 37.09  -1.8
DAV     55.22 118 e(P)   33 41.20   2.0
BOH     55.25 299 P      33 38.22  -1.1
EGRA    55.29 297 iPc    33 35.89  -3.5X
ELIZ    55.54 299 iPd    33 40.71  -0.6
EROQ    55.55 296 iPc    33 40.67  -0.6
ECRI    56.45 299 iPc    33 47.76  -0.1
ECHE    57.10 295 iPc    33 52.16  -0.4
ETOR    57.13 297 eP     33 51.88  -0.9
ACU     57.34 294 iPc    33 53.80  -0.4
EALH    58.36 294 iPc    34 01.32   0.0
GUD     58.55 298 iPc    34 02.12  -0.7
EVIA    58.62 295 iPd    34 02.82  -0.5
MBC     58.74   5 iPc    34 03.80   0.4
        1.1s   416.00nm              6.4mb
                   PcP   34 52.30
                   PPP   37 30.20
                   S     42 05.60
                   ScS   43 42.90
SMY     58.89  45 P      34 10.00   5.2X
     Z  18s      1.98um              5.3Msz
NAI     59.06 231 iPc    34 05.50  -1.1
        1.0s  2284.00nm              7.3mb X
                   e     34 07.00   5kmX
EHUE    59.15 294 iPc    34 06.40  -0.5
PAB     59.30 297 iPc    34 06.90  -1.0
ENIJ    59.38 293 eP     34 07.72  -0.7
ERUA    59.43 301 iPd    34 07.95  -0.8
EBAN    59.72 295 iPc    34 10.14  -0.7
STS     60.01 302 iPd    34 12.46  -0.2
ECOG    60.09 294 iPd    34 11.90  -1.6
EPLA    60.09 298 iPd    34 12.24  -1.1
ANM     60.10  27 eP     34 12.96   0.0
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EGUA    60.35 294 iPc    34 13.57  -1.5
ELUQ    60.38 295 P      34 14.85  -0.5
        1.3s    53.90nm              5.5mb
TAF     60.77 291 iPd    34 19.50   1.5
EMEL    60.85 292 P      34 18.36  -0.1
        1.4s   685.90nm              6.6mb
EHOR    60.86 296 iPc    34 17.77  -0.7
EPRU    61.35 295 iPc    34 20.59  -1.3
EJIF    61.81 294 iPc    34 23.32  -1.7
EVAL    61.96 296 iPd    34 24.67  -1.4
NKM     62.37 294 eP     34 23.00  -5.7X
                   i     34 28.00  16kmX
IMA     62.40  21 eP     34 27.54  -1.2
        1.6s    67.10nm              5.6mb
IFR     63.35 292 iPd    34 35.00  -0.4
GUMO    63.59  97 (P)    34 39.99   3.0X
        1.4s   538.04nm              6.5mb
ADK     63.92  42 (P)    34 38.49  -0.2
TTA     64.17  25 eP     34 39.71  -0.6
        1.7s    49.81nm              5.4mb
COL     64.82  20 (P)    34 43.51  -0.9
        0.6s    23.45nm              5.5mb
                   epPd  34 48.23  15kmX
FBA     64.82  20 eP     34 43.71  -0.7
        1.0s    29.08nm              5.4mb
AVE     64.99 293 iP     34 45.00  -0.9
                   i     35 10.50 102kmX
SVW     65.69  26 eP     34 50.36   0.3
        1.5s    94.97nm              5.7mb
TIO     66.37 291 iPc    34 54.60  -0.4
                   i     35 01.50  22kmX
CP2     66.58  24 eP     34 55.46  -0.5
CRP     66.60  24 eP     34 54.98  -1.1
PMR     67.19  23 eP     34 58.03  -1.5
        0.9s    52.08nm              5.7mb
     Z  19s      1.65um              5.3Msz
TOA     67.55  21 eP     35 01.70  -0.3
SLKM    67.78  24 eP     35 01.82  -1.5
KLU     68.13  21 eP     35 04.57  -1.0
SDN     68.42  32 P      35 20.00  12.7X
     Z  18s      2.27um              5.4Msz
KDC     69.33  27 eP     35 12.21  -0.6
        1.4s    57.57nm              5.5mb
BALM    69.42  20 eP     35 13.21  -0.4
YKA     72.58   6 eP     35 31.70  -0.7
        1.3s    43.10nm              5.4mb
MTN     74.35 127 eP     35 42.90  -0.4
SIT     74.63  19 P      35 50.00   5.6X
     Z  18s      1.17um              5.2Msz
KNA     75.39 130 eP     35 49.50   0.2
MBL     75.52 141 iPc    35 49.00  -0.9
BUL     79.12 227 iPd    36 09.00  -1.1
                   iSg   51 07.30
LKO     79.38 273 Pc     36 11.03  -0.6
        0.9s   104.50nm              5.9mb
KIC     80.97 270 Pc     36 19.90  -0.2
        1.0s   124.50nm              5.9mb
TIC     80.97 270 Pc     36 19.96  -0.1
        1.3s   181.50nm              6.0mb
MRWA    81.05 148 eP     36 20.00   0.0
LIC     81.27 270 Pc     36 21.40  -0.2
        1.2s   151.50nm              5.9mb
PMG     81.64 112 eP     36 24.00   0.6
BAL     82.56 148 eP     36 27.20  -0.7
BFT     83.01 223 iPd    36 25.00  -5.6X
MUN     83.60 149 eP     36 32.50  -0.7
KLB     83.84 147 eP     36 33.50  -0.9
CBM     84.17 338 P      36 50.00  13.9X
     Z  19s      0.92um              5.2Msz
COOL    84.57 144 eP     36 37.50  -0.6
ASPA    84.62 131 iPKPc  36 38.20  -0.3
     Z  23s      0.30um              4.6MszX
NWAO    84.83 148 (P)    36 38.84  -0.5
        1.4s    66.31nm              5.7mb
STW     85.42  15 P      36 43.67   1.4
JCW     85.69  14 P      36 43.94   0.2
GMW     86.16  14 eP     36 47.08   1.0
NEW     86.34  11 eP     36 47.09   0.1
        1.3s    22.14nm              5.2mb
     Z  19s      0.84um              5.2Msz
RMW     86.42  14 eP     36 47.97   0.6
WTV     86.49  13 P      36 47.54  -0.2
SAW     86.57  12 P      36 48.16   0.1
DPW     86.58  11 eP     36 48.38   0.2
FMW     86.95  14 P      36 50.39   0.2
LON     87.10  14 eP     36 50.99   0.3
BMW     87.12  15 P      36 51.88   1.1
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EBG     87.16  13 P      36 51.31   0.3
SHW     87.57  14 (P)    36 54.06   1.0
LBNH    87.66 339 P      37 00.00   6.6X
     Z  18s      0.84um              5.2Msz
ASR     87.72  14 P      36 54.27   0.5
BLF     87.75 224 iPc    36 54.20   0.2
        0.9s    38.46nm              5.7mb
RSNY    87.99 341 eP     36 55.15   0.2
        1.4s   136.60nm              6.1mb
VGB     88.48  14 eP     36 57.88   0.5
JBO     88.68  13 P      36 58.94   0.6
FRS     88.70 224 iPc    36 50.00  -8.3X
        0.9s    37.82nm              5.7mb
VBEM    88.78  14 P      36 59.54   0.6
CROR    88.96  14 P      37 00.46   0.8
CTA     89.01 120 P      37 00.80   0.8
HRV     89.19 339 P      37 10.00   9.3X
     Z  18s      0.70um              5.1Msz
VIPM    89.48  14 P      37 03.07   0.8
BINY    90.56 342 P      37 20.00  12.9X
     Z  19s      1.53um              5.5Msz
YSNY    90.84 343 eP     37 09.23   0.8
        1.4s   152.81nm              6.1mb
     Z  19s      0.85um              5.2Msz
GRM     91.02 221 eP     37 10.00   0.9
        0.6s    26.67nm              5.7mb
RSSD    91.49   2 eP     37 12.12   0.5
        1.3s    61.97nm              5.8mb
LBFM    92.32  15 eP     37 14.99  -0.5
BW06    92.55   6 eP     37 15.61  -1.0
        1.7s    15.12nm              5.1mb
WDC     92.93  16 P      37 30.00  11.9X
     Z  20s      0.65um              5.1Msz
HVU     93.25   9 eP     37 20.17   0.4
MCWV    93.82 344 eP     37 22.31   0.2
        1.1s    40.68nm              5.7mb
     Z  19s      1.50um              5.5Msz
ORV     94.12  16 eP     37 23.34  -0.2
DAU     94.76   8 eP     37 27.42   0.5
DUG     94.81   9 eP     37 27.21   0.3
        1.2s    21.78nm              5.5mb
     Z  20s      0.70um              5.1Msz
KVN     95.22  13 (P)    37 29.83   1.0
EMUT    95.39   7 eP     37 30.99   1.2
HMR     95.42  16 (P)    37 32.29   2.8X
CMB     95.81  15 P      37 40.00   8.6X
     Z  18s      0.54um              5.1Msz
GLD     95.82   3 eP     37 32.69   1.1
        1.4s    24.07nm              5.5mb
     Z  19s      1.74um              5.5Msz
GOL     95.86   3 P      37 40.00   8.1X
     Z  19s      1.63um              5.5Msz
SRU     96.11   7 eP     37 33.38   0.4
ARN     96.25  16 eP     37 34.52   1.1
HON     96.34  52 P      37 40.00   6.1X
     Z  20s      0.49um              5.0Msz
SLM     96.42 351 P      37 40.00   5.9X
     Z  18s      0.81um              5.2Msz
MSU     96.54   9 eP     37 35.68   0.7
PV08    96.80   6 eP     37 36.68   0.4
SAO     96.83  16 P      37 50.00  14.0X
     Z  20s      0.54um              5.0Msz
PV09    96.84   6 eP     37 36.70   0.3
PV10    96.97   6 eP     37 37.69   0.8
FVM     97.09 351 P      37 50.00  12.9X
     Z  19s      2.87um              5.8Msz
ARUT    97.12  10 eP     37 37.78   0.3
CEH     97.28 342 P      37 50.00  12.0X
     Z  21s      0.80um              5.2Msz
ISA     98.46  14 P      37 50.00   6.6X
     Z  18s      0.68um              5.2Msz
MYNC    99.07 346 P      38 00.00  13.8X
     Z  20s      0.87um              5.2Msz
OXF    100.40 350 Pdiff  38 00.00   8.1X
     Z  20s      0.89um              5.3Msz
ALQ    100.55   4 Pdiff  38 00.00   7.1X
     Z  19s      1.05um              5.4Msz
GOGA   100.57 345 Pdiff  38 00.00   7.3X
     Z  20s      0.90um              5.3Msz
WMOK   100.87 358 Pdiff  38 00.00   5.9X
     Z  19s      1.39um              5.5Msz
TUC    102.83   8 Pdiff  38 10.00   7.1X
     Z  18s      0.66um              5.2Msz
NVL    124.71 202 ePKP   43 03.00  -0.6
        2.0s    37.00nm
                   e     44 19.00
BDF    126.76 285 (PKP)  43 12.50   3.0X
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2.0s 0.75nm
SLA 144.89 293 ePKP 43 41.50 -1.3
CYA 147.55 288 ePKPc 43 47.00 0.1
MRA 149.88 282 iPKPc 43 56.00 5.7X
RTLL 151.16 286 ePKPd 43 58.50 6.1X
CFA 151.17 286 ePKPd 43 58.50 6.2X
RTCB 151.48 286 ePKPd 43 59.50 6.6X
S.D. = 0.8 on 437 of 491 obs.

DEC 30, 1993 14h 59m 43.54± 0.56s
41.847 N ± 4.2km 23.252 E ± 4.4km
DEPTH = 5.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.7 (THE).

KKB 0.13 279 iPgd 59 47.00 0.8
Sg 59 49.00
MMB 0.44 126 iPgc 59 53.00 0.6
Sg 00 00.00
VAY 0.73 224 ePn 59 58.00 -0.2
KNT 0.73 201 iPg 59 57.98 -0.2
eSg 00 08.28
VTS 0.75 357 iPg 59 58.00 -0.4
SRS 0.77 161 iPg 59 58.62 -0.4
eSg 00 09.48
SOH 1.03 176 ePg 00 03.33 -0.1
GRG 1.10 216 ePg 00 04.72 0.1
eSg 00 19.60
RZN 1.11 98 iPg 00 05.00 0.1
Sg 00 20.00
THE 1.23 190 ePb 00 06.84 -0.1
eSb 00 24.12
S.D. = 0.5 on 10 of 10 obs.

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* DEC 30, 1993 16h 29m 49.87± 0.92s
38.257 N ±11.2km 122.656 E ±10.3km
DEPTH = 33.0km (normal)
4.6mb (16 obs.)
NORTHEASTERN CHINA (658)
ML 4.8 (BJI).

DL2 1.03 309 iPgc 30 09.50 1.5
Sg 30 25.50
SNY 3.64 11 iPnc 30 45.90 0.7
Pgd 30 57.60
Sn 31 28.60
Sg 31 45.00
TIA 4.86 247 Pn 31 00.80 -1.8
Z 10s 1.91um
Pg 31 15.30
Sg 32 16.60
BJI 5.34 291 ePn 31 08.00 -1.4
Z 12s 1.21um
eSg 32 38.00
CN2 5.93 20 ePn 31 17.70 0.1
eSn 32 23.00
eSg 32 57.00
NJ2 6.93 208 Pgd 31 48.40 16.7X
Sg 33 17.90
SSE 7.25 190 ePn 31 33.50 -2.6X
Z 14s 1.23um
E 13s 1.78um
sP 31 39.50
Sn 32 50.00
sS 33 01.00
Sg 33 26.00
SHNJ 7.98 119 eP 32 04.10 17.7X
TIY 8.09 269 eP 31 48.00 -0.1
Z 16s 1.90um
E 15s 1.71um
MDJ 8.21 37 P 31 50.50 0.9
KUMJ 8.78 128 eP 32 33.00 35.5X
HHC 8.95 290 P 32 04.20 4.2X
BTO 10.05 287 eP 32 17.60 2.4
XAN 11.87 253 P 32 46.00 6.2X
Z 12s 0.59um
MAT 12.49 93 (P) 32 45.00 -3.1X
LZH 15.15 268 eP 33 22.00 -1.3
1.5s 27.00nm 4.3mb
Z 15s 0.87um 3.7Msz
E 10s 0.53um
pP 33 29.00
PP 33 33.50
CD2 17.18 250 P 33 50.20 1.2
1.0s 50.00nm 4.6mb
GTA 17.83 281 eP 33 56.50 -0.6
1.8s 9.00nm 3.6mb X
Z 14s 1.45um 4.1MszX
E 12s 0.72um
GYA 17.88 234 P 34 00.00 2.2
1.0s 27.00nm 4.3mb
KMI 21.36 238 eP 34 38.50 1.8
2.0s 80.00nm 4.8mb
pP 34 47.00 31kmX
WMQ 26.82 293 P 35 30.40 1.5
LSA 27.38 261 P 35 41.00 6.3X
0.9s 6.00nm 4.2mb
GUN 32.31 262 P 36 18.50 0.1
0.6s 17.00nm 5.1mb
KKN 32.83 263 P 36 22.10 -0.7
0.6s 34.00nm 5.4mb
PKI 32.84 262 P 36 22.20 -0.8
0.5s 7.00nm 4.8mb
DMN 33.06 263 P 36 24.30 -0.5
0.5s 6.00nm 4.7mb
GKN 33.24 264 P 36 25.20 -1.0
0.5s 7.00nm 4.8mb
GBA 46.90 251 P 38 23.00 4.0X
WRA 58.92 167 P 39 45.20 -2.9X
0.7s 1.20nm 4.1mb
KAF 59.78 327 iP 39 52.40 -1.3
0.6s 4.00nm 4.7mb
NUR 61.21 326 eP 40 02.70 -0.7
HFS 66.06 329 eP 40 33.80 -1.4
0.4s 1.20nm 4.4mb
NB2 66.51 330 P 40 37.20 -0.9
0.7s 6.20nm 4.8mb
YKA 69.61 25 eP 40 56.70 -0.6
0.6s 0.50nm 3.8mb
LPL 78.67 320 eP 41 50.70 0.4
LPG 78.67 320 eP 41 50.80 0.4
1.2s 12.20nm 4.8mb
S.D. = 1.3 on 26 of 36 obs.

& DEC 30, 1993 17h 04m 19.10s
40.743 N 125.050 W
DEPTH = 5.0km
OFF COAST OF NORTHERN CALIFORNIA(34)
<BRK>. ML 3.3 (BRK), 3.3 (GS).
MD 3.3 (GM).

KCTM 0.61 116 P 04 31.94 0.7
EKR 0.69 94 iP 04 32.90 -0.1
ARC 0.75 79 iPc 04 33.71 -0.5
eS 04 43.89
KJJM 0.75 131 P 04 33.00 -1.2
KMPM 0.78 114 eP 04 34.07 -0.7
S 04 44.61
FHC 0.81 86 ePc 04 34.93 -0.4
KBRM 0.83 91 P 04 35.06 -0.7
KRPM 0.88 62 P 04 35.93 -0.6
KHMM 1.01 82 P 04 37.93 -0.9
KGMM 1.05 89 P 04 38.50 -0.9
KOMM 1.32 66 P 04 42.30 -1.8
KHBM 1.39 93 P 04 43.31 -2.1
KFPM 1.66 131 P 04 46.25 -2.8
KSPM 1.71 135 P 04 47.00 -2.7
GCBM 1.79 139 P 04 48.06 -2.9
LBKM 1.84 79 P 04 49.99 -1.7
GNAM 1.89 144 P 04 48.77 -3.6
WDC 1.92 94 ePc 04 50.62 -2.1
iS 05 14.09
YBH 2.02 60 ePc 04 53.11 -1.2
eS 05 19.28
GHOM 2.06 145 P 04 51.13 -3.6
GGUM 2.23 147 P 04 53.59 -3.7
LGBM 2.24 74 P 04 56.95 -0.7
GHCM 2.57 146 P 04 59.13 -3.0
MIN 2.66 97 ePc 05 01.15 -2.3
iS 05 32.65
LSLM 2.69 95 P 05 02.37 -1.6
OGOM 2.85 111 P 05 02.98 -3.1
OBHM 2.96 110 P 05 04.92 -2.7
ORV 2.97 112 (P) 05 04.41 -3.3
NTYM 2.99 141 (P) 05 04.46 -3.5
ARN 4.36 140 eP 05 23.48 -4.0
30 obs. associated

? DEC 30, 1993 17h 08m 06.06± 1.22s
10.324 N ± 6.3km 66.802 W ±12.5km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)

LLAV 0.15 358 iP 08 09.70 0.1
iS 08 12.70
CAR 0.22 326 iP 08 10.80 -0.1
iS 08 14.60
OLLA 0.30 180 iPd 08 12.40 0.0
iS 08 17.80
GUAC 0.48 254 eP 08 15.90 0.0
S.D. = 0.1 on 4 of 4 obs.

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* DEC 30, 1993 17h 45m 00.39± 0.31s
58.956 S ± 8.4km 25.356 W ±12.4km
DEPTH = 10.0km (geophysicist)
5.0mb (8 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

NVL 19.31 143 P 49 28.00 0.1
2.0s 35.00nm 4.3mb
RTLL 39.98 294 ePd 52 36.50 -0.1
SOB1 51.03 340 eP 54 04.30 -0.2
LIC 66.98 22 P 55 55.68 0.5
0.8s 10.00nm 5.1mb
KIC 67.17 22 P 55 56.58 0.2
1.0s 27.00nm 5.4mb
TIC 67.39 22 P 55 58.12 0.3
0.9s 13.50nm 5.1mb
LKO 70.11 21 P 56 15.11 0.5
0.8s 8.00nm 4.9mb
STK 88.85 169 eP 57 56.80 1.1
0.8s 4.70nm 4.8mb
ASPA 95.91 161 eP 58 28.30 -0.2
0.8s 8.10nm 5.3mb
WRA 99.63 161 P 58 45.70 0.4
0.7s 0.40nm 4.1mb
MSU 120.52 295 iPKP 03 53.50 0.3
TPNV 121.22 291 iPKP 03 55.46 1.0
NB2 122.99 20 PKP 03 56.70 -0.2
0.9s 4.50nm
DMN 123.71 92 PKP 03 59.60 -0.1
GKN 123.79 91 PKP 03 59.10 -0.6
PKI 123.84 92 PKP 03 59.20 -0.8
KKN 123.95 92 PKP 03 59.20 -0.9
CMB 124.10 288 ePKP 04 14.58 14.7X
GUN 124.36 92 PKP 04 01.00 -0.1
KAF 127.13 28 iPKP 04 04.60 -0.3
0.6s 9.50nm
YKA 138.96 315 ePKP 04 26.30 -0.9
0.7s 17.40nm
BJI 149.26 111 ePKP 05 06.00 20.6X
1.2s 24.00nm
KLU 151.26 301 ePKP 04 53.12 5.3X
FBA 153.14 307 ePKP 04 57.00 6.6X
S.D. = 0.6 on 20 of 24 obs.

% DEC 30, 1993 17h 50m 59.47± 0.73s
40.244 N ± 5.3km 23.039 E ± 5.7km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 1.7 (THE).

THE 0.39 352 iPg 51 07.78 0.4
eSg 51 13.85
LIT 0.44 251 ePg 51 08.44 0.1
iSg 51 14.70
PAIG 0.58 123 ePg 51 11.20 0.0
eSg 51 19.58
SOH 0.63 22 iPg 51 12.05 0.1
eSg 51 21.05
GRG 0.86 326 ePg 51 16.40 -0.1
eSg 51 28.62
KNT 0.92 353 ePg 51 17.30 -0.3
eSg 51 31.00
SRS 0.97 26 ePg 51 18.22 -0.1
eSg 51 32.26
S.D. = 0.3 on 7 of 7 obs.

DEC 30, 1993 18h 43m 49.02± 0.46s
40.239 N ± 3.6km 23.035 E ± 3.9km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 2.6 (THE).

THE 0.40 352 ePg 43 57.30 0.3
eSg 44 03.10
LIT 0.44 252 iPg 43 57.78 -0.1
eSg 44 04.48
PAIG 0.58 122 iPg 44 00.65 -0.1
eSg 44 09.28
SOH 0.63 23 iPg 44 01.70 0.1

30d 18h

eSg 44 10.52
OUR 0.73 82 ePg 44 03.16 -0.5
iSg 44 13.61
GRG 0.86 326 ePg 44 06.06 -0.1
eSg 44 18.52
KNT 0.93 354 iPg 44 06.89 -0.3
eSg 44 20.56
SRS 0.97 26 ePg 44 07.72 -0.3
eSg 44 22.10
VAY 1.14 342 iPn 44 10.40 -0.4
AGG 1.33 204 ePb 44 14.28 0.2
MMB 1.45 21 iP 44 16.00 0.1
OHR 1.91 298 ePn 44 26.00 3.4X
RZN 1.93 41 iP 44 24.00 1.0
S.D. = 0.4 on 12 of 13 obs.

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* DEC 30, 1993 19h 18m 46.96± 1.99s
1.626 S ± 9.7km 133.775 E ±13.6km
DEPTH = 61.5 ± 19.4 km
5.0mb (10 obs.)
IRIAN JAYA REGION, INDONESIA (196)

SWI 2.63 287 iPd 19 27.50 -0.2
iS 20 15.00
MTN 11.45 193 eP 21 28.90 -1.2
eS 23 34.00
KNA 14.88 199 eP 22 14.80 -0.5
eS 24 54.60
PMG 15.39 121 eP 22 24.00 2.1
WB2 18.21 178 eP 22 55.10 -2.1X
0.3s 55.00nm 5.2mb
eS 26 20.00
ASPA 21.91 180 iPc 23 36.50 -0.2
0.8s 89.70nm 5.2mb
Z 21s 0.70um 4.0Msz
eS 27 36.00
WARB 25.36 195 eP 24 12.00 1.9
STK 30.98 167 iPc 24 59.20 -1.5
0.8s 13.20nm 4.7mb
BAL 33.05 208 eP 25 20.00 1.2
ARMA 33.27 151 eP 25 19.00 -1.8
0.9s 12.00nm 4.8mb
KLB 33.42 205 eP 25 23.00 1.0
TOO 37.36 165 eP 25 55.00 -0.4
0.9s 13.00nm 4.9mb
KMI 40.14 314 Pc 26 21.00 2.1
1.8s 70.00nm 5.2mb
pP 26 27.00 20kmX
BJI 44.48 341 eP 26 53.00 -0.9
1.3s 12.00nm 4.5mb
LZH 46.75 326 eP 27 12.00 -0.2
1.4s 34.00nm 5.1mb
HYB 57.59 292 eP 28 33.00 -0.3
YAK 63.55 358 eP 29 11.80 -1.1
0.5s 53.00nm 5.8mb
YKA 101.30 26 ePdiff32 35.40 3.2X
0.9s 0.40nm 4.1mb
LPB 151.86 131 ePKP 38 40.00 8.8X
LPAZ 151.98 130 PKP 38 39.50 7.9X
S.D. = 1.4 on 16 of 20 obs.

DEC 30, 1993 19h 22m 38.97± 0.70s
34.374 N ± 6.4km 26.555 E ± 4.3km
DEPTH = 43.3 ± 6.8 km
4.3mb (31 obs.)
CRETE (370)
MD 4.3 (ATH).

NPS 1.18 319 ePn 23 00.00 0.7
VAM 2.19 299 ePn 23 16.80 3.1X
KSL 3.03 54 ePn 23 27.00 1.4
VLI 3.76 309 ePn 23 36.00 0.0
PPCY 4.80 82 eP 23 51.50 0.9
CSS 5.61 82 eP 24 00.00 -2.2
eS 25 04.00
AGG 5.75 325 ePn 24 05.12 1.1
PAIG 6.00 338 ePn 24 07.76 0.2
VLS 6.13 310 ePn 24 10.00 0.6
OUR 6.29 342 iPn 24 12.85 1.2
LIT 6.57 332 ePn 24 15.12 -0.4
THE 6.87 337 ePn 24 21.52 1.9
SOH 6.92 339 ePn 24 21.12 0.7
SRS 7.13 342 ePn 24 24.24 0.9
IGT 7.16 318 ePn 24 24.16 0.3
GRG 7.35 335 ePn 24 25.72 -0.7
KNT 7.37 338 ePn 24 26.72 0.0
KEK 7.59 317 ePn 24 29.00 -0.8
VAY 7.62 337 iPn 24 31.00 0.9
SALJ 8.01 105 Pc 24 34.00 -1.7
KFNJ 8.05 106 P 24 34.50 -1.7
OHR 8.12 328 ePn 24 53.50 16.3X
SKO 8.59 334 ePn 24 47.00 3.4X
i 24 58.00
AYN 9.74 122 eP 24 57.60 -1.9
MLR 11.11 358 eP 25 25.00 6.7X
VRI 11.48 1 eP 25 37.00 13.8X
ZST 15.51 336 eP 26 11.10 -5.1X
PGF 15.97 306 eP 26 22.80 0.6
1.2s 23.80nm 4.2mb
KBA 16.14 326 iPc 26 28.20 3.9X
0.4s 2.50nm 3.7mb
i 26 37.40
WTTA 17.09 323 iPc 26 37.50 1.2
i 26 47.90
WATA 17.17 323 iPc 26 37.30 0.0
i 26 41.50
i 26 49.30
SQTA 17.27 323 iPc 26 38.60 0.1
0.5s 2.40nm 3.6mb
i 26 40.90
i 26 47.70
GEC2 17.32 330 Pn 26 38.30 -0.9
0.8s 3.65nm 3.6mb
e 26 47.90
e 26 53.00
e 27 00.10
SBF 17.57 308 eP 26 42.40 0.2
0.8s 21.20nm 4.3mb
KHC 17.60 331 eP 26 41.50 -1.0
e 26 53.00
PRU 17.93 334 P 26 47.50 1.0
e 26 52.00
KSP 18.08 339 eP 26 47.80 -0.6
e 26 54.60
LPG 18.76 312 eP 26 57.20 0.0
0.9s 7.85nm 3.9mb
LPL 18.78 312 eP 26 56.70 -0.7
BRG 18.87 335 eP 26 58.00 -0.1
1.0s 20.00nm 4.3mb
i 27 05.80
GRF 19.02 328 e(P) 26 59.50 -0.4
1.3s 33.00nm 4.4mb
CLL 19.57 334 e(P) 27 05.00 -1.0
e 27 13.00
MOX 19.58 331 eP 27 08.80 2.7X
BSF 19.99 318 eP 27 09.30 -1.3
0.8s 14.65nm 4.4mb
CDF 20.07 320 eP 27 11.00 -0.4
0.9s 26.05nm 4.6mb
HAU 20.33 318 eP 27 13.30 -0.7
0.8s 19.05nm 4.5mb
SMF 21.09 312 eP 27 21.10 -0.7
1.0s 14.40nm 4.3mb
LBF 21.17 313 eP 27 21.60 -1.0
0.7s 6.70nm 4.1mb
LOR 21.38 314 eP 27 23.70 -1.0
0.9s 8.50nm 4.1mb
WLF 21.42 322 iPc 27 33.42 8.4X
0.9s 11.60nm 4.3mb
AVF 21.46 312 eP 27 24.50 -1.0
SSF 21.49 313 eP 27 25.50 -0.3
1.2s 36.30nm 4.6mb
CAF 21.52 307 eP 27 25.90 -0.3
BGF 21.67 311 eP 27 27.60 0.0
MAF 21.70 310 eP 27 27.60 -0.3
TCF 21.95 310 eP 27 30.10 -0.4
RJF 22.02 307 eP 27 30.80 -0.3
LPO 22.03 305 eP 27 30.90 -0.3
LFF 22.41 306 eP 27 33.90 -1.1
DOU 22.48 321 Pc 27 36.90 1.3
LDF 24.36 314 eP 27 53.60 -0.3
0.5s 5.10nm 4.3mb
FLN 24.65 314 eP 27 56.60 -0.1
NUR 26.18 358 eP 28 10.10 -0.8
0.8s 10.80nm 4.5mb
HFS 27.11 346 eP 28 18.90 -0.5
0.4s 1.80nm 4.0mb
KAF 27.76 360 iP 28 25.00 -0.3
0.4s 1.70nm 4.0mb
NB2 28.46 344 P 28 29.60 -2.1
0.9s 2.80nm 3.9mb
LKO 38.43 238 P 29 59.88 1.5
0.6s 3.00nm 4.3mb
TIC 40.13 234 P 30 13.49 1.1
0.7s 3.00nm 4.2mb
KIC 40.15 233 P 30 13.81 1.2
0.5s 2.50nm 4.3mb
LIC 40.44 233 P 30 10.49 -4.5X
1.3s 6.50nm 4.3mb
GKN 49.52 81 P 31 29.00 1.4
0.6s 14.00nm 5.2mb
DMN 50.06 81 P 31 33.40 1.6
0.6s 11.00nm 5.1mb
KKN 50.13 81 P 31 33.40 1.1
0.6s 16.00nm 5.2mb
GBA 50.30 101 P 31 35.00 1.6
PKI 50.32 81 P 31 35.00 1.1
0.7s 9.00nm 4.9mb
GUN 50.57 80 P 31 37.20 1.3
0.6s 13.00nm 5.1mb
YKA 78.54 343 eP 34 37.40 0.4
0.5s 0.20nm 3.4mb
S.D. = 1.0 on 67 of 77 obs.

? DEC 30, 1993 22h 40m 29.03± 0.97s
17.576 N ±11.0km 121.150 E ± 7.3km
DEPTH = 5.0km (geophysicist)
LUZON, PHILIPPINE ISLANDS (249)

CVP 0.65 79 iPc 40 41.50 -0.6
SZP 0.66 268 ePc 40 41.50 -0.8
PIP 0.90 326 iPc 40 47.50 0.8
iS 41 02.50
GQP 3.86 161 eP 41 31.00 0.7
eS 42 12.50
S.D. = 1.4 on 4 of 4 obs.

& DEC 30, 1993 23h 01m 47.50s
47.453 N 70.367 W
DEPTH = 7.0km
SOUTHERN QUEBEC, CANADA (447)
<OTT-P>. mbLg 3.8 (OTT). Felt at
Baie-Saint-Paul and La Malbaie.

LMQ 0.10 16 Pgd 01 48.60 -1.3
Sg 01 50.17
LPQ 0.27 115 Pgd 01 51.83 -1.2
Sg 01 55.46
DAQ 0.78 311 Pg 02 00.31 -2.7
Sg 02 11.18
CBM 1.62 108 eP 02 15.55 -1.0
eS 02 35.68
DPQ 1.82 246 Pnc 02 18.05 -1.4
Sg 02 42.29
GSQ 2.62 55 Pn 02 29.41 -1.6
Sg 03 07.08
LBNH 3.39 199 (P) 02 39.90 -2.0
RSNY 4.11 226 (P) 02 48.95 -3.0
YSNY 7.64 232 (P) 03 36.02 -5.8
9 obs. associated

DEC 30, 1993 23h 08m 47.00± 0.59s
46.333 N ± 4.9km 14.538 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
MD 3.0 (LJU), 2.7 (TRI). ML 2.5
(VIE). Felt (V) at Eisenkappel,
Austria.

LJU 0.29 181 iPg 08 53.30 0.2
eSg 08 58.80
iSg 08 59.10
VOY 0.54 236 iPgd 08 56.70 -1.2
eSg 09 05.90
CEY 0.60 187 ePgc 08 59.90 0.8
eSg 09 10.60
TRI 0.82 221 ePg 09 02.30 -0.6
iSg 09 15.70
VBY 0.97 149 ePg 09 05.30 -0.1
iSg 09 20.70
RIY 0.99 186 ePg 09 06.50 0.7
iSg 09 22.70
PTJ 1.08 113 iPg 09 06.90 -0.5
iSg 09 20.60
KBA 1.11 313 iPgd 09 03.50 -4.4X
iSg 09 17.00
WTTA 2.20 296 iPgc 09 24.10 -0.2
iSg 09 53.40
WATA 2.27 297 iPgc 09 25.10 -0.1
iSg 09 54.60
VKA 2.28 31 ePg 09 25.00 -0.3

eSg 09 53.00
SQTA 2.45 292 iPgc 09 29.20 1.4
iSg 10 01.80
S.D. = 0.8 on 11 of 12 obs.

DEC 30, 1993 23h 49m 55.99± 0.89s
40.233 N ± 7.4km 19.879 E ± 6.8km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)
MD 3.3 (ATH). ML 3.0 (TIR), 2.9
(THE).

TPE 0.12 58 iPgd 49 56.00 -2.5
iSg 50 00.00
SRN 0.36 165 iPgc 50 00.40 -2.9X
iSg 50 05.50
VLO 0.38 309 iPg 50 03.20 -0.3
iSg 50 11.50
KEK 0.52 187 ePb 50 30.00 23.5X
LSK 0.56 98 ePg 50 04.80 -2.4
TIR 1.11 359 ePg 50 22.00 4.7X
OHR 1.12 38 iPn 50 17.70 0.2
i 50 24.40
i 50 35.50
i 50 37.30
FNA 1.27 64 iPb 50 20.06 0.0
eSb 50 38.80
LACI 1.41 355 iPnd 50 22.00 -0.3
iSn 50 47.40
KZN 1.45 86 ePn 50 22.50 -0.5
SDA 1.84 351 ePn 50 28.50 0.1
LIT 2.01 93 ePb 50 31.94 1.0
eSb 50 58.38
GRG 2.05 69 ePn 50 33.14 1.5
iSn 50 59.68
SKO 2.10 34 ePn 50 32.00 -0.3
VLS 2.13 165 ePn 50 32.00 -0.6
AGG 2.25 122 ePn 50 35.12 0.7
eSn 51 02.50
VAY 2.31 61 iPn 50 36.70 1.3X
KNT 2.48 67 iPn 50 39.06 1.4
eSn 51 10.48
SOH 2.71 76 ePn 50 41.46 0.4
PAIG 2.93 95 ePn 50 44.36 0.2
SRS 2.96 71 ePn 50 45.88 1.4
S.D. = 1.2 on 17 of 21 obs.

& DEC 31, 1993 00h 01m 58.55s
64.419 N 146.892 W
DEPTH = 9.6km
CENTRAL ALASKA (1)
<AEIC>. ML 2.9 (AEIC), 3.3
(PMR).

HDA 0.03 244 iPc 02 00.19 -0.3
IL1 0.35 0 ePd 02 05.35 -0.5
ILB 0.35 0 ePd 02 05.37 -0.5
eS 02 10.72
CCB 0.46 300 eP 02 07.36 -0.5
WRH 0.52 276 iPc 02 08.69 -0.4
GLM 0.61 340 iPd 02 10.19 -0.7
FBA 0.62 322 ePd 02 10.17 -0.9
DJE 0.66 126 eP 02 10.94 -0.8
DDM 0.78 144 ePd 02 13.58 -0.2
MDM 0.79 314 ePd 02 13.57 -0.4
NEA 0.96 281 ePc 02 16.56 -0.3
eS 02 30.17
THY 1.13 153 eP 02 19.50 -0.2
MCK 1.13 233 eP 02 20.11 0.3
BWN 1.15 259 iPc 02 18.96 -1.1
eS 02 34.00
RND 1.34 221 iPc 02 23.56 0.3
eS 02 41.20
DHY 1.37 189 eP 02 24.19 0.4
DOT 1.47 121 eP 02 24.45 -0.7
eS 02 43.95
PAX 1.59 156 eP 02 26.81 -0.1
eS 02 48.42
MLY 1.76 292 ePc 02 28.30 -1.1
HUR 1.89 221 eP 02 31.54 0.3
KTH 1.98 246 eP 02 31.69 -0.9
TMW 2.04 121 eP 02 33.50 0.0
FYU 2.26 17 eP 02 37.49 0.9
TOA 2.35 172 eP 02 39.60 1.7
CUT 2.53 218 eP 02 40.20 -0.1
SCM 2.60 185 eP 02 42.68 1.2
BC3 2.65 119 eP 02 40.10 -2.0
SML 2.70 195 eP 02 44.96 2.1
GHO 2.81 200 eP 02 43.97 -0.5
KLU 2.97 171 eP 02 47.52 0.8
PLRM 3.02 201 eP 02 46.97 -0.2
PMR 3.02 201 ePn 02 46.86 -0.4
ePg 02 51.39
PWA 3.09 207 eP 02 48.13 -0.2
KNK 3.10 194 eP 02 49.36 0.9
BM3 3.16 16 eP 02 49.07 -0.2
SKT 3.23 223 eP 02 49.95 -0.3
eS 03 28.29
IM3 3.29 302 ePc 02 49.43 -1.7
IMA 3.30 303 eP 02 49.67 -1.8
GLB 3.30 153 eP 02 53.64 2.2
PMS 3.41 202 eP 02 55.20 2.2
PWL 3.63 191 eP 02 57.30 1.2
BALM 3.99 146 eP 03 02.18 1.0
CP2 4.00 220 eP 02 59.03 -2.5
TGL 4.13 151 eP 03 03.70 0.6
SLKM 4.22 203 eP 03 04.70 0.3
TTA 4.33 254 eP 03 08.70 2.7
SVW 5.21 234 eP 03 20.20 1.8
47 obs. associated

% DEC 31, 1993 00h 02m 26.63± 1.28s
41.167 N ±17.2km 25.260 E ± 6.8km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.8 (THE).

ALN 0.65 114 iPg 02 39.66 0.0
eSg 02 48.50
SRS 1.26 268 iPb 02 50.06 0.0
eSb 03 06.90
OUR 1.28 230 ePb 02 50.46 0.1
eSb 03 07.28
SOH 1.48 257 ePb 02 53.94 0.5
eSb 03 13.24
PAIG 1.73 225 ePb 02 56.52 -0.3
iSb 03 19.32
KNT 1.78 271 ePb 02 57.34 -0.4
eSb 03 21.62
S.D. = 0.4 on 6 of 6 obs.

? DEC 31, 1993 00h 26m 10.49± 5.01s
14.452 S ±60.9km 166.881 E ±27.4km
DEPTH = 210.0 ± 50.1 km
4.0mb (3 obs.)
VANUATU ISLANDS (186)

BKM 3.46 158 iPc 27 06.50 0.0
iS 27 35.50
DZM 7.59 183 iPc 27 53.30 -6.1X
iS 29 21.20
STK 28.89 229 eP 31 52.00 0.1
0.5s 2.80nm 4.2mb
WRA 31.53 255 P 32 15.40 0.3
0.7s 0.40nm 3.2mb
ASPA 32.42 249 eP 32 22.50 -0.4
0.9s 5.00nm 4.1mb
LPL 144.79 336 ePKP 45 24.10 0.0
0.8s 3.10nm
LPG 144.79 336 ePKP 45 24.30 0.1
0.8s 3.35nm
S.D. = 0.4 on 6 of 7 obs.

% DEC 31, 1993 00h 33m 16.68± 1.77s
10.276 N ±29.2km 67.769 W ±13.5km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)

GUAC 0.50 100 eP 33 26.30 -0.5
iS 33 36.50
MORO 0.80 318 eP 33 32.20 -0.1
iS 33 43.50
CAR 0.86 74 eP 33 37.70 4.4X
iS 33 45.40
LLAV 0.97 78 eP 33 35.30 0.2
iS 33 49.10
OLLA 0.98 105 eP 33 35.80 0.4
eS 33 49.40
CANV 1.29 306 eP 33 40.60 0.0
iS 33 59.00
S.D. = 0.5 on 5 of 6 obs.

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* DEC 31, 1993 02h 37m 11.74± 1.40s
53.807 N ±16.4km 167.035 W ±11.4km
DEPTH = 86.1 ± 16.6 km
3.8mb (3 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

SDN 4.10 65 eP 38 13.79 0.5
ADK 6.16 256 eP 38 41.69 -0.1
SVW 9.55 35 (P) 39 29.42 1.1
TTA 10.81 28 (P) 39 45.54 0.2
CP2 10.89 41 eP 39 48.35 1.8
SLKM 11.31 47 P 39 50.70 -1.2
PAX 14.49 42 P 40 34.00 0.4
GLB 14.54 49 P 40 32.40 -1.8
FBA 14.75 34 (P) 40 36.50 -0.3
0.8s 3.07nm 3.6mb
TGL 14.76 52 P 40 36.40 -0.7
ILB 14.97 35 P 40 42.40 2.8X
BALM 15.07 51 P 40 39.70 -1.4
YAH 15.17 54 P 40 43.50 1.1
CTGM 15.52 52 P 40 46.50 -0.3
BC3 16.04 45 P 40 51.50 -1.7
BM3 17.37 30 P 41 10.60 0.9
NEW 31.33 79 eP 43 26.10 0.5
e 43 58.00
RSSD 41.19 77 (P) 44 49.50 0.3
1.3s 9.29nm 4.5mb
GOL 43.16 83 eP 45 06.30 0.9
0.8s 0.89nm 3.6mb
WRA 89.00 233 P 49 57.50 -0.4
S.D. = 1.1 on 19 of 20 obs.

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* DEC 31, 1993 03h 30m 30.58± 0.54s
40.169 N ± 8.9km 63.304 E ± 9.6km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)
NORTHWESTERN UZBEKISTAN (339)

MAIO 4.89 219 iPnc 31 44.50 0.7
0.8s 93.34nm
eSn 32 37.00
FRU 8.90 69 (P) 32 45.00 5.1X
eS 34 13.00
GRO 13.53 289 eP 33 52.00 9.5X
MTA 14.08 282 eP 33 48.00 -1.7
e 36 33.00
PYA 15.51 291 eP 34 13.00 4.6X
ARU 16.53 351 eP 34 17.00 -4.3X
e 37 07.00
SVE 16.75 355 eP 34 25.00 1.0
MOS 23.01 321 eP 35 37.00 3.8X
e 35 44.00
e 35 58.00
OBN 23.19 319 eP 35 35.00 0.0
1.0s 17.00nm 4.5mb
iPP 35 43.10
eSSS 40 39.00
HYB 26.24 145 eP 36 04.70 0.3
VRI 27.18 294 eP 36 20.00 7.2X
MNK 27.62 312 eP 36 24.00 7.3X
MLR 27.74 293 eP 36 28.00 10.0X
SHL 27.93 113 eP 36 20.00 0.0
KAF 31.26 327 eP 36 49.20 0.1
NUR 31.30 323 eP 36 50.10 0.6
GEC2 35.86 301 P 37 31.00 1.8
0.6s 0.44nm 3.6mb
e 37 38.20
e 37 42.40
e 37 49.50
HFS 36.41 320 eP 37 32.70 -0.8
0.5s 1.30nm 4.1mb
YKA 77.67 359 eP 42 23.50 -1.4
0.6s 2.10nm 4.3mb
YYYY 88.40 99 eP 43 38.00 17.1X
WRA 89.06 117 P 43 23.90 0.2
1.2s 1.30nm 4.1mb
WB2 89.07 117 eP 43 22.90 -0.9
0.7s 4.30nm 4.9mb
S.D. = 1.1 on 13 of 22 obs.

? DEC 31, 1993 04h 34m 22.60± 1.46s
10.363 N ±36.3km 67.656 W ±15.8km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)

CAR 0.73 79 eP 34 40.40 3.8X
eS 34 50.60
MORO 0.82 308 eP 34 37.20 -0.6
iS 34 48.10

31d 04h

LLAV	0.84	82	eP	34 38.30	0.2
			iS	34 54.50	
OLLA	0.91	112	eP	34 38.90	-0.2
			eS	34 55.90	
CANV	1.33	300	eP	34 45.70	0.6
			iS	35 04.20	

S.D. = 0.9 on 4 of 5 obs.

DEC 31, 1993 04h 41m 48.15± 0.34s
9.648 N ± 2.6km 70.700 W ± 1.6km
DEPTH = 35.3 ± 3.2 km
5.4mb (105 obs.)
VENEZUELA (101)
Felt in the states of Carabobo, Lara, Trujillo and Zulia. Also felt at Barinas, Merida and Santo Domingo.

SDV	0.76	175	iPgc	42 03.30	0.7
			iSg	42 13.70	
TOV	0.91	81	iPgd	42 04.70	0.1
			iSg	42 14.20	
CANV	2.30	53	iPd	42 25.70	1.1
MORO	2.64	62	iPd	42 29.60	0.1
GUAC	3.42	81	iPc	42 42.00	1.4
CAR	3.81	77	eP	42 47.50	1.4
OLLA	3.86	84	eP	42 47.60	0.9
LLAV	3.92	78	eP	42 48.80	1.2
			iS	43 33.60	
BOG	6.01	214	eP	43 20.00	2.6
			iS	45 00.00	
TGRV	6.50	97	eP	43 22.10	-1.9
			eS	44 33.50	
HOBC	7.53	226	iPd	43 38.69	0.1
UPA	8.74	266	iPc	43 53.37	-1.9
			iS	45 27.16	
TCE	8.87	82	eP	43 55.70	-1.3
ECO	8.88	269	iP	43 54.98	-2.2
			eS	45 30.94	
MGP	9.02	22	P	43 54.40	-4.7X
TRN	9.21	83	eP	43 59.36	-2.3
			eS	45 53.00	
GRW	9.22	73	eP	44 00.52	-1.4
			eSS	45 41.50	
CLLP	9.29	25	P	43 57.90	-4.9X
SJG	9.50	27	iP	44 01.10	-4.7X
TBH	9.52	84	eP	44 05.02	-1.0
CPD	9.55	29	P	44 01.00	-5.4X
APR	9.56	23	P	44 02.70	-3.8X
LPR	9.80	28	P	44 04.90	-5.0X
SVB	9.94	68	eP	44 07.29	-4.4X
			eS	45 55.00	
SVV	9.98	68	eP	44 09.50	-2.9X
			eS	45 57.63	
SLB	10.33	65	eP	44 12.85	-4.3X
			eS	46 02.69	
SLW	10.50	65	eP	44 21.08	1.6X
FDF	10.61	61	eP	44 16.28	-4.8X
			S	46 07.40	
PSO	10.68	219	eP	44 24.50	2.3
PAG	10.84	53	eP	44 18.00	-6.2X
			S	46 14.00	
SKI	10.87	45	eP	44 21.00	-3.6X
MGG	11.07	55	eP	44 18.00	-9.2X
BPA	11.32	49	eP	44 25.00	-5.6X
			S	46 26.50	
DEG	11.49	54	eP	44 27.00	-6.0X
DVD	11.67	265	eP	44 34.12	-1.2
			eS	46 37.96	
BRU	11.74	267	eP	44 34.86	-1.9
			eS	46 39.18	
HBF	24.83	340	eP	47 09.06	0.4
SGS	25.12	340	eP	47 11.97	0.6
LPAZ	25.89	174	Pd	47 20.00	0.5
	0.6s		25.30nm		5.0mb
			PP	47 28.90	
			S	51 51.40	
			LQ	52 15.40	
			LR	55 10.00	
LPB	26.14	174	P	47 22.10	0.6
			S	51 56.00	
OXX	26.35	289	iP	47 24.30	1.0
JSC	26.36	340	eP	47 23.00	0.1
LHS	26.39	341	eP	47 23.41	0.2
GOGA	26.41	335	ePc	47 23.98	0.6
	0.7s		23.02nm		4.9mb
Z	20s		0.63um		4.2Msz
PRM	26.57	338	eP	47 25.38	0.5
CEH	27.22	345	eP	47 30.22	-0.5
	0.7s		13.23nm		4.7mb
MYNC	28.13	336	eP	47 39.63	0.6
	0.7s		20.16nm		4.9mb
PPM	28.59	292	(P)	47 47.70	3.7X
CBN	29.06	349	eP	47 47.00	-0.4
OXF	30.10	328	eP	47 56.60	-0.1
LST	31.84	330	eP	48 11.15	-0.8
YJA	32.03	171	ePc	48 13.00	-1.3
ELC	32.21	332	ePd	48 14.63	-0.6
MIAR	32.45	323	ePc	48 16.78	-0.5
	0.7s		29.87nm		5.3mb
Z	21s		0.36um		4.0Msz
			e	48 25.03	
			e	48 36.96	
UYO	32.71	322	iPd	48 19.40	-0.3
FVM	33.33	331	ePc	48 24.92	-0.1
	0.7s		171.60nm		6.1mb
YSNY	33.41	349	iPd	48 26.10	0.4
	0.9s		53.81nm		5.5mb
BDFB	33.71	138	eP	48 28.83	0.2
	0.8s		18.69nm		5.1mb
BAO	33.72	138	eP	48 29.60	0.9
BDF	33.80	138	Pc	48 27.20	-2.2
	0.8s		2.35nm		4.2mb X
			i	48 43.20	
			i	59 38.50	
			e	59 48.00	
TYNO	34.27	348	P	48 33.13	0.1
SLA	34.54	172	ePd	48 34.50	-1.3
TUL	34.70	323	iPd	48 36.20	-0.6
WLVO	34.80	350	P	48 37.50	0.0
ACTO	34.80	348	P	48 37.81	0.2
SOB1	35.09	121	eP	48 40.90	0.5
MEO	35.71	319	iPc	48 44.50	-1.0
WMOK	35.81	319	eP	48 45.52	-0.9
	0.7s		47.03nm		5.5mb
Z	20s		0.53um		4.3Msz
ACO	37.26	321	iPd	48 57.40	-1.1
CYA	38.16	173	ePc	49 04.30	-1.9
RSTA	40.11	149	eP	49 23.20	0.8
RTLL	40.80	177	ePc	49 26.70	-1.3
TCA	41.17	172	ePd	49 28.60	-2.5X
ALQ	41.21	313	ePc	49 32.52	0.9
	0.6s		5.59nm		4.5mb
			ePcP	51 38.47	
			e	51 44.83	
GLD	42.91	320	eP	49 46.05	0.6
	1.1s		22.45nm		4.8mb
GOL	42.98	320	ePc	49 46.25	0.1
	0.7s		15.32nm		4.8mb
TUC	43.33	307	ePc	49 50.24	1.4
	0.7s		6.61nm		4.5mb
PV08	44.53	317	eP	49 59.91	1.1
			e	50 17.52	
PV10	44.70	316	ePc	50 00.40	0.4
PV09	44.82	316	eP	50 01.93	0.8
RSSD	44.86	326	eP	50 00.30	-0.9
	0.4s		12.36nm		5.1mb
SRU	46.07	316	iPc	50 11.63	0.8
EMUT	46.61	317	iPc	50 16.21	1.1
GLA	46.78	307	ePc	50 16.77	0.4
MSU	46.93	315	ePc	50 18.87	1.2
DAU	47.19	317	iPc	50 20.71	0.9
BW06	47.31	321	iPc	50 20.59	0.0
	0.5s		21.05nm		5.4mb
ARUT	47.52	313	ePc	50 23.04	0.8
DUG	48.14	316	eP	50 27.90	0.9
	0.8s		29.84nm		5.4mb
Z	20s		0.21um		4.1Msz
PLM	48.49	306	eP	50 29.86	0.0
HVU	48.86	318	eP	50 32.51	-0.1
PEC	48.90	307	iPc	50 33.12	0.3
	0.6s		12.84nm		5.1mb
GSC	49.08	309	iPc	50 34.92	0.6
PTI	49.13	320	iPc	50 35.16	0.5
TPNV	49.24	311	ePc	50 36.66	1.0
	0.8s		13.32nm		5.0mb
Z	22s		2.97um		5.2Msz
			e	50 44.72	
TNP	50.38	312	eP	50 45.13	0.8
	0.6s		7.88nm		4.9mb
LRM	50.69	323	iPc	50 47.00	0.3
BONR	51.13	311	eP	50 51.24	1.1
KVN	51.38	313	eP	50 52.05	0.1
MEMM	51.50	311	(P)	50 52.16	-0.4
BCH	51.59	307	eP	50 53.72	0.2
CMB	52.70	311	P	51 10.00	8.2X
Z	19s		0.31um		4.4Msz
ARN	53.35	310	eP	51 06.86	0.3
ORV	54.03	312	ePc	51 11.54	0.2
LMEM	54.40	313	eP	51 14.35	0.0
NTYM	54.52	311	eP	51 15.20	0.2
NEW	54.68	324	ePd	51 15.19	-1.0
	0.7s		31.58nm		5.5mb
LBFM	54.91	314	ePc	51 17.77	-0.4
DPW	55.14	323	ePc	51 18.95	-0.5
VIPM	55.21	318	P	51 19.69	-0.5
GBL	55.33	321	P	51 19.69	-1.1
VTHM	55.44	319	P	51 22.66	1.0
MDW	55.53	321	P	51 21.18	-1.0
CROR	55.64	319	P	51 24.15	1.0
VGB	55.71	319	ePc	51 24.09	0.4
EBG	56.16	321	P	51 27.12	0.3
KMPM	56.21	312	eP	51 26.46	-0.9
FHC	56.23	313	iPd	51 28.38	1.0
	0.9s		130.57nm		6.0mb
NAC	56.24	321	P	51 27.12	-0.3
TBM	56.28	321	P	51 27.12	-0.7
ETW	56.30	322	P	51 27.12	-0.9
SSOR	56.56	318	P	51 28.61	-1.2
WPW	56.68	320	P	51 30.10	-0.6
FMW	56.85	321	P	51 31.58	-0.4
LON	56.87	320	eP	51 31.65	-0.3
RVC	57.05	320	P	51 33.07	-0.2
RMW	57.15	321	eP	51 32.72	-1.2
KDS	57.37	81	iPc	51 43.50	7.6X
TKO	57.40	318	P	51 36.04	0.3
GMW	57.80	321	ePc	51 37.14	-1.2
HDW	58.00	321	P	51 39.02	-0.9
BLN	58.09	321	P	51 39.02	-1.4
MCW	58.28	322	ePc	51 40.50	-1.2
OSD	58.47	321	P	51 43.48	0.1
STW	58.58	321	P	51 43.48	-0.3
YKA	61.49	339	eP	52 01.70	-1.8
	0.6s		20.90nm		5.4mb
TIO	62.35	60	iPc	52 10.00	-0.1
AVE	62.47	58	iPc	52 11.00	0.4
LKO	64.10	84	Pc	52 20.72	-1.0
	0.7s		81.00nm		5.9mb
IFR	64.39	58	iPc	52 23.70	0.2
EJIF	64.43	54	eP	52 24.12	0.7
KIC	65.32	87	iPc	52 28.40	-1.1
PAB	65.71	51	iPc	52 31.30	-0.4
EGUA	66.00	54	eP	52 33.50	0.0
ECOG	66.04	54	eP	52 34.27	0.3
DCN	66.56	36	iPc	52 36.50	-0.3
	0.8s		348.00nm		6.5mb X
TAF	66.75	56	eP	52 30.00	-8.5X
			i	52 41.00	
EHUE	66.87	53	eP	52 39.41	0.2
DLF	66.98	36	iPc	52 38.80	-0.6
	0.8s		79.00nm		5.9mb
EVIA	67.02	52	eP	52 39.43	-0.8
ENIJ	67.09	54	eP	52 39.99	-0.6
ECRI	67.50	48	eP	52 42.25	-0.8
YRH	67.98	37	eP	52 45.40	-0.3
YRC	68.11	36	eP	52 46.10	-0.4
SIT	68.26	328	eP	52 47.16	-0.2
	0.7s		8.93nm		5.0mb
WIM	68.26	35	eP	52 47.30	-0.2
GIM	68.42	35	ePc	52 48.20	-0.3
HCG	68.44	37	ePc	52 48.30	-0.4
KPL	68.56	32	ePc	52 48.30	-1.0
HTR	68.62	38	ePc	52 49.30	-0.5
KSB	68.65	32	ePc	52 48.40	-1.4
KAC	68.79	32	ePc	52 50.00	-0.7
HGH	68.81	38	ePc	52 50.30	-0.6
XDE	69.02	35	eP	52 49.80	-2.4
HAE	69.05	38	ePc	52 51.90	-0.5
EGRA	69.06	49	eP	52 55.77	3.1X
LMI	69.06	35	ePc	52 52.10	-0.3
LPF	69.30	42	iPc	52 53.70	-0.3
	0.7s		45.65nm		5.6mb
ESK	69.37	34	eP	52 54.00	-0.3
	1.0s		80.00nm		5.7mb
EKA	69.40	34	Pc	52 53.65	-0.8
	0.8s		51.10nm		5.6mb
GRR	69.47	42	iPc	52 55.10	0.0
	0.9s		97.60nm		5.9mb
ENSF	69.60	48	P	52 56.38	0.2
EPF	69.63	48	iPc	52 56.40	0.2
	0.8s		48.50nm		5.6mb

MFF	69.70	44	iPc	52 56.70	0.2
	0.7s	141.10nm			6.1mb
FLN	69.78	42	iPc	52 57.00	0.1
	0.8s	141.85nm			6.1mb
Z	21s	0.25um			4.4Msz
LDF	69.99	42	iPc	52 58.20	0.0
	0.8s	90.80nm			5.9mb
LFF	70.12	46	iPc	52 59.00	0:0
	0.7s	49.15nm			5.7mb
LPO	70.41	46	iPc	53 00.60	-0.2
	0.7s	45.85nm			5.6mb
PAND	70.46	48	P	53 01.65	0.1
RJF	70.70	45	iPc	53 02.40	-0.2
	0.7s	41.90nm			5.6mb
Z	21s	0.25um			4.4Msz
TRGS	70.77	48	P	53 03.66	0.3
LSF	70.81	44	iPc	53 03.00	-0.3
	0.9s	74.70nm			5.7mb
CAF	71.05	46	iPc	53 04.60	-0.2
	0.9s	78.60nm			5.8mb
TCF	71.28	44	iPc	53 05.90	-0.3
	1.0s	58.80nm			5.6mb
PERF	71.44	48	P	53 07.20	0.0
MBC	71.49	349	iPc	53 06.70	-0.1
	0.1s	371.00nm			7.3mb X
			PcP	53 27.40	
			PPP	57 19.00	
			S	02 21.20	
MAF	71.52	45	iPc	53 07.30	-0.3
	0.9s	39.95nm			5.4mb
BGF	71.75	44	iPc	53 08.60	-0.3
	0.7s	48.30nm			5.6mb
AVF	72.11	44	iPc	53 10.60	-0.5
	1.1s	66.40nm			5.5mb
SSF	72.24	44	iPc	53 11.30	-0.5
	1.0s	50.60nm			5.5mb
COLF	72.25	45	P	53 12.08	0.1
DAG	72.42	11	iPd	53 11.60	-0.7
	0.5s	13.38nm			5.2mb
SMF	72.44	44	iPc	53 12.60	-0.4
	1.1s	99.65nm			5.7mb
LOR	72.50	43	iPc	53 12.80	-0.6
	0.8s	73.05nm			5.7mb
Z	20s	0.28um			4.5Msz
LBF	72.56	44	iPc	53 12.90	-0.9
	0.9s	35.40nm			5.4mb
BALM	72.75	331	ePc	53 15.02	0.3
SSB	72.83	46	P	53 15.67	0.3
SNF	73.07	40	iPc	53 16.29	-0.3
UCC	73.14	40	P	53 17.00	0.0
DOU	73.23	41	iPc	53 17.60	0.1
	0.7s	64.40nm			5.7mb
VITF	74.00	43	P	53 21.94	-0.1
LRG	74.04	48	iPc	53 22.50	0.1
	1.1s	42.75nm			5.3mb
Z	25s	0.35um			4.5MszX
ENN	74.13	40	iPc	53 22.20	-0.5
	0.7s	71.10nm			5.8mb
LMR	74.15	48	iPc	53 23.00	0.0
	1.0s	37.80nm			5.3mb
WLF	74.20	41	iPc	53 23.25	0.1
HAU	74.23	43	iPc	53 23.00	-0.5
	1.0s	25.80nm			5.2mb
FRF	74.26	47	iPc	53 23.60	-0.1
	1.0s	38.80nm			5.3mb
RSL	74.31	45	P	53 24.42	0.3
BNI	74.32	46	P	53 24.94	0.7
	1.0s	28.90nm			5.2mb
LPL	74.38	45	iPc	53 25.30	0.7
	0.8s	55.05nm			5.6mb
LPG	74.39	45	iPc	53 25.50	0.7
	0.9s	50.45nm			5.5mb
RRL	74.40	46	P	53 25.59	0.8
BSF	74.52	43	iPc	53 24.60	-0.6
	0.9s	45.05nm			5.5mb
LOMF	74.52	44	P	53 25.02	-0.2
KLU	74.53	331	ePc	53 25.05	0.1
PZZ	74.61	47	P	53 25.82	-0.1
LSD	74.68	46	P	53 26.78	0.4
TOUF	74.70	47	P	53 26.67	0.2
DOI	74.71	47	P	53 26.92	0.5
	1.4s	60.50nm			5.4mb
BHB	74.73	46	P	53 25.64	-0.8
TOA	74.74	332	eP	53 27.00	0.8
RSP	74.74	46	P	53 27.33	0.7
WIT	74.74	38	eP	53 27.00	0.8
MOF	74.75	43	P	53 26.01	-0.5

AURF	74.76	47	P	53 26.91	0.2
STV	74.76	47	P	53 26.83	0.1
ENR	74.83	47	P	53 26.51	-0.6
AUTN	74.83	47	P	53 27.50	0.2
SBF	74.83	47	iPc	53 27.10	0.0
	1.0s	90.40nm			5.7mb
CDF	74.87	42	iPc	53 26.90	-0.3
	0.8s	30.65nm			5.3mb
WLS	74.92	42	P	53 27.21	-0.3
SAOF	74.92	47	P	53 27.67	0.1
BBS	74.99	43	P	53 27.53	-0.3
LIBD	75.08	43	P	53 28.41	0.1
ROB	75.16	47	P	53 28.57	-0.4
IMI	75.16	47	P	53 28.29	-0.7
STR	75.20	42	P	53 27.21	-1.8
LANF	75.24	42	P	53 29.51	0.2
ORO	75.26	45	P	53 29.56	0.0
	1.1s	36.40nm			5.3mb
ORX	75.26	45	P	53 29.30	-0.3
FEL	75.34	43	P	53 29.63	-0.4
FIN	75.40	47	P	53 29.85	-0.4
CKI	75.45	47	P	53 30.20	-0.3
	0.8s	62.50nm			5.7mb
PCP	75.64	46	P	53 31.54	-0.2
VAI	75.82	45	P	53 32.36	-0.2
	0.9s	63.50nm			5.6mb
FBA	75.85	335	ePc	53 31.39	-1.0
	0.6s	11.09nm			5.0mb
PGF	75.97	49	iPc	53 33.50	-0.1
	0.9s	29.50nm			5.3mb
PMR	76.07	331	eP	53 33.66	0.1
	0.7s	53.55nm			5.6mb
BOB	76.29	46	P	53 35.50	0.1
	0.7s	42.60nm			5.6mb
SLKM	76.50	330	iPc	53 36.20	0.0
SAL	77.05	45	P	53 40.04	0.6
	0.7s	72.40nm			5.8mb
BDI	77.12	47	P	53 39.11	-0.9
OGA	77.38	44	iPc	53 42.00	0.5
	0.8s	19.00nm			5.2mb
MOTA	77.43	44	iPc	53 41.70	0.0
GRF	77.49	41	iPc	53 42.20	0.4
	0.9s	17.00nm			5.1mb
CRP	77.49	331	eP	53 41.41	-0.4
SQTA	77.50	44	iPc	53 42.30	0.2
	0.7s	40.00nm			5.6mb
KDC	77.52	327	eP	53 41.60	-0.2
CP2	77.53	331	eP	53 40.44	-1.6
FUR	77.54	43	iPc	53 42.40	0.3
	0.9s	46.00nm			5.5mb
MOX	77.74	40	iPc	53 43.40	0.2
	1.5s	37.00nm			5.2mb
WATA	77.75	44	iPc	53 43.40	-0.1
WTTA	77.79	44	iPc	53 43.80	0.0
	0.7s	25.70nm			5.4mb
			i	54 10.00	
CTI	77.83	45	P	53 43.75	-0.1
	1.0s	63.30nm			5.6mb
NRAO	77.85	30	P	53 44.60	1.0
HOF	77.91	41	iPd	53 44.60	0.5
	0.8s	16.00nm			5.1mb
PGD	77.93	47	P	53 44.04	-0.6
	0.7s	27.40nm			5.4mb
SFI	78.03	47	P	53 44.72	-0.1
	1.4s	57.10nm			5.4mb
CRE	78.11	47	P	53 44.22	-1.3
	0.7s	9.40nm			4.9mb
COP	78.23	35	iPd	53 47.40	1.7
	0.8s	65.67nm			5.7mb
IMA	78.39	336	ePc	53 46.63	0.0
	0.8s	17.83nm			5.1mb
WET	78.58	42	iPc	53 48.30	0.4
	0.9s	23.00nm			5.2mb
FVI	78.59	44	P	53 48.02	0.1
	0.8s	22.30nm			5.2mb
CLL	78.61	40	iPc	53 48.00	0.1
	1.1s	40.00nm			5.3mb
BHG	78.62	43	eP	53 48.30	0.2
	1.2s	50.00nm			5.4mb
ASS	78.65	48	P	53 47.63	-0.8
	1.3s	37.80nm			5.2mb
MNS	78.69	49	P	53 48.54	-0.1
	1.3s	97.00nm			5.6mb
RDP	78.75	49	P	53 49.75	0.7
	1.3s	119.70nm			5.7mb
ARV	78.83	47	P	53 48.36	-1.0
	1.2s	40.10nm			5.3mb

HFS	78.91	31	eP	53 49.00	-0.4
	0.6s	14.60nm			5.2mb
KBA	78.96	44	iPc	53 50.10	-0.1
	1.0s	48.20nm			5.4mb
KHC	79.04	42	iPc	53 51.00	0.6
	0.8s	49.00nm			5.5mb
			e	53 57.00	
			e	54 04.00	
			e	54 09.50	
GEC2	79.13	42	P	53 51.00	0.0
	0.8s	20.24nm			5.2mb
			e	53 53.40	
			e	53 56.90	
			e	54 09.40	
SVW	79.17	330	ePc	53 50.36	-0.5
	0.5s	78.05nm			6.0mb
BRG	79.22	40	iPd	53 51.60	0.4
	1.0s	40.00nm			5.4mb
			i	53 57.40	
			e	56 48.20	
TTA	79.34	332	eP	53 51.57	-0.2
	1.0s	21.69nm			5.1mb
SDI	79.58	49	P	53 53.54	0.1
	1.1s	64.50nm			5.5mb
PRU	79.63	41	iPc	53 53.90	0.4
	0.8s	36.00nm			5.4mb
			ipP	53 59.70	18kmX
			i	54 12.20	
LJU	79.83	45	iP	53 55.30	0.6
KSP	80.70	40	iPc	53 59.80	0.6
SGO	80.79	50	P	54 00.29	0.5
	1.2s	33.60nm			5.2mb
MGR	81.01	51	P	54 01.39	0.3
	1.6s	127.30nm			5.7mb
ZST	81.43	43	iP	54 03.10	0.1
UZD	82.58	44	eP	54 09.00	-0.1
SPC	83.40	41	eP	54 13.80	0.3
SDF	83.88	23	eP	54 15.00	-0.4
NUR	84.31	30	iP	54 18.00	0.4
	0.5s	15.90nm			5.4mb
KAF	84.81	28	iP	54 20.10	0.0
	0.4s	3.80nm			4.9mb
OHR	84.86	49	iPc	54 22.40	1.5
	1.0s	60.00nm			5.7mb
			i	54 29.20	
			i	54 46.70	
FNA	85.34	50	eP	54 23.62	0.3
GRG	86.08	49	eP	54 28.06	1.1
VAY	86.15	49	iP	54 28.00	0.8
	1.2s	50.00nm			5.6mb
LIT	86.29	50	eP	54 27.98	0.0
AGG	86.34	51	eP	54 28.58	0.3
KNT	86.42	49	iP	54 29.53	1.0
SOH	86.82	49	eP	54 31.38	0.8
SRS	86.94	49	eP	54 31.18	0.1
PAIG	87.22	50	eP	54 32.82	0.4
OUR	87.37	50	eP	54 33.42	0.3
MLR	87.82	44	iPc	54 36.50	1.1
VRI	88.28	44	eP	54 38.50	1.1
OBN	91.85	33	iPc	54 54.10	0.3
	1.4s	41.80nm			5.7mb
			e	55 00.50	
			e	59 20.60	
			e	00 35.50	
SNY	127.13	347	ePKP	00 46.00	-4.7X
GTA	130.40	10	PKPd	00 56.50	-0.7X
GBA	140.84	54	PKP	01 10.00	-7.2X
SHL	141.11	26	ePKP	01 10.00	-7.7X
KOD	142.67	59	ePKP	01 19.00	-1.9
STK	142.81	229	ePKP	01 16.40	-3.8X
	1.7s	2.90nm			
GYA	144.02	4	iPKPc	01 19.40	-3.2X
KMI	144.85	10	PKPc	01 21.00	-3.2X
			pPKP	01 28.00	
CHTO	149.93	20	ePKPc	01 35.80	3.6X
	1.0s	10.50nm			
BDT	151.41	21	iPKPd	01 39.00	4.6X
	1.0s	5.00nm			
LOE	152.10	16	ePKP	01 41.00	5.5X
ASPA	152.68	236	ePKP	01 36.10	-0.1
	1.2s	8.40nm			
			ipP	01 42.70	
NST	153.25	20	ePKP	01 43.50	6.4X
WB2	153.74	244	ePKP	01 37.60	-0.1
	0.8s	15.90nm			
			ipP	01 45.40	
			ePP	02 47.20	

31d 05h

WRA 153.75 244 PKP 01 38.00 0.3
0.9s 3.00nm
S.D. = 0.8 on 294 of 327 obs.

% DEC 31, 1993 04h 54m 46.68± 2.11s
32.398 N ±24.5km 131.382 E ± 8.6km
DEPTH = 33.0km (normal)
KYUSHU, JAPAN (235)

KUMJ 0.49 286 eP 54 57.00 -0.1
SHNJ 1.74 352 eP 55 15.40 0.4
TKSJ 2.74 54 P 55 29.50 0.3
YONJ 3.28 31 P 55 36.20 -0.7
WKYJ 3.97 62 P 55 46.90 0.1
S.D. = 0.6 on 5 of 5 obs.

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* DEC 31, 1993 05h 19m 23.07± 0.45s
38.332 S ± 9.8km 93.202 W ±10.0km
DEPTH = 10.0km (geophysicist)
5.0mb (14 obs.) 4.7Msz (1 obs.)
WEST CHILE RISE (686)

RTLL 21.43 78 ePc 24 14.30 0.8
LPB 30.93 52 P 25 45.90 3.1X
Z 20s 1.56um 4.7Msz
LR 34 10.00
LPAZ 31.10 52 iPd 25 45.50 1.0
LR 34 16.00
BAO 45.63 73 eP 27 45.80 0.1
i 27 52.00
SOB1 55.04 72 (P) 28 58.00 0.6
NVL 58.99 158 iPc 29 24.00 -0.7
1.4s 42.00nm 5.4mb
SYO 67.42 163 ePc 30 19.50 -0.9
UYO 72.14 359 iPc 30 49.20 -0.3
TUC 72.16 344 eP 30 50.75 0.9
1.1s 16.68nm 5.0mb
e 30 57.74
MIAR 72.51 360 eP 30 50.54 -1.1
1.2s 28.12nm 5.2mb
e 30 57.89
OXF 72.56 3 (P) 30 52.04 0.1
e 30 57.67
PRM 72.75 9 eP 30 52.17 -0.9
e 30 59.44
JSC 73.09 10 eP 30 54.00 -1.1
e 31 01.30
LHS 73.35 11 eP 30 55.57 -1.0
e 31 02.69
MYNC 73.52 8 eP 30 56.74 -0.9
1.0s 50.89nm 5.5mb
e 31 03.82
TUL 73.91 358 iPd 31 06.50 6.7X
ALQ 73.93 349 eP 30 59.73 -0.5
0.9s 7.17nm 4.7mb
e 31 07.21
ACO 74.86 355 iPc 31 12.30 6.9X
PEC 75.23 340 eP 31 07.41 -0.2
1.0s 10.17nm 4.8mb
FVM 75.98 2 eP 31 11.09 -0.6
1.1s 5.49nm 4.6mb
NAV 76.14 10 eP 31 11.14 -1.5
e 31 17.84
GSC 76.46 340 eP 31 13.77 -0.8
PV10 77.71 347 eP 31 20.93 -0.8
e 31 28.11
PV09 77.85 347 eP 31 22.81 0.3
TPNV 77.87 341 eP 31 23.60 1.1
0.6s 5.19nm 4.8mb
e 31 29.30
ARUT 78.01 344 eP 31 24.39 1.2
MSU 78.44 345 eP 31 26.12 0.5
SRU 78.69 346 eP 31 26.55 -0.4
e 31 33.85
ARN 79.71 337 eP 31 32.04 -0.3
CMB 80.01 339 eP 31 34.60 0.6
1.0s 9.52nm 4.7mb
e 31 41.27
DAU 80.09 346 eP 31 34.44 -0.2
e 31 41.50
DUG 80.19 345 eP 31 35.27 0.3
1.2s 18.63nm 4.9mb
e 31 42.62
ORV 81.74 338 eP 31 44.40 1.4
BW06 82.09 348 eP 31 44.46 -0.5
1.0s 17.55nm 5.1mb
e 31 51.58
RSSD 82.65 352 eP 31 48.22 0.3
1.3s 24.66nm 5.2mb
e 31 55.08
PTI 82.68 346 (P) 31 48.56 0.6
LBFM 83.51 339 eP 31 53.36 1.0
RSNY 84.21 13 eP 31 54.42 -1.1
1.0s 59.33nm 5.8mb
LRM 85.54 347 eP 32 04.10 1.6
LKO 93.98 81 P 32 48.62 5.9X
1.1s 8.00nm 5.0mb
SSF 120.90 52 ePKP 38 28.40 11.7X
1.1s 14.15nm
LPL 122.32 55 ePKP 38 26.00 6.3X
1.1s 11.00nm
LPG 122.32 55 ePKP 38 26.30 6.5X
1.1s 11.50nm
BSF 123.25 53 ePKP 38 26.80 5.5X
0.9s 7.35nm
GRF 126.65 52 ePKP 38 34.30 6.6X
MOX 127.18 51 ePKP 38 35.20 6.5X
1.6s 30.00nm
GEC2 127.93 53 PKP 38 29.40 -0.9X
1.0s 1.88nm
e 38 36.50
CLL 128.21 50 ePKP 38 37.00 6.4X
1.8s 32.00nm
e(Sg) 53 51.00
BRG 128.66 51 ePKP 38 38.10 6.6X
1.6s 25.00nm
OHR 130.26 65 e(PKP)38 25.00 -9.9X
SNG 146.56 205 ePKP 39 06.00 0.8
KOD 150.80 161 ePKP 39 19.00 6.8X
MAIO 158.22 87 ePKP 39 22.00 0.6
S.D. = 0.9 on 38 of 53 obs.

& DEC 31, 1993 05h 43m 35.23s
34.017 N 117.211 W
DEPTH = 10.6km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.6 (PAS). Felt.

PEC 0.13 161 eP 43 38.24 -0.3
SSK 0.44 296 eP 43 43.73 -0.6
PLM 0.72 156 eP 43 48.58 -0.9
GSC 1.32 15 eP 43 59.58 -0.1
ISA 1.94 328 eP 44 08.05 -0.5
GLA 2.21 115 (P) 44 13.88 1.4
6 obs. associated

? DEC 31, 1993 06h 07m 44.73± 0.93s
49.769 N ±21.4km 6.739 E ± 5.7km
DEPTH = 5.0km (geophysicist)
GERMANY (543)
ML 1.7 (UCC).

RUP 0.22 108 ePg 07 49.60 0.4
WLF 0.40 255 iPd 07 52.19 -0.5
iS 08 01.56
ABH 0.54 78 ePg 07 55.00 -0.5
DOU 1.42 284 iP 08 11.80 0.5
iS 08 30.80
S.D. = 0.9 on 4 of 4 obs.

DEC 31, 1993 06h 31m 15.31± 0.45s
36.226 N ± 5.7km 139.425 E ± 5.9km
DEPTH = 92.0 ± 4.1 km
4.4mb (10 obs.)
EASTERN HONSHU, JAPAN (227)

CHJJ 0.39 243 iPd 31 29.20 -0.5
S 31 38.70
KAKJ 0.61 92 iP+ 31 30.80 -0.5
S 31 41.00
MAT 1.03 288 iPc 31 35.40 -0.4
eS 31 51.00
NIIJ 1.07 342 iPd 31 35.90 -0.3
S 31 50.80
MTMJ 1.36 286 iP+ 31 40.00 0.2
S 31 58.40
IIDJ 1.44 239 iP+ 31 41.80 1.0
S 32 00.30
YAMJ 2.00 14 iPd 31 48.80 0.6
eS 32 13.20
TSRJ 2.88 257 P 32 00.60 0.6
OFUJ 3.36 31 P 32 07.20 0.6
eS 32 44.80
WKYJ 3.72 239 P 32 11.20 -0.5
AOMJ 4.39 9 eP 32 22.00 1.1
TKSJ 4.94 245 P 32 27.90 -0.6
YONJ 4.96 260 P 32 29.00 0.2
MRRJ 6.32 11 eP 32 47.60 0.0
HOOJ 6.84 25 eP 32 55.10 0.4
eS 34 08.50
KUSJ 7.98 29 eP 33 06.80 -3.6X
eS 34 31.60
ASAJ 8.26 16 eP 33 12.10 -2.1
BJI 18.67 289 eP 35 30.00 1.2
1.5s 14.00nm 4.0mb
GUN 45.64 275 P 39 29.10 0.4
GKN 46.60 276 P 39 35.50 -0.6
0.8s 17.00nm 5.0mb
WB2 56.07 186 iPc 40 46.30 -0.7
0.6s 6.40nm 4.8mb
WRA 56.07 186 P 40 46.80 -0.2
0.4s 2.50nm 4.6mb
ASPA 59.80 186 eP 41 14.00 1.0
0.5s 3.80nm 4.8mb
YKA 65.30 29 eP 41 48.70 -0.4
0.7s 1.20nm 3.9mb
KAF 68.28 332 iP 42 06.90 -1.0
0.4s 1.70nm 4.3mb
NUR 69.90 331 iP 42 17.00 -0.8
0.2s 1.30nm 4.4mb
HFS 74.15 335 eP 42 42.50 -0.5
0.4s 1.40nm 4.2mb
SRU 81.14 48 eP 43 24.15 2.0
GEC2 82.54 327 P 43 28.90 -0.2
0.4s 1.04nm 4.0mb
S.D. = 0.9 on 28 of 29 obs.

DEC 31, 1993 07h 48m 45.82± 0.45s
49.184 N ± 3.8km 6.911 E ± 5.5km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 3.0 (STR), 2.5 (UCC).

RUP 0.53 11 ePg 48 56.70 0.2
LANF 0.62 109 Pg 48 58.20 -0.2
WLF 0.69 314 iPd 48 59.36 -0.1
iS 49 09.03
CDF 0.81 163 Pg 49 00.40 -1.2
Sg 49 11.26
ABH 0.81 30 ePg 49 01.90 0.3
WLS 0.83 159 Pg 49 00.62 -1.2
Sg 49 12.02
VITF 1.15 213 Pg 49 07.20 -0.1
MOF 1.34 174 Pg 49 10.60 0.0
Sg 49 27.80
BSF 1.36 183 Pg 49 10.49 -0.4
FEL 1.50 150 Pg 49 13.77 0.9
ENN 1.71 338 ePn 49 15.50 -0.3
0.5s 21.70nm
iPg 49 17.90
eSg 49 40.50
DOU 1.76 302 iP 49 16.20 -0.3
i 49 18.80
iS 49 38.40
LOMF 1.84 182 Pg 49 19.92 2.2
SNF 2.16 309 P 49 26.80 4.5X
i 49 29.70
GRF 2.86 78 ePg 49 41.00 8.7X
eSg 50 18.80
MOX 3.37 63 e(Pg) 49 53.50 13.9X
eSg 50 35.10
KHC 4.38 88 ePn 49 53.00 -0.9
Sn 50 43.50
e 51 07.00
CLL 4.45 59 e(P) 49 35.00 -19.8X
KBA 4.80 114 iPnc 50 00.90 0.9
1.3s 23.30nm
i 50 57.10
i 50 59.40
i 51 24.50
i 51 36.30
BRG 4.84 67 i(P) 49 36.50 -23.9X
eSg 51 28.50
RIY 6.37 124 iPg 51 05.50 43.5X
iSg 51 07.90
S.D. = 0.9 on 15 of 21 obs.

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* DEC 31, 1993 08h 20m 44.73± 1.69s
32.378 S ± 9.6km 69.999 W ±20.1km
DEPTH = 125.3 ± 23.3 km
MENDOZA PROVINCE, ARGENTINA (139)

MD 3.9 (SAN).

JACH 0.59 239 iPd 21 04.16 0.0
eS 21 18.86
PEL 0.96 217 iP 21 07.20 0.0
iS 21 24.38
FCH 0.98 194 iP+ 21 07.37 -0.3
iS 21 24.94
ROCH 1.04 235 iP+ 21 08.33 0.2
iS 21 26.71
PCH 1.31 199 eP 21 10.85 0.0
iS 21 31.81
TACH 1.50 212 iP+ 21 12.89 0.0
iS 21 34.99
LCCH 1.72 230 eP 21 15.67 0.3
CACH 1.81 196 iPd 21 17.19 0.5
iS 21 41.36
LNV 1.97 217 iP 21 17.74 -0.7
RTRS 2.25 12 iPd 21 22.00 0.0
S 21 50.50
S.D. = 0.4 on 10 of 10 obs.

DEC 31, 1993 08h 54m 00.41± 0.47s
29.332 N ± 8.6km 95.291 E ± 5.2km
DEPTH = 33.0km (normal)
4.8mb (7 obs.)
EASTERN XIZANG-INDIA BORDER REG.(313)

LSA 3.63 277 Pn 55 03.20 7.1X
Pg 55 12.00
Sn 55 50.00
SHL 4.82 220 ePn 55 11.00 -1.7
iSn 56 10.50
CD2 7.50 76 Pg 56 15.80 25.5X
KMI 7.84 121 ePg 56 20.00 24.7X
eSg 58 06.00
GUN 8.39 263 P 56 03.80 0.8
PKI 8.87 261 P 56 09.60 -0.1
KKN 8.94 263 P 56 11.50 1.1
DMN 9.13 262 P 56 12.80 -0.3
0.6s 34.00nm 5.7mb X
GKN 9.45 265 P 56 15.90 -1.6
0.4s 13.00nm 5.5mb X
LZH 9.86 45 Pc 56 23.50 0.4
1.2s 45.00nm 5.6mb X
GYA 10.46 103 P 56 30.40 -0.9
0.8s 9.10nm 5.1mb
CHTO 10.99 162 eP 56 39.10 0.7
XAN 12.52 65 P 56 57.50 -1.6
1.0s 4.50nm 4.5mb
NST 14.31 161 eP 57 31.50 8.8X
TIY 16.54 55 eP 57 50.50 -1.0
BJI 20.18 53 eP 58 36.00 1.2
1.0s 7.00nm 4.0mb
HFS 60.93 325 eP 04 12.90 0.7
0.4s 1.30nm 4.4mb
WRA 61.79 138 P 04 19.50 1.0
0.5s 7.80nm 5.1mb
WB2 61.80 138 iPd 04 19.00 0.5
0.4s 11.90nm 5.4mb
ASPA 64.46 141 eP 04 36.80 0.7
0.7s 7.70nm 4.9mb
S.D. = 1.1 on 16 of 20 obs.

& DEC 31, 1993 09h 00m 57.19s
60.691 N 150.248 W
DEPTH = 37.4km
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 2.5 (AEIC).

SLKM 0.18 176 eP 01 03.82 -0.3
eS 01 09.20
MPA 0.48 114 eP 01 06.79 -0.8
eS 01 15.15
PMS 0.65 31 eP 01 09.24 -0.7
eS 01 19.01
SEW 0.71 146 eP 01 09.31 -1.4
SUA 0.81 343 eP 01 11.56 -0.8
eS 01 23.90
PWL 0.95 79 eP 01 13.23 -1.0
PWA 0.98 10 eP 01 14.27 -0.3
BRLK 0.98 199 eP 01 13.75 -0.9
eS 01 27.53
SPU 1.01 300 iP 01 14.22 -0.9
eS 01 27.88
PLRM 1.05 30 eP 01 14.97 -0.7
BKG 1.06 292 eP 01 14.75 -1.0
CGLM 1.06 307 iP 01 15.02 -0.8
CKN 1.08 300 iP 01 15.50 -0.7
eS 01 30.95
CKT 1.08 299 iP 01 15.22 -1.0
eS 01 29.69
CRP 1.10 303 eP 01 15.80 -0.6
eS 01 30.74
CRP 1.10 303 eP 01 15.90 -0.5
eS 01 30.62
CP2 1.13 301 eP 01 16.21 -0.7
eS 01 32.14
KNK 1.13 50 eP 01 16.17 -0.7
CKL 1.14 297 eP 01 16.08 -0.9
NCG 1.17 308 iP 01 16.76 -0.7
eS 01 33.23
BGL 1.19 300 iP 01 17.00 -0.7
DFR 1.21 266 iP 01 16.82 -1.1
eS 01 32.76
REF 1.23 262 eP 01 17.42 -0.9
eS 01 33.96
HOM 1.25 215 eP 01 18.93 0.5
GHO 1.26 30 eP 01 18.48 -0.2
CNPM 1.27 203 eP 01 17.77 -1.0
RED 1.28 259 eP 01 17.91 -1.0
eS 01 34.84
RDW 1.28 262 eP 01 18.14 -1.0
eS 01 34.75
CFI 1.31 67 eP 01 17.71 -1.5
LTI 1.36 118 eP 01 18.00 -2.0
SKT 1.43 335 eP 01 20.97 -0.1
eS 01 39.92
SML 1.45 39 eP 01 20.82 -0.6
ILIM 1.48 247 eP 01 20.87 -0.9
eS 01 40.43
CUT 1.72 360 eP 01 25.71 0.5
OPT 1.82 236 eP 01 27.02 0.4
SCM 1.82 50 eP 01 26.10 -0.6
HIN 1.87 97 eP 01 25.23 -2.2
VLZ 1.96 75 eP 01 27.20 -1.4
PDB 2.17 247 eP 01 29.70 -1.9
KLU 2.25 67 eP 01 31.21 -1.7
TOA 2.42 52 eP 01 36.13 0.9
TZL 2.69 58 eP 01 38.86 -0.2
GLB 3.22 74 eP 01 44.03 -2.5
43 obs. associated

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* DEC 31, 1993 09h 10m 12.94± 0.93s
13.231 S ±12.1km 166.184 E ±18.7km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
VANUATU ISLANDS (186)

BKM 4.84 156 iP 11 25.00 -0.3
iS 12 20.00
DZM 8.79 178 iPc 12 16.50 -4.4X
iS 13 12.90
ARMA 21.76 216 eP 15 03.80 0.0
STK 29.21 227 eP 16 15.40 1.5
2.4s 1.30nm 3.2mb X
e 16 23.00
WB2 31.19 253 eP 16 29.90 -1.7
0.8s 1.80nm 3.9mb
LZH 76.54 312 eP 22 02.00 0.0
1.5s 24.00nm 5.0mb
GUN 87.75 299 P 23 01.20 0.5
PKI 88.06 299 P 23 01.90 -0.2
KKN 88.23 299 P 23 03.10 0.3
DMN 88.33 299 P 23 03.50 0.2
GKN 88.83 299 P 23 05.30 -0.3
0.6s 7.00nm 5.2mb
S.D. = 0.9 on 10 of 11 obs.

? DEC 31, 1993 09h 53m 22.27± 1.77s
10.277 N ±32.1km 67.733 W ±12.6km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)

CAR 0.82 74 eP 53 37.80 0.2
iS 53 49.70
LLAV 0.93 78 eP 53 38.80 -0.3
iS 53 53.20
OLLA 0.95 106 eP 53 39.40 0.0
iS 53 54.80
CANV 1.32 305 eP 53 44.50 0.0
iS 54 03.00
S.D. = 0.4 on 4 of 4 obs.

? DEC 31, 1993 10h 26m 17.30± 1.31s
29.145 N ±17.7km 34.751 E ±10.6km
DEPTH = 10.0km (geophysicist)
4.1mb (1 obs.)
EGYPT (553)

AYN 1.13 104 iPc 26 38.50 0.1
eS 26 53.30
DHLJ 1.76 19 Pd 26 53.20 5.2X
SALJ 2.97 16 Pd 27 08.00 2.7X
HLW 3.06 284 ePn 27 07.00 0.5
SHMJ 3.67 13 P 27 16.00 0.6
BHL 4.81 9 Pn 27 47.00 15.5X
Sn 29 02.00
UQSK 7.54 115 eP 28 17.30 7.3X
eS 29 50.00
HFS 34.10 341 eP 33 02.70 -1.2
0.5s 1.20nm 4.1mb
S.D. = 1.4 on 4 of 8 obs.

DEC 31, 1993 10h 31m 35.61± 0.89s
6.530 S ± 6.4km 148.518 E ± 7.1km
DEPTH = 75.4 ± 8.1 km
4.7mb (18 obs.)
NEW BRITAIN REGION, P.N.G. (192)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 34S, 57C
Centroid Location:
Origin Time 10:31:37.6 0.3
Lat 6.75S 0.03 Lon 148.77E 0.03
Dep 15.0 1.9 Half-duration 1.4
Moment Tensor; Scale 10**17 Nm
Mrr= 1.42 0.05 Mtt=-1.63 0.06
Mff= 0.21 0.06 Mrt= 1.98 0.33
Mrf=-0.38 0.15 Mtf=-0.24 0.05
Principal Axes:
T Val= 2.48 Plg=62 Azm= 24
N 0.12 10 274
P -2.60 26 179
Best Double Couple:Mo=2.5*10**17
NP1:Strike=246 Dip=21 Slip= 60
NP2: 98 72 101

LAT 1.51 265 eP 32 00.70 -0.6
eS 32 11.50
YYYY 2.55 276 eP 32 18.00 2.3
MDG 3.01 295 eP 32 22.50 0.6
PMG 3.16 205 iPd 32 22.20 -1.8
RAB 4.31 58 iPd 32 39.00 -1.2
0.5s 845.07nm
iS 33 32.00
MNDI 4.84 274 eP 32 49.00 1.1
WWKK 5.67 300 eP 33 07.50 8.3X
QIS 16.41 211 eP 35 22.00 -0.6
e 35 34.00
MTN 18.25 249 eP 35 47.00 1.6
WB2 19.16 225 eP 35 54.10 -1.9
ipP 35 56.10 8kmX
iPP 36 01.80
eS 39 18.40
WRA 19.17 225 P 35 55.20 -0.9
1.2s 14.50nm 4.1mb
ASPA 22.09 218 iPd 36 26.00 0.1
0.9s 72.60nm 5.1mb
Z 20s 4.30um 4.9Msz
ipP 36 40.20 61kmX
eS 40 27.30
BKM 22.21 122 iPc 36 29.00 1.9
DZM 23.20 134 iPd 36 36.90 0.1
ARMA 23.94 173 iPc 36 43.60 -0.4
0.8s 34.00nm 4.8mb
ipP 36 57.30 57kmX
STK 26.04 194 eP 37 03.40 -0.2
0.9s 9.60nm 4.3mb
eS 41 41.00
BWA 27.76 180 eP 37 21.20 1.9
WARB 28.59 224 eP 37 30.00 3.2X
CAN 28.66 179 eP 37 25.40 -1.9
i 37 31.50
e 37 41.60
CNB 28.66 179 eP 37 31.10 3.7X
ADE 29.71 196 eP 37 41.50 4.7X
TOO 31.02 185 eP 37 48.20 -0.1
0.7s 17.00nm 4.9mb
epP 38 00.00 45kmX

31d 10h

BAG 35.83 310 eP 38 40.00 9.8X
MRWA 38.07 230 eP 38 50.00 1.2
0.5s 11.00nm 5.0mb
MUN 39.36 226 eP 39 00.00 0.6
MAT 43.92 348 eP 39 35.00 -1.7X
Z 18s 2.06um 5.1Msz
eS 46 11.00
NST 52.75 295 eP 40 45.50 0.2
SNY 53.25 337 eP 40 48.00 -0.6
Z 24s 1.29um 4.9MszX
KMI 54.52 307 Pc 41 04.50 6.0X
2.0s 50.00nm 5.2mb
Z 20s 0.70um 4.7Msz
pP 41 10.00 18kmX
XAN 55.05 320 P 41 01.40 -0.7
0.6s 1.90nm 4.3mb
Z 20s 1.21um 5.0Msz
BJI 55.10 330 eP 41 00.00 -2.2X
1.5s 14.00nm 4.8mb
Z 22s 1.56um 5.0Msz
N 19s 1.28um
eS 48 40.00
eSS 52 24.00
HHC 58.08 327 P 41 22.00 -1.5
Z 24s 1.62um 5.1MszX
N 17s 0.82um
LZH 59.60 319 eP 41 56.00 21.8X
2.0s 33.00nm
Z 20s 0.75um 4.8Msz
E 15s 0.40um
GTA 64.11 320 eP 42 10.50 6.1X
1.5s 6.00nm 4.3mb
Z 18s 0.57um 4.8Msz
LSA 65.76 307 P 42 15.00 -0.6
GUN 69.42 303 P 42 37.00 -1.4
0.6s 25.00nm 5.3mb
KKN 69.88 303 P 42 40.20 -0.8
0.7s 10.00nm 4.9mb
DMN 69.97 302 P 42 40.30 -1.3
0.6s 13.00nm 5.0mb
GKN 70.49 303 P 42 43.00 -1.7X
0.6s 14.00nm 5.1mb
KOD 72.68 283 eP 43 05.00 6.8X
GBA 73.33 286 P 43 02.60 1.1
0.8s 2.50nm 4.2mb
WMQ 74.18 319 eP 43 04.20 -1.8
IMA 83.52 20 eP 43 59.01 2.6X
1.1s 5.16nm 4.4mb
KLU 84.37 26 eP 44 01.92 1.3
FBA 85.08 23 eP 44 03.88 -0.2
1.0s 8.57nm 4.7mb
WDC 93.40 50 P 44 50.00 6.2X
Z 19s 0.87um 5.2Msz
SAO 93.89 54 P 45 00.00 13.8X
Z 21s 1.01um 5.3Msz
CMB 94.84 52 P 45 00.00 9.4X
Z 19s 0.59um 5.1Msz
ISA 96.20 55 P 45 10.00 13.1X
Z 20s 0.85um 5.2Msz
YKA 98.93 28 eP 45 11.60 3.1X
0.8s 0.50nm 4.1mb
DUG 100.80 50 Pdiff 45 30.00 12.3X
Z 20s 0.81um 5.2Msz
TUC 102.49 58 Pdiff 45 40.00 14.6X
Z 22s 1.07um 5.3Msz
ALQ 106.02 56 PKP 50 00.00 6.7X
Z 19s 0.71um 5.2Msz
GOL 106.53 51 PKP 50 10.00 15.8X
Z 20s 0.98um 5.4Msz
GLD 106.64 51 PKP 50 10.00 15.7X
Z 20s 0.74um 5.2Msz
WMOK 112.33 55 PKP 50 20.00 15.1X
Z 19s 0.91um 5.4Msz
MIAR 116.59 55 PKP 50 20.00 6.9X
Z 20s 1.00um 5.4Msz
GEC2 123.19 326 PKP 50 25.00 -0.4X
0.6s 2.55nm
e 50 31.40
e 50 40.70
MYNC 123.99 52 ePKP 50 27.30 0.0
Z 19s 0.94um 5.4Msz
GOGA 125.01 54 PKP 50 40.00 10.8X
Z 20s 0.55um 5.2Msz
YSNY 125.23 42 PKP 50 40.00 10.6X
Z 21s 0.75um 5.3Msz
MCWV 125.55 45 PKP 50 40.00 9.9X
Z 21s 0.82um 5.4Msz

PRM 125.68 52 ePKP 50 31.25 0.7
JSC 126.49 52 ePKP 50 32.89 0.8
BINY 127.02 41 PKP 50 40.00 7.1X
Z 19s 0.69um 5.3Msz
CEH 127.58 49 PKP 50 50.00 15.9X
Z 21s 0.55um 5.2Msz
LBNH 128.47 37 PKP 50 50.00 14.4X
Z 19s 0.90um 5.5Msz
CBM 128.95 32 PKP 50 50.00 13.6X
Z 21s 1.18um 5.5Msz
HRV 129.66 38 PKP 50 50.00 12.1X
Z 19s 0.69um 5.4Msz
LPB 137.14 123 PKP 50 57.00 3.6X
e 54 29.00
LPAZ 137.23 122 ePKP 50 54.76 1.0
eSKP 54 29.18
RSTA 144.60 152 ePKP 51 05.10 -0.8
AVE 145.24 323 ePKP 51 07.00 0.3
TIO 146.77 320 iPKPd 51 13.50 4.0X
BPA 148.53 68 ePKP 51 15.00 2.5
PAG 148.96 70 ePKP 51 17.50 4.3X
MGG 149.32 70 ePKP 51 18.50 4.8X
DEG 149.46 69 ePKP 51 18.50 4.5X
BDFB 152.55 144 PKP 51 23.67 5.0X
BAO 152.57 144 ePKP 51 27.00 8.3X
i 51 40.50
KIC 153.43 271 PKP 51 12.67 -7.2X
1.3s 26.00nm
LIC 153.71 271 PKP 51 13.69 -6.5X
1.8s 31.00nm
TIC 153.71 272 PKP 51 13.51 -6.7X
0.9s 5.50nm
LKO 154.19 278 PKP 51 16.25 -4.7X
1.3s 16.00nm
S.D. = 1.3 on 39 of 84 obs.

DEC 31, 1993 10h 39m 47.90± 1.04s
6.478 S ± 8.6km 148.582 E ± 8.3km
DEPTH = 78.0 ± 10.3 km
4.8mb (10 obs.)
NEW BRITAIN REGION, P.N.G. (192)

YYYY 2.61 275 eP 40 31.00 2.2
PMG 3.23 206 iPd 40 35.30 -2.0
RAB 4.23 58 iPc 40 51.00 -0.3
0.5s 563.38nm
MNDI 4.90 273 eP 41 16.00 15.0X
QIS 16.48 211 eP 43 35.30 -0.4
e 43 47.20
eS 46 33.20
WB2 19.24 225 iPc 44 06.60 -2.3X
0.4s 31.30nm 4.9mb
WRA 19.25 225 P 43 54.50 -14.5X
0.7s 2.50nm
ASPA 22.16 218 iPc 44 38.40 -0.3
0.4s 41.80nm 5.2mb
epP 44 51.60 55kmX
iS 48 40.10
BKM 22.18 122 iPd 44 40.00 1.1
DZM 23.19 134 iPc 44 48.90 0.1
ARMA 23.99 174 iPd 44 56.30 -0.2
0.6s 10.00nm 4.4mb
STK 26.10 194 eP 45 16.10 -0.1
1.3s 7.50nm 4.1mb
e 45 18.20
i 45 31.90
TOO 31.08 185 eP 46 01.10 0.3
0.7s 13.00nm 4.8mb
epP 46 14.00 50kmX
MRWA 38.15 230 eP 47 03.00 1.5
0.7s 14.00nm 5.0mb
MUN 39.44 226 eP 47 13.00 0.9
GUN 69.44 303 P 50 49.30 -1.2
0.6s 9.00nm 4.9mb
KKN 69.91 303 P 50 52.20 -1.0
0.6s 8.00nm 4.8mb
DMN 69.99 302 P 50 53.10 -0.7
0.6s 10.00nm 4.9mb
GKN 70.51 303 P 50 55.60 -1.2
0.6s 7.00nm 4.8mb
GEC2 123.19 326 PKP 58 38.00 0.7
0.6s 1.40nm
e 58 50.10
LPB 137.11 123 ePKP 59 06.00 0.7
LPAZ 137.20 122 PKP 58 57.00 -8.7X
BAO 152.57 143 ePKP 59 39.60 8.9X
KIC 153.49 271 PKP 59 41.63 9.8X

0.9s 19.50nm
LIC 153.77 271 PKP 59 42.59 10.3X
0.6s 5.00nm
LKO 154.25 278 PKP 59 35.30 2.4X
0.8s 10.00nm
S.D. = 1.2 on 18 of 26 obs.

? DEC 31, 1993 10h 47m 57.78± 1.12s
32.248 S ± 8.2km 117.413 E ±12.5km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

NWAO 0.69 193 iPc 48 11.60 0.1
iS 48 20.50
KLB 0.72 24 eP 48 11.50 -0.4
iS 48 20.60
MUN 1.06 284 eP 48 17.30 -0.4
iS 48 31.10
BAL 1.74 340 eP 48 29.00 0.7
eS 48 51.50
S.D. = 0.9 on 4 of 4 obs.

& DEC 31, 1993 11h 31m 09.64s
63.056 N 150.978 W
DEPTH = 128.4km
CENTRAL ALASKA (1)
<AEIC>.

KTH 0.50 3 eP 31 28.36 -0.5
HUR 0.62 97 eP 31 28.75 -0.8
eS 31 44.62
CUT 0.73 153 iPd 31 29.96 -0.4
RND 1.02 69 iPd 31 32.31 -0.7
eS 31 50.92
SKT 1.11 194 iPd 31 33.35 -0.4
eS 31 51.61
MCK 1.14 53 ePd 31 33.63 -0.5
eS 31 52.56
BWN 1.31 30 eP 31 35.71 -0.1
PWA 1.50 160 P 31 37.90 -0.1
SUA 1.60 176 eP 31 39.19 -0.1
GHO 1.60 143 ePc 31 39.01 -0.3
eS 32 01.96
DHY 1.64 88 eP 31 39.26 -0.5
PLRM 1.70 149 eP 31 39.60 -0.7
PMR 1.70 149 eP 31 39.50 -0.8
NEA 1.74 28 ePd 31 39.76 -1.1
NCG 1.75 199 eP 31 40.55 -0.5
SML 1.76 134 iPc 31 40.33 -0.7
eS 32 04.84
CGLM 1.82 196 eP 31 40.79 -1.1
CRP 1.88 198 eP 31 41.20 -1.4
CP2 1.89 199 eP 31 42.80 -0.1
WRH 1.91 41 eP 31 41.86 -1.0
CKN 1.92 198 eP 31 43.46 0.4
PMS 1.94 159 P 31 42.50 -0.7
SPU 1.95 196 eP 31 42.71 -0.7
eS 32 08.12
CKT 1.95 198 eP 31 43.42 0.0
eS 32 09.01
MLY 1.99 3 eP 31 42.96 -0.9
KNK 2.03 143 ePc 31 43.56 -0.8
eS 32 10.39
BKG 2.08 197 eP 31 44.63 -0.5
eS 32 11.92
SCM 2.09 124 eP 31 44.10 -1.1
CCB 2.13 40 ePd 31 44.56 -1.0
HDA 2.25 51 eP 31 45.96 -1.1
MDM 2.26 31 eP 31 46.28 -1.0
TTA 2.30 269 ePc 31 46.85 -1.0
FBA 2.32 36 eP 31 46.75 -1.3
CFI 2.41 140 eP 31 48.58 -0.5
DDM 2.41 70 eP 31 49.88 0.6
TOA 2.42 111 P 31 49.00 -0.3
IL1 2.50 45 eP 31 49.05 -1.2
ILB 2.50 45 eP 31 48.79 -1.5
eS 32 19.96
GLM 2.50 38 ePd 31 49.46 -0.9
PAX 2.51 89 ePc 31 50.12 -0.5
eS 32 20.67
PWL 2.53 149 ePc 31 49.69 -1.1
SLKM 2.58 172 eP 31 50.74 -0.7
DFR 2.60 199 eP 31 51.33 -0.4
MPA 2.69 163 eP 31 51.79 -0.9
REF 2.70 198 eP 31 52.46 -0.7
TZL 2.77 109 eP 31 53.43 -0.3
KLU 2.84 121 eP 31 53.03 -1.7

VLZ 2.92 129 eP 31 53.68 -2.0
SVW 2.93 230 eP 31 55.30 -0.7
FID 3.14 135 P 31 56.20 -2.5
DOT 3.17 76 ePc 31 57.99 -1.2
IM3 3.17 339 ePc 31 58.05 -1.1
IMA 3.24 340 eP 31 58.50 -1.6
BRLK 3.30 179 eP 32 00.65 -0.2
eS 32 37.42
LTI 3.38 152 eP 31 59.92 -1.9
HIN 3.41 139 eP 32 00.81 -1.5
MTU 3.47 151 eP 32 01.51 -1.5
CVA 3.54 133 eP 32 02.80 -1.1
CNPM 3.55 182 eP 32 03.62 -0.5
GLB 3.72 113 eP 32 05.15 -1.4
eS 32 47.39
BC3 4.18 86 ePc 32 11.00 -1.7
HMT 4.20 127 eP 32 11.10 -1.8
TGL 4.49 117 eP 32 14.93 -2.0
BALM 4.54 113 eP 32 15.67 -1.9
CTGM 5.00 110 eP 32 23.00 -0.9
BM3 5.13 29 eP 32 23.78 -1.7
66 obs. associated

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* DEC 31, 1993 12h 16m 47.47± 2.12s
6.825 S ±12.2km 129.654 E ±14.6km
DEPTH = 129.1 ± 20.6 km
5.0mb (7 obs.)
BANDA SEA (280)

MTN 6.16 166 eP 18 18.00 0.6
0.3s 407.00nm ' 6.2mb X
KNA 8.91 186 eP 18 53.50 -1.1
0.3s 91.00nm 6.0mb
eS 20 26.00
WB2 13.81 161 iPc 19 55.60 -3.4X
0.7s 59.10nm 5.0mb
eS 22 18.90
QIS 16.71 146 eP 20 35.20 -0.2
eS 23 27.80
MBL 17.13 213 iPc 20 41.50 1.1
eS 23 38.00
ASPA 17.24 167 eP 20 41.20 -0.6
0.5s 130.40nm 5.5mb
ipP 20 42.60
eS 23 37.70
WARB 19.46 188 eP 21 07.20 0.6
eS 24 36.20
MRWA 25.73 208 eP 22 07.00 -0.6
0.3s 2.00nm 4.2mb
e 22 40.00
eS 26 57.50
STK 27.31 157 eP 22 21.90 0.0
0.5s 8.70nm 4.6mb
eS 27 40.70
MUN 27.99 205 eP 22 27.50 -0.6
e 23 08.00
eS 27 51.00
ADE 29.22 165 eP 22 40.20 1.0
CHTO 39.57 311 eP 24 08.90 1.1
GUN 54.58 311 P 26 04.60 -0.6
0.6s 11.00nm 4.9mb
GKN 55.56 311 P 26 11.40 -0.7
0.5s 7.00nm 4.9mb
LPB 150.89 143 ePKP 36 30.00 8.2X
LPAZ 151.07 143 iPKPc 36 29.40 7.1X
S.D. = 0.9 on 13 of 16 obs.

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* DEC 31, 1993 13h 32m 04.09± 0.88s
21.117 N ± 7.3km 72.740 E ±10.9km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
SOUTHERN INDIA (314)
Felt at Amreli, Bagasra,
Chalala, Dhari and Rajula.

BOM 2.21 178 ePn 32 39.00 -0.2
eSn 33 09.80
HYB 6.61 123 eP 33 52.50 11.0X
eS 35 11.50
GBA 8.71 148 P 34 11.00 0.2
S 35 48.00
QUE 10.43 331 eP 34 34.70 0.1
GKN 12.81 55 P 35 06.40 -0.4
DMN 12.99 58 P 35 10.80 1.5
KKN 13.21 57 P 35 11.60 -0.5
PKI 13.21 58 P 35 13.00 0.7
GUN 13.73 58 P 35 17.80 -1.4
WRA 72.76 120 P 43 31.50 0.0
0.7s 0.70nm 3.8mb
S.D. = 0.9 on 9 of 10 obs.

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* DEC 31, 1993 14h 25m 01.76± 1.09s
6.451 S ±10.5km 148.560 E ±10.9km
DEPTH = 70.6 ± 10.6 km
4.3mb (4 obs.)
NEW BRITAIN REGION, P.N.G. (192)

LAT 1.56 262 eP 25 27.70 -0.3
eS 25 47.50
MDG 3.01 293 eP 25 50.00 1.9
PMG 3.25 205 eP 25 50.00 -1.4
RAB 4.23 58 iPc 26 05.00 -0.3
ASPA 22.17 218 iPd 29 53.90 0.6
0.6s 18.90nm 4.7mb
Z 19s 0.30um 3.7Msz
epP 30 00.30 23kmX
iS 33 55.00
ARMA 24.02 173 iPc 30 11.00 -0.3
0.7s 5.00nm 4.1mb
STK 26.12 194 eP 30 32.20 1.2
1.2s 4.00nm 3.8mb
i 30 45.90
GUN 69.41 303 P 36 04.80 -0.2
0.6s 5.00nm 4.6mb
KKN 69.87 303 P 36 05.60 -2.1
DMN 69.96 302 P 36 08.00 -0.3
GKN 70.48 303 P 36 10.00 -1.3
GEC2 123.15 326 PKP 43 52.70 0.7
0.6s 0.79nm
LPAZ 137.24 122 PKP 44 22.30 1.7
KIC 153.47 271 PKP 44 56.57 9.9X
0.9s 18.50nm
LIC 153.75 271 PKP 44 56.71 9.7X
0.7s 4.00nm
TIC 153.75 272 PKP 44 56.53 9.5X
0.7s 3.00nm
LKO 154.22 279 PKP 44 57.96 10.3X
0.5s 8.50nm
S.D. = 1.4 on 13 of 17 obs.

% DEC 31, 1993 14h 26m 02.61± 3.34s
32.766 S ±18.8km 71.596 W ±17.3km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.8 (SAN).

ROCH 0.53 113 iPd 26 14.10 0.6
iS 26 21.14
LCCH 0.71 178 iP 26 16.77 0.2
JACH 0.85 85 iP 26 18.89 -0.2
iS 26 29.66
PEL 0.85 116 iP+ 26 19.22 0.1
iS 26 30.40
TACH 1.04 148 iP 26 22.13 -0.2
iS 26 34.80
LNV 1.20 173 eP 26 24.43 -0.4
FCH 1.23 117 iP+ 26 25.17 -0.6
iS 26 40.61
PCH 1.24 133 iPd 26 25.27 -0.5
iS 26 41.17
CACH 1.58 149 iPd 26 31.73 0.8
iS 26 51.85
S.D. = 0.6 on 9 of 9 obs.

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* DEC 31, 1993 14h 29m 03.95± 0.54s
21.544 S ±14.1km 169.318 E ±10.9km
DEPTH = 33.0km (normal)
5.0mb (11 obs.)
LOYALTY ISLANDS REGION (189)

DZM 2.72 258 iPc 29 43.70 -2.7
iS 30 14.20
BKM 3.99 345 iPd 30 04.00 -0.3
iS 30 58.50
ARMA 18.18 237 eP 33 16.40 0.8
0.8s 8.00nm 3.9mb X
STK 26.75 242 eP 34 42.80 0.2
1.7s 3.10nm 3.7mb X
ASPA 32.71 259 eP 35 32.40 -3.4X
1.2s 16.50nm 4.8mb
MDJ 75.18 332 eP 40 45.40 0.6
BJI 78.77 321 eP 41 15.00 10.1X
1.0s 6.00nm
Z 16s 0.35um 4.8MszX
KMI 79.55 302 Pd 41 11.50 1.7
1.2s 40.00nm 5.3mb
pP 41 19.50 25kmX
CHTO 79.68 295 eP 41 12.00 1.7
XAN 79.72 313 P 41 10.80 0.5
1.0s 4.50nm 4.4mb
HHC 82.01 320 P 41 23.00 0.8
1.4s 24.00nm 5.0mb
LZH 84.32 312 eP 41 33.50 -0.8
1.5s 34.00nm 5.3mb
sP 41 45.00
ORV 88.61 46 eP 41 54.75 -0.2
CMB 88.63 48 eP 41 54.84 -0.3
0.8s 5.65nm 4.9mb
GTA 88.76 313 eP 41 56.50 0.7
1.5s 12.00nm 5.0mb
PLM 89.01 54 eP 41 57.26 0.0
PEC 89.02 53 eP 41 56.70 -0.4
0.6s 7.82nm 5.2mb
GLA 90.41 55 eP 42 03.79 0.2
TNP 90.87 49 eP 42 06.03 0.2
0.9s 8.00nm 5.1mb
TPNV 91.05 51 eP 42 06.51 -0.1
1.0s 13.04nm 5.3mb
FBA 92.25 17 (P) 42 08.85 -2.5
1.2s 2.55nm 4.5mb
SRO 144.94 325 ePKP 48 37.60 -1.6
BRG 144.95 333 ePKP 48 38.10 -1.1
1.2s 22.00nm
i 48 48.60
CLL 145.02 334 iPKPc 48 37.50 -1.7
PRU 145.33 331 ePKP 48 49.50 9.7X
e 49 01.50
EKA 145.79 352 PKP 48 59.00 18.6X
0.7s 3.50nm
MOX 146.09 334 ePKP 48 32.80 -8.3X
e 48 51.20
SKO 146.22 315 ePKP 48 42.50 0.9
KHC 146.39 331 ePKP 48 42.90 1.2
e 49 02.20
GEC2 146.54 330 PKP 48 41.10 -0.9
0.8s 2.67nm
OHR 147.04 314 ePKP 48 44.00 1.0
LJU 148.06 326 ePKP 48 46.40 2.0
S.D. = 1.2 on 27 of 32 obs.

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* DEC 31, 1993 14h 54m 03.78± 0.98s
6.563 S ±11.2km 148.695 E ± 9.0km
DEPTH = 63.2 ± 13.1 km
4.5mb (4 obs.)
NEW BRITAIN REGION, P.N.G. (192)

LAT 1.69 266 e(P) 54 46.00 14.5X
YYYY 2.73 277 eP 54 47.50 1.2
MDG 3.18 294 eP 54 52.50 0.0
PMG 3.21 208 eP 54 52.00 -0.9
eS 55 54.00
RAB 4.18 56 eP 55 06.00 -0.6
WB2 19.26 225 eP 58 24.50 -1.7
0.3s 28.40nm 5.0mb
eS 01 53.80
ASPA 22.17 218 eP 58 55.50 -0.5
0.7s 20.90nm 4.7mb
Z 21s 0.50um 3.9Msz
epP 59 08.50 54kmX
iS 02 57.60
DZM 23.05 134 iPc 59 05.90 1.2
ARMA 23.89 174 eP 59 13.20 0.4
0.7s 8.00nm 4.3mb
STK 26.05 194 eP 59 33.70 0.7
0.9s 3.60nm 3.9mb
MRWA 38.19 230 eP 01 20.00 0.9
GUN 69.58 303 P 05 00.00 -9.0X
GEC2 123.32 326 PKP 12 54.30 -1.0
0.6s 0.91nm
LPB 136.97 123 ePKP 13 14.00 -8.8X
LPAZ 137.06 122 PKP 13 13.80 -9.4X
BAO 152.44 143 (PKP) 14 02.90 14.7X
KIC 153.61 271 PKP 13 58.25 8.4X
0.8s 5.00nm
LIC 153.89 271 PKP 13 59.03 8.9X
0.9s 9.50nm
TIC 153.89 272 PKP 13 58.87 8.7X
1.0s 12.00nm
LKO 154.37 278 PKP 13 59.91 9.1X
0.8s 6.00nm
S.D. = 1.2 on 11 of 20 obs.

? DEC 31, 1993 15h 42m 27.61± 1.04s
10.584 N ±10.5km 61.591 W ± 8.2km
DEPTH = 10.0km (geophysicist)
TRINIDAD (98)
MD 2.5 (TRN).

TCE 0.19 305 eP 42 31.81 -0.1
eS 42 34.76
TRN 0.20 71 eP 42 32.40 0.5
eS 42 35.64
TPP 0.30 152 eP 42 34.08 0.2
eS 42 37.08
TBH 0.52 101 eP 42 37.62 -0.6
eS 42 46.81
S.D. = 0.8 on 4 of 4 obs.

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* DEC 31, 1993 16h 22m 31.11± 1.35s
8.143 S ±13.1km 148.115 E ±11.8km
DEPTH = 190.9 ± 10.1 km
5.1mb (4 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

PMG 1.57 217 e(P) 23 05.00 0.0
eS 23 33.00
QIS 14.83 213 eP 25 53.00 0.1
WB2 17.76 227 eP 26 25.70 -1.9
0.4s 53.00nm 5.3mb
eS 29 54.40
ASPA 20.59 220 eP 26 57.30 0.6
0.5s 42.50nm 5.2mb
Z 20s 0.90um 4.1Msz
e 27 09.70
iS 30 58.20
eScS 38 21.50
BKM 21.76 118 iPc 27 08.10 -0.2
ARMA 22.41 172 iPd 27 14.40 -0.2
0.4s 11.00nm 4.8mb
STK 24.39 194 eP 27 34.20 0.9
3.4s 4.70nm 3.5mb X
TOO 29.39 184 iPd 28 19.30 0.7
0.9s 30.00nm 5.0mb
MUN 37.96 227 eP 29 32.00 0.0
HYB 73.25 291 eP 33 45.00 1.4
BAO 151.49 146 ePKP 41 58.00 -0.4
KIC 153.02 268 PKP 42 00.10 -0.4
1.2s 6.50nm
LIC 153.29 268 PKP 42 00.34 -0.5
0.9s 4.00nm
TIC 153.32 269 PKP 42 00.92 0.0
1.0s 5.00nm
LKO 153.98 275 PKP 42 01.64 -0.2
0.6s 2.00nm
S.D. = 0.9 on 15 of 15 obs.

? DEC 31, 1993 16h 34m 03.12± 8.21s
35.674 S ±76.9km 71.047 W ±26.7km
DEPTH = 150.0km (geophysicist)
CENTRAL CHILE (136)
MD 3.9 (SAN).

CACH 1.60 13 iP+ 34 34.15 0.0
iS 35 00.12
LNV 1.74 350 iP+ 34 35.70 0.1
iS 35 01.70
TACH 2.02 3 iP+ 34 38.87 0.0
eS 35 09.22
PCH 2.10 12 iP+ 34 39.92 0.1
eS 35 09.62
LCCH 2.24 349 iP+ 34 41.26 -0.2
eS 35 11.78
FCH 2.42 15 iP+ 34 44.01 -0.1
iS 35 19.10
PEL 2.54 7 iP+ 34 45.49 0.2
iS 35 20.42
ROCH 2.70 1 eP 34 47.52 0.1
iS 35 23.94
JACH 3.01 7 iP 34 51.06 -0.2
S.D. = 0.2 on 9 of 9 obs.

? DEC 31, 1993 16h 42m 16.83± 1.68s
11.614 N ±17.8km 122.652 E ±36.9km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
PANAY, PHILIPPINE ISLANDS (254)

MAP 1.83 134 iPd 42 47.00 0.5
eS 43 05.00
GQP 2.29 355 eP 42 53.00 0.0
BIP 4.89 133 eP 43 29.50 -0.5
BAG 5.17 337 eP 43 39.00 4.8X
DAV 5.34 147 eP 43 51.00 14.6X
WB2 33.41 160 eP 48 54.70 0.0
1.0s 2.60nm 4.1mb
S.D. = 0.7 on 4 of 6 obs.

? DEC 31, 1993 16h 49m 01.50± 0.94s
31.324 S ±29.7km 68.697 W ±37.8km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.18 208 ePd 49 16.20 0.0
S 49 26.50
RTLL 0.20 92 ePd 49 16.00 -0.2
S 49 26.00
CFA 0.48 126 ePc 49 17.60 0.2
(S) 49 30.00
RTRS 1.32 330 iPd 49 26.00 0.1
S 49 45.00
S.D. = 0.3 on 4 of 4 obs.

DEC 31, 1993 16h 53m 09.10± 1.34s
3.032 N ± 6.0km 96.410 E ± 7.9km
DEPTH = 72.6 ± 12.8 km
4.9mb (31 obs.)
NORTHERN SUMATERA, INDONESIA (706)

IPM 4.86 71 ePc 54 21.10 -0.2
e 55 18.00
eS 55 37.10
KLM 5.23 89 eP 54 28.00 1.5
SNG 5.87 45 eP 54 36.00 0.5
1.0s 342.00nm 5.6mb
eS 56 22.00
KGM 6.98 98 ePd 54 50.30 -0.5
e 56 59.90
NNT 10.05 19 eP 55 33.00 0.0
NST 13.08 16 eP 56 18.50 5.0X
LOE 15.21 20 eP 56 45.00 3.8X
CHTO 15.88 9 eP 56 49.20 -0.5
KKM 19.97 81 ePd 57 42.70 4.4X
GBA 21.49 300 P 57 52.00 -1.6
S 01 44.00
HYB 22.62 310 ePd 58 05.10 0.3
1.4s 75.00nm 4.9mb
e 58 19.00
KMI 22.79 15 eP 58 08.00 1.3
2.0s 80.00nm 4.8mb
Z 15s 1.80um 4.6MszX
N 13s 1.20um
E 13s 0.60um
pP 58 16.50 31kmX
sP 58 20.00
eS 02 18.00
SHL 22.82 349 eP 58 04.50 -2.5X
eS 02 12.00
PKI 26.57 338 P 58 42.70 0.1
0.7s 14.00nm 4.6mb
GUN 26.70 339 P 58 43.60 -0.3
0.6s 28.00nm 5.0mb
DMN 26.72 337 P 58 44.00 0.1
0.7s 23.00nm 4.8mb
KKN 26.82 338 P 58 44.40 -0.4
0.7s 19.00nm 4.7mb
POO 26.93 307 eP 58 46.00 0.3
GKN 27.26 337 P 58 48.40 -0.3
NDI 31.38 326 eP 59 14.50 -10.8X
LZH 33.60 11 eP 59 42.50 -2.2
1.6s 27.00nm 4.9mb
Z 22s 0.71um 4.3Msz
E 15s 0.48um
sP 59 55.00
QUE 38.82 317 eP 00 30.50 1.5
MUN 39.57 153 eP 00 35.50 0.6
NWAO 40.84 153 eP 00 44.50 -0.8
BJI 40.96 23 eP 00 48.00 1.8
1.5s 42.00nm 5.0mb
Z 20s 0.60um 4.5Msz
WRA 43.68 123 P 01 04.00 -4.7X
0.8s 2.60nm 4.1mb
WB2 43.69 123 eP 01 08.00 -0.8
0.9s 11.10nm 4.7mb
eS 07 30.30
FRU 44.14 337 eP 01 14.00 1.8
2.0s 40.00nm 4.9mb
ASPA 45.13 128 eP 01 19.20 -1.2
1.0s 8.00nm 4.5mb
MAIO 47.47 319 eP 01 39.00 0.2
ZAK 47.54 6 iPc 01 38.00 -0.9
1.6s 28.00nm 4.9mb
ASH 49.17 320 eP 01 50.00 -1.8
CIT 50.87 14 eP 02 03.00 -1.6
STK 55.17 133 eP 02 36.20 -0.5
0.7s 4.50nm 4.6mb
BOD 56.43 11 eP 02 44.10 -1.3
1.5s 23.00nm 5.0mb
SVE 60.69 338 ePd 03 15.50 0.5
e 04 02.00
TOO 60.80 137 eP 03 16.50 0.4
0.9s 13.00nm 5.1mb
ARU 61.16 337 eP 03 18.00 -0.2
KIV 62.41 319 eP 03 26.10 -0.8
YAK 63.90 17 iPd 03 43.70 7.5X
1.5s 72.00nm 5.4mb
BFT 70.21 241 eP 04 18.50 1.6
MOS 70.36 329 eP 04 18.00 1.0
e 04 40.00
OBN 70.63 328 iPc 04 18.20 -0.4
1.3s 31.00nm 5.1mb
i 04 31.00
SLR 71.77 242 iPd 04 25.50 -0.7
0.9s 21.01nm 5.1mb
VRI 73.75 317 ePc 04 38.00 0.7
LBTB 74.00 243 iPd 04 38.63 -0.6
0.8s 20.00nm 5.1mb
MLR 74.20 316 ePc 04 40.00 -0.1
BLF 74.32 239 eP 04 40.00 -1.1
BOSA 74.88 239 eP 04 44.07 0.0
1.3s 24.85nm 5.0mb
GRM 74.96 234 eP 04 44.50 -0.1
0.5s 14.08nm 5.1mb
MNK 75.19 325 eP 04 45.00 -0.4
FRS 75.20 238 iPd 04 45.00 -0.9
VAY 75.88 312 eP 04 48.00 -1.6
OHR 77.18 311 eP 04 49.00 -7.9X
KAF 78.10 333 iP 05 01.90 0.4
0.8s 6.40nm 4.6mb
WIN 81.30 247 eP 05 22.00 2.3
0.5s 7.04nm 4.9mb
LJU 82.18 316 e(P) 05 24.30 0.7
BRG 82.90 321 e(P) 05 28.90 1.8
1.2s 13.00nm 4.7mb
e 05 41.60
GEC2 82.92 319 P 05 28.30 0.8
1.1s 8.18nm 4.6mb
e 05 41.00
CLL 83.52 321 e(P) 05 44.00 13.7X
HFS 83.75 330 eP 05 30.90 -0.4
0.4s 0.50nm 3.9mb
CDF 87.18 318 eP 05 56.70 8.0X
1.1s 5.60nm 4.6mb
LPG 87.62 315 eP 05 50.90 -0.2
0.8s 3.10nm 4.5mb
LPL 87.63 315 eP 05 51.00 -0.1
1.4s 19.15nm 5.0mb
PV10 132.55 27 ePKP 12 18.89 1.1
BAO 142.79 248 ePKP 12 33.50 -3.5X
LPB 159.70 228 ePKP 13 06.00 4.0X
LPAZ 159.88 228 PKP 13 03.80 1.4
i 13 43.00
S.D. = 1.0 on 56 of 68 obs.

? DEC 31, 1993 17h 04m 00.54± 2.61s
10.991 N ±13.0km 62.185 W ±32.0km
DEPTH = 90.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)
MD 3.2 (TRN).

TCE 0.52 125 eP 04 14.87 -0.7
eS 04 27.28
TRN 0.84 114 eP 04 18.39 -0.3
eS 04 32.89
TPP 0.98 133 eP 04 21.31 1.0
eS 04 37.65
TBH 1.21 115 eP 04 22.88 -0.1
eS 04 42.92
GRW 1.27 24 eP 04 24.04 0.2
eS 04 43.83
BOT 1.45 83 eP 04 26.07 0.0
eS 04 47.49
S.D. = 0.7 on 6 of 6 obs.

% DEC 31, 1993 17h 25m 26.50± 4.52s
43.815 N ±23.0km 7.088 E ±19.8km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.1 (GEN).

STV	0.46	22	P	25 35.98	0.2
			S	25 41.20	
ENR	0.48	30	P	25 36.14	0.1
			S	25 41.45	
IMI	0.59	80	P	25 38.55	0.3
			S	25 45.64	
PZZ	0.69	1	P	25 40.60	0.3
			S	25 48.82	
ROB	0.74	49	P	25 40.99	-0.3
			S	25 49.39	
FIN	0.90	64	P	25 44.07	-0.1
BHB	1.03	7	P	25 46.13	-0.4

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

& DEC 31, 1993 18h 08m 45.12s
42.300 N 121.937 W
DEPTH = 3.0km
3.8mb (1 obs.)
OREGON (32)
<SEA-P>. MD 4.1 (SEA). ML 4.2 (GS), 3.8 (BRK). Felt (II) at Dairy, Merrill and Midland. Also felt in the Klamath Falls and Gold Hill-Sams Valley areas.

VRC	0.21	280	P	08 49.71	0.3
HAM0	0.23	186	Pc	08 50.13	0.3
BBOR	0.80	317	Pc	09 00.33	-0.8
YBH	0.81	226	iPc	08 59.50	-1.8
			eS	09 10.51	
LGBM	0.97	191	P	09 03.52	-0.9
DBO	1.26	311	Pc	09 08.70	-0.6
HSO	1.49	326	Pd	09 12.12	-0.8
NCOR	1.52	22	Pd	09 13.57	0.1
KOMM	1.52	229	P	09 11.52	-1.9
LHCM	1.53	168	P	09 14.05	0.6
HBO	1.57	350	Pd	09 14.05	0.0
WDC	1.78	195	eP	09 15.63	-1.3
LMEM	1.78	171	eP	09 17.34	0.1
TCO	1.82	8	P	09 17.95	0.1
LCFM	1.84	170	P	09 18.81	0.7
LDBM	1.87	176	P	09 19.05	0.6
LSLM	1.89	171	P	09 19.43	0.8
MIN	1.97	173	ePc	09 19.37	-0.5
			eS	09 47.42	
FBO	2.06	347	P	09 20.95	-0.2
RNO	2.08	321	P	09 22.64	1.2
ARC	2.14	229	ePd	09 24.71	2.5
			eS	09 53.36	
FHC	2.15	226	iPd	09 22.38	0.0
			eS	09 51.49	
KBRM	2.18	225	P	09 22.62	-0.3
KPPM	2.23	209	P	09 26.54	2.9
GMO	2.25	18	P	09 25.45	1.4
EKR	2.30	227	eP	09 23.47	-1.1
KCRM	2.35	218	P	09 26.11	0.8
BPO	2.36	4	P	09 25.63	0.1
VIPM	2.41	23	P	09 26.02	-0.2
KMPM	2.50	222	eP	09 26.62	-0.8
SSOR	2.58	352	P	09 28.34	-0.3
OGOM	2.66	175	P	09 33.36	3.8
ORV	2.76	173	ePc	09 31.89	0.8
			iS	10 12.59	
CROR	2.77	14	P	09 31.16	-0.1
GT2	2.86	355	P	09 32.49	-0.1
TDH	2.99	2	P	09 34.64	0.2
VTHM	3.05	19	P	09 35.76	0.6
VLL	3.17	3	P	09 37.64	0.7
TKO	3.26	341	P	09 38.95	0.7
VGB	3.32	14	eP	09 38.95	-0.1
JBO	3.51	25	P	09 43.05	1.4
KMOR	3.52	342	P	09 42.58	0.7
GULW	3.63	4	P	09 46.37	2.9
MTMW	3.73	357	P	09 45.23	0.3
LVP	3.78	355	P	09 45.86	0.2
CDFW	3.82	359	P	09 47.30	1.2
ASR	3.86	4	P	09 48.45	1.7
SHW	3.90	357	eP	09 47.48	0.1
GLK	4.27	3	P	09 54.17	1.6
BMW	4.28	348	(P)	09 52.57	0.0
KVN	4.36	137	(P)	09 56.14	2.1
			eS	11 02.35	
WPW	4.41	3	P	09 55.33	0.8
BRVW	4.41	18	P	09 56.03	1.5
CMB	4.42	164	eP	09 57.36	2.6
			eS	11 08.90	
RSW	4.42	22	P	09 55.90	1.1
LON	4.45	1	eP	09 55.63	0.5
WIW	4.55	24	P	09 57.32	1.0
MDW	4.59	19	P	09 58.24	1.3
FMW	4.64	2	P	09 59.28	1.4
MJ2	4.64	23	P	09 58.77	1.1
RVC	4.64	360	P	09 58.92	1.1
GBL	4.65	22	P	09 59.00	1.2
LOCW	4.77	21	P	10 00.26	0.7
GSM	4.90	1	P	10 03.17	1.6
ARN	4.95	176	(P)	10 03.52	1.3
BONR	5.16	146	eP	10 06.29	0.9
MEMM	5.17	153	(P)	10 06.66	1.4
MMPM	5.19	154	(P)	10 08.97	3.1
GMW	5.28	354	(P)	10 07.49	0.6
ETW	5.43	12	P	10 09.94	0.9
TNP	5.55	138	eP	10 11.71	0.8
FRI	5.57	161	eP	10 09.21	-1.8
DPW	6.16	24	eP	10 18.23	-1.1
MBW	6.48	0	P	10 24.18	0.2
HVU	6.84	91	(Pn)	10 35.47	6.5
LRM	7.69	60	eP	10 39.90	-1.0
MSU	8.35	114	(P)	10 52.31	2.1
YKA	20.69	10	eP	13 26.40	-2.2

0.8s 3.80nm 3.8mb
78 obs. associated

? DEC 31, 1993 18h 09m 36.83± 5.65s
43.853 N ±27.3km 7.132 E ±25.1km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.0 (GEN).

STV	0.41	19	P	09 45.38	0.2
			S	09 50.54	
ENR	0.43	29	P	09 45.62	0.2
			S	09 50.85	
IMI	0.55	84	P	09 47.96	0.1
			S	09 55.20	
PZZ	0.65	358	P	09 49.72	-0.2
			S	09 58.13	
ROB	0.69	50	P	09 50.30	-0.4
			S	09 59.30	

S.D. = 0.4 on 5 of 5 obs.

DEC 31, 1993 18h 28m 14.25± 0.82s
38.656 N ± 7.9km 21.126 E ± 6.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.1 (ATH). ML 2.9 (THE).

VLS	0.64	222	ePb	28 27.20	0.2
AGG	1.01	68	ePg	28 32.68	-0.7
			eSg	28 47.44	
IGT	1.07	325	ePg	28 32.52	-1.9
			eSg	28 48.92	
KEK	1.48	316	ePg	28 41.50	0.6
KZN	1.72	17	ePn	28 45.30	0.8
LIT	1.79	36	ePn	28 45.50	0.1
			iSb	29 10.52	
FNA	2.13	5	ePn	28 50.04	-0.4
PAIG	2.35	57	ePn	28 53.50	0.0
VLI	2.41	143	ePb	29 02.00	7.7X
OHR	2.46	354	ePn	28 56.00	0.9
GRG	2.50	23	ePn	28 55.22	-0.4
SOH	2.76	38	ePn	28 58.98	-0.4
KNT	2.85	28	ePn	29 00.30	-0.3
VAY	2.88	22	ePn	29 03.00	2.0
SRS	3.11	37	ePn	29 03.70	-0.5
SKO	3.32	4	ePn	29 14.00	6.7X

S.D. = 1.0 on 14 of 16 obs.

% DEC 31, 1993 18h 36m 35.78± 1.12s
43.059 N ± 8.4km 18.827 E ± 8.0km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)
ML 1.4 (TTG).

BRY	0.26	233	iPgd	36 41.33	0.0
			iSg	36 44.83	
NKY	0.28	153	iPgc	36 42.03	0.4
			iSg	36 46.27	
PLE	0.50	57	iPgd	36 45.91	0.1
			iSg	36 53.44	
HCY	0.66	202	ePg	36 48.83	-0.1
			iSg	36 58.57	
TTG	0.71	153	iPgd	36 49.03	-0.6
			iSg	36 59.95	
BDV	0.78	180	iPgd	36 51.19	0.3
			iSg	37 02.75	

S.D. = 0.5 on 6 of 6 obs.

? DEC 31, 1993 18h 50m 11.56± 5.96s
43.840 N ±28.7km 7.123 E ±26.1km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.0 (GEN).

STV	0.43	20	P	50 20.42	0.2
			S	50 25.44	
ENR	0.44	29	P	50 20.66	0.2
			S	50 25.83	
IMI	0.56	83	P	50 22.85	0.1
			S	50 30.08	
PZZ	0.66	359	P	50 24.68	-0.2
			S	50 33.01	
ROB	0.70	50	P	50 25.23	-0.4
			S	50 33.82	

S.D. = 0.4 on 5 of 5 obs.

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* DEC 31, 1993 18h 56m 35.82± 0.83s
42.216 N ± 5.8km 122.015 W ±12.0km
DEPTH = 5.0km (geophysicist)
OREGON (32)
ML 2.7 (GS).

LASM	0.70	152	P	56 49.32	-0.5
LMPM	0.74	189	P	56 50.86	0.3
LBFM	0.87	174	iPd	56 52.98	-0.3
LGBM	0.88	189	P	56 53.59	0.2
LBKM	1.23	204	P	56 58.61	-0.7
WDC	1.68	194	eP	57 06.13	0.1
LMEM	1.71	169	eP	57 07.31	0.7
ORV	2.69	171	eP	57 20.68	0.2
VGB	3.42	15	(P)	57 30.84	0.0

S.D. = 0.5 on 9 of 9 obs.

? DEC 31, 1993 19h 05m 30.71± 0.93s
59.609 N ± 6.7km 5.444 E ±12.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

KMY	0.41	194	eP	05 39.10	0.0
			eS	05 44.67	
BLS5	0.55	109	iPd	05 53.40	11.6X
			iS	06 00.63	
ODD1	0.67	63	ePd	05 44.09	0.0
			eS	05 53.12	
EGD	0.67	351	eP	05 43.92	-0.1
			eS	05 52.86	
ASK	0.89	352	eP	05 47.81	0.1
			eS	05 58.72	
NRA0	3.25	67	ePn	06 28.95	6.2X
			ePg	06 33.45	
			eLg	07 15.35	

S.D. = 0.2 on 4 of 6 obs.

% DEC 31, 1993 19h 26m 20.88± 0.76s
31.283 S ±14.4km 68.449 W ±12.4km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	0.05	201	iPd	26 35.00	-0.3
			S	26 45.50	
RTCB	0.36	236	iPd	26 36.00	-0.1
			S	26 48.00	
CFA	0.37	151	ePc	26 36.40	0.3
			S	26 48.30	
RTRS	1.41	322	eP	26 46.50	0.1
			S	27 06.00	
RTPR	1.93	60	eP	26 53.00	0.0
			S	27 17.00	

S.D. = 0.3 on 5 of 5 obs.

? DEC 31, 1993 19h 53m 33.02± 4.65s
43.869 N ±24.9km 7.178 E ±22.3km
DEPTH = 10.0km (geophysicist)

31d 19h

NEAR SOUTH COAST OF FRANCE (379)
ML 1.8 (GEN).

STV 0.39 16 P 53 40.83 -0.2
S 53 45.94
ENR 0.40 26 P 53 41.27 0.1
S 53 46.53
IMI 0.52 85 P 53 43.40 -0.1
S 53 50.70
PZZ 0.64 355 P 53 45.98 0.0
S 53 54.16
ROB 0.66 49 P 53 46.33 0.2
S 53 54.75
S.D. = 0.2 on 5 of 5 obs.

DEC 31, 1993 20h 22m 18.34± 0.38s
36.330 N ± 4.5km 137.737 E ± 4.9km
DEPTH = 5.0km (geophysicist)
3.9mb (3 obs.)
EASTERN HONSHU, JAPAN (227)

MTMJ 0.26 12 P 22 23.30 -0.3
IIDJ 0.86 170 iPd 22 35.10 -0.3
S 22 47.20
CHJJ 1.06 105 iPd 22 38.80 0.1
S 22 53.70
NIIJ 1.36 48 iP+ 22 43.70 -0.2
S 23 03.30
YAMJ 2.60 44 eP 23 02.00 0.3
eS 23 42.20
WKYJ 2.74 220 P 23 03.40 -0.4
YONJ 3.66 253 P 23 16.50 -0.3
TKSJ 3.82 233 P 23 19.30 0.2
OFUJ 4.15 47 eP 23 23.40 -0.4
AOMJ 4.70 25 eP 23 32.40 0.8
BJI 17.34 289 eP 26 23.00 0.3
1.5s 14.00nm 3.9mb
Z 16s 0.58um 4.5Msz
E 12s 0.30um
eS 29 48.00
WRA 56.06 184 P 32 01.60 1.0
0.7s 0.60nm 3.7mb
YKA 65.88 29 eP 33 06.00 -0.8
1.0s 1.20nm 4.1mb
S.D. = 0.6 on 13 of 13 obs.

& DEC 31, 1993 20h 51m 28.35s
37.633 N 118.912 W
DEPTH = 8.8km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.0 (GM). ML 3.0
(BRK), 3.0 (GS).

MCSM 0.02 15 P 51 30.03 -0.3
MEMM 0.04 327 iPc 51 30.18 0.0
MMPM 0.09 256 iPc 51 30.81 -0.3
HTCR 0.15 133 P 51 31.71 -0.3
MRCM 0.32 83 iPc 51 34.80 -0.3
MTUM 0.39 135 iPd 51 36.04 -0.4
BCKR 0.43 81 P 51 37.11 -0.1
CWCR 0.50 106 P 51 38.22 -0.3
BONR 0.58 56 iPc 51 39.70 -0.4
FRI 0.90 225 iP 51 45.13 -0.6
iS 51 56.74
MSTM 1.21 283 P 51 50.60 -0.5
CMB 1.23 289 ePc 51 50.82 -0.6
eS 52 07.04
TNP 1.41 71 eP 51 54.91 0.4
KVN 1.55 24 eP 51 57.32 0.9
MNHM 1.59 289 P 51 57.02 0.3
BAVM 1.68 271 P 52 03.52 5.4
BRMM 1.72 243 P 52 00.09 1.4
BMSM 1.79 238 P 52 00.89 1.2
HVC 1.98 231 P 52 03.80 1.4
ISA 2.00 170 eP 52 04.71 2.0
eS 52 30.16
PRI 2.05 224 iP 52 04.51 1.0
iS 52 33.22
LTR 2.05 249 P 52 04.65 1.2
HJSM 2.07 248 P 52 05.28 1.5
BHRM 2.08 245 P 52 05.69 1.8
GHS 2.09 256 P 52 05.78 1.7
ARN 2.10 263 eP 52 05.22 1.0
BCGM 2.15 245 P 52 08.63 3.8
PHAM 2.15 214 eP 52 06.41 1.4
BVYM 2.18 247 P 52 06.69 1.3
MHC 2.19 263 ePc 52 07.13 1.5
eS 52 35.78
LRC 2.20 232 P 52 07.03 1.5
SAO 2.20 248 ePc 52 06.59 1.0
iS 52 35.83
COE 2.23 261 eP 52 07.63 1.6
TPNV 2.23 107 eP 52 06.72 0.5
HGWM 2.27 255 P 52 08.22 1.6
CBO 2.27 258 P 52 07.44 0.8
BCH 2.62 202 eP 52 12.05 0.4
BAPM 2.63 237 P 52 12.71 0.9
ABL 2.79 185 eP 52 14.53 0.3
ORV 2.79 314 eP 52 16.57 2.5
eS 52 54.32
GSC 2.88 143 (P) 52 16.55 1.2
ARUT 4.34 86 ePg 52 52.53 16.3
42 obs. associated

& DEC 31, 1993 21h 29m 12.17s
37.634 N 118.912 W
DEPTH = 8.9km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.7 (GM). ML 3.8
(GS), 3.8 (BRK). Felt (IV) at
Mammoth Lakes, California.

MEMM 0.04 326 iPc 29 14.02 0.0
CLKR 0.08 122 P 29 14.46 -0.3
MMPM 0.10 255 iPc 29 14.62 -0.4
ORC 0.20 90 P 29 16.59 -0.1
MRCM 0.32 83 iPc 29 18.79 -0.1
MTUM 0.39 135 iPd 29 19.90 -0.4
CWCR 0.50 106 P 29 22.05 -0.3
BONR 0.58 56 iPc 29 23.54 -0.4
FRI 0.90 225 iP 29 28.99 -0.5
iS 29 40.54
CMB 1.23 289 iPc 29 34.66 -0.6
eS 29 50.89
TNP 1.41 71 eP 29 38.57 0.3
KVN 1.55 24 eP 29 41.00 0.8
WLHM 1.56 162 P 29 40.77 0.4
BRMM 1.72 243 P 29 43.91 1.4
ADWM 1.73 298 P 29 43.49 0.9
AODM 1.74 305 P 29 43.77 1.1
PARM 1.80 220 P 29 45.10 1.5
PKEM 1.84 212 eP 29 45.62 1.4
eS 30 08.83
ALAM 1.86 301 P 29 45.86 1.3
VPEM 1.90 152 P 29 47.16 2.0
AASM 1.91 295 P 29 46.70 1.6
NMC 1.96 155 P 29 48.11 2.1
PCRM 1.96 219 P 29 47.00 1.0
PCL 1.98 254 P 29 47.40 1.2
ISA 2.00 170 eP 29 48.30 1.7
eS 30 14.09
CTM 2.05 214 P 29 48.79 1.5
PRI 2.05 224 iP 29 48.31 1.0
iS 30 14.63
PSMM 2.06 221 P 29 48.59 1.1
MOP 2.07 227 P 29 48.93 1.4
AFDM 2.09 310 P 29 49.45 1.7
GHS 2.09 256 P 29 49.14 1.3
AHRM 2.09 306 P 29 49.84 2.0
ARN 2.10 263 eP 29 48.86 0.8
ARRM 2.11 303 P 29 50.32 2.3
BLRM 2.12 244 P 29 50.58 2.3
BSLM 2.13 247 P 29 49.97 1.6
PSTM 2.13 217 P 29 48.45 0.0
BCGM 2.15 245 P 29 50.15 1.5
PHAM 2.16 214 ePn 29 48.89 0.1
PAGM 2.18 210 P 29 50.20 1.0
MHC 2.19 263 ePc 29 50.46 1.1
eS 30 19.81
SAO 2.20 248 ePn 29 48.98 -0.5
eS 30 21.59
WKR 2.22 216 P 29 50.70 0.9
COE 2.23 261 ePn 29 51.11 1.3
eS 30 22.21
TPNV 2.23 107 ePn 29 49.91 -0.1
SHG 2.23 238 P 29 50.84 0.9
AFRM 2.24 302 P 29 52.54 2.6
AVRM 2.32 308 P 29 53.82 2.8
AARM 2.33 315 P 29 54.61 3.2
HMR 2.34 284 ePn 29 53.30 1.9
YEG 2.35 201 P 29 52.65 1.0
PRS 2.36 237 iP 29 49.00 -2.7
eS 30 14.77
BGC 2.50 275 P 29 55.12 1.4
PADM 2.54 219 P 29 54.97 0.8
CSLM 2.55 273 P 29 55.59 1.3
BKC 2.55 278 P 29 56.25 1.9
STAN 2.60 266 eP 29 56.00 0.8
BCH 2.62 201 eP 29 55.87 0.4
JJRM 2.63 265 P 29 56.64 1.1
CPIM 2.64 279 P 29 57.49 1.8
BKS 2.64 276 ePc 29 56.58 0.8
eS 30 38.49
ZSP 2.67 278 iP 29 57.33 1.3
BGH 2.74 265 P 29 58.18 1.0
ABL 2.79 185 ePn 29 58.74 0.7
ORV 2.79 314 ePc 29 58.09 0.2
eS 30 37.10
AGC 2.80 276 P 29 58.88 0.9
JEGM 2.82 269 eP 29 58.30 0.0
GSC 2.88 143 ePn 29 59.02 -0.2
NTYM 3.06 285 (P) 30 02.49 1.0
GAXM 3.21 291 P 30 05.34 1.5
GSGM 3.23 294 P 30 03.64 -0.6
LRDM 3.45 326 P 30 15.43 8.2
SSK 3.56 163 ePn 30 10.87 2.0
LMEM 3.56 325 (Pn) 30 11.41 2.5
PEC 4.00 159 eP 30 15.69 0.7
ARUT 4.34 86 ePn 30 20.65 0.6
LBFM 4.37 329 ePn 30 22.93 2.6
PLM 4.59 158 ePn 30 23.91 0.4
ePg 30 38.30
eS 31 37.31
MSU 5.39 79 ePn 30 36.92 2.0
DUG 5.40 60 ePn 30 37.00 2.0
GLA 5.66 143 ePn 30 39.68 1.1
HVU 6.29 47 (Pn) 30 47.46 0.0
82 obs. associated

% DEC 31, 1993 22h 14m 44.00± 2.64s
44.163 N ±23.0km 7.068 W ±14.0km
DEPTH = 14.6 ± 6.2 km
NORTH ATLANTIC OCEAN (402)
mbLg 3.4 (MDD).

EMON 0.75 195 iPc 14 58.61 0.3
e 15 07.30
STS 1.67 221 iPd 15 13.01 0.2
e 15 33.90
ERUA 1.77 182 eP 15 14.09 -0.2
e 15 35.30
EZAM 2.34 211 eP 15 22.46 -0.1
e 15 47.80
ECRI 3.67 113 eP 15 42.63 1.2
e 16 23.20
GUD 4.13 147 iPc 15 47.20 -0.8
e 16 31.70
ELIZ 4.14 102 iPd 15 47.31 -0.8
EPLA 4.16 169 iPd 15 47.56 -0.8
e 16 34.50
PAB 5.04 155 ePn 16 02.00 1.1
S.D. = 1.0 on 9 of 9 obs.

% DEC 31, 1993 22h 56m 49.81± 0.71s
44.257 N ± 5.5km 8.185 E ± 5.4km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (GEN).

FIN 0.05 161 P 56 51.53 0.2
S 56 52.40
ROB 0.23 280 P 56 55.19 0.7
S 56 58.67
PCP 0.38 42 P 56 57.52 0.0
S 57 03.38
IMI 0.41 212 P 56 57.70 -0.3
S 57 04.02
ENR 0.55 267 P 57 00.82 0.0
S 57 08.73
PZZ 0.82 288 P 57 05.67 -0.5
BHB 0.88 312 P 57 07.18 0.0
S.D. = 0.5 on 7 of 7 obs.

STATION DATA REPORT FOR DECEMBER, 1993

1764 stations reported 73885 reading arrival groups

X = data received for this 6-hour time period

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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
-----------------------------------------------------------------------------------------------------------------------------------
ABH       X  X       X                  X         X         X X X  XX       X               X    X  X X              XX        X
ABHA                                               XX  X    XXXX   X          X             X         X  X         X    X    X
ABL     XXXX  XX XX X XX     X       XXX X X XXX  X  XX   XX   X X X  XXXX  XX  XX X  X X       X         X  XX  X     X X   X     X
ACO    XXXX  XXXXXXXXXXX XX       X X    XX    X X         X X X   X XX  XXXX    X X X          X  XXX X   X X       X X X XXX  X
ACU                       X                    X                 X                 X       X            X  XX    X                X
ACX    XXX X   X                              X       X     XX  X X  X X    X     XXX X       X X    XXX         X   X    X     X
ADE    XXXX       XX    X     X X X XX X  XXXXXXX    X XX XXXXX       XX XX   X  XX X    X   XX  X X XX X   X X        X     XX  X   XX
ADK                XX      X  X X      X      XX    XX      XX XX     X     X     XX          X X  XXX     XX XXXX X             X  X X X X  X X
AFI    XXX X   X XXXXXXX X  XXXXX XXX XXXX X XX X XXX X  XXXXXXXXXXXX XXX X   XXX XXXXXXXXXX XXXXXX XX     XX XX XX      XX X  X X X
AFIF              X      X         X     XX   X  X XX  XX  X                   X  X   X                X           XX   XX    X
-----------------------------------------------------------------------------------------------------------------------------------
AFR                          X      X    XX   X      X  X  X  XX  X      X       X       X  X    X  X  X               X
AGG     XX XX XX XX   X XXXX XXXXXX   X XX XXXXX  XX        XXXX   XX XXXX   XXXX XXX XXX X   XXX  X X  X XXX XXX    XXXX XX X XXX  X
AGU     X                   X        X            X                             X            X       X          X   XX
ALJ        X                               X  X     X       X         X     X                   X    X  XXX  X
ALN          X     X  X X   X    X X    XXX   XX X   XX X     XXX X  X  XXX      XXXX XXXXXX X      X  X X  XXX              XXXXX X X X
ALQ    X X     XXXX XXX X  X XX   X X    XX    X       XXXXXXXX  X      X XXXXX X  X XXX XX    X XXXX XX X    X      X   XX     X X X X XX XX
ALT                                                                XXXXXXX XX X X XXXXXX  XXX
AMW     XXXX        X  X  X X  XXXX  XX  X  XXX    X    X X       XXX     XX  XX      XXXX        X      X
ANM          X X      X X     X    X       XX    XX X X    X  X    X                        X    XX      XX     X X  X          X XX X X X XX
ANN                           XX  X        XX                XX  X  X                    X X                XX X  X            X    X    X
-----------------------------------------------------------------------------------------------------------------------------------
AOMJ           X    X       XX   XX      X    X X    X   X    X         XX X       X                  X      X        X        X   X X
APO    XXXXX X            X         X     X     X  X XX    X X                    X                                           X
AQU                    X      X                          X             X    X        X             X                    X          XX
ARA0    X   XXX XX    X X    X  XX XXXX XX   XX   X X X     XXX  X  XX       XX  X  X      X    XX   XX X  X XX X     XX X   X  XX  XX  X
ARE    XXX X X XXXX XXX  XX  X  X X  XXXX   XX  X  XXXX  X XX X    XX  XXX XX  X      X XX X X  X X X  X       X  XX        X X
ARMA   XXXX XXXXXX X X XX XXXXX  X X XXXXXXXXXXXXXXX XX XX XXXXXX XX XX  XXX XX X X X XX  XX  XXX XXXXXX XXXXX X XX  X  X XXXXXXXXXX
ARN    X X X X X X X XX XXXXX          XX  XX  XXX   XX XXX X  XX X X  XXXXX  XX  X X  XX  X          X       XX  X  XX     X XX  XX X  X
ARO      X  X                            XX             XX  X             X            X                          X     X     X
ARU    X XX  X X X  XXX   X  XX  XX     XX X XXXXXX X XX XX XX    X  XXX      X X X  X         X X X   X  X      X  X X    XX X X
ARUT   XXX       XXX  XXXX  X XX   X XX XXXX XXX    XX  X XX  XXX X  XXXXXXX    XX X XXXX   X  XX  XX X XX  X X XX XX  X X X X XX X  X
-----------------------------------------------------------------------------------------------------------------------------------
ARV                    XX X                    X          XX               X X XX        X            X                  X         XX X
ASAJ     X     X    XXX   X XXX  XXX           XXXXX XX X     X      XXX X      X  XX     XX   X   X     X   XX         X X     XX  X
ASH      X    X       X X   X  XX        XX    X    X  X XX  X X    X  XX       X X X  X        X X  X XX  X       X      X      X    X
ASK            X                  X    X                 X    X        X  XX  X          X  X      X          X X               X    X
ASPA   XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXX
ASR    XXX       X     X XX     X                X           X       X XXX    X                X      X      X        X       X    XX     X
ASS                     XX X                  X            XX       X          X       X X              X                  X          XX X
ATH     X      XX  X    XX XX  X     X    XX  X      XX  X       X       X       X  X             XX X  X  X XXX XX    X XX  X  X
AUE     XX X         XX  X    X X X    X    X     X X    XXX    X                X X          X  X    X X X XX       X  XX X    X
AUH     XX X         XX  X    X XXX    X          X X    XXX    X                X X   X      X  X    X X X  X X     X  XX X    X
-----------------------------------------------------------------------------------------------------------------------------------
AUI     XX                X   X                  X                               X     X              X X X            X        X
AUL     XX X  X      XX  X    X X X    X    X     X X    XXX    X                X            X  X    X X X XX       X  XX X    XX
AUP                                    X          X                    X         X X   X      X       X X X          X  X   X   X
AURF          X  X     X X      X  X      X XX      XX          XX      X    X            X            X XX   XXX     X  X   XXX  X X X
AUTN          X  X     X X        X X       XX      XX          XX      X    X            X            X XX   XXX     X  X   X X    X X
AUW     XX X  X      XX  X    X XXX    X          X X    XXX    X                X X          X X  X    X X X XX X    X   X XX   XX
AVE    X X        X   X     X XXXX X      XX X XX X               X      XX     X    X  XXX       XX   XX   X    XXX XX X             XX XXX XX
AVF    X XXX XXX X   X XX XX XXX   XXX    XXXX X XX X XXXX XX XX XX      XXXXXX    XX X    XX                             XXX XXXXX
AYN    XXXX XX XXXXX XXXXXXX X XXXXXXXXXX  X  XXX     XX    XX      X          X XXX XXX  XXXX XXXXXXXXXXXXXXXXXX     X XXX   XXXXXXXXXXXX
BADA    X    XX XX     X X XXXX  XX  XXXXXXXX  X X     XX    XX                X XX  XXX  XXX
-----------------------------------------------------------------------------------------------------------------------------------
BAG    XXXXX    X     XX X XX X X  X X    X    X XXXX X XX XX XX  X  XX XXX  X  XX X X  X   X  X      X     XX        X     XXX XX  XX
BAL    XXXXXXXX       XX  X XXX X         XXX XXXX XXXXXXX X   X X   XX XX   X XX X           XXX XXXX    X X X  XXXX  X XX   XX X
BALM   XXX X XXX X  XXXX     XXXXXXXXX  XXX    XXXXX XXXXX X  XX  XX     XXX      XX X   XX  X  XX XXX XXXX XX   XX  XX XXXX X  X X XX
BAO    X X       X     X   X XX   X X   XXXX X    XX X    X XX   XX X X    X      XXX  XX      X X XXX X XX  X X X   XX  X   XXX
BBOR                  XXXXXX X             X           X   X         X           X         X         X                    X           X
BBS         X        X       XX       X  X                          X              X           X                    X XX   X X
BC3                X XXXX   X  X           XX                                         X    X    X X  X XXXXXX       XX XX   X   X   XX
BCH              XX XX X X  XX X    XX  XXX XXX  X   X  XX XX   X  X XXXXXX   X X  X X X     XX  X     X  XX  XX  X X X  XX  X   X
BCI                    X    XX X    XX   X   X   XX                              X            X X  XX X X   X X       X  X      X
BCK         X XXX    XX   X   XX  XX                                XXXX XX        XX X   XX
-----------------------------------------------------------------------------------------------------------------------------------
BCKR                                               XX     XXX     X     X        X                        X  X               X      X
BCP     XX                 X       X   X XX                    X XX             X  X             XX              X
BDF              X     XX    X     X     X    X          X   X         X   X        X    X            X X              X     X    X X
BDFB     X         X               X    XX X       X X  XX  XX X                       X    X      X X  X  X X   X       XX       XX
BDT         XXXX X XXXXXX X XXXXXX XXXXXX X XXXX   X XX XX XX X X  XX X   XXXXXXXXXXXXXX X XX XXX XXX       XXX XX XXX XXX XXXX XXX
BDV      X X X X   X  XXXXXXXX  XX XXX X    XX  XX      X X          X X XXX            XX       XX   X XX XX X X   XX        XXXX XXX XX    X
BFT                                                              X     X                              X  X X X              XX       X   X
BGF    XXXXX  XX     X XX XX XXX   XXX  X XX XX X X X XX    XXX  X    XXXXXX    XX       X                                    XX XXXXX
BGL     XX X  X    XXXX X X X XXX   X  XX      X X    XXX X  X  X X  X   X X    X X X XX   X XXX XX    XXX X XX X   XX XXX XX  X    X
BGMT                                                            X     X     XX                 X          X     X X          X
-----------------------------------------------------------------------------------------------------------------------------------
BGR     XX X  X    XXX XX X X XXX   X  XX      X X    XXX X  X  X X X  X    X X     X X X XX  X XXX XX    XXX X XX X   XX XXX XX      X
BHB     X XXX XX  XXXXXXX          XX       XX       XXX  X    XX      X  XXX XXX  XX  X        X XXX  XXX X XX  XXXXXXXXXXXX X XX
BHG          X     X  X  X     X   X        X X  X     XX      X      X  XXX       X X    XX            X X    X          X  X XX  XX X
BHL           X    X     XX   X X   X X   XX    XX     X XXX XX         XXX         X X    X X      X   X  X    X           X     X      XX X
BHPR     X X                                       X      XX  X X  XX       X      X                        X  XX                 X
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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
-------------------------------------------------------------------------------------------------------------------
BIM    X      X             X                 X    X X         X       X     XX                    X    X    X
BINY  X X    X X  XXXX  X X      X  XXX   X    X  X       X     X  XX      X X    X             X                  X  X
BIP    XXX XXXXXXXXXXXXXXXXX XXXX XX XXXXXXXXXXXX X XX XXXXXXXXXXXXXXXX  XXXXXXXXXX X  XXX    XX XXX X    XXXXXXXXXXX XXXXXX XX XX
BIT                       X          XX X    X        X      X                X   X        X  XX    X
BJI   XXXX  X XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXX XXXXXXXX XXX XXX  XXXXX X X XX  XX XXXX XXXX XX XX XXX XXXXXXXX XXXX XXXXXX
BKG    XX X  X    XXXX X X X XXX   X  XXX    X X    XXX X  X  X X  X   X X    X X X XX  X XXX XX   XXX X XX X   XX XXX XX      X
BKM     X X XX  X XXXX XXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXXX XXXXXXXXXX XXXXXXX XXX XX XXXXX XXXXXX  XXX  XX X XX  XXXXXXXXXXXXX
BKS   X         X XXXXX               X   X        X   X     X XX    X                          X      X              X         X
BLF   X XX     XX  X XX    XXX  X X  XXX    X      XX  X       X   X               XX   X   X  X X X                XX X  X    X
BLS5                     X    XX   X               XX  XXX     X  XX                  X  X        X X       X             X    X
-------------------------------------------------------------------------------------------------------------------
BLW    XXXX       X  X  X X  XX      XX X XX      X X     XXX     X         XXX   X XX   X
BM3              X XX X   X  X                X                              X     X   X   X XX  X XX X        XX XXX  X  X   XX
BMG             X    X               XX   XX                          X      X        X             X    X   X  XX       X
BMSM   X                     X                  XX      XX      X  X  X                                X   X             X   X    X
BMTC   X     X                         X     X  XX       X X X            X
BMW   XX     X    X XX                  X                X    X  XXX     X X    X        X   X X  X X  X    X    X    X   X    X
BNI                X                  X           X       X        X         X X   X                                         X X
BNS                         X    XX X  X         X  X                        X               X XX X X      X       X     X
BNT    XX  XX  XX  XXXXXX XXX  XX                          X    X
BOB                X     X            X                   X        X         X X                               X            XX X
-------------------------------------------------------------------------------------------------------------------
BOD   X XX  X X X  XXX   X XXX  XXX   XX X X XXXX X XX XX XX X   XXXXXX      X X X  X     X      X X XX XXX X    X  X X    XX   X
BOG             X    X               XX   XX        X X           X                  X         X    X   X   XX         X     X
BOM                         X X   XX X X    X XX   X X  X  X  X  XX                 X  X X X X  X   X    X X X        X   XX    X
BONR  XXXXX XXXXXXXX XXXXXXX     XXXXXXXXX XXX   XXXXXX XXXXX X X  XXXXX XXX XX X  XXX XXX  XXX XX X XXX XXXXX  XX  X X X XXX  X  X
BOSA           XX              X    XXX                       XX          X     XX         X                          X         X
BPA             XX          X        X     X      XX           XX X                                   X   X           X       XX
BPO                 XX   X                  X                      X                                  X               X         X
BRG   XXXXX X XXXXXXXXXXXXXXXXXXXXXX XXXX XXXX X XXXXXX  XXXXXXXXXXXXXXXXXXXXXXX XX  XXXXXX  XXX XXXXXXXXXXX XX XXXXXX XXXX XXXXXXX
BRLK   XX X  X     X   X   X XXX   X   X     X X    XXX    X   X               X X      X X  X   X X X XX X       XX XX          X
BRMM   X X                X                     X  XX    X   X         X  X          X                    X                X      X
-------------------------------------------------------------------------------------------------------------------
BRS   XXXXXXX
BRU    X                   X   X     X X  X X    XXX XX XX          X           X  X     X    X     XX               X XX   X
BRW   X     XXXXX  XXXX  X XX   XX     XX    X  XX  X XX X   X     X   XX X      X         X    X              X     X
BRY    X X X X   XX XXXXXXXX  XX XXX X    XX  XX       X X     X X XXX          XX      XX  X XX XX X X   XX     XXXX XXX XX     X
BSD                           XX      X   XX                                                 X                        XX
BSF   X XXX XXX X  X XX XX XXX  XXXX  XXXX XX X XXX XX  XXXXXXX   XXXXXXX    XX X   XX    X    X X             XXXX XXXXXX
BSZ     X          X  X X  XX X  X    X X  X      X X     XXX    XX        XX     X        X
BTH    XX X      X          XXXX   X    X   X X  X          X    XX      XX   X      X   X    X       X                             X
BTO   X XX  X X XX XXXXXXX XXX XXXX    XX X X  X   XXXX X X X    X  XXX     X X X  XX X  XX    X X    X        XXX  X X X  X   X
BUC                X                 XX      X     X  XX          X          X                                        X    X
-------------------------------------------------------------------------------------------------------------------
BUL   X XXXXX  XX   XXXX X XXX  XXXXXXXXX                    X X       X X XX   X XX  XXX              X   X X X XX        X
BW06                                                                                           X XXX       XXXX  X X X X XX X
BWA   XXXX X    XX    X    X X                                   XX XX  XX    X X    X  XX  X   X XX    XX        X    XX      X
BWN    XX XX X    XX X X X  XX      X      X     XX  X   X  X X X  X   X X    X X X  X  X  XX XX  X XX X X      XX XXX  X  X   XX
BWZ    XX X  X       XX XX   X X   XX    XX                       X     X        X        X    X
BZS                                  XX     X  XX                XXXX       X
CACH   X  XXX XXX  XXX X XX  XXX  X   X    X XXXXX  X  X   XX        X          X       X     XX    XXX  XX XX   X   XX X   XX
CAF    XXXXXXX X  XXXX  X XXX   XX  XX X X  X X X XX   XXX X      XXXX X   X  X X X  X                                 XX  XXXX
CALN      X  X   X X      X         XX     XX        XX              X           X           X XX    XXX      X   X X     X
CAN   XXXX X   XX    X  X XXX X XX X XXXXXX X XXX XX XX XX  XX X  XX XX  XX  XX X    X  XX XXX  XXXX    X  X   X  X    XX    X XX
-------------------------------------------------------------------------------------------------------------------
CANV  X          X   X      X   XXX      X    X              X    X        X                  X  XX  X   X   XX       X  X XXXXX
CAR   X X       XX   X  XXXX       X   XX   X     X  X  XX  X    X    X X    X     X              X X   X   X   X     X    X XX
CAW    XXXX         X  XX X XX XXXX  X  XX X XX        X X   X XXX    X   X  XX XXXX    XX     X X
CBM   X X     X X  XXXX  X X    X X  XX   X        XX  X XX   X  XX  X      X X    X       X   X X    X              X    XX X
CBN                XXX               XX                          XX              X   X             X                      X    X
CCB    XX XX X   X XX X X X  XX    X X    X X    XX  X  X  X X X  X  XXX     X X X    X  XX XX  X XX X X      XX XXX  X  X   XX
CCH   XXX  XXXX XX XXX XXXXXXX   XXX XXXX XX  XX XXXXX  XXXX XXX  XXX XX  XXX X  X  X
CD2   XXXX  X XXX  XX XXXXXX X XX X  XXXXXXXXXXX  XXXX XX XX  X  XX XXXX X  XX X X XXXXXX XXXX  X X XX XX    X  XXXX X X XX X  XX
CDD     X X  X    XXX X   X XXX   X            X     XX    X                XX          XX  X    X XX X    X  XX  X
CDF   XXXXX XXX X  X XX XX XXX  XXXX  X XX XXXX XXXXXX XX XXXXX  XXXXXXXX   XX X   XX      X    X X               XXXX XXXXXXX
-------------------------------------------------------------------------------------------------------------------
CEH   X X     X     XXX  X X   X X   XXX  X     X XX  X X        XX  X     X X    X    X   X     X X   X             X X    X XX
CER                                  XXXX              X     X                             X     X X                     X X    X
CEY            X  XX   X  XXXX X   X  XXX  X        X   X  X        XX X          X X      XX   X      X      X X XX      X
CFA    XX      XXX XXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX XXXXXXXXXXXX XXXX XXXXXXXXXX XX XXXXXXX      XXXXXXX  XX
CFI    XX         XXXX X X XXXX  X  XXX    X X    XX  X  X     X  X   X X    XX X X  X  X XXX XX   XXX XXXX X   XX XXX XX  XX  XX
CFR         XX X   XXXXX       XX        XX    XX X  X XX  XXXXX    XXXXX XX XX     X X                            XX X X     XX
CGLM   XX X  X    XXXX X X X XXX   X  XXX    X X    XXX X  X  X X X  X   X X    XX X X XX  X XXX XX   XXX X XX X   XX XXX XX  X    X
CGP               X  XXXXXX XXXXXXXXXXXXXXXXXXXXXX X XX XXXXXXXXXXXXXXXXXXXXXXXXXXXX       XX      XXXXXX X     XX      X X      X  X X
CHJJ   X   X X  X X  XX X XXX  XXXX  X XX    X XXX XX XXX   X X X  X    X  XXX X XX       X          X      X   X      X  X XXX XX  X X
CHTO  XXXXXXXXXXX XXXXXXXXXXXX XX XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXX XXXXXX   XXXXXXX X XXXXXXXXXX XXX XXXX    XXX XXXXXX XXX  XXXXXXX
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CIA                       X          X  X               X   X                         X    X     X  X   X   X
CIN    XX  XXX XX  XXXXX X  X  XX  XX XX                                                                        XX  X XXXX   XX   X
CIR     X                           X XXX      X                 XX X              X          X                                X
CIT   X XX  X X X  X   X   X XXX  XXX   XX     X XXX  X XX XX  X     XX XXX     X X   X       X       X  X XX  X       X  X X   XX   X
CKL    XX X  X    XXX  X   X XXX    X    X     X X    XXX X  X  X X  X   X X    X X X XX  X XXX     X X X X                X         X
CKN    XX X  X    XXXX X X X XXX         XXX   X X           X  X X  X   X X    X X X XX  X XXX XX   XXX X XX X   XX XXX  X         X
CKT    XX X  X    XXX  X X X XXX  X  XXX     X X     X      X  X X        X X    X X X XX  X XXX XX   XXX X XX X   XX XXX XX   X    X
CLI          X        X        X          X    X X      X  XX         X                                                   X
CLL   X XXX X XXXX XXXXXXXXXXXXXXXXXXXXX XXXXXX XXX XX XX XXXXX   XXXXXXXXXXX XXXX XXXXXXX XXXX XX XXXXXXXX XXXXX  X XXXXX XXXXXXX
CLLP         X       X                X     X     X    X     X    X XX          XX                X      X          X     X            X
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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

CMB   XXX X  X XXXX XXXXX XXX   X XXXXXX XXX    X XXX X XXX X X  XXXXX  XX XX XX XXX X     X  XX X     XX XXX X  X  X XX  XXXXXXX
CMCZ  X X X  X              XX  X   X    XX X XX      X  X    X X X    X    X    X
CML    X  X     X X X                       X        XXX    X     X     XX                      X  X      X        XX     XX      X
CMP           XX       X      XX         XX   XX    X  X
CN2   X XX    XX X XXXX  XXX X XXXX  XXXXXXXXXXXXXXXX XX XXXXX  XX XXX XX  XX X   XX X   XX    XX X XX XX   XX X XXX X X X XX
CNB   XXX XXXX XX   X  X X X XXXXXX XXXXXX X X   XX XX XX XXX X  XX XX  X X XX X    X  XX  XXX X XX X   XX  X  X  X     XXX     X
CNCB  XXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX
CNPM   XX X  X    XXX  X   X XXX   X  XXX    X X    XXX X  X    X      X      X X X XX    XXX XX   XXX XXXX X   XX XXX XX  XX   X
CNZ      XX         X  X X  X  XX X  X  XX    XX        X        X X    XX          XXX  XX        X  X
COE   X   X   X    X XXXXX X        X X  X                  X    X  XXXXX   X     X  X X X              X      XX X    X     X XX  X     X

COL                                 XX   X                            X                                 X                   X    X
COOL  XXXX  X  X    X XX X          XX   XX   X XXXXX X    X X    XX X     X  X             XXX XX X     XXX  X  XX X     X    X
COP                        XX       XX   X                XX XX                                         X                   X    X X
CP2   XXX X XXX  XXXXXX X XXXXXXXXX  XXX    XX X         XXX XXX XX XXX X  X X X X X XX  X XXX XXXX XXX XXXX X   XX XXXXXX XX X XX
CPD          X                       X    X     X    X     X   X  X        XX               XX      X        X     X              X
CRE                   XX X                 X         XX          X X XX        X           X                 X               XX X
CRM   XX          XX              X  X                     X    X X               X XXX     XX     X              X  X XX      X
CROR  X        X     X XX                 X              X          XXX                        X       X       X         X    X X  X
CRP   XXX X  XX XXXXXX XXX XXX XXX  XXX    XX X  X XXX XXXXX XXX XX XXX X  X X X X X XX  X XXXXXXXX XXXXXXXX X   XX XXX  X XXXX XX
CRQM                 X X            XXX    X X   XX          X              XX X         X                   XX

CRX   X X X   X                              X                    X    XXX X     X X    XX             X  X     X     X X
CRZF                                 XX    X       XX     X     X   X          X     X    X                     X     X
CSS                X XX  XX  X    X    XX    X    X   XXX XX X    XX XX          X               X  X X          X X         XX
CSY   XXX         XX       XX     XXX X XXXX X XXX X  XXXX   X    XX XX        X X  X X          X   X     XX    X X     XX       X
CTA   XXXXXXXXXX XXX XXXX           X                                                                        X      X         X
CTAO                                 XX    X        X  X       X           X    X                  X                  X
CTB    XXX    X    XXXXXX X X  X X  XXXXXX XXXXX  XX XXXXX XX XXXXX          X X  X    X     X XXX X      XXX X X  X    X
CTGM   XX     X    XXXX   X  XX X    XX    X X    XX          X      X     XX X        X     X  XX     XX XX    X        XX
CTI                    X X               X           X     X    X X XX     X X          X                  X            XX X
CTK         X X  X           XX      XX    XX X    X  XX X  X   XX         X X   X X       XX X    X  X                  X

CUT    XX X  X    XXXX X X X XXX     XXX    X X    XXX X  X  X X  X   X X   X X X  X  X XXX XX   XXXXX XX X  XX XXX  X      XX
CVA    XX     X     X X   X XXXXX    XXX    X X    XX          X             XX X    X     X X   XX  XXX  X  XX XX  X      XX
CVL                                  X X             X           X             X  X          X X XX  X         X
CVP    XXX    XX X  XX XX X  X  XX  X XX   X  X X XXXXXX  XX  X XXX  X   XX X  XX   X  XX     XX XX   X XX X  X  XX   XX X
CYA     XX    X  XXX  XXX  X X  XX X XXXXX  X X XXXXXX   X X X  XX       X     XX  XXX  X  XXX   XXX  XX   XX  XXX     XXX X XX
CYK                      X  XX X    X       X                                X              X X          X
DAG   X XX  XXXXXXXXXXXXXXXXX XXXXXX XXXX XXXXXX XXXXXXXXXXX XXXX XXXXX XXXX X  X     X     X X XXXXXXXXX  X XX X X X XX X  X
DAU   X X     X X XX XX  X       XX     XXX  XX     X  XX          XXXXX   XX X   X     X  XXX  X X  XX X    XXXX  X X X   XX X
DAV   XXX XX      XX X XX X   XX     XX    X XXXX X XX XX  X  X   XX XX   X   X X X  X   X XX     X    XX        X X    XX  XX  X
DBO                XXXXXX X             X X        X             X X         X               X        X        X       X       X

DCN     X     X           X     XX    X    XX     X     XX XX       XXX  X  X     XX         X   X X  XX    X  XX    X X X    X X
DDM    XX X   X    X  X X X X  XX      X X     X     XX  X  X  X X       X X     X X X     X    X X  X XX X X      XX XX   X  X   XX
DEG                XX X XX  X  X     XX X    XXXXX  XX X   X X X  X X            X              X         X   X      X XXXX      XX
DFR    XX X   X    XXXXXX X X XXX   X  XX      X X     XXX X  X  X X  X   X X    X X X XX  X XXX  X    XXX X XX X   XX XXX XX      X
DHH                                  XX    X                        X              X X     X      X                  X
DHJN                          X  X XX    X  X     XX  X   XXXX  XX        X
DHR            X              X     XX     X                            XX   X                                 XX         X
DHY     X X   X   X XX X X X  XX     X     X     XX  X  X  X X  X    X X    XX X X  X   X  XX XX               X XXX  X  X    XX
DIM                           X     XX           X     X       X                  X      X      X    X                   X
DIW    X XX      X  XX X X  XXXX  X   X XXXX       X       XXXX   X        XXX  X        X

DIX       X   X    X  XX     X  X          X    X    XX  X XX        X       X     X            X    X          X           X
DJE           X     X X      XX                X     X        X X      X X     X X     X   X X   X X  X X       XX  X    X       X
DL2    XX     X X  XXX       XXX  X X    XX    X      X XX X   X  X  X   X       X X     X                         X    X    X
DLF     X     X             X     XX   X     XX    X     XX XX       XXX  X  X     X            X X  XXX   X  XX      X X   X X
DMK    XX     X  X     XX  X X   X                             X               X
DMN   XXXXXXXXXXX XXX   X XXX  X X   XX   X             XXXXXXXXXXXXXXXXXXXXXX  XX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXX XXX
DOG                         X               X   XX     X     X                          X                   X
DOT           X     X X    X           X       X            X        X      X X    X  XX X    X    X     XX  X    X       XX
DOU     X X  XX X  X X  XX XXXX XXX X XXXX XX     XXX  XX XX XX XX XXXX  X  X X    XX       X X XX XX XXX X    XX  X XXXXX XXXXXX
DPW   X X     XX   XXXX    XXX   XX   X X  X    X  X X   X    X  XXX    X X     XX       X X    XXXX  X    X  X     X X    X X  X

DST    XX  XXXXXX  XXXXXX XXX  XX                       XXXX XXX XXXXXXXXXXXXX XXX
DUG   X X     XXX XXXXX  X XXX  XXXX XXXX XX      XX XX XX   X XX XXXX   XX XX   X     X XX  X X  XX X X  XX     X X X   XX XX X
DVD     X                   X   X     X X  X X    XXX XX XX                       X  X          X     XX              X   X   X
DZM   XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
EBAN    X  XX      X  X X XX     XX X XX X    XX   X  X  XX       X     XX X  X X   X    XX  XXXXX X X X XX XX              X   X
EBG   XXX     X    X  X  X XX    X         X           X          X  XXX    X       X          XX    X   X        X        X    XX X
ECHE                   X  X XX       X  X X  X    X          X       X       X       X             XXX  X                 X
ECO   X X       XX     X     X   X     X X    XX  X  XXX XX XX  X    X  X         X  X     X    XXX X  XX           X    X XX   X
ECOG        XX     X    X  X        X    XX X XX X    XX  X  X           X        X      X   X   XX  XXX XX XXX X     X    X  X  X XX
ECP     X                                                               X     X                 X X  X       X       X X    X

ECRI       X    X       X     X        XX  XX  X     X                X                X            XXX  X X                 X X  X
EDC    XX   XXXXX  XXXXXX XXX  XXX                      XXXX XX  XXXXXXXX XXXX XX X
EDI                                        X          X                      X      X           X X           X        X     X
EGD           X               XX   X                   X           X  XX  X        X    X  X       X    X      X X          X    X
EGRA         X       X       XX   X   X   XX  X    X           X X      XX XX  X             X X  X X                   X X
EGUA          X  X X      X     X   X    XX XXXXXX   XXX  X  X  X      X      XX X   X   X   XX  XXX XX   X X     X     X  X  X XXX
EHOR     X  XX          X  X  X       XX XXXX X   X X      X  XX       X X        X X   X   XX  XXX XX    X X  XX    X     X
EHUE          X      X  X    X    X   XX X XX X        X               X          X  X   X   XX  XXX XX         XX     X     X X
EJIF     X  XX            X X    X   XX XXX  X     X  X  X  XX       X X    XX      X    X   XX  XXX  X X  X X  X           X X
EKA   X XX  X X X  XXXX  X XXX  XXXXX X X  XX X X X XX  X XX       XXXXX X    XX X   XX     X XX XX X   XXX X X           X XXX X X
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-----------------------------------------------------------------------------------------------------------------------------------
ELC               X XX  X XX   X X  XXXX          XX  X X    X     X X            X   X X    X X XX  X X        X X    X  X
ELIZ        X           X           X                         X X                          XXX                          X   X
ELL     X X XXX     XXX XX   XX  XX                    X XXXXXX        XX XXX XXX
ELOJ            X X     X  X  X     X  XXXXXXXX X       X              XX     XX  X        XX  X
ELUQ                    X            X X    XX                            X  X       X XX                               X
EMAL          X  X          X        XX X   X        X                         X   XX  XX  X
EMS         X   X   X  X   XX        X   X   X    XX       X        X               X    X         X      X
EMUT  X X     XX  XXXXX  X XX  XXX   XXX  X        X  X X   X XXX  X  X    XX   X   X   X X X      X X  X X X   X X
ENIJ         X          X         X  X  X  X X                      X   X  X   X   X  XXXXX  XXX X   XX   XX  X  X XXX
ENN    X   XXX   X X   XXX    X  X  X XX  X XX  X XX  X  XXX   X  X    X  X   X  XX XX XXX X   XX    XXX  XX XX
-----------------------------------------------------------------------------------------------------------------------------------
ENR    X XXX XX  XXXXXXX     X     XX    XXX  X  X  XX   X  XXX  X X  XX  XX          X XXX  XXX XXXX  XX XXXXXXXX X XX
EPF     X XX  X       X XXX   X   XX X X   X X XX   X X    X X  X  XX   X  X                              X    XX X
EPLA               X  X     X     XX X X  X    XX  X   XX    X X    X   X X   X   X  XXX  X X  X X X       X    X
EPRU    X  XX          X          XX XXXX X    XX  X  X  XX    X X   XX     X   X  XX  XXX  X X    XX X      X
ERE      X  X X   X       XX      XX   X XX X X XX  X XX    X  XXX
EROQ                    X   X       X       X   X                   X    X   X  X           XXX                          X
ERUA               X                X   X      X   X            X X          X X            XXX                          X    X
ETOR          X   X X X  X  X  X  X   XX  X  X   X              X X X   X  X  X   X   X  XXX  X                          X
ETW     XX     X     X   X     X                   X           X     X                X         X                         X  X
EVAL    X  X         X    X      XX XXX  X   XX  X  X  XX      X    X     X           X X X  X      X XX X      X    X
-----------------------------------------------------------------------------------------------------------------------------------
EVIA          X      X  X  X XX  X   XX XXXX X   X  X  X  XX    X X    XX      X   X  XX  XXX XX X    X    XX    X  X  X X
EWZ   XXX X  X X          X   X  X   XX X XX  XX XX   XXXXX  XX X  X    XX    X X  X  X   X
EYL     X    X  X     X  XXX  XX                  X   X    XXX XXX   X X X  X XX  XXX
FAC    X  X   X X X                   X        X X  X    X     XX                  X  X    X     X         X    X
FAM                X               X    X      X X  X                                X    X          X X        X
FBA   XXX XXXXXXXX XXXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXXX XXX XX XXXXXX XXXXX XXXX  X  XXXXXXXXXXXXXXXXXXX  XX XXXX XXXXXXXXXX
FBO                X      X            X                                X                    X             X     X
FCH     X   XXX XXX  XXX X XX  XXX  X   X   X XXXXX  X  X   XX         X          X     X    XX   XXX  XX XX  X   XX X   XX
FDF   XX           XX          X  XX              X   X X       X     X XXX    XX    X X             X     X         X
FEL     X X  XX   X       XX     X X  X      X X   X  X  X   X  X   X  X    X    X X   X XX X            XXXXX  X XX
-----------------------------------------------------------------------------------------------------------------------------------
FHC                XXXXXX X          X         X       X XX  X          X     X     XX         XX             X     X X  X
FID    XX    X    X XX       X     XX    X X  XX X             X     XX   X         X X   X X X XX      XX XXX XX     XX
FIN    X  XX XXX  X XXX     X      XX    XX   X    XX     X    XX  X    XX  XX         X XXX  XXX    X  X XXXXXXXXXX X XX
FIR      XX  X X   XX X  XXX      XX X   X     X  X  X  X  XXX    X     X             X X  XXX X     X    XX  X
FLN   X X   XXX   X  X XX XXX  XXX  X  X XXXX X X X  X XX  X   XXXX   XX X   XX                             X  XXXXX
FMW             X   X XX  X     X                X   X   X  XXX   X     X      XX   X  X         X    X   XX X  X
FNA         XX   X  X X X  XXX X  X  XX X XXX  X  X    X X  XXX XXXX  XXX XXX X     XXXX XX X XXXXXX XXX   XXXX XX X XXX  X
FORT  XXX XX XX   X  X XXX   XXX XXXX X XX  XXX  XX XX  XXXX  XX XX  X XX X  XX  XX
FRA     X     X X                      X       XX   X   X          X                                 X
FRB   X X   XXX  X XXXXX XXXXX  XXX                       X X  XXXXX  X X X X XX         X X
-----------------------------------------------------------------------------------------------------------------------------------
FRF     X X   X   X XX XX XXX X  X  X XX X  XX   X  X XXX   X  XXX X    X X  X  X                            X   XXXX
FRI     X         X XXX       X     X       XX       X  X    XX    X X                    XX            X                 X
FRS   X XX     X  X XX    X   X             X        X    XX    X X   XX   X      X X  X               X    X  X
FRU     X  X X X  XXXX  X XXX       XX   X XXX  X XX X  X    X  XXX    X X   X    X       X XX XX  X     X         XX X X
FSA   XXX  XXX  XX XXX   XX   X  X X X X X XX X   XXX   X X  X X    XX   XX X  X XXX  X XX X   X X  X
FUR       X       X X    XX   X   X  X XX   X   X  X XX   X  XXX     X                X X  X X     X   X  X XX  XX X
FVI                  X X    X               XX    X   X X XX     X X          X                     X       XX X
FVM               X XX    X     X   XXX  X      XX XX  X    XX  XX X   X X X  X  XX XXX  X X XXX           X X     X X
FYU          X X      X X     X                X                  XXX    X X      X   X X  X               X X    X     X
GAC     X     X   XXXX  X XX  XXX                                 XXXX    X XX               X X     X
-----------------------------------------------------------------------------------------------------------------------------------
GAZ          XX X X  XXX      X  X
GBA   XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX  XXX XXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXXX
GBZT  XX   X  XX    XXX  XX  XXX  XX  XX  XXX X X X XX  XX  XXX  X  XX   X  XX     XXXXXX X XX X X XXXXXXX XX   XX  X    X  XXXX X
GDH                XXX   X          XX   X        X XX        X         XXX  XX   XXX   X X  X  XX           X         X
GEC2  XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX
GHO     XX X  X   X XXXX X X XXX    XXX    X X   XXX X  X  X X  X   X X   XX X X  X  X XXX XX   XXX X XX X  XX XXX  X  X   XX
GKN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX
GLA   X XX    X   XXXX  X XX   XXXXXXXXXXXXX   X   X X   X X   X XX  XX  XX    XXX        X XX     X          XX  X   X     X XX
GLB     XX X  X   XXXX       XX X   XXX   X X   XX  X      X     X X   XX X X  X    XX X    X  X X        XX XX  XX  X   XX
GLD     X    XX   XXXX  X XX   XX  XX   X    X  X XX  X        XXX      X     XX   X  XX X X          X X     X X    X XX
-----------------------------------------------------------------------------------------------------------------------------------
GLM     XX XX X  X XX X X   XX        X    X X   XX  X  X  X X  X   XXX     X X      X  X XX  X X  X X       XX XX   X  X   XX
GMW   XX      X   X XX  X XXX    X  X X  X        X X       XXXX   X X    XX   X   XX X X  X  X X XX XX  X   X X XX X  X
GOGA                                 X        XX X   X     X  XX  X    X XX   X       X   X X X     X          X X    X XX
GOL   XX      XX   XXXX  X X    X X  XX  X        XX XX  X    XX XX  X X  X XX XXX  XXXXXX   X   X      XXX        X X    X XX
GQP    XX     XX   XX X                                                     X                                 X X  X X  X
GRA1                                                          XX    X X   X     X  X X
GRF   X XXX XXX X  X XX X  XXXX XXXXX XX X XXXX XXXXXX  X XX XX  XX XXXX X  X X   XX   X XXX  X X  XXX X    X  XX XXXX  XXXXX
GRG     XX XXXX XXX XX XXX  XXXXXX  X  XX XXXXX  XXX X   X X X XXX X   X XXXXXXX XXX XX XXXX X X XXXXX  XXX   XXXX XX X XXX  X
GRI                X          X          X          X         X X          X          X                     X        X
GRO       X  X X          XX        XX   X X     XX  X  X   X  XX     X X    X        X X  X XXX        X    X     X X
-----------------------------------------------------------------------------------------------------------------------------------
GRR   X X   XXX X  X  X XX XX    XX   X  X  XXX X X XX XX XX  X     XXX      X X   XX                          X  XXXXX
GRW    X                            X            XX    X     XXX X  X                        X                  X X
GSC   X XX    X XX  X    X     XXXXXXXXXXXXX X XX XXX XX XX X X  XXXXXXXXX XX X   XXX X X XXX XXX X  X  X X XX XX  X X X XXX  X  X
GTA   XXXX  XXXXXX XXXXXXXXXXX XXXX  XXXXXXXXXXXXXXXXX XX XX XX  XX XXX XX  XX X X  XX X  XXXX  X X XX XXXXX    XXX  X X XXXXXXX
GUA     XX X  XX   X    X XX   XXX XXXXXX XXXXX XX XX          X  XX XXXXX XX  X  X          XXX XXX  XXX  X
GUAC            X       X                             X  X                          X X                        X X
GUD             X   X  X  X XX  X   XX  XX  X    X     X        X X    XX X  X X   X   X  XXX  X X                X    X
GUMO    XXX X  XX   X     X XXX XXXX XXXXXX XXXXX XX XX       X  XX XXXXX XXX X  X          XXX XXX  XXXX X X   XX X  X X
GUN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
GYA   X XX  X XXXX XXXXXXX XXX XX X  XXXXXXXXXXXXXXXXX XX XX XX  X  XXXX X  XX X XX XXXXX XXX  X    XX XX  X X  XXXX X X XXXX XXX
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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
-----------------------------------------------------------------------------------------------------------------------------------
GZH     X     X       X X X X  X      XX   X X X  X XX XX  X      X   X       X X XX X XX    X                     X    X
GZR           X       X        X      XX   X  X  X  X             X                                  X    X         X
HAMO                 XXXXXX X               X          X             X         X            X       X                         X
HAU   X XXX XXX X  X XX XX XXX   XXX  XXXX XXXX XXX XX  XXXXX X   XXXXXX    XX X   XX                              XXX XXXXX
HBO                  XXXX X X               X          X             X         X                     X              X         X
HBZ   XXXXX X   X X XXXXX X  X XX  X  XXXXXXX        X X  X  XXXX    X    X XXXXXXX    XX X   XXXX
HCY     X X X X   XX XXXXXXXX  XX XXX X      XX  XX     X X     X X XXX           XX      XX  X XX XX X X    XX      XXXX XXX XX    X
HDA     XX XX X   X XX X X X  XX        X     X X    XX  X  X  X X  X   XXX    X X X  X  X XX XX  X XX X X    XX XXX  X  X   XX
HFS       XXXXXXX XXXXXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXX
HHC   XXXX  X XXXX XXXXXXXXXXX XXXX   XXXXX XXXXXXXXXXX XXX X XX  XX XXXX X XXX X X XX  XX XXXX X  X XX X   XXX  XXXXX X X X  XX XX
-----------------------------------------------------------------------------------------------------------------------------------
HIN     XX X  X     XX XX   X XXXX     XXX     X X    XX     X    X          XX X    X      X      XXXXXXXX X  XX XXX  X     XX
HJA   X XXXXXXX X  XXX XX XXX XX XX X X X  X  X   X    X  XX            XX  XXXX  X  XXX X XX  X XXXXXX    XXXXXXX  X    X  XX X
HKC     X     XX      XX  X X X  X    XXX  X   X    XX X  X      X          X X    X       X       X          X  X X
HLW           X  X   X X              XX              X X                           X             X X                     X
HMR   X       X X  X X XXX          X     X      X          X  XXXX    X    X      X         X     XX           XX   X    X
HMT     X   X    XXX      XXXX      XX    X X    XX           X          XX                X     X    X      XX XX      X   XX
HNR     X   X XX X X   X X    XX X X XX  X X  X X     XX  X   X     X XX      X  X   X X XXX X X     X  XXX       XX  XX    X
HOF       X      X        X X  X        XX   XX   X    XX            X X       X              X X  X             X X   XX X
HOM     XX X  X    X   X   X X X  X   X     X X   XXX     X   X          X X   X     X X  X   X X XXXX X    X  XX XX   X   X
HON   X       X X       X X           XX   X      XX X   X     X  XX        X XX   X        X                        X    X
-----------------------------------------------------------------------------------------------------------------------------------
HOOJ          X    X XX  X XXX  XX              XXXX  XX      X X    XXX X    X X        XX   X   X  X   X  XX        X XX  XX  XX
HRT     XX  XX       XX  XXX                      X    X       X      XXX X  XXXX  X X
HRV   X       X X       X X       XX   X          XX  X  X     X  XX      X X    X      X                                 X  X
HSO                  XXXX X X              X          X             X          X           X        X              X          X
HTCR      X             X              X     X       XX  X     X     X     X X                      X   XX            X     X
HUR     XX X     X XX X X X  XX      X X      X     X  X  X  X X X  X  X X     X X X  X  X   X XX   XXXXX X      XX X    X  X   XX
HVAR    XX X X X X    XX   XXXX     XXX XX X     X    XX    X  X  X X X X X        X          X XX  X  X X  X X X          XXXXXXX  XXX
HVU   X       XXX XXXXX XXX X   X XX XXXX  X      XX  X XX XX  XX       XXXX      XX X X XX    X    X      X XX  X       XX  X X X X XX X  X
HYA                                 X                   X       X    X  X              X   X                            X X        X  X
HYB   XXXX  XXXX X  XXX  X XXX XX XXXXXXXXXXXXXXXXXXXXXXXXX XX XXX XXX XX   XXXXXX  XX XXXXXXX  X XXX XXX  X X XXXX  X XXX XXXX X
-----------------------------------------------------------------------------------------------------------------------------------
HYF   X   X   X       X       X          X X      X         X          XX      X                                          X  X X
IFR   X X  XX             X X X X      XX XXX  XXX        X     XX     XXXX   XX X      X   XX XXXXXXXX XX      X X X  X   X   XX XX
IGT       X        X XX   XXXX X  X        X X  X         X      X                         X    XXX  X X   X XXX XXX     XX  XX X XX   X
IHA          X       XX              X X       XXX     X                    X                     XX             X          XX
IIDJ    X   X X    X  XX X  XX  XXXX XX X      X XXX XX X X   X    X   XXX X    XX X X            X                    X  X X X XX  X X
IISM  X X X X X                              XX X    X    X XX  XX      X    X      XXX X
IL1                X XXXX X X  X                XX                                X   X X   X    X XX  XXXXXX X   X    XX XXX   X   X    XX
ILB                X XXXX X X  X                XX                                X   X X   X    X XX  XXXXXX X        XX XXX   X   X    XX
ILIM    XX X  X      X  X   X XXX   X  XX      X X    XXX     X    X              X X X XX    X X XX   X X X XX X    XX XXX XX   X    X
ILT   X X   X X X  XXXX   X            X                                                                                  X
-----------------------------------------------------------------------------------------------------------------------------------
IM3                XXXX X X X  X                X                                 X   X X   X    X XX  XXXXXX X        XX XXX   X   X    XX
IMA   XXXXXXXXXXXX XXXXXXXXXXXX XXX   XXXXXXXXXXXXXXXXX XXXXX XXX XX XXXXXX XXXXX XXXX   XXXXXXXXXX X XXXXX XXX  XX XX X X XXXX XX
IMI     X  XX XX   XX XXX        X        XX       XX   X      XX      X      XX  X    XX  XX          X XXX  XXX    XX  X XXXXXXXXXX X XX
INE     XX X       XX  X   X XXX   X  XX      X X    XXX     X                    X X    XX      X X XX    X X X XX X    X  XX XX    X
INK   XXXXXXXXXXXXXXXXXXXXXXXXX XXXX                            XXXXXXX  XXXXXXXXXXXX XXXXXXXX   XXXXXXX
INW       X        XX  X   X XXX   X                                              X X    XX     X X                           X X
IPM     XX  X  X    XXXX  XXXXX XX X   XXXX X X XXXX XXXXXX XX X   XXXXX          X XXX  X    XXXXX   X X  X   XX       XXXXX   X       X     X
IRK     X   X       XXX    X XXX  X    XXXXX X          XX  X     X  XXX  X     XXX X  X  X              XX             X      X      X
ISA   XX XX  XX XX X XXXXX X    XXXXXXXX XXX    XX XXX XXXXX X X  XXXX   XX  XX XX XXX X     X   XX X     XX XX  XX     X X    XX XX X
ISK     XXX   X  X      XX  X XX  X                  X           X   X                   XX    X
-----------------------------------------------------------------------------------------------------------------------------------
ISR         XXX     X       X         X    XX X XX  X   XX X       X     X    X X                                  X   X  X       X
ITU            X       XX    X      X XX   X     X  X              X          X                X X X  X          X          X
IVA     X X X X   XX XXXXXXXX  XX XXX X     XX  XX      X X       X X XXX          XX        XX   X XX XX X X    XX      XXXX XXX XX
IZI    XXX  XXXXX  XXXXXX  XXX XX                           X      XXX XXX  X XXX X  XXXX XX X
IZM   XX  XX XXX   XXXXXXXXXXX XX                           X     XXXXXXXX XXXXXXXXX XXX  XXX
JACH    X   XXX XXX  XXX X XX  XXX  X   X     X XXXXX  X  X    XX         X              X        X     XX    XXX   XX  X    X    XX X    XX
JAQ   X X   X X  X XXXX  X XXX  X X                                     XXX          X  X         X X
JAY          X      XX   XXX  XX XXXX          XXX  XX
JBO   X       X       XX      X            X                          XX      X      X                 X     X                  X     X     X
JCW   XX      X    X X     X               X                X    X  XXX              X        XX   X  X  X                  X   XX
-----------------------------------------------------------------------------------------------------------------------------------
JMB                                   XX   XX X    X   X                              XX         X X  X X
JMI     X               X   X   X               XX       XXX                                              X                X
JNE     X               X X X   XX XXX          XX       XXX                                              XX
JNW     X               X X X   XX XXX          XXX      XXX                                              XX               X
JSC                                X    X X X  X    X X X   X           X  X        X  X     X  X  X X XX                 X           XX
KAF         X X X  XXXXX XXXXX  XXXXX XXXXXXXXXXX XXXX XX XXXX   XXXXXXXX    XXX  XX     X  XX X X  XXXXXX X X   XX X XXX XXXXXX
KAGJ  X        XXXX X    XX XXX  XXXX XX        X XX XX       X X     XX X  X       X       X              XXX   X X X  X
KAIM                 X       XX X     X       X    X                            X          X         X  XX
KAKJ    X   X X   X  X  X  XX  XX   XX  X     X XX  XX  XX  X X      XX X     XX X  X      X X      X       X          X  XXXXXX  X
KAS     X   X XX X    X     XXXX     X XX   XXXX XXX XX  XXXX X    X XXX        X XX  XX X X   X   XX X   X XX X    X   X     X X X
-----------------------------------------------------------------------------------------------------------------------------------
KBA     XX X   X X  XX X XX XXXXXX  XX XX XXXXXX X X XX XX XXX XX XXXXXXXX   XX X    XXXXXX     X XX XX X X X         X XX XXX XXXXX
KBN                                                                                          X X   XX X  X       XX  X
KBS                X X      X    X X XX   X          X    X      X   X                                X             X      X      X
KDC   XXX     X    XXXX   XXX   X X   XX   XXXXX XXXXX X  X       XXX       XX X  XXX     XX XX   X X X      X  X   XX     X X
KDS   X X        X  X X                                   X       XXX X     X     X   XX      XXX XXX   XXX                X
KDZ                                X   XX     X     X     X                                 X    X X  XX                XX X X
KEK       X        X X X  XX               X   X                                  X   XX  X      X X X  XX          X XX  X X  X  X   X
KER         X      X X  X X X XX  XXXXXX     XX XXXX  XXXX  XXX       XXXXXXXXXXX XXX  XX   XX X     X  X XX  X    XXX  X XX  XX X
KGM     X    XX    XXXX  X XXX  X     XX   X   X  X XX X    XX  X      X XX     XX X     X      XX         X      X    X     X
KGT                                                                                     X  XX
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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
KHC   XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX XXXXXXXXXXX XXXXXX  XXXXXX XXXX XXXXXXXXX X X  XX  XXXXXXXXXXXXXXX
KHKI      X  X             X XX XXX             X X                         XX XXXX  XX XXXX XXX                     XX X          XXX
KHL    X      X      X XX                                               X X  X  X  XXX XX   XXX
KHT     XX   X X   XX     X XXX  X      XXXX X XX   X XX  X     X    X    X         X  X     XX
KHZ                                                                                  XXXX XXX XX   X
KIC   XXXX  X X X  X X   X XXX XXXX XXXXXX XXXXX  X XXX XXXX XX XXXXXXXXXXXXXX XXX XXXXX XXXXX XXXX XXXXXXXXX XXXXXX XXXXXXXXXXXX
KIS                  X      XX         XX    X             X  X     X    X        X                  X X  X X         X    X    X
KIV     XX  X X    X X   X   XX  X X   XX X X XXXX X XX  X XX     X XXXX     X X X  X       X     X X  X XXX X      X  X X   X    X
KIW    XXXX        X  XX X XX XXXX  X  XX  XXX   X    X X     XXX     XX  XX XX XXXX X   XX      X
KKB                             XX X   XX   XX X    X     X     X XX                 XX     X    X X  XXX              X  XX X XX
KKM   XXXX           XX   X X    X X   XX   X X X    XX X  XX     XX XX   X  XX X    X     XX      X  X  X      X XX    X    X    X
KKN   XXXXXXXXXXXXXXXXXXXXXXXXX XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX  XX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX
KLB   XXXX   X X    X  XXXXX X          XX    XXX XXXXXXX X   X X    XX X     X  X              XXX XX X    X X  X  XX X  X X    XX X
KLI                XXXX X X                 X X                                          X X          X    X          XXX
KLU   XXX X XXX XXXXXXX XXXXXXXXXX X  XXX X XX XX XXXXX X XXX X X XX XXX X   XX X XXXXX X  XX XX X XXXXXXXX X   XX XXXXXX XXXXXXX
KMI   XXXXX XXXXXXXXXXXXXX XXXXXXXX  XXXXXXXXXXXX X XX XX  X XX  XX XXXXXX  XX X XXXX  XX  XX  XXXX XX XXX XX   XXXX X XXXXXXXXXX
KMOR  XX              X                                                  XX                          X                        X    X    X
KMPM         X    X XXXXXX X                X    X      X        X     XXX  X  X    XX    X      X  X     XX     X       X    X X  X
KMR                                     X                X  X                                        X X  X                   X    X
KMSA          X     X         X        XX   X  X     XX  X   XX     X    X      X      X      X        X            X    X    X
KMTA                                                      XX  X   XXXX  XX          X       X      XX        X  X             X     X
KMY                                X   X                     X   XX          XX                    X      XX          X              X
KNA                         XX  XXXXXX XXX XXX X X X  XX                                                                    XXX  XXXX X
KNK     XX X  X    XXXXXX X X XXXX  X  XXX     X X    XXX X  X  X X X  X    X X   XX X X  X  X X XXX XX   XXX XXXX X   XX XXX XX  XX  XX
KNT   XXX XXXXXXXX XX XXXX  XXXXXXXX  XXXXXXX XXXXX X   XXXX X  XX XXXX  XXXXXXXXXXXXX XX X  X XXXX XXXX X XXX    XXXXXXX X XXX  X
KOD   X XX XX  X X  XX   X XXXX X XXXXXXXX X  XX XX XXXX XXX  X  XX  XXX     X  X      X   X    X  XXX X X XXX     XXX X  X X X XX XXX
KOMM                  XXXXX  X                                                       X                    X                      X    X
KONO           X           X       X    X     X            X X          X               X                 X   X     X    X    X    X
KSH     XXX  X X XX XXXX  X X X  X X  XXXXX XXXX  X XX  X  X     XX XXX  X  XX X X  XX      X    X X X  XX  X      X   X    X  X
KSL          X X   X         X         X    X    XX                XX X                X X  XXX    X  X X X  X X         X          XXX
KSP   XXXX XX XXXX XXXXXXXXX XXXXXXX X XX XXXX X XXXXXXXXXXXXX XX XXXXXXXXX    XXX    XXXX    XXX XX XX XXXXX XXXXX  X  XXXX   XXXX
KTH    XX X  X   X XX X X X   XX        XXX       X     XX  X  X  X X X  X    X X    X X X  X  X XXX X     XX X X      X  XXX  X  X   XX
KTK1   X   XXX  X    X              X X  X   X  X X X      X       XX   X XX            X     X  X                             X
KUMJ  X        XXXX XX XX X XXX  XXX  X          X XX XX          X X      X            X X        XXX X          XXX    X X XX X
KUR            X    X     X  X         XX   X  X X   XX X          XX                 X     X        X                      X X
KUSJ    X      X  X XXXX  X XXX  XX X         XXXXX XX X     X X   XXX X     X X  XX        XX    X    X   X  XXX XX     X XXXX   XX   XX
KUZ     XX       X X     XX X  XX X   X XX XXXX X  X    X   XXXXX    XX        XXXX XXX XX  XX X
KVG   XX  X        X       X X    XX   XX   XX       XXX X   X  X           X  XX XXXXX  X     XXXX
KVN   XXX X    X XX X XXXXX XX      XXXXXX XXX       XXX X XX  X X      X   X XX X  XX      XXX   X X X   XX X    XX     X X    XX X  X
KZN    X  X  X  XX  X X X    XX        XX   X    XX  X     X   X   X   X         X   X           X  X X  XXXXX XX   X XX  X  X XX   X
LAB                  X XXXX X                    X        X           X           X              X         X                X
LACI          X   X  XX    X  X   XX  XX   X   XX       X  X   X  X   X X   X           X XX XX X X   XXX     XX  XX    XX
LANF         X                            X         XX   X  X  X    X                X         X X                XXX    X XX
LASM                 XXXXX  X          X X      X  X                               X         XX         X                      X
LAT   XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX
LBF   X XXX X X X  X XX XX XXX  XXXX  XXXX XX X XXXXXX  X XXXXX  X XXXXXX    XX X    XX                                   XX XXXXX
LBFM         X X  X XXXXXX X    X XX XX  X X  X     X     X    X      XXXX  X XX    XX    X   X XX  X  XX XXX  X XX XX X X X XX X  X
LBKM                 XXXXX  X          X        X  X          X                    X     X     XX        X                   X    X
LBNH  X X      X X  XXX   X X          XX    X       XX  X  X         XX        X        X     X X       X                  X     XX X
LCCH    X    XXX XXX  XXX X XX  XXX  X   X   X XXXXX  X  X   XX        X                X      X     XX    XXX  XX XX   X    XX X   XX
LDF   X X   X X      XX XX XXX    XX    X  X XXXX X X XX  X XX  X     XXXX      XX X    XX                                  X  XXXXX
LEM   X XX X    XX  XX XX XXXXX XXXX  XXXXXXXXX
LFA    X  X      X X                          X         XXX   X  X X      X                     XX  X X   X      X   X      X       X
LFF     X   XXX X  X XX  X XXX   XX    XXXX X  X X XXXX  X X     X XX     X  XX  X                                            X   XXXX
LGBM                 XXXXX  X                X  X                                  X     X      XX      X                   X    X
LGPM  X X      X X  XXXXXXXXXX        XXX  XXX  X       XXX X   XX  X XXXX  X  X                   X  X
LHS                                            XX    XX X   X           X  X       X  X   X       X X                             X
LIBD                         XX          X           X  X         X                            X X                    X     X X
LIC   XXXX  X XXX  XXX   X X X XXXX X XXXX XX X   X XXX XXXX XX XXXXXXXXXXXXXX XXXXXXX X XXX X  X X XXXXXXXXX XXXXXX XXXXXX XX XX
LIT     XX XX XX XX XX XXXX XXXXXXXXXX XX XXXXX XXXXXX      XXX    XXX XXXX  X XXXXXXX  X  X  XXXX XX X  XXXXX XXX     XXX XX X XXX  X
LJU         X      X  X XX X   X XX XX  X XXXX XX X   X XX  XX X     XXX XX      X X     XX              XX X      X         X XX XX   XXXX X
LKO   XXXX  XXX X  XXXX   XXX X XXXXXXXXXXX XXXXX XX XXX XXXX XX  XXXXXXXXXXXXX XXX XXXXX X XXX  XXX XXXX XXXX XXX XX X XXXX XXXXX
LLAV                       X X                                   X                                      X         XX       X     X XX
LLS         X  XX     X  X      XX  X          X    X    XX     X       X  XX          X    X            X           X          X
LMEM  X        X     X XXXXXX X        XX        X X        X X     X   X XX             X      X    X        X    XX           X       X  X
LMN     X      X     XXXX  X XX   X X                                 X         X X X  X          X X
LMPM                 XXXXX  X          X     X  X                                  X          XX         X                           X
LMR     XXX    X     X XX X  XXX X  X   X XX X   XX     X   X XXX     X  XXX X     X X  X  X                                  XX X
LNOR           X       XX                                         X  XXX     X               X      X
LNV     X    XXX XXX  XXX X XX  XXX  X   X   X XXXXX  X  X   XX        X                X      X     XX    XXX  XX XX   X    XX X   XX
LOE     XX  X X    XX X  X XXX XX      XXXX X X    X XX          X   X       XXX X     X  X    X    X  XXX            XX    X    X XX X X
LOF           X            X          X XX          X    XX          X                 X       X           X          X X
LOMF        X  X     X        XX          X         X    X    X    X  X                X          X X                 XXXX    X XX
LON   XX       X X  XXXX  X XXX        X    X          X    X       XXX    X X     X        X    X X  X  X     X   X  X X X    XX X  X
LOR     XXXX XXX X  XXXX XX XXX  XXXX  XX X XXXX XXXXXX XX XXXXX    XXXXXX    XX X    XX                                  XXX XXXXX
LPA              X    X                XX              XX X   X                 X                                     X    X
LPAZ  XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XXXXX
LPB   XXXX XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXX      X      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX XXXXXXX
LPF   X X     XX X  X XX XX XXX   XX    X  X XX X X X XX  X XX XX     XXXX     XX X    XX                                   X  XXXXX
LPG   X XXXXXXX XX XXXX XX XXX XXXX   X XX XXXXXXXXXXX X XXXXXX  XXXXXXX     XX X X XX                                   XXX  XXXX X
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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
LPL   X XXXXXXX XX XXXX XX XXX XXXXX  XXXX X XXXXXXXXX X XXXXXX  XXXXXXX    XX X X XX                                  XXX  XXXX X
LPO     X X XXX X  X    X XXX   XXX  XXXX X  X X XXXX   X X X     XXXX X   X  XX   X                                    X   XXXX
LPR                                                 X    X    X   X   X        XX             XX     X        X      X          X
LRCZ  X X X               XX  X   X   X  X XX    X         X X X    X   X    X
LRG     X X    X X  XXXX X  XXX X  X   X XX X   XX     X    XXX     X  X X X      X X   X  X                              XX  XXXX
LRM   X X X                                                X XXX XXX XX XXXXX XXXX X X  X   X XXX  XX X XX  X X XX X  XX X X  XX  X  X
LSA   X XX     XX    XXXX X XXX  X X  XXXXXXX XXX  XXXX XX  XXXX  X  XXX  X  X  X X X  X  X  XXXX  X X XX XX XX X  XXXX X X X XX  XX
LSCT           X X         X X        XXX  X                X   X X  XX      X X   X       XX    X     X
LSCZ  X X X  X            XX  X   X      X XX    X  X  X     X X    X   X    X
LSD     XXX XX    X           XX       XX       X         XX      X    X   X     X  X            X XX   XXX    X  X X XXXX  XX X
LSF   X XX  XXX X  XX X XX XXX    X   X XX XXXX X XXXX    X X XX    XXX X   XX X   XX                                   XX XXX X
LSK                X X       X X               X          X  X   X   X   X    X                X  X X  XX  X  X      X  XX    XX
LSLM                   XX              X X      X                                          X                X                  X   X
LTI     XX          XXX X                        X                X                                                    X X          X
LTR     X X              X          X                X              X  X             X   X                  X                       X
LTX   XXX      XXX XXXXX  XXXX    X XXX XX   XXXX XXX XXXX   XX  XX  X XXXXXXX  X   XXXX  XX XXX   XX X   XX   X XXX X XX XXX X X
LTZ   XXXXX  X XX   X X X XX  X X X X XX X XX X XXX X XXX XXXXXX XXXXXX X X  XXX  XXX  X  XX    XXX
LVV                                   XX   X     X     X  X    X   X                                 X                X
LVVM  X X   X X                              XX X   X   X X  X              X        X       X                      X  X         X
LZH   XXXXX XXXXXX XXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXX XX XX XXXXXXXXXX XXXXXXXX X XXX XXXXXXX XXXX XXXXXXXX XXXXXXXXX XXXXXXXXXX
MAF   X X   X X X  X XX XX XX     XX  X  X XXXX X XXXX   XXX XX    XXXX X   XX X X  X                                   XX XXXXX
MAHZ     X              XX      XX    X  X    X       X X     X                   XXX       X        X
MAIO  XXXX XX X XX XXXXX XXXXXXXX XXXXXXXXXXXXXX XX XXXXXXXXXXX XXXXXXXXXXX XXXXXX  XX   XXXX XX XXXXXXXXXX XXXXXX  X XXX XXXX X
MAJO                                  XX   X       X      X     X  X                  X                X                   X    X
MAP     XXXXX  XXX  XXXXXXXXXXXXXX    XXX X X   X  X XX XX  X  X  XX XX X   XX  XXX  X  XX     X  X X X            XXXXXX  XX XX    XX
MARC       X   X                    X       X          XX        X      X                               X   X
MAT     XXXXXX X   XXXXXXXX XXX    XX XXXXXXXXXXXXXXXXX XXXXXXXXX XX XXXXXXXXXX     XXXX X X    X XXXXXX   XXXXXXXXXXXXXXXXXXXX X
MAW   X X XX   XXX  XXX  X      X X   XX    X        X   X   X     XX X X X X   X X XX X  XXX          X    XXX X   X  XX   XX XX   X X
MBC   XXX  XXXXXXXXXXXXXXXXXX  XXXX  X    X     X       XX      XXXX  XXXXXX X X X XXXX  XX      X  X X       X    X   X     X    X X
MBL            XX   X  X XXXXXXXXXXXXXXXXXXXXX    X XX XX  XXXX XXX XXXXXXX XXXXXXXXXXXXX XXXXXXX XXXXXXXXXXX XX XX  X XX   XX XX
MBO   X          X    X    X          XXX          X      X                             X      X    X   XX                   X
MBU             XX              X   X X     X      XX     X    X     X    XX      X       X     X    X  X X
MCK     XX X  X   X XX X X X  XX     X X       X    XX  X  X  X X X  X   X X      X X X  X  X  XX XX  X XX X X       XX XX   X   X    XX
MCNL    XX X          X  X   X                 X                                        X              X X X                X
MCO           X  X          X         XX   X                     X  X                                          X        X
MCQ                       X           XX            XX        X     X  X      X    X              X      X  X          X XX    XXX X
MCSM    X X               X             X     X  XX    XXX X     X     X       X                  X XX                   X        X
MCW   XXX        X        X X                             X    X   X      X X   X       XX  X X      X  X  X   X    X        X
MCWV  X X      X X   XX   X X         XX   X        XX  X  X    X  XX      X  X   X       X   X X      X              X X    X  X
MDG   XXXXXXXXXX  XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            X XXXXXXXXXX XXXX XXXXXXXXXXXXXXXXXXXXXXXX
MDJ     XXX    XXX  XXX  XX XXX XXXX  XXXXXXXXXXXXXX XX XX XXXX  X   XX      XX X   XX              X X   X            X X X   XX  X
MDM     XX XX X   X XX X X X  XX       X     X X    XX  X  X X X  X   XXX     X X X     X  XX XX  X XX X X       XX XXX  X  X    XX
MDZ      X                            XXX         XX      X       X        X                                             X      X
MEEK  XXXXX  X       X  X XXXXX XXXX  XXX  XXXX X XX XX X   X X   XX X  X XX XX XX
MEMM  XXX X  XX XXXX XXXXX X      X X  XXX XXX   XX XXX X XXX X X  XXXXX  XX XX X  XXX X     X   X X        XXXXXX XX    X X  XX  X  X
MEO   X XX  XXXX XXXXXXX X   X  XXX XXXXXX XXXX  XXXX      X  XX X   XXXXX    X X X  X   XX   XX XXXX XXX X     X     XXX X X XX X
MFF   X X     XX X  X X  XX XXX   X   X XX XX X X X XX    XX XX     XXXX X    XX       X                                 X  XXXXX
MGG                X           X           XX  X  XX X   X X      X           X                X             X      X   XX     XX
MGH                XX          X           X     X      X      XX X                             XX          X X         X     X
MGP           X                            X     X    X         X X          X                X      X         X     X          X
MGR                    X       X                    XX               X             X X             X                   X          X X
MGZ      XX        X     X  X  XX X  X  XX X X      X                XX          XXX  X             X
MHA                              X    XX   X         X                                                X            X       X
MHC   X X      X      XXXXX X          X  XX          X   X      XXXX    X    X                       X     X      X       X          X
MHZ   X X                    X     X  X  X XX                X X    X   X
MIAR  X X      X XX X XX  X X    X    XXXX  X    XX  XXXXX  X    X  XXXXX    X XXXX X   XX XX   X X XX      X     X X X       XX
MID                   X                X    X X   X                            XX     X      X          X       X XX
MIN   X        X      XX X  X          X    X X        X          XXXXX               X       X      X                X   X     X
MJMA            X                 X    XX   X  X XX      X              X       X XX   X             X   X X          XX X XX   X
MKS                                 XX XXX  XX  XXXX   X       X  X                    X                             X  X XX XX X   X
MLR      X XXXX X XXXXXXXX XXX  XXX X XX X XXXX XXXXXX XXXXXXXX XX XXXX  X   XXXXXX                           X  X XX XXX XXXX X
MLY     XX XX X    X XX X X X  XX      X X       X     XX  X  X  X X X  X   XXX     X X X  X  X  XX XX  X XX X X      XX  XX  X  X    XX
MMB                               X   XX    XX        X               XX                   XX       X      X  XXX          X  XX X XX
MMCZ  X    X  X                   X   X  X X     X            X                            X
MME                   XX X                X                          XX                                               X  X          XX
MMK        X  X     X   X    X             X     X         X         XX          X    X           X     X            X          X
MMPM  XXX X  XX XXX   XXXXX X      X X  X X X    XX      XXXXX X     XXXXX  XX X  X  X  X          X        XX XX  X     X X  XX      X
MNDI  XX     X        X  X XXX X XX XXX XX    X X      XXX    X      XX   X  X         X      X    X        X   X  X X XX      X   XX
MNG   XXXXX XX    X XXXXX XX XXXXXXXX XX XXXX   XXX X XX XXXXXXXX XXXXXXXXXX XXXX XX  XX  X  XXX
MNHM                                     X       X    X   X X  XX     X                                     X   X        X      X    X
MNI           XX XXX        X         XX          XX        X  X    XX      XXX         XX X                           XX
MNK           X    X X        X  X    XX  X  XX  X XX    XX      X   X      X X    X          XX X    XXX       X              X X X
MNS                   XX X               X        XX              X               X             X                 X          XX X
MOCB  XXXX X XXXXXXXXX XX       XXXXXXXXX        XXXXXX XXXXX XX  XXXXXXX          X XXXXXX XXXX X X XXXXXXXXXX X  XX
MOF        X  X     X         X        X  X       XX   X  X  X    X  X             X      X     X X               XXXX   X XX
MOL            XX             X       X X X  XX   X               X     X  X                        X   X   X     X X  X          X
MOMI        X                         XX X     X                X                X               X  XXX  X      X    X
MOR8        XX                       X  X  X        X          X  X X     X              X       XX X               X X       X
MORO  X         X     X   X        X                           X  X               X                 X  X X X   XX       X  XXXXX
MOS      X      X  X X      XX  X     XX   X   X  X XX     X       X   XX        X    X             X X XX XXX X     X      X      X X X
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------------------------------------------------------------------------------------------------------------------------------------
MOTA      X        X     XX XXXX X  X  XX XXXX X X    X  X X   X    XXXXXX     X  X   XX          X  X X  X    X     XX  X  X X   XX X
MOW     X X        X       X X  XXXX  X      X XX          X           X X    X             XXXX X    X         X
MOX   X XXX    X X  X XX     XXXXXXX XXXX X XX X XXXXXX  X XXXXXX XXXXXX XX    X X  XXX X     XX  XX XX X XXX      X XXX XXXX XXXXXXX
MOZ   X XXX   X    X  X XX XX XXXX X X XX X XX     XX X XX   XXXXX   XXXX        XXX   XXX   X   X  X
MPA    XX X  X   XXX XX   X XXXX  X  XXX      X X    XXX X  X  X X      X       XX X     X     XXX X     XXX XXXX X   XX XXX XX  X    X
MQZ   XX  X XX       X  X XX XX X X   XX X XX    XX X X     XXXXXX XX         XXX   X X  X
MRA   XXXX XXXX  XX XXXXXXX                           X X XX  XXXXXXX X  X    X  X    XXXXXXX                                X
MRCM   XX X X     X X                      X      X     X XX  X    XX    X      X  X                      X              X            X
MRFT                                  X     X X     X   XX            X                X X          X  X     X                  X
MRRJ           X     XX    X XXX  XX            XXXX  XX        X        XX X       X           XX   X  XX      X           X  X X   X   X
------------------------------------------------------------------------------------------------------------------------------------
MRW   XXXXX  X   X  XX X XX XXXX XX  XX XXXX    X  XXX       XXXX    XX   XX XX XXXX X X XX     XX X X X                X  X
MRWA  XXXX  XXXX     X  XXXXX X          XXX XXXX XXXXXXX X    X X    XX XX    XX XX X             XXX XXXX      XXX XX  XXXX      XX    XX XXX
MRX   X X X    X                                       XX     X   X     X       XX X        X    X            X  XX    X       X
MSCZ  X X X  X          XX  X    X    X  X  X     X        X X X    X   X          X
MSTM                     X                  X         XX     X       X     X       X  X                     X                           X
MSU   XXX      XXX XXXXX XXXXXX  XXXX XXXX XXX X   XXXXX XX XX XXX XX XXXXX     XXXX     XX    X XXXX XX X   XX X X XX XX   X X X X XXXX  X
MSZ    XX                X    X          XX    XX         XX       X  X X       X     X X            X    X
MTA     X     X      X       XX   X      XX    X XX    X X    X   X      X    X         X X      X       X      X X  X  X  X          X      X      X X
MTD   X XX X    X        X X X   X     XXXXXXX X  X X X        X     X
MTMJ    X   X X    X  XX X XXX  XXXX XX X    X XXX XX XX    X    X  XXX X  XXX X X                 X          X         X  X X X      X X
------------------------------------------------------------------------------------------------------------------------------------
MTN   XXXXXX               XX  XXXXXX XXXXX            XXXXXXXXX XXX XX XXXXXXXXX XXXX  X XXXXXXXXXXXXXXXXXX XXXXXX  XX   XXXXXXXX
MTU    XX    X    XX XX        XXX  X  XX     X X    XXX     X     X       X      XX                X       X X XXXX X   X XXX         X
MTUM  XXX X  XX XXXX XXXXX X       X X XX XXX    XX      X XXX X    XXXXXX  XX XX X  X    X              X     XX XX  X       X X  XX      X
MTW    XXXX        X  XX X XX XXXX  X  XX XXXX   XX  X X      XXX      XX   X XX XX X    X  X     XX X
MUD                         X   X    X X      XX     X     X XX             X                            X X  X           X              X   X
MUN   XXXX  XX XX  XX  XXXXX X        XXX XXXXXX XXXXX X    X X    XX XX     XXXX               XX   X XX    XXX XX  XX X  X XX    X  XX
MVIP        X   X     X X      XX           XX       XX       XX        X      X           X   X             X X      XXX     X  X   XXX  X X
MVM    XX           XX                X    X        X           X      X X         X    X XXX       XX     X                  X      X     X
MYNC  X X      X X    XXX   X X     X X    XXX   X X       XXXX  XX      X  XX  X    X XX    X    X    X    X X X    X        X     XX   XX      X XX
NAI    XX       X X  X     X X X XX        XX    X         XX  X     X          X     X X    X X                            X    XX    X
------------------------------------------------------------------------------------------------------------------------------------
NAL          X          XX       X X   X XX   XX X  X  X    XX X      X X XX      X X   XX             XX  X XX X  X     X              XXX
NANU  XXXX  XXXXX   X  XXXXXXXXXXXX XX                                X X XXXXX XXXXX  XXX XX  XX  XX XXX  XXX XX XX XX  X XX
NAO       X  X XXXX XXX                X  X X           X                   XX       XXX      XX      X                             X  X
NAV                               X    X     X       X X  X XX            X X            X                  X  X  X                      X
NB2   XXX                   XXXX XXXXX XX XXXXXX X XXXXXXX XXXXXX XXXXXXXXXXX X              XXXX    X   XX XX  XXXXXX XXX XXX
NCG    XX X  X    XXXXXX X X XXX   X  XXX     X X     XXX X  X  X X  X    X X     X X X XX  X XXX XX    XXX X XX X    XX XXX XX  XX   X
NCOR                XXXX   X              X           X            X                     X        X               X         X
NCT    XX X  X    XXXX X   X XXX   X  XX      X X     XXX     X  X X        X       XX X X X      X X   X    XXX X XX X        XXX XX
NDI    XXX XXXXX X XXXX  XXXXX  X X XXXXXX X XXXX X XXX  XXX     XX  XXXXXX   XXXX X  XXXX    X     X X XXXXXX X XX XXXX  X      XXX XX
NEA    XX XX     X XX X X    X                    X X     X  X  X  X X  X    XXX     X X X     X  XX XX  X X  X X       XX  X   X   X   XX
------------------------------------------------------------------------------------------------------------------------------------
NEW   X X     XX     XXXX  X X X         XX    X  X       X XX  X     XX XXX    X XXXXXX X        XXXX XX XX X  X  XXX   X  X X X X XX X
NGZ                X  X X  XX XXX   X  XX X XX       X X      XX       XX          XX  X          X  X
NIIJ     X    X X     X  X  X XX   XXXX  X X      X XXX XX XXX   X         XXX X   XX X X                  X      X     X        X X X X    X X
NIL            X       XX    X    X      X     X     X   X        X     XX           X    X            X X        X        X          X
NJ2   XXXX  X X  X XXXX   XXXXX X XX   XX X XX X  XX XX X X X X   X     XX     XXX X    XX X    XXX   XX X  X XX X    XXXX  X X     X
NKA    XX X  X     XX       X XXX         XX          X     XXX     X     X           X X X XX     X X X     XXX X XX X   XX  XX XX  XX
NKM                                        X X X   X                XXX           X          X    XX    X   XXX  X X                 X
NKY     X X X X   XX XXXXXXXX  XX XXX X     XX  XX       X X      X X XXX          XX       XX   X XX XX X X   XX     XXXX XXX XX      X
NNA   XXXX X  X XX X X   XXX X XX X XXXXX  X    X      XXXXX  X X X XX     XX    XXX X X X XX X   X XXXX  X XXXX  X X     XX X  X X   X
NNT      XXXXXXXX X          XXX XX X X XX X XXXXX X                  X                                    XX                      X  X X   XXX
------------------------------------------------------------------------------------------------------------------------------------
NOZ    XXX  X   X X XXXXX XX X XX XXX XX XXXX     XXX X    X XXXXX X XX  XX  XXXXXX XXX X    XXXXX X
NPS    X      X X  XX X       X        XXXX X X     X  X            XXXX               X XX XXX     XXXX X  X X    X X    X      XX  X XXX
NRA0   X    XXXX X      X    XX  XX   XXXX X  XX  XX  X         X     XX  XXX X  X XXX     X    X    X  XX XXXX X    X XX X X X   X  XX XX X
NRZ       X             X     X    X X        X    X          X         X          X           X
NSD     XX XXX XX                X       X XX  XX       X X      X  XX   XX X XXXX X                    XX XX    XXX    XX XX        X    XX XX
NSS         X   X                                           X            X                 X      X X  X    X     X      X X
NST   X XX  X XX   XX XX XXXXX XX X          XXXXX  X XX X X X  X  XX XXXX X    X X X   X   X X X   XX XXX               XXX   XXX XXXX XXX
NTYM  X        X      X XXX          X  X                   X  XXXX      X                X            X       XX                  X XX   X X X
NUR         X X X  XXXX  XXXXX  XXX X XX XXXXXX X XXXX XX XX X    XXXXXX X     X X    XX     X  X   X X  XXXXXX X X    XX X XXX XXXXX
NVL   X XXX     XX    XX    X       X X X XX   X    X      X   X    X       X    XXX      X X      XX X XX X       X   X  X           X  X X     XXX XX
------------------------------------------------------------------------------------------------------------------------------------
NWAO   XX    XX X    XX   X XXX X          XXX XXXX XXXX XX X    X X    XX XX        X X    X         XXX   XX            X  X XX  X XX   X  XX
OBN   XXXX  X XXX  XXXXX XX XX  XXX XXXXXXXXXXXXX X XX XX XX  XX XX XXX XX     XXX X  X     XXXX    XX X  XXXXX XXXXXX X  X XXX XX X X
OCO   X X    XXX     X XX   XX     X XX X          X        X  XX   X    X       X          X X  X         X  XXX XX                X
ODZ   XXX X  X        X XX XX  X   X X XX X XX     X  X X        XX X X XX   X      XXX  X
OFUJ           X      XX XX XXXXX XXXX   X          XXXX  XX X      XX   X XXXX X      X    X    X   X    X     X  X  X    X      X  X X    XX  X X
OGA      X X      X  X  X X    XX   X        X X XX   X         X     X     XXX         X              X X  X X            X  XXXX   XX X
OGOM                XX XXX             X X                          X                     X                                           X    X
OHR    XX XXXXXXXX XXXXXXXXXXXXXX XX  XX   XXX X XX  XX XXXXXX   XX X X X  XXXXXXXXX X     X X XXXXXXXXXXXXX XXX X  XXXX XXXXXXXXXXX
OJC   X  X  XXX XX XXXX  X   XXXXXXX X XX X XXXX XXX XX XXXXXXXX XXX XXX       X XX  XXXXX    X  XXXX  X XXX     X  X
OLLA  XX          X     X                     XX               X     XX                               X   X        XXX       X     X XX
------------------------------------------------------------------------------------------------------------------------------------
OPA                         X               XX    X                       X                                                  X
OPT    XX X  X    XX  X   X XXX   X    X      X X     XXX     X                X X   X      X X  X    X X X XX X   X  XX  X  XX   X
ORC      X                 X                   X      X      XX        X     X           X                     XX              X      X
ORI                   XX                           XX               X X          X X              X                 X          X
ORV   XXX   X X    X XXXXXXXX   XXX XXXXX XXXXX XXX  XXXX XXXX X XXXXXXX  X XX X  XXX X X   XXX X X XX  XXX  X X  XX X XXX XXX XX X XX
ORX        X  XX    X              XX         XX       X   X      XX       X    X                X           X XX    XXX    X  X   XXX    XX X
OSS        X   X    X  X X  XXX  X              X     X   XX       X       X  XX         X     X            X    X             X           X
OUR   X X XX XX  X X  XXXX   XXX X XXX XXXXXXX X XXX X     XXX X  XX XXXX  X XXXXXXX   XX   X X  X  XXX XXXXXX XX         XXXXX X XXX
OUZ   X X                        X    X X X X         X X  X       X    X  XX          X      X
OXF       X      X X    XXX  X X        X    XX    X         XXXX   XX    X X  XX X     X X X   X    X    X    X X X X           XX X X    XX X
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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
       ----------------------------------------------------------------------------------------------------------------------------
OXX    XXX XXX X                              XX X   X   XXXX XXX X  X XXX    XXX X   X  X X   XXXXXXX     XX  XX   X  XX  XX  X
PAB    X XX XX X X   XX  XX XXXX X X   XX X X  X     XX XX  X   X     XXXX   XXXX  X X X X   XX  XXX  XX X          X X XX    X X X
PAE                         X    X X   XX   X     X  X  X  XX  X      X        X      X  X    X  X  X            X
PAF    X        XX X X      X X   XX   XX   X    X   XX     X         XX       X  X           X     X X   X
PAG               XX    X     X        X   XXX X  XX     X     XX X                            X                         XX     XX
PAHZ     XX  X     X  XXXX X  XXXX XX  XX XXXX       X X  X   XX     XX X     XX     X XX    X  X
PAIG   X X XX XXXXX XX X XX  XXXXX XXX XXXXXX  XXXXX X    XXX X  XX XXXX  X XXXXXXX  X  X  XX  X XXX  XXXXX XX      XXXXXX X XXX  X
PATZ               X    X  X  X        XX   X        X               X        X        X    X    X
PAX     XX X  X   X XX X X X  XX      X X      X    XX  X  X  X X  X  X X     X X X  X  X  XX  XX   XX X X      XX XX   X  X   XX
PCH      X   XXX XXX XXX X XX   XXX X   X     X XXXXX  X  X   XX        X              X        X  XX   XXX  XX XX   X   XX X   XX
       ----------------------------------------------------------------------------------------------------------------------------
PCI                                        X                               XX              X X XX XX   X   XXXXX           X
PCP    XX  XX XXX   X XXXX      XX   X XXXX X X XX XXXXX X XX  X XXXX   XXX XX    X XXX   X      XXXXX  XXX    XX XXXXXXXXXXXXX XX
PDB     XX X  X    XX  X   X XXX   X   X     X X    XXX    X                  X X   X     X X XX   X X X XX X    X  XX XX   X   X
PEC    X XX   XX XX XXXX  X X    XXXXXXXXXXXXX    X XXX XX XX X  XXXXX XXX XX      XXX       X XXX X  XX   X    XX  X   X XX   X XX
PEL    X X   XXX XXXX XXX X XX  XXX X XXX     X XXXXXX X  X X XX       XX              X  X  XX    XX   XXX  XX XX X X   XXXX   XX
PET            X       X  X X    X X   XX   X    X X XX X   X X       X              X     X       X               X  X X   XX
PGB                                 X X   XX   XX       X            X XX               X             X   X                X  X X
PGD                        X X    X                      X      X         XX        X                                 X         XX X
PGF      X     X X  X XX X  X X          XX X  X X          XX     X  X X       X    X           X XX   X X           X XX   XXX
PGP     XXX   XX    X  XXXX   X  XX   XXXX  XX    XXXX XXXXXX      X  XXX    X XX    XXXXXX    X  XX X          XX
       ----------------------------------------------------------------------------------------------------------------------------
PGZ    XXXXX X   X X XXXXX XX XX                              XX X  X   X   X XXXX  XX X    XX X X
PHAM     X X XXX  X X XXX X X       X  XXX XXX   X  XX    X X X X  XXXXX  X     X  X   X                 X      X     X X         X
PIP    XXXX  XX XXX     XXXXXXX  XXXX   X X XX  XX X XX   XXX     XX     XX  XXXXX  XXX             XXX    XXX  X   XXXX X X XX XX
PJG     XXX X  XX   X     X XXX  XXX XXXX   XXX X XX XX           X XXX XXXXX  XX X  X             XXX X X  XXXX XX    XX X    X  X
PKEM     X            X X           X  X X X        XX        X X  X X          X      X                        X                 X
PKI    XXXXXXXXXXXXXXXXXXXXXXXX  XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX XXXXXXX XXXX XXXXXXXXXXXXXXXXXXXXXXXXXX XXX
PLAT        X                          XX X    X      X  X      X     X       X      X   X    X  XXX  X      X    X
PLD                                X   XX   XX       X    X       X  X               X     X     X X  X X            X  X  X
PLE      X X X X   XX XXXXXXX   XX XXX X    XX   X      X X       X X XXX         XX      XX  X XX XX X X   XX     XXXX XXX XX    X
PLM      XX   XX XX X XX  X X    XXXXXXXX XXXX    X   X X  XX X     XXX XXX  XX X  XXXX    X   XX  X XX  X   X   X  X   X  X   X XX
       ----------------------------------------------------------------------------------------------------------------------------
PLP     XX XXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXX X X  XXX  XX  XXXX  XXXXX XX  XX  XX X X   X     XX XXX X       XXXX XXX XXXXXX
PLRM    XX X      X XXXX X X XXX      XXX      X    XXX X  X  X X  X   X X   XX X X  X  X XXX XX   XXX X XX X   XX XXX  X  XX  XX
PMG    XXXXXXXX X XX XX XXXXXXX XXXXXX XXXX XXXXXXXXXXXXX X XXXXX XX XXX XXXXXXXXXX XXXXX  XXX XXXXXXXXX XXXXX XXXXXXXXXXXXXXXXXXX
PMO                         X    X X   XX   X     X     X   X  X      X              X  X          X            X
PMR    XXX X XXX  X XXXX XXXXXXXXXX   XXX   XXXXX  XXXX X  XX  XX X  XXX X   XX X X XX  X  XXXXXX  XXX X XX X   XX XXXX X XX X XX
PMS    XXX X  XX  XXXX X XXX XXX  XX  XXX   XX X  XXXXX X XX  X X  X   X     XX X XXXX  X XXX XX X XXX X XX X   XX XXX XX  XX  XX
PNJ              X    X               XXX                                            X                                       X
POO     XXX XX XX X XXXXX X XXXXXX XXXXXXX XXXXXXXXXXXXXX  XX  XXXXXXXXXXXXXX  XX XXXXX XXXXX XX X XXX XXX XX  XXX XX X X X X XX X
PPCY               X X   X   X         XX   X          X  X      XX             X                  X    X          X         XX
PPD    XXX   X   XXX XXX  X X X XX XXX                                               X             X               X
       ----------------------------------------------------------------------------------------------------------------------------
PPM    X X X X X                              XX X   X   XXXX   X XX X XXX    XXX XX     X X   XXX X X XX XXX  XX   X  XXXXX  XX
PPN                         X      X   XX   X     X  X  X  XX  X      X       X      X  X    X  X  X            X
PPR      XX  X   XX  X    X X    X     XX  X    X  X X                               X
PPT                         X      X   XX   X     X  X  X  XX  X      X       X      X  X    X  X  X            X       X
PRI      X            X  X          X                              X            X                         X             X         X
PRK           X       XX X   X     X   XX  XX     X                               X    X      X       X X         X     X    X
PRM                                X    X   X      X X X X  X   X     X  X           X   X       X X X   X X     X  X X       XX
PRP                                                     X        X X  X   XXX    X X       X  XX X   X  X X
PRU    X XXX XXX XX XXXXXXXXXXXXXXXXXXXXX XXXXXX XXXXXX  XXXXXXXXXXXXXXXXXX X XXX   XXXXX  XXXX XX XX XXX X X  XX XX XXXXX XXXXX X
PSN                                    XX      X                                    XX           X X  X                      X
       ----------------------------------------------------------------------------------------------------------------------------
PSO              X    X                XX    X           X X            X                          X   X   X   XX       X      X
PSZ             X                                                    XXXX   X X X   XXXX
PTI            XXX  X XX  X  XX   X    X    X      X    XX  X   X  X XX      XX     XX       X   X X   X        X   X X X  X   X
PTJ              X    XX    X X      X XX X XX       X   XXX      X X X X    X       X    X   XX X X  X X XX       X XXXXX  XX
PUL          X                X        XX   X        X               XX         X                     X X X        X    X    X
PUZ      XX  X   X X XXXXX XX XXXX XXX XXXXXXX   XXX X XX X  XXXX X XXX XXXXXXXXXX  XXXXX   XXXXX
PV08   XXX     XX  XXXXX  X  XX  XXX   XXX  XXXX X   XX XX XX XX   X XXXXX X XX X  XXX  XX   XX    X XX         X   X X X   XX X
PV09   XXX     XXX XXXX   XX X   XXX   XXX  XX   X X XX XX XX  X   X XXX     XXXX  XXX   X   XX  X X  X    X XX XX  X XXX   XX X
PV10   XXX     XXX XXXXX  X XX   XXXX  XXX  XX X XXX XX XX XX XXX  X XXXXX   XX     XX   X XXXX XX X XXX X X XXXXX X XXX X XX X X
PVC      X    X         X   XXX   X X  XX    X X XX     X X X      X X      X XXX    X  X X X   X XX          X    X    XX   X
       ----------------------------------------------------------------------------------------------------------------------------
PVL                                 X X   XX    X X     X              XX              X               X   X                    X
PVY      X X X X   XX XXXXXXXX  XX XXX X    XX XX       X X      X X XXX          XX      XX  X XX XX X X   XX     XXXX XXX XX
PWA    XXX X   X XX XX X X X XXX X    XX      X X    XXX X  X  X X  X   X X   XX X X XX  X XXX XX X XXXXXXXX X   XX XXXXXX X   XX
PWL      X        XXX XX X X XXXX X XXX      X X    XXX X  X    X  X   X X   XX X X  X  X XXX XX   XXX XXXX X   XX XXX XX  XX  XX
PYA      XX  X X   X X    X   X  X     XX   X X X  X X XX X   X     X XXX       X X X  X           X X  X X XXX X      X    X    X X
PZZ     X XXX XX XXXXXXX        XX       XX    XXX      X  XX      X   XX  XXX XX   XX          X XXX  XXX XXXX  XXXXXXXXXXXX X XX
QASM                  X          X     XX   X  X         X                           X             X                    XX   X
QCP     XX          XX X  X   X  X      X   X X X  X XX XX XX                X       X                  X          X    XX X
QIS    XXXX    XX X X XX XXXXXXXXXXX XXXXXXXXXXXXXX XX XX    XX  XX   X  X   XXXX  X X     XXX  XX X X XXX X       X    XX   X XX
QIZ      X     X            X X  X     XX   X   X  X XX     X     X   X         X    X  X    X           X       XX     X  XX
       ----------------------------------------------------------------------------------------------------------------------------
QRZ    XXX X XX  X   XXX XXXX XX X X X XX X XX X XXX X XXX XXXXXXXXXXXXX X   XXX   XX  X  XX XXX
QUE    XXXX X X XX XXXX  X XXXX XXX    XXXX XXXXXXXX XXX X  X   XXXXXXXXXX  XXXXXX  XX  X  XX   X X XXXXXX XX XX XX  X X X XX XXX
QVP      X                X          X XXX  X     XXXXXX  XX   X  X                  X    X       X             X  X  X  X  X
QZH            X              X        XX   X        XX X   X     X             X  X X X     X     X               X    X
RAB      X         X    XXXXX XXX  X   XX   X X X XXXXXXX X   XX  X  X  XX X      X XX       X  XX X X XXXX      X X X  X  XX  XXX
RAGM     X    X    X X     X XXXX      X     X X    X           X            X              X                    X XX
RAO          X             X        XX    X X        X   X  X     X           X         X          X         X
RCWM       X                        X            X  XX      X X                 X  X                     X
RDO           X       X X    X     X   XX   X     X  X              X             X  X X      X  X X  X X         X          X
RDW     XX X  X   XX   X   X XXX   X XXX     X X   XXX     X  X X      X X    X X   XX    XXX  X   XXX X XX X   XX XXX XX       X
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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

RED   XX X  X    X   X   X X   X   X    X X   XXX   X   X          X X  XX   X X   XXX X XX X  X XX XX  XX  X
REF   XX X  X   XX  X X X XXX  X  XX    X X   XXX X X  X X    X     X X X XX X X X XX  X X X XX X XX XXX XX  X  X
RES  X XXXXXXXXXX XXXXXXXXXXX  XXXX                     XXX X XXXXXX X X   XXX      X   X X
REVF          X             X          X      X         X                            X  XXX     X  X
RFA   X   XXXX XXX XXX XXXX  X XXXXXX   XXXXXXXX  X  X     XXXXXX X XX XXX XXX X X  XXXX  X XXXXXXX XXX XXX X  X XXXX
RIV   X              X X   X X  XX  X         X   X        XX     X     X         XXXX        X   X
RIY     X   X X XXXX X  X X  X  X XXXX XX   X  XX         X XXX  X X      X    XXX  XX X  X    X XX XX  XX X
RJF   X   X X X  X  X XX XXX   XX   X XX XX  X X XX   XXX      XXXX X  X  X X  X                    XX  XXXX
RKG          X   XX  X X X X  X X  XXX  XX   X   XX     X X   X        XX     XX  XX X  X    X X    X   X
RMW  XX            X     XXX   XX        X    X  XX X  XX  X  XX XXX   X X         XXX  XX X  X  X XXXX XX  X   X   X X

RND   XX X  X   X XX   X X XXX     X X    X    XX  X  X  X X  X   X X   X X X  X  X XXX XX  X XX X X   XX XXX  X  X   XX
RNO  X              XXX  X X             X X                    X                       X     X            X      X
ROB   X XXX XXX  XX XXX      X        XX     XXX  X    XX     X    XXX  X    XX  XX      X XXX  XXX   XX  X XXXXXXXXX X XX
ROCH   X   XXX XXX  XXX X XX  XXX  X   X    X XXXXX  X  X   XX      X                X      X     XX   XXX  XX XX  X   XX X   XX
RRL   X XXX  X  XXX  X       X        XX      X        XX         X    XX   XX          X XXX  XXX X  X  XXX XXXX XXX X
RS2   X  X  X    X   X   X XXX   X  XX     X X   XXX   X    X          X X   XX    X X XX   X X X XX    X  XXX XX
RSL           X    X        X                  X          X                               X X  X X      X              X  X
RSM                 XX X               X         X              XX      X X          X               X          XX
RSNY   X     X     XX   X       X  XXXX                                X        X      X X X X X            X X    XXX
RSO     X                          X     X X   XXX    X                                 X X     X             X  XX  X

RSP   X XXX XX   XX  X        XX        XX       X   X      XX       X   XX    X     XX  X           X XXX  XXX X  X  XXX XXXX XXX X
RSSD X X      X X   XXX   XXX X  XXXX   XXX   XXXX XXX XX XX XX X X  X XXXX    XX X  XXX    X XXX  XX X XXX X X XXXXX XX X X   XX X
RSTA  XXX X    X   X                                             X  X X    X XX    X X  X X   X X XX        XX                X        XX
RTCB   XXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXX  XX  X XX        XXXXXXXXXXXX   XX
RTCV XXXX  XX X  X  XXXXXXXXX XXXXXXXXXXXX XX  XXXXXXXXXX XXXXX XXX  XX XXXXXXXXXX  XX XXXXXXXXX  XX      XXXXXXXXX  XXX X
RTLL  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXXX  XX  X XX     XXXXXXXXXXXXXXXXXX
RTPR XXXX   XX X XXXXXXXX X XX  X X XXXXXX  XX XXXXX XXX XXXXXX XXXXX XX XXXXX XXXXX  XX X  XXXX    X  X    XX XXXXXXXXXXXXX     XX
RTRS XX     XX X  XX XXXXXXXXXXXXXXXXXXX      XXXXX   XXXXXXXXXXXXXXX XX XXXXXXXXXXXX XXXXXXXXXXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXX
RUP     X  X        X                                 X X X  XX      X              X    X X X              X X            X
RUV                      X    X X   XX   X     X     X  X  X       X              X  X            X            X

RYD           X     X          X     XX   X  X  X      X               X         XX   X            X  X             XX X X    X
RZN                          XX X   XX   XX X     X    X       X XX             XX      X     X X   XX                X  XX X XX
SAN   X     XX X    XXX   X   X                XX       X  X                                    X    X    X X  XX            X X
SAO  X X     X X    X XXX X     X  XX  XX        XX X  X  X  X XXXXX  X  X XX   X X    X     X     XX     X     X XX  X  X X
SAOF     XX  X      X     X  X       XX     XX        XX     X    X          X           X XX  XXX     X  X  XXXX X X X
SAW  X X    X   X XX  X XX   X          X          X        X   XX          X       X     X  X  X                X    X
SBA  X X      XX          X    XXX X XX X XX      X   X   X           X      X                XX     X                X
SBCZ X   X  X         XX X   X    X  X XX     X          X X       X
SBF     XX   X X  XXXX X  XXX X XX  X XX X  XXX       X XX     X  X X X    X X  X  X        X X                 X XX  XXXX
SCE   X  X               X       X XX            X             XX                                    X X

SCM   XX X     X XX X X X  XX      XXX     X X   XXX X  X  X X     X X   XX X X  X  X  XX XX   XXXXX XX     XX XXX  X  XX  XX
SCX  XXX X X X                                XX   X        X  XX   XXX      X XX     X X   X X XX  XXX X  X     XX  X
SDA          X       XX     X      X  XX                         X    X X              X XX  X X     XXX            XX   XX
SDCA     X     X X                                             X                               X                  XX    X
SDF  X     X     X XX     XX        XX X X  X    X XX             XX      XXX    X          X X  X X             XX   X X  X X
SDG   XX X  X   X XXXX X X  XX      XXX      X    XX  X  X
SDI                 XX                           XX         X X X        X            X                X             XX X
SDN  X       X     X X  X X    XX     XXX  XXXXXXXX XX XXX X  X  X  XX      XX X  XXX        X     X             X  X X X X  X X
SDV  XXXX X XXXXXX  XX XX X XXXXXX   XXX XXXXXXXXXXXXXXXXXX   XXXXXX  XXX X  X X XX X XX  XXXXXXXXXXXXXX XXX  XX XXXX  X XX XXXXXX
SEW   XX X  X    XX XX   X XXXX  X   XXX      X X   XXX X  X      X      X      XX X    X     XXX X   XXX XXXX X  XX XX   X  XX   X

SFG             X     X              X     XX     X X X  X                                  X
SFI                 XX X    X        X          XX              XX     X X              X                    X             XX X
SGKT        X        XX     X X   X XX  XX X  X  X   XX X       XX     X X   XX      XXX X XX X  X     X                XXX
SGO                 X      X                    XX     X     X          X X  X                          X              X X
SHI  XX X XX X   XX XX XX  XXX XXX X XX X X   XXX XXXX X  XX     X   XX  X      XXX  X    X XXX  X   XXXXX  X   XX X    XX  XX XXX
SHK             X        X    X    XX           XX            X                 X                           XX   X
SHL            XXXXX                   X X   X XXXXXXXX  X  X   XXXX        XX XX XX X  XXX   XX  XXXX XXXXXX X XXXX XXX
SHNJ        X  X X  X     XXX  XXX  X        X XX X          X       X            X X                    X    X  XX X
SHW    X     X   X XX  X XX      X    X          X     X      XXX   X X     XX          X X  X  X    X    X   X   X   X    X
SIM                        X         XX   X          XX    X  X                                     X             X   X

SIT          X X           X         XX   X  X      X  X    X  XX     X X    X     XX                        X  X   X    X X
SIV  XXX  XX XXXX XXX XXXXXXX XXXX XXXXXXXXXXXX XXXXX  XXXX XXXXXX XXX X XXX XX XX XXX  X                        X  X
SIZ    X             X   X       X    XX        X X X  X X       X
SJG         X                      X    X    X    X     X  X       X        X        X     X    X     X   X     X
SJI                    XX XX                                    XX         XX
SKO    XXX  XXXXXXXXXXXXXXXXXXXXX XX XX X XX  X  XX XXX XXX  XX XXXX   XX XXXXXX   X X XX X XX XXXXX XX    XXXXXXXXXXXXX  XX
SKR          X    X     X  X       XX     X X   X  X     X   X   XX              X              X X   X
SKT   XX X  X  XXXXXX X X XXX    XXX      X   XXX X  X  X X X  X   X X   X X X XX  X XXX XX  XXX X XX X  XX XXX XX  X   XX
SLA    XX XXXXXXX XXX  XXXXX  XX X XXXXX  X X X  XXXX   XXXX X X XX      XXXX  XX XXX  XXXX X X X X   XXXXX X XXX XXX X XXX XX
SLB  X X          X        X      X X                   X      X     X         X                   X                  X

SLE     X  XX   X          X X              X         X       X       X             X   X         X          X
SLKI    X                   X      XXXXX    X X                    XX  X       X                  XX            X XX
SLKM XXX X  XXX XXXXXX XXXXXXXXXXX  XXXX   XXXXXX XXXX X XXXXXXX  X XXX XX  XX X XXXX  X XXX XXXX XXX XXXX X  XX XXXXXX XXXX XX
SLM                                XX   X          X  X       X        X      X    X                                  X
SLR  X  X     XX  X XXX   XXX  X    XXX XX XX   XXX  X X   X    XX      X     XX  X  XX  X X X   X       XX  X X  X  X
SMF  X X X XXX X  X XX XX XXX  X X   X XX XXXX XXXXXX XXXXX  X  X X XXXX   XX X     X                        XX XXXXX
SML   XX X  X   XXXXXX X X XXXX      XXX     X X    XXX X  X  X X X  X    X X   XX X X  X  X XXX XX   XXXXXXXX X  XX XXX  X  XX  XX
SMY  X        XX     X X X          XX   X    X X   X  XX    X  XX      X     XX    X  X    X           X X X  X
SNF     X  XX    X X  X   X     X       XX XX    XXX  XX XX  X    XXXX       X     XX       X XX XXX    X    X XX X X XX
SNG    X          XXXX  X X X  X        XX    XX  X XX XXXXX  XX X                 X   XX      X                X   XX X X
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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
SNH                           XX X     X     X X                                                    X           X        X
SNY     XX    X    XXXXX XXXXX XXXX  XXXXXXXXXXX X XX XX  XXX   X    XX  X   X X    X     XX     X X  XX       X  X X   X XX
SNZO    X                 X          XX X X           X    X                X      X  X        X           X   X    X
SOB1  X X    XXX XXXXX XX XX    XX XXXX XX     XXXXX  XX         XXX              X  X XX X   X                X   XXX   X X
SOC                         X  X     XX   X        XX  X · X     X   X      X X            X    X X          X    X    X
SOH     X  XX  XX  XX XXXX  XXXXXXXX  XXXXXXX XXXXXXX   XXXX X XXX XXXX  X XXXXXXX XXX  X XX X  XXX XXXXXX XXX    XXXXX X XXX  X
SOI                    X                         XX          X X        X   X            X                   X
SPA     XX X    XX X XXX   XXX     XXX XXXXXX XXX   XX XX X X X     XX XX       XX X  X X
SPC   X XX  XXX XX X XX   XXXXXXXXX X XX    XXXX XXX  X  XXXXX X  X XXXXX       X      XX X   X  X XX X        X     X  X    XXX    X X
SPU     XX X  X    XXX  X X X XXX   X  XX      X X    XXX X  X  X X  X    X X     X X X XX  X XXX XX   XXX X XX X   XX XXX XX      X

SQTA       X        X    X   XXXX X  X  XX XXXXXX        X   XXX    X  XXXXXXX      X  X    XX       X X  X X  X X      XXXXXX X XXX XXXX
SRFA    XX        XX    XX XX        X  XX     X X   X     XX    XX     XX          X XXX   XX                              X
SRN                X            X X                          X  X    X   X   X    X     X              X     X  XXX X  X        XX  XX    XX
SRO     XX     X  X X X XX XXXXXX XXXX    XX     XX X X X XX  X XX  X   XXXXXX       X X  XXX X       X XX X  X X X X       X XXXXX   X X X
SRS     XX X XXXXXX X  XXX    XXXXXXXX   XXXX XX XXXXX X    XXXX X   XX XXXX   XXXXXXXXX XXX   X X   X  XXX XXXXXX XX      XXXXXXX X XXX  X
SRU   XX         XXX XXXXX  XXXX    XXXXX XXX XXX X XXX XX XX XXXXXX  X XXXXX X XX    X XX    X XXX  XX X XX  X X XXXXX  X X X    XX XX
SSB            X     X         X       X     X      X          X                                           X                      X X
SSE   XXXX  X X    XXXXX XXXXXXXXXX   XXX X XXXXXXX XX X X X XX  XX XXX  X XXXXX XXXXXXXX XXX XX XX     XXXX      X X   XXX X  XXXXX
SSF   XXXXX XXX X   XXXX XX XXX   XXXX   XXXX XXXX XXXXX XX XX XX     XXXXXX    XX X    XX                                  XXX XXXXX
SSK   X  X   XX XX X X   X X    XXXXXXX XXXX   XX XXX XX  X X X    X   XX   XX X  X XX        X    X   X   X          X        X   X   X  X

SSOR    X       X     X XX X X                   X             X          XXX    X        XX       X        X      X        X        X    X  X  X
STAN  X                XXX                XXX                           XX    X                           X       X                X          X
STK   XXXX XXXXXX XXX XXXXXXXXXXXXX XXXXXXXXXXXXX XXXXXXXXXXX  XXXXXX XXXXXXXXXXXXX          XXX XXX XXXXXX    X XX X  XXXXXXXXXX
STS                                    X   X           X   X                             X X              X X                               X   X
STV     X XXX XX   XXXXXXX          X        XX      XXX  X  X  XX      X   XXX  X X  XX  XX          X XXX  XXX XXXX  XX XXXXXXXXX X XX
STW     X                                                       X          XX                              X                       X  XX X
SUA     XX X  X    XXXXXX X X XXX   X  XXX     X X    XXX X  X  X X X  X   X X    X X X XX  X XXX XX   XXX XXXX X   XX XXX XX  XX   X
SUR                               XX   X                                   XX                      XX      X X     X                X        XX
SVA       X  X     X   X X     X    XXX   XX    X     XX X  X  XXX   XXX XXX X    X     XXX  XX  XX  X  X XX          X X     X
SVB   X X         X          XX       X  X                       X     X        X       X             X                    X                 X

SVE   X XX  X X X  XXXX   X  XX   X     XX X X XXX  X XX XX XX      XXXXXX        X X  X                XX XX  X      X      X     XX X X
SVV                X          XX                                 X     X        X       X             X                 X                    X
SVW   XXX X XXX XXXXXXX XXXXXX   XXX  XXX    XXXXXXXXXX XX XX X X X   XXX XX   XX X XXXX  X  XXXXXXX XXXXXXX  X   X XX XXX XXXX XX
SWI         XXX                        XXXXX    XXXX  XX          X                XXXXXX      XXX           X          X              X
SYI     XX X  X      X  X    X                                                    X X                    X X  X         XX       XX
SYO   XXXX       XX     XX    X X    XXX XXXXXX XXX   XX  XX XXX X      X XXXX  X XX X  X X       X    X   X      X      X    XXX         X
SZP                      XX   XXX  X XXX  X   X   X  XXXX   XX     XXXXXXX   X  XX XX   XX              X X      XX     XXX X   XX X  X
TAB   X  X  X XXX    XXX  XX  X  X      XX X X    X  X XX  X  X  X  X  X    XX  XX  X XX   X      X     X XXXX X       X      X      X
TACH    X    XXX XXX  XXX X XX   XXX  X   X    X XXXXX  X   X   XX          X                X      X     XX    XXX   XX XX   X    XX X    XX
TAF     X          X      X X XX  X    XX    X                X           X       XX      X   X     X   XXX  X X              X    XX XX

TAIF                 X                 XX   X  X     XX  X                         X X     X                X
TATO                                   X    X        X      X       X                      X                X                      X
TAZ                     X  X  X        X  X XX       X                   X          XX       X       X
TBH   XX     X               X                X            XX    X     XXX X                                         X                        X X
TCA     XX XXXXXXXXXXXXXXXXXX XXXXXXX X XXXXXXXXXXXXXXXXXXXX XXX XXXXXXXXX XX    XXXXX X XX          XX X XX  XXX XXXXXX XXXXXXX
TCE   XX     X          X   XX         X   X               XX      X       XXX X                                     X                       X X
TCF   X XXX XXX X  XXXX XX XXX    XX   XXXX XXXX X X XX    XXX XX    XXXX X   XX X    XX                                  XX XXXXX
TCO                 XX    X X                                             X                                     X                  X             X
TCW     XXXX        X  XX X XX XXXX   X  XX XXXX        X X     XXXX    XX   XX XX XXXX   X XX    X X
TEHZ                X  X X   X  X        X    X        X X  X  XXX     X    X       X    X  XX      X

TGL                  X X    X  XX X    XXX    X X    XX              X       X      XX X           X X                      XX XX    X  X    XX
TGY     X            X  XX X       X     XXX  X   X  XXXXX    XX  X         X        X     X    X                         X  X  X XX XX    X
THE     X XX X XXX X  XXX    XXXXX XX  XX X X   XXXX X          X  XX XXXX  X XXXXXXX       X X  X  X     XXX X XX         X  XX    XX
THY     X           X          X         X     X                  X       X        X X          X X     X                  XX   X    X        X
THZ   XXX X XX X    XXX XXXX XX X X X X XX X XX    XX X XX   XXXXXXXXXXXXX   X  XXXX XXX   X  XX X X X
TIA   XXXX  X X    XXXXX XXXXX XX X   XXX X XXXX   XX XX X X X X   XX  XX X  XXX X     X       XX  X  X XX XX   XX       X   X X  XXX
TIC   XXXX  X XXX  X X    X X X XXXX X XXX   XX X   X XXX XXXX        XXXXXXXXXXXXXX  XXX X X X X  XXX XXXXXXXXX XXXXXX XXXXXX XX XX
TIK   X XX  X X X  XXXX   X XXX  X X    XX    X XXXX X XX XX XX     X XXX       X X X  X       X       X X  X XXX X        X X X
TIO   X X  X        XXX  XXX    X       XX X X  X      X  XX      XXX     X XX    X      X XX   XX    X X XX XX XX        X   X    X     XXXXXXX
TIR             X   X  XX      XX X   XX  XX   X   X              X   X   X   X X  XX               X XX XX XXX    XXX      X    X      XX

TIY   XXXX  X XXXX XXXXXXXXXXX XXXX  XXXXXXXXXX XXXXXX XXXXXXXX  XX XXX  X XXX X X XXX  X XXXX XX X XX XX  XXX XXXX  X X XXXXX XX
TKSJ  X X X X XXXX XXXX  X  XX  XXXX XX      XX XX XX XX    X   X  XXX    XXX X X X             X   X  X          XX  X X X XX XX X
TLC   X X                    X       X    X X XX          X     X X    X    X    X
TLE          X    X                 X       X XX    X  XXXX    X   X                   X                            X                X                  X
TMA          X   X    X  X X     XX                X     X   XX           X  XX          X     X            X    X             X              X
TMW       X    X      X X      X                  X                              X      X X         X X                         XX   X    X       X
TNE          X              XX               XXXX                              X  X         XX         XX        XX     XX  XX X   X
TNP     XX X XXX XX X XXXXX X     XXXXXXXX XXXXX XX XX   XXXXX X X  XXXX X    XXXX  XX        XX  XX X   X XXXXX   XX       X X XXX  X XX
TNS          X  X                        X  X XX X X                                           X                  X           XX
TOA   XXX X XXXXXX XXXX XXXX XX   X  XXX   XXXXX XXXXX X XXX X X  X  XX X    X X XXXX  X  XX XX   XXX X X  X     XX XX X X  XXX XX

TOO                                               XXX   XX  X XX XX  XX XX XX  XXX XXXX XXXX  XX  XXX X  X X   X    X   X   X      XX    XX XX
TOU                 XX          X          X          X       X    X       X                   X        XX                                X
TOUF        XX  X    X X        X       X XX     XX           XX      X    X            X               X XX    XXX    X   X   XXXX X X X
TOV   XXXXX     XXXXX XX  XX XXX XXXX   XX X XX XXXXXXXXXXXXX XXXXXX   XX  X  X X  X X X        XXX XXXXXXXXX  XX XXX XX X  X X X XXXXX
TPE               X X X       X    X   X    X    XX          X    X   X    X    X               X  X X  XXX X XX       XX   X     XX
TPI     X           X XX X XX    X     XX    XX  X  XX X                                  X     X X            X                 X
TPNV  XXXXX  XX XX XXXXXXX XX     XXXXXXXX XXX   X XXXX XXXXX X X  XXXXX X   XX X  XXX   X   X X    X     X  XX   X    X X X XXX XX XX
TPP     X    X                XX          X                        X                                        X                            X
TPT                          X     X X  XX   X     X  X  X  XX  X       X       X      X  X      X  X        X
TPX   XXX   X X                                         X            XX   XXX     X XX     X     X   X   XX                   XX  X    X
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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
      -------------------------------------------------------------------------------------------------------------------------------
TRF     XX X  X   X XX X X X XXX      XXX     X X    XXX X  X  X X  X    X X    X X X  X  X  X                X        XX   X
TRI   XXX X X  XX  X XXXX XXXX  X XXX XXXX XX    X    XX XXX  X    XXXXXXX  X XXXX X XXXXX  XXXXXXX X  X X X  X   XXX XX XX   XX  X
TRN   XX     X           X  XX         XX  XX           XX     X      XXX X                                X                  X X
TRO          X  X                      X X  XX      X      X     X     XX                X       X     X  X   X              X    X
TRT                     X  X XX                                         XX X           XXX  XX
TSM   X XX            X     X X X XX X X XXX XXXX XX X XX XX XX XX  XX XX  XX            X     X       X  X         XXX    X   XX
TSRJ             X    X  X  X  XX  XXXX XX      X     XX XX   X   X  X X    XX X                     X                X  X X   XX  X
TSY                          X          XX X    X        X      X                        X         X  XX   X
TTA   XXX X XXXXX  XXXXXXXXXXXX XXX  XXXX  XXXXXXXX XX XX XX XXX X  XXX XX  XX X X XX  X  XXXXX X XXXXX X  X   XX XX X X XXXX XX
TTG     X X X X   XX XXXXXXXX  XX XXX X   XX  XX       X X     X X XXX           XX      XX  X XX XX X X   XX     XXXX XXX XX    X
      -------------------------------------------------------------------------------------------------------------------------------
TTH     XX  X     X  XXXX    X XX  X  XX           X X      XX    X    X      XXX       XX      X
TUC   XXX      X     XXX  X  XX  XXXX  XXX  XX    XX XX XX  X   X XX XXXXX X XX XXX XX   X   X  XX X      X     XX  X   X     X XX
TUL   XXXX  XXXX X XXXX  X X X  XXX XXXXXX X      XX XXXXX  X X XXXXXXXXXX    XX X X  X   X  XXX  XXX XXX X X  XXX       XXX      X X
TUZ   XXX X  X        XX XX  X X X   XX X XX        X         XX X X XXXX X       X   X        X
TVO                          X    X X   XX   X     X  X  X   X  X           X       X  X        X  X              X
TZL     X X       XXXX   X  XX      XXX     X     XX         X  X   X X   XX X    X  X  XX X    XX XXX      XX XX   X  X    X
UCC                XX X                 XX           X  X      X                                 X X                   X   X X
UER     X   X          X X  X           X      X XX X         XX          X    X                    X                  X   X
ULC     X X X X   X  XXXXXXXX  XX XXX X   XX  XX     X X     X X XXX       XX      XX  X XX XX X X   XX     XXXX XXX XX
ULM   XXX   XXXXXX XXXX  X XXX  X X                          X X  X XXXXX    XX X X  X         XXX X X
      -------------------------------------------------------------------------------------------------------------------------------
UNM   X X X                                 X      X     X    X        X     XXX X         X    X              X X          X
UPA   X X       XX          X   X          XX  X  XXX XX XX  X    X  X              X  X      X  XXX X  XX              XX    X XX XXX
UPP   X X       X   X X   X XXX      XX X X    X X X     X X   X X XX  X   X X    X       X         X  X                X     X
UQSK            X     X          X      XX   X  X XX  XX  X              X     X XX  X                X    X            XX    XX     X
URZ   XXXXX X   X X XXXXX XX XXXX XXX XXXXXXX X XXX X XX XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXX   XXXX
UYO   XXXX  XXXX X XXXX  X      XXX XXXXXX XXX   X   XXXXX X   X     X XXX   X X XX X   X  XXX   XXX XXX X X  XX XXX XX XXXXXXXX  X
UZD                          X        X    X       XX         X X X       X      X           X XX X   X         X X  X  X X X
UZH     XX  X X     XX  X  XX  X X   XX   XXXX X X XX  X XX     XX   XX       X X    XX        X  XX X XX XXX         X    X    XX
VAH                         X    X X   XX   X       X  X     X      X                 X  X          X
VAI                    X X    X         X          X      X          X X              X        X                             XX X
      -------------------------------------------------------------------------------------------------------------------------------
VAM   XX     X    XX X  X        X XX X X X    XX         X    XXXX           XX XX XXX      XXXX X  X X   X X   X XX XX  X XXX
VAO                XX XXX  XXX    XXX  XX    XX     X  X  X         XX          X      XXX  X  X
VAY    XXXXXXX XXX XXXXXXX XXXXXXXXXX XXXX XX X XXXXXX XXX XXX XXX XXXXXX  XXXXXXXXXX  XXXXXXX XX XXXXXXXX XXX     XXXX XX XXXXX XX
VBEM             X    X XX                  X                     XX     X      XX                   X  X  X                X   XX
VBY    XX X  X X  X XX X  XXXXXX X X  XXX XX   X  X X   X  X  XX  X XXXX  XXXX   XXX XX XX   XXX XX X  XXX     XXX X       XX   X
VDL         X    X    X  X X    X           X    X  XX        X   X  XX         X    X          X    X         X            X
VGB   XX       XX     X XXXXXX X    X     X  X X  X     X       X   XXX    XXX X  X        X    X XXXX  X    X  X  X X X X  X X  X
VIPM  X         X     X XX   XXX    X       X          X        X XXX                             X      X              X     X X  X
VITF        X  X    X       XX         X          XX       X  X    X  X                         X X               XXX    X XX
VKA   X   X            X      XXX      XX X X                   X X X  XX   X                   X  X          X    XX     XX
      -------------------------------------------------------------------------------------------------------------------------------
VLA                 X    X XXX  X X   XX   X       XX X   X    X   X             X                                 X    X
VLI   XX       XXXX XXXXX XX  XX   X XX X XXX    XX  X    X  X  XXXX     XX   XX X  XXX   XXXXX X  X XXX XXX  X XX XX  X XX    X
VLO                 X X X   X X   X                        X  X  X   X   X             X       X  X XX       X  X      XX
VLS     X  X   X X  XXX XX  XX          X    X    X     X     X  X      XX   XX     X     XXX    X  XXXXX XX   X XX XX  X XX    X
VLZ     XX X  X     XXXXX   X XXXXX    XXX     X X    XX  X  X    X      X X   XX X X  X  X   X X     XXXXX X      XX XX   X  X   XX
VOY     X  X X   X    XXX X XXXX XXX X XXXX XX       XX      X    X      XX    XXX    XXX     X  XXXX XX X X X    XXX XX XX  XXX
VRC                    XXXXXX X               X        X              X          X         X        X             X           X
VRI       X  X X X XXXXXX      XX  XX    XX  XXX X  X XXX  XXXXX X  XXX XX  X   XXXX                           X  X XX X   XXXX X
VTS                              X X   XX   XX X     X      X       X XX                           X X  XXX              XX X X
VUN     XXX                   X     X       XXXX X         X             X    X X X  X  XX  X   X  X XX       XXXX
      -------------------------------------------------------------------------------------------------------------------------------
VZW         X  X     X     X  XX      X    X      X          X      X     XX X          X         XXX       X XXX  X  XX  X
WAH2  X       X     X XX  X X         X        X    X XXX  X              X    X X                      X  X  X
WAHZ     XXX X    X  XXXX X  XXXX XX  XX XXXX  XX  X X  X  XXX   X  XX     XXXX XX  XX    X  X
WARB       X XXXX  XX XXXXXXXXXXXXXXXXXXXXXXX X XXXXXXX XX XXXXX XXX XXXXXXX XX XXXXXXX XX XXXXXXX X XX XXX XX XXXXXXXX XX XX X XX
WATA    X  X          XX  XX XX    XX XXXX X X X  X  X XX  X  XXXXXXX    X  X   XX     X X XX X  X       XXXXXX X X   XXXX
WAX     X  X  X     XX     X  XX X            XX         X      X      XX X                X              X XX   X  X
WB2   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX        XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
WB5              X     XX    X  X                                 X     XX X   X      X      X                X  X    X
WBSM     X X   X                X             XX    XX X     X          X  X                      X
WCZ   X                       X  X X X  XXX         X  X   XXX X X  XX    X X X  XX        X
      -------------------------------------------------------------------------------------------------------------------------------
WDC   X       X     X XXXXXXX         XX   X       XXX   X     X XXX      X    XXX   X   X  X  X      XX       XX X    X    X  X X
WEL     X  X         X        X    X   X   X      X X    XX     X         XX
WET         X        X        XXXXX        X    X   X    XX    X   XX XX                      X X  X X           X  X  XX X
WHN      XX  X X    XX XX X XXX  X X   XX X XXXXX  X XX X   X     X  XXX     XX X   X  X  XXXX    X    X       X X     X X  X
WIT                          X               X     X     XX                  X    X           X  X X     X        X     XX X
WJPM    X    X                    X      X     X  XX     XX      XX        X X                           X
WKYJ  X X   X XXXX XXXX  X  XX  XXXX XX     XX    XX XX    X  X XXX    XXX X X X          X  X  X      XX  X X X X XX XX X
WLF   X X X  X      X X  XX  XXX  XX    XXXX XX    XX   XX    XX XX XXXX    X X   XX       XX  X XX XXX X   XX  X   XX     XXXXX
WLHM    X    X                    X            X   X    XXX X X  XX            X                                        X     X
WLS        X  XX     X        XX         X         XX  X    X   X  X              X      X                        X XX  X XX
      -------------------------------------------------------------------------------------------------------------------------------
WLZ                     X  X  XX       XX X XX X  XX X  X    XX  X  XXXXX     XXXX XXX XX   X XX  X
WMOK  XXX     XXXXXXXXX  X X      X    XX   X     XX  XXXXX  X   X X  XX XX    X XXX  X   X X XX  X X XX  X    X         X X   X XX
WMQ   XXXX  XXXXXX XXXXX XXXXX  XXX  XXXXXXXXXXXXXX XX  X XX XX  XX XXX  X  XX X X  X  X  XX    X X XX XXX X    XXX  X X XXXXX XX
WOFM        X  X                              XX      X X X   X    X    X     X                      X   X          X
WPW     X               X   X                        X    X     X     X                              X                  X  X  X
WRA   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
WRH     XX XX X  X XX X X X  XX       X       X X    XX  X  X  X X X  X   XXX     X X X  X  X  XX XX  X XX X X    XX XX   X X   XX
WTS     X                X       X        X         X      X XX       X        X   X     X             X XX X X X     XX X   XXX    X
WTTA    XX X      X   X  X XX XXX XX  XX XX XXXXXX X X  X  X   X X  XXXXXXX    XX X   XX X X   X X XX X  X X X     XXXXXXXX XXX XXX
WTV   X X     XX   X XX  X X     X         X           X        X XXX         X        X     X  X             X     X     X
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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
      ----------------------------------------------------------------------------------------------------------------------------
WVZ                                               X X          X  XXX        X     X   X       X
WWKK  XXXXX XXX   XXXX X XXX XXXXXXXXXXXXXXXXXX XX XXXX XXXXXXXXXXX X XX XXXX  X XXXXXXXX XXXXXXXXXX XX XXXXX XX XXXXXXX XXX XXXX
XAN   XXXX  X XX X XXXXX XXXXX XXXX  XXXXXXXXXXXXXXXXX X  XXXXX  XX XXXXXX  XX X X XXX XX XXXX XX X XX XXXXXXX XXXXX X X XXXXX XX
XLV    X  X               X       X   X       X     X                        X                    X X X    X    X  X
YAH    XX    X               XX X     XX    X X    X           X      X      X X           X          XX        X XX   X      X
YAK   XXXX  X XXX  XXXXX X XXXX XXXX XXXXXXXXXXXX X XX XX XXXXX  XX XXX XXX XXXX X XXXX X XX  X X X XXXXX XXX X X X  X X  XXXXXXX
YAMJ          X    XX XX X XXX XXX            XXXX  XX X     X   X  XXX X      X X                X  X  X   X        X X   XX  X X
YBH   X       X      XX X  X           X   X           X   X      X XXX             X   X   X     X     X      X  X    X    X    X
YEG                                  X      X        XX    X X X X               X                                                 X
YJA     XX XX X XXXXXX X    X  XX X X X XXXX X           XXX  X  XXX    X XXX  XX  XX X XX   X  XXX XXX   X XXXXX X XX  X X  XX X
      ----------------------------------------------------------------------------------------------------------------------------
YKA   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX X    XXXXXXXXXXXX
YLV         XX      X  XX  XX  XXX                  X
YONJ  X X X   XXXX XX X  X  X   XXXX          XX XX XX XX    X   X  XXX    XXX X X X              X  X  X        XX  X X X XX XX X
YRC                                                    X  X                                     X X           X        X      X
YSNY  X X     X X  XXXX  X X      X  XXX   X        XX  X  X     X  XX       X X X  X       X     X                  XX     XXXX
YSS   X     X X    X X   X X XXX XXXX   XX   XX XXX X XX X   X     X   XX      X X    X     X       X XX  X  X      X  X X   XX
YYYY  XXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX X XX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXX
ZAG                   X      X        XX X X           XX  X                 X      X        X  X X  X   X        X X  X    X
ZAI            XX                        X                 X                            X    X XXXX                        X
ZAK   X XX  X X X  XXXX  X XXX  XXX   XX X X XXXX X XX XX XX X   XXXXXX        X X  X     X     X X XX XX  X      X  X X   XX   X
      ----------------------------------------------------------------------------------------------------------------------------
ZLA       X   X    X        X   X          X       X                  X             X           X    X           X
ZON     XX   X              X   X   XXXXX       XXXXX    X   XX  X    XX X XX         X X   XX      X    X      XX  X X XXX    X
ZST   XXXXXXXXXXXXXXXXX XXXXXXXXXXX X XXXX XXXX XXX XXXXXXXX XX XXXXXXXXXX   XX    XX X XXX    XX X                         XXX
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The following stations each reported less than 10 readings:

AAA	AAE	AAI	AAK	AARM	AASM	ABJM	ABRM	ACTO	ADAT	ADH	ADR	ADWM	AEKI	AFDM	AFHM	AFRM	AGC
AGO	AGVB	AGX	AHRM	AKU	ALAM	ALB	ALE	ALPW	ALS	AMC	ANG	ANGW	ANMO	ANZ	AODM	APM	APR
APRM	AQBJ	ARC	ARJM	ARRM	ARS	ARTJ	ARVC	ASMM	ATE	AVOW	AVRM	BAD	BAK	BAPM	BAR	BAVM	BBR
BCGM	BCPM	BCWM	BDI	BDID	BEAW	BGC	BGG	BGH	BGM	BHRM	BIB	BJO	BKC	BLA	BLE	BLN	BLO
BLRM	BMK	BMNM	BMO	BMR	BNM	BNN	BOH	BON	BORS	BOT	BPBC	BPOM	BPRM	BRGC	BRN	BRNL	BRT
BRVW	BSLM	BSRM	BTB	BTL	BUC1	BUD	BUNI	BURJ	BUT	BVW	BVYM	BZK	CACB	CAI	CALA	CASR	CAYA
CBB	CBC	CBET	CBKC	CBO	CCM	CCW	CDAL	CDFW	CDVM	CEI	CEOS	CFTV	CGPM	CHAF	CHIE	CHOI	CHX
CHY	CIS	CIW	CKI	CKO	CLC	CLIC	CLKR	CLN7	CLNB	CLZ	CMCM	CMMM	CNI	CNIL	CO2	COA	COK
COLF	COLW	COR	COSM	COTA	COY	CPB	CPE	CPI	CPIM	CPLM	CPMM	CPRX	CPS	CPW	CRF	CRGC	CRNM
CRNY	CRPM	CSAM	CSLM	CSP	CSR	CSTL	CSVM	CTFE	CTM	CTW	CVAL	CVPM	CVR	CWCR	CWF	CYBM	CZM
DAQ	DAWY	DBN	DEV	DHLJ	DIL	DLA	DLB	DNP	DOI	DOMO	DPC	DPMT	DPQ	DRV	DRZ	DSVT	DSZ
DUC	DUI	DVR	DWY	EAB	EALH	EAU	EBH	EBL	EBR	ECH	EDB	EDR	EDU	EEO	EKH	EKR	ELF
ELO	ELS	ELYF	EMEL	EMON	EMSC	ENH	ENSF	EPH	ERK	ERM	ERPC	ESCF	ESD	ESEL	ESK	ESLA	ESY
ET3	ETB	ETER	EUC	EWC	EZAM	FAI	FFC	FL2	FNO	FOO	FRGC	FRK	FRP	FTC	FTR	FUQ	GACM
GARM	GAXM	GBDM	GBGM	GBL	GCBM	GCD	GCVM	GCWM	GDCM	GDL2	GDR	GGC	GGPM	GGUM	GHCM	GHGM	GHLM
GHOM	GHS	GHVM	GHW	GIB	GIBL	GILB	GIM	GL2	GLK	GMO	GMTN	GNAM	GPA	GPD	GPMM	GRAI	GRB2
GRB5	GRBF	GRC1	GRM	GROM	GRP	GRTM	GSGM	GSM	GSNM	GSQ	GT2	GULW	GWKM	HAE	HAYW	HBF	HBMT
HBTM	HCG	HCOM	HDW	HGH	HGWM	HIA	HITJ	HJGM	HJSM	HKL	HNB	HOBC	HOFF	HOLB	HOR	HPO	HQL
HSPM	HSR	HTMS	HTR	HTW	HVC	HYS	HYT	IAS	IIA	III	IKP	INDC	INGI	INS	ISSF	JARJ	JAU
JBLM	JBMM	JBZM	JCHM	JCPM	JEGM	JEHI	JELM	JHA	JHLM	JHPM	JJRM	JLK	JLP	JNAM	JNH	JRDJ	JRGM
JRRM	JRSJ	JSA	JSBM	JSMM	JSTM	JTGM	JUCM	KAB	KAC	KALI	KAR	KART	KAT	KBBM	KBI	KBNM	KBRM
KBSM	KCPM	KCRM	KCTM	KDB	KEDI	KELI	KEV	KFNJ	KFPM	KGMM	KHBM	KHMM	KIPM	KJJM	KKH	KKPM	KLD
KLM	KMA	KNIM	KNR	KOE	KPK	KPL	KPPM	KRPM	KSB	KSI	KSK	KSMM	KSPM	KSR	KSXM	KSY	KUF
KUG	KVT	KWE	LARI	LAZ	LBL	LBPM	LBTB	LCFM	LCI	LCMM	LDBM	LDN	LESF	LGOR	LHCM	LHE	LHKM
LIJA	LIME	LISJ	LKC	LMI	LMQ	LMW	LMZ	LOCW	LOHW	LPC	LPQ	LRC	LRDM	LRV	LRW	LSP	LSPF
LST	LSZ	LT3	LTC	LTMT	LVP	LVRI	LVZ	LXR	MAC	MADF	MAK	MASJ	MBET	MBW	MCD	MCMT	MDA
MDI	MDN	MDO	MDRJ	MDSJ	MDW	MECC	MEM	MEMT	MENI	MEU	MEW	MFI	MFT	MGA	MGB	MGD	MGL
MHR	MIRC	MJ2	MKRJ	MLA	MNO	MNR	MNT	MOOW	MOP	MOY	MOYM	MPOR	MRPI	MRSJ	MSI	MSJ	MTC
MTHF	MTMW	MTR	MUDI	MVH	MXC	MZX	NAB	NAC	NAQJ	NBPM	NC3	NCFM	NEV	NEZ	NFIM	NINI	NLO
NLW	NMC	NMHM	NMTM	NNL	NRE0	NSHM	NTBM	NVS	NW2	OBHM	OCR	OD2	ODD1	OGE	OHCM	OLYC	ONR
OOW	ORAM	ORL	ORO	OSD	OSG	OSR	OSUM	OT2	OTT	OUK	OZB	PACI	PACW	PADM	PAGM	PAL	PAND
PANM	PAPM	PARB	PARM	PASI	PATW	PCA	PCL	PCO	PCRM	PCT	PDA	PDRM	PENI	PERF	PEV	PFB	PFO
PGC	PGO	PGW	PHBM	PHC	PHCM	PICO	PII	PINI	PJLM	PKH	PLDF	PLT	PMCM	PMGM	PMRM	PNL	POB
POF	PORP	PRCM	PRS	PRW	PSAM	PSD	PSMM	PSP	PSTM	PT03	PT06	PT08	PT10	PTE	PTT	PTV	PULI
PYM	PYN	PZI	RAC	RAMW	RANB	RANI	RAR	RATI	RAY	RBA	RDP	REDW	REMR	REMW	REY	RIA	RIFB
RMP	RPW	RSA	RSW	RTC	RUN	RVC	RVW	RYS	SAC	SAL	SALF	SALJ	SAP	SARO	SBM	SCCM	SEC
SEG	SEK	SEMI	SET	SFL	SFS	SFT	SGAM	SGL	SGS	SHB	SHG	SHH	SHMJ	SHWJ	SIBI	SIMI	SINI
SJH	SKG	SKI	SLW	SME	SMNM	SNA	SNB	SNDC	SNOW	SNR	SNS	SOP	SOS	SOSW	SPB	SPVI	SRBF
SRDI	SS2	SSP	SSPA	SSR	STB	STCO	STD	STEW	STR	STTC	SUE	SUP	SXM	SYP	TAHZ	TAI	TANI
TARW	TAU	TBM	TBO	TBR	TBT	TCBC	TCU	TDH	TDL	TDS	TEH	TGRV	TGT	THRI	TJR	TKO	TLG
TLY	TMB	TNF	TNR	TOD	TOW	TPAW	TPC	TPMT	TPOR	TPR	TRGS	TRXW	TYNO	TZK	UTU	VAL	VC1
VDB	VDCF	VFP	VGZ	VLL	VLMM	VNDA	VPD	VPEM	VTHM	VVI	WAJH	WASM	WBO	WCB	WCHM	WFB	WIM
WIN	WIW	WIZ	WKR	WLVO	WME	WORM	WPB	WPI	WPM	WPO	WRD	WRG	WSHM	WSI	WWPM	XDE	XMS
YAKW	YEL	YKU	YKW3	YLL	YMD	YOMI	YRE	YRH	YUH	ZER	ZSP						